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J. C. VITTI  
1967

مجلس الإمارات المتصالحة  
TRUCIAL STATES COUNCIL  
مسح الثروة المائية  
WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

Sir William Halcrow & Partners  
Consulting Engineers

February 1969

Water Resources Engineer,  
P.O. Box 1606,  
DUBAI,  
Arabian Gulf.

Newcombe House,  
45, Notting Hill Gate,  
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WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68  
1st October 1967 to 30th September 1968

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TRUCIAL STATES WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

INTRODUCTION

This Hydrological Year Book is the third of a series which is intended to record the factual data obtained regularly by the survey team. The records have been assembled in sections covering Meteorological Observations, Rainfall Records, Flood Discharges, Falages or Springs, Groundwater Observation Points and Chemical Analysis of water samples. Drawings accompanying this Year Book record the position of Rain-gauges and Evaporation Pans, Surface Water Observation Sites and Observation Wells.

For convenience in studying groundwater conditions, the whole area was divided into ten hydrological zones as shown on the drawings. These zones form the basis of the numbering system adopted for referencing wells, boreholes and raingauges, the initial numeral in each case indicating the zone in which the point is located.

The metric system is used throughout in conformity with the decision to adopt this system in the Trucial States from 1st April, 1967.

The spelling of place names used in the records is as given on the 100,000 scale maps with the exception of the better known place names where different forms have become common usage.

No attempt is made to draw conclusions from the recorded facts nor to make recommendations for the development or control of possible water sources. Such conclusions and recommendations as could be made were included in a comprehensive report, a preliminary version of which was published early in 1968. The final version will appear early in 1969.

In conclusion, grateful acknowledgement is made to the Meteorological Service, Sharjah, the Agricultural Trials Station, Digdaga, and the Trucial Oman Scouts and staff of the Development Office for assistance in the collection of data.

February, 1969

SIR WILLIAM HALCROW AND PARTNERS

## TRUCIAL STATES WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

## SECTION A - METEOROLOGICAL OBSERVATIONS

A1. WIND DATA - Sharjah Lat. 25°21'N. Long. 56°23'E.

Analysed from Anemograph records : Effective height 10.0m above ground

Unit of speed : Knot.

11.9m above m.s.l.

Month	Speed and Direction percentage of time prevailing direction				mean wind speed for Month - Knots	Highest hourly wind for month			
	0-3kt	4-10kt	11-21kt	>22kt		veer from N deg	speed kt.	day	hour
October 1967	19 S.E.	57 S.E. Var.	24 W. to N.	NIL	7.2	190	21	2	10
November 1967	13 S.E.	54 Var.	33 W	NIL	8.5	280	21	30	24
December 1967	13 S.E.	60 E. to S.	24 W	3 W	8.4	290	26	25	15
January 1968	11 S.E.	55 S.E. to S.W.	31 W	3 W	8.9	180	26	25	14
February 1968	8 E. to S.	55 Var.	35 W	2 S.W.	9.5	290	30	2	24
March 1968	12 S.E.	49 Var.	38 W. to N.	1 W	8.9	280	23	23	15
April 1968	11 E. & N.W.	50 Var.	39 W	NIL	9.2	310	23	11	13
May 1968	10 S.E.	46 S.	44 W	NIL	9.6	270	21	17	15
June 1968	13 S.	43 S.E. to S.W.	44 S.W. to W.	NIL	9.3	250	20	3	13
July 1968	12 S.	53 Var.	35 W. to N.	NIL	8.6	310	19	28	16
August 1968	18 S.E. to S.W.	51 S. & Var.	31 S.W. to N.	NIL	7.7	260	19	11	17
September 1968	21 Var.	56 S.E. & Var.	23 N.W. to N.	NIL	7.0	350	17	4	14

Extreme velocity: highest gust in period 2nd February 1968 - 43 knots, veer 190° from North.

For total run of wind at five W.R.S. stations see Section A6 -  
Monthly Summary of Meteorological Observations.

## A.2 TEMPERATURE

(1) Daily Maximum and Minimum Temperature for Sharjah

Degrees Centigrade

1967						1968						
Month Day	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	38.7	22.8	30.8	20.7	24.6	20.6	21.8	12.5	23.1	16.2	24.0	12.4
2	39.2	22.3	30.6	20.5	25.4	12.4	22.3	10.9	19.0	15.9	23.0	13.6
3	38.2	22.4	30.7	20.1	24.1	10.0	21.6	9.4	18.3	14.8	28.8	14.2
4	37.7	21.3	30.2	18.0	26.0	13.7	22.9	9.9	18.7	13.4	27.8	16.6
5	35.6	23.0	32.7	20.1	27.7	15.3	22.3	13.1	18.9	14.2	25.6	16.4
6	36.2	23.1	31.8	17.1	29.3	13.0	23.7	11.6	18.8	8.5	30.7	18.0
7	33.5	23.2	32.5	15.7	29.5	14.2	26.2	10.6	18.8	10.6	30.1	18.3
8	32.9	22.9	31.6	16.8	28.0	16.5	23.1	13.9	21.8	10.5	27.2	17.6
9	34.2	23.5	31.4	19.8	26.1	18.5	22.7	15.0	22.7	16.2	24.0	16.5
10	35.5	25.6	33.4	18.2	25.9	11.7	23.0	10.6	20.5	15.7	29.3	14.0
11	34.1	22.7	32.5	16.8	25.0	14.2	24.4	10.8	21.5	17.2	30.3	16.9
12	39.3	23.1	32.0	18.8	24.5	12.2	21.9	10.6	21.2	17.5	25.6	18.7
13	38.3	21.9	30.7	16.9	27.7	13.6	23.4	10.3	20.4	16.4	23.8	14.3
14	34.2	21.7	31.2	26.2	24.9	11.3	25.5	10.8	20.1	11.6	26.4	15.0
15	33.8	25.5	29.4	18.7	24.9	12.2	26.8	13.3	19.2	9.5	33.6	15.9
16	33.2	21.9	28.3	18.8	24.8	13.6	26.7	13.3	20.6	9.8	29.5	17.4
17	32.7	21.7	28.4	20.2	24.1	12.0	21.4	17.0	21.8	18.4	32.6	15.6
18	32.7	21.3	29.2	18.6	25.1	12.9	21.8	16.8	21.8	14.7	28.2	15.7
19	32.6	21.0	29.2	20.5	23.7	14.3	20.7	17.0	21.8	10.0	28.1	16.1
20	32.6	21.1	28.6	22.2	24.4	19.7	21.5	8.2	23.1	11.7	29.5	16.1
21	33.1	21.4	29.3	20.1	24.1	16.7	21.6	8.1	27.5	14.8	24.2	14.4
22	32.0	19.2	29.4	22.0	23.8	19.0	21.4	11.7	24.8	16.0	24.0	12.8
23	33.7	22.9	29.1	17.0	23.5	11.7	22.8	11.0	26.4	14.4	24.8	17.4
24	34.9	23.9	31.5	18.1	20.6	12.8	23.2	10.8	18.7	17.7	23.5	14.0
25	34.2	19.2	32.3	20.0	19.3	16.3	28.8	13.1	20.4	14.8	23.3	14.6
26	34.3	18.6	29.5	18.8	21.7	10.9	23.2	16.9	20.8	10.5	23.8	12.5
27	33.0	18.2	29.4	18.7	20.0	11.4	21.1	18.5	22.0	12.8	29.3	13.8
28	31.4	15.1	26.9	22.8	21.5	13.2	20.7	11.8	21.5	11.2	30.7	18.1
29	32.0	18.1	25.9	21.4	21.8	8.6	22.0	10.7	21.5	11.8	27.2	18.2
30	31.1	18.4	25.9	21.1	22.1	9.2	16.2	12.2			32.6	19.6
31	31.4	19.7			22.4	10.2	20.8	9.4			34.3	19.0
Mean	34.4	21.5	30.1	19.5	24.4	13.6	22.8	12.1	21.2	13.8	27.4	15.8
Monthly Mean		27.9		24.8		19.0		17.4		17.4		21.6
Highest		39.3		33.4		29.5		28.8		27.5		34.3
Lowest		15.1		15.7		8.6		8.1		8.5		12.0

1968

Month Day	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	34.8	21.7	27.8	17.0	35.3	23.1	41.7	27.5	40.4	27.8	36.3	23.7
2	39.5	21.1	30.9	17.9	34.9	24.2	35.7	25.8	37.3	25.4	38.6	26.6
3	25.6	22.4	26.5	19.3	33.7	24.1	35.1	25.8	38.3	20.6	35.4	24.4
4	26.8	14.5	29.1	19.3	33.8	22.6	35.0	24.9	38.1	27.9	38.3	27.0
5	26.0	15.1	29.4	18.2	33.6	21.1	35.1	26.0	36.6	27.8	41.0	25.3
6	25.0	14.8	31.6	21.1	34.2	22.6	33.8	28.4	35.4	26.8	39.6	25.5
7	28.4	14.0	31.8	19.0	33.8	22.6	34.2	27.3	38.2	26.9	37.4	26.1
8	25.4	13.0	32.1	19.3	34.1	22.2	37.3	26.0	41.6	25.7	35.5	27.2
9	24.7	16.5	34.5	21.6	34.4	24.0	34.4	27.2	39.8	25.6	40.2	27.7
10	29.7	19.2	31.1	21.0	36.3	23.8	35.3	28.3	39.8	26.4	39.3	28.0
11	32.9	20.0	31.4	19.3	33.9	25.0	36.3	26.0	37.0	27.2	35.0	26.0
12	26.8	20.8	31.9	20.2	34.1	23.0	36.9	24.3	37.0	25.6	35.4	25.7
13	26.1	16.9	32.4	22.2	35.3	22.7	37.5	22.9	36.9	25.4	35.4	27.3
14	26.9	16.4	33.0	22.7	35.3	24.0	37.2	26.1	35.2	27.2	35.9	28.6
15	27.3	17.2	33.1	23.4	33.7	24.2	40.4	27.4	36.2	27.2	35.2	27.3
16	29.9	16.2	33.3	24.0	35.3	22.6	47.2	26.9	38.4	23.5	34.6	27.7
17	30.0	17.4	33.6	23.6	36.8	22.7	40.0	24.5	41.8	27.5	34.8	27.8
18	30.8	19.5	31.4	21.9	37.4	24.4	39.1	22.5	37.2	25.0	35.3	26.9
19	33.2	18.6	33.0	22.1	39.5	24.3	43.1	24.6	38.3	29.7	36.7	26.1
20	30.7	23.0	30.6	20.5	37.2	25.5	41.8	28.0	36.0	28.9	40.3	24.0
21	31.2	19.8	36.9	21.9	33.6	25.2	44.8	26.2	35.2	26.7	37.2	23.3
22	30.0	16.6	37.8	22.0	33.1	24.1	38.4	24.5	35.4	24.3	38.4	24.4
23	36.7	19.8	34.7	21.3	34.8	24.0	43.0	25.6	38.3	26.2	39.0	23.1
24	38.0	24.2	32.8	23.3	33.7	23.4	40.7	25.4	37.8	26.1	39.2	23.2
25	29.8	24.7	33.6	24.1	33.3	24.1	44.0	24.9	40.9	27.0	38.8	24.1
26	35.2	19.0	33.6	24.2	34.0	24.8	38.8	27.8	36.6	25.4	35.3	24.4
27	35.4	21.7	34.2	25.0	39.3	25.2	41.8	28.2	37.8	26.6	34.4	22.5
28	27.3	22.3	34.5	24.2	36.1	27.9	41.3	26.9	39.4	25.7	34.1	22.6
29	27.7	17.2	34.2	24.5	38.1	27.7	36.4	26.0	36.6	26.1	35.2	22.0
30	27.1	16.8	35.2	24.0	36.2	25.7	43.2	26.6	39.1	23.3	36.0	24.6
31			34.0	22.5			44.6	27.4	38.8	24.2		
Mean	29.8	18.7	32.6	21.6	35.2	24.0	39.0	26.1	37.9	26.4	38.9	25.4
Monthly Mean	24.2		27.1		29.6		32.6		32.2		31.2	
Highest	39.5		37.8		39.5		47.2		41.8		41.0	
Lowest		13.0		17.0		21.1		22.5		23.3		22.0

## A.2 TEMPERATURE

(ii) Daily Maximum and Minimum Temperature for Digdaga A. T. S.

Degrees Centigrade

1967				1968								
Month Day	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	40.0	20.0	34.5	16.5	-	-	-	-	24.0	9.0	-	-
2	42.0	20.0	33.0	25.0	28.0	8.0	-	-	-	-	27.0	10.0
3	40.0	20.0	-	-	26.0	8.0	24.0	5.5	28.0	12.0	28.0	12.0
4	41.0	18.0	33.5	22.0	27.0	11.0	24.0	6.0	20.0	11.0	28.0	12.0
5	41.0	18.5	33.0	22.0	26.0	9.5	-	-	18.5	9.0	31.0	14.5
6	-	-	33.0	22.0	28.0	10.0	25.0	9.0	40.0	7.0	28.5	14.5
7	40.0	20.0	33.0	20.0	30.0	10.0	27.0	8.0	20.0	7.0	31.0	15.0
8	38.5	22.0	34.0	16.0	-	-	30.0	9.0	21.0	7.0	-	-
9	38.0	19.0	35.0	15.0	30.0	14.0	24.0	11.0	-	-	-	-
10	39.0	25.0	-	-	28.0	10.0	26.0	7.0	22.0	9.5	-	-
11	40.0	22.0	35.0	14.0	26.0	12.0	26.0	8.5	21.5	15.5	-	-
12	35.0	20.0	35.0	15.0	27.0	9.0	-	-	22.0	17.5	32.5	7.5
13	-	-	33.0	15.0	26.0	10.0	28.0	7.0	22.0	15.0	32.0	18.0
14	41.0	18.0	33.0	19.0	26.0	8.0	28.0	7.0	22.5	13.0	33.0	14.0
15	37.0	22.0	32.0	17.0	-	-	28.0	8.0	22.5	9.0	-	-
16	36.5	21.5	33.0	16.0	27.0	9.0	25.0	9.5	-	-	35.0	13.0
17	37.0	18.0	-	-	26.0	8.0	27.0	12.0	24.0	11.0	34.8	13.3
18	38.0	18.0	31.5	15.0	28.0	11.0	23.0	14.0	23.0	14.0	35.0	12.0
19	37.0	16.0	32.0	19.0	26.5	10.5	-	-	25.0	10.0	35.0	15.0
20	-	-	30.0	21.0	26.0	12.0	24.0	5.0	25.5	9.5	35.0	14.0
21	36.0	18.0	30.0	19.5	25.0	13.0	24.0	4.0	26.0	9.5	34.0	13.0
22	36.0	17.5	30.5	15.5	25.0	12.0	23.0	8.0	27.0	14.0	-	-
23	35.0	21.0	30.0	14.0	25.0	8.0	25.0	9.0	-	-	35.0	14.0
24	35.0	22.0	-	-	25.0	12.5	27.0	9.0	28.0	13.5	36.0	14.5
25	35.0	14.0	33.0	15.0	21.0	15.0	26.0	9.0	28.0	12.5	30.0	13.0
26	35.0	14.0	35.0	15.0	20.0	9.5	-	-	27.0	9.5	25.0	11.0
27	-	-	30.0	17.0	22.5	6.5	28.0	13.0	27.0	9.5	30.0	10.0
28	35.0	11.0	30.0	18.0	12.0	9.0	23.0	8.0	25.5	10.5	30.0	12.0
29	34.0	14.0	28.0	16.0	23.0	4.0	24.0	8.0	25.0	11.0	-	-
30	34.0	15.0	27.0	16.0	24.0	4.0	25.0	10.5	-	-	-	-
31	-	-	-	-	24.0	5.0	18.0	5.0	-	-	35.0	15.0
Mean	37.5	18.7	32.2	17.5	25.3	9.6	25.3	8.4	24.5	11.0	31.7	12.9
Monthly Mean	28.1		24.9		17.4		16.8		17.8		22.3	
Highest	42.0		35.0		30.0		30.0		40.0		36.0	
Lowest		11.0		14.0		4.0		4.0		7.0		7.5

1968

Month Day	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	35.0	15.0	36.0	15.0	39.0	24.0	43.0	20.0	46.0	26.0	43.0	25.0
2	38.0	10.5	35.0	16.0	40.0	25.0	44.5	24.0	-	-	44.0	25.0
3	39.0	16.0	-	-	43.0	20.0	-	-	45.0	24.5	42.0	20.0
4	27.0	12.0	36.0	17.0	43.0	19.0	45.0	23.0	41.5	27.5	42.0	25.0
5	-	-	35.0	13.0	43.5	19.5	-	-	42.0	28.5	44.0	25.0
6	26.0	12.0	37.0	16.0	44.0	20.0	43.0	25.5	40.0	25.0	-	-
7	28.0	12.0	38.0	17.5	-	-	39.5	28.0	39.0	25.0	45.0	26.0
8	-	-	36.0	17.0	-	-	41.5	27.5	45.0	35.0	45.0	26.0
9	32.0	12.0	38.5	17.5	43.0	20.0	42.0	28.0	-	-	44.0	25.5
10	31.0	17.0	-	-	42.0	20.0	39.0	29.5	43.0	32.0	44.0	24.5
11	35.0	16.0	40.0	17.5	43.0	20.0	43.0	31.5	47.0	24.0	43.0	25.0
12	-	-	39.0	17.5	43.0	20.0	-	-	40.0	25.0	44.0	28.0
13	34.0	15.0	40.0	17.0	42.0	20.0	41.0	21.5	40.5	25.0	-	-
14	-	-	38.0	23.0	-	-	43.0	24.5	45.0	24.0	45.0	27.0
15	36.0	15.0	42.0	26.0	41.0	19.5	42.5	25.5	42.0	22.5	44.0	21.0
16	35.0	14.0	42.0	25.0	41.0	20.0	45.0	25.0	-	-	44.0	21.0
17	35.0	15.0	-	-	41.0	20.5	43.5	22.0	41.0	19.5	44.0	22.0
18	34.0	15.0	43.0	23.0	43.5	19.5	45.0	21.0	42.0	18.0	44.5	22.0
19	-	-	41.5	23.5	43.5	18.5	-	-	42.0	29.0	48.0	24.0
20	35.0	14.0	41.5	23.5	42.5	18.5	46.0	22.0	43.0	28.0	47.5	23.0
21	35.0	15.0	37.0	18.0	-	-	46.5	25.0	41.0	28.0	42.5	24.0
22	33.0	16.0	40.0	18.0	44.5	25.5	46.0	22.0	39.5	24.0	41.5	22.5
23	36.0	15.0	43.0	18.0	44.0	19.5	45.0	22.5	-	-	38.0	26.0
24	39.0	15.0	-	-	41.0	20.0	44.0	21.5	44.0	26.5	40.0	24.5
25	35.0	15.0	43.0	17.0	-	-	45.0	24.5	41.5	24.5	40.0	17.0
26	-	-	43.0	18.0	44.0	17.0	45.0	26.5	46.5	26.5	20.0	14.0
27	38.0	16.0	44.0	17.5	43.5	16.5	45.0	25.0	46.5	25.0	21.0	16.5
28	39.0	16.0	43.5	17.5	-	-	44.0	32.0	43.0	28.5	39.5	18.0
29	39.0	16.0	43.5	17.5	44.5	19.5	43.0	35.0	42.5	28.0	39.5	19.5
30	39.0	16.0	39.0	24.0	44.0	23.0	-	-	-	-	41.5	19.0
31	-	-	-	-	-	-	47.5	26.0	44.0	21.0	-	-
Mean	34.8	14.6	39.8	18.8	42.6	20.3	43.8	25.3	42.8	25.7	41.4	22.8
Monthly Mean	24.7		29.3		31.5		34.5		34.2		32.1	
Highest	39.0		44.0		44.5		47.5		47.0		48.0	
Lowest		10.5		13.0		16.5		20.0		18.0		14.0

