

PROCESSED CLIMATIC DATA

VOL. 6

DEVIL CANYON STATION

R&M

SUSITNA HYDROELECTRIC PROJECT

PROCESSED CLIMATIC DATA

VOLUME 6

DEVIL CANYON STATION



**R&M CONSULTANTS, INC.**  
ENGINEERS GEOLOGISTS PLANNERS SURVEYORS

S45  
171

ALASKA POWER AUTHORITY  
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA  
VOLUME 6 - DEVIL CANYON STATION

MARCH 1982

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ALASKA POWER AUTHORITY  
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA

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PROCESSED CLIMATIC DATA  
VOLUME 6  
DEVIL CANYON STATION  
JULY 17, 1980 THRU SEPTEMBER 30, 1981

The Devil Canyon Climate Station was installed on July 17, 1980, on a ridge on the South bank of the Susitna River  $\frac{1}{2}$ -mile downstream of the Devil Canyon damsite. It is located on map Talkeetna Mountains (D-5) SE $\frac{1}{4}$  Section 32, R1E, T32N, Seward Meridian. The data were collected using a Meteorology Research Incorporated (MRI) Digital Weather Station. Data thru June 30, 1981 were processed by MRI and all subsequent data by R&M Consultants. An explanation of the parameters measured is located at the back of this report.





R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING JULY , 1980

DAY 10

DAY 11

DAY 12

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C
0300	*****	*****	**	**	****	***	****	0300	*****	*****	**	**	****	***	****	0300	*****	*****	**	**	****	***	****	***
0600	*****	*****	**	**	****	***	****	0600	*****	*****	**	**	****	***	****	0600	*****	*****	**	**	****	***	****	***
0900	*****	*****	**	**	****	***	****	0900	*****	*****	**	**	****	***	****	0900	*****	*****	**	**	****	***	****	***
1200	*****	*****	**	**	****	***	****	1200	*****	*****	**	**	****	***	****	1200	*****	*****	**	**	****	***	****	***
1500	*****	*****	**	**	****	***	****	1500	*****	*****	**	**	****	***	****	1500	*****	*****	**	**	****	***	****	***
1800	*****	*****	**	**	****	***	****	1800	*****	*****	**	**	****	***	****	1800	*****	*****	**	**	****	***	****	***
2100	*****	*****	**	**	****	***	****	2100	*****	*****	**	**	****	***	****	2100	*****	*****	**	**	****	***	****	***
2400	*****	*****	**	**	****	***	****	2400	*****	*****	**	**	****	***	****	2400	*****	*****	**	**	****	***	****	***

DAY 13

DAY 14

DAY 15

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C
0300	*****	*****	**	**	****	***	****	0300	*****	*****	**	**	****	***	****	0300	*****	*****	**	**	****	***	****	***
0600	*****	*****	**	**	****	***	****	0600	*****	*****	**	**	****	***	****	0600	*****	*****	**	**	****	***	****	***
0900	*****	*****	**	**	****	***	****	0900	*****	*****	**	**	****	***	****	0900	*****	*****	**	**	****	***	****	***
1200	*****	*****	**	**	****	***	****	1200	*****	*****	**	**	****	***	****	1200	*****	*****	**	**	****	***	****	***
1500	*****	*****	**	**	****	***	****	1500	*****	*****	**	**	****	***	****	1500	*****	*****	**	**	****	***	****	***
1800	*****	*****	**	**	****	***	****	1800	*****	*****	**	**	****	***	****	1800	*****	*****	**	**	****	***	****	***
2100	*****	*****	**	**	****	***	****	2100	*****	*****	**	**	****	***	****	2100	*****	*****	**	**	****	***	****	***
2400	*****	*****	**	**	****	***	****	2400	*****	*****	**	**	****	***	****	2400	*****	*****	**	**	****	***	****	***

DAY 16

DAY 17

DAY 18

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW		
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C	POINT DEG C
0300	*****	*****	**	**	****	***	****	0300	*****	*****	**	**	****	***	****	0300	10.9	*****	90	179	.5	178	1.3	001	
0600	*****	*****	**	**	****	***	****	0600	*****	*****	**	**	****	***	****	0600	12.2	9.4	83	153	.1	205	1.3	020	
0900	*****	*****	**	**	****	***	****	0900	*****	*****	**	**	****	***	****	0900	15.2	7.9	62	341	.9	300	3.2	032	
1200	*****	*****	**	**	****	***	****	1200	*****	*****	**	**	****	***	****	1200	18.6	7.6	49	324	1.5	327	4.4	078	
1500	*****	*****	**	**	****	***	****	1500	*****	*****	**	**	****	***	****	1500	21.0	6.5	39	301	2.5	308	4.4	086	
1800	*****	*****	**	**	****	***	****	1800	15.9	*****	54	346	.4	087	3.2	029	1800	21.9	4.8	33	276	1.9	276	5.1	029
2100	*****	*****	**	**	****	***	****	2100	13.7	*****	68	280	.8	311	3.2	001	2100	15.8	4.7	48	279	.8	279	3.8	002
2400	*****	*****	**	**	****	***	****	2400	11.9	*****	73	219	.6	253	1.9	001	2400	9.4	*****	69	158	1.0	144	2.5	000

## R&amp;M CONSULTANTS, INC.

## SUSITMA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JULY , 1980

## DAY 19

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	6.8	*****	05	140	.6	115	2.5	001
0600	8.9	4.5	74	003	.8	061	2.5	021
0900	17.6	8.7	56	009	1.1	043	2.5	058
1200	23.7	-1.3	19	303	1.7	287	3.8	041
1500	23.7	-4.5	15	352	1.4	037	6.3	025
1800	23.6	-4.6	15	021	2.7	037	6.3	034
2100	16.6	1.4	30	022	1.3	017	5.7	002
2400	12.6	4.0	50	155	1.1	112	3.2	001

## DAY 20

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	9.4	*****	72	107	1.3	115	3.8	001
0600	11.2	5.4	68	057	1.5	071	3.2	021
0900	19.9	7.2	44	040	1.5	047	3.2	057
1200	22.9	.0	22	015	1.6	052	5.7	082
1500	23.0	-2.6	18	001	2.0	062	5.7	070
1800	23.8	-6.3	13	011	2.1	009	5.7	030
2100	15.7	*****	41	027	1.0	018	4.4	002
2400	10.5	2.5	58	146	1.2	128	3.8	000

## DAY 21

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	7.8	3.6	75	102	1.0	111	3.8	001
0600	10.4	4.9	69	063	1.1	095	2.5	024
0900	16.9	8.0	56	359	1.1	302	3.8	056
1200	20.3	7.9	45	317	2.3	332	4.4	069
1500	22.1	5.9	35	317	2.9	311	5.1	070
1800	21.9	6.1	36	310	1.7	003	5.7	027
2100	17.3	10.1	63	283	1.4	287	3.8	001
2400	13.8	*****	74	248	.9	269	2.5	001

## DAY 22

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	10.3	*****	90	175	.8	184	1.9	001
0600	10.9	*****	80	108	.3	136	1.9	017
0900	17.8	9.4	58	355	1.0	334	2.5	055
1200	22.4	8.8	42	323	1.3	359	3.8	081
1500	23.5	2.8	20	033	1.4	020	5.1	058
1800	15.0	*****	84	032	.4	359	12.7	015
2100	13.5	10.6	83	142	.5	192	1.9	001
2400	10.3	8.2	07	130	1.1	142	2.5	000

## DAY 23

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	8.2	*****	93	108	.8	089	3.2	001
0600	10.9	7.9	82	056	1.0	046	3.2	021
0900	18.7	10.5	59	046	1.7	048	3.2	055
1200	24.1	2.8	25	050	1.4	057	3.2	078
1500	22.6	3.6	29	024	1.3	015	5.7	020
1800	21.3	6.0	37	301	1.0	031	5.7	005
2100	16.2	9.1	63	237	.9	247	3.2	001
2400	14.9	*****	70	185	.9	165	1.9	000

## DAY 24

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	12.7	11.3	91	234	1.0	239	2.5	001
0600	14.3	10.9	80	242	.8	262	2.5	026
0900	15.0	9.9	72	312	2.0	312	5.1	021
1200	16.5	10.3	67	306	1.9	297	4.4	035
1500	16.7	10.5	67	317	2.5	330	5.7	018
1800	15.0	10.2	73	309	2.2	318	5.7	003
2100	13.7	10.5	81	300	1.5	299	4.4	001
2400	12.0	10.4	90	308	1.8	290	4.4	000

## DAY 25

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	11.3	10.2	93	289	1.3	316	3.8	001
0600	10.9	10.1	95	285	1.1	318	3.2	004
0900	10.9	10.0	94	209	.8	262	2.5	006
1200	11.1	10.2	94	293	1.3	302	3.8	005
1500	11.8	*****	91	300	1.7	302	5.1	008
1800	11.9	*****	70	307	.5	346	2.5	002
2100	11.7	*****	91	255	.7	267	2.5	000
2400	10.8	9.7	93	146	.7	144	4.4	000

## DAY 26

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	9.5	*****	94	111	.9	084	2.5	001
0600	11.1	*****	86	087	.4	108	1.9	015
0900	12.9	9.1	78	323	.9	310	2.5	027
1200	12.8	9.0	78	295	1.1	293	3.8	028
1500	15.3	8.7	65	308	1.9	317	5.7	018
1800	13.6	9.2	75	305	1.8	317	5.7	007
2100	11.9	*****	93	248	.6	303	3.8	001
2400	12.0	9.2	83	227	.7	196	3.2	000

## DAY 27

HOUR NDNG	DEW TEMP.	POINT DIR.	RH %	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD M/S
DEG C	DEG C	DEG	DEG	DEG	M/S	DEG	M/S	MW
0300	10.9	*****	93	262	1.1	275	3.8	000
0600	10.9	8.8	87	262	.9	256	3.8	003
0900	9.8	8.5	92	276	1.6	299	4.4	006
1200	11.1	7.4	78	265	2.1	259	7.6	027
1500	11.2	7.7	79	247	2.6	238	8.3	012
1800	9.5	8.6	94	231	.4	301	3.8	002
2100	9.3	*****	97	275	.3	297	3.2	001
2400	8.5	7.9	96	165	.7	120	2.5	000

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JULY , 1980

DAY 28

DAY 29

DAY 30

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW						
	TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.		TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.		TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S
0300	8.0	*****	96	193	.4	132	2.5 000	0300	7.5	*****	99	101	.9	113	2.5 000	0300	8.1	-111.	00	114	.9	115	1.9 000
0600	8.2	*****	80	267	.3	267	1.9 011	0600	8.0	7.7	98	093	.8	104	2.5 003	0600	7.6	*****	97	116	.6	129	1.9 007
0900	9.3	*****	89	075	.5	022	1.9 010	0900	10.5	8.9	90	031	1.0	042	2.5 020	0900	13.8	6.6	62	070	1.4	093	4.4 055
1200	10.3	*****	84	056	.8	033	2.5 027	1200	10.6	*****	87	316	.7	298	3.8 029	1200	16.2	5.1	48	080	1.2	083	5.1 064
1500	12.8	*****	69	355	.6	029	2.5 027	1500	11.9	8.7	81	287	1.3	294	3.2 027	1500	16.5	6.0	50	064	2.3	088	5.1 035
1800	11.3	7.9	80	110	.4	093	3.2 015	1800	11.7	*****	82	311	.8	292	1.9 008	1800	16.2	5.7	50	053	2.0	020	8.3 024
2100	10.4	7.8	84	174	.5	107	3.2 001	2100	10.1	*****	82	235	.4	238	1.9 001	2100	10.2	5.9	75	124	.9	135	3.2 001
2400	8.5	*****	96	184	.3	191	2.5 000	2400	8.8	*****	95	150	.8	153	1.9 000	2400	9.2	*****	93	153	.7	169	2.5 000

DAY 31

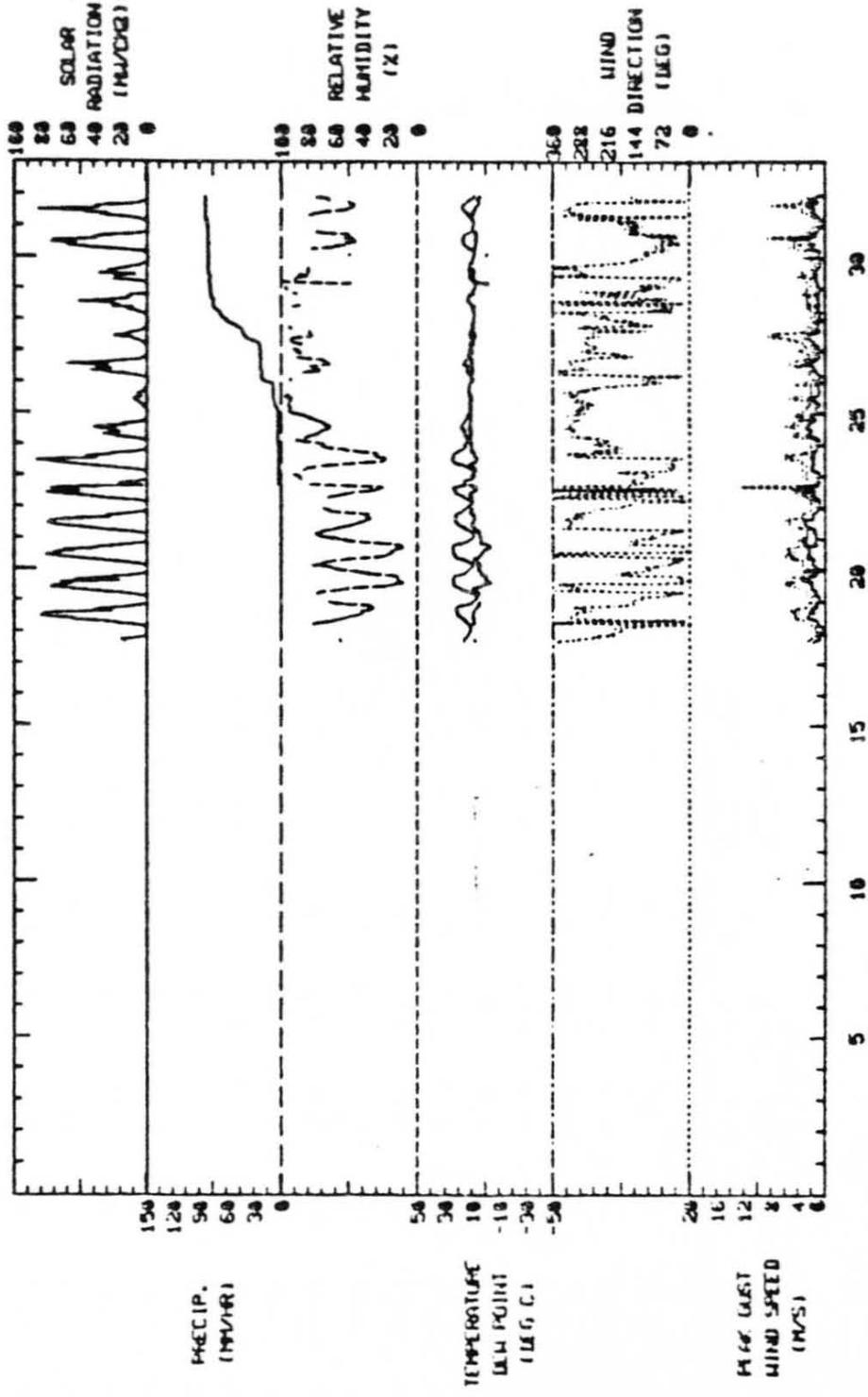
DAY 31

DAY 31

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW							
	TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.		TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.		TEMP.	POINT	RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	
0300	8.5	*****	00	143	.4	091	1.9 001	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****
0600	9.1	*****	99	165	.2	188	1.3 004	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****
0900	12.0	*****	83	330	.4	032	1.9 035	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****
1200	14.7	9.0	69	302	1.1	283	2.5 052	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****
1500	16.7	5.9	49	317	1.5	331	3.2 036	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****
1800	14.4	3.4	48	312	2.2	298	7.6 005	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****
2100	11.9	5.2	64	272	.5	315	3.8 001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****
2400	7.9	3.9	76	137	1.6	135	3.2 001	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****



RHM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH    DEVIL CANYON WEATHER STATION  
 DATA START: 17    JULY    1968

## P&amp;H CONSULTANTS, INC.

## SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JULY , 1980

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	1.52	3.05	.15	.07	0.00	0.00	0.00	4.79
NNE	1.74	5.08	.80	0.00	0.00	0.00	0.00	7.62
NE	1.31	4.79	.15	0.00	0.00	0.00	0.00	6.24
ENE	.80	2.54	0.00	0.00	0.00	0.00	0.00	3.34
E	1.60	3.34	0.00	0.00	0.00	0.00	0.00	4.93
ESE	1.81	3.41	0.00	0.00	0.00	0.00	0.00	5.22
SE	3.05	3.05	0.00	0.00	0.00	0.00	0.00	6.10
SSE	4.14	2.47	0.00	0.00	0.00	0.00	0.00	6.60
S	3.63	1.45	0.00	0.00	0.00	0.00	0.00	5.08
SSW	2.03	.80	0.00	0.00	0.00	0.00	0.00	2.83
SW	2.98	1.23	.07	0.00	0.00	0.00	0.00	4.28
WSW	2.76	3.48	.29	0.00	0.00	0.00	0.00	6.53
W	1.52	6.10	0.00	0.00	0.00	0.00	0.00	7.62
WNW	1.74	9.87	.22	0.00	0.00	0.00	0.00	11.83
NW	1.74	9.14	1.02	0.00	0.00	0.00	0.00	11.90
NNW	1.60	2.83	.15	0.00	0.00	0.00	0.00	4.57
CALM								.51
TOTAL	33.96	62.63	2.83	.07	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1378 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY





RAM CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING AUGUST , 1980

DAY 01

DAY 02

DAY 03

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.	SPD. M/S			DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.			SPD. M/S	DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	
0300	4.4	4.0	97	115	1.2	104	3.2	001	0300	6.6	*****	93	110	.9	154	3.8	001	0300	6.2	*****	95	139	.9	138	2.5	000						
0600	6.1	5.0	81	085	1.1	100	3.2	023	0600	6.8	5.6	92	060	1.0	080	3.2	003	0600	8.0	*****	93	123	.5	104	1.9	018						
0900	14.5	5.0	53	020	1.0	061	2.5	057	0900	10.0	*****	88	080	1.0	051	4.4	027	0900	11.7	7.2	74	330	1.0	344	3.2	021						
1200	16.7	1.5	36	268	1.7	269	5.1	083	1200	10.4	10.2	99	291	.8	270	2.5	004	1200	13.5	6.5	63	303	2.3	309	5.1	025						
1500	18.0	-.4	29	298	1.8	280	5.1	012	1500	11.1	*****	89	271	.8	275	2.5	023	1500	15.6	6.2	54	317	2.8	335	7.6	074						
1800	17.9	*****	36	297	1.8	312	5.1	023	1800	10.2	*****	93	262	1.0	246	3.2	011	1800	13.5	7.4	67	302	1.9	269	4.4	009						
2100	11.5	3.7	59	227	.9	272	3.2	001	2100	9.1	8.8	98	256	.8	250	2.5	000	2100	11.2	*****	95	277	1.0	286	3.2	000						
2400	7.2	*****	84	164	1.0	170	2.5	001	2400	7.4	6.8	96	169	.7	146	1.9	000	2400	10.5	9.6	94	251	.5	270	2.5	001						

DAY 04

DAY 05

DAY 06

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.	SPD. M/S			DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.			SPD. M/S	DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	
0300	9.4	9.1	98	229	.8	260	3.2	001	0300	7.4	6.6	95	081	1.0	061	3.2	001	0300	12.9	*****	91	188	.3	248	1.9	000						
0600	9.5	*****	96	213	.5	222	2.5	006	0600	8.5	6.4	87	063	1.4	073	3.2	015	0600	12.7	*****	95	193	.2	130	1.9	004						
0900	10.3	*****	92	299	.2	263	1.3	016	0900	15.4	7.9	61	035	1.1	050	2.5	057	0900	12.9	-41.2	01	356	.4	320	2.5	016						
1200	13.6	8.2	70	305	.7	292	3.2	024	1200	18.3	7.3	49	312	1.7	320	3.8	081	1200	15.2	11.0	76	317	1.4	325	5.1	024						
1500	16.8	8.9	60	269	.8	311	3.2	057	1500	18.9	7.6	48	326	2.0	322	5.1	042	1500	15.3	9.6	69	310	2.1	317	5.1	022						
1800	17.1	7.1	52	298	1.5	283	3.2	021	1800	17.8	8.0	53	304	2.2	323	5.1	010	1800	14.4	10.0	75	307	2.1	310	5.1	004						
2100	10.8	*****	84	239	.5	309	2.5	001	2100	14.8	*****	75	236	.9	261	2.5	001	2100	12.1	11.6	97	294	1.3	298	3.2	000						
2400	7.4	*****	98	131	.9	123	2.5	000	2400	14.3	10.5	78	209	.6	254	2.5	001	2400	9.7	-43.2	01	302	2.2	313	5.7	001						

DAY 07

DAY 08

DAY 09

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.	SPD. M/S			DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	DIR. DEG.			SPD. M/S	DIR. DEG.	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	
0300	8.9	*****	97	277	.9	303	3.8	000	0300	8.4	*****	94	163	.3	177	1.3	000	0300	9.9	5.4	74	166	1.0	163	1.9	001						
0600	9.2	*****	96	148	.3	155	1.9	005	0600	8.5	*****	79	095	.2	134	1.3	003	0600	11.8	5.8	67	139	1.1	148	3.2	015						
0900	9.9	*****	86	328	.6	332	1.9	019	0900	10.1	*****	28	344	.5	021	1.3	019	0900	13.6	6.4	62	106	2.5	095	6.3	032						
1200	10.3	*****	88	280	.9	275	2.5	017	1200	11.9	6.5	70	299	.9	286	1.9	036	1200	16.1	6.2	52	101	2.5	113	7.0	036						
1500	9.9	6.4	82	291	1.1	313	3.2	014	1500	13.6	6.9	64	291	1.5	277	3.2	038	1500	17.0	5.8	48	097	2.7	104	7.0	028						
1800	9.6	*****	96	300	.7	346	1.9	006	1800	13.8	*****	65	280	1.1	271	3.2	007	1800	16.0	8.9	63	100	.9	090	5.1	013						
2100	9.0	*****	96	217	.3	268	1.3	000	2100	10.8	7.6	81	210	.6	198	1.9	001	2100	11.7	-21.5	08	250	1.2	294	2.5	000						
2400	8.7	*****	95	146	.4	062	1.9	001	2400	9.8	*****	78	160	.9	119	2.5	000	2400	10.2	*****	05	192	1.0	194	1.9	000						

R&M CONSULTANTS, INC.  
 SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING AUGUST, 1980

DAY 10									DAY 11									DAY 12									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	9.8	****	05	141	.0	157	2.5	000	0300	7.5	6.3	92	125	1.1	141	2.5	000	0300	8.4	****	06	167	.7	172	2.5	000	
0600	10.4	-27.5	05	148	.7	134	2.5	008	0600	10.0	-21.5	09	096	1.3	121	4.4	017	0600	9.0	****	06	076	.8	094	1.9	013	
0900	14.9	7.1	60	319	.6	335	2.5	043	0900	13.5	8.1	70	099	2.3	110	5.1	051	0900	13.9	-27.4	04	018	.9	044	2.5	023	
1200	20.4	6.0	41	097	1.2	103	5.1	069	1200	21.3	5.6	36	060	1.6	100	4.4	058	1200	17.0	-28.2	03	299	2.1	312	5.1	063	
1500	22.7	6.8	30	119	1.9	113	5.1	054	1500	22.9	6.2	34	013	.0	089	3.8	039	1500	13.0	-28.0	04	306	3.4	300	6.3	026	
1800	20.1	8.4	47	043	.4	103	5.1	010	1800	21.4	13.8	62	282	.9	250	2.5	016	1800	11.3	-26.9	05	302	3.0	304	7.6	004	
2100	12.8	****	50	293	1.5	298	5.1	000	2100	15.1	-26.5	04	286	1.5	316	4.4	000	2100	9.4	-26.3	06	304	2.0	307	5.1	000	
2400	9.0	-26.0	00	177	1.0	148	2.5	000	2400	10.9	-27.2	05	174	.8	228	1.9	000	2400	7.7	-27.6	06	291	1.8	302	4.4	000	

DAY 13									DAY 14									DAY 15									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	7.2	-28.0	00	304	1.3	309	3.6	000	0300	****	****	**	**	**	**	****	****	0300	****	****	**	**	**	**	****	****	
0600	7.1	-28.0	00	297	1.0	318	3.2	002	0600	****	****	**	**	**	**	****	****	0600	****	****	**	**	**	**	****	****	
0900	7.7	-27.6	00	313	1.3	303	3.2	011	0900	****	****	**	**	**	**	****	****	0900	****	****	**	**	**	**	****	****	
1200	8.5	-27.0	00	312	1.6	309	3.2	013	1200	****	****	**	**	**	**	****	****	1200	****	****	**	**	**	**	****	****	
1500	8.3	-27.2	00	307	1.7	304	3.2	007	1500	****	****	**	**	**	**	****	****	1500	****	****	**	**	**	**	****	****	
1800	7.7	-27.6	00	299	1.2	295	3.2	004	1800	****	****	**	**	**	**	****	****	1800	****	****	**	**	**	**	****	****	
2100	6.8	****	07	289	.9	326	3.2	000	2100	****	****	**	**	**	**	****	****	2100	****	****	**	**	**	**	****	****	
2400	****	****	**	192	.7	191	1.3	**	2400	****	****	**	**	**	**	****	****	2400	****	****	**	**	**	**	****	****	

DAY 16									DAY 17									DAY 18									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	****	****	**	**	**	**	****	****	0300	****	****	**	**	**	**	****	****	0300	****	****	**	**	**	**	****	****	
0600	****	****	**	**	**	**	****	****	0600	****	****	**	**	**	**	****	****	0600	****	****	**	**	**	**	****	****	
0900	****	****	**	**	**	**	****	****	0900	****	****	**	**	**	**	****	****	0900	****	****	**	**	**	**	****	****	
1200	****	****	**	**	**	**	****	****	1200	****	****	**	**	**	**	****	****	1200	****	****	**	**	**	**	****	****	
1500	****	****	**	**	**	**	****	****	1500	****	****	**	**	**	**	****	****	1500	****	****	**	**	**	**	****	****	
1800	****	****	**	**	**	**	****	****	1800	****	****	**	**	**	**	****	****	1800	****	****	**	**	**	**	****	****	
2100	****	****	**	**	**	**	****	****	2100	****	****	**	**	**	**	****	****	2100	****	****	**	**	**	**	****	****	
2400	****	****	**	**	**	**	****	****	2400	****	****	**	**	**	**	****	****	2400	****	****	**	**	**	**	****	****	



R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING AUGUST , 1980

DAY 28

DAY 29

DAY 30

HR	TEMP.	DEW	WIND	WIND	GUST	MAX.	DIR.	SPD.	NDNG	TEMP.	DEW	WIND	WIND	GUST	MAX.	DIR.	SPD.	NDNG	TEMP.	DEW	WIND	WIND	GUST	MAX.	
NDNG	DEG C	DEG C	%	DIR.	M/S	DEG.	DEG.	M/S	MIN	DEG C	DEG C	%	DIR.	M/S	DEG.	DEG.	M/S	MIN	DEG C	DEG C	%	DIR.	M/S	DEG.	M/S
0300	*****	*****	***	****	****	****	***	****	0300	*****	*****	***	****	****	****	***	****	0300	*****	*****	***	****	****	****	***
0600	*****	*****	***	****	****	****	***	****	0600	*****	*****	***	****	****	****	***	****	0600	*****	*****	***	****	****	****	***
0900	*****	*****	***	****	****	****	***	****	0900	*****	*****	***	****	****	****	***	****	0900	*****	*****	***	****	****	****	***
1200	*****	*****	***	****	****	****	***	****	1200	*****	*****	***	****	****	****	***	****	1200	*****	*****	***	****	****	****	***
1500	*****	*****	***	****	****	****	***	****	1500	*****	*****	***	****	****	****	***	****	1500	*****	*****	***	****	****	****	***
1800	*****	*****	***	****	****	****	***	****	1800	*****	*****	***	****	****	****	***	****	1800	*****	*****	***	****	****	****	***
2100	*****	*****	***	****	****	****	***	****	2100	*****	*****	***	****	****	****	***	****	2100	*****	*****	***	****	****	****	***
2400	*****	*****	***	****	****	****	***	****	2400	*****	*****	***	****	****	****	***	****	2400	*****	*****	***	****	****	****	***

DAY 31

DAY 31

DAY 31

HR	TEMP.	DEW	WIND	WIND	GUST	MAX.	DIR.	SPD.	NDNG	TEMP.	DEW	WIND	WIND	GUST	MAX.	DIR.	SPD.	NDNG	TEMP.	DEW	WIND	WIND	GUST	MAX.	
NDNG	DEG C	DEG C	%	DIR.	M/S	DEG.	DEG.	M/S	MIN	DEG C	DEG C	%	DIR.	M/S	DEG.	DEG.	M/S	MIN	DEG C	DEG C	%	DIR.	M/S	DEG.	M/S
0300	*****	*****	***	****	****	****	***	****	0300	*****	*****	***	****	****	****	***	****	0300	*****	*****	***	****	****	****	***
0600	*****	*****	***	****	****	****	***	****	0600	*****	*****	***	****	****	****	***	****	0600	*****	*****	***	****	****	****	***
0900	*****	*****	***	****	****	****	***	****	0900	*****	*****	***	****	****	****	***	****	0900	*****	*****	***	****	****	****	***
1200	*****	*****	***	****	****	****	***	****	1200	*****	*****	***	****	****	****	***	****	1200	*****	*****	***	****	****	****	***
1500	*****	*****	***	****	****	****	***	****	1500	*****	*****	***	****	****	****	***	****	1500	*****	*****	***	****	****	****	***
1800	*****	*****	***	****	****	****	***	****	1800	*****	*****	***	****	****	****	***	****	1800	*****	*****	***	****	****	****	***
2100	*****	*****	***	****	****	****	***	****	2100	*****	*****	***	****	****	****	***	****	2100	*****	*****	***	****	****	****	***
2400	*****	*****	***	****	****	****	***	****	2400	*****	*****	***	****	****	****	***	****	2400	*****	*****	***	****	****	****	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING AUGUST, 1980

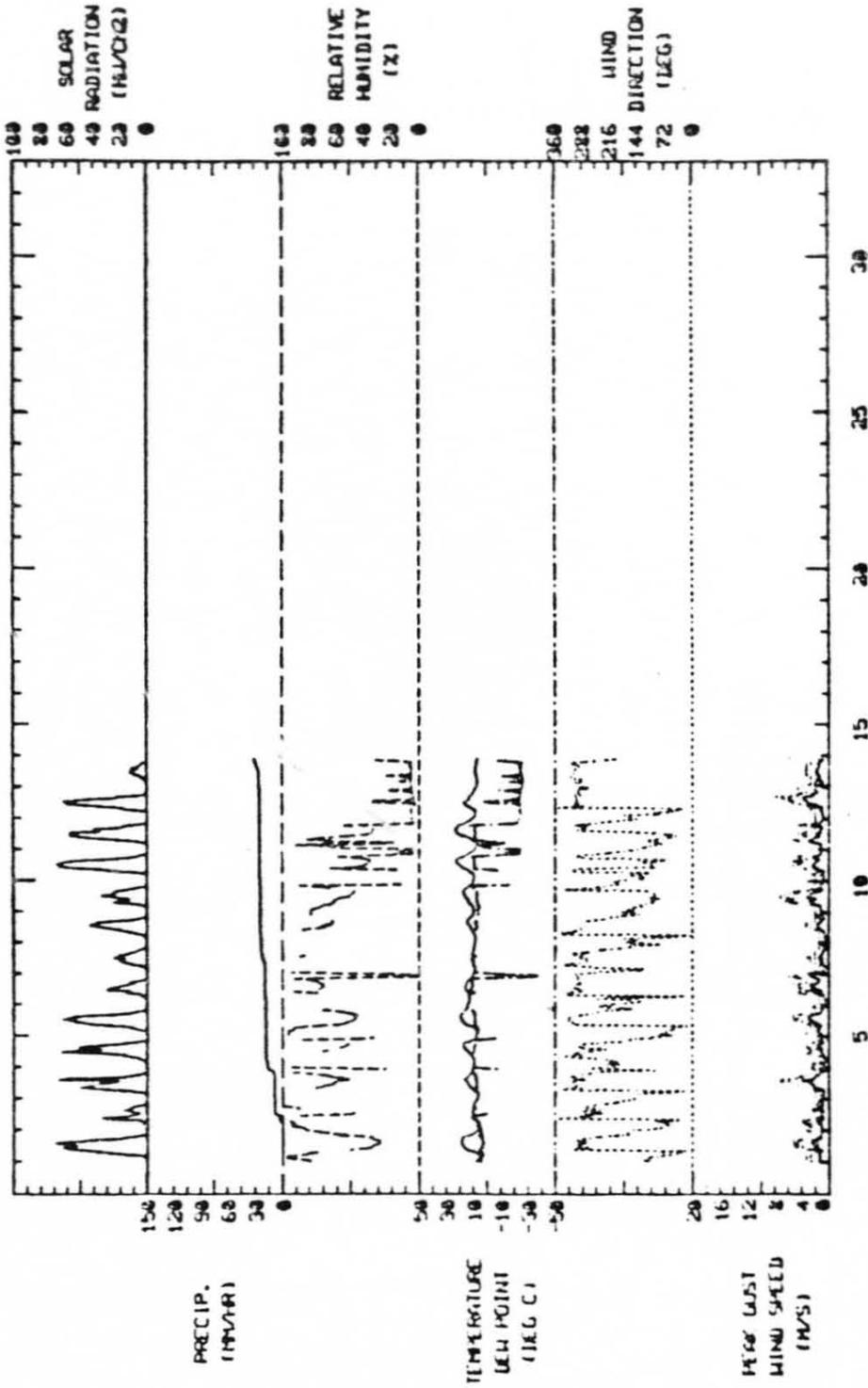
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. KIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY DAY WH/SQM	DAY
01	19.2	3.9	11.6	294	.3	1.4	269	5.1	WNA	58	2.8	0.0	6528	01
02	11.6	6.5	9.1	224	.1	1.0	091	4.4	E	85	7.9	8.6	2033	02
03	16.9	6.1	11.5	303	1.0	1.5	335	7.6	W	67	7.4	6.8	4640	03
04	17.7	7.4	12.6	260	.4	.9	260	3.2	WNA	63	8.3	3.0	4270	04
05	19.7	6.7	13.2	332	.7	1.5	322	5.1	W	67	7.8	0.0	5215	05
06	10.1	9.7	12.9	305	1.1	1.4	313	5.7	W	65	-7.0	.6	2038	06
07	11.0	8.5	9.8	281	.4	.8	303	3.8	WNA	82	6.9	4.4	2098	07
08	14.9	6.4	11.6	269	.4	.8	277	3.2	WNA	71	7.0	.8	3248	08
09	17.8	9.2	13.5	120	1.2	1.7	113	7.0	E	59	2.4	.4	2900	09
10	23.5	9.0	16.3	132	.3	1.3	103	5.1	ESE	34	-4.2	.2	5645	10
11	23.9	6.7	15.3	097	.5	1.4	110	5.1	ESE	41	-4.4	0.0	4938	11
12	17.0	7.7	12.4	306	1.4	1.9	304	7.6	WNW	09	-27.4	.6	4455	12
13	*****	*****	*****	304	1.2	1.3	309	3.8	W	08	-27.6	5.4	1116	13
14	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	14
15	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	15
16	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	16
17	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	17
18	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	18
19	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	19
20	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	20
21	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	21
22	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	22
23	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	23
24	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	24
25	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	25
26	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	26
27	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	27
28	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	28
29	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	29
30	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	30
31	*****	*****	*****	***	***	***	***	***	MSG	**	*****	***	***	31
MONTH	23.9	3.9	12.5	301	.4	1.3	335	7.6	WNA	54	-1.5	30.8	49121	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.0  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RHM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON WEATHER STATION

DATA START: 01 AUGUST, 1980

R&M CONSULTANTS, INC.

