## MCDR INSPECTION REPORT

## 1.0 GENERAL

SN	Particulars	Details		
1(a)	Name of the Mine	Aniali Limestone Mine, Survey		
1(b)	Name of Inspecting Officer & Designation	Sanjay M. Girhe, Sr. Mining Geologist		
1(c)	Accompanying Mines Representatives	Sh. C.M. Devidi, Agent (Mines)		
1(d)	Type of Inspection	Star Ratings/MCDR		
1(e)	Date of Inspection	29.01.2019		
1	Name of the Mine	Aniali Limestone Mine		
2	Total Lease Area (Ha) with breakup of	15.9953 Hectare		
	Non-forest and forest land			
3	Mine Code	38GUJ21055		
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/437/2011		
5	Name of the lessee, Address, phone,	Minor Office	Designation of the second	
3	email and fax number	Mines Office Tata Chemicals Limited	Registered Office Tata Chemicals Limited	
		Ranavav Quarries, Ranavav, Dist- Porbandar, Gujarat –	Bombay House-24, Homi	
			Mody Street, Fort Mumbai,	
		360550, Phone-02801230381	Dist-Mumbai (M.H.) Phone-02266658-282/143/144	
		cdwivedi@tatachemicals.com	Fax-022-66058143	
6	Village	Aniali	1 un 022 000301T3	
7	Taluka/Mandal	Ranavav		
8	District	Porbandar		
9	Pincode	360550		
10	State	Gujarat		
11	Post office	Aniali		
12	Nearest police station	Ranavav		
13	Nearest Railway station	Ranavav		
14	Date of Grant of Mining Lease	25.11.1986 Initial grant was for	r 17.57Ha later on corrected as	
		15.99Ha		
15	Date of Execution	25.05.1987 for the period 25.05	5.2007 to 24.05.2027	
16	Date of opening of Mine	01.11.2015		
17	Date of first Renewal, if applicable and	28.04.2006		
	its period & expiry			
18	Date of second Renewal, if applicable	Not Applicable		
	and its period & expiry			
19	Date of submission of renewal	29.10.2015		
	application if Mining Operations are			
	continuing under deemed extension			
20	Name of the Nominated Owner with	R. Mukundan		
	Address, phone, email, fax number and	Tata Chemicals Limited		
	date of appointment	Bombay House, 24 Homy Mod	1 Street,	
		Mumbai – 400001,		
21	NT C4 NC A	Maharastra		
21	Name of the Mine Agent with Address,	C M Dwivedi		
	phone, email, fax number and date of	Tata Chemicals Limited		
	appointment	Ranavav Quarries, Ranavav - 360550		
		Porbandar, Gujarat		
		cdwivedi@tatachemicals.com		
22	Name of the Mines Manager with	M-09227194002		
<i>LL</i>	Name of the Mines Manager with	Mayank Srivastava		
	Address, phone, email, fax number and	BE Mining & FCC metal(R) date of appointment in mines -	15 12 2015	
	date of appointment in mines	Tata Chemicals Limited	13.12.2013	
		Ranavav Quarries,		
<u> </u>		ranavav Quarres,		

		Ranavav - 360550
		Porbandar
		Gujarat
23	Name of the Mining Engineer,	Mayank Srivastava
	Qualification and total experience with	Mining Engineer, BE (Mining) & FCC metal (R),
	Address, phone, email, fax number and	Total Experience 18 years
	date of appointment in mine	date of appointment in mine - 15.12.2015
24	Whether Geologist and Mining	Yes, appointed.
	Engineer appointed in mines satisfy the	
	rule 42 & carrying out their duties as	
	per rule 43 & 44.	
25	Date of Approval of Mining	Mining Plan was approved vide letter no-682(23)(338)/2003-
	Plan/Modified Mining Plan with five-	MCCM(N)UDP, 01.11.2004
	year period and specific condition in	
	approval letter, if any.	
26	Date of Approval of Scheme of	Scheme of mining approved vide letter no- 682(23)(472)/2006-
	Mining/Modified Scheme of Mining	MCCM(N)UDP, 16.10.2006
	with five-year period and specific	Scheme of mining approved vide letter no 682(23)(472)/2006-
	condition in approval letter, if any.	MCCM(N)UDP, 3.06.2013
		Review of Mining Plan approved vide letter no-684(4)(1)/MP-
27	Mineral(s) granted in lease and proved	11/2017-GNR, 12.04.2017 Limestone
21	for mining	Linestone
28	Method of Mining (Opencast,	Opencast
20	Underground)	Openeast
29	Category (Fully Mechanised, Others or	Mechanised.
<i>L</i> 7	Manual)	Wicchaniscu.
30	Captive/Non Captive	Captive
30	Capuve/INOH Capuve	Capuve

