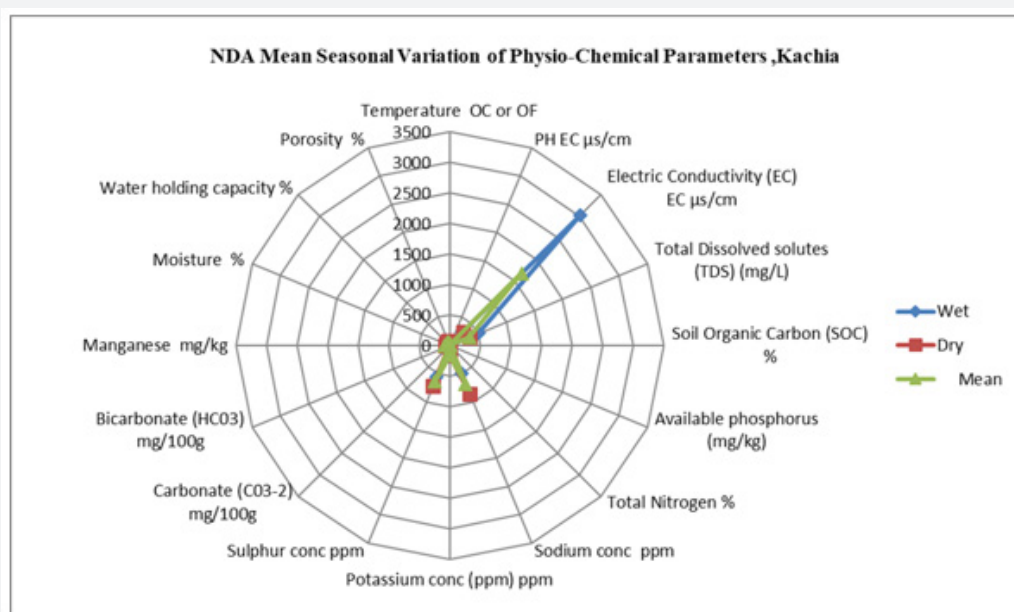


### Appendix 1

**Table 4:** Mean Seasonal Variation of Physico Chemical Parameters of Composite Samples of four firing Range Locations (12 different Metres).

Parameters	Unit	Wet	Dry	Mean
Temperature	OC or OF	27.16	22.71	24.94
PH	EC $\mu\text{s}/\text{cm}$	6.07	2.31	4.19
Electric Conductivity (EC)	EC $\mu\text{s}/\text{cm}$	3011	312	1661.5
Total Dissolved solutes (TDS)	(mg/L)	513.1	347.7	347.7
Soil Organic Carbon (SOC)	%	5.11	5.76	5.44
Available phosphorus	(mg/kg)	4.7	4.9	4.8
Total Nitrogen	%	9.32	9.72	9.52
Sodium conc	ppm	498	863	680.5
Potassium conc (ppm)	ppm	169	162	165.5
Sulphur conc	ppm	560	724	642
Carbonate (CO <sub>3</sub> -2)	mg/100g	0.22	0.35	0.285
Bicarbonate (HCO <sub>3</sub> )	mg/100g	1.11	1.68	1.4
Manganese	mg/kg	75.01	75.01	79.1
Moisture	%	59.56	59.56	35.87
Water holding capacity	%	59.56	51.12	55.34
Porosity	%	56.27	69.39	62.83



**Figure 13:** Mean seasonal variation of physico-chemical parameters of composite samples of four firing range locations (12 different metres).

**Table 5:** Bacterial Isolates from Twelve Sampled Locations in NASA, Kachia.

Locations	Values
Location (1) 0 meter	30 + 35.29
Location (1) 200 meter	4 + 2.94
Location (1) 400 meter	27.33 + 36.04
Location (2) 0 meter	30 + 30.59
Location (2) 200 meter	2 + 1.41
Location (2) 400 meter	3.67 + 3.77
Location (3) 0 meter	12 + 16.971
Location (3) 200 meter	24.33 + 20.07
Location (3) 400 meter	12.331 + 13.91
Location (4) 0 meter	11.33 + 5.79
Location (4) 200 meter	1 + 0.33
Location (4) 400 meter	1 + 0.12
Control	3.67 + 2.49