A. 2. TEMPERATURE

(iii) Daily Maximum and Minimum Temperature for Falaj al Mu'alla

Degrees Centigrade

1967						1968						
Month Day	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	40.0	22.0	34.0	18.5	25.5	12.5	24.0	9.5	24.5	15.5	25.5	11.0
2	42.0	23.0	33.5	16.5	25.5	11.5	22.5	8.5	26.0	15.0	29.5	12.5
3	41.5	22.5	34.0	17.5	26.5	8.0	23.5	7.0	19.0	11.0	29.0	12.0
4	40.5	19.5	34.0	14.5	26.5	12.0	24.0	7.5	18.0	9.5	30.0	14.0
5	40.5	21.5	34.0	17.0	27.0	11.0	23.0	12.0	17.5	8.5	31.0	16.5
6	40.0	20.5	34.0	17.0	29.0	9.5	24.0	9.5	18.5	7.0	31.5	16.5
7	41.0	21.0	33.5	13.0	30.0	11.0	25.5	9.0	20.0	7.5	31.5	16.5
8	40.0	22.0	34.0	16.0	31.0	14.5	29.0	11.5	21.0	8.5	32.5	15.5
9	40.0	20.0	34.0	15.0	28.5	13.5	23.0	12.0	23.0	15.0	29.5	15.0
10	39.5	24.5	35.0	15.0	27.5	10.0	25.5	8.5	23.0	10.0	26.0	8.0
11	40.0	23.0	35.0	14.5	28.5	12.5	25.5	9.5	21.5	16.5	31.5	15.5
12	39.0	22.5	35.5	16.5	26.0	10.0	27.0	10.0	22.0	17.0	34.5	17.0
13	41.0	20.0	34.0	15.0	26.0	8.5	25.5	8.5	22.0	13.5	30.0	13.0
14	41.0	19.0	33.0	18.0	27.5	8.0	27.5	8.5	20.5	12.5	31.0	13.5
15	41.0	22.0	31.5	16.0	26.5	9.0	27.5	11.0	21.0	8.5	35.0	14.5
16	38.5	21.5	33.0	16.5	25.5	9.5	28.5	12.5	21.0	10.0	36.0	15.0
17	39.5	19.0	32.0	19.5	26.0	9.0	27.0	14.0	22.5	11.5	35.5	13.0
18	38.5	18.0	30.5	15.0	27.0	11.0	21.0	14.0	22.0	12.0	35.5	13.0
19	39.0	17.5	34.0	18.0	25.0	11.5	22.0	11.5	24.0	10.5	34.0	13.5
20	38.0	18.5	31.0	21.5	25.0	10.5	21.0	9.0	26.0	10.5	33.0	13.0
21	37.0	18.0	30.0	18.5	24.5	12.5	24.0	6.0	23.0	14.5	29.0	13.5
22	37.0	17.0	30.0	15.0	24.5	11.0	22.5	19.5	23.0	14.5	27.0	9.5
23	36.5	20.5	29.5	14.0	23.5	8.5	23.0	10.0	22.0	14.0	26.0	13.0
24	36.0	21.5	30.0	16.0	23.0	10.5	25.5	8.0	22.5	16.0	25.0	12.0
25	34.0	16.0	35.0	18.5	20.5	11.0	26.0	13.0	19.0	14.0	25.0	13.5
26	35.5	15.5	34.5	15.0	17.5	8.5	28.0	16.5	21.5	10.0	25.5	9.0
27	35.5	15.5	30.5	16.0	21.5	9.5	24.0	12.0	21.5	12.0	29.0	13.0
28	35.5	12.5	29.5	15.5	21.5	12.5	21.0	8.0	22.0	11.0	29.5	16.5
29	34.5	13.5	27.0	16.0	23.0	6.5	21.5	9.5	23.0	10.5	30.5	19.0
30	34.5	15.5	26.0	13.0	23.0	7.0	24.0	11.0			33.5	15.0
31	34.5	17.5			23.5	8.5	18.0	7.5			35.5	16.5
Mean	38.4	19.4	32.4	16.3	25.4	10.3	24.3	10.2	21.8	11.0	30.6	13.8
Monthly Mean		28.9		24.3		17.8		17.2		16.9		22.2
Highest	42.0		35.5		31.0		29.0		26.0		36.0	
Lowest		12.5		13.0		6.5		6.0		7.0		8.0

1968

Month Day	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	38.0	17.5	33.0	15.5	41.0	21.0	47.5	28.0	47.0	27.0	44.5	23.0
2	40.0	22.5	34.5	18.0	40.0	22.0	45.5	26.5	45.0	24.0	43.0	25.5
3	39.0	22.0	37.0	17.0	40.0	23.5	43.5	25.0	45.0	28.0	44.0	23.5
4	27.0	11.0	34.0	16.5	38.5	22.0	45.0	24.0	43.5	27.5	42.5	26.0
5	28.0	12.0	37.5	16.5	38.0	20.0	46.5	24.5	44.0	27.5	45.0	22.0
6	28.5	12.5	38.0	20.5	41.5	23.0	45.5	27.0	40.5	23.5	45.5	24.5
7	27.0	11.0	38.5	17.5	43.0	21.0	43.0	27.0	44.5	23.0	45.0	25.0
8	28.0	11.0	36.5	18.0	43.0	21.0	46.5	25.5	44.5	23.0	43.0	25.0
9	32.0	16.0	41.0	20.0	42.0	20.5	44.0	27.0	46.0	23.5	42.0	28.0
10	36.5	18.5	39.5	19.0	44.0	22.5	43.0	28.5	45.5	23.0	41.0	26.5
11	36.0	16.0	35.5	17.0	44.0	23.5	42.5	25.5	46.0	26.5	42.0	23.0
12	36.0	19.5	38.0	18.0	43.0	21.5	42.0	22.0	41.5	23.5	41.5	23.0
13	31.0	14.5	40.0	21.0	43.5	21.5	41.5	21.0	39.5	23.0	42.0	24.5
14	30.5	14.5	39.0	21.0	44.0	23.0	42.5	24.5	40.5	26.0	40.5	24.5
15	34.0	14.5	40.5	23.0	43.0	23.0	45.5	26.5	38.0	25.0	39.5	24.5
16	37.0	16.0	38.5	22.5	44.0	20.5	47.5	26.5	42.0	21.5	41.5	24.5
17	38.0	15.0	40.0	22.5	43.5	23.0	47.5	23.0	44.5	25.5	41.0	25.0
18	39.0	14.0	37.0	21.5	44.5	23.5	47.0	22.0	45.5	23.0	41.5	23.5
19	39.5	17.0	35.0	21.0	45.0	22.5	45.5	22.5	43.0	27.5	41.5	23.0
20	39.0	19.0	39.5	20.5	45.0	25.0	46.0	28.0	44.5	27.5	42.5	21.0
21	34.5	17.5	39.5	20.0	41.5	24.5	47.0	25.5	43.0	27.0	42.0	21.0
22	36.5	14.0	42.5	19.5	39.0	24.5	47.0	23.0	41.0	22.0	40.5	20.0
23	37.0	17.5	43.5	19.5	38.0	23.5	46.5	24.0	43.5	22.5	40.8	19.0
24	39.0	22.5	42.5	19.5	41.0	21.5	46.5	23.5	45.5	25.5	40.5	18.5
25	40.0	21.0	41.0	23.0	40.0	23.0	47.5	29.0	44.5	24.0	42.0	22.0
26	33.5	16.5	41.5	23.0	41.0	22.0	46.5	28.5	47.5	25.0	42.5	18.5
27	35.0	21.0	41.0	24.0	44.0	25.0	47.0	26.5	45.0	26.0	41.0	20.5
28	34.0	21.0	41.0	23.0	44.0	27.0	46.5	24.5	44.0	25.5	40.0	18.5
29	30.0	16.0	41.0	23.0	44.5	29.0	45.5	24.0	44.0	24.0	41.0	17.5
30	29.5	14.5	40.0	24.0	44.0	24.0	45.0	24.5	43.0	21.0	42.0	17.0
31			40.0	22.0			48.0	26.5	44.0	22.0		
Mean	34.4	16.5	38.9	20.2	42.2	22.9	45.3	25.4	43.7	24.6	42.0	22.6
Monthly Mean		25.4		29.6		32.6		35.3		34.2		32.3
Highest	40.0		43.5		45.0		48.0		47.5		45.5	
Lowest		11.0		15.5		20.0		21.5		21.0		17.0



## A2. TEMPERATURE

(iv) Daily Maximum and Minimum Temperature for Mileiha

Degrees Centigrade

1967				1968								
Month Day	OCTOBER		NOVEMBER		JANUARY		FEBRUARY		MARCH			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1	40.0	21.0	34.0	18.0	28.0	17.0	22.5	10.5	23.0	16.0	25.5	9.0
2	42.0	23.0	34.0	16.0	24.5	10.0	22.0	9.5	24.5	15.0	29.0	12.0
3	40.5	24.5	34.5	17.0	26.0	8.0	22.5	8.0	19.5	12.0	29.5	10.5
4	41.0	22.0	34.0	14.5	26.5	11.5	23.0	8.5	18.0	9.5	29.5	14.5
5	40.5	22.0	33.0	16.5	27.0	9.0	23.0	12.0	17.5	8.0	31.0	17.0
6	40.5	20.5	33.5	15.5	29.0	8.5	23.5	10.5	18.5	7.0	31.0	16.5
7	41.5	21.0	33.5	12.0	30.0	12.0	25.5	9.5	19.5	8.5	32.0	15.0
8	40.5	20.0	31.5	15.5	30.5	13.5	29.0	14.5	20.5	6.5	32.0	15.5
9	40.0	20.5	31.5	15.5	28.0	13.0	23.0	12.5	23.0	14.5	30.5	16.0
10	40.0	23.0	34.0	16.0	27.0	9.0	24.5	9.5	22.0	15.0	27.0	7.0
11	39.5	22.0	34.0	14.5	27.5	12.0	24.5	10.0	21.5	15.5	33.0	14.5
12	40.0	22.0	34.0	18.0	28.5	10.5	26.5	12.5	19.5	17.0	34.0	19.0
13	40.5	20.0	34.0	17.0	28.0	8.0	25.5	15.0	22.0	14.5	30.0	12.0
14	40.0	20.0	32.5	19.0	29.0	8.0	27.5	10.0	20.5	12.0	31.0	14.0
15	37.0	21.0	32.0	17.0	25.5	9.5	27.0	11.5	21.0	8.0	36.0	14.0
16	39.0	21.0	31.0	16.5	24.5	8.5	27.5	13.0	22.0	8.5	36.5	14.0
17	40.5	17.0	30.5	20.0	28.0	9.0	26.0	15.5	23.0	12.0	36.0	12.5
18	38.5	17.5	30.0	17.0	26.5	10.0	21.5	14.0	22.0	11.0	35.5	15.5
19	39.0	16.0	33.0	17.0	26.0	11.5	22.0	13.0	23.5	10.5	34.5	13.0
20	38.0	18.0	31.5	20.5	25.0	9.5	20.5	8.5	25.0	9.0	34.0	13.5
21	37.0	17.0	30.5	18.0	24.5	13.5	22.5	7.0	27.0	12.0	29.5	14.0
22	37.0	16.5	30.0	16.0	24.0	12.0	22.5	11.0	27.5	14.0	27.5	9.0
23	38.0	20.0	30.0	14.0	23.5	10.5	23.5	9.5	28.0	13.0	27.0	13.5
24	35.0	21.0	30.0	16.0	23.0	10.5	26.0	10.0	27.5	16.0	26.0	12.5
25	33.0	15.5	34.0	19.0	20.0	10.0	25.5	12.0	18.5	13.5	25.5	13.0
26	35.0	13.5	34.0	15.0	17.0	9.0	29.0	15.5	21.0	9.0	26.5	8.0
27	34.0	12.0	30.5	17.5	20.5	9.5	24.0	13.5	22.0	11.5	28.5	11.0
28	34.5	12.0	29.5	16.5	20.5	11.5	21.5	8.5	23.5	9.5	29.0	14.0
29	34.0	11.0	27.0	16.0	21.0	7.0	22.0	8.5	23.5	9.0	29.0	16.5
30	34.0	15.0	26.0	14.0	21.0	7.5	23.5	11.0			33.0	15.0
31	34.5	16.5			21.5	8.5	16.0	9.5			35.5	16.0
Mean	38.1	18.8	31.9	16.5	24.9	10.2	24.0	10.9	22.2	11.6	30.8	13.5
Monthly Mean	28.5		24.2		17.5		17.4		16.9		22.1	
Highest	42.0		34.5		30.5		29.0		28.0		36.5	
Lowest		11.0		12.0		7.0		7.0		6.5		7.0

1968												
Month Day	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	38.5	17.5	32.0	16.0	41.0	20.0	47.0	27.0	47.0	28.0	44.0	23.3
2	40.0	21.0	35.0	17.5	41.0	23.0	45.5	27.5	46.9	26.5	44.0	26.1
3	38.0	21.0	36.0	17.5	40.0	23.5	44.5	24.0	46.5	28.5	44.0	23.3
4	27.5	13.0	35.0	18.5	38.0	22.0	45.5	23.0	43.0	31.0	44.0	25.6
5	28.0	12.5	37.5	17.5	37.0	18.5	47.0	25.5	44.0	27.0	44.5	24.4
6	27.5	12.5	38.0	19.0	41.0	21.0	45.0	27.5	41.0	25.0	45.5	23.3
7	27.5	11.5	38.0	17.0	42.5	21.0	44.5	26.5	44.0	26.0	47.5	26.1
8	29.0	10.5	37.0	17.5	43.5	19.5	41.5	24.5	45.0	22.8	43.5	25.6
9	32.0	16.0	39.5	19.0	44.0	20.5	43.5	27.5	46.0	25.0	42.0	26.7
10	29.5	15.0	39.5	21.0	44.0	22.0	43.5	28.5	46.0	23.9	39.0	25.6
11	35.5	16.0	36.5	16.0	44.0	22.5	43.0	25.0	45.5	26.7	41.5	22.2
12	36.0	20.0	38.5	17.5	44.0	20.5	42.0	26.5	41.5	26.1	42.0	21.7
13	31.5	15.0	40.0	22.0	44.5	19.5	43.0	22.5	40.0	21.1	42.0	25.0
14	31.5	13.0	39.5	21.5	44.5	22.0	43.0	24.0	43.0	25.6	41.5	23.9
15	34.5	13.0	40.5	23.0	43.0	22.5	46.0	24.5	39.0	25.0	40.5	23.9
16	37.0	16.0	39.5	23.5	44.0	21.0	46.5	25.0	40.0	21.7	42.0	25.0
17	37.5	13.5	40.0	22.5	45.0	23.5	46.0	21.0	45.0	25.6	41.5	24.4
18	38.5	14.0	37.5	20.5	44.5	23.5	46.0	22.5	46.0	25.0	42.0	24.4
19	39.0	16.5	35.5	20.5	44.5	23.0	46.0	22.5	44.0	27.8	41.0	23.3
20	39.5	19.0	39.5	18.5	46.0	24.0	45.5	23.0	44.0	27.8	41.0	24.4
21	35.0	17.5	41.0	19.5	41.0	24.0	46.0	23.0	44.0	27.2	41.5	20.0
22	37.0	13.5	43.0	18.5	39.0	23.0	46.5	23.0	41.0	22.2	40.5	18.9
23	37.0	17.5	43.5	19.0	37.5	22.5	46.5	23.0	43.5	22.8	40.0	18.9
24	38.5	21.5	43.0	20.5	41.0	21.5	47.0	24.0	45.5	26.1	40.5	17.8
25	40.5	22.0	42.0	22.0	39.5	22.5	46.5	25.0	45.5	25.0	41.5	20.6
26	34.0	17.5	41.0	23.0	40.5	22.5	46.5	26.0	47.0	25.6	42.0	16.3
27	35.5	16.5	40.0	24.0	46.0	25.0	46.5	27.0	45.0	23.9	42.0	20.6
28	32.0	19.0	40.0	23.5	45.0	26.0	46.5	25.0	43.5	24.4	40.5	20.6
29	29.5	16.5	41.5	24.0	45.0	27.5	46.5	25.0	44.0	25.6	41.0	16.7
30	30.0	14.5	40.0	23.0	47.0	24.0	46.0	24.0	43.0	21.7	42.0	16.1
31			40.5	20.5			47.5	26.5	44.0	23.3		
Mean	34.2	16.1	39.0	20.1	42.6	22.4	45.4	24.8	43.9	25.3	42.1	22.6
Monthly Mean	25.2		29.6		32.5		35.1		34.6		32.3	
Highest	40.5		43.5		47.0		47.5		47.0		45.5	
Lowest		10.5		16.0		18.5		21.0		21.1		16.1

