

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1	Name of the Mine	Aniali Limestone Mine, (Sy. No.207/P)
2A	Inspecting officer with date, Type	G.Ram, Sr.ACOM, 18/3/2019 , Star Rating/MCDR Inspection
2B	Accompanying official	Sh. Mayank Srivastava, Mine manager
3	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total area-12.27 Ha, Non-Forest land
4	Mine code & IBM Registration Number under rule 45 of MCDR, 17	38GUJ08103 & IBM/437/2011
5	Name of the lessee, Address, phone, email and fax number	Tata Chemicals Limited, Regd.-Bombay House, 24 Homy modi street, Fort,Mumbai-400001, Works- Ranavav Quarries, Ranavav, Dist- Porbandar Gujarat – 360550, cmdwivedi@tatachemicals.com
6	Village	Aniali
7	Taluka/Mandal	Ranavav
8	District	Porbandar
9	Pin code	360550
10	State	Gujarat
11	Post office	Kalyanpur
12	Nearest police station	Kalyanpur
13	Nearest Railway station	Khambhalia
14	Date of Grant of Mining Lease	07.07.1966
15	Date of Execution	23.12.1966, 50 Year, Expiry-31.3.2030 as per MMDR Amendment Act,2015
16	Date of opening of Mine	01.03.2017 (Reopening)
17	Date of first Renewal, if applicable and its period & expiry	02.09.1985 period 20 Years
18	Date of second Renewal, period & expiry	17.11.2005 period 20 years
19	Date of submission of renewal application / deemed extension if any	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	R. Mukundan, M/s Tata Chemicals Limited, Bombay House, 24 Homy Modi Street, Mumbai – 400001,Maharashtra
21	Name of the Mine Agent, Address, phone, email, fax & date of appointment	C M Dwivedi, Works- Ranavav Quarries, Ranavav, Dist- Porbandar Gujarat – 360550, cmdwivedi@tatachemicals.com
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mayank Srivastava, BE Mining & FCC metal(R), Wef - 15.12.2015 Works- Ranavav Quarries, Ranavav, Dist- Porbandar Gujarat – 360550
23	Name of the ME, Qua. & Exp., Address, phone , email, fax, date of appointment	Mayank Srivastava, BE Mining & FCC metal(R), Wef - 15.12.2015 Works- Ranavav Quarries, Ranavav, Dist- Porbandar Gujarat – 360550
24	Whether Geologist & ME appointed in mines satisfy the rule 42, 43 & 44	C M Dwivedi, Works- Ranavav Quarries, Ranavav, Dist- Porbandar Gujarat – 360550, cmdwivedi@tatachemicals.com
25	Date of Approval of Mining Plan /Modified Mining Plan with five-year period and specific condition in approval letter, if any.	682(23)(373)/2005-MCCM(N)UDP, 24.03.2005
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)(373)/2005-MCCM(N)UDP, 20.02.2013 682(23)(373)/2005-MCCM(N)UDP, 14.09.2016 for the period of 2016-17 to 2020-21
27	Mineral(s) granted in lease	Limestone
28	Method of Mining (O/C, U/G)	Opencast
29	Category (FM, Others or Manual)	A-Others (mechanised)
30	Captive/Non Captive	Captive

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

**1.0 Exploration**

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
1a	Backlog of previous year	It was proposed to drill 02 No of DTH borehole in 2016-17.	Not done	Violation under provision of rule 11(1) pointed out to lessee for rectification.
1b	Exploration over lease area for Geological axis 1 or 2.	12.27Ha	G1 & G2-12.27Ha almost	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	M/s Tata Chemicals Limited, Bombay House, 24 Homy Modi Street, Mumbai – 400001, Maharashtra	17 Core borehole & 144 core samples generated	NA
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Proposed	NIL	NIL
1e	Balance reserves as on 31.5.2016 (111, 121 & 122)	Reserves(111,121&122)= 369440T Remaining resources = 16538T(221&222) & 514887T (331) ,Total = 900865T		
1f	General remarks of inspecting officer	The part of lease area is still there for further detail exploration. The mine was not worked in past due to want of statutory clearance etc.		

