

Appendix III - Moisture in Soils at Various Tensions.

Samples were taken in brass sleeves with little disturbance of structure, at sites 13-17 (Fig. 2) and from the eastern edge of a saltpan (site 6e). All percentages are of the volume of soil, gravel included.

CTP = calculated total porosity, based on bulk density (BD) and particle density (2.65). AW = "available water", being moisture at 100 cm, tension minus moisture at 15 atm equivalent tension. D = "drainage porosity" i.e. CTP minus moisture at 100 cm tension. M = "macroporosity" (pores > 70.075 mm diameter) i.e. CTP minus moisture at 40 cm tension. "NS" means that the sample was too impermeable to be saturated by standing in water.

S = sand, LS = loamy sand, SL = sandy loam, SCL = sandy clay loam, SC = sandy clay, LC = light clay, C = clay, HC = heavy clay.

Soil layer	Lab. No. 66/	Depth ins.	Field Texture	% moisture by volume			BD	CTP %	M %	D %	AW %
				Tension		Pressure 15 atm					
				40 cm	100 cm						
Site 13. Crest of dune.											
a	51	0-3	LS	16	11	4	1.70	36	20	25	7
b	52	6-9	LS	25	17	8	1.65	37	12	20	9
b	53	12-15	SL	30	25	15	1.45	45	15	20	10
c	54	18-21	SCL	29	26	16	1.65	38	9	12	10
c	55	24-27	SCL	30	29	16	1.60	39	9	10	13
c	56	84-87	SCL	26	20	12	1.60	39	13	19	8
c	57	90-93	SCL	31	28	15	1.65	37	6	9	13
d	58	96-99	SC	36	33	17	1.60	40	4	7	16
d	59	102-102	SC	NS	...	22	1.60	40			
d	60	108-111	SC	NS	...	10	1.60	39			
Site 14. Lower S slope of dune.											
a	1	9-12	LS	22	14	4	...	...	...	...	10
b	2	15-18	S	19	14	5	1.65	39	20	25	9
b	3	21-24	S	18	11	5	1.70	37	19	26	6
c	5	36-39	SC	39	37	25	1.50	44	5	7	12
d	6	48-51	SC	38	36	22	1.55	41	3	5	14
d	7	54-57	SC	NS							
d	8	60-63	SC	36	35	28	1.65	38	2	3	7
d	9	66-69	SC	39	38	25	1.60	40	1	2	13
d	10	72-75	SC	38	37	30	1.60	39	1	2	7
e	11	84-87	SC	NS							
e	12	96-99	SC	48	46	30	...	43	0	3	16
e	13	108-111	HC	NS	...	31	1.65	39			
Site 15. Salted interdune flat.											
c	14	0-3	LC	45	41	23	1.30	52	7	11	18
c	15	6-9	C	43	40	31	1.25	53	10	13	9
c	16	12-15	C	47	45	33	1.25	53	6	8	12
c	17	18-21	C	43	39	29	1.30	50	7	11	10
d	18	24-27	C	37	35	26	1.50	43	6	8	9
d	19	30-33	C	37	35	25	1.55	41	4	6	10
d	20	36-39	C	36	34	23	1.60	40	4	6	11
d	21	42-45	C	37	35	23	1.65	37	0	2	12
d	22	48-51	C	34	32	23	1.70	36	2	4	9
d	23	54-57	HC	40	38	28	1.65	38	0	0	10
e	24	60-63	HC	48	46	35	1.45	45	0	0	11
e	25	66-69	HC	47	46	33	1.45	46	0	0	13
e	26	72-75	HC	NS							
Site 16. Lower N slope of dune.											
c	28	7-10	SCL	27	23	11	1.60	40	13	17	12
c	29	24-27	SC	26	21	14	1.55	42	16	21	7
c	30	30-33	SC	28	23	14	1.65	38	10	15	9

Soil layer	Lab. No. 66/	Depth ins.	Field Texture	% moisture by volume			BD	CTP %	M %	D %	AW %
				Tension		Pressure 15 atm					
				40 cm	100 cm						
c	31	36-39	SC	29	24	14	1.60	39	10	15	10
c	32	43-46	SC	36	33	17	1.50	43	7	10	16
c	33	54-57	C	33	31	22	1.70	36	3	5	9
d	34	60-63	C	33	32	19	1.55	41	8	9	13
d	35	72-75	C	36	34	21	1.55	41	5	7	13
d	36	84-87	C	36	34	18	1.65	38	2	4	16
d	37	96-99	C	36	34	24	1.70	35	0	1	10
e	38	108-111	C	42	40	24	1.55	41	0	1	16
Site 17. Crest of dune.											
a	39	0-2	SL	24	15	6	1.60	40	16	25	9
c	40	5-8	SC	29	25	14	1.55	41	12	16	11
c	41	18-21	SC	32	29	18	1.65	39	7	10	11
c	42	24-27	SC	...	28	16	1.65	39	...	11	12
d	45	60-63	SC	30	28	11	1.55	41	11	13	17
d	46	72-75	SCL	NS							
d	47	84-87	SL	27	22	16	1.70	37	10	15	6
e	48	96-99	SC	NS							
e	49	102-105	SC	NS	...	...	1.60	40			
e	50	108-111	SC	NS	...	...	1.55	42			
Site 6 (e). Eastern margin of saltpan											
a	61	0-3	SL	36	31	25	1.60	39	3	8	6
c	63	12-15	C	41	39	20	1.25	53	12	14	19
c	64	18-21	C	39	39	...	1.35	48	9	9	
d	65	24-27	C	40	40	30	1.50	44	4	4	10
d	66	30-33	C	36	35	25	1.50	44	8	9	10
d	67	36-39	C	35	34	25	1.70	36	1	2	9
d	68	42-45	C	34	34	21	1.65	37	3	3	13
d	69	48-51	C	35	35	...	1.65	37	2	2	
e	70	54-57	C	37	36	25	1.75	34	...	0	11
e	71	60-63	C	36	35	...	1.65	37	1	2	
e	72	66-69	C	37	36	...	1.75	34	0	0	
e	73	72-75	C	NS	...	...	1.65	37			
e	74	79-82	C	NS	...	...	1.70	36			
e	75	84-87	C	NS	...	...	1.65	38			
e	77	102-104	C	NS	...	...	1.70	36			