## A2. TEMPERATURE

(v) Daily Maximum and Minimum Temperature for Kalba

Degrees Centigrade

1967						1968						
Month Day	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	33.5	24.5	32.0	25.5	28.0	18.5	22.5	14.0	22.5	17.5	24.0	14.5
2	35.5	23.5	31.0	23.0	28.0	19.0	25.5	15.5	23.0	16.5	25.5	15.5
3	36.0	25.0	31.0	21.5	24.5	15.5	23.0	16.0	20.0	15.0	26.0	16.5
4	42.5	30.0	30.5	22.0	26.0	17.0	23.5	15.0	20.5	13.0	25.0	18.0
5	42.0	24.0	30.0	23.0	26.0	18.0	25.5	17.0	19.5	11.0	25.0	18.5
6	37.0	25.5	30.0	21.5	26.0	16.5	26.0	17.5	21.0	11.5	25.0	18.5
7	33.5	25.5	31.0	20.0	26.5	17.5	24.5	16.0	20.0	11.5	25.5	18.0
8	34.0	24.5	32.0	20.5	29.0	17.5	25.4	18.5	20.5	12.5	29.0	21.0
9	35.0	26.0	31.5	21.0	30.0	17.5	25.5	17.5	21.0	16.5	31.5	21.0
10	34.0	26.5	31.0	21.0	26.5	17.5	24.5	14.5	21.5	16.5	31.5	16.5
11	34.0	26.0	32.0	20.5	26.5	16.5	23.5	13.5	21.0	17.5	25.5	17.0
12	35.0	25.0	30.5	20.0	26.0	16.0	25.0	15.0	23.0	17.5	26.0	18.5
13	36.5	25.5	30.0	18.0	26.0	15.0	24.0	15.5	23.0	17.0	30.0	20.0
14	37.5	24.0	33.5	25.0	23.0	15.5	24.0	15.5	22.5	15.5	27.5	19.0
15	36.5	26.0	34.5	23.5	23.5	15.0	25.0	17.0	22.5	14.0	30.0	18.0
16	35.0	24.0	32.0	22.5	24.5	16.0	25.0	17.0	22.5	15.5	29.0	18.0
17	36.0	23.0	29.5	20.5	24.0	16.0	25.5	17.5	22.5	16.5	30.0	24.5
18	34.0	23.0	28.5	22.5	25.0	17.5	24.5	18.5	24.5	17.0	38.5	27.5
19	34.5	23.5	29.0	21.5	27.5	18.0	24.5	17.5	26.0	15.0	37.0	25.0
20	34.0	22.0	30.0	22.0	27.5	18.5	23.5	14.0	24.0	15.0	37.0	24.0
21	33.0	22.0	29.0	22.5	27.0	18.5	22.0	13.0	24.0	16.5	33.5	18.5
22	33.0	23.0	30.0	23.0	27.0	18.5	25.0	14.0	25.0	17.5	31.5	18.0
23	32.5	23.5	29.0	20.0	26.0	16.0	26.0	15.0	24.5	17.0	31.0	21.0
24	32.5	24.5	32.5	19.5	25.5	17.0	29.5	16.5	24.5	17.0	30.0	18.0
25	31.5	22.0	30.0	21.0	23.0	15.0	24.5	18.5	19.0	16.0	30.0	18.0
26	31.0	21.0	30.0	21.0	20.5	13.0	24.0	18.0	23.5	15.5	30.0	18.0
27	32.0	21.0	33.0	22.5	21.0	13.0	27.0	16.5	23.5	16.5	26.0	16.5
28	30.5	20.0	32.0	23.5	20.5	13.5	24.0	14.5	24.0	16.5	26.0	18.0
29	31.5	17.5	30.0	21.5	20.0	12.0	24.0	16.5	24.0	16.5	26.5	18.5
30	32.0	21.0	28.5	20.5	21.5	12.0	23.5	16.5			27.5	17.5
31	32.5	21.0			22.0	14.0	20.5	14.0			30.0	18.0
Mean	34.5	23.7	30.8	21.6	25.1	16.2	24.5	15.9	22.5	15.5	29.0	19.0
Monthly Mean	29.1		26.2		20.6		20.2		19.0		24.0	
Highest	42.5		34.5		30.0		29.5		26.0		38.5	
Lowest		17.5		18.0		12.0		13.0		11.0		14.5

1968												
Month Day	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	31.5	20.5	30.0	23.5	39.0	28.0	37.5	30.0	39.0	30.0	41.0	30.5
2	36.0	20.0	32.5	24.5	43.0	32.0	35.5	30.0	37.0	29.0	35.0	29.5
3	31.5	22.0	32.0	26.5	43.5	32.0	35.5	30.0	37.5	31.0	34.5	28.0
4	30.5	20.0	31.0	25.5	43.0	30.0	40.0	31.0	40.5	31.0	35.5	30.0
5	31.0	19.0	33.0	25.0	39.5	27.5	37.0	31.0	37.0	31.0	34.5	29.0
6	30.0	19.0	34.0	24.5	34.5	26.0	36.0	31.5	40.0	30.5	34.5	28.5
7	30.0	19.0	35.5	25.5	35.0	27.0	36.0	29.5	39.0	29.5	34.5	29.0
8	32.0	18.0	33.0	25.0	38.0	26.5	36.0	30.5	40.5	30.5	34.5	29.0
9	29.0	20.0	37.0	25.0	38.0	27.5	37.0	31.5	46.5	30.0	35.0	30.0
10	32.0	21.0	35.0	28.0	38.0	26.5	37.5	31.0	48.0	31.5	34.0	28.5
11	31.5	19.0	40.0	25.5	36.0	26.5	42.0	35.0	48.5	31.5	34.5	27.0
12	32.0	24.0	33.0	24.5	36.5	27.5	45.5	30.0	45.5	30.5	34.5	27.0
13	34.0	21.0	35.5	26.0	38.0	28.5	45.5	28.5	44.0	26.5	34.5	29.0
14	30.0	22.0	42.5	32.0	39.0	30.0	43.0	28.0	39.5	28.5	33.5	28.5
15	30.5	19.0	40.0	32.0	37.5	28.5	42.0	31.5	39.0	32.0	34.0	28.5
16	30.0	19.5	43.5	32.0	35.0	28.0	42.5	30.0	40.0	29.0	34.5	27.0
17	30.0	19.5	43.0	32.0	36.0	29.5	43.5	28.5	37.5	29.0	35.0	28.0
18	31.0	20.0	41.0	27.0	35.0	30.0	43.0	29.0	41.5	29.0	34.0	28.0
19	34.0	22.0	37.5	27.0	36.0	29.5	42.5	29.5	36.5	29.0	33.5	26.0
20	34.5	22.0	35.0	28.0	36.0	29.5	42.5	28.5	37.0	30.0	34.0	24.5
21	36.5	25.5	36.0	26.0	35.0	29.0	37.0	28.5	39.0	30.0	34.5	24.0
22	35.0	21.5	36.0	24.5	37.5	26.5	39.5	30.0	38.0	30.0	33.5	23.0
23	33.0	25.0	38.0	28.0	38.0	29.0	38.0	30.0	39.5	28.0	35.0	23.0
24	37.0	22.5	35.0	26.0	36.0	28.0	38.5	30.5	39.5	30.0	35.5	22.5
25	31.5	25.0	35.5	27.0	37.0	27.0	36.5	31.0	37.5	29.0	37.5	24.0
26	37.5	25.0	36.0	28.0	35.5	27.5	35.5	30.5	40.0	29.0	39.0	24.0
27	32.0	21.0	37.0	29.0	35.5	28.0	35.5	29.5	39.5	29.0	37.5	25.5
28	30.0	21.0	44.0	32.0	36.0	28.0	36.5	28.5	35.5	28.0	36.0	24.0
29	32.5	22.0	44.0	32.0	39.5	30.0	39.0	30.5	36.0	28.0	34.5	25.5
30	32.5	22.0	42.0	31.0	42.0	28.0	39.5	30.5	36.5	28.0	36.5	24.0
31			43.0	32.0			39.5	30.0	38.0	30.0		
Mean	32.3	21.2	37.1	27.5	37.6	28.4	39.2	30.1	39.8	29.6	35.2	26.8
Monthly Mean	26.7		32.3		33.0		34.7		34.7		31.0	
Highest	37.5		44.0		43.5		45.5		48.5		41.0	
Lowest		18.0		23.5		28.0		28.0		26.5		22.5

A3. RELATIVE HUMIDITY

(i) Monthly means for Sharjah

OBSERVATION	Reading at GMT Local Time	1967			1968		
		OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
CLOUD (1/8ths)	00 0400	0.2	2.3	2.2	2.6	3.3	1.3
	06 1000	0.6	3.4	2.6	3.1	3.7	2.0
	12 1600	0.9	3.2	2.5	3.1	3.9	2.0
	15 1900	0.5	2.7	2.2	3.1	4.1	1.5
PRESSURE M.S.L. (msb)	00 0400	1011.4	1014.4	1014.7	1016.6	1016.8	1012.3
	06 1000	1014.1	1016.9	1019.3	1019.0	1019.3	1014.9
	12 1600	1011.2	1013.9	1014.1	1015.9	1016.5	1012.1
	15 1900	1011.8	1014.8	1017.2	1016.8	1017.0	1012.5
DRY BULB °C	00 0400	23.2	21.5	15.4	14.1	15.3	17.7
	06 1000	31.5	27.5	20.5	18.7	18.6	24.4
	12 1600	32.4	28.1	22.8	21.4	19.9	25.0
	15 1900	30.1	26.1	20.6	19.1	18.4	22.8
WET BULB °C	00 0400	20.3	18.4	12.5	12.3	13.5	14.9
	06 1000	24.0	20.8	15.6	15.1	15.3	18.0
	12 1600	25.8	21.6	16.7	16.6	16.0	19.1
	15 1900	25.3	21.2	16.1	15.9	15.4	18.5
VAPOUR PRESSURE (msb)	00 0400	21.9	18.9	12.3	13.0	14.1	14.8
	06 1000	24.3	19.4	13.9	14.4	14.9	15.5
	12 1600	28.4	20.8	14.2	15.2	15.2	17.6
	15 1900	28.7	21.4	14.8	15.5	15.3	17.9
RELATIVE HUMIDITY %	00 0400	76	73	70	81	80	73
	06 1000	54	53	58	67	69	53
	12 1600	58	55	51	59	65	58
	15 1900	67	63	61	70	71	65

OBSERVATION	Reading at GMT Local Time	1968					
		APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
CLOUD (1/8ths)	00 0400	2.6	2.2	0.8	1.6	0.6	1.6
	06 1000	3.7	1.1	0.6	1.0	0.4	0.7
	12 1600	3.5	1.5	0.5	1.3	0.7	0.7
	15 1900	3.2	2.4	0.6	1.3	0.5	0.4
PRESSURE M.S.L. (msb)	00 0400	1010.2	1006.8	1000.3	997.0	999.4	1004.6
	06 1000	1012.8	1008.8	1001.9	998.4	1001.1	1006.9
	12 1600	1010.2	1006.8	1000.0	998.6	999.2	1004.2
	15 1900	1010.4	1006.9	999.9	996.6	999.3	1004.4
DRY BULB °C	00 0400	20.4	23.1	25.2	28.1	27.9	26.9
	06 1000	27.5	30.9	32.8	36.7	35.7	34.0
	12 1600	27.7	30.7	33.2	35.6	35.5	34.1
	15 1900	25.6	28.5	31.3	33.9	33.4	32.2
WET BULB °C	00 0400	16.9	20.6	22.8	24.5	24.4	24.7
	06 1000	20.0	23.1	25.3	25.9	25.3	25.9
	12 1600	20.8	24.8	27.2	28.3	28.2	28.5
	15 1900	20.3	24.5	26.2	28.1	28.0	27.8
VAPOUR PRESSURE (msb)	00 0400	16.7	22.3	25.9	28.2	28.1	29.4
	06 1000	17.5	22.1	26.5	24.0	24.1	27.3
	12 1600	19.3	20.7	31.5	32.8	32.5	34.4
	15 1900	19.7	27.6	31.5	33.5	33.5	34.0
RELATIVE HUMIDITY %	00 0400	71	70	81	74	74	83
	06 1000	50	50	54	43	42	52
	12 1600	53	61	62	57	56	65
	15 1900	61	71	60	64	65	71

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A3. RELATIVE HUMIDITY

(ii) Monthly means for Digdaga, Falaj al Mu'alla, Mileiha and Kalba: -

Month	Digdaga <sup>1</sup>	Falaj al Mu'alla	Mileiha	Kalba
October 1967	81	73	72	75
November	81	77	70	74
December	82	86	72	87
January 1968	75	88	82	88
February	86	82	83	88
March	91	87	76	81
April	91	87	90	85
May	93	71	47	82
June	95	87	42	75
July	75	64	50	63
August	85	69	52	69
September	85	68	57	85

1. Readings taken five days per week, on average.  
Afternoon readings taken between 1345 and 1550 hrs. local time.

Unless otherwise stated, the monthly means are based on daily readings at 0800 and 1400 hrs. local time.

A4. EVAPORATION

Mean daily evaporation losses from Standard U.S. Weather Bureau Class A pans are given below: -

Month	Pan Evaporation Losses in millimetres per day				
	Sharjah	Digdaga	Falaj al Mu'alla	Mileiha	Kalba
October 1967	9.5	8.8	8.0	11.0	7.3
November 1967	7.9	6.2	6.1	6.9	6.6
December 1967	6.2	4.6	4.7	4.5	6.1
January 1968	5.8	4.6	4.9	4.4	5.4
February 1968	5.8	3.9	5.6	4.7	4.4
March 1968	8.9	7.4	8.4	8.7	8.9
April 1968	10.1	6.9	10.6	11.7	9.9
May 1968	11.6	10.2	13.3	16.8	15.4
June 1968	11.8	11.8	14.4	20.8	13.0
July 1968	12.5	13.4	16.4	18.3	11.4
August 1968	12.3	12.1	14.4	17.8	10.8
September 1968	10.6	9.6	11.6	12.4	7.5

The position of the five evaporation pans is shown in Drawing No.1

A.5 RADIATION

The monthly Gunn-Bellani Radiation Integrator readings at Sharjah are given below in cubic centimetres per day:-

Month	Min.	Mean	Max.
October 1967	10.7	15.0	19.6
November	5.1	10.6	13.9
December	2.9	8.5	10.8
January 1968	2.8	9.2	13.2
February	1.5	10.9	16.8
March	8.3	17.4	20.4
April	3.4	18.5	25.9
May	20.0	22.1	25.8
June	15.0	22.0	27.2
July	14.2	21.6	25.2
August	16.6	20.1	28.6
September	15.8	18.3	21.2

A6. MONTHLY SUMMARY OF METEOROLOGICAL OBSERVATIONS

Summaries of meteorological observations from the Water Resources Survey stations are presented month by month on the following pages. Although many of these readings have been given in the preceding sections they are repeated here for easy cross reference. The observations are known to be of reasonable accuracy and, with the exception of the R.A.F. Station at Sharjah, are the only source of reliable meteorological information in the Trucial States. However, note that at Digdaga WRS Station observations have only been made six days out of every seven.

Month	Min.	Mean	Max.
October 1967	10.7	15.0	19.6
November	5.1	10.6	13.9
December	2.9	8.5	10.8
January 1968	2.8	9.2	13.2
February	1.5	10.9	16.8
March	8.3	17.4	20.4
April	3.4	18.5	25.9
May	20.0	22.1	25.8
June	15.0	22.0	27.2
July	14.2	21.6	25.2
August	16.6	20.1	28.6
September	15.8	18.3	21.2

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR OCTOBER 1967

STATION	SHARJAH	DIGDAGA	FALAJ AL MU'ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	96.06	38.82	50.81	63.55	40.10
mean	130.08	53.33	68.36	95.03	67.09
max.	187.75	81.11	110.63	182.29	148.61
Air Temperature °C					
abs. min.	15.1	11.0	12.5	11.0	17.5
mean min.	21.5	18.6	19.4	18.8	23.7
mean	28.0	28.1	28.9	28.5	29.1
mean max.	34.5	37.5	38.4	38.2	34.5
abs. max.	39.3	42.0	42.0	42.0	42.5
Pan Water Temperature °C					
abs. min.	14.4	15.0	14.0	13.0	16.5
mean min.	20.3	20.6	20.3	19.7	22.2
mean	27.4	28.0	27.6	27.1	29.3
mean max.	34.4	35.6	35.0	34.5	36.5
abs. max.	37.2	39.0	38.3	37.5	39.0
Relative Humidity %					
max.	98	96	100	92	100
mean	62	81	73	72	75
min.	32	64	42	42	44
Pan Evaporation mm. daily mean	9.5	8.6	8.9	11.6	7.3
Gunn-Bellani Radiation Integrator cc/day					
min.	10.7	-	-	-	-
mean	15.0	-	-	-	-
max.	19.6	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR NOVEMBER 1967

STATION	SHARJAH	DIGDAGA	FALAJ AL MU'ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	64.33	30.92	39.20	38.29	31.19
mean	141.96	50.28	66.45	91.37	95.80
max.	404.01	105.52	153.71	200.67	416.13
Air Temperature °C					
abs. min.	15.7	14.0	13.0	12.0	18.0
mean min.	19.5	17.5	16.3	16.5	21.6
mean	24.9	24.9	24.3	24.2	26.2
mean max.	30.3	32.2	32.4	31.9	30.8
abs. max.	33.4	35.5	35.5	34.5	34.5
Pan Water Temperature °C					
abs. min.	15.9	15.0	12.5	14.0	15.5
mean min.	18.1	17.4	17.2	17.1	19.9
mean	24.1	24.3	23.9	23.5	26.0
mean max.	30.2	31.2	30.6	29.9	32.1
abs. max.	34.3	36.0	35.6	33.0	34.5
Relative Humidity %					
max.	88	100	90	95	92
mean	52	81	77	70	74
min.	36	53	62	50	47
Pan Evaporation mm. daily mean	7.9	6.2	6.1	6.9	6.6
Gunn-Bellani Radiation Integrator cc/day					
min	5.1	-	-	-	-
mean	10.6	-	-	-	-
max.	13.9	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR DECEMBER 1967