SUSITUA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING AUGUST, 1980

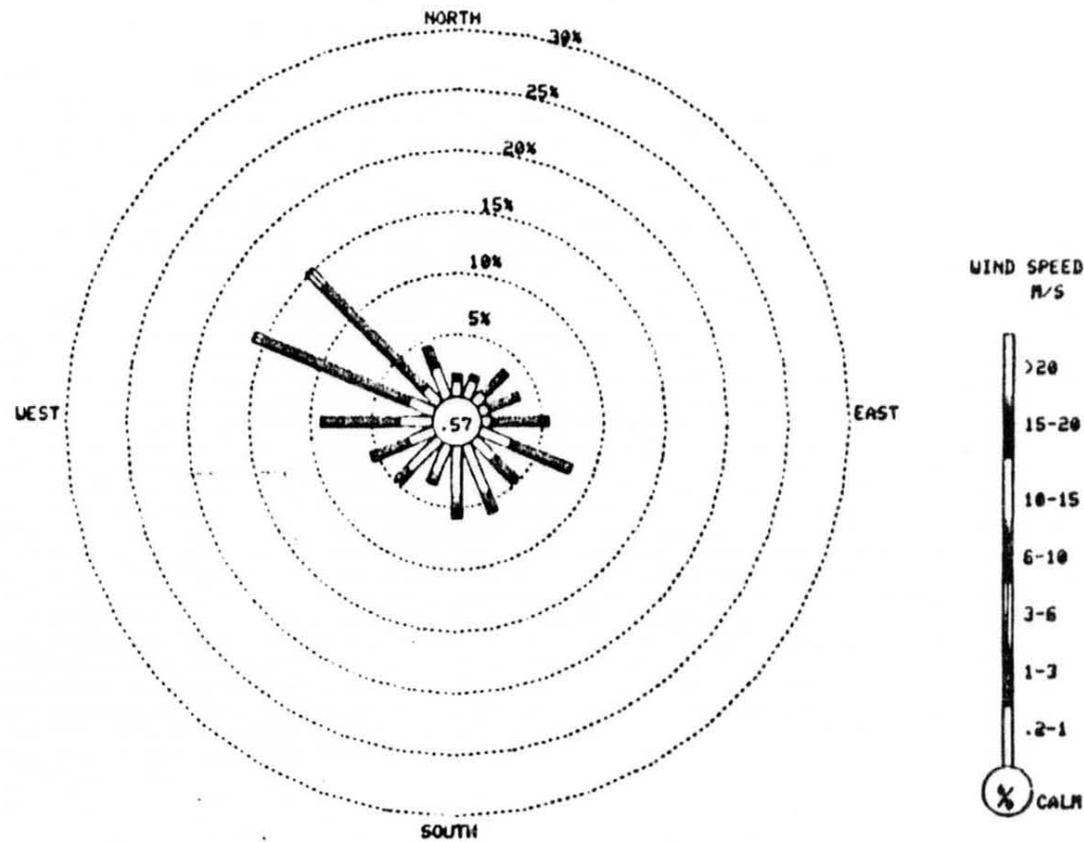
DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	1.21	.57	.08	0.00	0.00	0.00	0.00	1.86
NNE	1.45	.57	0.00	0.00	0.00	0.00	0.00	2.02
NE	1.05	2.56	0.00	0.00	0.00	0.00	0.00	3.63
ENE	.73	2.75	0.00	0.00	0.00	0.00	0.00	3.47
E	.81	4.36	.32	0.00	0.00	0.00	0.00	5.49
ESE	2.75	4.68	.65	0.00	0.00	0.00	0.00	8.08
SE	2.26	2.50	0.00	0.00	0.00	0.00	0.00	4.77
SSE	4.28	1.62	0.00	0.00	0.00	0.00	0.00	5.90
S	3.96	1.86	0.00	0.00	0.00	0.00	0.00	5.82
SSW	2.58	.81	0.00	0.00	0.00	0.00	0.00	3.39
SW	3.47	1.29	0.00	0.00	0.00	0.00	0.00	4.77
WSW	2.26	3.23	0.00	0.00	0.00	0.00	0.00	5.49
W	2.75	6.38	0.00	0.00	0.00	0.00	0.00	9.13
WNW	2.26	12.84	.81	0.00	0.00	0.00	0.00	15.91
NW	1.70	11.71	1.78	0.00	0.00	0.00	0.00	15.19
NNW	2.67	1.70	.16	0.00	0.00	0.00	0.00	4.52
CALM	-----	-----	-----	-----	-----	-----	-----	.57
TOTAL	36.19	59.45	3.80	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1238 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION

AUGUST, 1980



WIND ROSE PLOT



R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING SEPTEMBER, 1980

DAY 01

DAY 02

DAY 03

HOUR NDNG	DEW TEMP. DEG C	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S	HOUR NDNG	TEMP. DEG C	RAD Mw	DEW POINT DEG C	RH %	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S
0300	*****	***	***	***	***	***	0300	*****	***	*****	***	***	***	***	***	***
0600	*****	***	***	***	***	***	0600	*****	***	*****	***	***	***	***	***	***
0900	*****	***	***	***	***	***	0900	*****	***	*****	***	***	***	***	***	***
1200	*****	***	***	***	***	***	1200	*****	***	*****	***	***	***	***	***	***
1500	*****	***	***	***	***	***	1500	*****	***	*****	***	***	***	***	***	***
1800	*****	***	***	***	***	***	1800	*****	***	*****	***	***	***	***	***	***
2100	*****	***	***	***	***	***	2100	*****	***	*****	***	***	***	***	***	***
2400	*****	***	***	***	***	***	2400	*****	***	*****	***	***	***	***	***	***

DAY 04

DAY 05

DAY 06

HOUR NDNG	DEW TEMP. DEG C	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S	HOUR NDNG	TEMP. DEG C	RAD Mw	DEW POINT DEG C	RH %	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S
0300	*****	***	***	***	***	***	0300	*****	***	*****	***	***	***	***	***	***
0600	*****	***	***	***	***	***	0600	*****	***	*****	***	***	***	***	***	***
0900	*****	***	***	***	***	***	0900	*****	***	*****	***	***	***	***	***	***
1200	*****	***	***	***	***	***	1200	*****	***	*****	***	***	***	***	***	***
1500	*****	***	***	***	***	***	1500	*****	***	*****	***	***	***	***	***	***
1800	*****	***	***	***	***	***	1800	*****	***	*****	***	***	***	***	***	***
2100	*****	***	***	***	***	***	2100	*****	***	*****	***	***	***	***	***	***
2400	*****	***	***	***	***	***	2400	*****	***	*****	***	***	***	***	***	***

DAY 07

DAY 08

DAY 09

HOUR NDNG	DEW TEMP. DEG C	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S	HOUR NDNG	TEMP. DEG C	RAD Mw	DEW POINT DEG C	RH %	WIND DIR. % DEG.	WIND SPD. M/S	GUST DIR. % DEG.	GUST M/S	MAX. GUST M/S
0300	*****	***	***	***	***	***	0300	*****	***	*****	***	***	***	***	***	***
0600	*****	***	***	***	***	***	0600	*****	***	*****	***	***	***	***	***	***
0900	*****	***	***	***	***	***	0900	*****	***	*****	***	***	***	***	***	***
1200	*****	***	***	***	***	***	1200	*****	***	*****	***	***	***	***	***	***
1500	*****	***	***	***	***	***	1500	*****	***	*****	***	***	***	***	***	***
1800	*****	***	***	***	***	***	1800	*****	***	*****	***	***	***	***	***	***
2100	*****	***	***	***	***	***	2100	*****	***	*****	***	***	***	***	***	***
2400	*****	***	***	***	***	***	2400	*****	***	*****	***	***	***	***	***	***



R&M CONSULTANTS, INC.  
 SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING SEPTEMBER, 1980

DAY 19

DAY 20

DAY 21

HOUR NDNG	DEW		WIND		GUST		HOUR NDNG	WIND		GUST		HOUR NDNG	DEW		WIND		GUST		
	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	MAX. M/S		POINT DEG C	RH %	DIR. M/S	SPD. M/S		DIR. DEG.	MAX. M/S	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.
0300	*****	*****	***	****	***	****	0300	*****	*****	***	****	0300	*****	*****	***	****	***	****	*****
0600	*****	*****	***	****	***	****	0600	*****	*****	***	****	0600	*****	*****	***	****	***	****	*****
0900	*****	*****	***	****	***	****	0900	*****	*****	***	****	0900	*****	*****	***	****	***	****	*****
1200	*****	*****	***	****	***	****	1200	*****	*****	***	****	1200	*****	*****	***	****	***	****	*****
1500	*****	*****	***	****	***	****	1500	*****	*****	***	****	1500	*****	*****	***	****	***	****	*****
1800	*****	*****	***	****	***	****	1800	*****	*****	***	****	1800	*****	*****	***	****	***	****	*****
2100	*****	*****	***	****	***	****	2100	*****	*****	***	****	2100	*****	*****	***	****	***	****	*****
2400	*****	*****	***	****	***	****	2400	*****	*****	***	****	2400	*****	*****	***	****	***	****	*****

DAY 22

DAY 23

DAY 24

HOUR NDNG	DEW		WIND		GUST		HOUR NDNG	WIND		GUST		HOUR NDNG	DEW		WIND		GUST		
	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	MAX. M/S		POINT DEG C	RH %	DIR. M/S	SPD. M/S		DIR. DEG.	MAX. M/S	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.
0300	*****	*****	***	****	***	****	0300	*****	*****	***	****	0300	*****	*****	***	****	***	****	*****
0600	*****	*****	***	****	***	****	0600	*****	*****	***	****	0600	*****	*****	***	****	***	****	*****
0900	*****	*****	***	****	***	****	0900	*****	*****	***	****	0900	*****	*****	***	****	***	****	*****
1200	*****	*****	***	****	***	****	1200	*****	*****	***	****	1200	*****	*****	***	****	***	****	*****
1500	*****	*****	***	****	***	****	1500	*****	*****	***	****	1500	*****	*****	***	****	***	****	*****
1800	*****	*****	***	****	***	****	1800	*****	*****	***	****	1800	*****	*****	***	****	***	****	*****
2100	*****	*****	***	****	***	****	2100	*****	*****	***	****	2100	*****	*****	***	****	***	****	*****
2400	*****	*****	***	****	***	****	2400	*****	*****	***	****	2400	*****	*****	***	****	***	****	*****

DAY 25

DAY 26

DAY 27

HOUR NDNG	DEW		WIND		GUST		HOUR NDNG	WIND		GUST		HOUR NDNG	DEW		WIND		GUST		
	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	MAX. M/S		POINT DEG C	RH %	DIR. M/S	SPD. M/S		DIR. DEG.	MAX. M/S	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.
0300	*****	*****	***	****	***	****	0300	*****	*****	***	****	0300	*****	*****	***	****	***	****	*****
0600	*****	*****	***	****	***	****	0600	*****	*****	***	****	0600	*****	*****	***	****	***	****	*****
0900	*****	*****	***	****	***	****	0900	*****	*****	***	****	0900	*****	*****	***	****	***	****	*****
1200	*****	*****	***	****	***	****	1200	*****	*****	***	****	1200	*****	*****	***	****	***	****	*****
1500	*****	*****	***	****	***	****	1500	*****	*****	***	****	1500	*****	*****	***	****	***	****	*****
1800	*****	*****	***	****	***	****	1800	*****	*****	***	****	1800	*****	*****	***	****	***	****	*****
2100	*****	*****	***	****	***	****	2100	*****	*****	***	****	2100	*****	*****	***	****	***	****	*****
2400	*****	*****	***	****	***	****	2400	*****	*****	***	****	2400	*****	*****	***	****	***	****	*****

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING SEPTEMBER, 1980

DAY 28

DAY 29

DAY 30

HOUR NDNG	DAY 28							DAY 29							DAY 30											
	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW		
0300	*****	*****	**	***	****	***	*****	***	0300	*****	*****	**	***	****	***	*****	***	0300	*****	*****	**	***	****	***	*****	***
0600	*****	*****	**	***	****	***	*****	***	0600	*****	*****	**	***	****	***	*****	***	0600	*****	*****	**	***	****	***	*****	***
0900	*****	*****	**	***	****	***	*****	***	0900	*****	*****	**	***	****	***	*****	***	0900	*****	*****	**	***	****	***	*****	***
1200	*****	*****	**	***	****	***	*****	***	1200	*****	*****	**	***	****	***	*****	***	1200	*****	*****	**	***	****	***	*****	***
1500	*****	*****	**	***	****	***	*****	***	1500	*****	*****	**	***	****	***	*****	***	1500	*****	*****	**	***	****	***	*****	***
1800	*****	*****	**	***	****	***	*****	***	1800	*****	*****	**	***	****	***	*****	***	1800	*****	*****	**	***	****	***	*****	***
2100	*****	*****	**	***	****	***	*****	***	2100	*****	*****	**	***	****	***	*****	***	2100	*****	*****	**	***	****	***	*****	***
2400	*****	*****	**	***	****	***	*****	***	2400	*****	*****	**	***	****	***	*****	***	2400	*****	*****	**	***	****	***	*****	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING SEPTEMBER , 1980

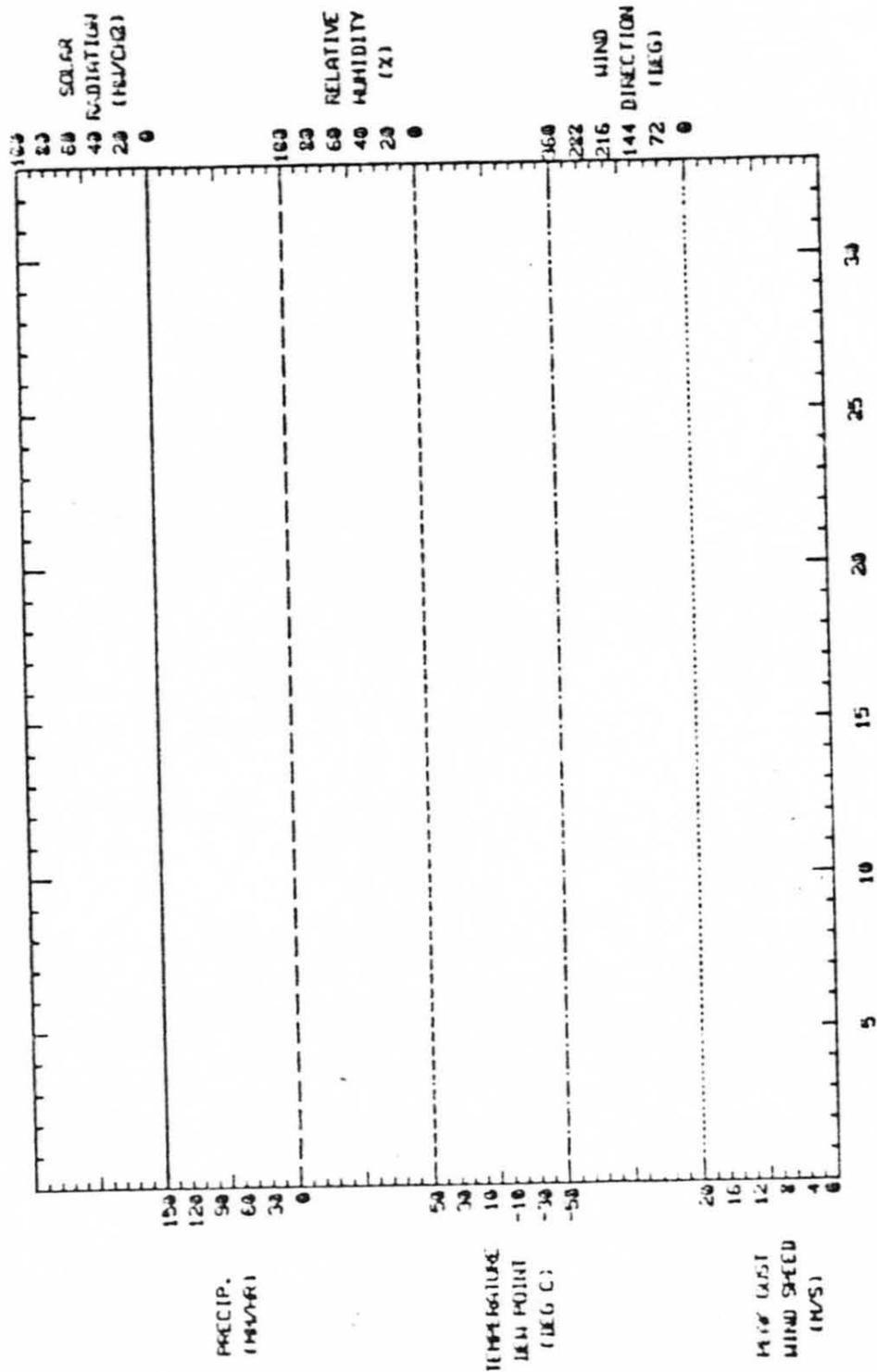
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIF. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	01
02	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	02
03	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	03
04	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	04
05	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	05
06	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	06
07	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	07
08	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	08
09	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	09
10	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	10
11	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	11
12	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	12
13	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	13
14	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	14
15	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	15
16	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	16
17	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	17
18	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	18
19	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	19
20	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	20
21	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	21
22	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	22
23	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	23
24	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	24
25	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	25
26	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	26
27	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	27
28	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	28
29	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	29
30	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	30
MONTH	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS \*\*\*\*  
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL \*\*\*\*  
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL \*\*\*\*  
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS \*\*\*\*

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RMJ CONSULTANT, INC. SUSITON HYDROELECTRIC PROJECT



DAY OF THE MONTH    DEVIL CANYON LEATHER STATION  
 DATA START: 01 SEPTEMBER, 1960

M&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING SEPTEMBER, 1960

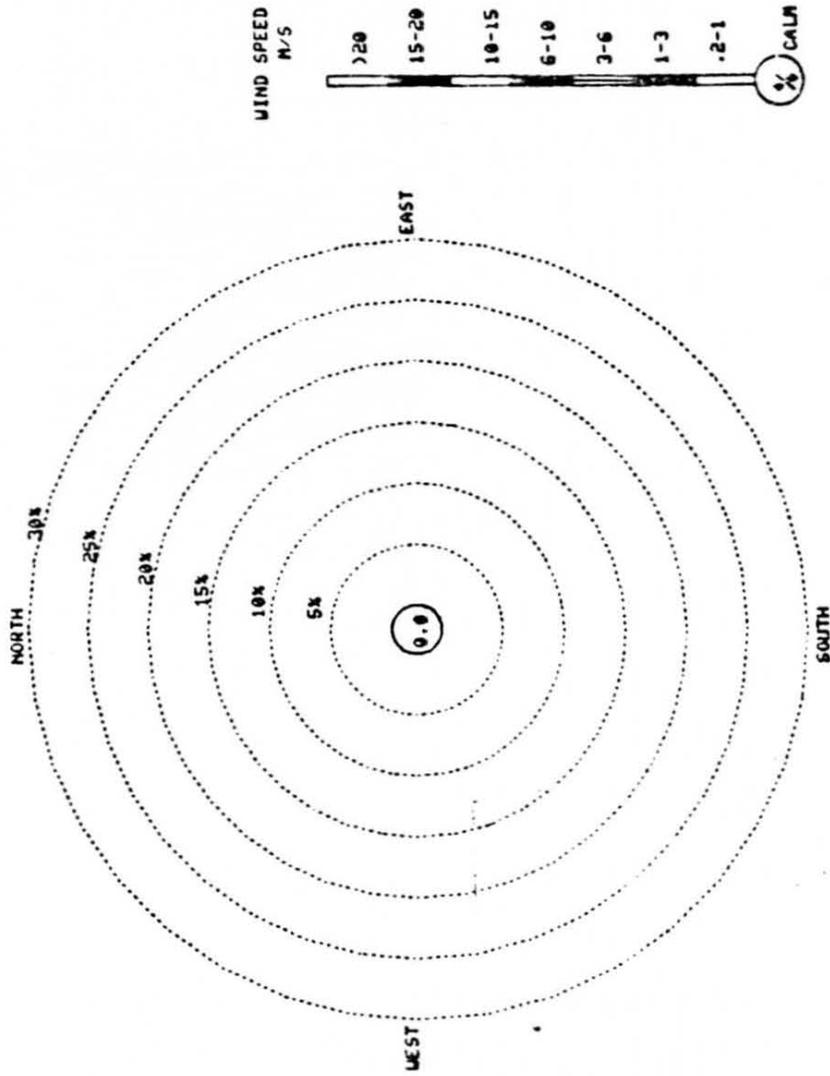
DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALM								0.00
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

0 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITHA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION

SEPTEMBER, 1980



WIND ROSE PLOT



## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING OCTOBER, 1980

## DAY 01

## DAY 02

## DAY 03

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT								TEMP.	POINT								TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	*****	*****	**	***	****	***	****	***	0300	.7	*****	47	193	.2	162	1.9	001	0300	-3.4	*****	00	101	0.0	132	.6	001
0600	*****	*****	**	***	****	***	****	***	0600	1.5	*****	73	089	.9	090	2.5	001	0600	-4.8	*****	00	090	0.0	090	.6	001
0900	6.0	*****	70	087	.2	037	1.9	022	0900	2.1	*****	76	118	.3	098	1.9	006	0900	-1.5	*****	96	068	0.0	102	.6	016
1200	10.0	.2	51	152	.4	118	3.2	035	1200	4.3	-15.2	73	336	.5	302	1.9	029	1200	3.7	*****	15	013	.5	019	2.5	025
1500	11.0	*****	44	125	1.4	103	5.1	012	1500	4.4	-40.5	02	298	1.5	311	3.8	016	1500	6.7	*****	58	017	.5	040	1.9	011
1800	4.3	-1.8	65	168	1.6	188	2.5	001	1800	1.6	-7.8	50	200	.7	319	3.2	001	1800	4.8	-.9	67	125	.9	108	1.9	001
2100	1.7	*****	82	163	1.0	141	3.2	001	2100	-8	*****	49	157	1.1	169	2.5	001	2100	2.4	*****	08	159	.7	144	1.9	001
2400	1.3	*****	47	193	.6	164	1.9	001	2400	-2.0	*****	96	163	.1	116	1.3	001	2400	2.2	*****	08	220	.6	201	1.3	001

## DAY 04

## DAY 05

## DAY 06

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT								TEMP.	POINT								TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	1.2	*****	26	171	.7	184	1.9	001	0300	5.4	-5.1	47	134	1.9	153	4.4	001	0300	1.8	*****	84	151	.6	151	1.9	001
0600	.8	*****	37	117	.6	126	1.9	001	0600	4.2	-2.3	63	091	1.7	082	7.0	001	0600	.9	-9.0	48	128	.9	077	2.5	001
0900	3.3	-34.8	04	063	.9	035	3.2	027	0900	1.8	-1.2	81	118	.8	094	5.1	004	0900	4.5	*****	55	171	.8	151	2.5	015
1200	6.1	-1.6	58	117	1.7	106	6.6	***	1200	4.7	*****	35	316	.3	311	1.9	014	1200	8.9	.7	57	090	1.0	104	5.1	018
1500	5.8	-2.4	56	103	2.4	102	7.0	011	1500	5.6	*****	76	090	1.0	098	3.2	007	1500	8.7	1.3	60	107	3.1	107	7.0	007
1800	4.1	-2.4	63	086	2.1	067	5.7	001	1800	4.6	*****	84	115	.9	119	3.2	001	1800	6.3	3.6	83	132	1.0	107	4.4	001
2100	3.6	-4.0	58	127	1.5	094	4.4	001	2100	3.9	*****	12	187	.8	165	1.9	001	2100	8.4	2.1	65	170	1.3	142	3.2	001
2400	3.8	-4.3	56	162	1.1	144	3.8	001	2400	2.6	*****	55	231	.9	256	3.2	001	2400	7.4	*****	80	111	1.4	099	5.7	001

## DAY 07

## DAY 08

## DAY 09

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT								TEMP.	POINT								TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	5.1	*****	12	180	1.2	190	2.5	001	0300	.1	-7.5	57	252	.9	240	1.9	001	0300	-3.3	*****	98	155	.4	113	1.9	001
0600	4.7	-5.2	49	171	1.2	159	2.5	001	0600	-7	-2.6	87	295	1.4	305	3.2	001	0600	-4.1	-4.4	98	090	.7	090	2.5	001
0900	7.7	*****	72	173	.6	179	1.9	014	0900	-1.0	-10.5	49	302	1.1	302	3.2	002	0900	-4.6	*****	90	073	.7	081	1.9	007
1200	9.5	2.7	63	114	.3	015	2.5	015	1200	-6	-24.9	14	308	1.2	311	3.2	010	1200	-1.7	*****	79	039	.7	080	1.9	010
1500	7.7	-.9	55	247	.4	253	2.5	007	1500	.1	-14.8	32	289	.9	266	3.2	005	1500	-1.7	*****	80	269	.5	267	1.9	003
1800	5.4	-27.7	67	265	1.4	250	3.2	001	1800	-8	*****	92	265	1.0	273	2.5	001	1800	-3.1	*****	93	184	.6	126	4.4	001
2100	3.4	-2.4	66	306	1.6	317	4.4	001	2100	-1.2	*****	98	225	.4	211	1.3	001	2100	-4.0	-4.8	94	254	.5	268	3.2	001
2400	2.3	-3.1	68	257	1.0	259	3.2	001	2400	-1.7	*****	49	237	.5	256	1.9	001	2400	-5.2	-5.7	96	166	.8	133	2.5	001

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING OCTOBER, 1980

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD																					
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.	M/S			MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.			M/S	MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S		DIR. DEG.	M/S	MW																		
0300	-5.8	-6.3	96	178	1.2	159	1.9	001	0300	-7.9	-9.0	92	066	1.2	084	3.2	001	0300	-10.8	-12.1	90	086	1.4	079	3.2	001	0600	-4.1	-4.4	96	254	1.1	274	3.8	001	0600	-8.3	-9.1	94	072	1.5	055	3.2	001	0600	-10.6	-12.1	89	058	1.4	076	3.2	001
0600	-4.1	-4.4	96	254	1.1	274	3.8	001	0900	-2.9	-4.4	85	277	.8	298	3.2	006	0900	-8.4	-11.1	81	061	1.6	065	3.8	007	1200	-1.2	*****	72	039	.3	045	1.9	009	1200	-4.2	-8.4	73	040	1.3	059	3.2	013	1200	-3.8	-9.5	65	063	1.4	056	3.8	020
0900	-2.9	*****	85	277	.8	298	3.2	006	1500	-1.6	-4.1	83	117	.9	151	3.2	003	1500	-1.6	-10.0	53	112	.9	101	2.5	004	1800	-3.5	-4.5	93	152	1.5	152	2.5	001	1800	-5.6	-8.4	81	142	1.4	151	3.2	001	1800	-6.2	-10.0	75	145	1.7	135	3.8	001
1200	-1.2	*****	72	039	.3	045	1.9	009	2100	-5.6	-7.1	89	123	1.4	133	3.2	001	2100	-8.1	-9.9	87	137	1.9	147	3.8	001	2400	-5.6	-7.1	89	123	1.4	133	3.2	001	2400	-9.6	-10.8	91	103	1.3	106	3.2	001	2400	-10.4	-11.5	92	101	1.5	087	3.8	001
1500	-1.6	-4.1	83	117	.9	151	3.2	003	2100	-8.1	-9.9	87	137	1.9	147	3.8	001	2400	-9.6	-10.8	91	103	1.3	106	3.2	001	2400	-6.8	-7.5	95	075	1.5	065	3.2	001	2400	-9.6	-10.8	91	103	1.3	106	3.2	001	2400	-10.4	-11.5	92	101	1.5	087	3.8	001

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD																					
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.	M/S			MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.			M/S	MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S		DIR. DEG.	M/S	MW																		
0300	-10.9	-12.4	89	084	2.0	090	3.2	001	0300	-2.3	-5.8	77	144	1.1	145	2.5	***	0300	1.6	.7	94	160	1.6	141	4.4	***	0600	-11.3	-12.6	90	092	2.2	096	3.8	001	0600	-2.9	-5.3	84	156	1.0	112	1.9	***	0600	1.0	*****	03	195	.8	201	2.5	***
0600	-11.3	-12.6	90	092	2.2	096	3.8	001	0900	-7.5	-11.4	74	103	1.9	110	3.8	020	0900	.1	*****	71	161	1.0	177	1.9	***	0900	-7.5	-11.4	74	103	1.9	110	3.8	020	1200	2.2	-3.8	65	117	1.1	142	3.2	***	1200	2.5	-35.4	04	291	1.2	266	4.4	***
0900	-7.5	-11.4	74	103	1.9	110	3.8	020	1500	-2.4	-7.6	68	088	2.3	091	5.1	***	1500	2.2	-5.1	59	107	3.1	099	8.3	***	1500	-2.4	-7.6	68	088	2.3	091	5.1	***	1800	2.2	-4.4	62	106	3.4	109	7.6	***	1800	1.8	-2.8	72	239	.5	260	3.8	***
1200	-2.6	-7.4	70	088	2.4	094	5.1	014	1200	2.2	-3.8	65	117	1.1	142	3.2	***	1200	2.5	-35.4	04	291	1.2	266	4.4	***	1800	-4.2	-7.7	77	108	1.8	098	4.4	***	2100	.5	-13.7	34	105	1.0	104	3.8	***	2100	1.7	-6.0	57	149	1.4	128	5.1	***
1500	-2.4	-7.6	68	088	2.3	091	5.1	***	2400	-3.9	-7.1	79	128	1.5	136	2.5	***	2400	1.5	-5.5	87	147	1.2	115	3.2	***	2400	-3.9	-7.1	79	128	1.5	136	2.5	***	2400	1.5	-5.5	87	147	1.2	115	3.2	***	2400	.9	-5.6	62	260	1.4	263	5.1	***

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD	HOUR NDNG	DEW			WIND			GUST			MAX. RAD																					
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.	M/S			MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S	DIR. DEG.			M/S	MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	M/S		DIR. DEG.	M/S	MW																		
0300	-1.9	*****	89	243	.1	247	3.8	***	0300	-3.3	*****	79	176	1.2	181	2.5	***	0300	1.4	-4.5	65	154	1.5	149	2.5	***	0600	-2.5	*****	92	080	.1	129	.6	***	0600	-2.3	-7.1	70	165	1.2	165	2.5	***	0600	1.3	-4.0	68	154	1.4	169	2.5	***
0600	-2.5	*****	92	080	.1	129	.6	***	0900	-1.2	*****	64	094	.2	062	1.3	***	0900	-3.3	*****	59	146	1.2	147	2.5	***	0900	-1.2	*****	64	094	.2	062	1.3	***	1200	3.0	-8.5	43	104	.3	120	4.4	***	1200	5.0	-4.2	52	106	1.8	103	4.4	***
0900	-1.2	*****	64	094	.2	062	1.3	***	1500	1.1	-7.5	53	105	1.9	110	3.8	***	1500	2.4	-8.7	44	109	2.8	115	5.7	***	1500	1.1	-7.5	53	105	1.9	110	3.8	***	1800	1.8	-6.4	55	100	2.2	097	6.3	***	1800	2.8	-3.2	65	140	1.4	109	3.2	***
1200	*****	*****	61	115	1.9	104	5.1	***	2100	-2.5	-5.5	60	172	1.4	166	2.5	***	2100	.9	-5.4	63	124	1.6	111	4.4	***	2100	*****	*****	61	115	1.9	104	5.1	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	3.8	-2.7	63	158	1.1	138	3.2	***
1500	1.1	-7.5	53	105	1.9	110	3.8	***	2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	-1.9	-7.1	68	141	1.4	115	3.2	***	2400	1.8	-6.4	55	100	2.2	097	6.3	***	2400	2.8	-3.2	65	140	1.4	109	3.2	***
1800	-1.9	-7.1	68	141	1.4	115	3.2	***	2400	-2.5	-5.5	60	172	1.4	166	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	-2.5	-5.5	60	172	1.4	166	2.5	***	2400	.9	-5.4	63	124	1.6	111	4.4	***	2400	3.2	-2.6	66	146	1.1	133	3.2	***
2100	-2.5	-5.5	60	172	1.4	166	2.5	***	2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	3.8	-2.7	63	158	1.1	138	3.2	***
2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	-2.3	-5.3	60	174	1.3	164	2.5	***	2400	1.5	-4.9	63	154	1.4	149	3.2	***	2400	3.8	-2.7	63	158	1.1	138	3.2	***

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING OCTOBER, 1980

DAY 19

DAY 20

DAY 21

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT							TEMP.	POINT							TEMP.	POINT					
0300	3.0	-2.8	86	156	1.1	130	1.9 ***	0300	.9	-8.5	50	162	1.2	157	2.5 ***	0300	-2	-1.2	93	131	1.1	141	3.2 ***
0600	2.8	-3.4	64	146	1.7	145	3.2 ***	0600	3.6	-7.4	45	165	1.3	135	4.4 ***	0600	-2.9	-4.6	88	134	1.6	136	3.8 ***
0900	3.5	-4.3	57	159	1.5	168	2.5 ***	0900	3.5	-7.7	44	138	1.6	134	4.4 ***	0900	-3.3	-4.9	89	086	1.7	081	3.2 ***
1200	5.1	-5.7	46	104	2.6	094	7.0 ***	1200	4.9	-7.1	42	106	1.4	114	5.7 ***	1200	*****	*****	54	094	.6	119	2.5 ***
1500	5.1	-5.4	47	101	3.5	105	8.9 ***	1500	4.5	-7.1	43	100	1.5	111	4.4 ***	1500	3.9	-6.0	49	102	2.0	108	7.6 ***
1800	4.9	-5.9	46	103	3.3	112	7.6 ***	1800	1.7	-3	87	140	.3	314	3.8 ***	1800	3.4	-6.7	48	098	2.1	087	6.3 ***
2100	4.8	-6.3	45	114	2.5	165	6.3 ***	2100	.5	-18.4	23	108	.5	101	2.5 ***	2100	2.6	-8.0	46	120	2.1	113	5.7 ***
2400	1.9	-7.8	49	144	1.4	111	3.8 ***	2400	.6	-2.7	79	108	1.6	122	3.8 ***	2400	3.5	-7.7	44	118	2.3	110	8.3 ***

DAY 22

DAY 23

DAY 24

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT							TEMP.	POINT							TEMP.	POINT					
0300	3.3	-8.2	43	104	2.4	099	6.3 ***	0300	-1.3	-8.4	59	147	1.3	145	3.2 ***	0300	4.3	-5.9	48	131	1.8	109	7.0 ***
0600	3.0	-8.5	43	113	2.1	096	7.6 ***	0600	3.2	*****	54	133	1.1	142	3.2 ***	0600	5.4	-5.4	46	118	2.1	116	6.3 ***
0900	4.9	-7.7	40	117	1.7	098	8.3 ***	0900	5.7	-5.7	44	109	2.4	102	7.6 ***	0900	6.4	-4.5	46	145	1.8	115	5.7 ***
1200	6.0	-7.0	39	086	1.7	110	7.0 ***	1200	7.6	-4.6	42	107	2.4	099	8.9 ***	1200	8.6	-4.4	40	115	2.8	128	5.7 ***
1500	5.3	-7.3	40	118	1.8	100	7.6 ***	1500	6.8	-5.3	42	103	2.5	100	6.3 ***	1500	5.8	-5.3	45	119	2.3	103	5.7 ***
1800	3.1	*****	45	149	1.5	135	4.4 ***	1800	3.9	-6.5	47	114	2.3	122	7.6 ***	1800	2.1	*****	57	156	1.3	158	3.2 ***
2100	1.8	-7.9	49	160	1.7	152	4.4 ***	2100	3.6	-6.2	49	138	1.8	118	4.4 ***	2100	1.8	-4.6	63	161	1.1	147	3.2 ***
2400	1.4	*****	51	143	1.2	165	2.5 ***	2400	3.6	-6.2	49	178	1.3	188	3.2 ***	2400	.9	-3.5	73	176	1.4	183	2.5 ***

DAY 25

DAY 26

DAY 27

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT							TEMP.	POINT							TEMP.	POINT					
0300	0.0	*****	78	164	1.2	156	2.5 ***	0300	-5.1	*****	61	092	1.5	110	5.1 ***	0300	1.6	-6.3	56	155	1.2	153	3.2 ***
0600	1.9	-3.5	68	176	1.3	176	2.5 ***	0600	-3.0	*****	99	156	.9	122	3.8 ***	0600	-2.4	-6.9	62	136	1.3	143	4.4 ***
0900	1.1	-4.0	69	169	1.1	165	3.2 ***	0900	-1.2	*****	88	145	1.0	125	3.2 ***	0900	-2.4	*****	77	161	.8	174	2.5 ***
1200	3.2	-3.7	61	242	.3	047	2.5 ***	1200	3.9	*****	49	196	.3	168	1.9 ***	1200	.6	-8.0	53	168	.2	114	2.5 ***
1500	4.0	*****	62	099	.7	100	3.2 ***	1500	2.6	-6.1	53	159	1.1	214	3.2 ***	1500	3.4	-9.1	40	111	1.7	087	5.7 ***
1800	.6	-5.1	66	149	1.1	106	3.8 ***	1800	-1.4	-5.5	74	174	1.2	185	2.5 ***	1800	-2	-10.6	46	137	1.1	102	4.4 ***
2100	-2.0	-5.2	79	103	1.5	130	3.8 ***	2100	-2.9	-5.0	74	162	1.3	178	2.5 ***	2100	.2	-9.9	47	131	2.1	127	6.3 ***
2400	-2.7	-3.1	97	110	1.3	125	3.2 ***	2400	-1.8	*****	61	158	1.0	158	2.5 ***	2400	-1.6	-8.0	62	166	1.3	166	4.4 ***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING OCTOBER, 1980

## DAY 28

## DAY 29

## DAY 30

DAY 28									DAY 29									DAY 30								
HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST	HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST	HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST
		DEG C	DEG C	DEG C	%	DEG.	M/S	M/S			DEG C	DEG C	DEG C	%	DEG.	M/S	M/S			DEG C	DEG C	DEG C	%	DEG.	M/S	M/S
0300		-1.9	*****	78	104	1.4	193	2.5 ***	0300		-2.3	*****	99	277	.8	286	2.5 ***	0300		-3.2	*****	00	077	.3	072	1.3 ***
0600		-2.4	-1.6	92	149	.8	101	3.8 ***	0600		-2.5	*****	00	257	.6	269	1.3 ***	0600		-3.3	-112.	00	077	.8	083	1.9 ***
0900		0.0	*****	91	118	.7	134	2.5 ***	0900		-1.9	*****	97	175	.2	200	.6 ***	0900		-4.5	-4.8	98	096	1.0	116	2.5 ***
1200		.2	*****	03	078	.5	101	3.2 ***	1200		-1.6	*****	96	067	.3	096	1.5 ***	1200		-1.6	*****	70	102	.9	089	3.8 ***
1500		.1	*****	02	062	.5	011	1.9 ***	1500		-1.3	*****	93	015	.3	023	1.3 ***	1500		-3.5	-4.9	90	142	1.3	109	2.5 ***
1800		-0.9	-25.2	14	282	.6	282	2.5 ***	1800		-2.3	*****	99	188	.2	165	1.3 ***	1800		-7.4	-8.4	93	138	1.8	144	3.8 ***
2100		-1.6	*****	02	293	1.2	305	3.8 ***	2100		-2.7	*****	99	189	.3	188	1.3 ***	2100		-9.0	-9.5	96	088	1.5	082	3.2 ***
2400		-1.6	*****	99	273	.7	277	1.9 ***	2400		-2.8	*****	99	139	.5	132	1.9 ***	2400		-10.7	-10.8	99	086	1.9	084	3.2 ***

## DAY 31

## DAY 31

## DAY 31

DAY 31									DAY 31									DAY 31								
HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST	HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST	HR	NDNG	TEMP.	DEW	POINT	RH	DIR.	SPD.	GUST
		DEG C	DEG C	DEG C	%	DEG.	M/S	M/S			DEG C	DEG C	DEG C	%	DEG.	M/S	M/S			DEG C	DEG C	DEG C	%	DEG.	M/S	M/S
0300		-11.8	-12.4	95	095	1.6	093	3.8 ***	0300		*****	*****	**	**	***	***	***	0300		*****	*****	**	**	***	***	***
0600		-12.7	*****	93	117	.8	096	3.2 ***	0600		*****	*****	**	**	***	***	***	0600		*****	*****	**	**	***	***	***
0900		-13.1	-14.1	92	167	1.2	077	3.2 ***	0900		*****	*****	**	**	***	***	***	0900		*****	*****	**	**	***	***	***
1200		-5.7	-10.7	68	123	.6	086	3.2 ***	1200		*****	*****	**	**	***	***	***	1200		*****	*****	**	**	***	***	***
1500		-4.2	-6.2	74	147	1.0	128	2.5 ***	1500		*****	*****	**	**	***	***	***	1500		*****	*****	**	**	***	***	***
1800		-5.8	-9.9	73	153	2.1	165	3.8 ***	1800		*****	*****	**	**	***	***	***	1800		*****	*****	**	**	***	***	***
2100		-8.4	-11.8	77	144	2.0	160	3.2 ***	2100		*****	*****	**	**	***	***	***	2100		*****	*****	**	**	***	***	***
2400		-8.3	-11.7	77	155	1.6	149	3.6 ***	2400		*****	*****	**	**	***	***	***	2400		*****	*****	**	**	***	***	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING OCTOBER, 1980

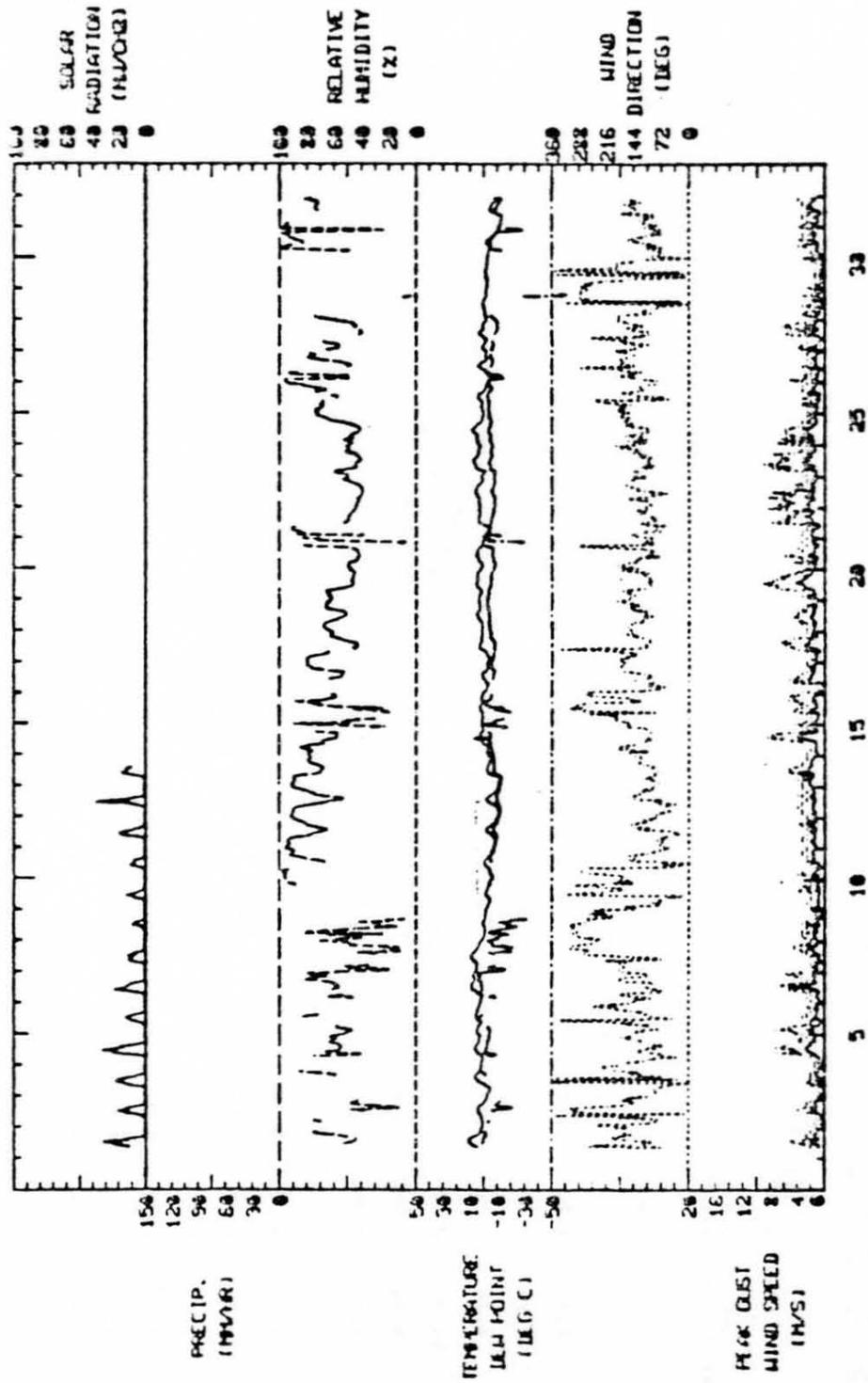
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	11.2	1.2	6.2	159	.8	1.0	103	5.1	S	56	-1.8	****	2427	01
02	4.5	-3.0	.8	192	.1	.8	311	3.8	SSE	45	-21.2	****	1245	02
03	6.7	-4.9	.9	118	.1	.5	019	2.5	E	63	-.9	****	1560	03
04	6.4	.6	3.5	113	1.2	1.5	102	7.0	ESE	58	-8.3	****	1872	04
05	5.8	1.8	3.8	125	.7	1.2	082	7.0	E	59	-2.9	****	983	05
06	9.1	.9	5.0	125	1.1	1.4	107	7.0	ESE	66	-.3	****	1313	06
07	9.5	2.3	5.9	236	.6	1.1	317	4.4	S	36	-6.1	****	1040	07
08	2.0	-1.0	.1	282	.8	1.0	305	3.2	W	42	-12.1	****	563	08
09	-1.1	-5.2	-3.2	137	.2	.8	126	4.4	ENE	92	-5.0	****	763	09
10	-.1	-6.8	-3.5	143	.5	1.3	274	3.8	SSE	89	-5.7	****	780	10
11	-1.4	-9.7	-5.6	090	1.1	1.5	147	3.8	ENE	84	-9.3	****	1170	11
12	-1.3	-10.9	-6.1	092	1.2	1.5	065	3.8	E	80	-11.0	****	1338	12
13	-2.1	-11.7	-6.9	101	1.9	2.0	094	5.1	E	80	-9.2	****	1734	13
14	2.8	-3.8	-.5	122	1.5	1.7	099	8.3	ESE	65	-5.5	****	***	14
15	3.4	.4	1.9	222	.6	1.3	128	5.1	W	56	-9.8	****	***	15
16	1.5	-2.8	-.7	139	.8	1.0	104	5.1	ESF	66	-6.4	****	***	16
17	3.3	-4.6	-.7	130	1.3	1.6	097	6.3	ESE	60	-6.8	****	***	17
18	5.3	.8	3.1	135	1.3	1.5	103	4.4	SSE	61	-3.7	****	***	18
19	5.4	1.0	3.5	119	2.0	2.3	105	8.9	ESE	52	-5.2	****	***	19
20	6.0	.2	3.1	127	1.1	1.4	114	5.7	ESE	47	-7.4	****	***	20
21	3.9	-3.7	.1	111	1.6	1.8	110	8.3	ESE	61	-5.6	****	***	21
22	6.6	-.8	3.0	122	1.6	1.9	099	8.3	ESF	43	-7.8	****	***	22
23	8.0	-1.6	3.2	122	1.8	2.0	099	8.9	ESE	47	-6.2	****	***	23
24	8.6	-.1	4.3	135	1.7	2.0	109	7.0	ESE	52	-4.8	****	***	24
25	4.6	-2.5	1.1	149	.9	1.2	106	3.8	S	72	-4.1	****	***	25
26	4.3	-5.6	-.7	150	.9	1.2	110	5.1	S	72	-5.5	****	***	26
27	4.2	-2.5	.8	140	1.2	1.4	127	6.3	SE	51	-8.4	****	***	27
28	1.0	-2.3	-.7	216	.2	.9	101	3.8	W	51	-13.4	****	***	28
29	-1.0	-2.6	-1.9	246	.1	.4	286	2.5	S	49	*****	****	***	29
30	-1.5	-10.7	-6.1	105	1.1	1.2	089	3.8	ESE	83	-25.1	****	***	30
31	-3.5	-13.4	-8.5	134	1.3	1.5	093	3.8	SSE	82	-11.3	****	***	31
MONTH	11.2	-13.4	.2	127	.9	1.3	105	8.9	ESE	62	-7.6	****	16785	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 6.3  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RJM CONSULTANT, INC. SUSITHA HYDROELECTRIC PROJECT