**1.0 Development**

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
2a	Location of development w.r.t. lease area	It was proposed to work in Pit No.2 in 2017-18 & Pit No.3 in 2018-19 as earmarked in plate No 5A2-5A3 & 5B2-5B3	Partly done as proposed, lagging in production achievement lateral & depth also.	Lagging in production due to less plant requirement. Total-05 pits of variable size & depth are existed.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Proposed	Maintained separately benches.	
2c	Stripping ratio or ore to OB ratio	1:0.0	1:0.00	
2d	Quantity of topsoil generation in m3	1100M3 & 1250M3	NA	
2e	Quantity of overburden generation in m3	6000M3 & 8750M3	0T	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Violation of provision of Rule 11(1),45 (5)(7),26 (2),33 & 55(1)(3) pointed out for rectification. Mine workings have been carried out with in 7.5m of statutory barrier.		

**2.0 Exploitation**

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
3a	Number of pits proposed for production (Plate no 5A to 5E)	01 Pit, It was proposed to work in Pit No.2 & Pit No.3&4 as earmarked in plate No 5A2-5A3 & 5B2-5B3 for the year.	Worked partly as proposed for during the year 2017-18 & 2018-19 respectively.	Partly done as proposed due to less plant requirement.
3b	Quantity of ROM mineral production proposed	54000T (2017-18) 78750T (2018-19)	12250T (2017-18) 12712T (2018-19)	
3c	Recovery of saleable/usable mineral from ROM production	80% of ROM proposed	Entire ROM is utilising by proper sorting & sizing	Captive Consumption
3d	Quantity of mineral reject generation	20% of ROM proposed	NA	
3e	Grade of mineral reject generation and threshold value declared	Above THV & below cut-off grade bauxite	THV-Cao-34%(Min) & Mgo-5% (Max)	
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	Manual / mechanised	Manual / mechanised	

	ROM			
3i	Any analysis or beneficiation study proposed & carried out for sub-grade/ mineral reject	Not Proposed	Not done	-
3j	Provision of drilling & blasting in mineral benches	J/H drilling & blasting as and when requires	As proposed	-
3k	Provision of mining machineries in mineral benches	Excavator-01,1.3M3 bucket capacity, Tippers - (17T)	Excavator-01,1.3M3 bucket capacity, Tippers - (17T) etc.	
3l	Whether height of benches in OB & mineral suitable for method of mining proposed	mechanised working with regular bench height	Irregular bench height	
3m	Total area covered under excavation/pits	8.4Ha area proposed in plan period.	Total excavated area is about 3.31 Ha.	
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 (as on 31.03.2018)	Pit- 2.82Ha, Roads-0.28Ha at start of plan period, Green belt-0.2Ha Infrastructre-0.2Ha	Total excavated area is about 3.31 Ha.,	
3p	Production of ROM mineral during last five-year period, as applicable	2014-15-19218T 2015-16-19336 T 2016-17-38250 T 2017-18 -54000T 2018-19-78750T	0T 0T 0T 12150T 12712T	Deviated due to lagging in ROM production in plant requirement /quality constraints.
3q	General remarks of inspecting officer on method of mining etc.	Violation of provision of Rule 11(1), 45 (5) (7), 26 (2), 33 & 55(1) (3) pointed out for rectification. Mine workings have been carried out with in 7.5m of statutory barrier.		

### 3.0 Solid Waste Management-Dumping

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
4a	Separate dumping of topsoil, OB/Mineral reject (Rule 32, 33)	Proposed for utilised for plantation purposes.	Topsoil is not reported /generated presently.	No OB/Waste proposed & generated. Entire ROM is utilising by proper blending as per quality requirement.
4b	Location of topsoil, OB & mineral reject dumps	Not Proposed	Partly done in backfilling/road work if	
4c	Number of dumps within lease area and outside lease area	None	None	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable	Not applicable	
4e	Number of active & alive dumps	No proposal	Not applicable	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	Not applicable	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there	Fencing-	Fencing-	
4i	Length of Retaining wall or garland drain all along dump	Not applicable	One garland drain constructed (100M)	
4j	Number of settling ponds	Not proposed	NIL	
4k	Specific comments of inspecting officer	Violation of provision of Rule 11(1), 45 (5) (7), 26 (2), 33 & 55(1) (3) pointed out for rectification. Mine workings have been carried out with in 7.5m of statutory barrier.		

### 4.0 Solid Waste Management-Backfilling

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
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5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	NIL	
5b	Area under backfilling of mined out area	--	-	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not proposed	NIL	
5d	Total area fully reclaimed & rehabilitated	Nil	---	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	---		

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

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format.	Proposed	Annual report on PMCP is not submitted.	Violation under provision of rules 26(2) pointed out for 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	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	Not Proposed	NIL	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	200 Nos. & 0.02Ha 90M fencing	200 Nos. & 0.02Ha Embankment work done	
6e	Compliance of Environmental monitoring (core zone/buffer zone)	Periodically monitoring as per IBM/MoEF guidelines.	Periodically monitoring as per IBM/MoEF guidelines.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Violation of provision of Rule 11(1), 45 (5) (7), 26 (2), 33 & 55(1) (3) pointed out for rectification. Mine workings have been carried out with in 7.5m of statutory barrier.		

