

**Physical Data of Morak LimeStone Mines, of M/s Mangalam Cement Ltd. Morak ,
Tehsil -Ramganjmandi ,Distt Kota (Raj)**

S. No.	Item	Description
1	Mining lease Area	895.42 Hectors
2	Limestone ROM Production (During 2022-2023 up to 31 st Dec.)	2.587 Million Ton
3	Lease Period (After promulgation of Govt. ordinance dt. 12.01.2015)	21.02.1977 to 31.03.2030
4	Date of commencement of Work	1st January ,1980

**Quality of stored rain water in mined out pits sump & Piezometers within Morak
Limestone Mines. Date of Monitoring : 10.12.2022**

Parameters	Unit	Mines Sump Block-1 (S-1)	Mines Sump Block-2 (S-2)	Piezometer (PZ-2A)	Piezometer (PZ-3)
pH		6.68	7.21	7.19	7.31
Total Hardness as CaCO3	Mg/Li	118	74	168	130
Total Alkalinity	Mg/Li	110	82	154	110
Total Dissolved Solids	Mg/Li	238	232	326	248
Fluoride (as F)	Mg/Li	0.30	0.40	0.30	0.30
Sulphates as SO4	Mg/Li	26.2	19.3	22.8	29.8
Nitrates as NO3	Mg/Li	3.0	2.90	2.2	3.2
Chloride (as Cl)	Mg/Li	19.0	43.0	34.0	25.0

**Ground Vibration observed (At distance of 87 Mtr) for the event of Blasting at
Morak Limestone Mines (Pit No.-3 ,block-II) on dt 26.11.2022 at 13.39 PM**

Axis	Dominant Frequency (In Hz)	Pea k Particle Velocity(In mm/s)
Radial	51.2	6.350
Transverse	17.6	4.064
Vertical	73.1	2.286

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone
Mines, Morak Date of Monitoring : 08.12.2022 to 09.12.2022**

Location of Monitoring Station	SPM µg/m3	PM2.5 µg/m3	PM10 µg/m3	SO2 µg/m3	NOX µg/m3
Core Zone :					
Near Nala Pit-1 Block-I	359.19	38.16	69.34	8.14	10.11
Mines Work shop Block-I	362.41	33.37	69.16	7.87	10.51
Near Nala Pit-3 Block-II	375.32	33.04	71.32	10.57	11.07
Near Explosive Magazine	369.14	34.46	73.32	10.16	10.86
Buffer Zone :					
GSS RSEB , Gumanpura	382.68	32.66	62.30	6.02	7.86
GSS RSEB, Chechat	384.24	29.15	61.14	7.76	8.06
Railway Yard, Morak	375.15	37.62	68.32	7.92	10.54
Fatehpur Village Chouraha	384.24	29.15	61.14	7.76	8.06

Details of Plantation of last 5-year within Mining Lease area

Year	No. of sapling Planted	Rate of Survival %	species
2016-17	5688	92	Neem, Karanj, Subabool, Kachnar, PaltaForm, Peepal, Bad, Gulmohar, Jamphal, Nimbu, Amwala, Bgaun Belia, Seerus , Shhesham , Palash etc. Dec-2022
2017-18	6025	83	
2018-19	5774	85	
2019-20	5644	83	
2020-21	6075	84	
2021-22	6070	82	
2022-23	6373	Under Observation	