DAY OF THE MONTH    DEVIL CANYON WEATHER STATION

DATA START: 01 OCTOBER , 1980

K&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

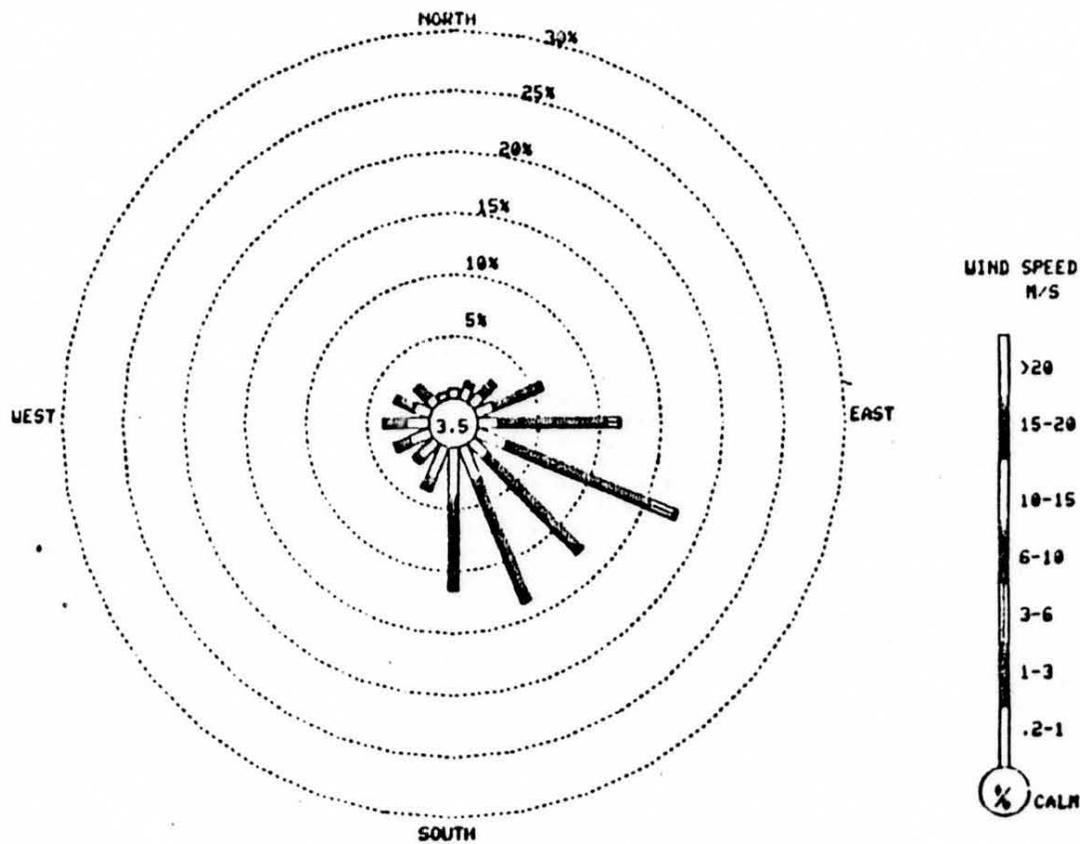
WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING OCTOBER, 1980

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	.75	.07	0.00	0.00	0.00	0.00	0.00	.82
NNE	1.06	.51	0.00	0.00	0.00	0.00	0.00	1.57
NE	1.16	1.50	0.00	0.00	0.00	0.00	0.00	2.66
ENE	1.47	4.29	.03	0.00	0.00	0.00	0.00	5.79
E	1.67	8.76	1.16	.03	0.00	0.00	0.00	11.62
ESE	2.59	12.61	2.42	.03	.03	0.00	0.00	17.68
SE	1.70	10.66	.24	0.00	0.00	0.00	0.00	12.61
SSE	2.93	10.66	0.00	0.00	0.00	0.00	0.00	13.59
S	3.82	7.67	0.00	0.00	0.00	0.00	0.00	11.48
SSW	2.76	1.02	0.00	0.00	0.00	0.00	0.00	3.78
SW	1.74	.51	0.00	0.00	0.00	0.00	0.00	2.25
WSW	1.77	1.29	0.00	0.00	0.00	0.00	0.00	3.07
W	1.84	1.81	0.00	0.00	0.00	0.00	0.00	3.65
WNW	1.36	1.74	0.00	0.00	0.00	0.00	0.00	3.10
NW	.89	1.29	0.00	0.00	0.00	0.00	0.00	2.18
NNW	.55	.07	0.00	0.00	0.00	0.00	0.00	.61
CALM	-----	-----	-----	-----	-----	-----	-----	3.54
TOTAL	28.04	64.46	3.85	.07	.03	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2935 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
OCTOBER, 1980



WIND ROSE PLOT





## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING NOVEMBER , 1980

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	-9.1	-14.2	67	***	***	***	.6	***	0300	-4.9	-11.4	61	135	2.1	136	3.8	***	0300	-11.1	-13.8	81	097	2.1	092	5.1	***					
0600	-9.5	-14.0	67	***	***	***	.6	***	0600	-4.1	-10.6	61	138	1.6	155	3.2	***	0600	-5.4	-13.8	52	139	1.9	128	6.3	***					
0900	-9.0	-14.1	67	***	***	***	.6	***	0900	-3.3	-10.1	60	126	1.4	112	3.2	***	0900	-2.6	***	47	131	1.2	154	4.4	***					
1200	-6.4	-12.0	61	***	***	***	.6	***	1200	-1.7	-9.7	55	130	1.7	117	3.8	***	1200	-1.5	-9.5	55	119	2.2	107	7.0	***					
1500	-5.4	-12.5	58	***	***	***	.6	***	1500	-3.1	-10.7	56	116	1.6	117	4.4	***	1500	-2.2	-10.6	53	108	2.1	112	7.0	***					
1800	-5.4	-12.0	60	***	***	***	.6	***	1800	-4.6	-11.9	57	145	1.7	138	3.2	***	1800	-3.1	-9.2	63	121	2.0	120	5.1	***					
2100	-5.2	-11.8	60	***	***	***	.6	***	2100	-5.3	-12.6	57	126	1.5	118	3.2	***	2100	-2.5	-7.1	71	113	1.8	124	3.8	***					
2400	-4.8	-11.5	60	120	1.7	113	4.4	***	2400	-10.0	***	75	144	1.2	140	3.8	***	2400	-3.8	-7.1	78	146	1.5	136	3.2	***					

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	-1.4	***	73	118	1.1	151	3.2	***	0300	-9.9	-10.2	98	079	2.4	077	3.8	***	0300	-8.3	***	92	138	.9	140	2.5	***					
0600	-1.1	***	60	124	.8	132	3.2	***	0600	-11.2	-11.7	96	080	2.5	078	3.8	***	0600	-8.8	-9.6	94	142	1.1	127	3.2	***					
0900	-1.9	***	99	147	.6	136	1.9	***	0900	-12.3	-13.1	94	090	2.1	086	3.2	***	0900	-8.1	***	96	161	.7	143	3.2	***					
1200	-1.4	***	91	116	1.3	121	2.5	***	1200	-9.9	-11.3	90	095	2.3	100	4.4	***	1200	-6.7	***	92	150	.7	127	1.9	***					
1500	-1.8	-4.2	84	123	1.4	117	2.5	***	1500	-7.9	-8.7	94	098	1.4	102	3.2	***	1500	-5.8	***	82	140	.6	097	1.9	***					
1800	-3.6	-5.9	64	128	2.0	131	3.8	***	1800	-8.4	-9.1	95	114	1.4	111	3.2	***	1800	-3.7	-8.3	71	131	1.1	154	3.8	***					
2100	-7.0	-7.3	98	117	1.8	142	3.8	***	2100	-8.9	***	98	112	.6	096	3.2	***	2100	-1.6	-2.7	92	132	2.5	132	5.7	***					
2400	-8.6	-8.7	99	076	2.1	083	3.8	***	2400	-8.5	-8.9	97	120	.8	100	2.5	***	2400	-.4	-4.0	77	106	2.1	105	6.3	***					

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD Mw	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	-.6	-5.1	72	112	2.4	101	7.0	***	0300	-6.0	-43.9	03	053	1.2	064	2.5	***	0300	-3.2	***	89	154	1.3	155	2.5	***					
0600	0.0	-6.1	64	102	2.3	097	7.0	***	0600	-5.9	***	01	037	1.1	045	2.5	***	0600	-3.1	-6.3	79	143	1.1	139	2.5	***					
0900	-2.0	***	98	124	1.0	115	5.1	***	0900	-5.5	-39.0	05	042	.8	038	2.5	***	0900	-5.0	-7.2	85	174	1.2	189	2.5	***					
1200	-2.0	-2.0	90	073	.7	060	3.2	***	1200	-3.8	-4.9	92	096	1.3	115	3.2	***	1200	-1.6	-7.0	67	171	1.3	152	2.5	***					
1500	-1.8	-2.7	94	135	.9	120	2.5	***	1500	-4.2	-5.2	93	115	1.0	118	2.5	***	1500	-.8	-7.5	61	135	.9	163	2.5	***					
1800	-2.8	-5.2	84	134	1.5	126	3.2	***	1800	-5.8	-6.2	97	123	1.2	135	2.5	***	1800	-3.8	-8.0	73	142	1.7	136	3.2	***					
2100	-4.1	-6.6	83	121	2.0	123	3.2	***	2100	-6.0	-6.4	97	106	1.1	102	2.5	***	2100	-4.8	***	82	142	1.3	133	3.2	***					
2400	-5.5	***	98	107	1.3	117	3.2	***	2400	-4.1	-5.5	90	124	1.1	132	3.2	***	2400	-3.9	-6.7	81	147	1.0	146	3.2	***					

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING NOVEMBER , 1980

DAY 19

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-3.5	-0.3	81	111	1.1	129	3.2	***	
0600	-3.9	-0.1	65	137	1.7	129	3.8	***	
0900	-2.5	****	87	110	.9	150	2.5	***	
1200	.4	-4.5	70	139	.9	143	3.2	***	
1500	-5.5	-5.6	69	137	1.4	143	3.2	***	
1800	-7	-5.9	68	127	1.5	129	3.8	***	
2100	-6	-6.9	63	104	1.0	155	3.8	***	
2400	.2	-10.2	40	147	1.4	122	5.1	***	

DAY 20

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	.9	-11.0	41	153	1.6	152	3.8	***	
0600	-1.3	*****	53	136	.9	161	2.5	***	
0900	-1.4	-9.4	55	126	1.2	132	3.8	***	
1200	-3.0	-3.3	98	106	1.3	189	3.2	***	
1500	-3.3	-3.9	96	109	.9	183	2.5	***	
1800	-4.1	-4.9	94	104	1.7	107	3.8	***	
2100	-4.2	-5.0	94	116	1.9	129	3.8	***	
2400	-5.0	-5.3	98	101	1.6	107	3.8	***	

DAY 21

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-5.1	-6.1	93	087	1.3	104	3.2	***	
0600	-6.3	-6.4	99	072	1.4	070	3.2	***	
0900	-7.0	-7.5	96	063	1.6	062	3.8	***	
1200	-6.3	-7.7	90	066	2.0	077	3.8	***	
1500	-6.5	-8.2	88	070	1.7	058	3.2	***	
1800	-8.4	-9.2	94	078	2.3	080	3.8	***	
2100	-8.2	-9.0	94	083	1.4	065	3.2	***	
2400	-7.8	-8.5	95	103	1.2	081	2.5	***	

DAY 22

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-5.8	-7.3	69	121	1.4	104	3.2	***	
0600	-4.2	-6.2	86	143	1.0	155	2.5	***	
0900	-1.9	-5.4	77	154	1.0	110	2.5	***	
1200	.1	-6.6	61	126	1.8	102	6.3	***	
1500	.4	-7.5	56	107	1.9	108	5.7	***	
1800	-2.1	-6.5	72	108	1.2	152	2.5	***	
2100	-3.5	-7.9	72	153	1.1	111	3.2	***	
2400	-5.6	-7.4	67	105	1.5	126	3.2	***	

DAY 23

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-4.4	-6.9	83	086	1.4	084	3.2	***	
0600	-4.9	-5.6	95	071	1.5	078	3.2	***	
0900	-4.4	-6.1	88	095	1.5	096	3.8	***	
1200	-2.2	*****	78	066	1.3	080	2.5	***	
1500	-1.9	-5.8	75	111	1.6	115	3.2	***	
1800	-4.5	-6.8	84	133	1.6	103	3.2	***	
2100	-3.8	-5.8	86	138	1.4	160	3.2	***	
2400	-1.4	-5.0	77	136	1.9	120	5.1	***	

DAY 24

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	.3	-7.3	57	105	4.2	100	10.2	***	
0600	2.1	-9.6	42	104	2.3	092	7.6	***	
0900	2.7	-9.4	41	106	1.9	122	8.3	***	
1200	2.6	-8.0	46	111	1.2	099	3.2	***	
1500	-5	*****	76	189	.7	161	3.8	***	
1800	-1.4	-5.0	77	114	1.1	155	2.5	***	
2100	-3.9	-5.5	89	116	1.2	105	3.2	***	
2400	-1.4	-2.3	94	133	1.0	113	3.8	***	

DAY 25

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-1.7	-4.1	84	142	1.1	143	3.2	***	
0600	-1.8	-3.9	86	152	1.6	154	3.2	***	
0900	-2.5	-4.2	86	156	1.2	151	2.5	***	
1200	-4	*****	76	106	1.0	187	2.5	***	
1500	-1	*****	75	153	.6	113	1.9	***	
1800	-1.3	-4.0	62	150	1.3	154	2.5	***	
2100	-1.3	-3.9	83	149	1.3	129	3.2	***	
2400	-2.3	*****	89	154	1.0	146	2.5	***	

DAY 26

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-1.7	-4.2	83	155	.8	151	1.9	***	
0600	-2.7	-3.1	97	150	.9	127	2.5	***	
0900	-4.5	-5.3	94	149	1.3	157	2.5	***	
1200	-2.2	-5.2	80	137	1.0	127	3.2	***	
1500	-4.9	*****	90	171	.8	163	1.9	***	
1800	-4.5	-6.2	88	105	1.3	128	4.4	***	
2100	-8	*****	94	110	1.5	113	5.1	***	
2400	-6	-4.2	77	119	1.5	108	4.4	***	

DAY 27

HOUR NDNG	DEW		WIND RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG
	TEMP.	POINT							
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-7	*****	74	119	.9	107	3.2	***	
0600	-2.8	*****	04	163	.4	158	3.2	***	
0900	-3.5	*****	04	191	.4	200	1.3	***	
1200	-2.7	-3.0	98	089	.3	087	1.9	***	
1500	-3.1	*****	99	047	.3	059	1.3	***	
1800	-4.1	*****	00	125	.6	103	1.3	***	
2100	-4.8	-5.6	94	147	1.3	144	3.2	***	
2400	-5.1	-5.8	95	151	1.3	140	2.5	***	

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING NOVEMBER , 1980

DAY 28

DAY 29

DAY 30

HOUR NDNG	DEW		WIND		WIND		GUST		MAX.		HOUR NDNG	DEW		WIND		WIND		GUST		MAX.		HOUR NDNG	DEW		WIND		WIND		GUST		MAX.	
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	SPD. M/S	DIR. DEG.	SPD. M/S	DIR. DEG.		SPD. M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	SPD. M/S	DIR. DEG.	SPD. M/S		DIR. DEG.	SPD. M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	SPD. M/S	DIR. DEG.
0300	-5.8	-7.1	91	132	1.7	111	3.2	***	0300	-12.6	-15.2	81	090	1.7	097	3.2	***	0300	-17.3	-20.7	75	075	2.8	069	4.4	***						
0600	-6.5	*****	98	113	1.3	120	3.2	***	0600	-15.1	-16.0	93	099	1.8	090	4.4	***	0600	-17.5	-20.7	76	076	2.9	075	5.1	***						
0900	-6.5	-6.9	97	095	.9	124	2.5	***	0900	-15.3	-16.2	93	118	1.3	122	3.2	***	0900	-16.8	-20.7	72	085	2.9	079	4.4	***						
1200	-5.2	-6.6	90	107	.7	134	2.5	***	1200	-15.0	-17.1	84	099	1.3	091	3.2	***	1200	-15.7	-19.5	73	083	2.1	087	3.8	***						
1500	-5.2	-8.0	81	119	1.7	114	3.8	***	1500	-14.3	-16.7	82	080	2.1	074	4.4	***	1500	-14.3	-18.5	71	083	1.7	090	3.8	***						
1800	-5.4	-11.2	64	120	1.7	113	3.2	***	1800	-15.9	-18.6	80	068	2.5	067	5.1	***	1800	-13.2	-17.2	72	089	1.9	093	3.8	***						
2100	-6.7	-12.1	66	148	1.3	121	3.8	***	2100	-16.8	-19.8	78	070	3.0	084	5.7	***	2100	-13.6	-17.5	73	093	2.1	089	4.4	***						
2400	-10.1	-13.4	77	113	1.5	099	3.2	***	2400	-17.6	-21.0	75	077	3.4	080	5.7	***	2400	-14.0	*****	76	101	1.4	096	3.8	***						

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING NOVEMBER , 1980

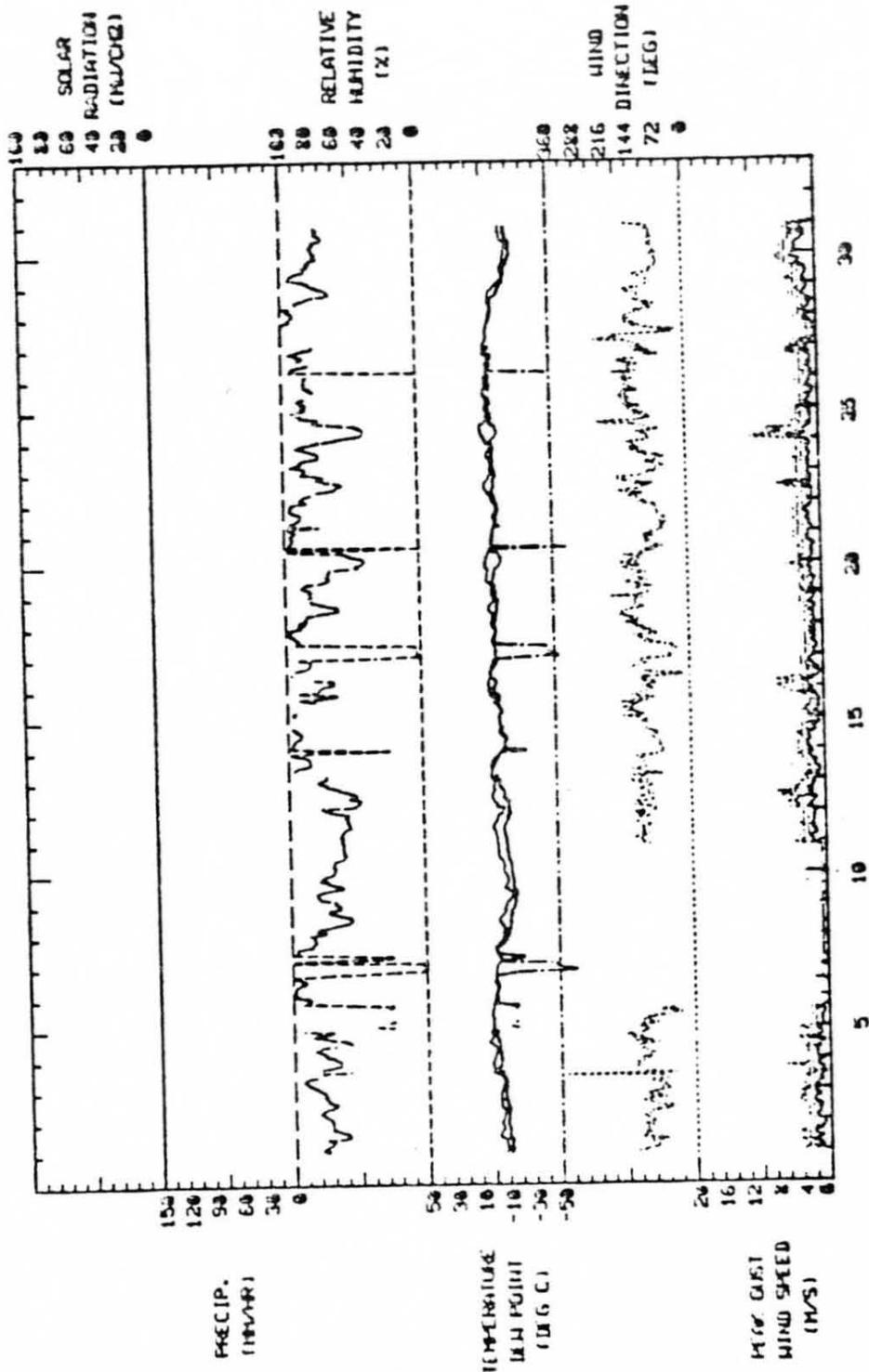
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P*VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-2.5	-10.0	-6.0	123	1.0	1.7	103	4.4	ESE	70	-10.6	****	***	01
02	-3.6	-7.3	-5.4	118	1.7	1.9	120	4.4	ESE	76	-8.6	****	***	02
03	1.7	-0.9	-2.6	109	1.1	1.4	146	6.3	E	80	-5.4	****	***	03
04	4.2	-2.2	1.0	138	1.5	1.6	116	5.1	SE	76	-3.2	****	***	04
05	1.8	-1.0	.4	110	.6	.8	124	2.5	SE	49	-9.8	****	***	05
06	-4.8	-3.0	-2.2	***	****	****	***	1.9	MSG	77	-14.0	****	***	06
07	-1.0	-9.1	-5.4	***	****	****	***	.6	MSG	67	-25.5	****	***	07
08	-4.9	-11.3	-6.1	***	****	****	***	.6	MSG	68	-13.5	****	***	08
09	-9.2	-15.4	-12.3	***	****	****	***	.6	MSG	72	-16.1	****	***	09
10	-4.8	-10.3	-7.6	***	****	1.8	113	4.4	ESE	63	-12.9	****	***	10
11	-1.7	-10.1	-5.9	132	1.0	1.7	117	4.4	SE	58	-11.0	****	***	11
12	-1.3	-11.1	-6.2	120	1.8	1.9	107	7.0	ESE	61	-10.2	****	***	12
13	-2	-8.6	-4.4	115	1.3	1.5	131	3.8	SE	85	-6.5	****	***	13
14	-6.4	-12.3	-9.4	094	1.7	1.7	100	4.4	E	90	-10.4	****	***	14
15	.1	-10.1	-5.0	132	1.2	1.3	105	6.3	SE	83	-6.2	****	***	15
16	.4	-5.5	-2.6	115	1.4	1.6	101	7.0	ESE	81	-4.7	****	***	16
17	-2.9	-6.4	-4.6	089	.9	1.2	115	3.2	NE	61	-15.9	****	***	17
18	-6.0	-6.3	-3.5	151	1.2	1.3	136	3.2	SE	79	-7.1	****	***	18
19	2.1	-5.2	-1.5	137	1.3	1.4	122	5.1	SE	71	-6.5	****	***	19
20	1.4	-5.0	-1.8	110	1.3	1.5	152	3.8	ESE	73	-6.1	****	***	20
21	-4.9	-9.1	-7.0	076	1.0	1.7	062	3.8	ESE	92	-7.8	****	***	21
22	.8	-7.3	-3.5	130	1.3	1.5	102	6.3	ESE	74	-6.9	****	***	22
23	-1.1	-5.1	-3.1	106	1.4	1.6	120	5.1	E	84	-6.0	****	***	23
24	3.2	-4.3	-6.0	112	1.6	1.8	100	10.2	ESE	61	-6.7	****	***	24
25	.4	-4.0	-1.8	152	1.1	1.2	143	3.2	SSE	83	-4.0	****	***	25
26	-4	-5.4	-2.9	133	1.1	1.2	113	5.1	SE	84	-4.7	****	***	26
27	-7	-5.1	-2.9	139	.6	.8	107	3.2	SE	91	-4.8	****	***	27
28	-5.0	-10.1	-7.0	120	1.3	1.4	114	3.8	ESE	81	-9.3	****	***	28
29	-10.3	-17.6	-13.9	083	2.1	2.2	084	5.7	ESE	83	-17.6	****	***	29
30	-12.6	-18.1	-15.4	084	2.2	2.2	075	5.1	E	74	-19.3	****	***	30
MONTH	4.2	-18.1	-5.1	115	1.3	1.5	100	10.2	ESE	75	-9.7	****	***	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.9  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 8.9

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RBM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON LEATHER STATION

DATA START: 01 NOVEMBER, 1966

R&M CONSULTANTS, INC.

SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING NOVEMBER , 1980

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	.21	.04	0.00	0.00	0.00	0.00	0.00	.25
NNE	.59	.17	0.00	0.00	0.00	0.00	0.00	.76
NE	1.35	1.77	0.00	0.00	0.00	0.00	0.00	3.11
ENE	1.00	7.61	1.26	0.00	0.00	0.00	0.00	10.47
E	1.56	14.50	1.01	0.00	0.00	0.00	0.00	17.07
ESE	3.49	19.84	1.01	0.00	0.00	0.00	0.00	24.34
SE	3.40	18.54	.25	0.00	0.00	0.00	0.00	22.19
SSE	2.56	10.80	0.00	0.00	0.00	0.00	0.00	13.37
S	2.23	3.40	0.00	0.00	0.00	0.00	0.00	5.63
SSW	1.30	.25	0.00	0.00	0.00	0.00	0.00	1.56
SW	.42	0.00	0.00	0.00	0.00	0.00	0.00	.42
WSW	.13	.04	0.00	0.00	0.00	0.00	0.00	.17
W	0.00	.08	0.00	0.00	0.00	0.00	0.00	.08
WNW	.04	0.00	0.00	0.00	0.00	0.00	0.00	.04
NW	.06	0.00	0.00	0.00	0.00	0.00	0.00	.06
NNW	.13	0.00	0.00	0.00	0.00	0.00	0.00	.13
CALM								.34
TOTAL	19.08	77.05	3.53	0.00	0.00	0.00	0.00	100.00

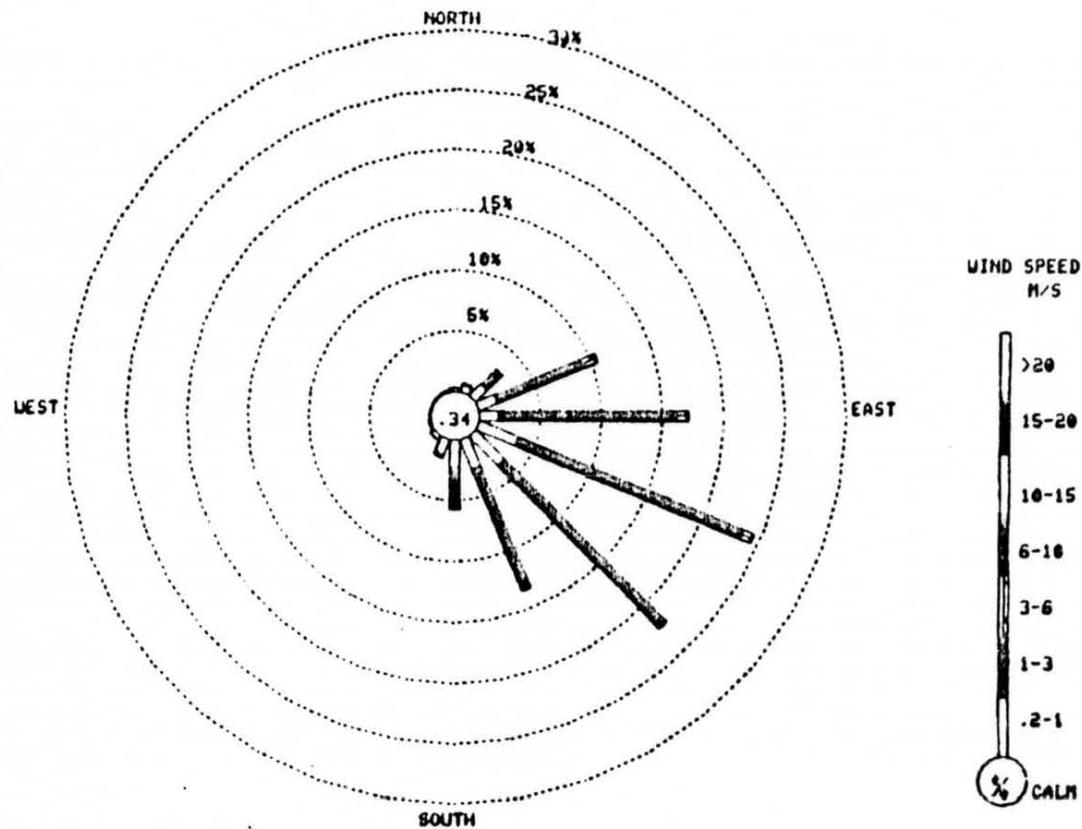
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2379 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

DEVIL CANYON WEATHER STATION

NOVEMBER, 1980



WIND ROSE PLOT



## RRM CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING DECEMBER , 1980

## DAY 01

## DAY 02

## DAY 03

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-11.0	-16.1	50	099	1.7	097	3.2	***	0300	-15.1	-20.6	63	087	2.5	099	5.1	***	0300	-14.4	-19.4	66	058	2.3	053	5.1	***
0600	-10.5	-18.6	52	120	2.1	128	4.4	***	0600	-16.8	-21.0	70	056	1.9	046	4.4	***	0600	-16.6	-20.5	72	057	2.1	059	5.1	***
0900	-11.6	-19.4	53	122	1.9	137	3.8	***	0900	-14.4	-20.3	61	061	2.2	018	5.1	***	0900	-15.7	-19.8	71	056	2.4	049	5.1	***
1200	-12.1	-19.8	53	118	2.7	122	5.1	***	1200	-15.3	-20.3	66	061	2.3	049	5.1	***	1200	-14.3	-19.0	68	063	2.4	061	4.4	***
1500	-12.7	-19.9	55	153	3.3	139	5.7	***	1500	-14.7	-20.4	62	082	2.1	095	5.7	***	1500	-13.7	-18.2	69	064	2.1	072	4.4	***
1800	-13.6	-20.4	57	121	3.5	136	5.7	***	1800	-13.9	-19.9	61	073	1.8	102	5.1	***	1800	-14.4	-18.2	73	067	2.0	077	3.8	***
2100	-14.3	-20.6	59	107	2.3	137	5.1	***	2100	-15.4	-20.2	67	076	2.0	094	5.7	***	2100	-12.9	-17.8	67	081	2.0	115	4.4	***
2400	-14.3	-20.2	61	092	2.1	106	4.4	***	2400	-15.9	-20.2	70	055	2.4	062	4.4	***	2400	-12.8	-17.9	66	102	2.1	122	4.4	***

## DAY 04

## DAY 05

## DAY 06

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-13.5	-18.6	66	109	2.1	109	5.1	***	0300	-18.0	-20.5	81	060	1.7	083	3.8	***	0300	-13.4	-17.1	74	115	1.5	114	4.4	***
0600	-13.8	-18.7	67	111	2.5	126	5.7	***	0600	-17.7	-20.1	82	064	2.0	078	4.4	***	0600	-15.0	-17.4	82	085	1.7	105	3.8	***
0900	-14.3	-19.1	67	097	2.0	109	5.7	***	0900	-19.3	-21.5	83	066	2.4	076	4.4	***	0900	-18.2	-19.2	92	093	1.9	096	4.4	***
1200	-13.8	-19.0	65	107	2.2	118	5.1	***	1200	-17.1	-19.6	81	069	2.5	062	4.4	***	1200	-18.0	-20.9	78	115	1.7	101	4.4	***
1500	-13.7	-18.4	68	095	1.6	130	4.4	***	1500	-15.2	-17.9	80	065	2.0	066	3.8	***	1500	-20.1	-22.0	85	114	1.1	129	3.2	***
1800	-15.8	-19.3	75	064	1.6	063	3.8	***	1800	-14.7	-17.6	79	073	2.1	067	3.8	***	1800	-16.7	-23.0	69	095	1.1	082	4.4	***
2100	-16.7	-19.8	77	061	2.0	069	3.8	***	2100	-13.4	-16.6	77	065	2.0	060	3.8	***	2100	-14.9	-23.3	49	131	1.7	136	4.4	***
2400	-17.6	-20.2	80	060	1.8	054	3.2	***	2400	-12.4	-16.5	72	070	1.8	066	3.8	***	2400	-18.9	-23.4	68	129	1.4	146	3.8	***

## DAY 07

## DAY 08

## DAY 09

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-17.2	*****	63	088	.6	092	3.2	***	0300	-10.4	-27.2	24	116	2.0	159	5.7	***	0300	-15.2	-24.3	46	126	1.8	143	4.4	***
0600	-11.8	-22.2	42	130	2.5	128	6.3	***	0600	-12.6	-28.2	26	160	2.1	158	4.4	***	0600	-12.6	-25.6	33	141	1.7	146	4.4	***
0900	-11.7	-22.7	40	148	1.8	151	6.3	***	0900	-11.8	-27.5	26	135	1.2	122	4.4	***	0900	-13.7	-26.6	33	155	2.4	141	5.1	***
1200	-9.6	-25.6	26	116	2.8	121	7.0	***	1200	-9.4	-26.8	23	121	2.2	146	5.1	***	1200	-16.8	-25.8	46	093	1.2	165	4.4	***
1500	-9.2	-28.7	19	128	3.3	129	7.6	***	1500	-10.5	-27.3	24	105	1.7	088	7.6	***	1500	-16.3	-26.6	41	067	1.4	057	3.2	***
1800	-16.2	-25.5	45	094	1.4	093	4.4	***	1800	-10.0	-26.8	24	133	1.9	156	5.1	***	1800	-17.0	-27.2	41	071	1.6	076	3.8	***
2100	-16.2	-25.0	47	084	1.1	079	2.5	***	2100	-10.1	-26.5	25	114	2.1	125	5.1	***	2100	-18.3	-28.4	41	102	2.2	099	5.1	***
2400	-18.3	-26.0	51	089	1.5	103	4.4	***	2400	-10.1	-26.9	24	124	1.7	103	3.8	***	2400	-21.4	-29.1	50	086	2.6	108	5.1	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING DECEMBER , 1980

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW				WIND				GUST MAX.				HOUR NDNG	DEW				WIND				GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %		DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S
0300	-22.9	-28.4	58	098	3.3	080	5.1	***	0300	-26.1	-28.9	77	107	1.4	107	3.8	***	0300	-26.1	-33.5	50	136	1.8	151	3.8	***
0600	-23.1	-28.2	63	099	2.2	100	5.7	***	0600	-26.2	-28.9	78	106	1.2	082	3.2	***	0600	-27.9	-33.6	58	115	.8	106	2.5	***
0900	-24.9	-28.4	73	099	2.5	093	5.7	***	0900	-25.2	-28.6	73	128	.9	092	3.8	***	0900	-28.7	*****	66	105	.8	131	2.5	***
1200	-23.7	-27.4	72	104	1.9	100	4.4	***	1200	-21.1	-28.0	54	147	1.4	143	4.4	***	1200	-27.7	*****	60	096	1.1	101	2.5	***
1500	-24.4	-27.0	75	108	1.6	104	3.8	***	1500	-20.7	-29.1	47	131	2.5	124	6.3	***	1500	-26.0	-32.0	57	117	1.2	143	3.2	***
1800	-25.3	-28.2	77	108	1.6	101	5.1	***	1800	-21.6	-29.5	49	128	2.0	137	6.3	***	1800	-26.7	*****	70	124	1.2	146	3.2	***
2100	-25.4	*****	78	105	1.4	132	4.4	***	2100	-22.7	-30.7	48	131	1.8	140	5.1	***	2100	-26.4	-31.9	60	107	1.4	144	5.1	***
2400	-25.4	*****	77	098	1.6	109	3.8	***	2400	-25.0	-32.4	50	146	1.9	133	3.2	***	2400	-26.5	-31.5	63	084	1.0	124	3.8	***

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW				WIND				GUST MAX.				HOUR NDNG	DEW				WIND				GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %		DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S
0300	-27.0	-30.8	70	081	2.6	069	5.1	***	0300	-23.1	*****	83	236	.3	187	1.9	***	0300	-26.0	*****	78	154	.8	135	1.9	***
0600	-24.0	-27.9	70	071	2.5	083	4.4	***	0600	-22.9	-25.1	82	268	.9	263	2.5	***	0600	-27.2	-29.9	78	138	.9	137	1.9	***
0900	-21.3	*****	82	092	1.4	131	4.4	***	0900	-22.6	*****	82	271	.6	300	1.9	***	0900	-28.7	-31.5	77	114	1.0	115	2.5	***
1200	-15.0	*****	85	104	.6	094	3.2	***	1200	-22.0	*****	81	224	.3	199	1.3	***	1200	-29.6	-32.8	74	100	1.3	086	3.2	***
1500	-15.9	-18.0	84	103	1.5	111	3.6	***	1500	-22.8	*****	81	173	.5	194	1.9	***	1500	-30.5	*****	74	103	1.3	085	3.2	***
1800	-21.9	-24.0	83	269	.6	262	3.6	***	1800	-23.0	*****	82	182	.3	187	1.3	***	1800	-30.8	*****	73	101	1.1	114	2.5	***
2100	-23.2	-25.6	81	243	1.3	247	3.6	***	2100	-24.1	*****	80	100	.5	093	1.9	***	2100	-31.6	-34.8	73	087	.9	082	3.2	***
2400	-23.7	-25.9	82	183	.6	182	1.9	***	2400	-26.0	-28.7	78	140	.9	127	1.9	***	2400	-31.6	-35.0	72	083	1.0	117	3.2	***