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	55.59	20.07	33.52	29.29	37.16
mean	143.55	46.40	62.72	87.32	109.31
max.	429.21	120.99	181.40	215.73	386.27
Air Temperature °C					
abs. min.	8.6	4.0	6.5	7.0	12.0
mean min.	13.6	9.6	10.3	10.2	16.2
mean	19.1	17.4	17.8	17.5	20.6
mean max.	24.5	25.3	25.4	24.9	25.1
abs. max.	29.5	30.0	31.0	30.5	30.0
Pan Water Temperature °C					
abs. min.	9.6	8.0	8.5	8.5	11.0
mean min.	12.5	11.3	11.8	11.5	14.5
mean	18.6	17.8	18.3	17.6	20.0
mean max.	24.7	24.3	24.9	23.8	25.6
abs. max.	27.2	30.0	32.2	27.0	29.5
Relative Humidity %					
max.	87	100	100	95	100
mean	60	82	86	72	87
min.	35	47	56	53	73
Pan Evaporation mm.					
daily mean	6.2	4.6	4.7	4.5	6.1
Gunn-Bellani Radiation Integrator cc/day					
min.	2.9	-	-	-	-
mean	8.5	-	-	-	-
max.	10.8	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR JANUARY 1968

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	61.90	29.19	28.65	30.29	28.00
mean	150.18	47.12	65.47	85.62	118.51
max.	371.61	96.83	148.28	204.34	312.34
Air Temperature °C					
abs. min.	8.1	4.0	6.0	7.0	13.0
mean min.	12.2	8.4	10.2	10.9	15.9
mean	17.5	16.8	17.3	17.4	20.2
mean max.	22.8	25.3	24.3	24.0	24.5
abs. max.	28.8	30.0	29.0	29.0	29.5
Pan Water Temperature °C					
abs. min.	8.6	8.0	8.0	8.5	11.0
mean min.	11.7	11.4	11.7	12.1	14.3
mean	17.9	18.3	18.2	18.0	20.2
mean max.	24.1	25.1	24.7	24.0	26.1
abs. max.	26.4	29.0	27.2	27.0	37.2
Relative Humidity %					
max.	95	100	100	100	100
mean	69	75	88	82	88
min.	35	40	60	55	61
Pan Evaporation mm.					
daily mean	5.8	4.6	4.9	4.4	5.4
Gunn-Bellani Radiation Integrator cc/day					
min.	2.8	-	-	-	-
mean	9.2	-	-	-	-
max.	13.2	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR FEBRUARY 1968

STATION	SHARJAH	DIGDAGA	FALAJ AL MU'ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	46.69	20.76	35.33	25.78	40.17
mean	138.68	54.28	79.25	96.25	118.11
max.	354.62	90.20	175.90	279.56	267.97
Air Temperature °C					
abs. min.	8.5	7.0	7.0	6.5	11.0
mean min.	13.6	11.0	11.9	11.6	15.5
mean	17.4	17.8	16.9	16.9	19.0
mean max.	21.2	24.5	21.8	22.2	22.5
abs. max.	27.5	40.0	26.0	28.0	26.0
Pan Water Temperature °C					
abs. min.	9.0	9.0	8.0	8.0	9.0
mean min.	12.6	12.4	12.8	12.4	13.9
mean	18.3	18.7	18.8	18.3	19.6
mean max.	23.9	25.0	24.7	24.2	25.3
abs. max.	29.0	30.0	29.4	29.0	30.6
Relative Humidity %					
max.	99	100	100	95	100
mean	72	86	82	83	88
min.	36	44	45	53	59
Pan Evaporation mm. daily mean	5.8	3.9	5.6	4.7*	4.4
Gunn-Bellani Radiation Integrator cc/day					
min.	1.5	-	-	-	-
mean	10.9	-	-	-	-
max.	16.8	-	-	-	-

\* Rain gauge flooded out.

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR MARCH 1968

STATION	SHARJAH	DIGDAGA	FALAJ AL MU'ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	59.77	32.11	44.80	38.21	30.90
mean	150.36	60.90	85.99	98.81	125.45
max.	327.45	119.94	173.91	186.22	367.01
Air Temperature °C					
abs. min.	12.0	7.5	8.0	7.0	14.5
mean min.	15.9	12.9	13.8	13.5	19.0
mean	21.4	22.3	22.2	22.1	24.0
mean max.	27.0	31.7	30.6	30.8	29.0
abs. max.	33.6	36.0	36.0	36.5	38.5
Pan Water Temperature °C					
abs. min.	12.3	11.0	11.0	10.0	12.5
mean min.	15.1	14.8	14.7	14.6	17.0
mean	22.3	23.2	22.7	22.5	24.3
mean max.	29.4	31.5	30.6	30.3	31.6
abs. max.	31.6	34.0	33.9	34.5	35.6
Relative Humidity %					
max.	99	100	100	100	100
mean	62	91	67	76	81
min.	20	54	40	43	42
Pan Evaporation mm. daily mean	8.9	7.4	8.4	8.7	8.9
Gunn-Bellani Radiation Integrator cc/day					
min.	8.3	-	-	-	-
mean	17.4	-	-	-	-
max.	20.4	-	-	-	-



## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR APRIL 1968

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	93.04	16.66	54.67	62.62	36.95
mean	163.93	64.86	93.16	115.29	75.09
max.	292.22	123.23	179.91	222.35	279.41
Air Temperature °C					
abs. min.	13.0	10.5	11.0	10.5	18.0
mean min.	18.7	14.6	16.5	16.1	21.2
mean	24.4	24.7	25.4	25.2	26.7
mean max.	30.1	34.8	34.4	34.2	32.3
abs. max.	39.5	39.0	40.0	40.5	37.5
Pan Water Temperature °C					
abs. min.	12.3	8.0	12.5	13.0	14.5
mean min.	17.2	16.1	16.9	17.0	19.6
mean	24.5	25.5	24.6	24.2	26.6
mean max.	31.9	34.9	32.2	31.5	33.6
abs. max.	35.6	38.0	36.1	35.5	37.2
Relative Humidity %					
max.	97	100	95	100	100
mean.	58	91	67	90	85
min.	14	49	32	41	61
Pan Evaporation mm. daily mean	10.1	6.9	10.6	11.7	9.9
Gunn-Bellani Radiation Integrator cc/day					
min.	3.4	-	-	-	-
mean	18.5	-	-	-	-
max.	25.9	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR MAY 1968

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	113.15	19.94	64.97	76.31	39.69
mean	197.84	79.31	99.31	125.25	157.06
max.	348.21	193.76	203.21	242.85	349.36
Air Temperature °C					
abs. min.	17.0	13.0	15.5	16.0	23.5
mean min.	21.6	18.8	20.2	20.1	27.5
mean	27.0	29.3	29.6	29.6	32.3
mean max.	32.4	39.8	38.9	39.0	37.1
abs. max.	37.8	44.0	43.5	43.5	44.0
Pan Water Temperature °C					
abs. min.	17.0	8.0	17.0	17.0	17.8
mean min.	20.8	17.9	20.3	19.9	22.5
mean	28.0	27.6	28.2	27.2	29.9
mean max.	35.2	37.3	36.1	35.4	37.4
abs. max.	37.1	45.0	38.3	38.0	40.6
Relative Humidity %					
max.	96	100	88	100	93
mean	60	93	71	47	82
min.	36	65	45	13	42
Pan Evaporation mm. daily mean	11.6	10.2	13.3	16.8	15.4
Gunn-Bellani Radiation Integrator cc/day					
min.	20.0	-	-	-	-
mean	22.1	-	-	-	-
max.	25.8	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR JUNE 1968

STATION	SHARJAH	DIGDAGA	FALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	129.58	50.05	62.52	67.93	26.75
mean	196.55	88.87	102.68	123.18	104.93
max.	298.68	228.66	175.10	216.58	26.75
Air Temperature °C					
abs. min.	21.1	16.5	20.0	18.5	26.0
mean min.	24.0	20.3	22.8	22.4	28.4
mean	29.5	31.5	32.6	32.5	33.0
mean max.	35.1	42.6	42.3	42.6	37.6
abs. max.	39.5	44.5	45.0	47.0	43.5
Pan Water Temperature °C					
abs. min.	21.2	15.0	20.5	16.0	19.4
mean min.	23.1	18.2	22.8	19.8	24.8
mean	30.1	29.5	28.2	28.6	32.3
mean max.	37.2	40.7	38.2	37.3	39.8
abs. max.	38.6	43.0	41.1	40.5	42.2
Relative Humidity %					
max.	96	100	84	76	93
mean	63	95	67	42	75
min.	34	62	38	16	42
Pan Evaporation mm.					
daily mean	11.8	11.8	14.4	20.8	13.0
Gunn-Bellani Radiation Integrator					
cc/day					
min.	15.0	-	-	-	-
mean	22.0	-	-	-	-
max.	27.2	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR JULY 1968

STATION	SHARJAH	DIGDAGA	FALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	116.47	5.79	59.16	81.34	33.55
mean	164.89	65.37	83.95	112.95	80.38
max.	312.55	152.53	137.63	253.33	251.49
Air Temperature °C					
abs. min.	22.5	20.0	21.5	21.0	28.0
mean min.	26.1	25.3	25.4	24.8	30.1
mean	32.4	34.5	35.3	35.1	34.7
mean max.	38.7	43.8	45.3	45.4	39.2
abs. max.	47.2	47.5	48.0	47.5	45.5
Water Temperature °C					
abs. min.	20.7	20.0	20.0	16.0	22.2
mean min.	24.5	24.1	24.2	21.0	27.7
mean	31.4	32.6	31.8	29.5	34.1
mean max.	38.4	41.1	39.5	38.1	41.0
abs. max.	39.8	43.5	43.3	41.0	42.8
Relative Humidity					
max.	87	95	88	78	88
mean	57	75	64	50	63
min.	31	50	35	19	18
Pan Evaporation mm.					
daily mean	12.5	13.4	16.4	18.3	11.4
Gunn-Bellani Radiation Integrator					
cc/day					
min.	14.2	-	-	-	-
mean	21.6	-	-	-	-
max.	25.2	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR AUGUST 1968

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	96.01	19.79	59.64	76.83	39.56
mean	154.32	56.58	82.74	113.14	89.03
max.	286.22	141.17	122.33	187.47	261.15
Air Temperature °C					
abs. min.	23.3	18.0	21.0	21.1	26.5
mean min.	26.4	25.7	24.6	25.3	29.9
mean	32.3	34.2	34.2	34.6	34.8
mean max.	38.1	42.8	43.7	43.9	39.8
abs. max.	44.6	47.0	47.5	47.0	48.5
Pan Water Temperature °C					
abs. min.	22.3	20.5	21.0	20.5	21.1
mean min.	24.3	24.3	24.2	23.0	28.2
mean	31.0	32.9	31.2	30.4	34.4
mean max.	37.8	41.4	38.2	37.7	40.6
abs. max.	39.6	45.0	41.1	41.5	42.8
Relative Humidity					
max.	84	96	88	85	97
mean	55	85	69	52	69
min.	22	71	54	21	24
Pan Evaporation mm. daily mean	12.3	12.1	14.4	17.8	10.8
Gunn-Bellani Radiation Integrator cc/day					
min.	16.6	-	-	-	-
mean	20.1	-	-	-	-
max.	28.6	-	-	-	-

## SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR SEPTEMBER 1968

STATION	SHARJAH	DIGDAGA	PALAJ AL MU' ALLA	MILEIHA	KALBA
Wind Movement kms/day					
min.	80.74	3.36	47.52	38.62	32.86
mean	120.51	22.20	66.58	91.49	53.95
max.	166.39	77.38	83.64	160.61	82.24
Air Temperature °C					
abs. min.	22.0	14.0	17.0	16.1	22.5
mean min.	25.4	22.8	22.6	22.6	26.8
mean	29.9	32.1	32.3	32.3	31.0
mean max.	35.2	41.4	42.0	42.1	35.2
abs. max.	41.0	48.0	45.5	45.5	41.0
Pan Water Temperature °C					
abs. min.	22.0	15.0	19.5	19.0	22.2
mean min.	24.6	21.9	23.3	23.3	26.6
mean	31.0	31.7	31.0	30.4	33.2
mean max.	37.5	41.5	38.7	37.5	39.7
abs. max.	39.6	49.0	41.1	40.0	41.1
Relative Humidity %					
max.	98	97	92	93	94
mean	67	85	68	57	85
min.	46	62	38	17	62
Pan Evaporation mm. daily mean	10.6	9.6	11.6	12.4	7.5
Gunn-Bellani Radiation Integrator cc/day					
min.	15.8	-	-	-	-
mean	18.3	-	-	-	-
max.	21.2	-	-	-	-

TRUCIAL STATES WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

SECTION B - RAINFALL

B1. RAINFALL SUMMARY

Hydrological Year - 1967/68

Ref. No.	Station	Date Installed	Co-ordinates		Total Rainfall Millimetres <sup>1</sup>
			E	N	
11	Masafi	Oct 1965	04163	27982	106.6
12	Masfut	Oct 1965	04091	27445	109.1
31	Dibba	Oct 1965	04269	28333	88.9
33	Fujairah	Oct 1965	04333	27798	121.7
35	Kalba A.T.S.	July 1967	04336	27730	110.0
41	Manama	Oct 1965	04021	28015	107.7
42	Falaj al Mu'alla (ATS)	existing <sup>2</sup>	03842	28065	79.9
43	Falaj al Mu'alla (CI)	Oct 1965	03841	28038	87.7
44	Jabal Palyah	Oct 1965	03792	27707	130.1
45	Mileiha	July 1967	03863	27784	120.0
51	Buraimi	Nov 1965	03733	26783	77.3
61	Digdaga	existing <sup>2</sup>	03950	28394	66.6
71	Dubai Trade School	existing <sup>2</sup>	03312	27939	97.4
72	Awir	Oct 1965	03533	27849	85.6
73	Sharjah	existing <sup>2</sup>	03382	28038	81.8
74	Dubai Int. Airport	Jan 1967	03338	27942	104.1
81	Abu Dhabi	Nov 1965	02320	27098	116.4

- Total rainfall is for the period 1st October 1967 to 30th September 1968.
- Existing raingauges at Dubai, Sharjah, Digdaga and Falaj al Mu'alla (ATS) were installed before 1st October 1965.

## Daily Rainfall for the Month of October 1967

S T A T I O N	Daily Rainfall for the Month of October 1967							
	11 Masarf	12 Masfou	31 Dibba	33 Fujairah	35 Kalba	41 Manama	42 Fj al Mur'alla ATS	43 Fj al Mur'alla (Cl.)
Day								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10						5.1		
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23				0.3	0.8			
24								
25								
26								
27								
28								
29								
30								
31								
MT	0	0	0	0.3	0.8	5.1	0	0
RD	0	0	0	1	1	1	0	0
CR	0	0	0	0.3	0.8	5.1	0	0

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 Fj = Fala  
 Tr = Trace (less than 0.1 mm)

## Daily Rainfall for the Month of October 1967

S T A T I O N	Daily Rainfall for the Month of October 1967								
	Jabal Fajrah 44	45 Miledia	51 Baraimi	61 Diddaga	Dubai Trade School 71	72 Azir	73 Sharjah	Dubai Int. Airport 74	81 Abu Dhabi
Day									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19								Tr	
20								Tr	
21								Tr	
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0	0
CR	0	0	0	0	0	0	0	0	0

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 Fj = Fala  
 Tr = Trace (less than 0.1 mm.)

Daily Rainfall for the Month of November 1967

S T A T I O N	11 Masafi	12 Masfut	31 Dibba	33 Fujairah	35 Kalba	41 Manama	42 FJ al Mur'alla ATS	43 FJ al Mur'alla (CL)
1	2.8							
2					Tr			
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17							Tr	Tr
18	Tr				Tr			
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MT	2.8	0	0	0	0	0	0	0
RD	1	0	0	0	0	0	0	0
CR	2.8	0	0	0.3	0.8	5.1	0	0

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of November 1967

S T A T I O N	44 Jaisal Falyah	45 Mlieha	51 Buraimi	61 Dighaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18							Tr	Tr	
19					Tr		Tr	Tr	
20				0.8			Tr		
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	0	0	0.8	0	0	0	0	0
RD	0	0	0	1	0	0	0	0	0
CR	0	0	0	0.8	0	0	0	0	0

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of December 1967

S T A T I O N	Daily Rainfall for the Month of December 1967							
	Day	11 Musafri	12 Musfat	31 Dibba	33 Fujaifrah	35 Kaiba	41 Mamma	42 FJ al M <sup>o</sup> alla ATS
1								
2								
3								
4								
5								
6								
7								
8								
9	Tr	TR				0.5		Tr
10	0.6							
11	Tr							
12			1.8	3.6	7.4		Tr	Tr
13								
14		0.3						
15								
16								
17								
18								
19								
20								
21								
22								
23								
24	12.7							
25		1.3				1.0	4.3	5.8
26	5.6							
27							1.8	2.3
28				1.5	11.4			
29								
30								
31								
MT	18.9	1.6	1.8	5.1	18.8	1.5	6.1	8.1
RD	3	2	1	2	2	2	2	2
CR	21.7	1.6	1.8	5.4	19.6	6.6	6.1	8.1

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of December 1967

S T A T I O N	Daily Rainfall for the Month of December 1967									
	Day	44 Jussal Falyah	45 Miletba	51 Buraimi	61 Digdiga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
1										
2										
3						0.8				
4										
5										
6										
7										
8			Tr *		Tr			Tr		
9										0.1
10										
11								Tr		
12										
13										
14										
15										
16										
17										
18										
19										0.1
20										
21										
22										
23										
24			Tr			0.3		Tr		
25		5.8	5.1				3.8	Tr	Tr	
26			1.0							
27		25.4					1.3	Tr	Tr	
28			39.4			1.0		3.6	11.4	41.4
29										
30										
31										
MT	31.2	45.5	0	0	2.1	5.1	5.1	3.6	11.4	41.6
RD	2	3	0	0	3	2	1	1	1	3
CR	31.2	45.5	0	0.8	2.1	5.1	3.6	11.4	41.6	

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of January 1968

S T A T I O N	Daily Rainfall for the Month of January 1968							
	11 Masafi	12 Masfut	31 Dibba	33 Fujairah	35 Kaiba	41 Minmana	42 FJ al Mur'alla (MS)	43 FJ al Mur'alla (CL)
Day								
1								
2								
3		12.7						
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29						2.5		
30	0.9	5.1						2.0
31					0.8			
MT	0.9	17.8	0	0	0.8	2.5	0	2.0
RD	1	2	0	0	1	1	0	1
CR	22.6	19.4	1.8	5.4	20.4	9.1	6.1	10.1

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Falaj  
 Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of January 1968

S T A T I O N	Daily Rainfall for the Month of January 1968								
	44 Jabal Falayah	45 Mileiha	51 Buraimi	61 Diggaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
Day									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	4.3	5.0	0	3.3	1.3	1.6	2.8	2.0
RD	0	1	2	0	1	1	1	1	2
CR	31.2	49.8	5.0	0.8	5.4	6.4	5.2	14.2	43.6

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Falaj  
 Tr = Trace (less than 0.1 mm).



