



**2a. Following are the test results of soil sample collected**

Table 8: Showing data between Location and Dry density

Location	Dry density (gm/cc)
1	1.48
2	1.63
3	1.78
4	1.69
5	1.60
6	1.60
7	1.60
8	1.58
9	1.56

Table 9: Showing data between Location and Atterberg Limits

Location	Atterberg Limits	
	Liquid Limit (%)	Plastic Limit (%)
1	37	19.1
2	52	30.03
3	67	21.87
4	50.41	18.9
5	33.83	NP
6	33.58	12
7	33.33	16.47
8	22.16	7
9	11	NP

Table 10: Showing data between Location and Cohesion

Location	Cohesion
1	0.16
2	0.25
3	0.23
4	0.1
5	0.22
6	0.23
7	0.04
8	0.13
9	0.05

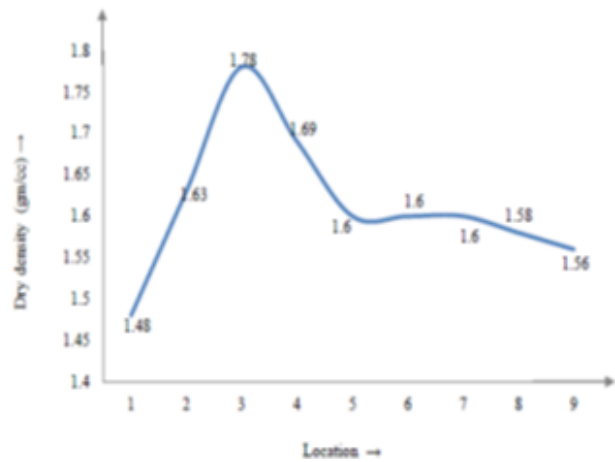
Table 11: Showing data between Location and Phi

Location	Phi
1	17
2	18
3	20
4	20
5	21
6	21
7	24
8	16
9	22

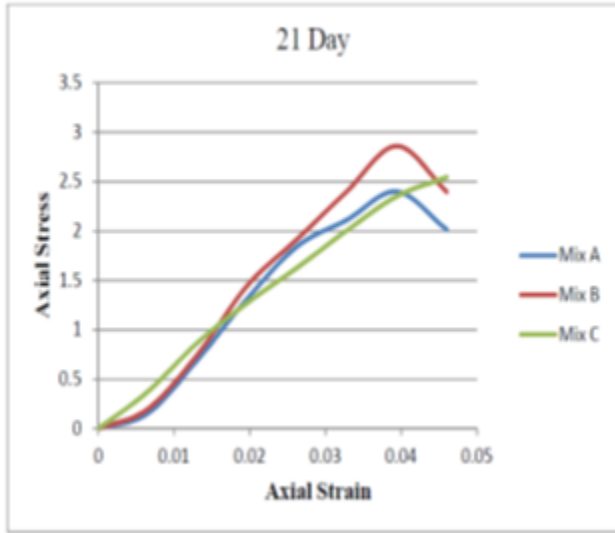
Table 12: Showing data between Location and Silt / Clay

Location	Silt / Clay (%)
1	29.2
2	30.25
3	31.3
4	25.85
5	20.4
6	21.11
7	21.8
8	20.15
9	18.5

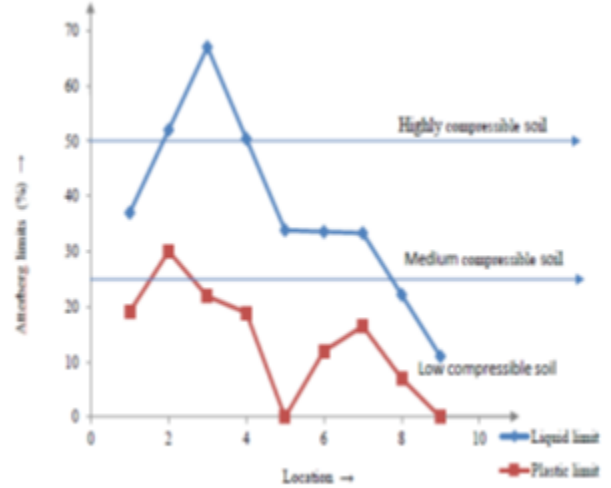
Graph 2: Showing variation of plot between Location and Dry density



