

INSPECTION REPORT OF COMPOSIE LICENSE
Chittapur SW Limestone Block of M/s Dalmia Cement (Bharat) Limited

PART -I

1.0	INTRODUCTION			
1.1	Name of the Inspecting Officer & Designation	Dr. Sudhakara T.L. Senior Mining Geologist		
	Region/Zone/GM& MM Cell	Indian Bureau of Mines, Bengaluru		
	Date of Inspection and accompanying official of PL holder	21/01/2025 Malaya Maruta Muduli, Bishamber Singh & Harshal Natthuji Sawai		
	Date of previous Inspection if any and Name of Inspecting officer	Nil		
2.0	Details of PL area			
	Village	Chitthapura. K, Salahalli, K. Nagamva and Bommanahalli		
	Tehsil	Chittapur		
	District	Kalaburagi		
	State	Karnataka		
	Area (in Hectare)	438.00 Ha		
	Name of Mineral for which PL granted	Limestone		
	Date of grant with period; first grant/Renewal/re-grant	10.10.2023		
	Date of execution of the PL	10.10.2023		
	Survey of India Toposheet Number	56G/04		
	Coordinates Lat. And Long.	Boundary Pillar	Latitude	Longitude
		CSW-A	17° 4'37.39"N	77° 3'18.00"E
		CSW-B	17° 4'19.00"N	77° 4'44.81"E
		CSW-C	17° 3'18.04"N	77° 4'15.65"E
		CSW-D	17° 4'1.23"N	77° 2'56.41"E
3.0	Name and Address of PL Holder			
	Name	Dalmia Cement (Bharat) Limited		
	House No:	11 th & 12 th floor, Hansalaya Building, 15, Barakhamba Road		
	Tehsil	-		
	District	New Delhi		
	State	New Delhi		
	Tel (Off)	011-23465100		
	Tel (Res)	-		
	Mobile:	+91-9500035726		
	Email Id:	v.karthikeyan@dalmiacement.com		
3.1	Land Use Details: (Forest, non-forest, grazing, agricultural, barren etc. with details of area in hectare.)	Land Type	Ownership	Area in Ha.
		Agriculture Land/Build-up/Barren	Private	438.00

PART-II

4.0	Status of Compliance of Rules Of MCDR, 2017	Date of submission	Action taken by IBM in case of non-submission
4.1	Scheme of prospecting under rule 4 of MCDR	25.11.2022	Submitted within stipulated time.
4.2	Submission Modification in Scheme of prospecting under Rule 5 if any	27.05.2024 (Online on 03.09.2024)	Submitted within stipulated time.
4.3	Intimation about commencement of prospecting operations in Form-A under Rule 7	18.03.2024 (Online on 03.09.2024)	Submitted within stipulated time
4.4	Appointment of Geologist under rule 55 (Please give name and other details)	Shri Bishamber Singh MSc. in Applied Geology Mobile No.- 9971995920 mail Id: singh.bishamber@dalmiabharat.com	Geologist appointed as per Rule 55 of MCDR, 2017
4.5	Form- H under Rule 46 regarding certain appointment	02.09.2024	Submitted in MTS online portal.
4.6	Notice of shaft sinking and bore holes in Form-I under rule 47	Form-I (Notice of sinking Boreholes) 19.03.2024 (Online on 03.09.2024)	Submitted within stipulated time.
4.7	Records of shafts and bore holes under rule 48	Record of boreholes under rule 48 (Form-J) is maintained.	
4.8	Preservation of cores under rule 59	The drill cores are stored securely in the core storage facility under lock and key.	
4.9	Submission of half-yearly report along with Form B of the Schedule-I under Rule 9(1)	Not submitted	Violation under Rule 9(1) of MCDR, 2017 issued on 07/02/2025.
4.10	Availability of boundary pillars in the PL area (Yes or No)	No	Boundary pillars not yet established due to license is in CL stage and most part of license area is agriculture land and CL holder not yet acquired the land.
4.11	Does the CL area includes forest land	No	
4.12	If yes then whether FC granted for exploration activities from MOEF with details of permission sought	Not Applicable	
4.13	Permission sought	Not Applicable	
4.14	Whether chemical analysis carried out in Govt. lab or NABL accredited lab	Chemical analysis of 100% samples carried out in NABL accredited lab	Shiva Analyticals, Bangalore

PART – III

5.0	GEOLOGY	
5.1	Previous work	Geological Survey of India (GSI) has explored the block under G4 level (Reconnaissance Survey) as per Minerals

