

**MCDR INSPECTION REPORT****1.0 GENERAL**

<b>SN</b>	<b>Particulars</b>	<b>Details</b>
1(a)	Name of the Mine	Sorna Bauxite Mine, Survey No-551(P)
1(b)	Name of Inspecting Officer & Designation	Sanjay M. Girhe, Sr. Mining Geologist
1(c)	Accompanying Mines Representatives	Sh. Ajay Gadvi, Lessee Representative, Sh. Ravi Patel, Ming. Eng. & Sh. Latif Mansuri, Qualified Person
1(d)	Type of Inspection	Modified Mining Plan
1(e)	Date of Inspection	08.01.19
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	26.2196 Ha. (Govt. Waste Land) Forest- Nil
3	Mine code	07GUJ09027
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/21240/2017
5	Name of the lessee, Address, phone, email and fax number	Sh. Sanjay Kumar Trikamlal Shah A-2, Arbudanagar Society, Ratnakar Mata Road, Kapadwanj-387620, Email: ajaygadhvi@yahoo.com, stshahsorna@gmail.com, Mobile no. 9825225377
6	Village	Sorna
7	Taluka/Mandal	Kapadwanj
8	District	Kheda
9	Pin code	387620
10	State	Gujarat
11	Post office	Kapadwanj
12	Nearest police station	Kapadwanj
13	Nearest Railway station	Kapadwanj
14	Date of Grant of Mining Lease	01.07.2015
15	Date of Execution	08.10.2015
16	Date of opening of Mine	03.02.2016
17	Date of first Renewal, if applicable and its period & expiry	Not applicable as mining lease executed on 08.10.2015 for 30 years
18	Date of second Renewal, if applicable and its period & expiry	Not applicable as mining lease executed on 08.10.2015 for 30 years
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not applicable as mining lease executed on 08.10.2015 for 30 years
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sh. Sanjay Kumar Trikamlal Shah A-2, Arbudanagar Society, Ratnakar Mata Road, Kapadwanj-387620, Email: ajaygadhvi@yahoo.com, stshahsorna@gmail.com, Mobile no. 9825225377
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	NA
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. Ravi Patel A-2, Arbudanagar Society, Ratnakar Mata Road, Kapadwanj-387620, Date of Appointment-NA
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	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 approved vide letter no-682(23)(467)/2006-MCCM(N)UDP dtd 13.06.2006 Modified Mining Plan approved on dtd 14.08.2017 vide letter No. 682(4)(1) (MP-49) MDRD)/GNR for the period from 2017-18 to 2019-20
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA

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)	Semi Mechanised
30	Captive/Non Captive	Non-Captive

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

### Exploration

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
1a	Backlog of previous year	02 Borehole proposed	04 BHs drilled	
1b	Exploration over lease area for Geological axis 1 or 2.	Exploration proposed at 200x 200m grid	Exploration carried out at more than 200x 200m grid for G-1 axis	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Outsource agency	By Outsource agency, Expenditure incurred as Rs-4.08 Lacs for core drilling	
1d	Balance area to be explored to bring Geological axis in 1 or 2	26.2196 Ha	G1 level: 12.46Ha G2 level: 4.37 Ha G3 level:9.38 Ha	Proposal was given for 2017-18
1e	Balance reserves as on 01.04.2017	<b>In Million tones Limestone</b> Proved-1386282MT Probable-555660MT	<b>In Million tones Limestone</b> Proved-16127609MT Probable-3342546MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Explorations not carried out in the past meets the criteria/norms of MEMC Rules,2015. Exploration by 35 boreholes were proposed in draft Modified Mining Plan		

### 2.0 Development

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
2a	Location of development w.r.t. lease area	Excavation proposed along section line E-E' from +99mRL to 94mRL	Mine working done over the proposed location with huge variation.	Violation pointed for this deviation
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Proposals for separate benches in OB & Ore were proposed	Excavation carried out in single & somewhere in 2 benches. No bench in OB	No Top soil & Overburden encountered in ML area as projected in proposals
2c	Stripping ratio or ore to OB ratio	1:0.83	1:00	No Overburden encountered in ML area during course of mining
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	No top encountered
2e	Quantity of overburden generation in m3	36963 CuM	Nil	No OB encountered in ML area as material assued as OB found as lateritic bauxite having >30% Al2O3
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	OB proposed during the year 2017-18 but no such OB generated as this excavated OB was lateritic bauxite having Al2O3% more than threshold value.		