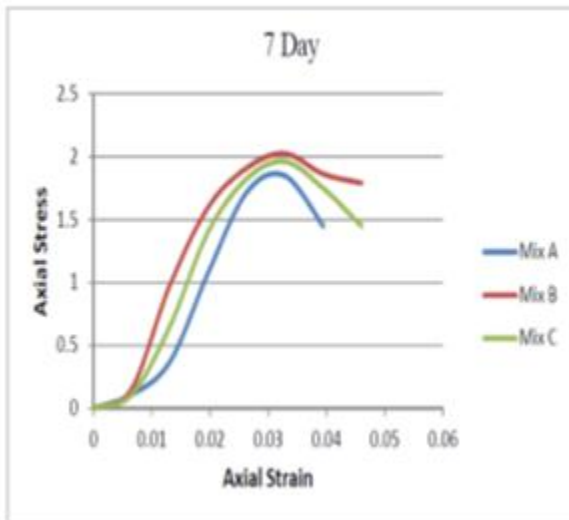
**Analysis of mixes A, B and C at 21 day:**



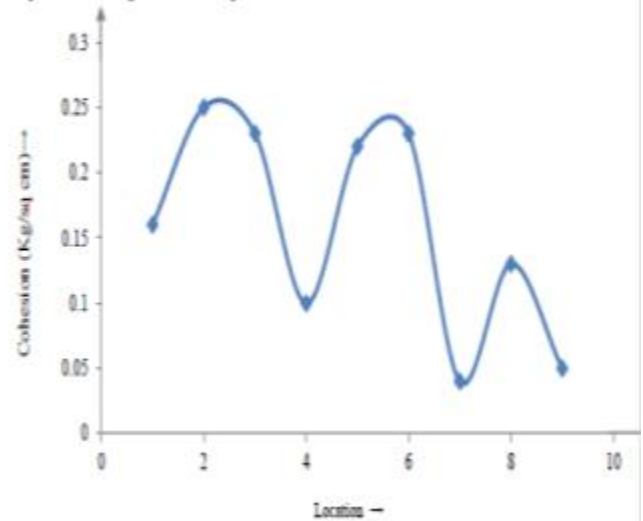
Graph 3: Showing variation of plot between Location and Atterberg limits



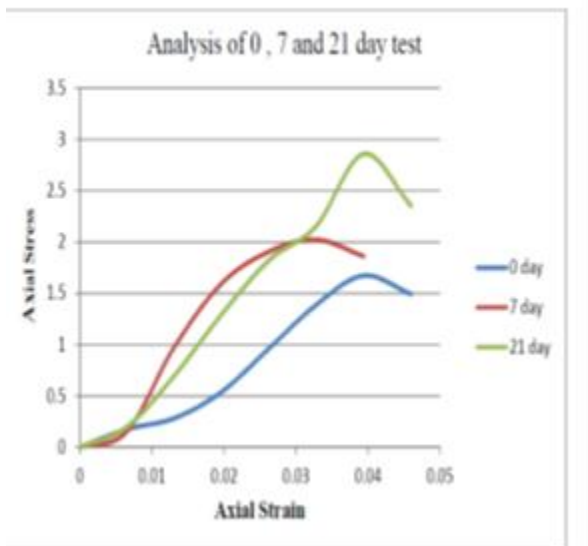
**Analysis of mixes A, B and C at 7 day:**



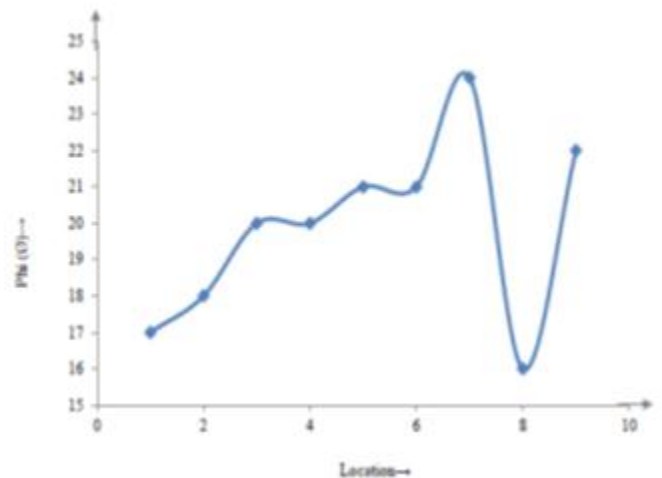
Graph 4: Showing variation of plot between Location and Cohesion