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW				WIND				GUST MAX.				HOUR NDNG	DEW				WIND				GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %		DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. M/S	SPD. M/S	DIR. DEG.	GUST M/S
0300	-32.0	*****	72	083	1.0	082	2.5	***	0300	-32.2	*****	72	120	.7	103	2.5	***	0300	-18.6	-27.9	44	149	2.7	157	5.7	***
0600	-33.3	-35.7	71	114	1.2	114	2.5	***	0600	-28.0	-31.2	74	102	.8	098	3.2	***	0600	-16.8	-27.3	40	163	3.1	170	5.7	***
0900	-34.2	-37.7	70	117	1.2	127	2.5	***	0900	-21.8	-28.1	57	128	1.3	109	3.2	***	0900	-17.0	-28.3	37	127	2.8	125	5.1	***
1200	-33.8	-37.5	69	109	1.6	094	3.8	***	1200	-19.9	-26.7	55	146	2.3	136	5.1	***	1200	-19.4	-29.1	42	147	2.4	139	5.1	***
1500	-34.0	-37.6	70	117	1.4	111	2.5	***	1500	-18.8	-27.1	48	141	2.5	119	5.1	***	1500	-18.1	-28.2	41	114	1.6	137	4.4	***
1800	-34.2	-37.7	70	110	1.7	103	2.5	***	1800	-20.5	-28.7	48	139	2.3	140	4.4	***	1800	-19.8	-29.2	43	131	1.6	155	4.4	***
2100	-33.7	-37.1	71	110	1.9	120	3.2	***	2100	-19.9	-28.4	47	129	2.4	113	5.7	***	2100	-18.4	-28.0	43	126	2.0	123	5.1	***
2400	-33.1	-36.4	72	109	1.5	089	3.2	***	2400	-18.5	-28.3	42	124	3.2	122	5.7	***	2400	-18.4	-27.0	47	089	1.2	097	3.8	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING DECEMBER , 1980

## DAY 19

## DAY 20

## DAY 21

HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW
	TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C						
0300	-12.7	-23.6	40	104	1.9	127	4.4	***	0300	-15.2	-26.7	37	113	2.3	117	5.1	***	0300	-13.8	*****	34	098	1.2	069	4.4	***
0600	-13.0	-24.7	39	106	2.2	132	5.7	***	0600	-17.4	-28.1	39	120	1.8	118	3.8	***	0600	-10.1	-26.9	24	140	1.7	155	5.1	***
0900	-13.8	-24.9	39	122	2.9	135	6.3	***	0900	-21.5	*****	52	136	1.4	130	5.1	***	0900	-9.9	-25.9	26	096	.8	131	5.7	***
1200	-15.1	-26.0	39	132	2.6	126	7.0	***	1200	-18.0	-27.9	42	109	2.2	123	5.1	***	1200	-7.5	-25.7	22	116	1.5	149	5.7	***
1500	-15.7	-26.6	39	141	1.8	134	3.8	***	1500	-20.3	-28.5	46	107	1.1	167	3.8	***	1500	-6.3	-24.8	15	132	1.7	152	5.7	***
1800	-15.5	-26.4	39	129	1.4	140	3.8	***	1800	-20.5	-28.5	49	096	1.9	077	5.1	***	1800	-16.5	*****	44	139	1.4	121	4.4	***
2100	-15.8	-26.7	39	135	1.9	147	5.1	***	2100	-22.1	*****	62	135	.6	117	4.4	***	2100	-9.2	-26.2	24	109	1.5	102	4.4	***
2400	-17.4	-26.3	46	120	1.6	132	3.8	***	2400	-22.7	*****	61	157	.5	086	3.2	***	2400	-12.8	*****	32	123	2.1	142	7.0	***

## DAY 22

## DAY 23

## DAY 24

HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW
	TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C						
0300	-9.5	-20.9	23	107	2.3	100	4.4	***	0300	-18.8	-28.8	41	079	2.6	082	5.1	***	0300	-18.3	-26.5	49	082	2.9	080	5.1	***
0600	-15.6	-26.8	38	091	1.3	088	4.4	***	0600	-20.1	-29.5	43	056	2.1	081	3.8	***	0600	-19.4	-26.8	52	068	2.5	064	4.4	***
0900	-17.5	-27.7	41	056	1.1	054	3.2	***	0900	-20.9	-29.8	45	054	2.4	053	4.4	***	0900	-19.6	-26.8	53	078	2.4	078	5.1	***
1200	-17.7	-28.1	40	079	2.3	096	3.8	***	1200	-20.7	-29.8	44	065	3.2	066	5.1	***	1200	-19.0	-26.0	54	092	2.2	078	3.8	***
1500	-17.8	-27.9	41	084	2.7	090	4.4	***	1500	-19.3	-28.1	46	074	3.4	074	5.1	***	1500	-18.1	-25.2	54	090	2.4	083	4.4	***
1800	-18.0	-28.1	41	075	2.6	075	4.4	***	1800	-20.0	-28.5	47	069	3.7	069	5.7	***	1800	-18.0	-24.7	56	090	2.3	082	4.4	***
2100	-18.4	-28.2	42	074	2.8	073	4.4	***	2100	-19.8	-28.1	48	073	3.4	071	5.7	***	2100	-17.1	-24.1	55	094	1.8	085	4.4	***
2400	-19.0	-28.5	43	083	3.1	089	4.4	***	2400	-19.3	-27.6	48	074	2.8	067	5.1	***	2400	-16.8	*****	55	087	1.4	091	4.4	***

## DAY 25

## DAY 26

## DAY 27

HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW	HOUR NDNG	DEW		RH	WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST M/S	RAD MW
	TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C								TEMP. DEG C	POINT DEG C						
0300	-15.4	*****	55	133	.2	017	2.5	***	0300	-24.0	*****	74	137	.7	097	3.8	***	0300	-14.4	-29.4	27	118	2.3	124	8.9	***
0600	-16.8	*****	59	183	.6	222	2.5	***	0600	-24.6	*****	73	125	.7	100	3.8	***	0600	-14.3	-30.5	24	118	3.4	121	8.3	***
0900	-14.8	-22.8	51	127	.5	175	3.2	***	0900	-24.4	*****	68	111	.7	100	2.5	***	0900	-14.6	-30.3	25	110	2.5	098	8.9	***
1200	-18.5	*****	60	112	.6	093	2.5	***	1200	-24.4	*****	72	232	.5	192	1.3	***	1200	-14.1	-30.3	24	104	3.2	093	9.5	***
1500	-18.5	*****	61	140	.8	146	2.5	***	1500	-15.4	-26.9	37	102	1.1	064	4.4	***	1500	-16.8	-31.4	27	149	2.0	163	7.6	***
1800	-20.2	-25.3	64	107	1.2	098	3.8	***	1800	-14.0	-27.6	31	127	2.3	150	5.7	***	1800	-18.1	-31.5	30	121	1.7	125	3.8	***
2100	-22.3	-27.0	66	115	1.8	108	4.4	***	2100	-14.3	-28.2	30	133	2.6	120	6.3	***	2100	-18.7	-31.7	31	116	1.9	121	3.8	***
2400	-24.3	-27.8	73	105	1.3	110	4.4	***	2400	-15.3	-29.0	30	135	2.4	142	5.7	***	2400	-19.9	-32.1	33	110	2.4	110	5.1	***



## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING DECEMBER , 1980

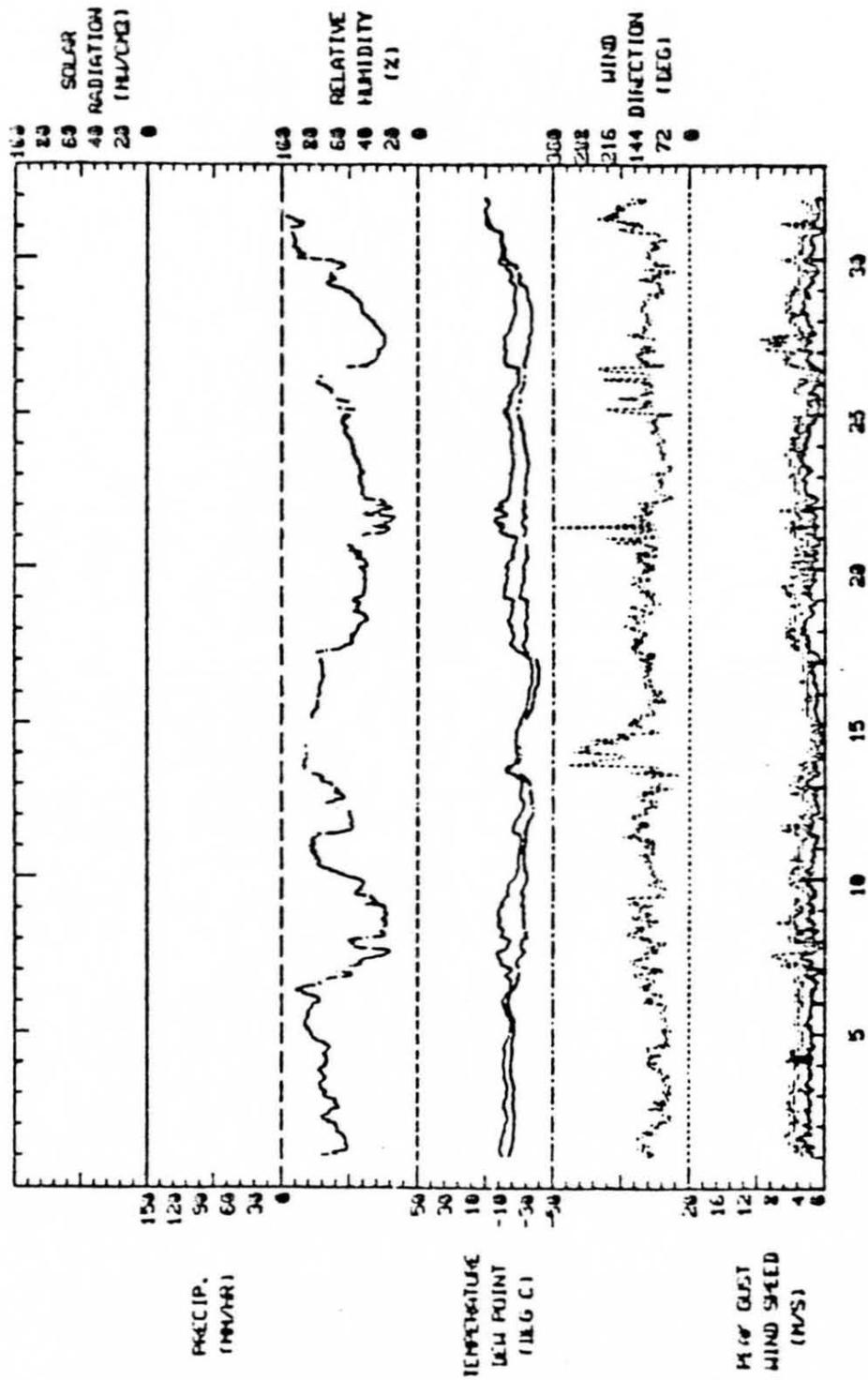
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-9.0	-15.3	-12.5	110	2.4	2.5	139	5.7	ESE	56	-19.6	****	***	01
02	-12.9	-17.0	-15.0	069	2.1	2.3	095	5.7	NE	64	-20.4	****	***	02
03	-12.3	-10.8	-14.5	068	2.1	2.2	053	5.1	ENE	70	-18.9	****	***	03
04	-13.1	-17.7	-15.4	090	1.8	2.1	126	5.7	ESE	70	-19.1	****	***	04
05	-12.3	-15.9	-14.1	067	2.1	2.1	078	4.4	ENE	80	-18.8	****	***	05
06	-12.1	-20.1	-16.1	109	1.5	1.6	114	4.4	E	73	-20.8	****	***	06
07	-8.1	-19.4	-13.8	116	1.7	1.9	129	7.6	SE	38	-25.1	****	***	07
08	-7.9	-18.4	-13.2	126	1.8	2.0	088	7.6	ESE	26	-27.2	****	***	08
09	-9.0	-21.4	-15.5	107	1.6	2.0	141	5.1	ENE	38	-26.7	****	***	09
10	-21.7	-25.0	-23.7	100	2.0	2.1	100	5.7	E	70	-28.1	****	***	10
11	-20.0	-20.9	-23.5	129	1.6	1.7	124	6.3	SE	59	-29.5	****	***	11
12	-25.2	-29.0	-27.1	112	1.1	1.3	144	5.1	ESE	58	-32.5	****	***	12
13	-14.5	-27.0	-21.0	093	.8	1.6	069	5.1	E	77	-25.4	****	***	13
14	-22.0	-20.0	-24.0	203	.3	.7	263	2.5	SSE	81	-26.9	****	***	14
15	-25.3	-32.0	-28.7	108	1.0	1.1	086	3.2	ESE	75	-32.8	****	***	15
16	-31.4	-34.4	-32.9	109	1.4	1.5	094	3.8	ESE	71	-37.3	****	***	16
17	-17.0	-33.4	-25.2	152	1.9	2.0	113	5.7	ESE	55	-28.4	****	***	17
18	-16.3	-21.2	-18.8	136	2.1	2.3	157	5.7	SSE	42	-28.1	****	***	18
19	-12.6	-18.3	-15.5	124	2.0	2.1	126	7.0	SE	40	-25.6	****	***	19
20	-14.4	-23.2	-18.8	116	1.4	1.6	117	5.1	E	45	-27.9	****	***	20
21	-6.2	-21.9	-14.1	122	1.4	1.8	142	7.0	SE	27	-26.7	****	***	21
22	-9.4	-19.4	-14.4	082	2.3	2.4	100	4.4	ESE	38	-27.8	****	***	22
23	-17.6	-21.0	-19.3	069	2.9	3.0	069	5.7	ESE	45	-28.8	****	***	23
24	-13.8	-20.0	-16.9	084	2.2	2.3	080	5.1	E	53	-25.7	****	***	24
25	-11.1	-24.6	-17.8	121	.8	1.1	108	4.4	ESE	62	-25.7	****	***	25
26	-13.7	-25.0	-19.4	130	1.3	1.5	120	6.3	SE	42	-27.9	****	***	26
27	-13.2	-19.9	-16.0	117	2.4	2.5	093	9.5	ESE	27	-30.9	****	***	27
28	-20.0	-22.7	-21.4	111	2.7	2.8	124	5.7	ESE	43	-30.6	****	***	28
29	-9.8	-23.0	-16.4	088	1.7	1.9	087	5.1	ENE	62	-21.2	****	***	29
30	-5.0	-12.7	-8.9	097	1.6	1.7	103	6.3	E	89	-13.2	****	***	30
31	1.2	-4.2	-1.5	169	.8	1.1	143	6.3	SSW	78	-2.1	****	***	31
MONTH	1.2	-34.4	-17.9	105	1.6	1.9	093	9.5	ESE	57	-25.2	****	***	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.3  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS  
 HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

REM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON LEATHER STATION

DATA START: 01 DECEMBER, 1960

R&M CONSULTANTS, INC.

SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING DECEMBER , 1980

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	.13	.03	0.00	0.00	0.00	0.00	0.00	.17
NNE	.13	.17	0.00	0.00	0.00	0.00	0.00	.30
NE	.57	4.84	.03	0.00	0.00	0.00	0.00	5.45
ENE	1.58	13.95	2.35	0.00	0.00	0.00	0.00	17.88
E	2.45	16.74	2.06	0.00	0.00	0.00	0.00	21.28
ESE	2.05	18.55	3.29	0.00	0.00	0.00	0.00	23.90
SE	1.65	10.06	2.86	0.00	0.00	0.00	0.00	15.16
SSE	1.68	4.87	.81	0.00	0.00	0.00	0.00	7.56
S	1.34	1.24	.07	0.00	0.00	0.00	0.00	2.66
SSW	1.08	.40	0.00	0.00	0.00	0.00	0.00	1.48
SW	1.28	.17	0.00	0.00	0.00	0.00	0.00	1.45
WSW	.57	.50	0.00	0.00	0.00	0.00	0.00	1.08
W	.30	.37	0.00	0.00	0.00	0.00	0.00	.67
WNW	.27	.13	0.00	0.00	0.00	0.00	0.00	.40
NW	.07	.03	0.00	0.00	0.00	0.00	0.00	.10
NNW	.24	.03	0.00	0.00	0.00	0.00	0.00	.27
CALM								.20
TOTAL	15.60	72.71	11.50	0.00	0.00	0.00	0.00	100.00

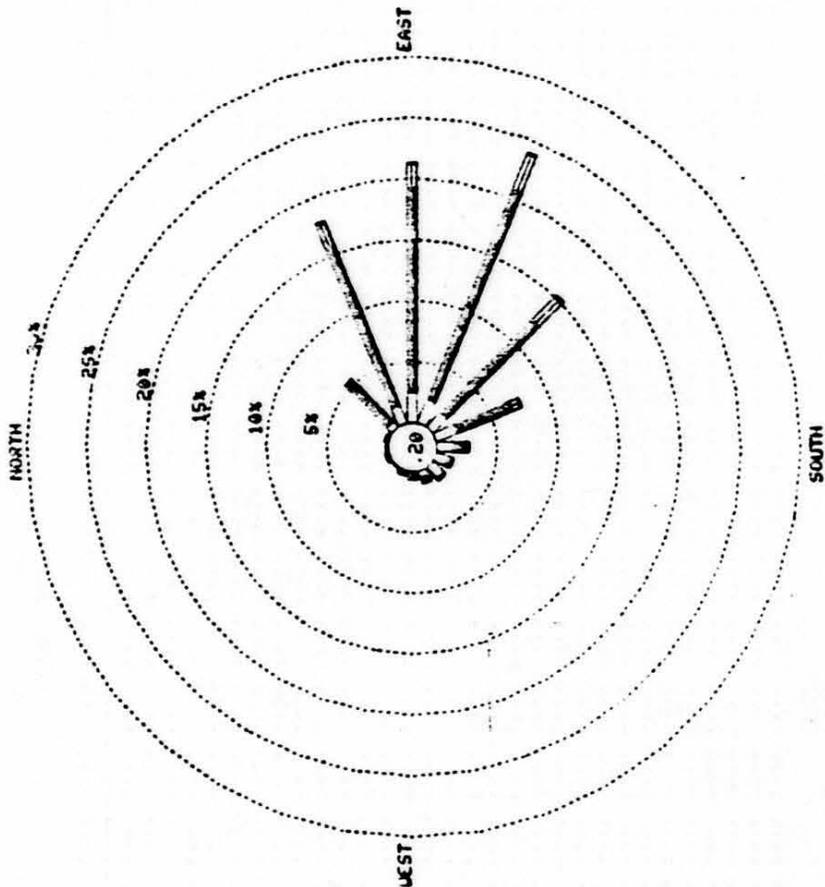
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2975 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

DEVIL CANYON WEATHER STATION

DECEMBER, 1980



WIND ROSE PLOT



R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JANUARY , 1981

DAY 01										DAY 02										DAY 03									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	.1	-1.2	91	165	1.2	189	2.5	***	0300	1.7	-1.1	82	171	.6	106	2.5	***	0300	-12.6	-12.7	99	072	1.8	062	4.4	***			
0600	.8	*****	89	165	1.2	169	2.5	***	0600	.7	*****	08	131	.5	120	2.5	***	0600	-13.4	-13.8	97	078	2.4	085	3.8	***			
0900	2.5	-1.4	76	174	1.3	149	3.2	***	0900	-.3	*****	95	163	.8	144	2.5	***	0900	-12.8	-13.4	95	089	2.4	089	4.4	***			
1200	2.1	-1.6	77	163	1.4	177	2.5	***	1200	-.7	*****	85	115	.7	093	2.5	***	1200	-10.1	-11.2	92	076	1.6	082	3.8	***			
1500	2.9	-1.3	74	177	1.5	184	3.2	***	1500	-1.8	-2.8	93	085	1.5	092	3.8	***	1500	-10.0	-11.1	92	092	2.7	089	4.4	***			
1800	4.9	-.2	70	108	3.1	103	9.5	***	1800	-5.3	-5.6	98	115	1.9	119	3.8	***	1800	-9.8	*****	01	143	.9	120	3.2	***			
2100	4.5	-2.2	62	111	3.0	106	8.3	***	2100	-7.9	-8.3	97	079	1.6	108	3.2	***	2100	-8.7	-9.2	96	139	.6	101	3.2	***			
2400	2.5	.7	68	195	.9	146	3.2	***	2400	-10.6	-113.	00	086	1.4	062	4.4	***	2400	-8.5	*****	00	165	.5	159	1.9	***			

DAY 04										DAY 05										DAY 06									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-3.2	-4.6	90	137	1.2	125	3.2	***	0300	-9.0	-9.1	99	072	1.7	065	4.4	***	0300	-1.4	-9.6	54	124	1.6	101	5.7	***			
0600	-3.1	-4.7	89	129	1.9	129	3.8	***	0600	-10.0	-113.	00	070	2.5	067	4.4	***	0600	-2.5	-6.2	76	099	1.9	090	7.6	***			
0900	-3.0	-4.9	87	131	2.1	122	4.4	***	0900	-10.9	-113.	00	082	2.3	085	4.4	***	0900	-2.0	-6.4	72	122	1.7	121	5.1	***			
1200	-2.5	-5.0	83	117	1.7	117	5.1	***	1200	-11.5	-12.2	95	083	2.0	095	4.4	***	1200	-2.2	-7.2	69	126	1.8	108	5.1	***			
1500	-2.5	-5.0	83	126	2.0	124	5.1	***	1500	-12.3	*****	98	108	.8	091	3.8	***	1500	-2.4	-7.8	67	145	1.7	140	4.4	***			
1800	-3.8	-5.7	87	128	2.6	126	4.4	***	1800	-10.6	*****	98	191	.4	154	3.2	***	1800	-4.1	*****	72	149	1.3	131	3.2	***			
2100	-6.1	*****	96	129	1.7	133	3.8	***	2100	-4.6	-8.2	76	165	.7	135	3.2	***	2100	-1.0	-6.6	66	130	1.8	129	5.1	***			
2400	-6.1	-6.5	97	084	1.4	106	3.8	***	2400	-7.0	*****	86	156	1.0	132	3.2	***	2400	-1.0	*****	69	115	1.4	107	3.8	***			

DAY 07										DAY 08										DAY 09									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-.4	-4.9	72	122	1.3	144	3.8	***	0300	-.6	-6.7	64	130	1.7	139	3.8	***	0300	1.8	-9.9	42	133	1.7	132	4.4	***			
0600	.5	-5.2	66	130	1.4	131	4.4	***	0600	-1.4	-4.3	81	120	1.3	135	3.2	***	0600	1.2	-10.7	41	111	1.8	132	7.0	***			
0900	2.6	-5.2	57	143	1.4	136	5.1	***	0900	-2.2	-4.7	83	118	2.3	116	4.4	***	0900	.3	*****	42	119	1.6	110	4.4	***			
1200	4.0	-5.1	52	124	2.4	109	7.0	***	1200	-2.3	-5.0	82	117	2.8	107	6.3	***	1200	1.4	-10.9	40	107	2.0	084	7.6	***			
1500	3.7	-5.4	50	102	1.7	080	7.6	***	1500	-3.9	-5.6	88	122	1.4	135	3.2	***	1500	0.0	-11.2	43	097	3.2	108	9.5	***			
1800	1.5	-7.2	53	151	1.5	109	3.8	***	1800	-4.9	*****	93	133	1.2	092	3.8	***	1800	0.0	-9.3	50	103	2.6	096	9.5	***			
2100	2.4	-6.6	52	104	1.5	100	4.4	***	2100	-.9	-5.9	69	160	1.0	137	3.8	***	2100	-.8	-7.1	63	132	1.8	138	6.3	***			
2400	.8	-6.9	57	130	1.8	142	3.8	***	2400	1.3	-8.6	48	137	1.8	120	5.1	***	2400	-.5	-6.2	66	116	1.5	150	3.8	***			

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JANUARY , 1981

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW						
	TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.
	DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST
				DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S
0300	-4	-6.1	66	093	1.4	092	3.8 ***	0300	-1.5	*****	02	161	.5	156	1.9 ***	0300	-1.8	-1.9	99	124	1.5	120	3.8 ***
0600	-1.2	-4.9	76	135	1.3	157	3.2 ***	0600	-2.5	-4.1	89	144	1.5	146	3.2 ***	0600	-2.5	-2.6	99	100	1.3	137	3.2 ***
0900	-1.3	-4.7	78	159	1.3	142	3.2 ***	0900	-4.2	-5.0	94	144	1.9	144	3.8 ***	0900	-3.0	*****	03	084	1.0	083	3.2 ***
1200	-7	*****	76	118	1.0	113	2.5 ***	1200	-3.7	*****	96	173	1.0	178	3.2 ***	1200	-2.9	-3.0	99	054	1.0	008	2.5 ***
1500	-1.4	-5.1	76	114	1.2	122	4.4 ***	1500	0.0	-2.4	84	157	1.0	145	3.2 ***	1500	-2.2	-112.	00	074	1.1	087	2.5 ***
1800	-5.0	-6.7	68	133	1.5	110	3.2 ***	1800	1.1	-3.1	70	162	.8	114	3.8 ***	1800	-4.2	-51.6	01	079	1.1	076	2.5 ***
2100	-5.4	-7.0	69	103	1.5	100	3.8 ***	2100	-5	*****	97	137	1.1	150	2.5 ***	2100	-6.3	*****	01	107	1.0	106	3.2 ***
2400	-2.5	-35.1	66	136	.7	130	3.2 ***	2400	-1.4	-112.	00	128	.7	102	2.5 ***	2400	-7.0	*****	00	125	.9	130	3.2 ***

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW						
	TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.
	DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST
				DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S
0300	-4.5	-5.6	92	151	1.2	151	3.8 ***	0300	2.3	-6.7	52	116	1.9	114	6.3 ***	0300	5.1	-6	67	143	2.3	155	3.8 ***
0600	-1.1	-4.8	76	145	1.2	082	3.8 ***	0600	.1	-4.8	70	135	1.6	118	5.7 ***	0600	5.4	-1	68	102	2.0	100	6.3 ***
0900	-7	-6.5	65	130	2.4	117	7.0 ***	0900	.6	-3.7	73	125	1.5	135	3.2 ***	0900	5.1	-2	69	109	3.1	109	7.0 ***
1200	.7	-8.9	49	101	3.3	106	6.9 ***	1200	1.5	-2.1	77	142	1.3	109	6.3 ***	1200	3.5	2.3	92	142	1.1	124	5.1 ***
1500	.9	-8.5	50	105	2.2	117	8.3 ***	1500	4.0	-2.3	64	124	1.7	108	7.6 ***	1500	2.8	-27.0	09	144	.9	159	2.5 ***
1800	2.4	-7.6	48	115	1.6	090	5.1 ***	1800	3.9	-2.4	64	089	2.6	096	8.3 ***	1800	.8	-25.5	12	275	.7	314	5.7 ***
2100	1.8	-7.9	49	113	1.4	105	6.3 ***	2100	5.0	-1.5	63	111	3.0	111	8.3 ***	2100	.7	*****	08	266	1.0	310	4.4 ***
2400	1.4	-7.0	54	126	1.8	108	5.1 ***	2400	5.0	-1.1	65	124	1.5	116	5.7 ***	2400	0.0	-1.3	91	150	1.0	131	3.2 ***

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW						
	TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.		TEMP.	POINT	RH	WIND	WIND	GUST	MAX.
	DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST		DEG C	DEG C	%	DIR.	SPD.	DIR.	GUST
				DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S					DEG.	M/S	DEG.	M/S
0300	-4	-2.2	66	141	1.4	128	2.5 ***	0300	.5	-4.6	69	149	1.2	129	3.8 ***	0300	2.2	-7.0	51	144	1.8	158	6.3 ***
0600	-1.7	-2.1	97	152	1.7	143	3.2 ***	0600	-1.3	-4.7	78	163	1.2	139	2.5 ***	0600	3.0	-4.6	58	121	3.7	123	8.3 ***
0900	-3.1	-3.8	95	129	1.2	104	3.2 ***	0900	.9	-3.6	72	176	1.4	190	2.5 ***	0900	2.9	-3.8	62	112	3.2	102	7.6 ***
1200	-5	-2.9	84	150	1.2	124	3.2 ***	1200	1.1	-4.4	67	151	1.4	139	3.2 ***	1200	2.0	-4.8	61	137	2.0	124	5.1 ***
1500	1.3	-4.4	66	161	1.5	147	6.3 ***	1500	.1	-4.6	71	172	.8	141	1.9 ***	1500	1.3	-4.6	65	155	1.0	105	2.5 ***
1800	1.2	-5.4	62	152	1.7	127	5.1 ***	1800	3.0	-5.8	53	139	1.4	124	5.1 ***	1800	2.0	-3.8	66	151	1.2	140	3.2 ***
2100	1.3	-5.7	60	139	1.9	128	5.7 ***	2100	2.7	-6.3	52	121	2.0	088	5.7 ***	2100	2.9	-4.9	57	151	1.2	146	3.2 ***
2400	.8	-5.1	65	130	1.7	140	3.8 ***	2400	2.3	-6.9	51	130	1.8	115	5.7 ***	2400	1.1	-5.9	60	168	1.5	153	3.8 ***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JANUARY , 1981

## DAY 19

## DAY 20

## DAY 21

DAY 19									DAY 20									DAY 21								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD									
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW									
0300	4.0	-5.9	49	144	1.7	144	4.4	***	0300	-5.3	-8.4	79	131	2.1	133	3.8	***									
0600	2.0	-5.5	56	109	1.0	068	3.8	***	0600	-5.1	*****	81	142	.9	095	2.5	***									
0900	2.0	*****	64	129	.7	107	2.5	***	0900	-4.3	-7.6	78	136	1.5	134	3.2	***									
1200	.1	-37.1	64	278	1.3	178	3.8	***	1200	-3.9	*****	72	118	1.3	130	3.2	***									
1500	-1.9	-2.3	97	264	2.1	269	5.7	***	1500	-3.7	-8.1	72	129	1.0	140	2.5	***									
1800	-3.1	-3.9	94	242	.9	274	3.2	***	1800	-4.2	-8.7	71	130	.8	092	2.5	***									
2100	-6.2	-7.6	90	139	.9	126	3.2	***	2100	-9.3	-11.8	82	128	1.3	155	3.2	***									
2400	-6.5	*****	92	117	1.4	108	3.2	***	2400	-9.0	-11.7	81	109	1.7	120	4.4	***									

## DAY 22

## DAY 23

## DAY 24

DAY 22									DAY 23									DAY 24								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD									
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW									
0300	-2.3	*****	78	163	1.1	161	2.5	***	0300	6.0	-5.5	67	114	2.1	101	4.4	***									
0600	1.2	-4.3	67	171	1.0	107	2.5	***	0600	-1.3	*****	75	169	1.4	102	3.2	***									
0900	.8	*****	66	134	1.9	145	5.1	***	0900	-2.7	*****	76	102	.8	112	3.2	***									
1200	2.3	-4.3	62	155	1.6	149	3.2	***	1200	-6.6	*****	76	131	.4	132	1.3	***									
1500	1.6	-5.0	62	127	1.9	137	4.4	***	1500	-9.9	*****	78	173	.7	183	1.9	***									
1800	.5	-5.2	66	125	1.7	125	3.2	***	1800	2.1	-2.7	71	156	.6	133	2.5	***									
2100	.3	-5.4	66	124	1.7	136	3.2	***	2100	.8	-2.1	81	109	.9	121	2.5	***									
2400	.5	-5.2	66	117	1.6	111	3.2	***	2400	-1.1	-3.0	87	210	.6	327	4.4	***									

## DAY 25

## DAY 26

## DAY 27

DAY 25									DAY 26									DAY 27								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD									
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW									
0300	2.4	-10.0	40	121	2.6	099	8.3	***	0300	-3.1	-5.3	85	100	1.5	120	3.2	***									
0600	2.5	-9.6	41	171	1.3	149	3.8	***	0600	-3.3	-5.7	84	074	1.2	083	3.2	***									
0900	2.8	-9.3	41	144	2.1	145	5.1	***	0900	-4.1	-6.4	84	053	1.3	053	2.5	***									
1200	4.4	-7.8	41	117	1.3	099	4.4	***	1200	-4.1	*****	98	048	.8	053	1.9	***									
1500	2.6	-6.9	50	151	2.0	125	5.1	***	1500	-3.3	*****	98	029	.4	069	2.5	***									
1800	2.2	-6.5	54	139	1.8	138	4.4	***	1800	-2.5	*****	99	235	.5	254	1.9	***									
2100	1.7	-6.0	57	148	1.0	130	3.2	***	2100	-2.7	*****	98	242	.3	269	2.5	***									
2400	-1.2	-5.3	74	140	.8	105	2.5	***	2400	-4.0	*****	98	239	.3	249	1.9	***									

R&M CONSULTANTS, INC.

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THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING JANUARY , 1981

DAY 28

DAY 29

DAY 30

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW			
0300	-12.2	-13.1	93	075	1.6	084	3.8	***	0300	-8.6	-11.8	78	095	1.9	085	5.1	***	0300	-1.6	-6.6	69	133	1.7	138	3.8	***			
0600	-14.9	*****	91	088	1.4	099	3.8	***	0600	-8.6	-9.8	91	088	1.3	069	3.8	***	0600	-2.4	-6.8	72	140	1.3	123	3.2	***			
0900	-14.8	-16.0	91	083	2.1	074	3.8	***	0900	-7.3	-11.0	75	121	1.6	124	3.2	***	0900	-5	-5.6	69	145	1.4	146	2.5	***			
1200	-13.1	*****	87	085	1.6	089	3.8	***	1200	-6.5	-7.6	92	119	1.3	117	3.2	***	1200	1.5	*****	61	153	1.7	144	3.8	***			
1500	-13.0	*****	84	101	.9	072	2.5	***	1500	-4.3	*****	84	143	.8	125	1.9	***	1500	2.7	-6.5	51	134	1.0	124	3.2	***			
1800	-11.8	-13.6	87	129	1.1	129	2.5	***	1800	-4.5	-5.9	90	159	1.1	169	1.9	***	1800	1.8	-6.2	56	128	1.4	128	3.2	***			
2100	-8.4	*****	81	133	1.6	159	3.2	***	2100	-1.5	-5.1	77	140	1.2	108	3.8	***	2100	-1.4	*****	76	160	1.2	119	3.2	***			
2400	-7.9	-11.8	74	103	1.9	102	5.1	***	2400	-8	*****	74	109	1.0	104	3.8	***	2400	-1.3	*****	77	158	1.0	181	2.5	***			

DAY 31

DAY 31

DAY 31

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW			
0300	-8	*****	79	120	1.0	122	2.5	***	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***	****	***	
0600	-7	*****	80	123	.8	122	3.2	***	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***	****	***	
0900	-2.0	*****	99	070	.5	077	1.9	***	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***	****	***	
1200	0.0	*****	95	067	.4	060	1.9	***	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***	****	***	
1500	-4	*****	88	112	.2	098	2.5	***	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***	****	***	
1800	-2.4	-3.4	93	140	1.0	141	2.5	***	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***	****	***	
2100	-1.4	-3.5	86	149	1.4	121	3.2	***	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***	****	***	
2400	1.4	-4.3	66	135	1.6	105	6.3	***	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***	****	***	

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

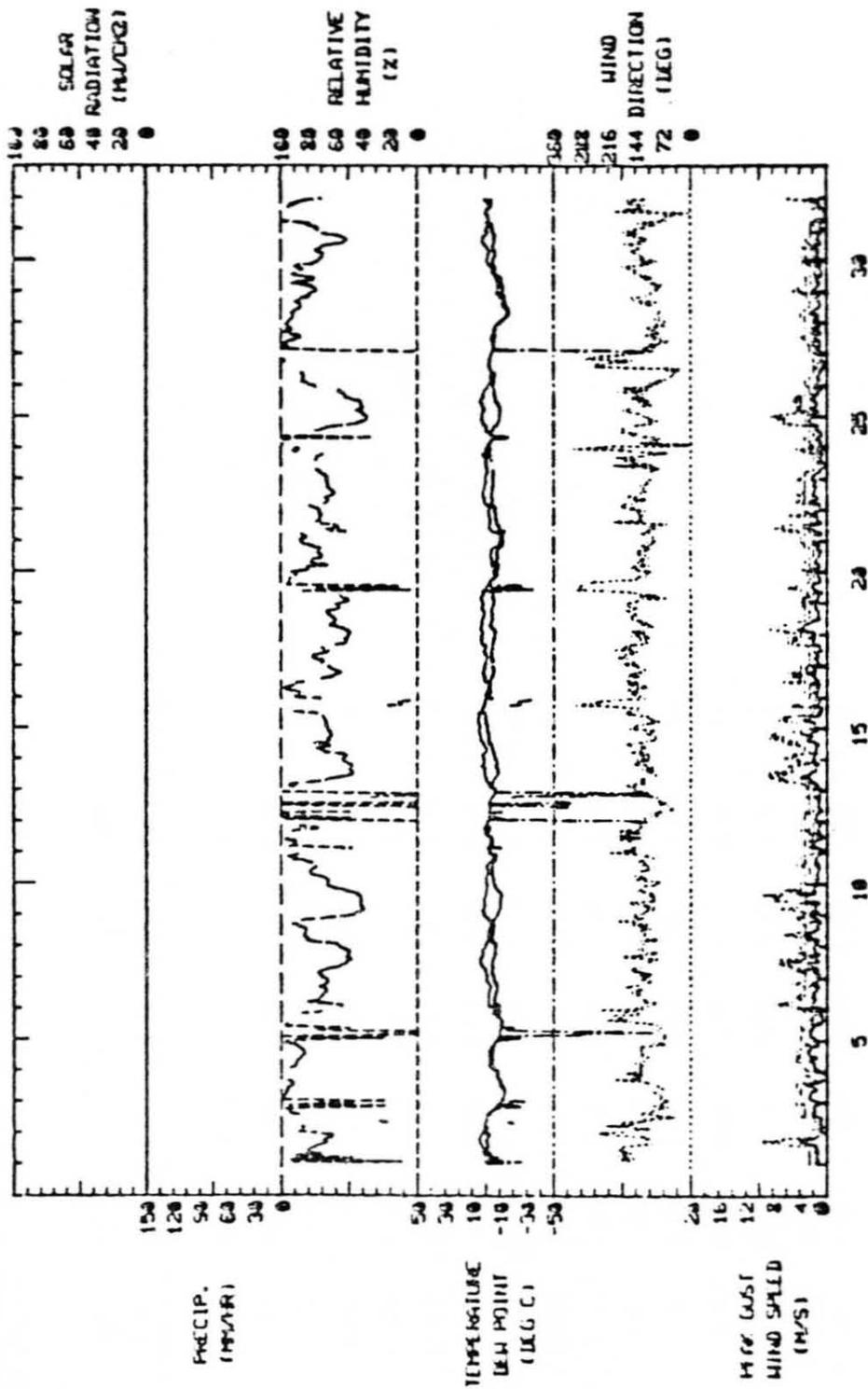
MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JANUARY, 1961