### 3.0 Exploitation

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
3a	Number of pits proposed for production	In Pit-1 excavation was proposed by 2 benches	Pit-1 & also in other areas.	Violation for Rule 11(1) pointed out
3b	Quantity of ROM mineral production proposed	(2017-18)-: 148621MT (2018-19)-:118951MT	(2017-18)-: 323450MT (2018-19)-: 178200MT	Violation for Rule 11(1) pointed out

			(Till Oct-2018)	for excess production
3c	Recovery of salable/usable mineral from ROM production	90% Salable Ore 10% Waste of ROM	Achieved as per the proposals	
3d	Quantity of mineral reject generation	(2017-18)-: 5504 CuM (2018-19)-:4406 CuM	Nil	Mineral rejects were salable above threshold value
3e	Grade of mineral reject generation and threshold value declared	Below threshold value	Grade of mineral rejects above threshold value i.e. 30% Al <sub>2</sub> O <sub>3</sub> encountered (Grade-Al <sub>2</sub> O <sub>3</sub> -40.75% SiO <sub>2</sub> ; 6.92%)	
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	Manual sizing & sorting proposed	Manual sizing & sorting done	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposals	NA	
3j	Provision of drilling & blasting in mineral benches	No drilling & blasting proposed	NA	Use of rock breaker proposed
3k	Provision of mining machineries in mineral benches	Excavator/JCB-0.53M3 Tippers-20MT Water Tanker-4KL Dewatering pump-10HP	Excavator/JCB-0.53M3 Tippers-20MT Water Tanker-4KL Dewatering pump-10HP	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3.0m height in OB bench & 5.0m in Ore proposed	4.0-5.0m height achieved in Ore.	No OB encountered as material above threshold consumed.
3m	Total area covered under excavation/pits	162.46 Ha.	160.45 Ha.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.0	1:0.0	No OB
3o	Total area put in use under different heads at the end of year	Pit- 4.18 ha. OB dumps-2.31 ha. Infrastructure-0.0064Ha Road-0.300Ha	Pit- 12.46 ha. OB dumps-Nil Infrastructure-0.0295Ha Road-0.66Ha	More area excavated due to excess production
3p	Production of ROM mineral during last five-year period, as applicable	2013-14: Nil	2013-14: Nil	Mining operations started from 2017-18
		2014-15: Nil	2014-15: Nil	
		2015-16: 40512 MT	2015-16: 45017.47 MT	
		2016-17: 83241MT	2016-17: 41810MT	
		2017-18: 148621MT	2017-18 :323450 MT	
3q	General remarks of inspecting officer on method of mining etc.	Mining operations were carried out by deploying	Excavator & tipper combination.	

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

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	OB dumping along LM section Mineral reject along GH section	No OB or mineral rejects generated as ore above threshold value despatched to cement companies	
4b	Location of topsoil, OB & mineral reject dumps	OB dumping along LM section Mineral reject along GH section	Nil	No top soil, OB, mineral reject encountered during mining operation
4c	Number of dumps within lease area and outside lease area	Not proposed	Nil	No OB or mineral
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	NA	

4e	Number of active & alive dumps	Not proposed	NA	rejects dumps existing in lease area
4f	Number of dead dumps	Not proposed	NA	
4g	Number of dumps stabilised	Not proposed	NA	
4h	Whether Retaining wall or garland drain all along dumps are there	Not proposed	NA	
4i	Length of Retaining wall or garland drain all along dump	Not proposed	NA	
4j	Number of settling ponds	Not proposed	NA	
4k	Specific comments of inspecting officer	No top soil, OB, mineral reject encountered during mining operation as the ore above threshold value of >30% Al <sub>2</sub> O <sub>3</sub> consumed fully.		