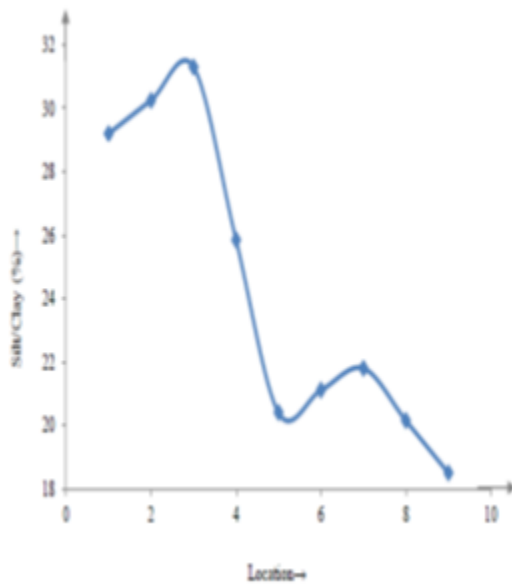
**Analysis of 0 day, 7 day and 21 day test:**



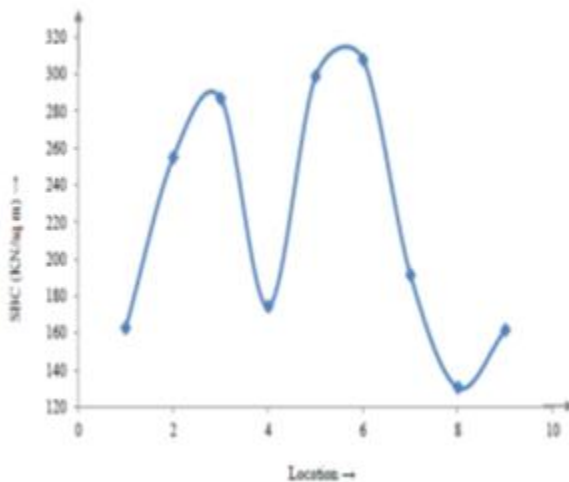
Graph 5: Showing variation of plot between Location and Phi



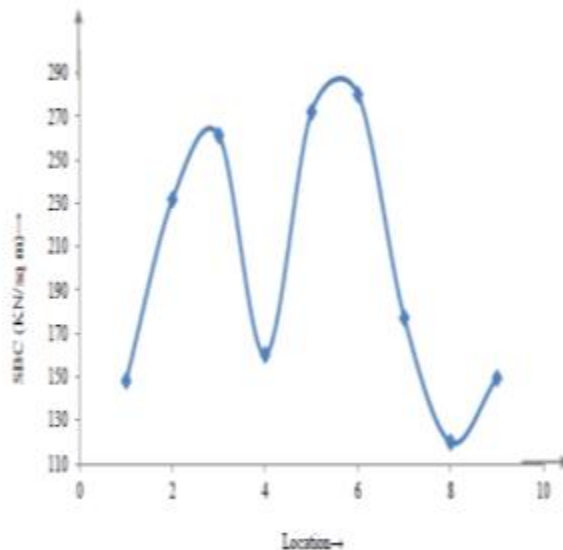
Graph 6: Showing variation of plot between Location and Phi



Graph 7: Showing variation of plot between Location and SBC for Square footing



Graph 8: Showing variation of plot between Location and SBC for Rectangular footing



## CONCLUSION

1. Since some of the pits have liquid limit >50%, therefore they are subjected to long term consolidation.
2. As moisture is increasing SBC is decreasing.
3. The SBC of soil increases as the density of the soil increases (provided soil is light to medium compressible)
4. As compressibility of the soil increases, the bearing capacity of soil decreases

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