### **7.0 Mineral Conservation**

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	54000T (2017-18) 78750T (2018-19)	12250T (2017-18) 12712T (2018-19)	Lessee is utilizing entire ROM by proper sorting & sizing as per plant requirement.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual & Mechanised both	Manual & Mechanised both	
7c	Different grade of mineral sorted out at mines	Stacking for sorting & sizing	Stacking for sorting & sizing	
7d	Any beneficiation process at	Not required	NA	

	mines		
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Lessee is utilizing entire ROM by proper stacking, sorting & sizing as per plant requirement.	

### 8.0 Environment

SN	Item	Proposals 2017-18 & 2018-19	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed for separate removal	Utilising for plantation purposes only.	Whatever little top soil is generated, directly used for plantation purposes.
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	NA	NA	
8d	Use of OB, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	
8e	Phased restoration, reclamation & rehabilitation of lands affected by mining operations (Pits, dumps etc.)	No proposal	Nil	
8f	Baseline information on (Rule 41) existence of plantation & additional plantation done	No proposal	Utilising for plantation purposes only.	
8g	Survival rate		About 85%	
8h	Water sprinkling on roads to control airborne dust	Water spraying on haul road loading & unloading points	Regular water sprinkling is done.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are			

### 9.0 Compliance of Rule 45

S.N	Item	COMMENTS		Remarks
	Status of submission of Monthly and Annual returns	M.R. submitted up to –Feb. 2019 (08.3.2019) A.R. submitted up to- 2017-18 (12/06/18)		
S.N	Item	Details GIVEN in A.R.	Observation of I/O	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist & Manager	Shri Mayank Srivastava, BE (Mining) CM Dwivedi, MSc (Geology) (Part)	Violation of provisions of Rules 55(1)(3) pointed out.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under use – 3.11 Ha, Reclaimed area –NIL Occupied by plant & bldg.-0.2Ha, Green belt/mineral storage-0.2Ha	**Scrutiny of annual return for the year 2017-18 has been carried out & deficiencies pointed out to lessee for rectification.	
9d	Scrutiny of Annual return on afforestation	No of trees planted: 200 with survival rate of 85%		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	There is no mineral rejects during the year 2017-18		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock-0T, ROM-12150T, dispatch-11009.15T, Closing stock-1140.85T		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex. Mine price-163.6Rs. /T (Chemical), Captive used		
9i	Scrutiny of Annual return on fixed assets	given		
9k	Scrutiny of Annual return on mining machineries	01-Shovel/Back hoe—1M3 & Wheelloader-01, Tipper-17M3 & water tanker, Air compressor-01		

*\*\* Part-I, Sr No.1 (f) Pin code & fax number & Sr.No.2 Post office and taluka is not given. Part-I, Sr No.12, area exploited is given as 3.11 Ha whereas actual area is about 4ha appears to be exploited with in lease area. It needs correction. Part-II, Sr No.3 (i) A-C, ROM production reported 12150T but opencast face worker & loader shown zero, which is incorrect. It needs correction. Part-III, value of fixed assets & overheads costs are shown zero which is incorrect. Whereas Overhead cost in part-VII mentioned as 4.78Rs/T. It is contradictory & needs correction. Part-IV-Overburden removed is reported in star rating templates whereas zero is annual return. It needs correction. Part-V, Sec-5/6/8/9-HEMM capacity used in mine & proposed in approved mining plan are not same. It needs correction. Part-VI, Sr.No.2,4- Computation of Ex-mine price/PMV/Cost of Production is not taken correctly since captive plant is situated about 130Km away from lease, whereas details of deductions used for computation of Ex mine price is shown zero in respective column. It needs correction. Part-VII- Sr No. (5) Nature of dispatch is reported domestic transfer only whereas it is mentioned as captive consumption. It needs correction. Further registration number 437 reported in buyer's column whereas there is no buyer. It needs correction. Production proposal for financially year 2017-18 is shown as zero, which is not correct.*

**10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:** - Presently violation of provisions of Rules 11(1), 45(7) & 33 & 26(2),55(1)(3) pointed out regarding exploration & discrepancies in annual return 2017-18 & monthly return of Jan, 19 for rectification. Presently mine was inspected for evaluation of online star rating templates/MCDR inspection.

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