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SUM
01	5.2	-3.3	2.4	146	1.4	1.8	108	9.5	S	72	-1.0	****	01
02	2.7	-10.7	-4.0	107	1.0	1.3	062	4.4	ESE	72	-26.2	****	02
03	-6.2	-14.0	-10.1	091	1.5	1.7	062	4.4	E	93	-11.9	****	03
04	-2.2	-9.1	-5.7	123	1.9	2.0	117	5.1	SE	88	-5.2	****	04
05	-4.2	-12.6	-8.4	092	1.2	1.5	065	4.4	ENE	61	-51.2	****	05
06	-6	-10.4	-5.5	125	1.6	1.7	090	7.6	SE	68	-7.3	****	06
07	4.5	-1.2	1.7	125	1.6	1.7	080	7.6	ESE	58	-5.9	****	07
08	1.3	-5.9	-2.3	127	1.6	1.8	107	6.3	ESE	77	-5.8	****	08
09	2.8	-1.1	.9	112	2.0	2.2	108	9.5	FSE	47	-9.3	****	09
10	.2	-7.6	-3.7	120	1.2	1.5	122	4.4	ESE	77	-9.9	****	10
11	1.5	-4.8	-1.7	149	1.1	1.2	144	3.8	SE	84	-25.1	****	11
12	-1.4	-7.6	-4.5	095	1.0	1.2	120	3.8	E	52	-34.3	****	12
13	2.9	-7.5	-2.3	119	1.8	2.0	106	8.9	FSE	61	-7.1	****	13
14	5.1	-1.6	1.8	117	1.8	2.0	096	8.3	FSE	64	-3.1	****	14
15	5.6	-8	2.4	132	1.0	1.7	109	7.0	FSE	54	-7.5	****	15
16	3.0	-3.1	-0	144	1.5	1.9	147	6.3	SSE	77	-4.0	****	16
17	3.6	-1.3	1.2	147	1.3	1.5	088	5.7	SSE	64	-5.1	****	17
18	3.7	.6	2.2	135	1.9	2.1	123	8.3	SE	59	-4.9	****	18
19	4.0	-7.7	-1.6	176	.4	1.4	289	5.7	SE	67	-10.4	****	19
20	-3.1	-10.7	-6.9	127	1.3	1.4	120	4.4	SE	78	-9.4	****	20
21	-1.7	-11.0	-6.4	112	1.6	1.8	077	7.6	FSE	72	-8.7	****	21
22	-2.3	-4.1	-9	136	1.5	1.6	145	5.1	ESE	66	-4.9	****	22
23	2.6	-2.3	.1	127	.8	1.1	101	4.4	ESE	74	-3.3	****	23
24	3.4	-5.6	-1.1	125	1.2	1.5	112	7.0	ESE	65	-5.5	****	24
25	4.4	-1.7	1.3	137	1.6	1.7	099	8.3	SE	46	-7.6	****	25
26	-7	-4.4	-2.5	072	.5	.9	120	3.2	NE	84	-5.8	****	26
27	-3.7	-9.2	-6.5	101	1.1	1.2	106	4.4	ESE	90	-20.1	****	27
28	-7.5	-16.5	-12.0	098	1.4	1.6	102	5.1	F	87	-13.6	****	28
29	-3	-9.2	-4.8	116	1.2	1.3	065	5.1	FSE	82	-8.5	****	29
30	2.7	-2.5	.1	143	1.3	1.4	138	3.8	SE	66	-6.3	****	30
31	1.4	-3.4	-1.0	126	.8	1.0	105	6.3	FSE	82	-3.7	****	31
MONTH	5.6	-16.5	-2.5	123	1.3	1.6	108	9.5	FSE	70	-10.7	****	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.0  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 8.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR PREVIOUS MONTHS AND NEW POINT.  
 \*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RHM CONSULTANT, INC. SUSITHSA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON LEATHER STATION

DATA STARTS 01 JANUARY, 1981

R&H CONSULTANTS, INC.  
 SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING JANUARY , 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	.10	0.00	0.00	0.00	0.00	0.00	0.00	.10
NNE	.30	.10	0.00	0.00	0.00	0.00	0.00	.40
NE	1.01	.91	0.00	0.00	0.00	0.00	0.00	1.92
ENE	1.36	5.81	.17	0.00	0.00	0.00	0.00	7.36
E	1.76	11.16	1.11	0.00	0.00	0.00	0.00	14.05
ESE	2.02	18.15	2.92	0.00	0.00	0.00	0.00	23.69
SE	3.19	18.02	.44	0.00	0.00	0.00	0.00	22.24
SSE	3.16	10.52	0.00	0.00	0.00	0.00	0.00	13.68
S	2.79	5.48	0.00	0.00	0.00	0.00	0.00	8.27
SSW	2.32	1.00	0.00	0.00	0.00	0.00	0.00	3.39
SW	1.28	.30	0.00	0.00	0.00	0.00	0.00	1.58
WSW	.77	.30	0.00	0.00	0.00	0.00	0.00	1.06
W	.30	.60	0.00	0.00	0.00	0.00	0.00	.91
WNW	.17	.54	0.00	0.00	0.00	0.00	0.00	.71
NW	.10	.20	0.00	0.00	0.00	0.00	0.00	.30
NNW	.10	0.00	0.00	0.00	0.00	0.00	0.00	.10
CALM								.24
TOTAL	21.37	73.76	4.64	0.00	0.00	0.00	0.00	100.00

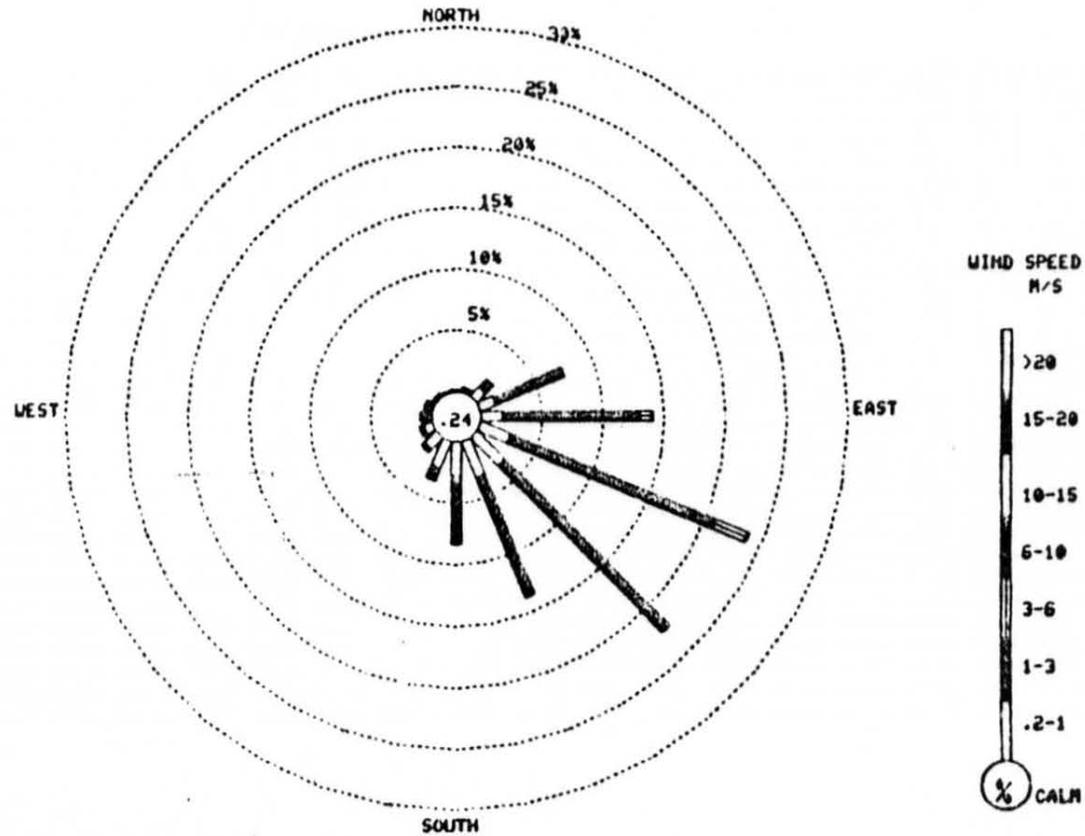
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2976 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

DEVIL CANYON WEATHER STATION

JANUARY, 1981



WIND ROSE PLOT



R&H CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY , 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	1.3	-4.2	67	099	2.5	092	6.3	***
0600	1.4	-5.0	63	097	2.5	045	8.3	***
0900	1.8	-4.4	64	110	2.5	096	7.0	***
1200	3.4	-4.0	59	107	2.8	112	7.0	***
1500	2.2	-4.2	63	106	1.4	112	4.4	***
1800	-2.6	*****	80	135	1.5	140	3.2	***
2100	-2.3	*****	89	064	.9	085	3.2	***
2400	-3.2	-4.2	93	059	1.7	070	3.8	***

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-3.3	*****	93	122	1.4	115	3.8	***
0600	2.3	-3.9	64	123	1.9	109	7.6	***
0900	3.0	-4.3	59	103	2.0	108	7.0	***
1200	1.3	-1.6	81	289	.7	087	7.6	***
1500	.4	*****	86	276	1.2	280	3.8	***
1800	-.7	*****	88	158	.5	237	1.9	***
2100	-.9	-2.5	89	117	.8	133	2.5	***
2400	-1.8	*****	97	106	1.3	122	3.2	***

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-2.4	*****	99	133	.0	073	1.9	***
0600	-2.2	-2.5	98	167	.2	110	1.9	***
0900	-2.6	-3.0	97	112	.8	097	1.9	***
1200	-1.3	-2.9	89	111	.9	111	2.5	***
1500	-1.6	*****	94	124	.7	113	1.9	***
1800	-2.2	*****	00	173	.2	132	1.9	***
2100	-2.5	*****	99	107	.4	112	1.9	***
2400	-1.6	*****	99	091	.3	064	1.9	***

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-2.3	*****	99	075	.4	088	1.3	***
0600	-1.7	-11.2	00	059	.2	059	.6	***
0900	-1.7	-2.0	98	***	***	***	0.0	***
1200	-1.2	-1.8	96	***	***	***	0.0	***
1500	-.8	-1.4	96	***	***	***	0.0	***
1800	-1.1	-1.7	96	***	***	***	0.0	***
2100	-1.2	-1.9	95	***	***	***	1.3	***
2400	-1.5	-1.9	97	***	***	***	.6	***

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-2.3	-2.6	98	***	***	***	.6	***
0600	-3.0	-3.1	99	***	***	***	0.0	***
0900	-2.6	-2.9	98	***	***	***	0.0	***
1200	-2.0	-2.7	95	***	***	***	0.0	***
1500	-1.2	-1.8	96	***	***	***	0.0	***
1800	-1.6	-1.7	99	***	***	***	0.0	***
2100	-1.2	-1.6	97	***	***	***	0.0	***
2400	-.8	-1.2	97	***	***	***	0.0	***

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-.5	-1.1	96	***	***	***	0.0	***
0600	-.8	-1.2	97	***	***	***	0.0	***
0900	-.7	-1.1	97	***	***	***	0.0	***
1200	.1	-.5	96	***	***	***	0.0	***
1500	-.2	-.6	97	***	***	***	0.0	***
1800	-.4	-.8	97	***	***	***	0.0	***
2100	-.8	-1.1	98	***	***	***	0.0	***
2400	-1.9	-2.2	98	***	***	***	0.0	***

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-3.1	-5.7	96	***	***	***	0.0	***
0600	-3.8	-4.1	98	***	***	***	0.0	***
0900	-3.9	-4.7	94	***	***	***	0.0	***
1200	-2.9	-4.3	90	***	***	***	0.0	***
1500	-2.2	-3.2	93	***	***	***	0.0	***
1800	-3.3	-3.7	97	***	***	***	0.0	***
2100	-3.0	-3.6	96	***	***	***	0.0	***
2400	-3.2	-3.8	96	***	***	***	0.0	***

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-3.1	-3.7	96	***	***	***	0.0	***
0600	-3.3	-3.9	96	***	***	***	0.0	***
0900	-4.5	-5.1	96	***	***	***	0.0	***
1200	-1.7	-3.3	89	***	***	***	0.0	***
1500	-1.2	-2.4	92	***	***	***	0.0	***
1800	-1.3	-2.0	95	***	***	***	0.0	***
2100	-1.0	-2.0	93	***	***	***	0.0	***
2400	-1.2	-2.1	94	***	***	***	0.0	***

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	GUST MAX. M/S	RAD Mw
0300	-2.8	-3.5	95	***	***	***	0.0	***
0600	-2.7	-3.5	94	***	***	***	0.0	***
0900	-2.5	-3.8	91	***	***	***	0.0	***
1200	-1.1	-3.5	84	***	***	***	0.0	***
1500	-2.4	-3.1	95	***	***	***	0.0	***
1800	-3.3	-3.7	97	***	***	***	0.0	***
2100	-3.7	-4.3	96	***	***	***	0.0	***
2400	-3.6	-4.2	96	***	***	***	0.0	***

## R&amp;M CONSULTANTS, INC.

## SUSITHA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY , 1981

## DAY 10

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-5.8	-4.4	96	***	***	0300	-6.8	-8.5	88	***	***
0600	-3.7	-4.3	96	***	***	0600	-8.0	-9.2	91	***	***
0900	-3.3	-3.9	96	***	***	0900	-7.9	-9.4	89	***	***
1200	-3.1	-3.7	96	***	***	1200	-5.9	-8.8	80	***	***
1500	-2.5	-3.4	96	***	***	1500	-5.5	-10.0	71	***	***
1800	-3.5	-4.1	96	***	***	1800	-11.4	-12.7	90	***	***
2100	-4.0	-4.6	96	***	***	2100	-10.6	-13.0	83	***	***
2400	-4.7	-5.2	96	***	***	2400	-11.4	-14.4	79	***	***

## DAY 11

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-11.3	-15.4	72	***	***	0300	-11.3	-15.4	72	***	***
0600	-11.5	-16.3	68	***	***	0600	-11.5	-16.3	68	***	***
0900	-11.2	-16.9	63	***	***	0900	-11.2	-16.9	63	***	***
1200	-10.0	-17.9	53	***	***	1200	-10.0	-17.9	53	***	***
1500	-11.7	-17.8	61	***	***	1500	-11.7	-17.8	61	***	***
1800	-13.8	-18.3	69	***	***	1800	-13.8	-18.3	69	***	***
2100	-11.9	-17.0	66	***	***	2100	-11.9	-17.0	66	***	***
2400	-12.4	-17.3	67	***	***	2400	-12.4	-17.3	67	***	***

## DAY 12

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-11.3	-15.4	72	***	***	0300	-11.3	-15.4	72	***	***
0600	-11.5	-16.3	68	***	***	0600	-11.5	-16.3	68	***	***
0900	-11.2	-16.9	63	***	***	0900	-11.2	-16.9	63	***	***
1200	-10.0	-17.9	53	***	***	1200	-10.0	-17.9	53	***	***
1500	-11.7	-17.8	61	***	***	1500	-11.7	-17.8	61	***	***
1800	-13.8	-18.3	69	***	***	1800	-13.8	-18.3	69	***	***
2100	-11.9	-17.0	66	***	***	2100	-11.9	-17.0	66	***	***
2400	-12.4	-17.3	67	***	***	2400	-12.4	-17.3	67	***	***

## DAY 13

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-13.4	-17.3	70	***	***	0300	-13.4	-17.3	70	***	***
0600	-13.9	-18.1	71	***	***	0600	-13.9	-18.1	71	***	***
0900	-15.0	-19.0	72	***	***	0900	-15.0	-19.0	72	***	***
1200	-11.3	-17.4	61	***	***	1200	-11.3	-17.4	61	***	***
1500	-11.6	-17.5	62	***	***	1500	-11.6	-17.5	62	***	***
1800	-15.0	-19.6	68	***	***	1800	-15.0	-19.6	68	***	***
2100	-18.9	-22.6	73	***	***	2100	-18.9	-22.6	73	***	***
2400	-21.9	-24.6	79	***	***	2400	-21.9	-24.6	79	***	***

## DAY 14

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-20.2	-23.8	73	***	***	0300	-20.2	-23.8	73	***	***
0600	-22.6	-25.7	76	***	***	0600	-22.6	-25.7	76	***	***
0900	-19.5	-23.6	70	***	***	0900	-19.5	-23.6	70	***	***
1200	-15.3	-23.5	50	***	***	1200	-15.3	-23.5	50	***	***
1500	-14.1	-23.1	47	***	***	1500	-14.1	-23.1	47	***	***
1800	-18.5	-24.4	60	***	***	1800	-18.5	-24.4	60	***	***
2100	-21.2	-26.1	65	***	***	2100	-21.2	-26.1	65	***	***
2400	-24.1	-27.6	73	***	***	2400	-24.1	-27.6	73	***	***

## DAY 15

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-25.9	-29.5	72	***	***	0300	-25.9	-29.5	72	***	***
0600	-27.0	-30.2	74	***	***	0600	-27.0	-30.2	74	***	***
0900	-27.8	-31.3	72	***	***	0900	-27.8	-31.3	72	***	***
1200	-21.0	-28.5	51	***	***	1200	-21.0	-28.5	51	***	***
1500	-17.7	-25.2	52	***	***	1500	-17.7	-25.2	52	***	***
1800	-19.8	-25.8	59	***	***	1800	-19.8	-25.8	59	***	***
2100	-20.2	-25.6	62	***	***	2100	-20.2	-25.6	62	***	***
2400	-23.0	-27.0	70	***	***	2400	-23.0	-27.0	70	***	***

## DAY 16

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-22.2	-25.6	74	***	***	0300	-22.2	-25.6	74	***	***
0600	-20.2	-23.5	75	***	***	0600	-20.2	-23.5	75	***	***
0900	-20.1	-22.8	79	***	***	0900	-20.1	-22.8	79	***	***
1200	-16.1	-22.1	60	***	***	1200	-16.1	-22.1	60	***	***
1500	-16.4	-21.7	64	***	***	1500	-16.4	-21.7	64	***	***
1800	-17.7	-20.6	78	***	***	1800	-17.7	-20.6	78	***	***
2100	-18.5	-20.8	82	***	***	2100	-18.5	-20.8	82	***	***
2400	-18.2	-20.7	61	***	***	2400	-18.2	-20.7	61	***	***

## DAY 17

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-18.3	-21.1	79	***	***	0300	-18.3	-21.1	79	***	***
0600	-17.7	-20.6	78	***	***	0600	-17.7	-20.6	78	***	***
0900	-18.0	-21.4	75	***	***	0900	-18.0	-21.4	75	***	***
1200	-14.9	-20.8	61	***	***	1200	-14.9	-20.8	61	***	***
1500	-13.7	-20.1	59	***	***	1500	-13.7	-20.1	59	***	***
1800	-14.6	-20.0	64	***	***	1800	-14.6	-20.0	64	***	***
2100	-16.8	-21.4	68	***	***	2100	-16.8	-21.4	68	***	***
2400	-19.3	-23.3	71	***	***	2400	-19.3	-23.3	71	***	***

## DAY 18

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S
0300	-20.3	-23.9	73	***	***	0300	-20.3	-23.9	73	***	***
0600	-23.8	-26.6	78	***	***	0600	-23.8	-26.6	78	***	***
0900	-24.1	-26.9	78	***	***	0900	-24.1	-26.9	78	***	***
1200	-14.9	-21.2	59	***	***	1200	-14.9	-21.2	59	***	***
1500	-12.4	-18.8	59	***	***	1500	-12.4	-18.8	59	***	***
1800	-13.2	-18.5	65	***	***	1800	-13.2	-18.5	65	***	***
2100	-13.6	-17.0	76	***	***	2100	-13.6	-17.0	76	***	***
2400	-11.9	-16.3	70	***	***	2400	-11.9	-16.3	70	***	***

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY , 1981

## DAY 19

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-12.8	-17.4	69	***	***	***	0.0	***	0300	-8.4	-12.4	73	***	***	***	0.0	***
0600	-12.8	-16.7	73	***	***	***	0.0	***	0600	-9.7	-13.7	73	***	***	***	0.0	***
0900	-10.8	-15.1	71	***	***	***	0.0	***	0900	-7.5	-12.3	69	***	***	***	0.0	***
1200	-5.9	-12.5	60	***	***	***	0.0	***	1200	-2.1	-10.8	52	***	***	***	0.0	***
1500	-4.2	-10.3	63	***	***	***	0.0	***	1500	-1.6	-11.0	49	***	***	***	0.0	***
1800	-5.8	-10.8	68	***	***	***	0.0	***	1800	-3.1	-11.0	55	***	***	***	0.0	***
2100	-7.9	-12.1	72	***	***	***	0.0	***	2100	-2.8	-9.2	62	***	***	***	0.0	***
2400	-8.3	-12.5	72	***	***	***	0.0	***	2400	-2.0	-8.4	62	***	***	***	0.0	***

## DAY 20

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-8.4	-12.4	73	***	***	***	0.0	***	0300	-3.3	-9.2	64	***	***	***	0.0	***
0600	-9.7	-13.7	73	***	***	***	0.0	***	0600	-3.4	-7.1	76	***	***	***	0.0	***
0900	-7.5	-12.3	69	***	***	***	0.0	***	0900	-3.6	-6.1	83	***	***	***	0.0	***
1200	-2.1	-10.8	52	***	***	***	0.0	***	1200	-3.1	-5.6	83	***	***	***	0.0	***
1500	-1.6	-11.0	49	***	***	***	0.0	***	1500	-2.8	-6.0	79	***	***	***	0.0	***
1800	-3.1	-11.0	55	***	***	***	0.0	***	1800	-6.8	-7.2	97	***	***	***	0.0	***
2100	-2.8	-9.2	62	***	***	***	0.0	***	2100	-7.9	-8.4	96	***	***	***	0.0	***
2400	-2.0	-8.4	62	***	***	***	0.0	***	2400	-1.6	-10.1	96	***	***	***	0.0	***

## DAY 21

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-3.3	-9.2	64	***	***	***	0.0	***	0300	-3.3	-9.2	64	***	***	***	0.0	***
0600	-3.4	-7.1	76	***	***	***	0.0	***	0600	-3.4	-7.1	76	***	***	***	0.0	***
0900	-3.6	-6.1	83	***	***	***	0.0	***	0900	-3.6	-6.1	83	***	***	***	0.0	***
1200	-3.1	-5.6	83	***	***	***	0.0	***	1200	-3.1	-5.6	83	***	***	***	0.0	***
1500	-2.8	-6.0	79	***	***	***	0.0	***	1500	-2.8	-6.0	79	***	***	***	0.0	***
1800	-6.8	-7.2	97	***	***	***	0.0	***	1800	-6.8	-7.2	97	***	***	***	0.0	***
2100	-7.9	-8.4	96	***	***	***	0.0	***	2100	-7.9	-8.4	96	***	***	***	0.0	***
2400	-1.6	-10.1	96	***	***	***	0.0	***	2400	-1.6	-10.1	96	***	***	***	0.0	***

## DAY 22

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-10.9	-11.6	95	***	***	***	0.0	***	0300	-8.2	-10.0	87	***	***	***	0.0	***
0600	-11.0	-11.8	94	***	***	***	0.0	***	0600	-9.6	-12.3	81	***	***	***	0.0	***
0900	-11.1	-12.0	93	***	***	***	0.0	***	0900	-8.4	-11.4	79	***	***	***	0.0	***
1200	-4.9	-11.4	61	***	***	***	0.0	***	1200	-4.5	-11.2	60	***	***	***	0.0	***
1500	-6.1	-14.9	50	***	***	***	0.0	***	1500	-4.2	-8.7	71	***	***	***	0.0	***
1800	-8.9	-15.3	60	***	***	***	0.0	***	1800	-6.1	-7.5	90	***	***	***	0.0	***
2100	-9.6	-14.7	67	***	***	***	0.0	***	2100	-6.9	-8.3	90	***	***	***	0.0	***
2400	-7.9	-8.8	93	***	***	***	0.0	***	2400	-8.0	-8.4	97	***	***	***	0.0	***

## DAY 23

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-8.2	-10.0	87	***	***	***	0.0	***	0300	-8.2	-9.0	94	***	***	***	0.0	***
0600	-9.6	-12.3	81	***	***	***	0.0	***	0600	-9.1	-10.3	91	***	***	***	0.0	***
0900	-8.4	-11.4	79	***	***	***	0.0	***	0900	-6.8	-9.2	83	***	***	***	2.5	***
1200	-4.5	-11.2	60	***	***	***	0.0	***	1200	-5.8	-7.5	88	***	***	***	3.8	***
1500	-4.2	-8.7	71	***	***	***	0.0	***	1500	-5.5	-7.3	87	***	***	***	5.7	***
1800	-6.1	-7.5	90	***	***	***	0.0	***	1800	-5.8	-6.5	95	***	***	***	5.1	***
2100	-6.9	-8.3	90	***	***	***	.6	***	2100	-5.0	-6.9	87	***	***	***	3.8	***
2400	-8.0	-8.4	97	***	***	***	.6	***	2400	-5.0	-6.0	93	***	***	***	4.4	***

## DAY 24

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-8.2	-9.0	94	***	***	***	0.0	***	0300	-8.2	-9.0	94	***	***	***	0.0	***
0600	-9.1	-10.3	91	***	***	***	0.0	***	0600	-9.1	-10.3	91	***	***	***	0.0	***
0900	-6.8	-9.2	83	***	***	***	0.0	***	0900	-6.8	-9.2	83	***	***	***	2.5	***
1200	-5.8	-7.5	88	***	***	***	0.0	***	1200	-5.8	-7.5	88	***	***	***	3.8	***
1500	-5.5	-7.3	87	***	***	***	0.0	***	1500	-5.5	-7.3	87	***	***	***	5.7	***
1800	-5.8	-6.5	95	***	***	***	0.0	***	1800	-5.8	-6.5	95	***	***	***	5.1	***
2100	-5.0	-6.9	87	***	***	***	.6	***	2100	-5.0	-6.9	87	***	***	***	3.8	***
2400	-5.0	-6.0	93	***	***	***	.6	***	2400	-5.0	-6.0	93	***	***	***	4.4	***

## DAY 25

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-4.7	-6.3	89	***	***	***	4.4	***	0300	-9.6	-10.7	92	054	1.0	070	3.2	000
0600	-4.6	-7.2	82	***	***	***	4.4	***	0600	-10.9	-11.7	94	073	1.7	072	3.8	001
0900	-4.5	*****	93	***	***	***	3.8	***	0900	-9.6	-11.4	87	082	1.3	087	3.2	007
1200	-1.1	*****	82	062	.7	097	2.5	010	1200	-4.7	-8.9	73	060	1.9	061	3.8	017
1500	.8	*****	70	072	.7	071	2.5	008	1500	-1.2	-6.6	67	047	1.4	057	2.5	010
1800	-1.6	-5.2	77	126	1.2	115	3.2	000	1800	-2.5	*****	86	064	.7	061	1.9	001
2100	-3.5	-5.6	64	121	1.0	173	2.5	001	2100	-4.5	-5.1	96	112	.5	120	1.9	001
2400	-6.3	-7.8	89	060	1.3	065	4.4	001	2400	-5.9	*****	99	103	1.1	080	3.2	001

## DAY 26

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT						
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C						
0300	-9.6	-10.7	92	054	1.0	070	3.2	000	0300	-5.4	-5.5	99	084	1.4	086	3.2	00
0600	-10.9	-11.7	94	073	1.7	072	3.8	001	0600	-5.5	-5.8	98	079	1.5	078	3.2	00
0900	-9.6	-11.4	87	082	1.3	087	3.2	007	0900	-4.7	*****	96	070	1.1	080	2.5	00
1200	-4.7	-8.9	73	060	1.9	061	3.8	017	1200	.2	-3.9	74	046	.9	061	2.5	01
1500	-1.2	-6.6	67	047	1.4	057	2.5	010	1500	.4	-3.6	79	061	.7	112	3.8	00
1800	-2.5	*****	86	064	.7	061	1.9	001	1800	-2.2	-3.6	90	263	.5	294	3.2	00
2100	-4.5	-5.1	96	112	.5	120	1.9	001	2100	-3.2	-5.1	87	142	1.9	143	3.8	00
2400	-5.9	*****	99	103	1.1	080	3.2	001	2400	-4.9	-6.5	89	148	2.1	136	3.8	00

## DAY 27

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.		
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT		
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C		
0300	-5.4	-5.5	99	084	1.4	086	3.2	000	0300	-5.4	-5.5	99	084

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY , 1961

DAY 28									DAY 29									DAY 30									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR			DEW	WIND	WIND	GUST	MAX.	HOUR			DEW	WIND	WIND	GUST	MAX.	HOUR					
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	HAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	
0300	-6.0	-7.3	91	110	1.8	137	3.6	001	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***	*****
0600	-5.4	-7.3	87	087	1.5	107	3.8	001	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***	*****
0900	-3.8	-7.0	79	119	1.0	122	3.8	010	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***	*****
1200	.4	-7.5	48	093	1.1	075	3.8	016	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***	*****
1500	-1	-10.5	46	095	2.0	075	5.1	012	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***	*****
1800	-1.3	-9.3	55	117	1.2	134	3.2	001	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***	*****
2100	-1.4	*****	67	166	1.0	147	2.5	001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***	*****
2400	-3.0	-6.5	77	168	1.2	187	2.5	001	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***	*****

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY , 1981

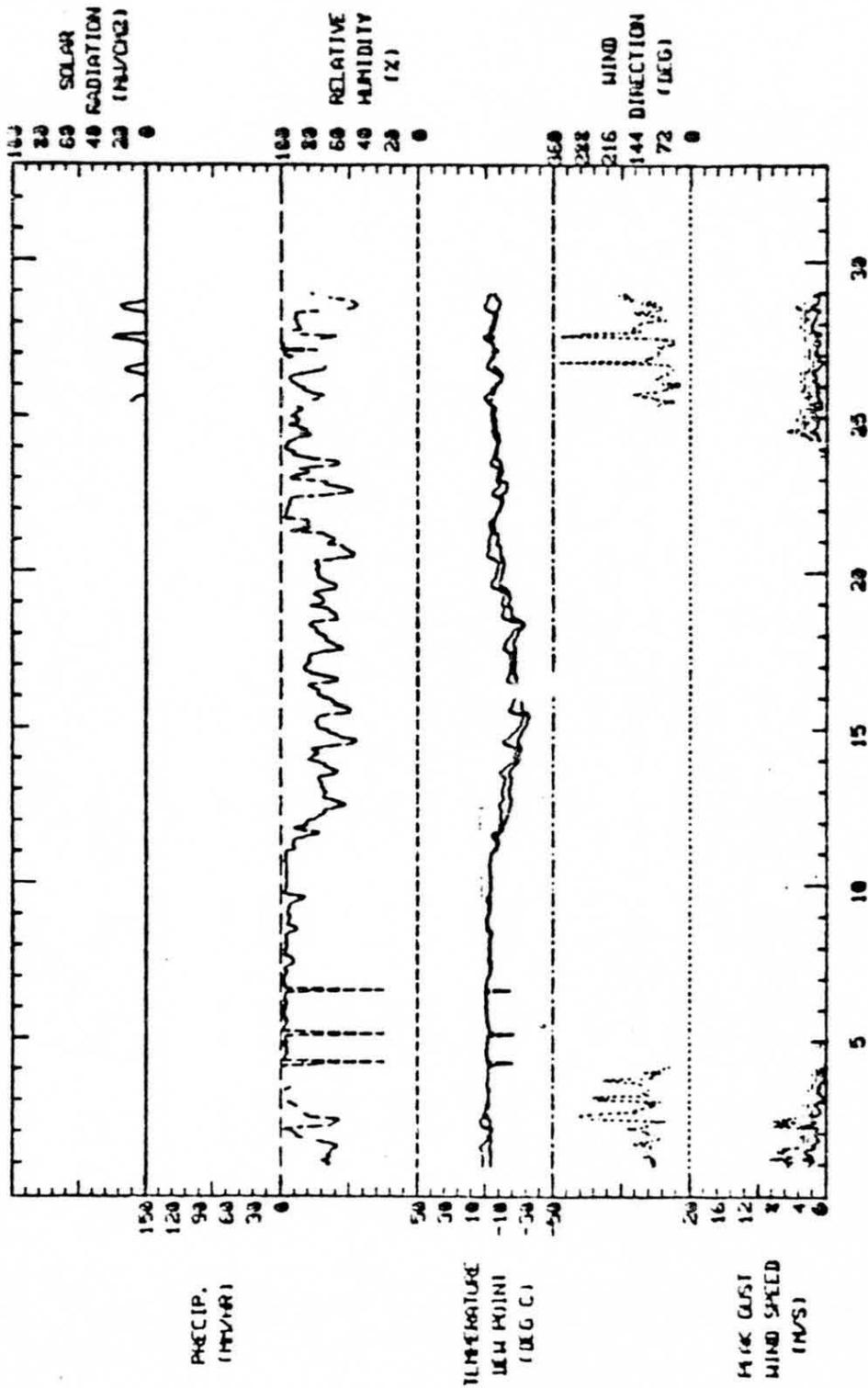
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P*VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	3.6	-3.2	.2	105	1.9	2.0	095	8.3	ESE	69	-4.3	****	***	01
02	4.4	-5.3	-.5	122	.7	1.5	109	7.6	ESE	79	-3.1	****	***	02
03	-1.3	-2.8	-2.1	119	.4	.6	111	2.5	ESE	94	-2.8	****	***	03
04	-.8	-2.5	-1.7	***	****	.4	088	1.3	ENE	91	-17.6	****	***	04
05	-.5	-3.3	-1.9	***	****	****	***	.6	MSG	92	-2.2	****	***	05
06	.4	-1.9	-.8	***	****	****	***	0.0	MSG	93	-1.1	****	***	06
07	-1.8	-3.9	-2.8	***	****	****	***	0.0	MSG	95	-3.9	****	***	07
08	-.8	-4.6	-2.7	***	****	****	***	0.0	MSG	94	-3.0	****	***	08
09	-.6	-3.8	-2.2	***	****	****	***	0.0	MSG	93	-3.7	****	***	09
10	-2.8	-4.7	-3.8	***	****	****	***	0.0	MSG	96	-4.2	****	***	10
11	-4.4	-11.0	-8.1	***	****	****	***	0.0	MSG	86	-10.8	****	***	11
12	-9.7	-13.6	-11.8	***	****	****	***	0.0	MSG	66	-17.1	****	***	12
13	-10.2	-21.9	-16.1	***	****	****	***	0.0	MSG	69	-19.6	****	***	13
14	-12.0	-24.1	-18.3	***	****	****	***	0.0	MSG	64	-24.7	****	***	14
15	-17.0	-27.8	-22.4	***	****	****	***	0.0	MSG	64	-27.9	****	***	15
16	-15.7	-23.7	-19.7	***	****	****	***	0.0	MSG	74	-22.2	****	***	16
17	-13.1	-19.3	-16.2	***	****	****	***	0.0	MSG	70	-21.1	****	***	17
18	-11.9	-25.1	-16.5	***	****	****	***	0.0	MSG	70	-21.1	****	***	18
19	-3.4	-13.6	-8.5	***	****	****	***	0.0	MSG	69	-13.4	****	***	19
20	-.8	-11.2	-6.0	***	****	****	***	0.0	MSG	62	-11.1	****	***	20
21	-2.0	-9.0	-5.8	***	****	****	***	0.0	MSG	83	-7.5	****	***	21
22	-4.6	-11.0	-8.1	***	****	****	***	0.0	MSG	76	-12.6	****	***	22
23	-3.3	-10.0	-7.0	***	****	****	***	.6	MSG	82	-9.7	****	***	23
24	-4.7	-9.2	-7.0	***	****	1.5	***	5.7	MSG	89	-7.8	****	***	24
25	.9	-6.3	-2.7	***	****	1.3	***	4.4	E	83	-6.5	****	951	25
26	-.8	-11.0	-5.9	070	1.1	1.3	072	3.8	ENE	85	-9.0	****	1063	26
27	2.1	-5.6	-1.9	102	.9	1.5	112	3.8	E	87	-4.9	****	1153	27
28	1.6	-7.0	-2.7	116	1.2	1.5	075	5.1	ESE	70	-8.2	****	1295	28
MONTH	4.4	-27.8	-7.3	104	1.0	1.3	095	8.3	ESE	80	-10.8	****	4461	

GUST VLL. AT MAX. GUST MINUS 2 INTERVALS 3.2  
GUST VLL. AT MAX. GUST MINUS 1 INTERVAL 5.1  
GUST VLL. AT MAX. GUST PLUS 1 INTERVAL 7.6  
GUST VLL. AT MAX. GUST PLUS 2 INTERVALS 6.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RJM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON LEATHER STATION

DATA START: 01 FEBRUARY, 1981

R&M CONSULTANTS, INC.