		(Evidence of Mineral Contents) Rules, 2015 during field season year 2017-18. However, no drilling & Resource estimation has been done in Chittapur SW Limestone Block by GSI. The block is auctioned on the basis of exploration data of adjacent Bamanhalli and Chittapur blocks.																																		
5.2	Physiography	The block area presents a landscape of flat to gently undulating terrain. The highest contour in the area is 448m and the lowest is 439m and the relief is 9m.																																		
5.3	Regional Geology: Brief description to have an idea of the broad geological, structural frame work and pattern of mineralization. (Brief stratigraphy of the region to be given)	<p>The Bhima Basin is the smallest and the youngest among the Purana sedimentary basins of Peninsular India and is known for its potential for limestone resources. The sigmoidal basin occupies part of Gulbarga, Raichur and Bijapur districts. A small portion of the eastern part of the basin extends into the western part of Mahabubnagar and Ranga Reddy districts of Andhra Pradesh thus extending over a distance of 200 kms in the EW direction over an area of about 5,000 sq. km and with a cumulative thickness of 150-200 m (Janardhana Rao et al., 1975).</p> <p>Stratigraphic succession of the Bhima Basin;</p> <table border="1"> <thead> <tr> <th>Eon/Epoch</th> <th>Group</th> <th>Formation</th> <th>Member</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Cretaceous to Eocene</td> <td rowspan="3">Deccan Trap</td> <td>Harwal (45m)</td> <td></td> </tr> <tr> <td>Katamdevarahalli (40m)</td> <td></td> </tr> <tr> <td>Hulkal (30m)</td> <td></td> </tr> <tr> <td rowspan="10">Neo Proterozoic</td> <td rowspan="10">Bhima Group (297m)</td> <td rowspan="5">Shahabad (115m)</td> <td>Mulkod Limestone (10m)</td> </tr> <tr> <td>Gudur Limestone (20m)</td> </tr> <tr> <td>Sedam Limestone (60m)</td> </tr> <tr> <td>Wadi Limestone (15m)</td> </tr> <tr> <td>Ravoor Limestone (10m)</td> </tr> <tr> <td rowspan="5">Rabanpalli (67m)</td> <td>Korla Shale (50m)</td> </tr> <tr> <td>Kundarapalle Sandstone (15m)</td> </tr> <tr> <td>Muddebihal Conglomerate (2m)</td> </tr> <tr> <td colspan="2">-----Angular Unconformity-----</td> </tr> <tr> <td rowspan="3">Basement Rocks</td> <td>Younger granitoids</td> </tr> <tr> <td>Eastern Block Greenstone Belts</td> </tr> <tr> <td>Peninsular Gneisses-I</td> </tr> <tr> <td>Archaean</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>The sedimentary rocks of the Bhima Group were deposited over an irregular floor of pink granites with a regional unconformity. They are bound in the south and east by pink granites and in the north and west by the Deccan Traps obscuring the original extent of the Basin. The rocks are flat bedded, unmetamorphosed, non-fossiliferous and undisturbed except for some local changes due to minor folding and faulting. Bhima Group comprises Rabanpalli Clastic Formation (<70m) and Shahabad Limestone Formation (<75m). Rabanpalli Clastic Formation comprises arkosic, gritty sandstone, alternate sequence of sandstone and shale; and Shahabad limestone Formation includes cherty/argillaceous limestone, bluish grey, blocky micritic limestone, variegated, siliceous and cherty limestone; dark-bluish to grey, massive limestone and grey argillaceous micritic limestone.</p>	Eon/Epoch	Group	Formation	Member	Cretaceous to Eocene	Deccan Trap	Harwal (45m)		Katamdevarahalli (40m)		Hulkal (30m)		Neo Proterozoic	Bhima Group (297m)	Shahabad (115m)	Mulkod Limestone (10m)	Gudur Limestone (20m)	Sedam Limestone (60m)	Wadi Limestone (15m)	Ravoor Limestone (10m)	Rabanpalli (67m)	Korla Shale (50m)	Kundarapalle Sandstone (15m)	Muddebihal Conglomerate (2m)	-----Angular Unconformity-----		Basement Rocks	Younger granitoids	Eastern Block Greenstone Belts	Peninsular Gneisses-I	Archaean			
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5.4	Local Geology: Details of dip, strike, structural features lithology/rock types, controls of mineralization observed in the PL area, outcrops of mineralisation, surface elucidations seen with approximate strike length and width.	The limestone of Chittapur SW Limestone Block belongs to Shahabad Limestone Formation having horizontal beds with general strike ESE-WNW to E-W dipping towards NNE to N with a maximum dip up to 5°. In Chittapur SW Limestone Block no exposures noticed during detailed mapping as the entire block area is covered by top soil, However, five main rock types were identified during exploratory drilling, which are Grey Limestone, Greenish Grey Limestone (Sedam Member), Dark Grey Limestone, Styrolitic Limestone (Wadi Member/Gudur Member) and Flaggy Limestone (Ravoor limestone Member). All these litho-units are part of the Shahabad Limestone Formation. This sequence is underlined by Korla shale which forms part of the Rabanpalli Formation of the Bhima Group.
5.5	Description of Exploratory workings (Brief description of dimension of exploratory pits/ old workings/ Observations made in the old pits, nala cuttings, escarpments etc.)	The entire area is covered with top soil and no outcrop of limestone found in Block area. Mostpart of the lease area is agriculture land and some part covered with crops. The entire are is devoid of any old working. During inspection found evidence of drilling at the bore hole sites. CL holder, after sampling of the core samples, maintained all the core boxes systematically at Chittapur town in rented house.
5.6	Whether the proposals in the scheme are adequate to delineate the ore body in a way that mineral resources can be estimated partly under G1 and G2 categories of UNFC so as to enable the PL holder for preparing a systematic and scientific mining plan	Yes. From the Geological plan and section, it is observed that about 115Ha. area has been explored under G1 & remaining 323Ha. has been explored under G2. The estimated resources under said categories are sufficient for preparing a systematic and scientific mining plan. However, at the ML stage, the lease holder has to explore the entire lease area (mineralized area) under G1 level.
5.7	If not, then further measures suggested to be taken up for establishing the reserves/ resources towards determination of grade of mineral/ore, mineralogical/ amenability to beneficiation studies	At the ML stage, the lease holder has to explore the entire lease area (mineralized area) under G1 level.

