

**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 Production ( During 2019-2020 )	1.9287 Million Ton (up to 31.12.2019)
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  
Limestone Mines. Date of Monitoring : 06.11.2019**

Parameters	Unit	Mines Sump Block-1 (S-1 )	Mines Sump Block-2 (S-2 )	Piezometer (PZ-1)	Piezometer (PZ-3)
pH		7.65	7.81	7.78	7.88
Total Hardness as CaCO3	Mg/L	114	88	136	104
Total Alkalinity	Mg/L	90	90	124	96
Total Dissolved Solids	Mg/L	204	172	230	210
Fluoride (as F )	Mg/L	0.10	0.10	0.20	0.20
Sulphates as SO4	Mg/L	21.6	20.40	24.58	22.9
Nitrates as NO3	Mg/L	0.84	0.81	1.34	1.19
Chloride ( as Cl )	Mg/L	22	17	29.0	27

**Ground Vibration observed (At distance of 100 Mtr ) for the event of Blasting at  
Morak Limestone Mines (Pit No.-2 ,block-II ) on dt 25.12.2019 at 13.39 PM**

Axis	Dominant Frequency (In Hz)	Pea k Particle Velocity( In mm/s )
Radial	56.80	1.524
Transverse	51.20	0.762
Vertical	42.60	1.143

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone  
Mines, Morak Date of Monitoring : 26.11.2019 to 27.11.2019**

Location of Monitoring Station	SPM µg/m3	PM2.5 µg/m3	PM10 µg/m3	SO2 µg/m3	NOX µg/m3
<b>Core Zone :</b>					
Near Nala Pit-1 Block-I	352.14	40.40	70.74	11.64	16.17
Mines Work shop Block-I	315.67	43.17	81.79	12.28	17.11
Near Nala Pit-3 Block-II	461.39	42.63	86.60	14.28	18.56
Near Explosive Magazine	347.22	46.23	85.63	11.63	17.15
<b>Buffer Zone :</b>					
GSS RSEB , Gumanpura	353.12	43.04	72.73	10.20	14.05
GSS RSEB, Chechat	431.09	37.59	69.30	12.37	17.24
Railway Yard, Morak	408.82	39.67	76.47	9.52	16.54
Fatehpur Village Chouraha	362.17	35.60	67.91	10.22	15.08

**Details of Plantation of last 6-year within Mining Lease area**

Year	No. of sapling Planted	Rate of Survival %	species
2014-15	9055	82	Neem, Karanj, Subabool, Kachnar, PaltaForm, Peepal ,Bad, Gulmohar,Jamphal, Nimbu, Amwala, Bgaun Belia, Seerus , Shhesham etc.
2015-16	5070	85	
2016-17	5688	92	
2017-18	6025	83	
2018-19	5774	85	
2019-20 (Up to Dec)	5644	Under progress	

Dec-2019