## Daily Rainfall for the Month of February 1968

STATION Day	11 Masafi	12 Masfir	31 Dibba	33 Fujaifah	35 Kalba	41 Manama	42 FJ al Mur'alla (MS.)	43 FJ al Mur'alla (CL).
1		16.5	1.8	12.7				Tr
2	27.9		42.4	42.4	33.8	44.5	(41.4)	43.4
3							( )	
4								
5								
6								
7								
8			Tr					
9	1.5	6.4	11.4		6.6	8.9	(12.2)	
10	9.9	13.7	7.6			7.6	( )	9.1
11	( )	4.6	5.8	7.9	0.5	5.1		
12	(10.7)	4.8	4.6	38.1	20.3		2.5	3.0
13	( )				Tr		2.0	3.3
14								
15								
16								
17								
18								
19								
20								
21								
22		Tr			Tr			
23			7.4	7.6	Tr			
24	8.6	15.7			12.7	17.0	3.0	17.8
25					2.5		12.7	1.0
26								
27								
28								
29								
30								
31								
MT	58.6	48.0	87.1	116.3	76.4	83.1	73.8	77.6
RD	7	5	7	6	6	5	8	6
CR	81.2	67.4	88.9	121.7	96.8	92.2	79.9	87.7

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of February 1968

STATION Day	44 Jabal Faiyah	45 Mleiha	51 Buraimi	61 Diddaga	71 Dhsal Trade School	72 Awir	73 Sharfiah	74 Dhsal Int. Airport	81 Abu Dhabi
1	( )		25.4			19.1	Tr		Tr
2	(42.7)	27.2**	12.7	35.1	52.1	39.6	23.5	60.2	28.4
3	( )						16.7		14.5
4							Tr		
5									
6									
7									
8								Tr	
9					9.9		Tr	Tr	1.9
10	( )	9.1		4.6	0.4	(15.2)	10.7	8.4	2.8
11	(10.4)			1.5		( )	0.2	0.3	Tr
12	( )	3.0		1.8	8.9		6.7	8.6	1.0
13		1.5	12.7	5.1			4.5		4.8
14									
15									
16									
17									
18									
19									
20									
21									
22							Tr		
23	( )				0.5			Tr	
24	(25.0)	9.2	19.2	10.1	15.5	5.3	12.4	12.4	7.2
25	( )	2.5					1.6		8.8
26									
27									
28								Tr	
29									
30									
31									
MT	78.1*	53.2**	69.8	58.2	87.3	79.2	76.3	89.9	69.4
RD	9	6	4	6	6	6	8	5	8
CR	109.3	103.0	74.8	59.0	92.7	85.6	81.5	104.1	113.0

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres

from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

\* Water removed from gauge.  
Estimated rainfall.\*\* Site flooded out 27.2 mm measured  
approx. ¼ hr. before flood came.

## Daily Rainfall for the Month of March 1968

S T A T I O N									
	Day	11 Masafi	12 Masfat	31 Dibba	33 Fujaairah	35 Kalba	41 Mannama	42 FJ al Mu'alla ATS	43 FJ al Mu'alla (CL)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0	0
CR	81.2	67.4	88.9	121.7	96.8	92.2	79.9	87.7	

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Fala

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of March 1968

S T A T I O N										
	Day	44 Jabal Faiyah	45 Mileha	51 Buraimi	61 Digdaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
1										
2										
3										
4										
5										
6										
7										
8								Tr		
9										
10										
11										
12										
13										
14										Tr
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
MT	0	0	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0	0	0
CR	109.3	103.0	74.8	59.0	92.7	85.6	81.5	104.1	113.0	

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres

FJ = Fala

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of April 1968

S T A T I O N Day	Daily Rainfall for the Month of April 1968							
	11 Masafi	12 Masfout	31 Dibba	33 Pujairah	35 Kalba	41 Manama	42 FJ al Muraiha ATS	43 FJ al Muraiha (CE)
1								
2								
3								Tr
4								
5								
6								
7								
8								
9								Tr
10		Tr						
11								Tr
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								Tr
25								Tr
26					2.5			Tr
27		25.4		6.3				
28				6.9				
29								
30								
31								
MT	0	25.4	0	0	13.2	2.5	0	0
RD	0	1	0	0	2	1	0	0
CR	81.2	92.8	88.9	121.7	110.0	94.7	79.9	87.7

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967

FJ = Fala

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of April 1968

S T A T I O N Day	Daily Rainfall for the Month of April 1968								
	44 Jabal Falyah	45 Mithla	51 Buraifi	61 Digaqa	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
1									
2									
3		Tr					Tr	Tr	
4									
5									
6									
7									
8									
9					0.5		0.3	Tr	0.1
10		0.5					Tr		
11							Tr		
12									
13									
14									
15									
16									
17									
18									
19									
20							Tr	Tr	
21									
22									
23						Tr			
24									
25							Tr		
26				7.6			Tr	Tr	
27		3.6			3.8		Tr	Tr	
28		9.6	2.5						3.3
29									
30									
31									
MT	0	13.7	2.5	7.6	4.7	0	0.3	0	3.4
RD	0	3	1	1	2	0	1	0	2
CR	109.3	116.7	77.3	66.6	97.4	85.6	81.8	104.1	116.4

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Fala

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of May 1968

S T A T I O N	Daily Rainfall for the Month of May 1968							
	11 Masrufi	12 Masrufi	31 Dibba	33 Fujairah	35 Kalba	41 Manama	42 Fj al Mur'alla ATS	43 Fj al Mur'alla (Ch)
Day								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MT	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0
CR	81.2	92.8	88.9	121.7	110.0	94.7	79.9	87.7

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

Fj = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of May 1968

S T A T I O N	Daily Rainfall for the Month of May 1968									
	44 Jebel Falayah	45 Mleiha	51 Barrami	52 Digoaga	71 Dubai Trade School	72 Awif	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi	
Day										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
MT	0	0	0	0	0	0	0	0	0	
RD	0	0	0	0	0	0	0	0	0	
CR	109.3	116.7	77.3	66.6	97.4	85.6	81.8	104.1	116.4	

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

Fj = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of June 1968

STATION Day	11 Masafi	12 Masfut	31 Dibba	33 Fuja'irah	35 Kalba	41 Marama	42 FJ al Mu'alla /JIS	43 FJ al Mu'alla (C1)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MT	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0
CR	81.2	92.8	88.9	121.7	110.0	94.7	79.9	87.7

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Fala

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of June 1968

STATION Day	44 Juaal Faiyah	45 Mierha	51 Buraimi	61 Digdaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0	0
CR	109.3	116.7	77.3	66.6	97.4	85.6	81.8	104.1	116.4

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Fala

Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of July 1968

S T A T I O N  Day								
	11 Masafi	12 Masafut	31 Dibba	33 Fujairah	35 Kalba	41 Manama	42 FJ al Muralla ATS	43 FJ al Muralla (CI)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24							Tr	
25								
26								
27								
28								
29								
30								
31								
MT	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0
CR	81.2	92.8	88.9	121.7	110.0	94.7	79.9	87.7

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Fala  
 Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of July 1968

S T A T I O N  Day									
	44 Janna Fayrah	45 Mlleha	51 Buraimi	61 Digdaga	71 Dubai Trade School	72 AMLT	73 Sharjah	73 Dubai Int. Airport	81 Abu Dhabi
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24	20.8								
25		2.3							
26									
27									
28									
29									
30									
31									
MT	20.8	2.3	0	0	0	0	0	0	0
RD	1	1	0	0	0	0	0	0	0
CR	130.1	119.0	77.3	66.6	97.4	85.6	81.8	104.1	116.4

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Fala  
 Tr = Trace (less than 0.1 mm).

Daily Rainfall for the Month of August 1968

S T A T I O N	Daily Rainfall for the Month of August 1968							
	11 Musafiri	12 Masfut	31 Dibba	33 Pujairah	35 Kalba	41 Manama	42 FJ al Mv'alla ATS	43 FJ al Mv'alla (31)
Day								
1								
2		9.7						
3								
4								
5	25.4					0.3		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MT	25.4	9.7	0	0	0	0.3	0	0
RD	1	1	0	0	0	1	0	0
CR	106.6	102.5	88.9	121.7	110.0	95.0	79.9	87.7

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Falaj  
 Tr = Trace (less than 0.1 mm)

Daily Rainfall for the Month of August 1968

S T A T I O N	Daily Rainfall for the Month of August 1968								
	44 Jabal Baiyah	45 Miledha	51 Buraimi	61 Digdaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi
Day									
1									
2		1.0							
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MT	0	1.0	0	0	0	0	0	0	0
RD	0	1	0	0	0	0	0	0	0
CR	130.1	120.0	77.3	66.6	97.4	85.6	81.8	104.1	116.4

MT = Monthly total in millimetres.  
 RD = Number of rainy days.  
 CR = Cumulative rainfall in millimetres from October 1st 1967.  
 FJ = Falaj  
 Tr = Trace (less than 0.1 mm)

## Daily Rainfall for the Month of September 1968

S T A T I O N  Day								
	11 Musafir	12 Masfut	31 Diba	33 Fujairah	35 Kalba ATS	41 Manama	42 FJ al Muralla ATS	43 FJ al Muralla (CI)
1								
2								
3								
4								
5								
6								
7								
8								
9					Tr			
10								
11								
12								
13								
14								
15								
16		6.6						
17								
18						12.7		
19							Tr	
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MT	0	6.6	0	0	0	12.7	0	0
RD	0	1	0	0	0	1	0	0
CR	106.6	109.1	88.9	121.7	110.0	107.7	79.9	87.7

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj

Tr = Trace (less than 0.1 mm).

## Daily Rainfall for the Month of September 1968

S T A T I O N  Day										
	44 Jabal Faiyah	45 Mlqzha	51 Buraimi	61 Diggaga	71 Dubai Trade School	72 Awir	73 Sharjah	74 Dubai Int. Airport	81 Abu Dhabi	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
MT	0	0	0	0	0	0	0	0	0	0
RD	0	0	0	0	0	0	0	0	0	0
CR	130.1	120.0	77.3	66.6	97.4	85.6	81.8	104.1	116.4	

MT = Monthly total in millimetres.

RD = Number of rainy days.

CR = Cumulative rainfall in millimetres from October 1st 1967.

FJ = Falaj.

Tr = Trace (less than 0.1 mm).



TRUCIAL STATES WATER RESOURCES SURVEY

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SECTION C - FLOOD DISCHARGE

Stream flow in the Trucial States is limited to infrequent flash floods of a few hours duration. Observations started in November 1965 and were initially limited to estimates of peak flow, obtained by surveys of the channel and levels of trash marks at the gauging sites, which are shown on Drawing No. 2 attached to this Year Book.

Autographic recorders have been installed at certain sites, also indicated on Drawing No. 2, and from these the duration of floods has been observed.

Stream Flow Gauging Site Co-ordinates E N	Date of Observed Flow	Peak Flow cumec m <sup>3</sup> /s	Probable duration hours approx.	Probable volume m <sup>3</sup> approx.
Wadi Qor near J. Faiyah 03792 27004	2. 2.68 26. 4.68 25. 7.68	38.2 1.8 9.0	16 2 1.5	1,148,000 6,640 24,200
Wadi Ham near Bithna 04241 27828	23.10.68 2. 2.68 3. 8.68	10.6 84.9 84.9	3 7 4	57,300 1,075,000 610,000
Wadi Siji near Siji 04108 27935	23.10.68 2. 2.68 3. 8.68	7.0 12.9 93.5	1.5 2.5 4	18,900 58,000 672,000
Wadi Lambah near F. al Mh' alla 03840 28062	2. 2.68	159.0	24	7,720,000
Wadi Lambah near T. Qaran 03760 28189	2. 2.68	68.5	20	2,480,000
Wadi Madsah near T. Uwayyah 03758 28300	2. 2.68	Flow not measured		
Wadi Bih near Burayrat 04037 28500	2. 2.68	108.5	84	16,080,000
Wadi Semaini below T. Bahuth 03775 27700	2. 2.68	40.9	16	1,228,000
Wadi Bih near Al Pulayyah 03975 28470	2. 2.68	27.7	12	745,000

TRUCIAL STATES WATER RESOURCES SURVEY

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SECTION D - FALAGES OR SPRINGS

The sites at which observations of flow and electrical conductivity of falages or springs are measured, are shown on Drawing No. 2 attached to this year book. The observations are summarised below. All conductivity measurements are temperature - compensated to 25 C.

ZONE 1 - CENTRAL MOUNTAINS

Reference No.	Location and Name Grid reference	Date of Observation	Electrical Conductivity Micromhos/cc	Flow Litres/ Second
105	W. Siji 04072E 27928N	10.5.68 17.8.68	590 620	31.88 45.25
108	Ein Masafi 04158E 27992N	10.5.68 17.8.68	400 420	- -
111	Bithma (irrigation channel upstream of dam on right bank) 04232E 27857N	10.5.68 17.8.68	700 605	8.24 5.95
112	Bithma (irrigation channel on left bank of dam) 04232E 27854N	17.8.68	650	25.50
118	Falaj Masfut (irrigation channel on right bank) 04091E 27441N	8.5.68 12.8.68	680 670	12.69 6.24
121	Falaj Warrab, Masfut 04091E 27444N	8.5.68 12.8.68	530 495	7.35 8.55
114	Falaj, Howeilat 04165E 27520N	8.5.68 12.8.68	1250 1280	21.93 7.09
160	Howeilat (right bank of Falaj, 1km upstream) 0416E 2753N			Falaj de- stroyed by flood and not repaired (Oct.1966)
161	Howeilat (left bank of Falaj, 1km upstream) 0416E 2753N			Falaj de- stroyed by flood and not repaired (Oct.1966)

## SECTION D - FALAGES OR SPRINGS

## SECTION D - FALAGES OR SPRINGS

## ZONE 3 - BATINA COAST

Reference No.	Location and Name Grid Reference	Date of Observation	Electrical Conductivity Micromhos/cc	Flow Litres/ Second
341	Falaj Awaina Saqamqam 04324E 27840N	10.5.68 18.8.68	1180 1040	0.69 0.71

## ZONE 4 - CENTRAL GRAVEL PLAIN

402	Falaj al Mu'alla 03840E 28039N	29.6.68 12.8.68	1400 1310	9.93 12.09
404	Falaj Dhaid 03870E 27961N	29.6.68 12.8.68	1190 1225	18.37 19.18
408	Falaj Manama 04016E 28012N	23.4.68 28.6.68 29.8.68	600 580	Very small Flow 2.48 2.28

## ZONE 5 - BURAIMI

501	Falaj Al Ayn 03760E 26770N	24.1.68	630	142.42
502	Falaj Buraimi 03752E 26812N	26.1.68	410	134.46
503	Falaj Sa'ara 03762E 26819N	26.1.68	380	183.45
504	Falaj Daudi 03755E 26773N	24.1.68	560	60.06
505	Falaj Mu'tarad 03721E 26785N	24.1.68	830	97.97
506	Falaj Al Muwayqi'i 03705E 26780N	24.1.68	1830	26.07
507	Falaj Al Jimi 03730E 26822N	24.1.68	470	71.38
508	Falaj Qattarah 03731E 26827N	24.1.68	480	43.73
509	Falaj Hili 03755E 26890N	24.1.68	860	43.01

Tot 802.6

## ZONE 6 - RAS AL KHAIMAH - JIRI PLAIN

Reference No.	Location and Name Grid Reference	Date of Observation	Electrical Conductivity Micromhos/cc	Flow Litres/ Second
616	Khatt Spring (N) 04006E 28332N	28.6.68 29.8.68	2250 2170	11.33 11.33
617	Khatt Spring (S) 04006E 28330N	28.6.68 29.8.68	2200 2110	16.85 26.62
618	Falaj Al Usayli 03999E 28328N	28.6.68 29.8.68	2270 2130	4.95 3.02

TRUCIAL STATES WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

SECTION E - GROUNDWATER OBSERVATION POINTS

The sites at which observations of water level and electrical conductivity of groundwater are measured, are shown on Drawing No. 3 accompanying the year book. The observations are summarised below. The abbreviation M.M. signified 'Measuring Mark'.

The reduced levels of the measuring marks are given in metres above mean sea level (a.m.s.l.); the absence of a figure indicates that the level has not yet been determined.

All conductivity measurements are temperature compensated to 25°C.

Observations in Abu Dhabi territory ceased in April 1968 but are believed to have been resumed by Sir Alexander Gibb & Partners.