SUSITHA HYDROELECTRIC PROJECT

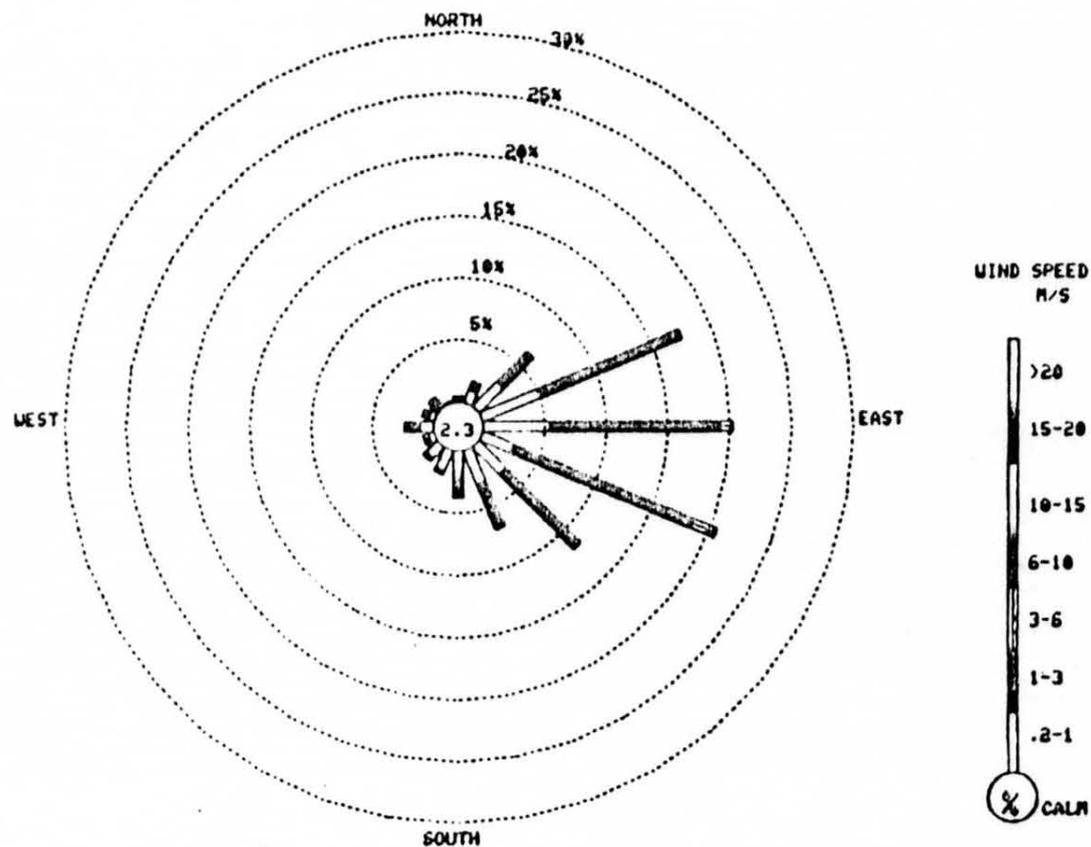
WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING FEBRUARY, 1981

DIRECTION	VELOCITY (M/S)								TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 TO 30.0	GREATER THAN 30.0	
N	.31	.15	0.00	0.00	0.00	0.00	0.00	0.00	.46
NNE	1.08	.77	0.00	0.00	0.00	0.00	0.00	0.00	1.85
NE	2.77	3.39	0.00	0.00	0.00	0.00	0.00	0.00	6.16
ENE	5.24	12.17	0.00	0.00	0.00	0.00	0.00	0.00	17.41
E	5.39	13.71	1.08	0.00	0.00	0.00	0.00	0.00	20.18
ESE	2.77	15.56	2.16	0.00	0.00	0.00	0.00	0.00	20.49
SE	3.08	8.47	0.00	0.00	0.00	0.00	0.00	0.00	11.56
SSE	2.93	3.85	0.00	0.00	0.00	0.00	0.00	0.00	6.78
S	1.54	2.16	0.00	0.00	0.00	0.00	0.00	0.00	3.70
SSW	1.69	.31	0.00	0.00	0.00	0.00	0.00	0.00	2.00
SW	1.23	.31	0.00	0.00	0.00	0.00	0.00	0.00	1.54
WSW	.46	.46	0.00	0.00	0.00	0.00	0.00	0.00	.92
W	1.08	1.23	0.00	0.00	0.00	0.00	0.00	0.00	2.31
WNW	.46	.46	.15	0.00	0.00	0.00	0.00	0.00	1.08
NW	.15	.77	.15	0.00	0.00	0.00	0.00	0.00	1.08
NNW	.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.15
CALM									2.31
TOTAL	30.35	63.79	3.54	0.00	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

649 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
FEBRUARY, 1981



WIND ROSE PLOT



## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MARCH , 1981

DAY 01										DAY 02										DAY 03									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-1.9	-5.0	70	120	1.2	115	3.2	001	0300	-1.6	*****	93	245	.5	285	2.5	001	0300	-7.5	-8.2	95	065	1.2	056	3.2	001			
0600	-1.5	-5.4	74	141	1.3	131	3.2	001	0600	-2.0	-2.3	98	280	.9	290	2.5	001	0600	-8.8	-9.6	94	061	1.6	056	3.8	001			
0900	-4	-5.5	69	150	1.1	170	2.5	008	0900	-1.9	-2.5	96	307	1.4	329	3.2	002	0900	-7.9	-9.6	88	055	1.5	060	3.2	001			
1200	3.8	-6.3	48	117	1.9	099	5.7	036	1200	-1.6	-2.5	94	310	1.6	324	3.8	004	1200	-4.2	-8.6	72	056	1.3	045	3.2	001			
1500	3.0	-6.5	50	104	2.0	093	5.7	009	1500	-1.6	-3.0	90	304	1.9	321	4.4	004	1500	-2.5	-8.1	66	056	1.1	021	2.5	004			
1800	1.8	-5.0	61	140	1.0	113	3.8	001	1800	-2.7	*****	98	293	1.2	301	3.8	001	1800	-4.6	-8.6	74	135	1.1	118	3.2	001			
2100	1.3	-4.2	67	159	1.3	141	3.8	001	2100	-3.5	-3.9	97	179	.6	136	2.5	000	2100	-6.7	-9.3	82	133	1.7	130	3.2	001			
2400	0.0	*****	84	150	1.0	136	1.9	001	2400	-4.9	*****	96	108	.7	112	2.5	001	2400	-8.4	-11.0	82	126	1.3	131	3.2	001			
DAY 04										DAY 05										DAY 06									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-11.5	-13.8	63	110	1.8	083	3.8	000	0300	-5.6	-9.9	72	167	1.6	162	2.5	001	0300	-5.8	-12.2	61	135	1.6	144	3.2	001			
0600	-14.2	-16.2	65	061	2.0	081	3.8	001	0600	-4.3	-9.2	69	153	1.5	157	2.5	001	0600	-7.3	-12.1	69	081	1.7	079	3.8	001			
0900	-12.0	-15.1	78	085	2.1	086	3.2	008	0900	-2.1	-9.8	56	124	.9	132	2.5	007	0900	-4.3	-11.4	58	086	1.7	089	4.4	012			
1200	-5.0	-12.5	56	072	1.6	110	3.8	017	1200	.1	-10.8	44	101	2.1	104	5.7	021	1200	0.0	-11.5	42	096	2.2	102	4.4	039			
1500	-4.2	-12.5	53	109	2.5	117	5.7	009	1500	.4	-10.9	43	090	2.3	077	6.3	013	1500	.5	-11.4	41	108	2.4	092	5.1	020			
1800	-5.8	*****	64	127	1.3	129	4.4	001	1800	-1.1	*****	45	111	1.7	107	4.4	001	1800	-3.6	-11.4	55	128	1.8	109	3.8	001			
2100	-6.4	-11.0	70	169	1.0	184	2.5	001	2100	-2.6	*****	59	154	.9	137	2.5	001	2100	-5.9	-11.5	65	137	1.9	155	3.2	001			
2400	-5.1	-10.0	69	147	1.3	135	2.5	000	2400	-3.4	-11.3	55	137	1.1	128	2.5	001	2400	-8.9	-13.1	72	110	1.6	128	3.8	001			
DAY 07										DAY 08										DAY 09									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-12.3	-14.8	82	066	2.0	102	3.8	001	0300	-4.2	-15.0	43	099	1.7	084	6.3	001	0300	-2.0	-9.9	55	142	1.3	104	3.2	001			
0600	-14.4	-16.0	88	165	3.0	109	5.1	001	0600	-4.5	-14.0	48	143	1.7	119	5.1	001	0600	-2.2	-9.9	56	142	1.5	124	3.8	001			
0900	-6.4	*****	61	106	2.0	109	4.4	017	0900	-2.6	-13.9	42	116	1.2	129	3.2	012	0900	1.5	-9.0	46	121	1.5	102	4.4	030			
1200	.7	-10.5	44	065	.4	077	3.2	032	1200	.1	-10.3	46	110	2.4	112	5.1	034	1200	2.0	-8.5	46	104	2.2	119	5.7	023			
1500	1.1	-10.8	41	081	2.0	080	7.0	021	1500	.2	-11.3	42	090	3.0	092	7.0	014	1500	3.4	-7.8	44	103	2.1	090	5.1	017			
1800	-1.3	-13.3	40	116	2.4	094	5.7	001	1800	-.7	-11.0	46	119	1.6	116	5.1	001	1800	1.0	-7.9	52	122	1.6	108	3.8	001			
2100	-3.3	-14.5	42	127	1.4	127	3.8	001	2100	-.7	*****	47	108	2.1	072	8.3	001	2100	-1.3	-6.9	66	126	1.5	144	2.5	001			
2400	-4.2	-15.3	42	128	2.0	152	4.4	001	2400	-1.2	-10.4	50	133	.8	138	3.2	001	2400	-2.3	-4.5	85	137	1.7	135	3.8	001			

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MARCH , 1981

## DAY 10

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	-3.8	-5.2	90	129	2.0	129	3.8	001	0300	.1	-6.4	62	145	1.1	123	5.1	001
0600	-4.2	-5.8	89	137	1.7	137	3.2	001	0600	.4	-6.1	62	090	3.0	087	7.6	001
0900	-2.4	-7.0	71	121	2.2	100	4.4	012	0900	1.4	-4.5	65	092	3.4	074	8.9	013
1200	*****	*****	AA	092	2.2	109	6.3	043	1200	4.7	-4.2	53	099	2.5	120	6.3	018
1500	3.0	-9.1	41	092	2.2	097	5.1	022	1500	4.1	-2.0	65	080	1.5	094	5.1	003
1800	-1.3	-8.8	57	111	1.8	113	4.4	001	1800	1.2	-1.9	80	119	1.5	120	4.4	001
2100	-3.6	-8.2	72	159	1.6	126	3.2	001	2100	1.0	-2.8	76	147	1.1	151	3.2	001
2400	-4.8	*****	86	151	.8	118	2.5	001	2400	.8	*****	66	143	1.0	157	3.8	000

## DAY 11

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	.1	-6.4	62	145	1.1	123	5.1	001	0300	.6	-6.1	61	107	1.0	133	3.2	001
0600	.4	-6.1	62	090	3.0	087	7.6	001	0600	-.1	-7.5	58	117	1.0	053	4.4	001
0900	1.4	-4.5	65	092	3.4	074	8.9	013	0900	.9	-8.0	52	134	1.3	134	3.8	011
1200	4.7	-4.2	53	099	2.5	120	6.3	018	1200	*****	*****	44	083	1.2	103	4.4	033
1500	4.1	-2.0	65	080	1.5	094	5.1	003	1500	2.9	*****	45	122	2.0	122	4.4	012
1800	1.2	-1.9	80	119	1.5	120	4.4	001	1800	.4	-7.0	58	109	1.4	111	4.4	001
2100	1.0	-2.8	76	147	1.1	151	3.2	001	2100	-.4	-7.5	59	136	1.5	124	3.2	001
2400	.8	*****	66	143	1.0	157	3.8	000	2400	-2.2	-6.3	74	127	1.5	127	3.2	001

## DAY 12

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	.6	-6.1	61	107	1.0	133	3.2	001	0300	.6	-6.1	61	107	1.0	133	3.2	001
0600	-.1	-7.5	58	117	1.0	053	4.4	001	0600	-.1	-7.5	58	117	1.0	053	4.4	001
0900	.9	-8.0	52	134	1.3	134	3.8	011	0900	.9	-8.0	52	134	1.3	134	3.8	011
1200	*****	*****	44	083	1.2	103	4.4	033	1200	*****	*****	44	083	1.2	103	4.4	033
1500	2.9	*****	45	122	2.0	122	4.4	012	1500	2.9	*****	45	122	2.0	122	4.4	012
1800	.4	-7.0	58	109	1.4	111	4.4	001	1800	.4	-7.0	58	109	1.4	111	4.4	001
2100	-.4	-7.5	59	136	1.5	124	3.2	001	2100	-.4	-7.5	59	136	1.5	124	3.2	001
2400	-2.2	-6.3	74	127	1.5	127	3.2	001	2400	-2.2	-6.3	74	127	1.5	127	3.2	001

## DAY 13

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	-4.0	-6.3	84	159	1.3	158	2.5	001	0300	-.6	-8.9	54	139	1.8	139	6.3	001
0600	-3.4	-7.8	72	133	1.2	127	2.5	001	0600	-1.7	-9.2	57	166	1.4	151	3.2	001
0900	-1.1	-10.1	51	129	1.2	101	4.4	013	0900	.8	-8.8	49	137	.9	113	3.2	013
1200	.3	-11.6	41	099	2.6	098	7.0	***	1200	2.6	-8.3	45	118	2.1	124	6.3	010
1500	*****	*****	33	095	2.8	107	6.3	***	1500	2.0	-4.8	61	316	.6	256	2.5	020
1800	-.5	-10.3	48	099	1.9	109	5.1	001	1800	-1.6	-6.6	69	232	.2	314	1.9	001
2100	-2.4	*****	66	166	1.4	162	3.2	001	2100	-2.4	-7.2	70	155	1.1	143	3.2	001
2400	-2.1	-8.5	62	145	2.0	123	5.7	001	2400	-5.1	-7.4	84	128	1.4	135	3.2	001

## DAY 14

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	-.6	-8.9	54	139	1.8	139	6.3	001	0300	-8.2	-9.7	89	097	1.6	090	3.2	001
0600	-1.7	-9.2	57	166	1.4	151	3.2	001	0600	-9.8	-11.0	91	082	2.0	075	4.4	001
0900	.8	-8.8	49	137	.9	113	3.2	013	0900	-6.6	-12.0	66	086	2.4	086	3.8	025
1200	2.6	-8.3	45	118	2.1	124	6.3	010	1200	*****	*****	43	075	2.1	065	3.8	***
1500	2.0	-4.8	61	316	.6	256	2.5	020	1500	*****	*****	37	107	2.2	091	3.8	***
1800	-1.6	-6.6	69	232	.2	314	1.9	001	1800	-2.2	-10.6	53	133	1.1	***	3.8	001
2100	-2.4	-7.2	70	155	1.1	143	3.2	001	2100	-5.0	-11.4	61	108	1.4	098	3.8	001
2400	-5.1	-7.4	84	128	1.4	135	3.2	001	2400	-7.3	*****	74	091	1.4	080	3.2	000

## DAY 15

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	-8.2	-9.7	89	097	1.6	090	3.2	001	0300	-8.2	-9.7	89	097	1.6	090	3.2	001
0600	-9.8	-11.0	91	082	2.0	075	4.4	001	0600	-9.8	-11.0	91	082	2.0	075	4.4	001
0900	-6.6	-12.0	66	086	2.4	086	3.8	025	0900	-6.6	-12.0	66	086	2.4	086	3.8	025
1200	*****	*****	43	075	2.1	065	3.8	***	1200	*****	*****	43	075	2.1	065	3.8	***
1500	*****	*****	37	107	2.2	091	3.8	***	1500	*****	*****	37	107	2.2	091	3.8	***
1800	-2.2	-10.6	53	133	1.1	***	3.8	001	1800	-2.2	-10.6	53	133	1.1	***	3.8	001
2100	-5.0	-11.4	61	108	1.4	098	3.8	001	2100	-5.0	-11.4	61	108	1.4	098	3.8	001
2400	-7.3	*****	74	091	1.4	080	3.2	001	2400	-7.3	*****	74	091	1.4	080	3.2	000

## DAY 16

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.						
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S						
0300	-9.2	-12.2	79	073	2.0	076	4.4	001	0300	.2	-9.1	50	155	1.5	166	3.2	001
0600	-10.9	-13.6	81	075	2.6	070	4.4	001	0600	-.1	-9.1	51	165	1.1	166	2.5	001
0900	-8.5	-13.6	67	076	2.6	073	4.4	016	0900	2.9	-8.6	43	154	.8	136	2.5	018
1200	.8	*****	AA	064	2.2	087	4.4	029	1200	4.5	-8.4	39	091	1.9	091	6.3	024
1500	1.6	-10.7	40	095	2.6	095	5.7	021	1500	5.4	-7.9	38	083	2.1	100	7.0	013
1800	-.9	-10.1	49	111	1.8	103	4.4	001	1800	2.8	*****	44	092	.8	078	3.8	001
2100	-2.5	*****	61	169	1.2	137	2.5	001	2100	1.7	-8.0	49	182	1.4	171	2.5	001
2400	-.9	-8.7	56	150	1.4	159	3.2	001	2400	.2	-7.9	55	177	1.0	191	2.5	000

## DAY 17

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MARCH , 1981

DAY 19

DAY 20

DAY 21

HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT	RH							TEMP.	POINT	RH							TEMP.	POINT	RH					
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	.9	*****	62	134	1.1	131	4.4	001	0300	-6.6	-6.7	99	094	1.4	100	3.8	001	0300	-8.1	-12.0	74	088	1.8	076	3.2	001
0600	0.0	*****	90	192	.6	211	2.5	001	0600	-8.1	-11.3	00	086	1.7	073	3.8	001	0600	-10.2	-12.0	87	092	1.8	084	4.4	001
0900	2.0	*****	80	060	.6	056	2.5	013	0900	-3.3	-7.5	73	088	1.8	097	3.8	030	0900	-5.1	-12.6	56	076	1.7	090	3.8	026
1200	1.0	-6.8	89	315	1.0	305	3.2	016	1200	4.4	-9.5	36	086	1.3	135	4.4	044	1200	2.4	-11.7	35	092	1.8	110	5.7	042
1500	2.1	-0.8	86	292	1.4	309	3.8	012	1500	4.7	-11.6	30	108	3.0	106	6.3	029	1500	2.7	-11.7	34	105	3.1	097	6.3	029
1800	.1	-1.8	87	253	.9	275	2.5	001	1800	1.2	-12.0	37	113	2.1	115	6.3	002	1800	-5.5	-12.0	42	112	2.7	110	7.0	002
2100	-1.9	-2.8	94	155	1.1	181	2.5	001	2100	-3.5	*****	57	138	1.2	155	2.5	001	2100	-3.4	-12.2	51	131	1.4	076	3.2	001
2400	-4.2	-5.0	94	122	1.3	123	3.2	000	2400	-6.4	*****	70	120	.9	145	2.5	000	2400	-5.3	-14.0	51	145	1.3	172	3.2	001

DAY 22

DAY 23

DAY 24

HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT	RH							TEMP.	POINT	RH							TEMP.	POINT	RH					
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-6.2	-14.8	51	142	1.4	162	4.4	001	0300	-8.7	-10.1	90	179	1.4	170	2.5	001	0300	-1.6	-5.7	74	119	1.5	125	2.5	001
0600	-6.7	-15.0	52	163	1.9	146	3.8	001	0600	-7.5	-8.6	92	171	1.2	188	2.5	001	0600	-2.6	*****	90	116	1.2	118	3.2	001
0900	-1.4	-13.7	39	126	1.2	085	5.7	026	0900	-1.9	-8.9	59	141	.6	075	3.2	019	0900	1.1	-5.0	64	050	1.2	064	3.8	038
1200	.2	-12.9	37	101	3.4	098	7.6	043	1200	1.7	-8.3	48	104	2.2	106	5.1	046	1200	2.3	-5.9	55	106	2.3	102	5.7	016
1500	.4	-12.7	37	066	2.9	067	7.6	029	1500	2.6	-6.9	50	111	2.5	109	5.7	014	1500	4.2	-6.2	47	115	1.7	127	3.8	031
1800	-1.7	-12.5	44	062	2.7	064	7.6	002	1800	.2	-6.7	60	117	1.7	097	4.4	002	1800	.7	-6.3	60	152	1.4	140	4.4	002
2100	-4.8	-10.8	63	153	1.6	119	3.8	001	2100	-1.5	-6.0	72	134	1.6	141	3.2	000	2100	-2.5	-5.9	78	144	1.7	151	3.2	001
2400	-5.8	-9.9	73	174	1.7	160	2.5	001	2400	-1.3	-5.9	71	150	1.7	136	3.2	001	2400	-5.0	-6.7	88	117	1.8	114	4.4	001

DAY 25

DAY 26

DAY 27

HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD	HOUR NDNG	DEW			WIND DIR.	WIND SPD.	GUST DIR.	GUST MAX.	RAD
	TEMP.	POINT	RH							TEMP.	POINT	RH							TEMP.	POINT	RH					
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-7.6	-7.9	98	028	1.7	099	3.8	001	0300	-1.6	-6.1	72	141	1.2	141	3.2	001	0300	-1.9	*****	94	235	.3	289	1.9	001
0600	-9.1	-9.5	97	062	2.4	078	3.8	001	0600	-1.6	*****	76	189	.6	200	1.3	002	0600	-1.6	*****	01	191	.2	135	1.9	001
0900	-3.7	-9.0	67	075	2.1	086	3.2	035	0900	1.7	*****	59	121	.6	166	2.5	019	0900	.2	*****	91	276	.4	283	1.9	006
1200	3.0	-7.1	48	068	1.9	071	4.4	045	1200	3.2	-5.6	53	086	2.0	091	5.1	024	1200	2.1	-1.7	76	309	1.0	278	3.2	027
1500	5.3	-7.7	39	138	1.7	106	4.4	031	1500	4.0	-4.8	53	068	2.1	048	5.7	021	1500	1.8	-1.7	78	302	1.7	286	3.8	013
1800	.5	-8.3	52	139	1.8	139	4.4	002	1800	2.3	-4.1	63	050	1.9	047	5.1	002	1800	.5	-1.4	87	287	.5	320	2.5	002
2100	-1.8	-6.6	70	132	2.0	144	3.2	001	2100	-.7	*****	77	178	1.0	187	1.9	001	2100	-.8	*****	98	163	.5	145	1.9	001
2400	-1.5	*****	72	135	1.3	142	3.2	001	2400	-.8	*****	80	187	.7	186	1.9	000	2400	-2.4	*****	97	119	.8	123	2.5	001

KRM CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MARCH , 1981

DAY 28

HOUR	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	HOUR	NDNG	TEMP. DEG C	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	RAD				
0300	-3.1	43	115	.8	147	1.9	001	0300	-8.3	-10.0	68	105	1.8	091	3.8	001	0300	-5.4	-9.2	75	103	1.5	141	3.8	001	
0600	-4.6	54	94	073	1.2	083	3.2	001	0600	-9.5	68	097	1.0	097	2.5	002	0600	-9.6	-11.4	87	082	1.7	074	4.4	002	
0900	-1.5	74	048	1.5	071	3.2	019	0900	-4.5	-10.4	64	055	1.8	058	3.8	032	0900	-4.4	-10.9	61	066	2.0	077	3.2	031	
1200	3.0	51	058	1.4	036	3.2	037	1200	2.3	-9.1	43	083	2.0	075	5.1	047	1200	2.0	-8.8	45	079	2.0	059	4.4	048	
1500	3.8	48	307	.9	271	3.2	017	1500	3.3	-9.2	40	140	2.2	143	4.4	034	1500	3.3	-4.2	40	141	.9	040	3.8	035	
1800	1.3	55	205	.9	140	3.2	002	1800	.1	-9.0	51	133	1.7	124	3.8	002	1800	1.8	-9.3	44	256	1.4	266	3.8	004	
2100	-2.8	73	131	1.0	148	2.5	001	2100	-3.5	-8.4	69	142	1.8	131	3.2	001	2100	-2.1	*****	68	177	.8	271	2.5	001	
2400	-4.9	85	76	117	1.4	120	3.2	001	2400	-5.0	-8.6	76	132	2.1	128	3.8	000	2400	-2.1	*****	80	128	.8	116	2.5	000

DAY 29

HOUR	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	HOUR	NDNG	TEMP. DEG C	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	RAD				
0300	-3.1	43	115	.8	147	1.9	001	0300	-8.3	-10.0	68	105	1.8	091	3.8	001	0300	-5.4	-9.2	75	103	1.5	141	3.8	001	
0600	-4.6	54	94	073	1.2	083	3.2	001	0600	-9.5	68	097	1.0	097	2.5	002	0600	-9.6	-11.4	87	082	1.7	074	4.4	002	
0900	-1.5	74	048	1.5	071	3.2	019	0900	-4.5	-10.4	64	055	1.8	058	3.8	032	0900	-4.4	-10.9	61	066	2.0	077	3.2	031	
1200	3.0	51	058	1.4	036	3.2	037	1200	2.3	-9.1	43	083	2.0	075	5.1	047	1200	2.0	-8.8	45	079	2.0	059	4.4	048	
1500	3.8	48	307	.9	271	3.2	017	1500	3.3	-9.2	40	140	2.2	143	4.4	034	1500	3.3	-4.2	40	141	.9	040	3.8	035	
1800	1.3	55	205	.9	140	3.2	002	1800	.1	-9.0	51	133	1.7	124	3.8	002	1800	1.8	-9.3	44	256	1.4	266	3.8	004	
2100	-2.8	73	131	1.0	148	2.5	001	2100	-3.5	-8.4	69	142	1.8	131	3.2	001	2100	-2.1	*****	68	177	.8	271	2.5	001	
2400	-4.9	85	76	117	1.4	120	3.2	001	2400	-5.0	-8.6	76	132	2.1	128	3.8	000	2400	-2.1	*****	80	128	.8	116	2.5	000

DAY 30

HOUR	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	HOUR	NDNG	TEMP. DEG C	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	RAD				
0300	-3.1	43	115	.8	147	1.9	001	0300	-8.3	-10.0	68	105	1.8	091	3.8	001	0300	-5.4	-9.2	75	103	1.5	141	3.8	001	
0600	-4.6	54	94	073	1.2	083	3.2	001	0600	-9.5	68	097	1.0	097	2.5	002	0600	-9.6	-11.4	87	082	1.7	074	4.4	002	
0900	-1.5	74	048	1.5	071	3.2	019	0900	-4.5	-10.4	64	055	1.8	058	3.8	032	0900	-4.4	-10.9	61	066	2.0	077	3.2	031	
1200	3.0	51	058	1.4	036	3.2	037	1200	2.3	-9.1	43	083	2.0	075	5.1	047	1200	2.0	-8.8	45	079	2.0	059	4.4	048	
1500	3.8	48	307	.9	271	3.2	017	1500	3.3	-9.2	40	140	2.2	143	4.4	034	1500	3.3	-4.2	40	141	.9	040	3.8	035	
1800	1.3	55	205	.9	140	3.2	002	1800	.1	-9.0	51	133	1.7	124	3.8	002	1800	1.8	-9.3	44	256	1.4	266	3.8	004	
2100	-2.8	73	131	1.0	148	2.5	001	2100	-3.5	-8.4	69	142	1.8	131	3.2	001	2100	-2.1	*****	68	177	.8	271	2.5	001	
2400	-4.9	85	76	117	1.4	120	3.2	001	2400	-5.0	-8.6	76	132	2.1	128	3.8	000	2400	-2.1	*****	80	128	.8	116	2.5	000

DAY 31

HOUR	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	HOUR	NDNG	TEMP. DEG C	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	RAD				
0300	-3.2	44	116	.8	148	2.0	000	0300	-8.4	-10.1	69	106	1.9	092	3.9	000	0300	-5.5	-9.3	76	104	1.6	142	3.9	001	
0600	-4.7	55	95	074	1.3	084	3.3	000	0600	-9.6	69	098	1.1	098	2.6	000	0600	-9.7	-11.5	88	083	1.8	075	4.5	002	
0900	-1.6	75	049	1.6	072	3.3	019	0900	-4.6	-10.5	65	056	1.9	059	3.9	032	0900	-4.5	-11.0	62	067	2.1	078	3.3	031	
1200	3.1	52	059	1.5	037	3.3	037	1200	2.4	-9.2	44	084	2.1	076	5.2	048	1200	2.1	-8.9	46	080	2.1	060	4.5	049	
1500	3.9	49	308	.9	272	3.3	017	1500	3.4	-9.3	41	141	2.3	144	4.5	035	1500	3.4	-4.3	41	142	.9	041	3.9	035	
1800	1.4	56	206	.9	141	3.3	002	1800	.2	-9.1	52	134	1.8	125	3.9	002	1800	1.9	-9.4	45	257	1.5	267	3.9	004	
2100	-2.9	74	132	1.1	149	2.6	001	2100	-3.6	-8.5	70	143	1.9	132	3.3	001	2100	-2.2	*****	69	178	.9	272	2.6	001	
2400	-5.0	86	77	118	1.5	121	3.3	001	2400	-5.1	-8.7	77	133	2.2	129	3.9	000	2400	-2.2	*****	81	129	.9	117	2.6	000

DAY 31

HOUR	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	HOUR	NDNG	TEMP. DEG C	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	DEW POINT TEMP. DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	WIND GUST DIR. DEG.	WIND GUST M/S	RAD				
0300	-3.2	44	116	.8	148	2.0	000	0300	-8.4	-10.1	69	106	1.9	092	3.9	000	0300	-5.5	-9.3	76	104	1.6	142	3.9	001	
0600	-4.7	55	95	074	1.3	084	3.3	000	0600	-9.6	69	098	1.1	098	2.6	000	0600	-9.7	-11.5	88	083	1.8	075	4.5	002	
0900	-1.6	75	049	1.6	072	3.3	019	0900	-4.6	-10.5	65	056	1.9	059	3.9	032	0900	-4.5	-11.0	62	067	2.1	078	3.3	031	
1200	3.1	52	059	1.5	037	3.3	037	1200	2.4	-9.2	44	084	2.1	076	5.2	048	1200	2.1	-8.9	46	080	2.1	060	4.5	049	
1500	3.9	49	308	.9	272	3.3	017	1500	3.4	-9.3	41	141	2.3	144	4.5	035	1500	3.4	-4.3	41	142	.9	041	3.9	035	
1800	1.4	56	206	.9	141	3.3	002	1800	.2	-9.1	52	134	1.8	125	3.9	002	1800	1.9	-9.4	45	257	1.5	267	3.9	004	
2100	-2.9	74	132	1.1	149	2.6	001	2100	-3.6	-8.5	70	143	1.9	132	3.3	001	2100	-2.2	*****	69	178	.9	272	2.6	001	
2400	-5.0	86	77	118	1.5	121	3.3	001	2400	-5.1	-8.7	77	133	2.2	129	3.9	000	2400	-2.2	*****	81	129	.9	117	2.6	000

R&M CONSULTANTS, INC.  
 SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING MARCH, 1981

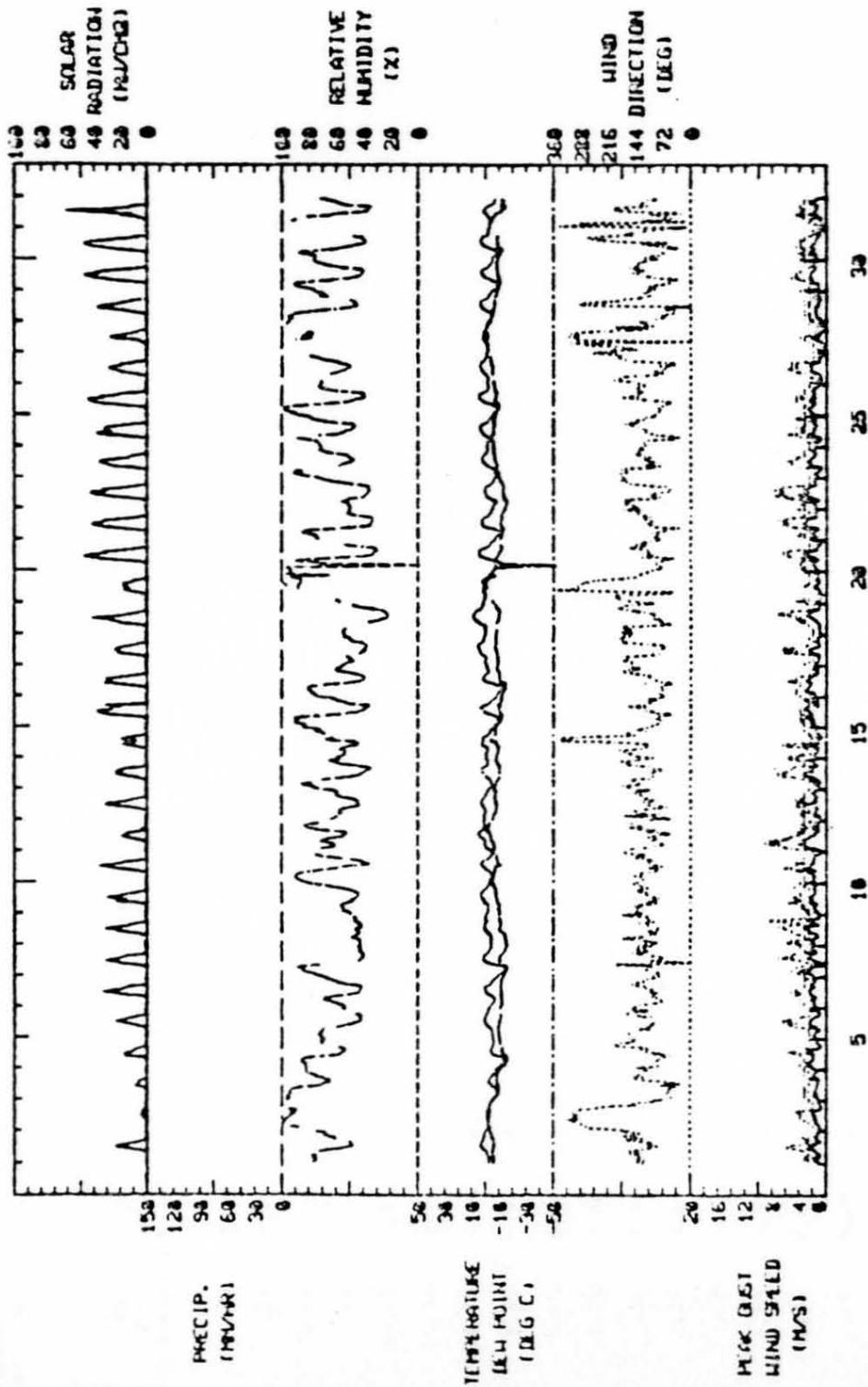
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P*VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQ M	DAY
01	3.8	-3.5	.2	132	1.3	1.4	099	5.7	SE	65	-5.5	****	1263	01
02	-1.1	-4.9	-2.5	294	.8	1.2	321	4.4	NW	95	-2.8	****	390	02
03	-2.3	-8.9	-5.6	085	1.1	1.4	056	3.8	NE	82	-9.1	****	578	03
04	-3.6	-14.2	-8.9	105	1.5	1.9	117	5.7	E	71	-13.0	****	1060	04
05	.8	-6.4	-2.6	124	1.3	1.6	077	6.3	SSE	55	-10.3	****	1370	05
06	.5	-9.2	-4.4	110	1.7	1.9	092	5.1	ESE	56	-11.8	****	1800	06
07	1.8	-14.8	-6.5	106	1.8	2.1	080	7.0	ESE	58	-13.6	****	1875	07
08	1.2	-5.0	-2.3	111	1.7	1.9	072	8.3	ESE	45	-12.3	****	1735	08
09	3.5	-2.9	.3	122	1.6	1.8	119	5.7	ESE	55	-8.1	****	1788	09
10	3.4	-6.7	-1.6	120	1.7	1.9	109	6.3	SE	69	-7.4	****	1825	10
11	5.4	-4.8	.3	105	1.8	2.0	074	8.9	ESE	67	-4.0	****	1135	11
12	3.1	-2.7	.2	120	1.3	1.6	053	4.4	SE	56	-7.1	****	1595	12
13	3.4	-5.4	-1.0	124	1.6	1.9	098	7.0	SSE	57	-9.1	****	1527	13
14	3.2	-5.5	-1.2	140	1.0	1.4	139	6.3	SSE	61	-7.7	****	1408	14
15	2.8	-10.1	-3.7	093	1.7	1.8	075	4.4	E	66	-10.9	****	2211	15
16	1.8	-2.7	-.4	092	1.8	2.1	095	5.7	ENE	61	-11.5	****	2150	16
17	5.5	-1.6	2.0	131	1.0	1.4	100	7.0	S	46	-8.4	****	1783	17
18	9.2	-.7	4.3	122	1.1	1.4	106	7.0	S	34	-9.9	****	2308	18
19	2.6	-4.5	-1.0	189	.2	1.1	131	4.4	ESE	83	-2.1	****	1563	19
20	5.1	-8.1	-1.5	103	1.6	1.8	106	6.3	ESE	54	-26.7	****	3278	20
21	2.9	-10.2	-3.7	104	1.9	2.0	110	7.0	ESE	55	-12.3	****	2978	21
22	.7	-8.3	-3.8	113	1.6	2.2	098	7.6	SSE	48	-12.8	****	3063	22
23	2.8	-8.7	-3.0	129	1.5	1.7	109	5.7	SE	66	-7.7	****	2615	23
24	4.2	-5.0	-.4	117	1.4	1.6	102	5.7	ESE	66	-6.0	****	2988	24
25	5.3	-9.4	-2.0	104	1.6	1.9	071	4.4	E	68	-8.0	****	3463	25
26	4.3	-2.0	1.2	102	.8	1.4	048	5.7	S	62	-5.1	****	2128	26
27	2.7	-2.4	.1	281	.3	.8	286	3.8	WNW	87	-1.6	****	1510	27
28	4.0	-4.9	-.4	088	.7	1.3	083	3.2	NE	69	-6.4	****	2475	28
29	3.4	-9.5	-3.1	113	1.6	1.9	075	5.1	SE	64	-9.2	****	3615	29
30	4.2	-9.6	-2.7	101	.8	1.6	074	4.4	ENE	61	-9.8	****	3635	30
31	2.1	-7.5	-2.7	113	.7	1.3	080	4.4	E	57	-9.8	0.0	2405	31
MONTH	9.2	-14.8	-1.8	112	1.2	1.6	074	8.9	ESE	63	-9.0	0.0	63510	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.0  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RHM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH      DEVIL CANYON WEATHER STATION

DATA START: 01 MARCH . 1981

RMI CONSULTANTS, INC.

SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MARCH, 1981

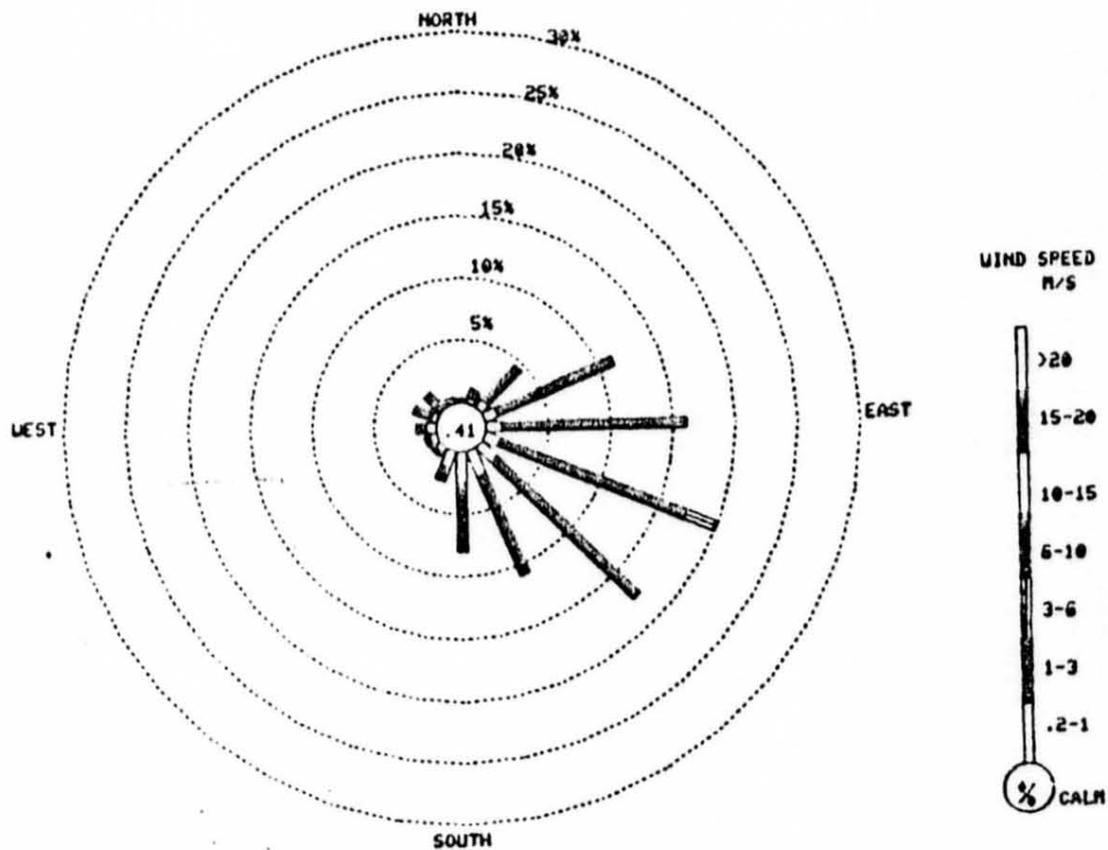
DIRECTION	VELOCITY (M/S)								TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 TO 30.0	GREATER THAN 30.0	
N	.07	.24	0.00	0.00	0.00	0.00	0.00	0.00	.31
NNE	.41	.62	0.00	0.00	0.00	0.00	0.00	0.00	1.23
NE	.75	3.64	.10	0.00	0.00	0.00	0.00	0.00	4.54
ENE	1.09	9.44	.56	0.00	0.00	0.00	0.00	0.00	11.16
E	1.23	13.65	1.13	0.00	0.00	0.00	0.00	0.00	16.01
ESE	1.26	15.90	2.76	0.00	0.00	0.00	0.00	0.00	19.93
SE	1.64	15.73	.14	0.00	0.00	0.00	0.00	0.00	17.51
SSE	2.15	6.60	.03	0.00	0.00	0.00	0.00	0.00	10.78
S	2.42	5.49	0.00	0.00	0.00	0.00	0.00	0.00	7.92
SSW	1.37	1.13	0.00	0.00	0.00	0.00	0.00	0.00	2.49
SW	.51	.36	0.00	0.00	0.00	0.00	0.00	0.00	.89
WSW	.61	.38	0.00	0.00	0.00	0.00	0.00	0.00	.99
W	.75	.62	0.00	0.00	0.00	0.00	0.00	0.00	1.57
WNW	.48	1.50	0.00	0.00	0.00	0.00	0.00	0.00	1.98
NW	.24	1.54	0.00	0.00	0.00	0.00	0.00	0.00	1.77
NNW	.36	.14	0.00	0.00	0.00	0.00	0.00	0.00	.51
CALM									.41
TOTAL	15.36	79.49	4.74	0.00	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2930 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION

MARCH, 1981



WIND ROSE PLOT



## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING APRIL , 1981

## DAY 01

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-7.2	*****	73	094	1.4	095	3.2	001	0300	-4.9	*****	99	213	.1	014	1.3	000	0300	-10.0	-11.1	92	084	1.5	110	3.8	001
0600	-7.8	-8.9	92	110	.5	129	1.9	002	0600	-4.6	*****	99	185	.2	199	1.3	002	0600	-11.6	-12.9	90	074	1.4	072	3.8	003
0900	-5.5	-7.0	89	047	1.2	056	2.5	016	0900	-2.1	-4.3	85	325	.9	308	3.8	016	0900	-5.4	-12.0	60	057	1.6	060	3.2	043
1200	-1.8	-5.4	77	036	1.4	039	3.8	030	1200	-2.0	-4.7	82	310	2.0	314	5.1	007	1200	-1.6	-11.6	47	104	2.2	090	5.1	052
1500	-1.0	-3.9	81	057	1.6	045	3.8	016	1500	0.0	-7.6	57	325	1.7	330	4.4	041	1500	.1	-12.4	39	119	1.5	084	5.7	036
1800	-1.7	*****	96	024	.9	064	3.2	003	1800	-2.2	-8.2	64	258	1.3	311	4.4	003	1800	-2.4	-14.3	40	185	1.2	160	3.8	007
2100	-3.0	*****	98	321	.2	286	1.3	001	2100	-6.4	-9.0	82	149	.9	101	2.5	000	2100	-8.5	-15.2	59	111	1.3	133	3.2	001
2400	-3.9	*****	00	244	.1	099	.6	000	2400	-8.2	-10.9	81	104	1.0	054	3.8	000	2400	-10.7	-14.5	74	121	1.6	122	3.8	001