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

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposals	Mineral not exhausted in any pit so far to start backfilling	
5b	Area under backfilling of mined out area	No Proposals	Nil	Mineral not exhausted in any pits
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposals	NA	No top soil encountered in ML area.
5d	Total area fully reclaimed & rehabilitated	No Proposals	NA	
5e	General remarks of inspecting officer on backfilling, reclamation etc	As on date mineral not exhausted in any pits, hence this aspect is not applicable.		

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

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). Details should be given in the format as given in Annexure-20.	To be submitted before 1st July of every year	Report not submitted within time limit as per prescribed format.	Violation of Rule 26(2) pointed for the its rectification
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	No Proposals	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	No Proposals	Nil	Mining operation started from 2016-17 & mineral not exhausted in any pits

6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposals	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environment monitoring proposed	Ambient Air, Surface water, Noise monitoring is being carried out.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Mining operations started from 2016-17 and lessee is being carried out PMCP works as per the proposals. Good plantation done near mine office.		

### 7.0 Mineral Conservation

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	133759	243143.970 dispatch quantity)	Violation for Rule 11(1) pointed out for excess production
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	On need basis sorting of ore is proposed	Cement & Plant grade	Mostly deposit is of Non plant grade bauxite.
7d	Any beneficiation process at mines	No Proposals	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Entire bauxite ROM bauxite ore is being consumed as Non Plant Grade (NGP grade) and lateritic bauxite in nature. Occasional sorting is proposed.		

### 8.0 Environment

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposals	Nil	No top soil encountered
8b	Concurrent use or storage of topsoil	No Proposals	N.A.	--do--
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB dumping along LM section & Mineral reject along GH section proposed	No OB or mineral rejects generated as ore above threshold value despatched to cement companies as NGP (Non plant grade)	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposals	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposals	NA	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	20	Near about 100 saplings planted so far	
8g	Survival rate	100 %	60.0 %	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling over mines haul road proposed	Being done as per the proposals	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty in and around mines area is not satisfactory as very limited saplings have been planted. Needs more attention on this aspect.		

### 9.0 Compliance of Rule 45

S.N	Item	COMMENTS	Remarks
.	Status of submission of Monthly and Annual returns	M.R. not submitted upto – Dec- 2018 A.R. submitted upto- 2017-18	

S.N	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sh. Ravi Patel, ME & Sh. Abhishek as Geologist indicated as appointed	Mining Engineer appointed as per rule 55 of MCDR,20107 & were present during inspection	During the inspection it was advised to Mine representative to submit the AR & MR correctly for correct cost of production & Ex mine price as per the guidelines in future.  Further, violations for rule 45(5)(b)(c) were pointed as discrepancies were observed in Annual Return filed for the year 2017-18. Violation letter was issued accordingly.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit area-11.88Ha Infrastructure-0.09Ha As per AR	Area under Pit-12.46Ha Infrastructure-0.029Ha Road-0.66Ha Temple-0.0045Ha as per modified MP	
9d	Scrutiny of Annual return on afforestation	Given as Saplings planted -100 Nos Survival rate-80%	Nil	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Not Give	NA	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Cement Grade Closing stock-118348MT	Stock observed during inspection	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price- Rs-837/MT of Cement grade Bauxite Sale Value-Rs: 550/MT	Sale Value-Rs: 550/MT mismatching with Ex-Mine price & pointed out the same	
9i	Scrutiny of Annual return on fixed assets	Not Given	NA	
9k	Scrutiny of Annual return on mining machineries	Excavator/JCB-0.53M3 Tippers-20MT Water Tanker-4KL Dewatering pump-10HP	Nil	

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 05.07.2017 and violations of rules 45(5)(b), 45(5)(c), 26(2) & 55(1)(c)(i) of MCDR, 2017 were pointed out. This inspection was carried out in connection with examination of Modified Mining Plan and during inspection violation of rules 11(1), 26(2), 35(2), 45(5)(b)(c) & 46 of MCDR,2017 were pointed out and accordingly violation letter was issued.

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