ZONE 3 - BATINA COAST

Reference No. Grid Reference.	Location Name or Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
301 04279E 28315N	Ghurfa, Dibba T.Nukhl, Sh. Abdulla bin Ali	11.4.68	3.26	2850
		11.7.68	3.17	2850
		29.8.68	3.23	2870
302 04288E 28316N	Ghurfa, Dibba T.Redda, Abdulla bin Assudi	11.4.68	1.46	1340
		11.7.68	1.37	1360
		29.8.68	1.43	2560
307 04270E 28330N (Tidal effect)	Hisn, Dibba T. Jumma' a el Hisn	10.4.68	2.70	-
		10.4.68	2.73	2070
		11.4.68	2.70	-
		11.7.68	2.70	1500
		29.8.68	2.55	1850
308 04261E 28317N	Al Khan, Dibba T.Murabba Sh. Mohammed bin Hamad	11.4.68	8.54	380
		11.7.68	8.61	380
		29.8.68	8.65	360
		7.9.68	-	420
383 04283E 28315N (Tidal effect)	Ghurfa, Dibba Ahmed bin Salim bin Masoud (formerly Khamis bin Abdulla)	11.4.68	2.90	2340
		11.7.68	2.80	2325
		29.8.68	2.93	2390

## SECTION E - GROUNDWATER OBSERVATION POINTS

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 3 - BATINA COAST (continued)

Reference No. Grid Reference, Name or Owner Location Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
384 T. Shibbani, Sultan bin Abdulla 04278E 28319N	11.4.68	2.65	5400
	11.7.68	2.51	5400
	29.8.68	2.57	5200
385 Sumbrayir, Dibba T. Lashkara, Suleiman bin Ahmed 04274E 28323N (Tidal effect)	10.4.68	2.24	-
	11.4.68	2.35	3350
	11.7.68	2.25	3950
	29.8.68	2.24	4450
386 Sumbrayir, Dibba T. Yerwa, Sh. Mohammed bin Hamad 04268E 28322N	11.4.68	8.30	455
	11.7.68	8.30	440
	29.8.68	8.37	440
387 Shumaranni, Dibba Salim bin Mohammed 04271E 28319N	11.4.68	6.54	457
	11.7.68	6.53	530
	29.8.68	6.57	494
388 Hisn, Dibba Mohammed bin Nasr 04264E 28337N (Tidal effect)	11.4.68	3.14	6000
	11.7.68	2.99	5900
	29.8.68	3.05	5700
	8.9.68	3.10	5150
389 Hisn, Dibba Yousef bin Obeid 04268E 28330N	10.4.68	1.43	-
	10.4.68	1.45	-
	11.4.68	1.42	3850
	11.7.68	1.37	3600
	29.8.68	1.40	4140
	7.9.68	1.45	3760
390 Hisn, Dibba Abdulla bin Yousef Taiyari 04268E 28326N	10.4.68	2.65	1970
		-	-
	11.4.68	2.64	-
	11.7.68	2.59	2700
	29.8.68	2.92	3150
7.9.68	2.74	2780	
391 Hisn, Dibba Abdulla bin Salim 04260E 28325N	11.4.68	7.62	835
	11.7.68	7.70	910
	29.8.68	7.76	750
353 Bidya Sheikh Mohammed bin Hamad 04347E 28129N MM 8.06m a.m.s.l.	25.3.68	6.35	425
	8.7.68	6.29	420
	28.8.68	-	405
	8.9.68	6.40	398
354 Bidya Abdulla bin Khamis 04352E 28137N MM 4.31m a.m.s.l.	25.3.68	2.75	1445
	8.7.68	2.48	1625
	28.8.68	2.60	2160

Note: a.m.s.l. to Khor Fakkan Mean Low Water Datum.

## ZONE 3 BATINA COAST (continued)

Reference No. Grid Reference, Name or Owner Location Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
321 Zuhara T. Sadra, Mohammed bin Makluf 04360E 28100N MM 4.99m a.m.s.l.	25.3.68	3.33	530
	9.7.68	3.28	530
	28.8.68	3.30	568
355 Subahyah Ali bin Abdulla 04359E 28089N MM 5.41m a.m.s.l.	25.3.68	-	470
	8.7.68	3.78	517
	28.8.68	3.58	530
8.9.68	3.67	485	
356 Luluyah Said bin Abdulla 04355E 28076N MM 4.91m a.m.s.l.	25.3.68	3.51	5420
	8.7.68	3.09	4450
	28.8.68	3.32	5090
357 Luluyah Rashid bin Saif 04350E 28076N MM 7.14m a.m.s.l.	25.3.68	5.56	640
	8.7.68	5.56	620
	28.8.68	5.62	630
358 Hiyawa Abdulla bin Ibrahim 04347E 28039N MM 6.60m a.m.s.l.	25.3.68	-	2460
	2.4.68	5.05	2450
	9.7.68	4.94	2600
	28.8.68	5.04	-
8.9.68	5.06	2460	
359 Hiyawa Ali Abdulla bin Mirzah 04350E 28035N MM 7.40m a.m.s.l.	25.3.68	5.88	2450
	2.4.68	5.94	2830
	9.7.68	5.83	3000
	28.8.68	5.91	3880
8.9.68	5.92	4100	
360 Khor Fakkan Mohammed bin Abdulla 04355E 28030N MM 3.52m a.m.s.l.	25.3.68	2.20	7750
	8.7.68	2.09	9100
	28.8.68	2.23	10650
329 Khor Fakkan T. Habba, Sh. Khalid bin Mohammed 04351E 28028N MM 7.42m a.m.s.l.	25.3.68	-	705
	2.4.68	5.69	740
	8.7.68	5.69	780
	28.8.68	5.72	740
361 Qidfa Obeid bin Bakaid 04356E 27982N MM 5.79m a.m.s.l.	2.4.48	3.88	1160
	7.7.68	3.95	1070
	28.8.68	4.03	1040
362 Qidfa Mohammed bin Abdul Rahman 04356E 27987N MM 6.38m a.m.s.l.	2.4.68	4.55	1360
	8.7.68	4.72	1280
	28.8.68	4.81	1220
	8.9.68	4.83	1200
348 Murbah T. Leghare, Sh. Abdulla bin Hamdan 04394E 27965N MM 5.37m a.m.s.l.	2.4.68	3.82	3940
	7.7.68	3.73	3400
	28.8.68	3.81	3510

Note: a.m.s.l. to Khor Fakkan Mean Low Water Datum.

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 3 - BATINA COAST (continued)

Reference No. Grid Reference	Location Name or Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
364	Murbah Hassan Abdulla bin Sultan 04364E 27951N MM 7.28m a.m.s.l.	2.4.68	5.74	1890
		8.7.68	5.69	1830
		28.8.68	5.74	1960
		8.9.68	5.73	2350
365	Murbah Said bin Mohammed bin Mu'alla 04362E 27945N MM 6.52m a.m.s.l.	2.4.68	5.01	1595
		8.7.68	4.90	2475
		28.8.68	5.00	2180
344	Nuhay T. Shibaika, Salim bin Farkan 04358E 27941N MM 7.03m a.m.s.l.	2.4.68	5.39	1100
		7.7.68	5.33	1140
		28.8.68	5.40	1260
366	Qurayyah Obeid bin Selmeen 04354E 27914N MM 8.58m a.m.s.l.	2.4.68	6.95	3040
		8.7.68	6.88	3075
		29.8.68	6.94	3510
367	Qurayyah Mohammed bin Nasr bin Salim 04353E 27908N MM 6.69m a.m.s.l.	2.4.68	5.09	4810
		8.7.68	4.99	4700
		29.8.68	5.03	5200
368	Saqaqam Mohammed bin Sabah 04340E 27839N MM 6.27m a.m.s.l.	2.4.68	4.74	20,500
		17.6.68	5.02	23,900
		6.7.68	5.00	17,700
339	Saqaqam T. Sufeira, Obeid bin Ali 04333E 27837N MM 7.62m a.m.s.l.	2.4.68	5.94	2900
		18.6.68	6.23	2650
		9.8.68	6.23	2560
338	Fujairah T. Suwilem, Sh. Hamid bin Saif 04348E 27796N MM 4.58m a.m.s.l.	2.4.68	2.77	11,300
		16.6.68	2.77	10,010
		8.9.68	2.88	8,950
369	Fujairah Sh. Sarur bin Saif 04336E 27805N MM 8.11m a.m.s.l.	2.4.68	6.19	3280
		17.6.68	6.42	3150
		8.9.68	6.45	2950
370	Fujairah Khamis bin Nutta 04333E 27808N MM 7.22m a.m.s.l.	2.4.68	5.39	2710
		17.6.68	5.66	2500
		8.9.68	5.70	2390
371	Fujairah Ali bin Khal 04347E 27787N MM 6.10m a.m.s.l.	2.4.68	4.30	980
		17.6.68	4.24	1170
		6.7.68	4.29	-
		8.9.68	4.85	1150

Note: a.m.s.l. to Khor Fakkan Mean Low Water Datum.

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 3 - BATINA COAST (continued)

Reference No. Grid Reference	Location Name or Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
372	Fujairah Sh. Mohammed bin Hamad 04342E 27795N MM 8.01m a.m.s.l.	2.4.68	6.12	1090
		16.6.68	6.21	1010
		8.9.68	6.28	1050
373	Fujairah Ahmed bin Matowa 04338E 27813N MM 4.72m a.m.s.l.	2.4.68	2.77	7650
		17.6.68	3.15	7500
		8.9.68	3.09	7350
379	Ghurfa Khamis bin Mohammed 04350E 27780N MM 5.55m a.m.s.l.	2.4.68	3.78	3250
		17.6.68	3.61	2680
		7.7.68	3.72	-
		8.9.68	3.81	1930
375	Ghurfa Hamid bin Saif 04349E 27786N MM 5.09m a.m.s.l.	2.4.68	3.33	2570
		17.6.68	3.23	2875
		7.7.68	3.27	-
376	Ghurfa Rashid bin Khalifa 04352E 27772N MM 4.94m a.m.s.l.	25.3.68	3.14	1855
		17.6.68	3.06	3050
		7.7.68	3.14	-
377	Ghurfa Mohammed bin Saleh 04353E 27762N	25.3.68	3.05	1325
		18.6.68	2.96	1270
		-	-	-
378	Ghurfa Sh. Mohammed bin Hamad 04350E 27770N MM 6.39m a.m.s.l.	25.3.68	-	1275
		2.4.68	4.58	1230
		17.6.68	4.45	1480
		7.7.68	4.52	-
380	Ghurfa Al Halh bin Said 04345E 27786N MM 7.32m a.m.s.l.	17.6.68	5.46	1375
		7.7.68	5.45	1480
		8.9.68	5.52	1540
374	Kaiba T.S.D.C. Dispensary 04354E 27736N MM 3.70m a.m.s.l.	25.3.68	1.84	7600
		18.6.68	1.90	7250
		9.9.68	1.92	7250
381	Kaiba Saif bin Mohammed 04337E 27718N MM 5.08m a.m.s.l.	2.4.68	3.70	2825
		17.6.68	4.22	2675
		7.7.68	4.28	-
		9.9.68	4.37	2680

Note: a.m.s.l. to Khor Fakkan Mean Low Water Datum

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 3 - BATINA COAST (continued)

Reference No. Grid Reference	Location Name of Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
382 Abdulla Saya 04344E 27733N	Kalba MM 9.06m a.m.s.l.	25.3.68	6.90	1080
		17.6.68	7.09	1170
		7.7.68	7.07	-
		9.9.68	-	1180
311 Sh. Khalid bin Mohamed 04341E 27734N	Kalba MM 9.95m a.m.s.l.	25.3.68	7.74	1080
		17.6.68	7.92	810
		8.9.68	8.00	1230
392 ATS Extension Garden 04336E 27730N	Kalba MM 13.27m a.m.s.l.	25.3.68	11.16	840
		17.6.68	11.53	820
		7.7.68	11.55	-
		27.8.68	11.61	810
		9.9.68	11.90	845

Note: a.m.s.l. to Khor Fakkan Mean Low Water Datum.

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 4 - CENTRAL GRAVEL PLAIN

Reference No. Grid Reference	Location Name of Owner Reduced level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity Microhos/cc
401 T. Muragqibat 03892E 28011N	Wadi Um al Nughul MM 116.43m a.m.s.l.	19.3.68	6.66	1210
		19.7.68	6.86	1160
		20.8.68	6.74	1170
		12.9.68	-	1100
406 T. Wusha 03903E 27903N	Dhaid Plain MM 135.74m a.m.s.l.	19.3.68	8.24	1160
		23.4.68	8.34	1142
		19.7.68	8.59	1080
		20.8.68	8.63	1090
		12.9.68	8.67	-
410 T. Hamdah 03905E 27811N	Gharif Plain MM 161.28m a.m.s.l.	19.3.68	9.66	700
		23.4.68	9.72	685
		21.8.68	10.52	630
		12.9.68	-	620
413 T. Fili 03913E 27656N	Gharif Plain MM 221.84m a.m.s.l.	23.2.68	5.75	1070
		7.3.68	-	1125
		17.4.68	7.50	1035
		16.5.68	7.70	-
		13.6.68	7.90	-
		21.8.68	8.07	810
423 T. Maitha 03795E 27540N	Madam Plain MM 203.19m a.m.s.l.	1.5.68	18.79	865
		21.8.68	16.72	702
		12.9.68	16.70	710
425 T. Mleitha 03847E 27793N	Gharif Plain MM 147.24m a.m.s.l.	24.12.68	11.29	1490
		23.4.68	10.97	1480
		21.8.68	11.22	1450
		12.9.68	11.24	1430
441 T. Thenabi Sh. Ahmed bin Rashid 03839E 28032N	Falaj al Mu'alla MM 88.91m a.m.s.l.	19.3.68	11.95	1930
		20.7.68	12.12	2070
		19.8.68	12.12	2700
		12.9.68	12.13	1910
442 Ali Abdulla bin Awais 03870E 27967N	Dhaid MM 111.57m a.m.s.l.	19.3.68	10.70	855
		20.7.68	11.18	890
		19.8.68	11.19	880
		12.9.68	11.24	870
443 Mohammed bin Ali Awais 03863E 27965N	Dhaid MM 111.68m a.m.s.l.	19.3.68	12.07	1600
		19.7.68	12.69	1640
		19.8.68	-	1540

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 4 - CENTRAL GRAVEL PLAIN

Reference No. Grid Reference, Reduced level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
444 Sheikha Senna bint Manna 03830E 27654N MM 165.53m a.m.s.l	Buhays	13.2.68	-	2010
		23.2.68	5.39	2120
		1.5.68	5.32	2700
		21.8.68	5.72	2040
445 Soraya Shamsi 03790E 27630N	Hisn	23.2.68	-	1940
		1.5.68	9.31	1600
		21.8.68	9.38	1510
421 T al Hisn 03796E 27629N MM 178.93m a.m.s.l	Hisn	23.2.68	11.38	1740
		1.5.68	11.23	2340
		21.8.68	11.23	1730
		12.9.68	11.12	1590

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum.

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 5 - BURAIMI

Reference No. Grid Reference, Reduced level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
510 Jumaar bin Ali 03755E 26861N	Hili	25.1.68	2.57	2080
		17.4.68	2.47	2230
538 Aid unkbali 03750E 26852N	Hili	25.1.68	12.07	2480
		17.4.68	11.90	2150
539 Sh. Zaid bin Sultan 03729E 26851N	Mas'udi	25.1.68	11.17	1870
		17.4.68	10.96	1960
540 Sh. Khalid bin Sultan 03730E 26839N	Qattarah	25.1.68	7.93	1840
		17.4.68	7.40	1940
541 Gharrim bin Ali 03731E 26827N	Qattarah	25.1.68	1.99	982
		17.4.68	2.17	1035
542 Maas bin Mohammed 03722E 26825N	Al Jimi	25.1.68	1.22	1190
		17.4.68	0.94	1325
513 Mehdi bin Ali 03725E 26818N	Al Jimi	25.1.68	2.97	1000
		17.4.68	2.62	1000
535 formerly Sh. Shakhbut bin Sultan 03705E 26787N	Al Musayqi'i	25.1.68	5.05	2015
		26.1.68	4.58	-
		16.4.68	3.02	2640



## SECTION E - GROUNDWATER OBSERVATION POINTS

ZONE 5 - BURAIMI (continued)

Reference No. Grid Reference, Reduced Level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity micromhos/cc
515 T. Musalem bin Ali 03720E 26787N	Mu' tarad	24.1.68 25.1.68 16.4.68	2.70 2.64 2.41	1000 1050
543 Rashid bin Khalaf 03721E 26774N	Mu' tarad	24.1.68 25.1.68 16.4.68	- 8.54 7.56	2740 - 2920
545 Sh. Zaid bin Sultan 03728E 26781N	Jahili	24.1.68 16.4.68	6.08 5.80	2470 2590
518 T. Fetehi Sh. Khalifa bin Zaid 03746E 26784N	Al Ayn	24.1.68 16.4.68	11.83 11.36	2600 2950
519 T. es Sherq Sh. Khalifa bin Zaid (Experimental garden) 03750E 26797N	Al Ayn	24.1.68 17.4.68	2.49 2.29	920 975
536 Sh. Khalif bin Sultan 03749E 26786N	Al Ayn	24.1.68 16.4.68	2.16 1.76	2420 2380
537 Abdulla bin Hallal 03755E 26778N	Daudi	24.1.68 16.4.68	3.35 3.18	2530 2490
544 Hamid bin Salim 03751E 26774N	Daudi	24.1.68 18.4.68	6.68 6.00	2110 2300
546 Mohammed bin Ahmed Harib 03742E 26780N	Al Ayn	24.1.68 16.4.68	7.18 6.57	2900 3850
521 T. Sulaymat 03573E 26795N		26.1.68 17.4.68	8.18 8.20	970 1010
522 T. Hammad bin Ghawal 03852E 26782N	Al Jaww	26.1.68 17.4.68	22.91 22.98	360 365
523 T. Ma' alaga 0391E 2671N	Al Jaww	26.1.68 17.4.68	14.85 15.14	740 770

## SECTION E - GROUNDWATER OBSERVATION POINTS

ZONE 5 - BURAIMI (continued)

Reference No. Grid Reference, Reduced Level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
525 T. Sa'a 0399E 2693N		26.1.68 17.4.68	5.21 5.23	805 705
527 T. Mazyad 03814E 26565N		26.1.68 17.4.68	15.11 14.94	2410 2250
528 T. al Aragee' ah 03818E 26671N	Al Jaww	26.1.68 17.4.68	19.04 19.00	1090 950
530 T. Zakhir 03635E 26683N	Sayh an Nashash	26.1.68 17.4.68	3.94 4.28	3920 3730
532 Sh. Khalid bin Sultan T. Aqabiya 0363E 2672N	Aqabiya	17.4.68	-	2420
575 Sa'd Wellfield Observation Borehole 03490E 26778N		14.12.66 12.5.67 10.9.67 25.1.68 17.4.68	22.45 22.80 23.26 23.42 23.59	1490 1480 1500 1400 1465
547 T. Riqana 03588E 26928N		24.1.68 17.4.68	15.92 16.21	2300 1470
548 T. Hammam (S) 03702E 26933N		24.1.68 17.4.68	13.93 13.80	2450 1190
534 T. Bu Samarah 03363E 26772N		26.1.68	12.98	3600

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 6 - RAS AL KHAIMAH - JIRI PLAIN