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. - **Exploration** 

	ration			
SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
1a	Backlog of previous year	No Proposals	NA	Entire lease area explored
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposals	Exploration carried out during 1996 over 100x100m grid for G1 level.	in G1 level of exploration. Hence, no further
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposals	M/s. GIEM India Consortium & M/s. Tata Chemicals Ltd carried exploration in past	exploration proposed
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposals	NA	
1e	Balance reserves as on 01.04.2018	Proved (111)- 0.539 Million Tonne- Chemical Grade Prooved(111)- 0.239Million Tonne- Cement Grade Feasibility (211)- 0.00825 Million Tonne	Proved (111)- 738700MT (Chemical +Cement grade)	
1f	General remarks of inspecting officer on geology, exploration etc.		n explored as per UNFC Gu shallow depth mineralisation	

### 2.0 Development

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
2a	Location of development w.r.t.	From N239792 to	Development carried out	No OB
	lease area	23981140N & From	at proposed locations	encountered in
		588374E to 588466E	with minor variations	lease area
2b	Separate benches in topsoil,	One bench of	Working carried by	
	overburden and mineral	maximum 5m height	formation of one bench	
	(Rule 15)	proposed in mineral		
2c	Stripping ratio or ore to OB ratio	No Proposals	NA	
2d	Quantity of topsoil generation in	No Proposals	NA	No OB
	m3			encountered in
2e	Quantity of overburden generation	No Proposals	NA	lease area
	in m3	Tto T Toposuis		
2f	General remarks of inspecting	There are total 12 existing pits area in the lease area of different		
	officer on development of pit w.r.t.	dimensions where maximum dimension of pit No-4 (215.91m x		
	type of deposit etc.	136.2m x 3m depth). Maximum depth of mineralisation		
		established pit no-2 of	3.5m	

### 3.0 Exploitation

SN	Item	Proposals	Actual work	Remarks
		(2017-18)	(2017-18)	
3a	Number of pits proposed for	Excavation proposed in	Excavation carried	
	production	1pit i.e. in Pit No-4	out in Pit-4	
3b	Quantity of ROM mineral	50000 ( 65% sized	40400 Chemical	
	production proposed	limestone-32500MT &	grade limestone	Undersized
		35% undersized-		limestone also
		17500MT)		being used as
3c	Recovery of salable/usable	65% sized limestone &	90% recovered as	chemical grade in
	mineral from ROM production	35% undersized Lst	chemical grade	Cement plant
3d	Quantity of mineral reject	No Proposals	Nil	Parama Parama
34	generation	110 1 Toposais	111	
3e	Grade of mineral reject generation	No Proposals	NA	
30	and threshold value declared	110 1 Toposais	1111	
3f	Quantity of sub-grade mineral	No Proposals	NA	
31	generation	100 1 Toposais	1171	
3g	Grade of sub-grade mineral	No Proposals	NA	
Jg	generation	100 1 Toposais	1171	
3h	Manual / Mechanised method	Mechanised	Mechanised	By
311	adopted for segregating from	Weenamsed	Micchaniscu	crushing/screening
	ROM			Crushing serecining
3i	Any analysis or beneficiation	NA	NA	
31	study proposed & carried out for	NA	INA	
2;	sub-grade mineral and reject Provision of drilling & blasting in	Duilling Or blooting by	Dono og nor nrenses	la of Duilling Pr
3j	mineral benches	Drilling & blasting by	Done as per proposa	
	mineral benches	102mm deep hole	blasting by 102mm	deep noie proposed
21	Durantician of maint	proposed	N	T
3k	Provision of mining machineries	Yes	Yes	
27	in mineral benches	TT 1 1 . C	XX 1' ' '	
31	Whether height of benches in	Height of maximum 5m	Working carried	
	overburden and mineral suitable	proposed in mineral	by formation of	
	for method of mining proposed in		one bench of 5m	
	MP/SOM		height	
3m	Total area covered	9.2393Ha	5.93Ha	

	under excavation/pits			
3n	Ore to OB ratio for the pit/mine	No Proposals	NA	No OB encountered
	during the year			in lease area
3о	Total area put in use under	Under Pits-8.6613Ha	Under Pits-5.73	NIL
	different heads at the end of year	Infrastructure-0.004Ha	Infrastructure-	
		Road-0.574Ha	0.400Ha	
			Green belt-0.20Ha	
3р	Production of ROM mineral	Yr- 2013-14:50000MT	EC not available	
	during last five-year period, as	Yr- 2014-15:50000MT	EC not available	
	applicable	Yr- 2015-16:50000MT	8950 tonne	
		Yr- 2016-17:50000MT	49600 tonne	
		Yr- 2017-18:50000MT	40400 tonne	
3q	General remarks of inspecting	Mechanised open cast wo	rking for shallow dept	h chemical grade
	officer on method of mining etc.	limestone by using excavator & tipper combination.		