## DAY 02

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-4.9	*****	99	213	.1	014	1.3	000	0300	-10.0	-11.1	92	084	1.5	110	3.8	001	0300	-10.0	-11.1	92	084	1.5	110	3.8	001
0600	-4.6	*****	99	185	.2	199	1.3	002	0600	-11.6	-12.9	90	074	1.4	072	3.8	003	0600	-11.6	-12.9	90	074	1.4	072	3.8	003
0900	-2.1	-4.3	85	325	.9	308	3.8	016	0900	-5.4	-12.0	60	057	1.6	060	3.2	043	0900	-5.4	-12.0	60	057	1.6	060	3.2	043
1200	-2.0	-4.7	82	310	2.0	314	5.1	007	1200	-1.6	-11.6	47	104	2.2	090	5.1	052	1200	-1.6	-11.6	47	104	2.2	090	5.1	052
1500	0.0	-7.6	57	325	1.7	330	4.4	041	1500	.1	-12.4	39	119	1.5	084	5.7	036	1500	.1	-12.4	39	119	1.5	084	5.7	036
1800	-2.2	-8.2	64	258	1.3	311	4.4	003	1800	-2.4	-14.3	40	185	1.2	160	3.8	007	1800	-2.4	-14.3	40	185	1.2	160	3.8	007
2100	-6.4	-9.0	82	149	.9	101	2.5	000	2100	-8.5	-15.2	59	111	1.3	133	3.2	001	2100	-8.5	-15.2	59	111	1.3	133	3.2	001
2400	-8.2	-10.9	81	104	1.0	054	3.8	000	2400	-10.7	-14.5	74	121	1.6	122	3.8	001	2400	-10.7	-14.5	74	121	1.6	122	3.8	001

## DAY 03

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-10.0	-11.1	92	084	1.5	110	3.8	001	0300	-10.0	-11.1	92	084	1.5	110	3.8	001	0300	-10.0	-11.1	92	084	1.5	110	3.8	001
0600	-11.6	-12.9	90	074	1.4	072	3.8	003	0600	-11.6	-12.9	90	074	1.4	072	3.8	003	0600	-11.6	-12.9	90	074	1.4	072	3.8	003
0900	-5.4	-12.0	60	057	1.6	060	3.2	043	0900	-5.4	-12.0	60	057	1.6	060	3.2	043	0900	-5.4	-12.0	60	057	1.6	060	3.2	043
1200	-1.6	-11.6	47	104	2.2	090	5.1	052	1200	-1.6	-11.6	47	104	2.2	090	5.1	052	1200	-1.6	-11.6	47	104	2.2	090	5.1	052
1500	.1	-12.4	39	119	1.5	084	5.7	036	1500	.1	-12.4	39	119	1.5	084	5.7	036	1500	.1	-12.4	39	119	1.5	084	5.7	036
1800	-2.4	-14.3	40	185	1.2	160	3.8	007	1800	-2.4	-14.3	40	185	1.2	160	3.8	007	1800	-2.4	-14.3	40	185	1.2	160	3.8	007
2100	-8.5	-15.2	59	111	1.3	133	3.2	001	2100	-8.5	-15.2	59	111	1.3	133	3.2	001	2100	-8.5	-15.2	59	111	1.3	133	3.2	001
2400	-10.7	-14.5	74	121	1.6	122	3.8	001	2400	-10.7	-14.5	74	121	1.6	122	3.8	001	2400	-10.7	-14.5	74	121	1.6	122	3.8	001

## DAY 04

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-13.3	-15.6	63	116	1.0	107	3.2	001	0300	-13.8	-16.8	78	081	1.9	088	5.8	001	0300	-7.5	-13.6	62	118	1.6	128	3.8	001
0600	-15.1	-17.2	84	101	1.3	113	3.2	003	0600	-14.3	-17.5	77	082	1.9	090	3.8	003	0600	-9.2	-15.4	61	110	1.8	118	3.8	006
0900	-7.5	-15.3	54	053	1.7	059	3.8	036	0900	-4.3	-12.8	52	052	1.8	047	3.8	021	0900	-5.2	-14.9	47	076	1.6	097	4.4	***
1200	-1.6	-15.4	32	052	1.4	033	3.2	052	1200	-1.5	-13.5	40	062	1.7	096	3.8	066	1200	-1.1	-13.8	38	080	1.9	043	4.4	039
1500	.7	-13.2	35	291	.4	002	3.6	036	1500	-4.4	-13.5	37	293	.9	029	4.4	041	1500	.1	*****	**	221	.7	042	3.8	034
1800	-1.9	-16.6	32	164	.7	213	3.8	008	1800	-3.0	-12.1	50	231	1.3	193	3.2	003	1800	*****	*****	45	233	1.3	215	3.8	004
2100	-8.5	-15.4	58	140	1.2	177	3.2	001	2100	-6.8	*****	63	117	.6	095	2.5	001	2100	-5.0	-11.7	60	111	.9	140	3.2	001
2400	-10.7	-15.9	66	095	1.4	086	3.8	001	2400	-7.7	-13.0	66	090	1.0	084	2.5	001	2400	-7.4	*****	66	104	1.1	082	1.9	001

## DAY 05

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-13.8	-16.8	78	081	1.9	088	5.8	001	0300	-7.5	-13.6	62	118	1.6	128	3.8	001	0300	-7.5	-13.6	62	118	1.6	128	3.8	001
0600	-14.3	-17.5	77	082	1.9	090	3.8	003	0600	-9.2	-15.4	61	110	1.8	118	3.8	006	0600	-9.2	-15.4	61	110	1.8	118	3.8	006
0900	-4.3	-12.8	52	052	1.8	047	3.8	021	0900	-5.2	-14.9	47	076	1.6	097	4.4	***	0900	-5.2	-14.9	47	076	1.6	097	4.4	***
1200	-1.5	-13.5	40	062	1.7	096	3.8	066	1200	-1.1	-13.8	38	080	1.9	043	4.4	039	1200	-1.1	-13.8	38	080	1.9	043	4.4	039
1500	-4.4	-13.5	37	293	.9	029	4.4	041	1500	.1	*****	**	221	.7	042	3.8	034	1500	.1	*****	**	221	.7	042	3.8	034
1800	-3.0	-12.1	50	231	1.3	193	3.2	003	1800	*****	*****	45	233	1.3	215	3.8	004	1800	*****	*****	45	233	1.3	215	3.8	004
2100	-6.8	*****	63	117	.6	095	2.5	001	2100	-5.0	-11.7	60	111	.9	140	3.2	001	2100	-5.0	-11.7	60	111	.9	140	3.2	001
2400	-7.7	-13.0	66	090	1.0	084	2.5	001	2400	-7.4	*****	66	104	1.1	082	1.9	001	2400	-7.4	*****	66	104	1.1	082	1.9	001

## DAY 06

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.															
NDNG	TEMP.	POINT	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	DIR.	SPD.	DIR.															
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW																			
0300	-7.5	-13.6	62	118	1.6	128	3.8	001	0300	-7.5	-13.6	62	118	1.6	128	3.8	001	0300	-7.5	-13.6	62	118	1.6	128	3.8	001
0600	-9.2	-15.4	61	110	1.8	118	3.8	006	0600	-9.2	-15.4	61	110	1.8	118	3.8	006	0600	-9.2	-15.4	61	110	1.8	118	3.8	006
0900	-5.2	-14.9	47	076	1.6	097	4.4	***	0900	-5.2	-14.9	47	076	1.6	097	4.4	***	0900	-5.2	-14.9	47	076	1.6	097	4.4	***
1200	-1.1	-13.8	38	080	1.9	043	4.4	039	1200	-1.1	-13.8	38	080	1.9	043	4.4	039	1200	-1.1	-13.8	38	080	1.9	043	4.4	039
1500	.1	*****	**	221	.7	042	3.8	034	1500	.1	*****	**	221	.7	042	3.8	034	1500	.1	*****	**	221	.7	042	3.8	034
1800	*****	*****	45	233	1.3	215	3.8	004	1800	*****	*****	45	233	1.3	215	3.8										

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING APRIL , 1981

## DAY 10

## DAY 11

## DAY 12

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW	
0300	-10.5	-18.6	52	132	1.4	145	3.2	001	0300	-6.7	-21.1	31	125	1.3	118	4.4	002	0300	-8.3	-17.5	48	104	1.4	104	3.8	001
0600	-12.6	-19.2	58	094	1.5	085	3.8	003	0600	-5.1	-20.9	28	153	1.8	099	5.7	005	0600	-9.7	-18.5	49	109	2.1	137	3.8	004
0900	-4.2	-18.6	32	042	2.3	103	7.0	040	0900	-4.4	-19.7	22	090	2.0	106	5.7	041	0900	-2.3	-16.5	33	075	2.0	114	5.1	041
1200	-1.3	-19.9	23	105	3.6	102	7.6	056	1200	2.4	-17.3	22	094	3.2	112	8.3	057	1200	2.0	-15.7	26	096	2.4	084	5.1	058
1500	-1.3	-20.4	22	104	3.7	119	8.3	041	1500	3.5	-16.9	21	103	3.3	126	7.0	041	1500	2.4	-19.0	19	068	2.5	024	8.9	043
1800	-2.1	-20.6	23	092	3.3	075	7.6	012	1800	1.6	-18.5	21	093	2.7	106	6.3	012	1800	-3.3	-20.1	21	020	5.3	019	9.5	013
2100	-8.0	-21.2	34	121	1.4	104	5.7	002	2100	-3.7	-18.5	31	126	1.5	088	3.8	002	2100	-3.9	-21.2	25	047	1.9	017	9.5	002
2400	-6.7	-20.8	32	121	1.2	163	3.8	002	2400	-4.7	-17.3	37	151	1.5	157	3.2	001	2400	-8.2	-19.0	42	107	1.0	150	3.2	001

## DAY 13

## DAY 14

## DAY 15

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW	
0300	-10.1	-18.4	51	100	1.3	094	2.5	001	0300	-9.6	-19.4	45	131	1.4	122	3.8	001	0300	-10.0	-20.1	44	161	1.3	161	3.2	001
0600	-11.2	*****	56	145	1.0	136	2.5	004	0600	-8.8	-19.8	41	132	1.9	147	3.8	009	0600	-9.6	*****	41	133	1.7	150	3.8	008
0900	-2.9	-18.2	30	087	1.1	087	4.4	041	0900	-5.0	-20.0	30	099	2.3	079	8.3	042	0900	-3.4	-19.4	28	072	2.5	064	8.3	043
1200	-1.3	-20.4	22	092	3.0	106	9.5	058	1200	-4.0	-21.7	24	080	3.4	101	9.5	059	1200	-1.9	-20.9	22	069	3.3	055	8.3	060
1500	-3.3	-20.1	21	066	3.6	095	8.9	043	1500	-3.6	-20.0	27	061	4.0	057	9.5	039	1500	-7.7	-21.0	20	084	3.6	101	7.6	044
1800	-1.2	-21.4	20	064	3.0	069	7.0	013	1800	-3.2	-18.9	29	057	3.6	063	7.6	013	1800	-1.4	-22.2	19	094	3.2	103	8.3	015
2100	-6.1	-19.6	37	104	1.5	052	5.1	001	2100	-6.9	-20.3	34	091	1.8	044	5.1	002	2100	-6.7	-21.1	31	101	1.9	093	4.4	002
2400	-9.4	-19.2	45	144	1.6	175	3.8	002	2400	-9.7	-20.3	42	160	1.6	112	3.8	001	2400	-8.4	-21.9	33	118	2.0	117	3.8	002

## DAY 16

## DAY 17

## DAY 18

HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.	HR	DEW	WIND	WIND	GUST	MAX.									
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW			DEG C	DEG C	% DEG.	M/S	DEG.	M/S	MW	
0300	-10.4	*****	36	156	1.5	145	3.8	002	0300	-11.1	-19.1	52	124	2.0	126	3.8	001	0300	-9.5	*****	66	140	1.1	102	2.5	001
0600	-6.0	*****	28	162	1.1	153	3.2	013	0600	-10.6	-18.9	51	082	1.9	114	3.2	011	0600	-6.0	*****	49	125	.9	115	3.2	012
0900	-3.7	-22.0	23	075	2.1	081	6.3	044	0900	-3.4	-17.2	34	060	1.9	069	4.4	044	0900	1.2	-14.6	30	096	1.4	111	5.7	045
1200	-2.2	-21.2	22	057	3.3	038	7.6	060	1200	.7	-15.1	30	096	2.7	094	5.7	061	1200	4.5	-14.5	24	112	3.2	108	6.3	061
1500	-6.6	-19.8	22	109	2.2	113	5.7	044	1500	2.2	-14.6	28	104	2.4	117	5.7	044	1500	4.1	-15.9	22	083	3.2	102	7.6	036
1800	-1.1	-20.6	21	073	2.0	067	4.4	013	1800	.5	-15.6	29	092	2.4	098	5.7	013	1800	2.2	-14.2	29	055	2.6	054	7.0	007
2100	-7.3	-18.7	40	139	1.7	097	3.8	001	2100	-4.7	-14.7	46	137	1.1	054	5.1	001	2100	1.0	-14.0	32	111	1.2	060	3.8	002
2400	-8.6	-18.0	47	137	2.4	137	3.8	001	2400	-6.0	-14.4	52	159	1.2	161	2.5	001	2400	-1.8	-12.3	45	142	.9	116	3.2	001

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING APRIL , 1981

DAY 19

DAY 20

DAY 21

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S			
0300	-2.0	-11.7	48	172	1.5	157	2.5	001	0300	-3.1	-7.3	73	166	1.0	151	2.5	001	0300	-1.8	-3.7	87	108	1.3	146	2.5	000
0600	-.3	*****	45	156	.9	139	2.5	013	0600	-.2	*****	61	167	.9	166	1.9	015	0600	-1.6	-5.2	77	075	1.5	075	3.2	015
0900	2.4	-11.3	36	079	1.9	118	5.7	045	0900	6.0	-7.0	39	053	.5	073	5.1	046	0900	4.6	-7.7	41	067	1.5	130	3.8	047
1200	6.5	-10.0	30	110	2.6	106	5.1	063	1200	8.2	-7.3	33	083	2.2	071	5.7	053	1200	8.6	-8.1	30	094	2.1	109	5.1	066
1500	5.6	-10.0	32	100	2.5	083	5.7	045	1500	9.4	-7.4	30	065	1.9	047	4.4	048	1500	8.6	-9.0	28	059	2.7	029	6.3	047
1800	4.3	-10.0	35	058	2.4	053	5.7	014	1800	6.4	-8.1	35	177	.9	201	3.8	008	1800	8.0	-9.1	29	043	2.4	031	5.7	015
2100	-2.3	-8.7	62	120	1.2	051	4.4	001	2100	2.4	*****	59	235	.3	340	4.4	001	2100	.6	*****	59	123	.8	031	3.2	001
2400	-3.7	*****	75	166	1.1	156	2.5	000	2400	1.0	*****	69	134	.9	125	2.5	001	2400	-.9	-6.9	64	139	1.4	130	3.2	001

DAY 22

DAY 23

DAY 24

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S			
0300	-1.4	-5.9	72	127	1.1	152	3.2	000	0300	-3.5	-5.7	85	109	.7	071	2.5	001	0300	-3.2	-4.8	89	107	1.0	089	3.8	001
0600	-1.5	-7.1	66	102	1.4	112	3.8	012	0600	-2.7	-6.9	73	069	1.0	063	2.5	013	0600	-2.1	-6.0	75	080	1.0	089	2.5	015
0900	5.3	-8.0	38	043	1.9	047	3.8	047	0900	4.4	-8.2	40	036	1.6	039	3.2	048	0900	5.3	-6.4	43	032	1.4	038	2.5	048
1200	8.9	-8.3	29	135	1.2	187	3.6	061	1200	8.4	-8.3	30	316	.7	358	3.2	047	1200	9.6	-7.3	30	084	1.3	079	4.4	057
1500	9.4	-8.8	27	212	1.9	215	3.8	048	1500	9.2	-8.5	28	199	1.3	214	4.4	054	1500	8.5	-8.2	30	065	2.0	110	7.0	033
1800	8.7	-9.4	27	233	1.7	254	4.4	015	1800	8.1	*****	30	102	1.0	099	6.3	015	1800	5.0	-2.4	59	032	1.8	015	5.1	004
2100	.8	-7.3	55	188	1.0	234	3.2	001	2100	.9	-4.6	67	160	.7	129	1.9	001	2100	2.0	*****	83	253	1.4	300	4.4	000
2400	-1.6	-5.7	74	152	1.0	090	2.5	000	2400	-1.2	*****	77	148	.8	176	1.9	001	2400	-1.3	-2.2	94	157	1.0	121	2.5	001

DAY 25

DAY 26

DAY 27

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S			
0300	-1.9	-2.2	98	113	1.0	117	2.5	001	0300	-3.0	-3.3	98	105	.7	144	2.5	000	0300	-3.6	-5.5	87	097	1.2	068	3.2	000
0600	-1.2	-3.1	87	072	1.0	097	3.8	019	0600	-2.1	-4.8	82	066	1.1	059	3.2	025	0600	-2.8	-6.5	76	084	1.2	104	3.2	014
0900	5.3	-3.6	53	038	1.6	046	3.2	050	0900	5.2	-5.0	48	038	1.5	047	3.2	049	0900	4.7	-6.4	45	039	1.7	031	3.2	049
1200	7.6	-7.8	33	012	.8	134	3.8	081	1200	7.0	-6.1	39	245	.8	200	4.4	067	1200	8.6	-8.6	29	035	.9	355	3.2	065
1500	9.0	-8.7	28	259	1.2	300	5.1	060	1500	7.9	-8.8	30	229	1.9	204	4.4	048	1500	8.9	-8.8	28	109	.5	210	5.1	052
1800	6.2	-5.0	45	242	1.0	203	5.7	021	1800	7.2	-7.8	34	249	1.3	255	4.4	014	1800	7.9	-10.1	27	235	1.5	204	3.8	011
2100	.4	*****	64	269	1.0	301	4.4	001	2100	.6	-5.3	65	209	.6	278	3.2	000	2100	1.4	*****	53	180	.5	270	1.9	001
2400	-1.6	*****	98	160	.9	119	2.5	001	2400	-2.7	*****	86	157	1.0	159	1.9	001	2400	.6	-5.7	63	143	.6	059	2.5	001

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING APRIL , 1981

DAY 28										DAY 29										DAY 30									
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.						
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-1.3	-0.3	69	112	1.2	126	2.5	001	0300	.9	*****	98	068	.7	057	1.9	001	0300	-1.1	-3.3	85	071	1.3	088	4.4	001			
0600	-.1	-5.8	66	070	.9	071	3.2	015	0600	1.4	*****	94	053	1.0	064	3.2	014	0600	.5	-3.3	77	071	1.7	070	3.2	016			
0900	5.7	-7.7	38	022	1.2	037	2.5	034	0900	7.0	-2.6	51	083	.3	234	4.4	055	0900	7.2	-4.1	45	056	1.8	104	4.4	039			
1200	8.0	-7.4	33	265	1.2	256	4.4	049	1200	8.4	-5.6	37	225	1.8	223	5.1	066	1200	10.9	*****	32	127	1.8	117	5.1	061			
1500	7.0	-7.4	34	264	1.4	252	5.1	020	1500	8.8	-6.0	35	270	2.0	241	5.7	048	1500	11.1	-6.0	30	077	.8	153	3.8	036			
1800	4.3	-2.6	61	271	1.9	280	4.4	003	1800	8.1	-6.6	35	284	1.8	281	5.7	016	1800	9.4	-4.7	37	260	1.1	215	3.2	010			
2100	2.6	*****	85	208	.3	261	1.9	000	2100	2.9	*****	63	183	.5	242	2.5	001	2100	5.4	-3.3	54	222	.8	282	2.5	001			
2400	1.8	.9	44	091	.7	062	1.9	001	2400	1.7	*****	71	094	1.0	086	3.2	001	2400	5.0	-.7	67	197	.9	214	2.5	001			

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING APRIL, 1981

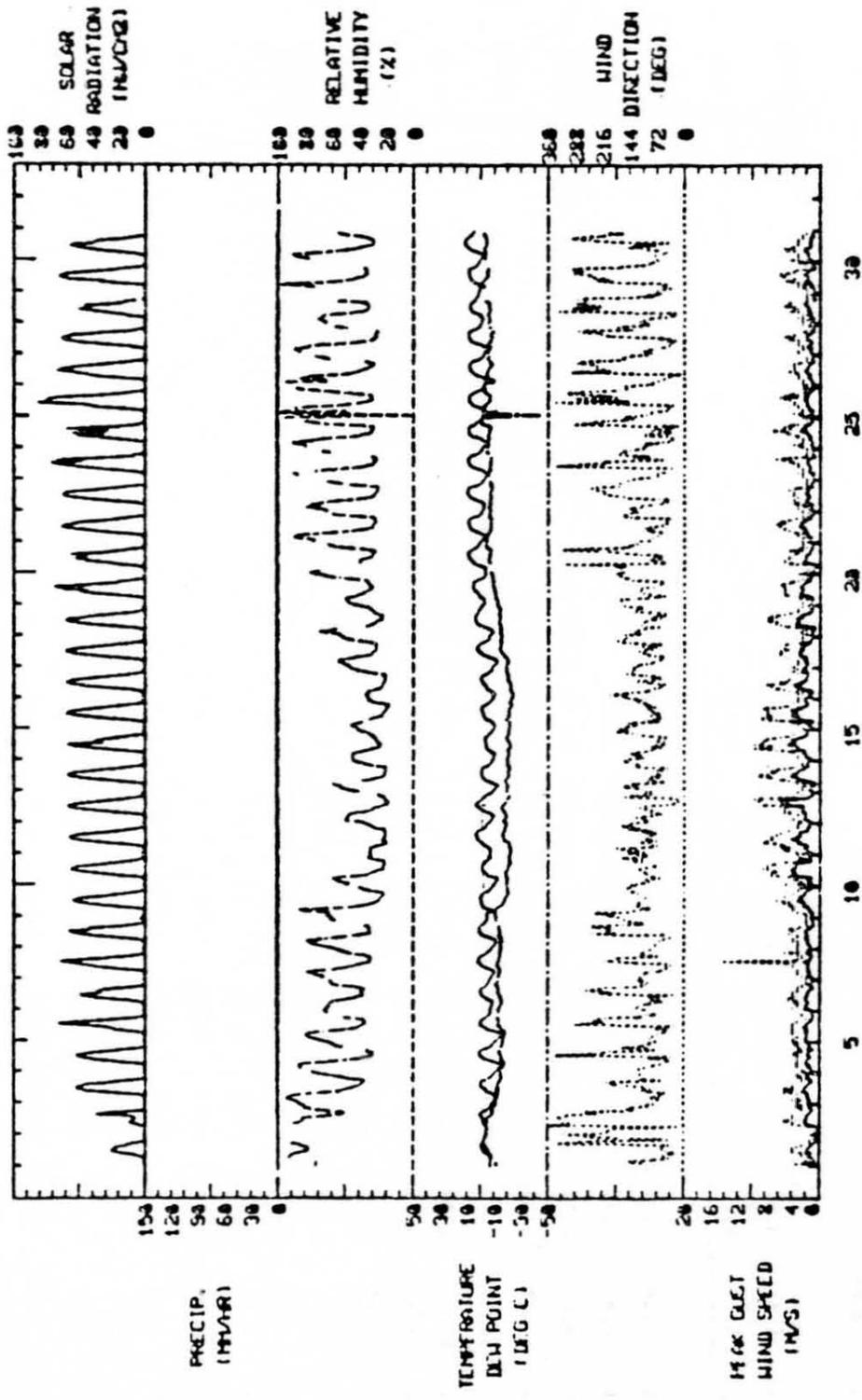
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-0.8	-7.8	-4.3	056	.8	1.0	039	3.8	NE	62	-6.3	0.0	2000	01
02	.6	-9.2	-4.3	301	.4	1.2	314	5.1	NW	74	-7.5	.8	1715	02
03	.5	-11.8	-5.0	102	1.3	1.7	084	5.7	ENE	63	-13.0	0.0	4214	03
04	1.1	-15.2	-7.1	093	.8	1.4	059	3.8	SE	55	-15.6	.4	4131	04
05	1.5	-15.1	-6.8	075	.8	1.6	029	4.4	E	57	-14.2	0.0	4002	05
06	.6	-9.5	-4.4	110	.9	1.6	097	4.4	ESE	52	-13.9	0.0	3597	06
07	2.6	-10.9	-4.1	096	1.0	1.5	***	13.9	E	51	-13.7	0.0	4302	07
08	1.7	-11.9	-5.1	110	.6	1.5	201	4.4	ENE	53	-13.6	0.0	4088	08
09	.8	-10.3	-4.8	127	1.6	1.9	130	6.3	ESE	40	-18.0	0.0	4358	09
10	-0.7	-13.1	-6.9	104	2.3	2.4	119	8.3	ESE	34	-19.9	0.0	4679	10
11	4.0	-8.5	-2.3	111	2.0	2.3	112	8.3	ESE	26	-18.8	0.0	4943	11
12	3.8	-9.8	-3.0	066	1.9	2.6	019	9.5	ESE	33	-18.4	0.0	4960	12
13	-0.3	-13.4	-6.8	090	1.8	2.2	106	9.5	ESE	34	-19.5	0.0	4963	13
14	-2.9	-12.2	-7.6	088	2.1	2.7	101	9.5	ENE	34	-20.1	0.0	4463	14
15	-0.6	-12.0	-6.3	095	2.2	2.5	064	8.3	ESE	29	-21.0	0.0	5190	15
16	.7	-10.5	-4.9	105	1.0	2.2	038	7.6	SE	29	-20.1	0.0	5205	16
17	2.9	-12.5	-4.8	102	1.8	2.1	094	5.7	ESE	40	-16.2	0.0	5225	17
18	4.5	-10.0	-2.8	099	1.6	1.9	102	7.6	ESE	34	-14.2	0.0	4983	18
19	6.5	-4.0	1.3	110	1.4	1.9	118	5.7	SSE	43	-10.3	0.0	5275	19
20	9.5	-4.9	2.3	113	.7	1.3	071	5.7	SSE	45	-7.4	0.0	4778	20
21	9.4	-3.2	3.1	080	1.5	1.9	029	6.3	ENE	51	-7.1	0.0	5538	21
22	10.1	-3.9	3.1	153	.7	1.5	254	4.4	SW	47	-7.6	0.0	5573	22
23	9.8	-4.8	2.5	104	.4	1.2	099	6.3	NE	47	-7.0	0.0	5658	23
24	9.0	-3.7	3.0	068	.8	1.5	110	7.0	NE	59	-5.3	0.0	4385	24
25	9.4	-2.6	3.4	033	.1	1.5	203	5.7	NE	54	-5.1	0.0	6703	25
26	8.6	-4.1	2.3	196	.3	1.4	200	4.4	SSE	53	-5.9	0.0	5935	26
27	9.4	-4.7	2.3	089	.5	1.3	210	5.1	NE	52	-7.4	0.0	5690	27
28	8.4	-1.8	3.3	269	.2	1.3	252	5.1	ESF	51	-5.3	0.0	3972	28
29	9.2	.4	4.6	256	.3	1.4	241	5.7	ENE	53	-5.7	0.0	5795	29
30	12.3	-1.6	5.3	096	.6	1.5	117	5.1	ENE	54	-3.6	0.0	4833	30
MONTH	12.3	-15.2	-1.6	098	1.0	1.7	***	13.9	FSE	48	-12.0	1.2	141149	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.8  
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8  
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 4.4  
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 3.8

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RHM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH    DEVIL CANYON WEATHER STATION

DATA START: 01    APRIL    1981

K&M CONSULTANTS, INC.  
 SUSITHA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING APRIL, 1981

DIRECTION	VELOCITY (M/S)										TOTAL
	0.2 TO 1.0		3.0 TO 6.0		10.0 TO 15.0		15.0 TO 20.0		GREATER THAN 20.0		
	1.0	3.0	6.0	10.0	15.0	20.0	20.0	20.0	20.0		
N	.31	.58	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.73
NNE	.70	2.96	.77	.07	0.00	0.00	0.00	0.00	0.00	0.00	4.50
NE	.84	8.57	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.42
ENE	1.32	10.07	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.77
E	1.71	10.35	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.84
ESE	2.02	11.36	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.17
SE	1.64	7.76	.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.59
SSE	2.34	5.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.09
S	1.64	4.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.34
SSW	.91	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62
SW	.52	3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
WSW	.28	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37
W	.28	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.88
WNW	.24	1.64	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92
NW	.14	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36
NNW	.21	.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
CALM											.19
TOTAL	15.09	75.52	9.03	.07	0.00	0.00	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2869 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY





## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY , 1981

## DAY 01

## DAY 02

## DAY 03

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD			
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C	POINT DEG C	
0300	3.0	.7	85	250	.8	245	3.8	000	0300	-1.9	-2.0	99	148	1.0	129	3.2	000	0300	2.4	-1.8	74	163	.6	262	1.9	001
0600	1.6	*****	03	128	.6	134	1.9	002	0600	.8	-1.6	84	128	.7	125	2.5	022	0600	2.0	*****	78	096	.4	098	2.5	012
0900	1.1	*****	01	010	.2	018	1.3	008	0900	5.8	-5.1	46	018	.8	034	2.5	051	0900	4.6	-2.4	61	317	1.3	329	3.2	027
1200	3.0	*****	94	285	.8	268	1.9	024	1200	8.3	-4.3	41	281	1.0	213	5.1	067	1200	4.0	-3	74	308	2.1	309	5.1	027
1500	3.7	2.7	93	290	1.2	262	2.5	021	1500	8.5	-4.5	40	222	1.9	194	5.1	050	1500	4.1	1.9	86	297	2.3	302	5.1	019
1800	4.1	2.6	90	272	1.3	272	3.2	013	1800	6.6	-3.5	49	251	1.8	253	5.1	008	1800	3.9	1.4	84	304	2.2	309	4.4	010
2100	.5	.4	99	203	.8	261	2.5	000	2100	3.8	*****	68	184	.5	257	1.9	001	2100	2.3	*****	97	292	1.1	298	3.2	000
2400	0.0	*****	00	169	1.0	170	2.5	001	2400	4.2	*****	66	189	.8	245	3.2	001	2400	1.2	*****	94	170	.5	159	1.3	001

## DAY 04

## DAY 05

## DAY 06

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD			
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C	POINT DEG C	
0300	-.1	-.5	97	159	.8	169	1.9	001	0300	2.0	-1.3	79	143	.9	098	2.5	000	0300	.1	-1.2	91	089	1.2	085	3.2	001
0600	5.1	-1.7	62	155	.8	121	3.8	013	0600	1.9	-2.1	75	086	.4	147	2.5	016	0600	1.6	-1.5	80	071	.8	075	3.2	017
0900	8.1	-3.2	45	092	2.0	094	5.7	040	0900	9.4	-1.5	47	034	1.3	047	2.5	045	0900	10.6	*****	44	034	1.3	045	2.5	047
1200	11.1	-3.5	36	101	2.9	113	7.0	***	1200	11.5	-1.8	40	257	1.9	269	7.0	067	1200	14.3	-.7	36	315	1.3	306	4.4	071
1500	11.5	-4.3	33	099	2.5	070	6.3	031	1500	11.2	-2.7	38	241	1.9	257	4.4	031	1500	14.9	-2.2	31	294	1.9	264	4.4	052
1800	10.8	-4.6	34	109	2.0	123	5.1	007	1800	10.2	*****	41	247	1.6	254	4.4	013	1800	14.4	-2.6	31	271	1.1	***	3.2	017
2100	7.0	-3.4	48	277	.5	063	3.2	001	2100	4.5	-1.4	66	190	.9	245	3.2	001	2100	7.0	-1.8	54	200	.5	277	2.5	001
2400	3.2	-1.4	72	171	1.0	159	2.5	001	2400	2.6	-.4	81	131	.8	081	3.2	001	2400	2.6	*****	74	129	1.0	108	3.2	001

## DAY 07

## DAY 08

## DAY 09

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD			
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C						TEMP. DEG C	POINT DEG C	
0300	.8	-1.8	83	120	.7	085	2.5	001	0300	2.5	-3.3	66	107	1.1	097	3.8	001	0300	5.5	*****	58	129	1.0	111	4.4	001
0600	3.4	-1.6	70	089	1.1	097	3.8	018	0600	6.0	*****	56	136	.2	105	3.2	019	0600	5.6	*****	60	132	.4	150	1.9	008
0900	13.7	-.8	37	046	1.7	048	3.2	053	0900	16.7	-.6	31	029	1.0	020	3.2	053	0900	10.2	*****	47	358	.5	033	1.9	025
1200	17.4	-2.9	25	088	2.4	110	7.0	067	1200	18.7	-1.8	25	067	2.7	041	6.3	***	1200	13.6	-2.1	34	310	1.4	242	4.4	024
1500	18.7	-2.9	23	068	2.8	085	7.0	052	1500	19.0	-2.7	23	022	4.2	019	8.3	052	1500	13.8	-2.3	33	260	1.9	288	6.3	010
1800	18.4	-3.2	23	062	2.4	065	5.7	019	1800	18.6	-6.3	18	038	2.7	015	7.0	019	1800	12.2	-2.2	37	254	1.4	268	5.1	007
2100	12.4	-4.0	32	117	1.4	036	3.8	001	2100	10.4	-4.2	36	058	1.0	012	5.7	002	2100	9.7	-.9	48	159	.6	227	2.5	001
2400	6.8	-3.0	50	148	1.4	131	3.2	001	2400	7.4	-2.1	45	141	.8	204	3.2	001	2400	7.1	.9	65	243	1.1	243	3.2	001

## RRM CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY , 1981

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	4.7	3.3	91	252	1.0	250	2.5	000	0300	3.4	*****	88	148	.7	128	2.5	001	0300	2.8	-9	77	159	.6	118	2.5	001					
0600	3.9	*****	95	260	1.0	270	1.9	004	0600	3.5	1.5	87	064	.5	067	2.5	012	0600	6.1	-9	61	050	.4	168	2.5	021					
0900	4.5	3.0	90	270	1.0	264	3.2	015	0900	8.5	.9	59	003	.8	015	3.2	017	0900	13.7	-1.2	36	044	2.3	085	5.1	054					
1200	6.9	4.0	82	292	1.1	291	2.5	031	1200	11.6	-1.3	41	262	1.4	262	5.1	039	1200	16.2	-4.5	24	085	2.9	119	7.0	077					
1500	9.4	2.9	64	290	1.5	271	3.8	028	1500	13.6	-1.7	35	304	1.8	291	5.7	057	1500	15.3	-4.7	25	071	2.9	103	7.6	027					
1800	9.8	1.1	55	288	1.7	***	5.1	011	1800	11.7	-2.6	37	295	1.6	300	3.8	010	1800	15.6	-5.0	24	067	2.1	084	6.3	020					
2100	5.9	1.4	73	249	1.1	260	3.8	001	2100	8.5	-2.3	47	257	.8	317	3.2	001	2100	10.8	-3.1	38	101	1.0	056	5.1	001					
2400	4.3	1.3	61	158	.8	151	2.5	000	2400	3.6	*****	69	164	1.1	128	2.5	001	2400	7.0	*****	62	176	1.0	133	2.5	001					

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	6.6	*****	68	205	.8	200	1.9	001	0300	4.4	*****	97	138	.4	170	1.9	001	0300	4.8	*****	97	185	.6	199	1.9	001					
0600	8.3	.7	59	204	.8	243	1.9	022	0600	6.1	*****	92	085	.3	073	2.5	011	0600	5.3	*****	96	170	.5	181	1.9	008					
0900	11.3	1.7	52	320	1.5	320	3.2	052	0900	10.2	4.1	66	325	1.7	319	5.1	045	0900	10.1	*****	71	028	.3	001	1.9	022					
1200	14.3	1.1	41	301	1.3	305	4.4	044	1200	13.3	1.8	46	317	2.8	314	6.3	067	1200	13.2	*****	58	309	1.0	309	3.2	021					
1500	11.2	6.3	72	257	1.8	227	5.1	018	1500	15.0	.3	37	298	2.0	290	5.1	017	1500	13.6	2.1	46	088	1.2	069	5.7	034					
1800	11.3	4.9	65	119	.9	183	5.1	012	1800	9.2	7.8	91	254	1.6	263	5.1	001	1800	12.0	3.1	55	025	2.2	027	10.8	008					
2100	8.8	2.7	66	143	.1	044	2.5	001	2100	6.6	-111.	00	178	.7	337	5.7	001	2100	9.4	3.7	68	139	.6	136	3.2	001					
2400	6.6	*****	81	164	1.0	154	2.5	001	2400	5.0	4.7	98	166	.9	163	1.9	001	2400	7.8	4.0	77	141	1.2	141	2.5	001					

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.				
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S
0300	6.3	5.2	93	164	1.2	160	3.2	001	0300	2.0	*****	96	162	.9	175	3.2	001	0300	5.6	*****	90	234	.4	317	2.5	001					
0600	6.8	5.1	89	082	.6	052	2.5	013	0600	6.6	*****	79	116	.4	140	2.5	021	0600	7.5	*****	83	117	.3	098	2.5	012					
0900	13.9	2.1	45	040	1.6	080	4.4	056	0900	11.1	3.3	59	325	1.2	338	3.8	020	0900	8.7	5.4	80	303	1.4	295	3.2	035					
1200	14.4	1.2	41	350	1.4	038	4.4	084	1200	13.1	.7	43	321	2.0	326	5.7	021	1200	9.9	4.8	71	314	2.4	308	5.1	022					
1500	15.3	-1.4	32	316	1.9	301	6.3	015	1500	16.7	.2	33	300	2.0	287	6.3	052	1500	12.8	2.8	51	345	.4	274	5.7	052					
1800	13.0	2.4	49	059	1.1	092	6.3	013	1800	13.5	-3	39	284	1.9	301	5.7	007	1800	10.1	5.2	72	287	2.0	311	6.3	012					
2100	8.7	1.7	62	112	1.2	082	3.2	001	2100	8.4	4.2	75	278	1.6	242	7.0	001	2100	6.4	4.0	85	200	.7	254	2.5	001					
2400	4.6	2.6	87	176	1.1	179	1.9	001	2400	7.1	5.1	87	268	1.1	259	3.2	001	2400	4.3	2.9	91	127	1.1	125	3.8	001					

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DELVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY , 1981

DAY 19

DAY 20

DAY 21

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW
0300	2.4	*****	98	141	1.0	106	3.2	001	0300	4.3	3.6	95	155	.6	167	1.9	001	0300	.1	*****	97	150	.9	127	2.5	001			
0600	3.5	*****	97	073	1.2	059	3.2	008	0600	4.9	*****	94	117	.6	113	2.5	008	0600	3.1	*****	91	154	.4	167	1.9	011			
0900	10.2	3.2	62	039	1.0	048	3.8	025	0900	7.7	*****	84	296	.8	262	2.5	026	0900	6.7	-.8	59	347	.8	285	2.5	016			
1200	10.3	*****	73	047	1.5	062	4.4	016	1200	10.7	3.4	61	282	.9	212	3.8	067	1200	6.8	1.6	70	004	1.0	044	3.8	021			
1500	12.5	4.9	60	003	.6	080	2.5	029	1500	7.5	4.2	80	313	2.5	275	8.3	020	1500	7.7	1.2	64	013	1.2	324	5.7	071			
1800	9.8	3.7	66	302	1.9	283	5.7	008	1800	8.2	2.6	68	310	2.6	304	6.3	012	1800	8.8	-.9	51	306	1.2	271	5.1	024			
2100	6.2	*****	98	242	1.0	280	4.4	001	2100	4.3	2.3	87	295	2.2	318	7.6	001	2100	4.0	-.1	75	194	.6	153	3.2	001			
2400	4.9	*****	97	167	.6	079	1.9	001	2400	2.6	2.0	96	235	1.0	265	3.2	000	2400	1.0	-.5	90	153	1.0	158	2.5	000			

DAY 22

DAY 23

DAY 24

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW
0300	-.1	-.7	96	146	.8	143	2.5	001	0300	4.4	*****	86	196	.7	184	1.9	001	0300	1.8	*****	99	116	1.1	081	2.5	001			
0600	2.4	.6	88	059	.9	104	2.5	020	0600	5.7	*****	89	199	.2	205	1.3	015	0600	6.0	2.6	80	063	1.5	085	3.2	021			
0900	10.6	-2.9	39	026	1.4	036	3.2	062	0900	10.7	.0	48	359	.9	051	3.2	022	0900	14.6	.3	38	046	1.6	054	3.8	054			
1200	13.7	-5.1	27	019	1.8	023	5.1	065	1200	13.0	-1.5	37	034	1.6	045	6.3	027	1200	17.9	-3.0	24	073	1.7	086	5.7	047			
1500	9.5	1.8	59	082	.8	027	5.7	013	1500	14.6	-.8	35	026	1.9	008	5.7	035	1500	17.5	-3.4	24	347	1.2	112	3.8	025			
1800	9.0	5.9	81	109	.5	134	3.2	015	1800	11.1	2.8	57	310	1.8	301	5.7	025	1800	13.8	1.0	42	275	1.5	308	5.1	006			
2100	7.7	5.0	83	116	.8	063	3.2	001	2100	7.7	4.6	81	278	.7	291	4.4	001	2100	9.5	4.8	73	307	.6	343	3.8	001			
2400	5.7	*****	89	146	.9	141	2.5	001	2400	4.7	2.4	85	149	.9	128	2.5	000	2400	7.3	6.4	94	168	.8	193	1.9	001			

