

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 & SK Soni, Technical Person
1(d)	Date & Type of Inspection	14.03.2018 & RMP
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 & under process. Lease expired As per MMDR Amendment Act, 2015 extension of lease period is under process at State Govt.
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: gadhsisa_2@gmdcltd.com ; srrathore@gmdcltd.co.in 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.	682(23)/MS/(203)/2003 MCCM(N) UDP Dated-15-02-2013 for the period of 2013-14 to 2016-17 (18.1.2017)
27	Mineral(s) granted in ML proved for mining	Bauxite
28	Method of Mining(Opencast, Underground)	Opencast.

29	Category (Fully Mechanised, Others or 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 (2016-17)& 2017-18	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 proposed borehole.	Copy of form J & K is submitted to IBM under provision of MCDR,2017 on 22.7.2016.
1b	Exploration over lease area for Geological axis 1 or 2.	Proposal made in next RMP for detail exploration as per MEMC Rule 2015	Part of lease area is explored by trenches/pits/boreholes etc.	Part of ML area is still remain for further exploration.
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 Exploration Drilling done which cost Rs. 319328/- of 39 boreholes.	Part of ML area is still remain for further exploration.
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 proposed boreholes in present plan period.		
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 etc.	NIL		

2.0 Development

SN	Item	Proposals (2016-17) & 2017-18 (11.6.2017)	Actual work	Remarks
2a	Location of development w.r.t. lease area	Pit No-1, 2, 3,4 and 5 As earmarked in plate no. V-D	Mine workings done partly in Pit 1, 3, 5 & also worked in remaining pits area partly where no proposal.	Actual Mine working done in Pit 1, 3 & 5 partly done in remaining pit in plan period.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Proposed for separate bench Proposed for separate bench	Topsoil/OB/Mineral bench made separately	
2c	Stripping ratio or ore to OB ratio	1:0.14 1:0.14	1:0.32 1:0.32	
2d	Quantity of topsoil generation in m ³	4072 M ³ NIL	Directly Used For Plantation 2380 M ³	
2e	Quantity of overburden generation in m ³	14043M ³ 0 M ³	19240 M ³ (2016-17) 24346 M ³ (2017-18)	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Violation of provision of Rules 11(1), 26(2), 33, 55(1)(3) of MCDR,2017 pointed out for rectification.		

3.0 Exploitation

SN	Item	Proposals (2016-17) & 2017-18 (11.6.2017)	Actual work	Remarks
3a	Number of pits proposed for production	Pit No-1, 2, 3,4 and 5 As earmarked in plate no. V-D	Mine workings done partly in Pit 1, 3, 5 & also worked in remaining pits area partly where no proposal.	
3b	Quantity of ROM mineral production proposed	109058T(2016-17) NA	76376T 36812T	
3c	Recovery of salable/usable mineral from ROM production	87246 T NA	76376T 36812T	
3d	Quantity of mineral reject	13480T	9660T	

	generation	21800T	13827 T	
3e	Grade of mineral reject generation and threshold value declared	Cut off grade-About 40%Al ₂ O ₃ 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 Not Proposed	NIL	
3g	Grade of sub-grade mineral generation	Not Proposed Not Proposed	NIL	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Lab Analysis Lab Analysis	Analysis done in house & outside agency both.	
3j	Provision of drilling & blasting in mineral benches	J/H drilling & blasting J/H drilling & blasting	J/H drilling & blasting	
3k	Provision of mining machineries in mineral benches	HEMM with Loader/JCB &Tipper Combination	Loader/Excavator/Rock Breaker and Tipper Combination are used.	
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	22.244Ha (Cumulative)	20.4 Hect (Cumulative)	
3n	Ore to OB ratio for the pit/mine during the year	1:0.14 1:0.14	1: 0.32	
3o	Total area put in use under different heads at the end of year	Pit-20.18 (Waste/reject-0.87, Others-6.55)	20.4 Ha & Storage-0.13Ha & others-1.43 (Cumulative)	
3p	Production of ROM mineral during last five-year period, as applicable	Yr-2013-14=115238T Yr-2014-15=117310T Yr-2015-16=108120T Yr-2016-17=109058T Yr-2017-18=NA(Till Date)	Yr-2013-14=38856T Yr-2014-15=53618T Yr-2015-16=0T Yr-2016-17=76376T Yr-2017-18=36812T	
3q	General remarks of inspecting officer on method of mining etc.	Violation of provision of Rules 11(1), 26(2), 33, 55(1) (3) of MCDR, 2017 pointed out for rectification.		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals (2016-17) & (2017-18)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate waste Dumping Proposed as earmarked in plate No.V-D & V-E.	Worked as proposal but Partly deviated.	
4b	Location of topsoil, OB & mineral reject dumps	Separate waste Dumping Proposed as earmarked in plate No.V-D & V-E.	Worked as proposal but Partly deviated.	
4c	Number of dumps within lease area and outside lease area	Within Lease area outside lease area	1, Mineral Stack-7 0	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Separate waste Dumping Proposed as earmarked in plate No. V-D & V-E.	NIL	
4e	Number of active & alive dumps	Not Proposed	NIL	
4f	Number of dead dumps	Not Proposed Not Proposed	Single afforested dump	
4g	Number of dumps stabilised	Not Proposed Not Proposed	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there	Not Proposed Not Proposed	NIL	
4i	Length of Retaining wall or garland drain all along dump	424 m Not Proposed	NIL	
4j	Number of settling ponds	Not Proposed Not Proposed	NIL	