Reference No. Grid Reference, Reduced Level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
614 T. Sa'idi 03900E 28228N MM 49.43m a.m.s.l.	Jiri Plain	23.4.68	33.25	2760
		19.7.68	33.26	2700
		27.8.68	33.09	2540
		12.9.68	33.23	2550
643 T. Jalajilah 03899E 28264N MM 36.93m a.m.s.l.	Jiri Plain	23.4.68	28.15	1325
		19.7.68	28.18	1300
		27.8.68	28.17	1380
		12.9.68	28.15	1440
646 T. Samha 03820E 28273N MM 28.25m a.m.s.l.		23.4.68	24.54	5110
		18.7.68	24.38	-
		27.8.68	24.58	4840
652 T. Zaid 03881E 28310N MM 25.35m a.m.s.l.		23.4.68	20.00	2280
		18.7.68	20.07	2230
		27.8.68	20.07	2220
660 Mohammed bin Suleiman 04020E 28568N MM 6.91m a.m.s.l.	Shimal	17.3.68	6.24	11,300
		19.7.68	6.63	9,650
		26.8.68	-	10,200
		3.9.68	6.65	9,900
661 Ali bin Saifan 03992E 28557N MM 4.72m a.m.s.l.	Ma'yarid	17.3.68	4.11	10,000
		18.7.68	-	9,650
		26.8.68	-	9,600
		3.9.68	4.36	8150
629 Mustafa Abdulatif 04021E 28553N MM 12.79m a.m.s.l.	Shimal	17.3.68	12.05	2760
		19.7.68	-	3000
		26.8.68	12.42	2660
		3.9.68	12.42	2680
630 Rashid bin Sultan el Toeie 03991E 28546N MM 8.38m a.m.s.l.	Ghubb	17.3.68	7.60	3900
		19.7.68	7.85	3970
		26.8.68	7.52	3930
		12.9.68	7.95	3910
662 Ibrahim bin Obeid 03970E 28542N MM 3.36m a.m.s.l.	Hudaybah	17.3.68	2.83	7600
		19.7.68	3.04	8200
		26.8.68	3.08	8500
603 Ahmed Ismail 03975E 28526N	Uraybi	17.3.68	4.81	8800
		19.7.68	4.94	9100
		26.8.68	4.66	10,500
		12.9.68	4.65	10,400

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 6 - RAS AL KHAIMAH - JIRI PLAIN (continued)

Reference No. Grid Reference, Reduced Level of MM	Location Name or Owner	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
663 Jasem bin Shahan 03969E 28518N MM 4.52m a.m.s.l.	Kuways	17.3.68	3.78	10850
		19.7.68	3.91	10550
		26.8.68	3.92	10800
621 Ibrahim bin Issa 03967E 28505N MM 4.49m a.m.s.l.	Kuways	17.3.68	3.51	9150
		19.7.68	3.64	8900
		26.8.68	3.62	9900
622 Ahmed Jassem Abdulla 03971E 28483N MM 6.17m a.m.s.l.	Bida	17.3.68	4.70	8200
		18.7.68	4.91	7500
		26.8.68	4.90	7800
602 Hanna Zoghafib 03987E 28458N MM 10.24m a.m.s.l.	Salihyah	17.3.68	8.37	4800
		18.7.68	8.57	4000
665 Sh. Ahmed bin Ali al Thani 03986E 28430N MM 11.49m a.m.s.l.	Hayl	17.3.68	8.59	4070
				filled in
664 Ahmed bin Abdulla 03980E 28420N MM 11.49m a.m.s.l.	Fahlayn	18.3.68	8.50	4100
		18.7.68	8.92	3850
		26.8.68	8.94	3930
609 Agricultural Trials Station (Well No. 5) 03973E 28389N MM 12.35m a.m.s.l.	Digdaga	18.3.68	9.20	4820
		18.7.68	9.52	4520
		26.8.68	9.51	4500
610 Agricultural Trials Station (Station Well) 03969E 28393N MM 10.89m a.m.s.l.	Digdaga	18.3.68	-	5900
		13.5.68	8.01	5775
		18.7.68	-	5450
		26.8.68	8.18	5750
		3.9.68	8.19	5540

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum.

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 7 - CENTRAL DESERT FORELAND

Reference No. Grid Reference	Location Name or Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
701 03842E 28055N MM 71.48m a.m.s.l.	Falaj al Mu'alla Agricultural Trial Station Extension	19.3.68	2.74	2300
		19.7.68	3.14	2180
		19.8.68	3.24	2180
		12.9.68	3.99	2240
762 03838E 28049N MM 86.02m a.m.s.l.	Falaj al mu'alla T. Zaraq, formerly Sh. Rashid bin Ahmed Sayed Rajab al Rafai	19.3.68	13.64	2250
		20.7.68	14.07	2170
		19.8.68	14.03	2150
702 03781E 28111N MM 56.36m a.m.s.l.	Wadi Lambah T. Biyatah	19.3.68	Well silted up after flood on 2.2.65.	
		20.7.68	21.28	1700
		19.8.68	21.30	1610
706 03566E 27682N MM 121.99m a.m.s.l.	T. al Hibab (old)	1.5.68	26.78	3380
		22.8.68	26.98	3050
707 03741E 27791N MM 130.18m a.m.s.l.	W. Yudayyah T. Murrab	24.12.67	28.72	1410
		3.3.68	28.74	1375
		23.4.68	28.67	1445
		12.9.68	28.56	1530
716 03637E 27908N MM 70.65m a.m.s.l.	Sayh Massanad T. Matraq (T. Siwa)	23.4.68	30.14	3580
		22.8.68	30.24	3020
		12.9.68	30.19	3260
777 03524E 27924N MM 43.93m a.m.s.l.	Bida'at Sharjah Water Supply Borehole No. 6	23.9.68	20.06	2260
778 03526E 27924N	Bida'at Sharjah Water Supply (Borehole No. 15)	23.9.68	20.90	1880

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum.

corrigenda: 1965/66 Yearbook. On p.44, water levels for WR 778 were inadvertently given relative to sea level.

The M.M. is 44.17 m. a.m.s.l. and the S.W.L. in metres below M.M. should have read:-

18.57 instead of 25.60  
18.55 " " 25.62  
18.60 " " 25.57  
18.57 " " 25.60  
18.68 " " 25.49

## SECTION E - GROUNDWATER OBSERVATION POINTS

## ZONE 7 - CENTRAL DESERT FORELAND (continued)

Reference No. Grid Reference	Location Name or Owner Reduced Level of MM	Date of Observation	Standing Water Level metres below M.M.	Conductivity Micromhos/cc
738 03649E 28126N MM 31.38m a.m.s.l.	T. Mahadhab	23.4.68	20.91	3550
		20.7.68	20.89	3300
		20.8.68	20.92	3280
759 03605E 27805N	T. Wahush	1.5.68	36.92	2630
		22.8.68	37.00	2180
760 03603E 27986N MM 52.02m a.m.s.l.	Juwayzah Sh. Khalid bin Mohammed	23.4.68	-	4550
		20.7.68	-	4000
779 03533E 27845N MM 79.40m a.m.s.l.	Awir Dubai Water Supply Borehole No. 56	12.10.67	35.97	
		15.1.68	35.91	
		18.4.68	36.19	
		11.7.68	36.18	
		8.9.68	36.27	
780 03547E 27831N MM 82.10m a.m.s.l.	Awir Dubai Water Supply Borehole No. 61	12.10.67	37.29	
		15.1.68	37.49	
		18.4.68	37.67	
		11.7.68	37.79	
		8.9.68	37.72	

Note: a.m.s.l. to Ras al Khaimah Mean Sea Level Datum.

Well Nos. 779 and 780 a.m.s.l. to unknown Dubai Datum.

TRUCIAL STATES WATER RESOURCES SURVEY

HYDROLOGICAL YEAR BOOK 1967/68

SECTION F - CHEMICAL ANALYSES

Results of Chemical Analysis of 32 Water Samples collected by the  
Water Resources Survey between October 1967 - July 1968

Index

Analyses are tabulated in numerical order of well number, by zones.

ZONE 4 - CENTRAL GRAVEL PLAIN

<u>Site No.</u>	<u>Location</u>	<u>Sample Nos.</u>
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ZONE 5 - BURAIMI

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6WR 016	Haremlé	184

ZONE 7 - CENTRAL DESERT FORELAND

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WR 748	T. Adhib	173
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WR 751	Awir (Dubai Water Supply)	170
WR 761	T. Nubaybighah	176
WR 769	Bida'at - Sharjah Water Supply No. 17	164
WR7101	T. Umm al Abyad (west)	166
WR7102	Bh. at Bahuth Ruwayyah	180
WR7104	Lamah (Umm al Qalwain W.S.)	185
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WR7107	Gharad (sample 42m. below S.W.L.)	179
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7WR 008	Subka Dubai	154
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ZONE 8 - DUBAI - BURAIMI - ABU DHABI PLAIN

<u>Site No.</u>	<u>Location</u>	<u>Sample Nos.</u>
WR 820	T. Suwayhan	161
WR 822	T. Nahshillah	159
WR 823	T. Musayli	160
WR 827	T. Morgham	163
WR 828	Bir al Fa'w	167
WR 829	T. Adh Dribbah	168
WR 830	T. Ghafir (East)	171
WR 832	T. an Nakharah	174
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SECTION F - CHEMICAL ANALYSES

Notes

1. All values are in parts per million (p.p.m.) unless otherwise stated.
2. The quantity of silver (Ag) is given in values of p.p.m.  $\times 10^{-6}$ .
3. Electrical Conductivity values are given in units of microhos/cc.
4. All site conductivity values were corrected to 25°C. Laboratory conductivity values were obtained at the test temperature given. Where the test temperature is below 25°C, the conductivity may be standardised by increasing the value by 2% per degree centigrade rise above test temperature.
5. All other tests were carried out at Laboratory temperatures which varied between 15°C. and 18°C. according to the time of year.
6. 'Langelier' refers to the Langelier Index or Calcium Carbonate Saturation Index. This index is derived from the pH, T.D.S., the alkalinity and the hardness (calcium hardness) of the water sample, and it represents on a logarithmic scale the tendency of water to deposit scale (if positive) or to corrode (if negative). For larger values the index should be considered qualitative rather than quantitative.
7. Abbreviations: -
  - DL - Electrical conductivity values given are for water samples diluted 1 to 50 parts of distilled water.
  - SI - Slightly
  - - Not determined
  - Nil or None - Too small to be observed

## SECTION F - CHEMICAL ANALYSES

Sample No.	154	155	156	157	158
Location	Subkha Dubai	Subkha Dubai	Subkha Dubai	Subkha Dubai	Bu Harmah
Well No.	Auger hole 5	Auger hole 7	Auger hole 9	Auger hole 13	WR 582
Co-ords E N	03389 27953	03361 27952	03348 27978	03333 27978	03667 26955
Sample date	7.10.67	7.10.67	7.10.67	7.10.67	17.4.68
Site E.C.*	2200DL	5550DL	6550DL	3750DL	1900
Lab. E.C.*	1862DL	4921DL	5825DL	1796	1796
Test Temp.*	25.0	25.0	25.0	25.0	25.0
T.D.S.	66,000	191,600	221,000	118,600	1720
pH	6.30	5.90	5.75	6.50	7.95
Turbidity	Opaque	Opaque	Turbid	Opaque	Clear
Colour	Colourless	Colourless	Slightly Yellow	Colourless	Colourless
Taste	Salty	Salty	Salty	Salty	None
Odour	None	Seaweed	None	None	None
Ca <sup>++</sup>	1110.0	910.0	1400.0	1230.0	26.0
Mg <sup>++</sup>	2390.0	4220.0	6280.0	3990.0	11.8
Na <sup>+</sup>	16500.0	53000.0	58900.0	30000.0	354.2
K <sup>+</sup>	480.0	1310.0	2320.0	1300.0	13.0
P <sup>-</sup>	6.80	6.60	5.00	4.10	0.03
SO <sub>4</sub> <sup>--</sup>	8570.0	17900.0	9510.0	9920.0	124.8
Cl <sup>-</sup>	30500.0	88400.0	110300.0	56600.0	322.6
CO <sub>3</sub> <sup>--</sup>	-	-	-	-	-
HCO <sub>3</sub> <sup>-</sup>	158.0	116.0	95.0	152.0	372.1
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	72.0	30.0	< 1.0	< 1.0	3.0
Hardness*	12,610	19,643	29,348	19,495	114
Alkalinity*	130	95	78	125	305
Langelier*	+0.22	-0.17	-0.23	+0.57	+0.43
Cr	N11	N11	N11	N11	N11
B	16.50	13.50	26.50	23.00	0.02
Mn	N11	0.6	N11	N11	N11
Fe	0.69	0.95	2.20	0.55	0.06
Cu	N11	N11	N11	0.009	N11
Pb	N11	N11	N11	N11	0.03
Sr	N11	N11	N11	N11	-
Mo	0.13	0.09	0.22	0.05	N11
Ni	N11	N11	N11	N11	N11
Ag*	N11	N11	N11	N11	-
P	N11	N11	N11	N11	-
Al	N11	N11	N11	N11	0.20
Si	1.3	1.9	4.4	1.1	1.5
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77

## SECTION F - CHEMICAL ANALYSES (Contd.)

Sample No.	159	160	161	162	163
Location	T.Nahshilah	T.Nusayli	T.Suwayhan	F. Maziyad	T.Morgham
Well No.	WR 822	WR 823	WR 820	WR 581	WR 827
Co-ords. E N	03073 27002	03193 26955	03224 27029	03812 26570	03626 27573
Sample date	15.4.68	15.4.68	11.6.68	17.4.68	6.7.68
Site E.C.*	6125	2010	5800	752	1490
Lab. E.C.*	5852	1995	4766	731	1330
Test Temp.*	25.0	25.0	25.0	25.0	25.0
T.D.S.	5970	1905	5900	534	974
pH	7.95	8.00	7.70	8.10	8.05
Turbidity	Bright	Clear	Clear	Clear	Clear
Colour	Colourless	Colourless	Colourless	Colourless	Colourless
Taste	None	None	None	None	None
Odour	None	None	None	None	None
Ca <sup>++</sup>	602.0	120.0	436.0	32.0	34.0
Mg <sup>++</sup>	194.4	64.4	148.2	54.7	29.1
Na <sup>+</sup>	471.5	239.2	673.9	50.6	250.7
K <sup>+</sup>	44.8	16.0	35.5	4.9	2.0
P <sup>-</sup>	0.19	0.18	0.20	<0.01	0.17
SO <sub>4</sub> <sup>--</sup>	1728.0	518.4	1123.2	67.2	110.4
Cl <sup>-</sup>	1052.9	294.2	1364.8	85.1	332.2
CO <sub>3</sub> <sup>--</sup>	-	-	-	-	-
HCO <sub>3</sub> <sup>-</sup>	122.0	176.9	115.9	280.6	189.1
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	3.6	4.2	5.4	<1.0	2.1
Hardness*	2304	568	1866	306	205
Alkalinity*	100	145	95	230	155
Langelier*	+1.19	+0.85	+0.84	+0.93	+0.51
Cr	0.03	0.06	0.03	0.03	0.02
B	0.39	0.07	0.45	0.05	0.05
Mn	N11	0.04	N11	0.02	0.01
Fe	0.17	0.23	0.33	0.30	0.13
Cu	0.02	0.02	0.10	0.005	0.005
Pb	0.06	0.02	0.53	N11	N11
Sn	-	-	-	-	N11
Mo	N11	N11	N11	N11	0.005
Ni	N11	0.01	0.02	0.008	-
Ag*	-	-	-	-	-
P	-	-	-	-	-
Al	0.20	0.78	45.0	0.14	0.03
Si	14.9	13.6	64.0	7.5	4.2
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77

## SECTION F - CHEMICAL ANALYSES (Contd.)

Sample No.	164	165	166	167	168
Location	3ida'at-Sharjah Water Supply No. 17	T.Tuwayla	T.Umm al Abyad (west)	Bir al Fa'w	T. Adh Dhibah
Well No.	WR 7101	WR 703	WR 7102	WR 828	WR 829
Co-ords. E. N.	03526 27918	03738 27631	03275 27770	03771 27390	03124 27639
Sample Date	1.7.68	3.7.68	6.7.68	3.7.68	7.7.68
Site E.C.*	1810	2160	8400	1290	8160
Lab. E.C.*	1963	1995	8251	1197	7980
Test Temp.*	25.0	25.0	25.0	25.0	25.0
T.D.S.	1650	2450	6850	940	7750
PH	8.00	8.10	7.70	8.00	7.85
Turbidity	Clear	Clear	Clear	Clear	Clear
Colour	Colourless	Colourless	Colourless	Colourless	Colourless
Taste	None	None	None	None	None
Odour	None	None	None	None	None
Ca <sup>++</sup>	40.0	20.0	602.0	28.0	32.0
Mg <sup>++</sup>	42.5	31.6	206.5	68.0	707.1
Na <sup>+</sup>	299.0	450.8	828.0	165.6	805.0
K <sup>+</sup>	1.4	1.4	50.0	2.0	69.0
F <sup>-</sup>	0.07	0.01	0.66	0.06	0.88
SO <sub>4</sub> <sup>--</sup>	148.8	182.4	1992.0	163.2	2179.2
Cl <sup>-</sup>	425.4	301.3	1453.4	187.9	1751.2
CO <sub>3</sub> <sup>--</sup>	-	-	-	-	-
HCO <sub>3</sub> <sup>-</sup>	207.4	503.7	97.6	378.2	97.6
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	1.8	<1.0	6.2	6.6	21.6
Hardness*	275	184	2465	350	2992
Alkalinity*	170	413	80	310	80
Langelier*	+0.61	+0.90	+0.87	+1.00	+1.10
Cr	0.01	0.01	0.07	0.01	N11
B	0.03	0.02	0.16	0.01	0.19
Mn	N11	0.06	N11	0.01	N11
Fe	0.20	0.33	0.27	0.09	0.45
Cu	0.005	0.06	0.02	0.005	0.08
Pb	N11	N11	N11	N11	N11
Sn	-	-	-	-	-
Mo	N11	N11	N11	N11	N11
Ni	0.005	0.005	N11	0.002	N11
Ag*	-	-	-	-	-
P	-	-	-	-	-
Al	0.10	0.95	30.0	0.06	0.5
Si	6.0	11.0	55.0	2.2	11.2
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77