### 4.0 Solid Waste Management-Dumping

SN	Item	Proposals (2017-18)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	NA, No mines waste, concurrent use of top soil for plantation	NA, No mines waste, concurrent use of top soil for plantation	Mining lease area completely devoid of any sort of OB
4b	Location of topsoil, OB & mineral reject dumps	No Proposals	Nil	& top soil.
4c	Number of dumps within lease area and outside lease area	No Proposals	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposals	Nil	
4e	Number of active & alive dumps	No Proposals	Nil	
4f	Number of dead dumps	No Proposals	Nil	
4g	Number of dumps stabilished	No Proposals	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposals	Nil	
4i	Length of Retaining wall or garland drain all along dump	No Proposals	Nil	
4j	Number of settling ponds	No Proposals	0	
4k	Specific comments of inspecting officer	Mining lease area compland hence maximum item		

## 5.0 Solid Waste Management-Backfilling

SN	Item	Proposals (2017-18)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposals	Nil	No pits have been mineral exhausted so far and hence
5b	Area under backfilling of mined out area	No Proposals	Nil	not applicable reclamation &
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposals	Nil	rehabilitation.
5d	Total area fully reclaimed & rehabilitated	No Proposals	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Below the chemical grade limestone, cement grade limestone is encountered and hence scope of reclamation & rehabilitation doesn't exist in this lease area.		

# **6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2017-18)	Actual work F	Remarks
ба	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.	Yes Submitted	Yes Submitted on 12 <sup>th</sup> June 2018	
бЬ	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	0.020 Hect. 0.020 Hect. 200 Nos 200 Nil Rs-52000	0.20 Hect. 0.20 Hect. 205 Nos 205 Nil Rs-116875	
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	NA	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposals	NA	
бе	Compliance of Environmental monitoring (core zone & buffer zone)	Regular monitoring in Core & Buffer Zone proposed for Ambient Air Quality, Surface water Quality, Ground water quality, Noise level, Noise vibration.	Monitoring carried out & monitoring results of these parameter found within limits	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Due to non-availability of E non-operation & restarted fr works are being carried out	om the year 2016-17& PN	

# 7.0 Mineral Conservation

SN	Item	Proposals (2017-18)	Actual work	Remarks
7a	ROM Mineral dispatch or gradewise sorting within lease area	50000	40400 Chemical grade limestone	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	During ROM loading by loader
7c	Different grade of mineral sorted out at mines	No Proposals	Sorted chemical grade limestone above 50mm used in soda ash plant & rest under size used in cement plant	
7d	Any beneficiation process at mines	No Proposals	Nil	

7e	General remarks of inspecting	Mineral being conserved very smartly as material above 50mm size
	officer on Mineral conservation	used in Soda ash plant & rest undersized material used in cement
	& beneficiation issues	plant with maximum recovery.

## **8.0 Environment**

SN	Item	Proposals (2017-18)	Actual work	Remarks	
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposals		top soil encountered	
8b	Concurrent use or storage of topsoil	No Proposals	being concurrentl	y used for plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No Proposals	Nil	Concurrent use of top soil.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposals	Nil	No OB encountered in lease area	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposals	Nil		
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	100 Nos saplings proposed	205 Nos of saplin planted	gs	
8g	Survival rate	90%	90%		
8h	Water sprinkling on roads to control airborne dust	One dedicated water tanker proposed for water sprinkling	Water sprinkling carried out		
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are		sthetic beauty in and around mine is not that much satisfactory & re emphasis should be given on maximum plantation.		

# 9.0 Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
	Status of submission of Online	M.R. Submitted up to December-2018	NIL
	Monthly and Annual returns	A.R. submitted up to till date- 12.6.2018	

S.N.	Item	Details GIVEN in A.R. (2017-18)	Observation of I/Officer /Actual reported in Returns	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mayank Srivastava appointed as Mining Engineer	Mining Eng. Was present during the inspection.	During the inspection it was advised to Mine
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under Pits-5.73 Infrastructure400Ha Green belt-0.20Ha	Nil	representative to submit the AR & MR correctly for correct cost of production & Ex mine
9d	Scrutiny of Annual return on afforestation	Total 205 saplings planted during the year	Saplings planted	price as per the guidelines in future.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Not Applicable as no mineral reject generation	Nil	

9f	Scrutiny of Annual return on	Chemical Grade Lst	ROM stocks	
7-	ROM stock and/or graded ore	Opening Stock-	observed	
		5902MT		
		Closing Stock-		
		2121MT		
9g	Scrutiny of Annual return on	Ex-mine cost	Nil	
	sale value, Ex. Mine price &	reported for chemical		
	production cost	grade limestone- Rs-		
		163.62/MT		
9i	Scrutiny of Annual return on	Fixed asset value is	Nil	
	fixed assets	given as Rs-1706/-		
9k	Scrutiny of Annual return on	Tata Hitachi EX-70	Nil	
	mining machineries	Tata Tippers		
		Compressor		
		Loader, Drill		
		Machine, etc		

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 09.01.2013 and violations of rules 27(E)(2), 23(F)(1), 34, 45(5)(b) and the same has been complied vide reply letter no. RQG/632/12-13 Date-28.03.2013. Present inspection was carried out in connection with evaluation of Star Ratings Templates during inspection violation of rules 33 & 54(a) were pointed out and accordingly violation letter was issued.

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