PART – IV

6.0	REVIEW OF PROSPECTING SCHEME				
6.1	Name of Exploration Agency (whether empaneled with IBM): M/s Synergy Geotech Pvt. Ltd. (Yes, empaneled with IBM)				
6.2	Work carried out v/s proposed in scheme of prospecting				
	Activities		Proposed	Achieved	Remarks
i.	Geological Mapping (scale)	Scale & area covered	1 : 2000 438Ha.	1 : 2000 438Ha.	
ii.	Pitting	Nos	Nil	Nil	
iii.	Trenching	Nos	Nil	Nil	
iv.(a)	Drilling	Nos of holes	56	56	

iv.(b)	Type of drilling	Core/RC/DTH/ any other	Core	Core	
iv.(c)	Drilling	meter	4600	4585	Little deviation in drilled depth and samples due to the proposed depth is tentative. Depth of drilling changes according to the mineralization.
v.	Samples for chemical with check sample criteria (10%) /mineralogical analysis	Nos	4600	4566	
vi.	Any other (please specify)			Bulk Density analysis of Limestone, Shale & Soil.	
vii	Expenditure incurred in exploration activities	Geological Mapping & Topographical Survey & DGPS	Rs. 3 Lakh	Rs. 2.3 Lakh	Achieved figures as per the information submitted by representative of the CL holder during inspection.
		Core Drilling	Rs. 78 Lakh	Rs. 83.26 Lakh	
		Sample preparation	Rs. 10 Lakh	9.34 Lakh	
		Geochemical analysis of Core Samples	Rs. 26 Lakh	Rs. 24.96 Lakh	
		Technical Manpower Cost Project Manager Geologist/ Mining Engineer	Rs. 100 Lakh	Rs. 50 Lakh	
		Local Manpower Cost	Rs. 10 Lakh	Rs. 3 Lakh	
		Miscellaneous	Rs. 10 Lakh	Rs. 5 Lakh	
		Total	Rs. 237 Lakh	Rs. 177.86 Lakh	
6.3	Critical analysis of prospecting pattern and data and maintenance of data/information, with a view to comment on adequacy of work done, vis-à-vis the scheme of prospecting under rule 4 & 5 of MCDR-1988.	The grid interval of core drill exploration is adequate to establish the continuity of lithounit laterally as well as vertically. CL holder maintained the cores generated from boreholes, duplicate & triplicate powdered samples, core log, sample analysis reports etc. has been well maintained & kept secured.			
6.4	Review of the status of the area not covered by prospecting.	Total lease area covered by drill exploration under G1/G2 level.			
6.5	Environment				
6.6	Extent of the area under Non-forest land and forest land	Non-forest Land – 438Ha. Forest Land - Nil			
6.7	Environmental Details	There are few seasonal 1st order streams which flows towards South- Southwest with the drainage divide further north. All these joining the Dodda nalla further South- South west. There are no perennial Rivers/Nallas flowing across the block. Kagini River, tributary of Bhima river flows in the northern side of the block is about 11 KM (Aerial distance) in northern side. There is no water tanks or water bodies in the			

		block area or in the vicinity of it.
6.8	Environmental Protection measures adopted and their efficiency	Exploration has been carried out using wet Core drilling only. No pitting, trenching and DTH boreholes are done. The exploration activity didn't affect the environment.
6.9	Socioeconomic Concern	Most part of the CL area is agricultural land. At ML stage, lease holder has to take all the rehabilitation measures.
6.10	Expenditure incurred in community development through employment /education/village development/housing in the vicinity area.	Nil

PART-V

7.0	OBSERVATIONS OF INSPECTING OFFICER	
7.1	Conclusion	CL holder has carried out the exploration in the lease area as per Scheme of Prospecting. CL area has been explored under G1 & G2 level, which is sufficient to estimate the Reserve/resources and systematic & Scientific Mining Plan.
7.2	Recommendations	At the stage of ML, G2 area need to be explored under G1. CL holder has to submit the half year progress report as per Rule 9(1) of MCDR, 2017.
7.3	Suggestions for further exploration work if any based-on field inspection and follow up	At the stage of ML, G2 area need to be explored under G1.

Date:

Place:

(Dr. Sudhakara T.L.)
Senior Mining Geologist