

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

S. No.	Item	Description
1	Mining lease Area	895.42 Hectors
2	ROM Limestone Production (During 2022-2023)	3.8597 Million Ton
3	Lease Period (After promulgation of Govt. ordinance dt. 12.012015)	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
OLimestone Mines. Date of Monitoring : 08..05.2023**

Parameters	Unit	Mines Sump Block-1 (S-1)	Mines Sump Block-2 (S-2)	Piezometer (PZ-2A)	Piezometer (PZ-3)
pH		6.61	7.26	7.32	7.22
Total Hardness as CaCO3	Mg/L	126	96	182	146
Total Alkalinity	Mg/L	114	96	166	120
Total Dissolved Solids	Mg/L	260	280	368	292
Fluoride (as F)	Mg/L	0.30	0.40	0.54	0.36
Sulphates as SO4	Mg/L	29.7	28.7	32.4	37.8
Nitrates as NO3	Mg/L	3.1	3.8	3.6	4.2
Chloride (as Cl-)	Mg/L	25	52	44	33

**Ground Vibration observed (At distance of 100 Mtr) for the event of Blasting at
Morak Limestone Mines (Pit No.-3 ,block-II) on dt 24.02.2023 at 12.57.05 PM**

Axis	Dominant Frequency (In Hz)	Peak Particle Velocity(In mm/s)
Radial	39.3	3.048
Transverse	34.10	2.667
Vertical	51.20	1.270

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone
Mines, Morak Date of Monitoring : 12.05.2023 to 14.06.2023**

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	341.48	32.12	62.10	7.81	9.73
Mines Work shop Block-I	352.35	32.82	65.47	8.60	9.76
Near Nala Pit-3 Block-II	370.33	32.41	67.14	10.11	11.56
Near Explosive Magazine	362.92	34.43	68.71	10.58	11.89
GSS RSEB , Gumanpura Village	375.47	30.48	64.81	6.67	7.39
GSS RSEB, Chechat Village	374.45	33.74	65.09	8.07	8.53
Railway Yard, Morak Village	379.48	36.31	71.52	8.33	10.12
Fatehpur Village Chouraha	361.15	28.72	63.12	6.88	8.30

Details of Plantation of last 7-year within Mining Lease area

Year	No. of sapling Planted	Rate of Survival %	species
2015-16	5070	85	Neem, Karanj, Subabool,
2016-17	5688	92	Kachnar, PaltaForm, Peepal
2017-18	6025	83	,Bad, Gulmohar,Jamphal,
2018-19	5774	85	Nimbu, Amwala, Bgaun Belia,
2019-20	5644	83	Seerus , Shhesham, Palash ,
2020-21	6075	84	Astronia etc.
2021-22	6070	83.03	
2022-23	6373	85.91	

June-2023