## SECTION F - CHEMICAL ANALYSES (Contd.)

Sample No.	169	170	171	172	173
Location	T. Al Qawzah	Awir (Dubai Water Supply)	T. Ghafir (East)	T. Bukwassa (T. Mohd bin Shafi)	T. Adhieb
Well No.	WR 7107	WR 761	WR 830	WR 465	WR 748
Co-ords. E. N.	03239 27812	03533 27849	03145 27342	03945 27545	0364 2823
Sample Date	7.7.68	1.7.68	7.7.68	3.7.68	2.7.68
Site E.C.*	8350	1785	6750	930	7000
Lab. E.C.*	9443	1863	3724	1004	3113
Test Temp.*	25.0	25.0	25.0	25.0	25.0
T.D.S.	8670	1240	8850	7930	5638
PH	7.85	7.90	7.60	8.80	7.80
Turbidity	Clear	Clear	Bright	Clear	Clear
Colour	Colourless	Colourless	Colourless	Straw	Colourless
Taste	None	None	None	None	None
Odour	None	None	None	None	None
Ca <sup>++</sup>	612.0	42.0	684.0	40.0	130.0
Mg <sup>++</sup>	341.4	48.6	268.5	72.9	255.2
Na <sup>+</sup>	1219.0	266.8	1651.4	69.0	386.9
K <sup>+</sup>	42.9	13.0	52.0	12.5	70.0
F <sup>-</sup>	0.60	0.10	0.18	0.03	0.25
SO <sub>4</sub> <sup>--</sup>	2131.2	139.2	2309.8	9.6	672.0
Cl <sup>-</sup>	2353.9	428.9	2839.5	177.2	2559.5
CO <sub>3</sub> <sup>--</sup>	-	-	-	24.0	-
HCO <sub>3</sub> <sup>-</sup>	378.2	115.9	73.2	378.2	189.1
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	17.4	8.4	10.5	5.1	2.4
Hardness*	2966	305	2829	401	1380
Alkalinity*	310	95	60	350	155
Langelier*	+1.48	+0.32	+0.69	+1.92	+1.01
Cr	N11	0.02	0.04	0.003	0.05
B	0.65	0.16	0.18	0.05	0.36
Mn	N11	N11	N11	0.07	N11
Fe	0.30	0.03	0.15	0.35	0.10
Cu	0.04	0.003	0.009	0.007	0.005
Pb	N11	N11	N11	N11	N11
Sn	-	-	-	-	-
Mo	N11	N11	N11	N11	N11
Ni	N11	0.01	N11	0.01	N11
Ag*	-	-	-	-	-
P	-	-	-	-	-
Al	8.7	0.03	4.2	0.10	1.40
Si	35.0	17.3	32.0	6.6	5.8
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77

## SECTION F - CHEMICAL ANALYSES (Contd.)

Sample No.	174	175	176	177	178
Location	T.an Nakharah	Artesian b.h.at Bahuth Ruwayyah	T.Nubaybighah	T.Marraghan	T. Hafir
Well No.	WR 832	WR 717	WR 769	WR 750	WR 833
Co.ords E. N.	03385 27583	03381 27751	03908 27959	0361 2818	03192 27294
Sample Data	6.7.68	2.7.68	2.7.68	1.7.68	7.7.68
Site E.C.*	6150	27,000	1540	5700	4250
Lab. E.C.*	7960	33,117	2050	6251	7448
Test Temp*	25.0	25.0	25.0	25.0	25.0
T.D.S.	4600	25820	1106	4308	3360
pH	8.05	7.35	7.90	7.60	7.50
Turbidity	Clear	Clear	Slightly opalescent	Clear	Clear
Colour	Colourless	Colourless	Colourless	Colourless	Colourless
Taste	None	Slightly Salty	None	None	None
Odour	None	None	None	None	None
Ca <sup>++</sup>	106.0	1080.0	36.0	72.0	190.0
Mg <sup>++</sup>	123.9	806.8	54.7	104.5	96.0
Na <sup>+</sup>	1511.1	6078.9	264.5	1173.0	680.8
K <sup>+</sup>	40.0	88.0	8.0	30.0	23.8
F <sup>-</sup>	0.24	0.15	0.07	0.08	0.21
SO <sub>4</sub> <sup>--</sup>	1118.4	2400.0	139.2	470.4	532.8
Cl <sup>-</sup>	1949.8	11911.0	329.7	1715.8	1205.3
CO <sub>3</sub> <sup>--</sup>	-	-	-	-	-
HCO <sub>3</sub> <sup>-</sup>	250.1	67.1	347.7	341.6	128.1
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	4.5	4.8	<1.0	3.6	6.6
Hardness*	775	6019	316	612	898
Alkalinity*	205	55	285	280	105
Langelier*	+1.14	+0.69	+0.82	+0.73	+0.38
Cr	N11	0.13	N11	N11	0.02
B	0.24	0.13	0.02	0.06	0.30
Mn	N11	N11	0.02	N11	N11
Fe	0.02	0.05	0.61	0.12	0.65
Cu	0.005	N11	0.02	0.01	0.007
Pb	N11	N11	N11	N11	N11
Su	-	-	-	-	-
Mo	N11	N11	N11	N11	N11
Ni	N11	N11	N11	N11	N11
Ag*	-	-	0.002	N11	N11
P	-	-	-	-	-
Al	0.08	0.47	0.06	0.40	7.4
Si	6.9	0.83	0.71	1.2	24.6
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77

## SECTION F - CHEMICAL ANALYSES (Contd.)

Sample No.	179	180	181	182	183
Location	Gharad (sample 42n,below SWL)	Bh.at Bahuth Ruwayyah	Burayrat (Ras al Khaimah Water Supply)	Riqa Hamra (Sample 45n,below SWL)	T.Duwaybah
Well No.	7WR 005	WR 7104	WR 679	7WR 008	WR 838
Co-ords. E. N.	03450 28010	03379 27549	04022 28505	03525 28057	02690 27245
Sample Date	2.7.68	2.7.68	2.7.68	2.7.68	8.7.68
Site E.C.*	7150	14600	1965	6250	10900
Lab E.C.*	20748	7448	1935	6650	13699
Test Temp*	25.0	25.0	25.0	25.0	25.0
T.D.S.	5336	17334	1212	4526	12500
pH	8.00	7.60	7.95	8.30	7.35
Turbidity	Clear	Clear	Clear	Clear	Clear
Colour	Colourless	Slightly Colourless	Colourless	Colourless	Colourless
Taste	None	Slightly Salty	None	None	None
Odour	None	None	None	None	None
Ca <sup>++</sup>	64.0	860.0	66.0	24.0	872.0
Mg <sup>++</sup>	114.2	330.5	29.2	35.2	279.5
Na <sup>+</sup>	1522.6	4142.3	345.0	1472.0	1805.5
K <sup>+</sup>	48.0	118.0	9.0	31.3	52.0
F <sup>-</sup>	0.14	0.69	0.03	0.67	0.90
SO <sub>4</sub> <sup>--</sup>	672.0	2496.0	91.2	508.8	1838.4
Cl <sup>-</sup>	2118.4	7107.7	545.9	1687.4	3775.4
CO <sub>3</sub> <sup>--</sup>	-	-	-	-	-
HCO <sub>3</sub> <sup>-</sup>	399.4	91.5	195.2	652.7	109.8
NO <sub>2</sub> <sup>-</sup>	-	-	-	-	-
NO <sub>3</sub> <sup>-</sup>	1.0	3.0	1.5	<1.0	3.0
Hardness*	631	3518	290	274	3440
Alkalinity*	328	75	160	535	90
Langelier*	+1.21	+0.86	+0.56	+1.36	+0.69
Cr	0.03	0.09	N11	0.02	0.06
B	0.17	1.0	0.03	0.07	0.50
Mn	N11	N11	N11	N11	N11
Fe	0.13	0.29	0.08	0.15	0.46
Cu	0.05	0.04	0.01	0.02	0.06
Pb	N11	N11	N11	N11	N11
Su	-	-	-	-	-
Mo	N11	N11	N11	N11	N11
Ni	N11	N11	N11	N11	N11
Ag*	-	-	-	-	-
P	-	-	-	-	-
Al	0.19	2.6	1.4	18.6	30.0
Si	1.6	19.1	7.3	9.3	25.0
As	N11	N11	N11	N11	N11
Zn	N11	N11	N11	N11	N11

\* For notes see page 77



## SECTION F - CHEMICAL ANALYSES (Contd.)

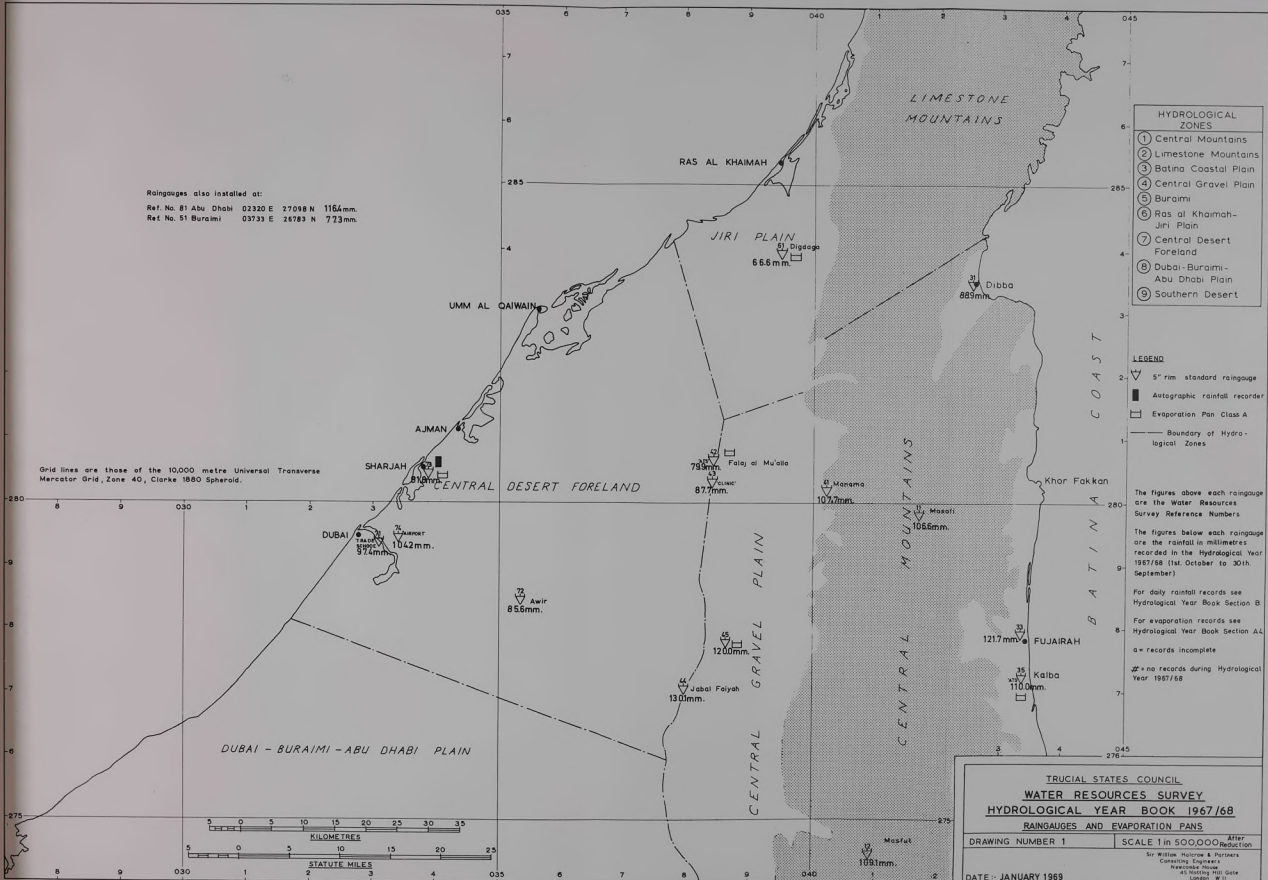
Sample No.	184	185
Location	Haremle	Lamah (Umm al Qaiwain W.S.)
Well No.	6WR016	WR7105
Co-ords. E.	03823	03768
N.	28380	28168
Sample Date	2.7.68	2.7.68
Site E.C.*	12400	1860
Lab. E.C.*	13074	2022
Test Temp*	25.0	25.0
T. D. S.	10200	1204
pH	8.15	8.40
Turbidity	Clear	Bright
Colour	Colourless	Colourless
Taste	Slightly Salty	None
Odour	None	None
Ca <sup>++</sup>	228.0	22.0
Mg <sup>++</sup>	260.0	49.8
Na <sup>+</sup>	2845.1	170.2
K <sup>+</sup>	84.0	16.3
F <sup>-</sup>	0.70	0.13
SO <sub>4</sub> <sup>--</sup>	1272.0	120.0
Cl <sup>-</sup>	4491.5	219.8
CO <sub>3</sub> <sup>--</sup>	-	-
HCO <sub>3</sub> <sup>-</sup>	317.2	262.3
NO <sub>2</sub> <sup>-</sup>	-	-
NO <sub>3</sub> <sup>-</sup>	< 1.0	2.4
Hardness*	1641	438
Alkalinity*	260	215
Langelier*	+1.64	+1.33
Cr	Nil	0.02
B	0.22	0.12
Mn	Nil	Nil
Fe	0.19	0.19
Cu	0.04	0.06
Pb	Nil	0.01
Sn	-	-
Mo	Nil	Nil
Ni	Nil	Nil
Ag*	-	-
P	-	-
Al	0.33	48.0
Si	0.30	37.0
As	Nil	Nil
Zn	Nil	Nil

\* For notes see page 77

Raingauges also installed at:

Ref. No. 81 Abu Dhabi 02320 E 27098 N 1164mm.  
 Ref. No. 91 Buraimi 03731 E 26789 N 723mm.

Grid lines are those of the 10,000 metre Universal Transverse  
 Mercator Grid, Zone 40, Clarke 1980 Spheroid.



HYDROLOGICAL ZONES

- ① Central Mountains
- ② Limestone Mountains
- ③ Batina Coastal Plain
- ④ Central Gravel Plain
- ⑤ Buraimi
- ⑥ Ras al Khaimah-Jiri Plain
- ⑦ Central Desert Foreland
- ⑧ Dubai-Buraimi-Abu Dhabi Plain
- ⑨ Southern Desert

LEGEND

- △ 5" rim standard raingauge
- Autographic rainfall recorder
- Evaporation Pan Class A
- Boundary of Hydrological Zones

The figures above each raingauge are the Water Resources Survey Reference Numbers

The figures below each raingauge are the rainfall in millimetres recorded in the Hydrological Year 1967/68 (1st October to 30th September)

For daily rainfall records see Hydrological Year Book Section B

For evaporation records see Hydrological Year Book Section A4

□ = records incomplete

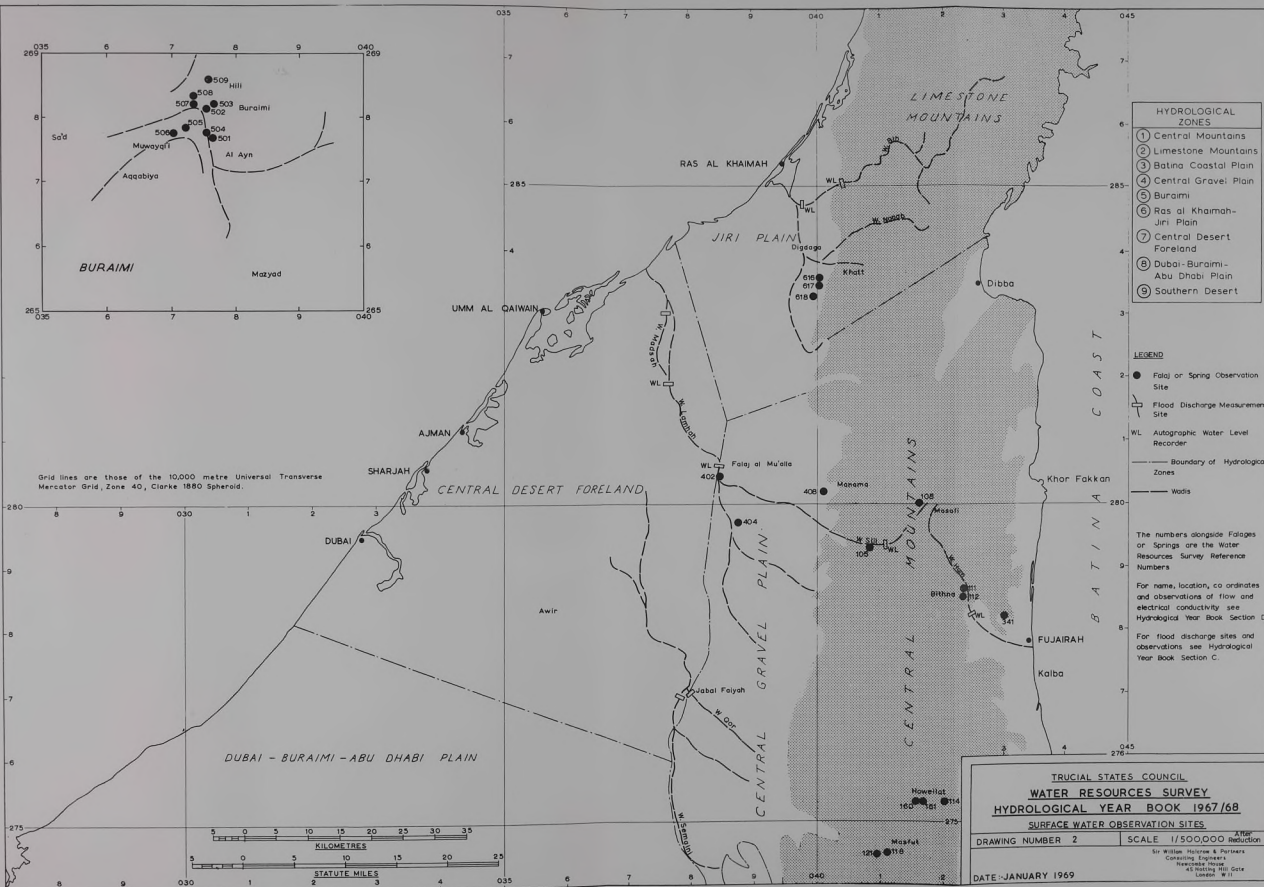
△ = no records during Hydrological Year 1967/68

TRUCIAL STATES COUNCIL  
 WATER RESOURCES SURVEY  
 HYDROLOGICAL YEAR BOOK 1967/68  
 RAINGAUGES AND EVAPORATION PANS

DRAWING NUMBER 1 SCALE 1 in 50,000 After

for William Holman & Partners  
 Consulting Engineers  
 Raschida House  
 47, Deira and Gate  
 London W 11

DATE - JANUARY 1969



Grid lines are those of the 10,000 metre Universal Transverse Mercator Grid, Zone 40, Clarke 1880 Spheroid.