4k	Specific comments of inspecting officer	NIL
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5.0 Solid Waste Management-Backfilling

SN	Item	Proposals (2016-17) & 2017-18	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Proposed	Back filling started at Pit-3	
5b	Area under backfilling of mined out area	0.1344 Ha	0.32 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Yes	Partially done	
5d	Total area fully reclaimed & rehabilitated	0.2 Ha 300 Plants	0.3 Ha 500 Plants	
5e	General remarks of inspecting officer on backfilling, reclamation etc	NIL		

6.0 Progressive Mine Closure Plan

SN	Item	Proposals (2016-17) & 2017-18	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly	Yes	Submitted on 30.06.2017	
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	0.2 Hact 300 22500 as per EC Manual with Drip system Rs. 15000 /-	0.3 Ha 500 35439 Manual with Drip system Rs 1,25,000/-	Survival rate is low due to scarcity of water
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	0.1344Ha	0.32Ha	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	0.2 Ha Plantation/ water Reserve	0.3 Ha Plantation/water Reserve	
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	Violation of provision of Rules 11(1), 26(2), 33,55(1)(3) of MCDR,2017 pointed out for rectification.		

7.0 Mineral Conservation

SN	Item	Proposals (2016-17) & 2017-18	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	109058T(2016-17)	76376T	
		NA	36812T	
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 ₂ O ₃ ≥52%) (ii) NPG (Al ₂ O 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	NIL		

8.0 Environment

SN	Item	Proposals (2016-17) & 2017-18		Actual w
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed 4072 M ³	Directly Used For Plantation 2380 M ³	
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 70%	
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	Violation of provision of Rules 11(1), 26(2), 45(5)(b) 33,55(1)(3) of MCDR,2017 pointed out for rectification.		

9.0 Compliance of Rule 45

S.N	Item	COMMENTS		Remarks
	Status of submission of Online Monthly and Annual returns	M.R. Submitted up to till date A.R. for year 2016-17 is submitted on 01.6.2018		
S.N	Item	Details given in A.R.2016-17		Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri S R Rathore, ME Shri VK Sumers, (Geologist)	Sh. S R Rathore, ME WEF- 27.6.16&.DS Patel, MSc Geology, WEF- 24.4.2018	<i>It was advised to Mine representative to online submit the AR correctly & Ex Mine Price as per IBM guidelines in future.</i>
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 21.5Ha Current Open cast-20.5 Ha Road & Infrastructure -3.6 Ha	20.4 Ha & Storage- 0.13Ha & others-1.43 (Cumulative)	
9d	Scrutiny of Annual return on forestation	500 Plants (70% Survival)	500Plants (70%)	
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-1000T, P-76376T, Disptch- 34493.55T, C/S-51747T+2853T Dump work	Violation under Rule 45(5)(b) pointed out for put correct entry /quantity of Dump/mineral reject etc.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price- Rs 650/T Cost of Production-Rs 1745/T which is incorrect.	Ex-Mine Price- Rs 650/T Cost of Production-Rs 587/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 examination of RMP & Presently violation of provision of Rules 11(1), 45(5)(b), 26(2), 33 and 55(1)(3) observed & pointed out for rectification & subsequently submitted the compliance report. The RMP for next plan period is submitted & approved by this office dated 20.4.2018