DAY 25

DAY 26

DAY 27

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW		TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. M/S	RAD MW
0300	6.5	5.9	96	099	.8	080	2.5	001	0300	3.6	*****	92	107	1.2	113	3.2	002	0300	12.1	7.6	74	145	1.7	162	1.9	001			
0600	8.5	5.6	82	084	.5	096	1.9	024	0600	7.7	3.7	76	046	.8	096	3.2	022	0600	10.3	*****	95	121	.7	138	2.5	006			
0900	13.3	4.9	57	346	1.2	305	3.8	060	0900	16.8	1.5	36	031	1.5	026	3.2	057	0900	12.0	9.9	87	337	.6	348	2.5	022			
1200	15.0	2.7	44	308	1.5	249	4.4	046	1200	19.7	.1	27	355	1.3	335	4.4	054	1200	12.7	8.7	77	303	2.0	305	5.7	034			
1500	16.8	.3	33	327	1.8	326	4.4	032	1500	20.4	-2.7	21	021	1.1	044	5.7	021	1500	11.2	9.9	92	308	2.3	307	4.4	020			
1800	17.8	.4	31	303	1.5	301	5.1	024	1800	19.7	*****	25	071	1.0	079	3.8	008	1800	9.0	8.1	94	307	1.9	302	4.4	002			
2100	12.0	*****	50	275	1.0	310	3.2	001	2100	16.6	4.2	44	091	1.1	043	3.8	001	2100	8.6	7.8	95	306	.9	313	2.5	000			
2400	6.8	1.8	71	140	1.1	169	3.2	000	2400	13.2	6.5	64	140	1.6	130	4.4	001	2400	7.7	-44.4	01	291	1.2	319	3.2	001			

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY , 1981

DAY 28

DAY 29

DAY 30

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW			
0300	7.3	-44.0	01	290	1.0	292	3.2	001	0300	2.2	1.8	97	113	1.4	102	3.2	001	0300	10.2	2.5	59	217	1.1	246	4.4	002			
0600	7.5	6.9	96	270	.7	297	2.5	008	0600	5.5	*****	90	083	1.2	035	3.2	022	0600	13.5	*****	51	210	.1	200	1.9	027			
0900	9.1	7.2	88	284	.9	289	2.5	012	0900	15.2	6.7	57	061	1.1	095	3.8	058	0900	15.3	2.4	42	311	1.8	328	5.1	057			
1200	8.5	7.3	92	307	1.1	304	3.2	014	1200	19.5	3.1	34	075	1.8	073	5.1	072	1200	18.3	1.7	33	328	3.5	335	7.0	055			
1500	8.2	*****	92	301	1.0	312	3.2	006	1500	23.2	2.0	25	082	2.2	089	6.3	057	1500	19.1	2.8	34	308	3.5	317	8.3	059			
1800	8.5	*****	91	353	.5	062	1.9	006	1800	23.7	.0	21	090	1.6	122	5.1	025	1800	17.0	3.9	42	280	2.6	308	7.6	016			
2100	7.0	*****	91	114	.3	113	1.9	001	2100	16.7	4.3	44	078	.6	096	3.8	002	2100	12.7	4.6	58	296	2.0	310	7.6	001			
2400	5.1	3.9	42	145	.9	125	2.5	001	2400	12.5	*****	63	169	1.1	149	3.2	001	2400	10.4	6.9	79	281	1.5	293	3.8	000			

DAY 31

DAY 31

DAY 31

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	MAX. MW			
0300	8.4	*****	93	253	.7	303	2.5	001	0300	*****	*****	**	**	****	**	****	**	0300	*****	*****	**	**	****	**	****	**	****	**	
0600	8.5	*****	95	116	.7	165	1.9	006	0600	*****	*****	**	**	****	**	****	**	0600	*****	*****	**	**	****	**	****	**	****	**	
0900	8.9	8.0	94	313	.8	293	4.4	018	0900	*****	*****	**	**	****	**	****	**	0900	*****	*****	**	**	****	**	****	**	****	**	
1200	9.8	7.7	87	302	1.1	281	3.2	021	1200	*****	*****	**	**	****	**	****	**	1200	*****	*****	**	**	****	**	****	**	****	**	
1500	12.6	6.4	66	327	.7	312	2.5	016	1500	*****	*****	**	**	****	**	****	**	1500	*****	*****	**	**	****	**	****	**	****	**	
1800	12.6	5.9	64	287	.9	281	2.5	013	1800	*****	*****	**	**	****	**	****	**	1800	*****	*****	**	**	****	**	****	**	****	**	
2100	10.2	*****	80	306	.1	108	3.8	002	2100	*****	*****	**	**	****	**	****	**	2100	*****	*****	**	**	****	**	****	**	****	**	
2400	7.5	*****	89	187	.7	195	1.9	001	2400	*****	*****	**	**	****	**	****	**	2400	*****	*****	**	**	****	**	****	**	****	**	

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY, 1981

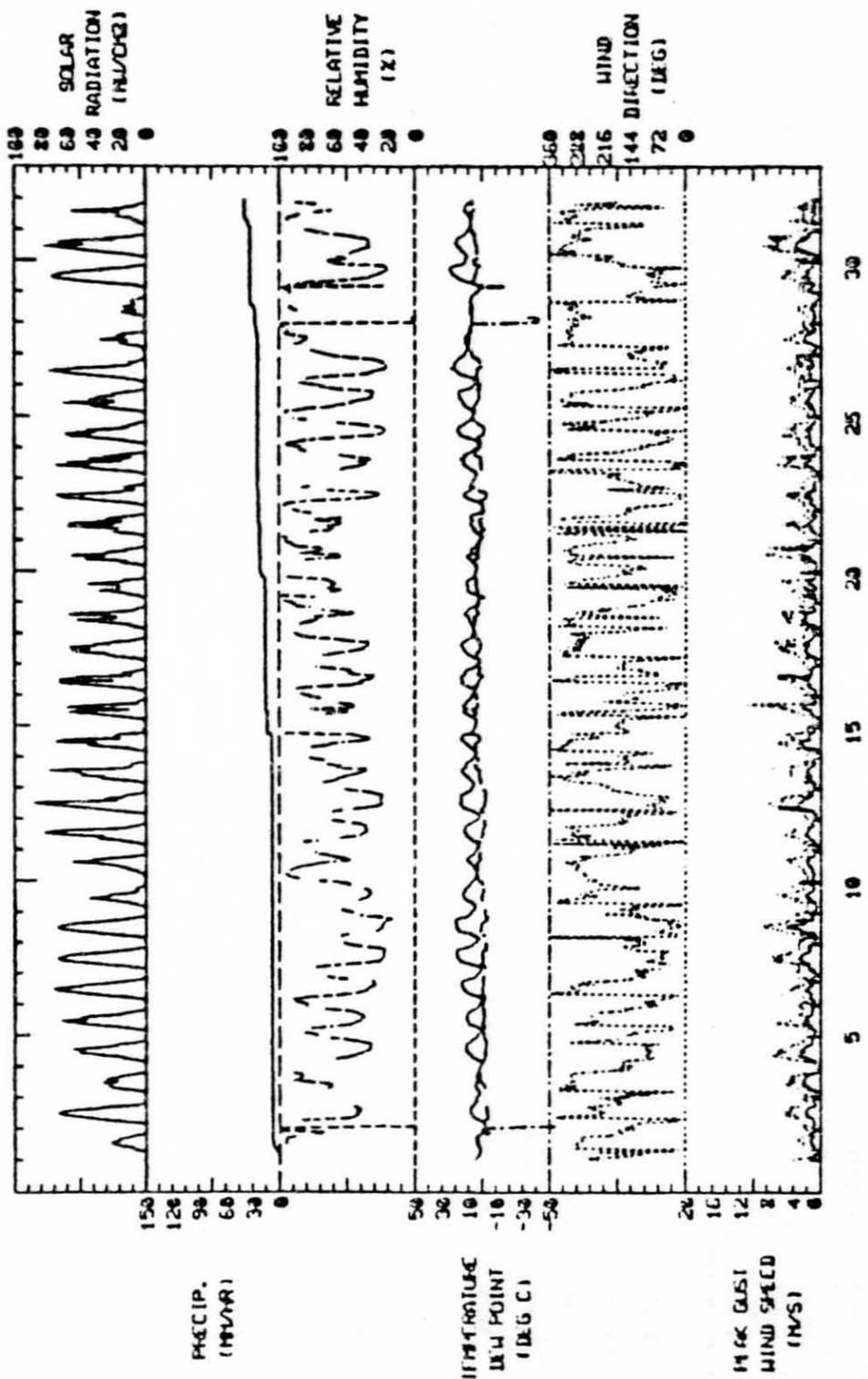
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P*VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	5.6	-0	2.5	244	.5	.9	243	3.8	W	79	1.6	7.6	2170	01
02	8.9	-2.8	3.0	218	.6	1.3	213	5.1	WSW	50	-3.5	0.0	5995	02
03	5.1	1.0	3.1	300	1.0	1.4	309	5.1	WNW	76	-.2	.4	3210	03
04	12.4	-0.8	5.8	113	1.3	1.7	113	7.0	E	46	-2.8	0.0	4504	04
05	12.1	.1	6.1	224	.5	1.4	269	7.0	WSW	53	-1.6	0.0	5200	05
06	15.3	-0.8	7.3	353	.3	1.3	306	4.4	W	53	-1.7	0.0	6120	06
07	19.2	-0.4	9.4	084	1.5	1.9	110	7.0	ESE	40	-2.5	0.0	6313	07
08	19.8	2.0	10.9	050	1.4	1.9	019	8.3	NNE	33	-3.0	0.0	6318	08
09	14.5	4.9	9.7	253	.5	1.2	288	6.3	WSW	41	-1.3	0.0	2733	09
10	11.7	3.6	7.6	271	1.0	1.3	***	5.1	W	74	2.4	.2	3308	10
11	13.6	2.2	7.9	288	.5	1.3	291	5.7	NW	49	-.9	0.0	5360	11
12	17.0	1.7	9.4	079	1.4	1.9	103	7.6	ESE	36	-2.9	0.0	5669	12
13	15.9	0.1	11.0	258	.5	1.3	227	5.1	SW	55	2.9	.4	4788	13
14	15.7	4.3	10.0	292	.7	1.5	314	6.3	NW	63	-15.5	4.8	4568	14
15	14.7	4.3	9.5	079	.3	1.2	027	10.8	S	63	3.2	1.6	4315	15
16	16.6	5.5	11.0	054	.4	1.5	301	6.3	S	55	2.4	.4	5103	16
17	16.7	1.8	9.3	292	1.0	1.5	242	7.0	NW	58	2.2	0.0	5218	17
18	13.3	4.0	8.6	292	.6	1.5	311	6.3	WNW	73	4.2	0.0	4198	18
19	12.5	2.3	7.4	033	.4	1.3	283	5.7	NE	73	3.9	4.6	3043	19
20	12.5	3.1	7.8	294	1.0	1.6	275	8.3	WNW	78	3.0	1.8	3688	20
21	9.4	-0.2	4.6	009	.1	1.2	324	5.7	SSE	71	.1	1.4	4290	21
22	14.1	-0.4	6.9	072	.6	1.3	027	5.7	NNE	63	.7	.8	4694	22
23	16.2	4.2	10.2	357	.4	1.3	045	6.3	S	53	1.3	0.0	5343	23
24	18.7	1.4	10.1	047	.5	1.5	086	5.7	ESE	55	1.3	0.0	4763	24
25	17.8	5.3	11.5	323	.6	1.4	301	5.1	WNW	54	3.1	0.0	4963	25
26	21.5	3.0	12.5	063	.8	1.4	044	5.7	NE	46	2.2	0.0	5390	26
27	13.9	8.1	11.0	302	.8	1.5	305	5.7	NW	85	1.1	3.2	2168	27
28	9.1	5.8	7.5	294	.5	.9	292	3.2	WNW	63	-3.9	5.6	1673	28
29	24.0	2.2	13.1	090	1.2	1.6	089	6.3	E	51	3.0	0.0	7168	29
30	19.7	10.1	14.9	299	1.8	2.2	317	8.3	NW	47	3.5	0.0	6728	30
31	13.7	7.3	10.5	285	.4	.9	293	4.4	WNW	82	7.0	6.2	2943	31
MONTH	24.0	-2.8	8.7	341	.2	1.4	027	10.8	WNW	59	.3	39.0	141937	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.0  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.0  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON LEATHER STATION  
 DATA START: 01 MAY . 1981

R&M CONSULTANTS, INC.

SUSITHA HYDROELECTRIC PROJECT

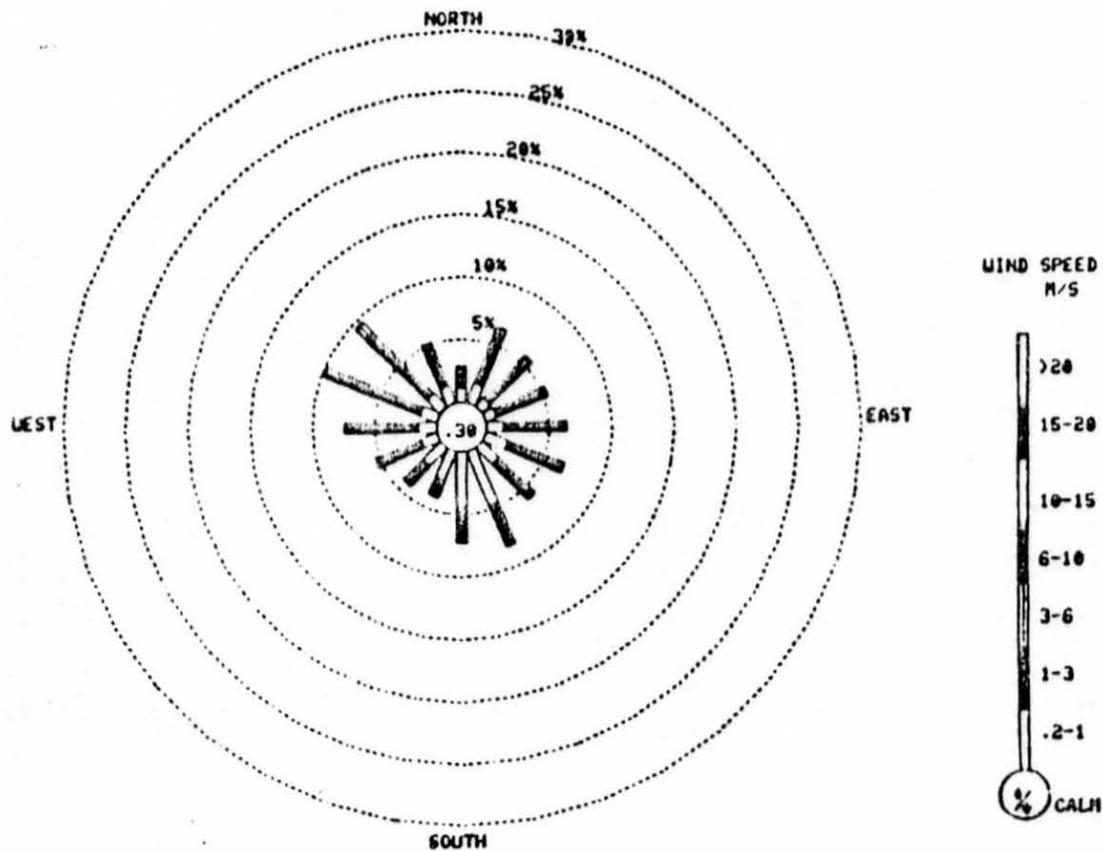
WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING MAY, 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	1.08	1.75	.07	0.00	0.00	0.00	0.00	2.90
NNE	1.65	4.25	.57	0.00	0.00	0.00	0.00	6.48
NE	.88	4.42	.24	0.00	.03	0.00	0.00	5.56
ENE	.91	3.91	.47	0.00	0.00	0.00	0.00	5.30
E	1.32	4.55	.47	0.00	0.00	0.00	0.00	6.34
ESE	1.89	4.45	.34	0.00	0.00	0.00	0.00	6.68
SE	1.85	3.95	0.00	0.00	0.00	0.00	0.00	5.80
SSE	4.69	3.44	0.00	0.00	.03	0.00	0.00	8.16
S	4.42	2.77	0.00	0.00	0.00	0.00	0.00	7.18
SSW	2.39	1.48	0.00	0.00	0.00	0.00	0.00	3.88
SW	1.96	2.25	0.00	0.00	0.00	0.00	0.00	4.18
WSW	1.35	3.91	0.00	0.00	0.00	0.00	0.00	5.26
W	1.55	5.56	.24	0.00	0.00	0.00	0.00	7.35
WNW	1.48	7.80	.51	0.00	0.00	0.00	0.00	9.88
NW	1.52	6.88	1.15	0.00	0.00	0.00	0.00	9.54
NNW	1.48	3.47	.24	0.00	0.00	0.00	0.00	5.19
CALM								.30
TOTAL	30.42	64.92	4.28	0.00	.07	0.00	0.00	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2965 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
MAY, 1981



WIND ROSE PLOT



## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JUNE , 1981

## DAY 01

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	7.4	6.3	93	243	.8	272	3.2	001	0300	1.3	****	97	159	.9	142	1.9	002
0600	7.7	6.1	90	131	.6	259	1.9	011	0600	5.1	****	87	015	.2	163	1.9	017
0900	12.9	2.9	51	072	1.3	056	3.8	064	0900	10.1	4.0	66	326	1.4	331	3.8	054
1200	15.6	-1.7	33	089	2.4	117	5.7	032	1200	12.7	1.9	48	314	1.9	315	5.1	076
1500	13.4	4.7	56	019	.8	325	7.0	020	1500	14.2	.3	39	307	2.7	325	6.3	030
1800	11.3	3.0	57	302	3.3	305	9.5	012	1800	14.5	-1	37	304	2.4	303	5.7	030
2100	7.4	2.8	73	262	.7	323	3.8	001	2100	10.7	2.4	57	296	1.8	321	5.1	002
2400	3.8	2.8	93	162	1.0	168	1.9	001	2400	8.4	****	73	220	.9	249	2.5	000

## DAY 02

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	6.8	****	82	236	1.0	236	1.9	001	0300	6.8	****	82	236	1.0	236	1.9	001
0600	7.7	4.6	81	054	.0	053	1.9	019	0600	7.7	4.6	81	054	.0	053	1.9	019
0900	12.8	3.1	52	352	1.2	353	3.2	070	0900	12.8	3.1	52	352	1.2	353	3.2	070
1200	12.5	1.7	48	357	.5	180	5.1	036	1200	12.5	1.7	48	357	.5	180	5.1	036
1500	13.5	2.6	48	289	1.8	205	4.4	056	1500	13.5	2.6	48	289	1.8	205	4.4	056
1800	9.0	7.3	89	298	1.7	327	4.4	011	1800	9.0	7.3	89	298	1.7	327	4.4	011
2100	7.8	****	94	253	.7	264	4.4	001	2100	7.8	****	94	253	.7	264	4.4	001
2400	6.9	6.3	96	105	.8	097	3.2	001	2400	6.9	6.3	96	105	.8	097	3.2	001

## DAY 03

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	6.0	5.2	95	139	.8	076	2.5	002	0300	6.0	5.2	95	139	.8	076	2.5	002
0600	6.6	5.8	95	109	.3	034	2.5	020	0600	4.8	****	96	285	1.4	279	4.4	005
0900	9.6	4.9	73	345	.9	023	2.5	036	0900	4.4	3.7	95	342	.4	019	2.5	012
1200	12.6	2.6	51	340	1.7	338	5.1	062	1200	5.7	4.6	93	021	.4	094	2.5	024
1500	12.8	2.5	50	311	2.7	313	6.3	032	1500	7.6	4.9	83	305	1.7	306	3.2	032
1800	12.9	.8	44	242	1.9	243	5.1	010	1800	8.8	4.4	74	295	1.4	290	3.8	021
2100	9.9	3.8	66	064	.8	302	4.4	002	2100	6.0	4.8	92	282	.9	290	2.5	002
2400	7.8	3.2	73	272	1.2	308	3.8	001	2400	3.9	****	95	164	.8	191	1.9	001

## DAY 04

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	6.0	5.2	95	139	.8	076	2.5	002	0300	6.0	5.2	95	139	.8	076	2.5	002
0600	6.6	5.8	95	109	.3	034	2.5	020	0600	4.8	****	96	285	1.4	279	4.4	005
0900	9.6	4.9	73	345	.9	023	2.5	036	0900	4.4	3.7	95	342	.4	019	2.5	012
1200	12.6	2.6	51	340	1.7	338	5.1	062	1200	5.7	4.6	93	021	.4	094	2.5	024
1500	12.8	2.5	50	311	2.7	313	6.3	032	1500	7.6	4.9	83	305	1.7	306	3.2	032
1800	12.9	.8	44	242	1.9	243	5.1	010	1800	8.8	4.4	74	295	1.4	290	3.8	021
2100	9.9	3.8	66	064	.8	302	4.4	002	2100	6.0	4.8	92	282	.9	290	2.5	002
2400	7.8	3.2	73	272	1.2	308	3.8	001	2400	3.9	****	95	164	.8	191	1.9	001

## DAY 05

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	4.3	****	96	185	.5	184	1.3	002	0300	4.3	****	96	185	.5	184	1.3	002
0600	5.4	****	95	081	.2	110	1.9	012	0600	5.4	****	95	081	.2	110	1.9	012
0900	9.7	5.0	73	309	1.4	295	4.4	073	0900	9.7	5.0	73	309	1.4	295	4.4	073
1200	14.4	1.9	43	319	1.4	320	3.8	081	1200	14.4	1.9	43	319	1.4	320	3.8	081
1500	14.1	3.5	49	312	1.7	302	5.7	055	1500	14.1	3.5	49	312	1.7	302	5.7	055
1800	12.1	****	54	284	2.2	283	5.7	002	1800	12.1	****	54	284	2.2	283	5.7	002
2100	8.8	****	81	119	1.3	113	5.1	001	2100	8.8	****	81	119	1.3	113	5.1	001
2400	6.2	****	97	175	.8	207	2.5	001	2400	6.2	****	97	175	.8	207	2.5	001

## DAY 06

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	3.0	****	97	198	.7	185	1.9	002	0300	3.0	****	97	198	.7	185	1.9	002
0600	5.7	****	85	305	.3	357	1.9	012	0600	5.7	****	85	305	.3	357	1.9	012
0900	7.6	4.9	83	316	.9	284	2.5	017	0900	7.6	4.9	83	316	.9	284	2.5	017
1200	7.7	5.5	86	298	2.7	313	7.0	031	1200	7.7	5.5	86	298	2.7	313	7.0	031
1500	5.5	5.1	97	307	3.1	312	5.7	006	1500	5.5	5.1	97	307	3.1	312	5.7	006
1800	3.4	3.1	98	314	2.5	319	5.7	004	1800	3.4	3.1	98	314	2.5	319	5.7	004
2100	1.6	1.2	97	317	1.0	317	3.8	001	2100	1.6	1.2	97	317	1.0	317	3.8	001
2400	.3	****	96	118	.5	140	1.9	001	2400	.3	****	96	118	.5	140	1.9	001

## DAY 07

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S
0300	6.0	****	96	191	.6	169	1.3	001	0300	6.0	****	96	191	.6	169	1.3	001
0600	6.4	****	94	258	.5	262	1.9	007	0600	6.4	****	94	258	.5	262	1.9	007
0900	8.7	4.3	74	320	1.5	342	3.8	039	0900	8.7	4.3	74	320	1.5	342	3.8	039
1200	11.7	1.5	50	309	2.6	307	5.1	081	1200	11.7	1.5	50	309	2.6	307	5.1	081
1500	13.3	1.2	44	315	3.1	322	6.3	***	1500	13.3	1.2	44	315	3.1	322	6.3	***
1800	13.4	-0	40	311	3.1	337	5.7	028	1800	13.4	-0	40	311	3.1	337	5.7	028
2100	10.6	2.1	56	298	1.6	298	5.1	002	2100	10.6	2.1	56	298	1.6	298	5.1	002
2400	5.5	3.1	85	193	1.3	185	2.5	001	2400	5.5	3.1	85	193	1.3	185	2.5	001

## DAY 08

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG.	DEG C	DEG C	%	DEG.	M/S</						

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JUNE , 1981

## DAY 10

## DAY 11

## DAY 12

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C					
0300	-0.2	-0.3	99	094	1.4	083	3.2 002	0300	3.0	*****	93	158	.5	135	2.5 003	0300	4.0	3.6	97	078	1.4	077	3.2 002
0600	2.1	1.1	95	066	1.3	055	3.2 016	0600	6.7	2.3	74	043	1.0	050	2.5 026	0600	6.7	3.8	82	058	1.4	096	3.2 038
0900	10.5	-0.7	46	012	1.3	319	3.2 061	0900	13.3	2.4	48	342	1.5	339	3.2 056	0900	13.1	3.9	54	347	1.6	021	3.8 061
1200	13.7	-1.6	35	297	1.6	314	4.4 075	1200	15.9	1.1	37	310	2.1	323	4.4 058	1200	16.7	-0.2	32	311	2.0	338	5.1 076
1500	15.2	-3.8	27	305	1.7	346	5.1 059	1500	11.9	4.3	60	328	5.6	013	7.0 030	1500	*****	*****	28	295	2.0	306	5.1 063
1800	15.1	-2.0	31	288	1.9	315	5.7 030	1800	10.6	6.1	74	334	.3	271	3.8 007	1800	17.3	-2.5	26	300	2.6	302	6.3 032
2100	11.2	.8	49	242	.8	256	3.6 002	2100	8.4	6.3	87	114	1.4	108	4.4 002	2100	13.8	*****	33	279	1.5	300	5.7 003
2400	6.0	*****	76	174	1.0	184	2.5 000	2400	6.8	*****	88	109	1.2	121	3.2 001	2400	7.4	-1.2	55	170	1.2	175	2.5 001

## DAY 13

## DAY 14

## DAY 15

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C					
0300	3.0	*****	61	166	.9	156	2.5 002	0300	4.2	*****	96	162	.9	140	3.2 002	0300	8.5	*****	86	188	.7	192	1.9 001
0600	9.4	*****	58	350	.4	202	1.3 027	0600	9.4	*****	76	078	.1	115	2.5 016	0600	8.4	*****	91	138	.3	104	1.9 008
0900	14.4	.9	40	334	1.3	354	3.8 060	0900	13.1	.7	43	340	1.6	334	4.4 059	0900	11.7	5.7	67	322	.9	354	3.2 036
1200	20.3	.1	26	305	1.6	282	3.8 075	1200	16.5	1.3	36	317	2.8	300	5.7 073	1200	15.3	6.5	56	295	1.8	309	3.8 044
1500	18.8	-1.7	25	304	2.4	353	7.0 006	1500	17.4	1.3	34	316	2.9	324	5.7 025	1500	10.2	8.9	92	318	2.9	357	10.8 005
1800	16.8	5.3	47	264	.1	038	6.3 008	1800	16.2	1.0	36	296	1.5	322	5.1 010	1800	10.4	9.5	94	285	1.2	290	3.2 013
2100	12.6	6.1	65	235	1.2	253	4.4 002	2100	13.4	4.2	54	078	.3	304	2.5 001	2100	9.8	*****	93	287	1.2	249	3.2 002
2400	7.2	5.0	86	202	1.1	267	3.2 001	2400	10.5	*****	74	118	1.0	084	2.5 001	2400	8.9	*****	92	220	.7	241	1.9 000

## DAY 16

## DAY 17

## DAY 18

HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD	HOUR NDNG	DEW		WIND DIR.	WIND SPD.	GUST DIR.	MAX. GUST	RAD
	TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C							TEMP. DEG C	POINT DEG C					
0300	8.5	*****	96	221	.8	230	2.5 001	0300	4.8	*****	97	075	.6	048	2.5 002	0300	7.2	*****	92	156	.9	180	1.9 002
0600	9.7	*****	86	237	.2	173	1.3 011	0600	8.3	6.6	89	049	1.0	081	2.5 026	0600	12.3	*****	72	036	.7	091	2.5 031
0900	12.2	7.0	71	304	1.6	339	2.5 046	0900	16.6	7.5	55	345	.8	019	2.5 059	0900	15.5	8.2	62	303	1.9	296	5.1 055
1200	16.6	7.7	56	299	2.0	031	3.2 074	1200	21.6	4.1	32	288	1.4	306	3.8 074	1200	18.3	6.1	45	303	2.5	301	5.1 ***
1500	19.7	7.7	46	305	2.0	308	5.1 038	1500	23.9	-6.2	13	274	1.5	306	4.4 065	1500	14.1	9.1	72	313	1.7	043	12.7 020
1800	16.4	5.3	48	275	1.8	300	6.3 004	1800	22.3	-1.1	21	278	2.1	275	6.3 030	1800	14.4	7.6	64	294	1.3	319	11.4 017
2100	11.9	9.4	85	140	1.3	163	3.8 003	2100	17.8	6.6	48	307	2.2	308	6.3 002	2100	10.7	7.5	81	256	1.2	277	3.8 002
2400	7.4	6.6	95	134	1.1	121	2.5 001	2400	11.1	7.2	77	249	1.0	327	8.9 001	2400	7.3	6.4	94	151	1.1	170	1.9 001

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## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
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## DAY 19

## DAY 20

## DAY 21

DAY 19									DAY 20									DAY 21								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW					
0300	4.7	4.1	90	141	.9	105	2.5	002	0300	5.8	.7	70	149	1.0	157	3.2	002	0300	9.4	*****	94	133	.4	105	1.9	001
0600	8.6	5.7	82	055	1.1	050	3.8	029	0600	7.4	2.4	71	055	1.3	037	3.2	023	0600	9.2	*****	92	240	.7	260	2.5	001
0900	17.9	2.5	30	351	1.2	340	4.4	061	0900	15.3	4.3	48	035	1.7	043	3.2	051	0900	9.4	*****	93	222	.6	225	1.9	003
1200	20.3	-11.1	11	321	2.1	319	7.6	076	1200	20.1	-2.4	22	358	1.1	306	3.8	068	1200	10.1	*****	92	269	.2	207	1.9	010
1500	21.2	-19.8	05	003	2.5	329	7.6	032	1500	19.7	-1.5	24	275	.6	177	4.4	026	1500	10.9	*****	90	322	.4	021	1.9	016
1800	21.4	-19.6	05	020	2.7	055	6.3	035	1800	15.9	1.1	37	234	1.3	187	6.3	013	1800	10.8	*****	89	293	.5	301	2.5	010
2100	16.4	*****	18	005	2.2	011	5.1	004	2100	13.4	5.0	57	201	.4	181	5.7	001	2100	10.4	*****	93	030	.1	022	1.3	001
2400	8.1	-1.8	50	150	1.4	134	3.8	001	2400	9.6	*****	94	255	.7	297	5.1	001	2400	9.3	*****	93	166	.5	187	1.9	001

## DAY 22

## DAY 23

## DAY 24

DAY 22									DAY 23									DAY 24								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW					
0300	9.2	*****	94	198	.4	106	1.3	001	0300	4.9	*****	96	158	.9	139	2.5	002	0300	6.2	6.1	99	153	.9	125	2.5	002
0600	9.6	*****	91	234	.5	244	1.9	004	0600	7.5	5.8	89	055	1.4	076	2.5	025	0600	8.3	*****	92	106	.5	134	1.9	017
0900	11.9	8.1	78	299	1.7	309	5.1	031	0900	15.4	7.9	61	357	1.0	272	3.2	053	0900	14.0	7.2	64	333	1.2	318	3.2	063
1200	15.7	6.6	55	305	2.5	315	5.1	081	1200	18.3	2.9	36	295	2.4	312	5.1	027	1200	16.0	4.3	46	327	3.1	328	8.3	073
1500	16.4	*****	69	302	1.7	253	6.3	062	1500	20.2	-.5	25	286	1.5	290	4.4	023	1500	17.8	5.3	44	308	3.4	303	7.6	062
1800	16.1	6.4	53	283	1.2	319	5.1	011	1800	18.4	3.0	36	307	1.7	318	7.6	018	1800	15.3	7.3	59	293	2.0	302	6.3	009
2100	13.6	5.7	59	274	1.5	308	4.4	003	2100	14.0	5.3	56	305	1.4	310	5.7	001	2100	13.2	*****	71	253	.9	280	3.2	001
2400	7.4	*****	69	190	1.0	218	2.5	001	2400	9.2	8.3	94	242	.4	009	3.8	000	2400	10.2	*****	91	181	.7	259	3.2	000

## DAY 25

## DAY 26

## DAY 27

DAY 25									DAY 26									DAY 27								
HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.									
NDNG	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	POINT	RH	DIR.	SPD.	DIR.	GUST	MAX.	RAD						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW					
0300	8.9	*****	92	189	.7	189	1.9	001	0300	8.1	6.7	91	272	1.7	304	4.4	001	0300	6.9	5.8	93	269	2.2	285	6.3	001
0600	9.4	*****	83	251	.7	253	1.9	015	0600	7.7	*****	95	242	1.0	271	3.2	002	0600	6.5	5.6	94	270	2.2	284	5.7	002
0900	12.3	5.6	64	304	1.7	289	3.8	039	0900	7.1	6.2	94	278	1.4	291	3.8	003	0900	6.2	5.6	96	276	1.7	280	4.4	004
1200	15.3	5.1	51	317	2.4	314	4.4	068	1200	7.4	6.3	93	277	1.3	295	4.4	002	1200	6.6	5.5	93	272	1.7	288	4.4	008
1500	17.0	6.1	49	315	3.1	318	7.0	057	1500	8.1	6.5	90	265	2.0	263	5.7	015	1500	6.9	6.3	96	261	1.4	298	3.8	004
1800	15.5	5.9	53	318	3.5	322	7.0	015	1800	8.5	6.8	89	267	1.8	281	6.3	003	1800	7.1	*****	92	266	1.2	278	3.8	003
2100	14.2	*****	63	290	1.5	309	4.4	003	2100	8.4	6.7	89	257	1.6	283	3.8	001	2100	6.8	*****	95	234	1.0	246	5.1	001
2400	10.9	5.4	74	295	1.4	307	5.7	001	2400	7.4	5.5	88	277	2.0	297	5.7	000	2400	6.0	*****	96	271	.8	298	3.8	001

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JUNE , 1981

DAY 28

DAY 29

DAY 30

HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.			HOUR NDNG	DEW			WIND			GUST MAX.		
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C		POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW	TEMP. DEG C	POINT DEG C		RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	RAD MW			
0300	4.7	4.0	95	297	.5	226	2.5	001	0300	5.0	*****	95	144	.9	122	3.2	001	0300	1.4	*****	96	124	.6	098	3.2	001			
0600	4.7	3.8	94	056	.6	103	2.5	003	0600	5.3	3.9	91	126	1.1	130	2.5	005	0600	2.2	*****	92	298	.6	049	2.5	011			
0900	5.7	*****	93	054	1.0	093	3.2	011	0900	6.2	*****	87	105	.7	114	3.2	010	0900	6.4	3.0	79	342	.9	329	3.8	062			
1200	6.4	*****	92	025	1.0	026	2.5	018	1200	6.7	*****	91	347	.6	354	1.9	011	1200	9.4	-.3	51	299	1.8	296	5.1	045			
1500	8.5	6.8	69	324	1.2	298	4.4	018	1500	6.9	*****	92	344	.6	043	2.5	011	1500	8.6	1.6	62	311	2.6	317	6.3	017			
1800	7.2	5.6	90	299	1.7	330	4.4	007	1800	5.2	4.0	92	277	1.2	257	5.1	003	1800	5.5	4.1	91	229	.4	291	5.1	015			
2100	6.6	*****	90	244	.2	280	1.3	002	2100	2.6	*****	94	256	1.0	269	7.0	001	2100	4.5	3.5	93	131	.3	080	3.2	001			
2400	5.6	4.9	95	122	.8	117	2.5	000	2400	1.1	.4	95	140	.8	171	2.5	000	2400	2.9	2.2	95	149	.9	133	2.5	001			

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JUNE, 1981

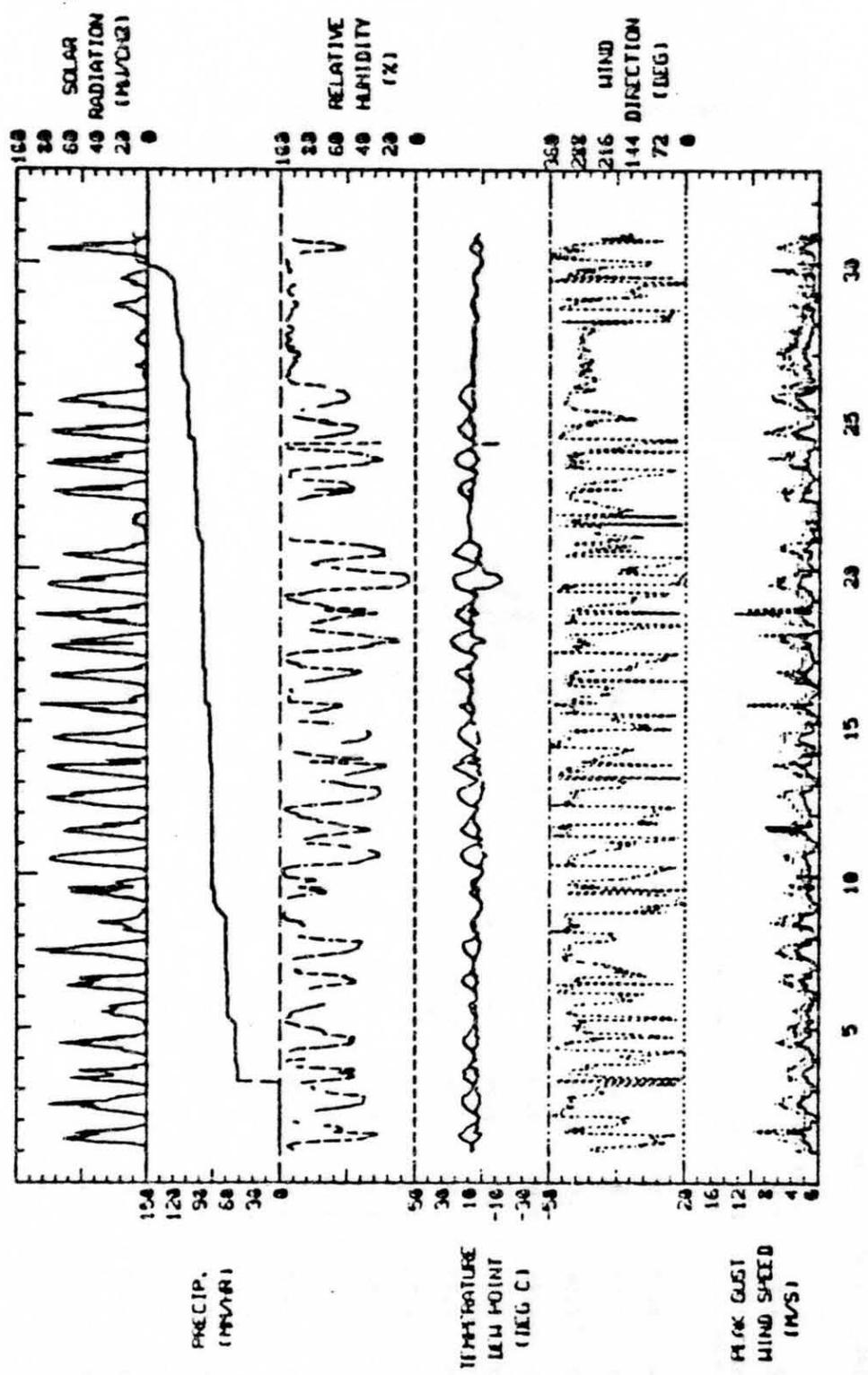
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	17.7	3.7	10.7	021	.1	1.7	305	9.5	E	63	3.5	.4	5583	01
02	14.9	1.3	8.1	301	1.2	1.6	325	6.3	NW	52	1.7	0.0	5610	02
03	14.8	5.8	10.3	290	.6	1.3	180	5.1	SW	64	4.3	49.2	4653	03
04	14.1	5.0	9.6	304	.6	1.5	313	6.3	NW	64	3.6	.2	4775	04
05	9.9	3.9	6.9	293	.8	1.3	301	4.4	WNW	86	4.4	8.8	3053	05
06	14.9	3.9	9.4	294	.5	1.4	302	5.7	WNW	64	3.5	1.6	5288	06
07	13.9	5.5	9.7	301	1.4	1.8	322	6.3	NW	59	2.0	.2	6079	07
08	8.2	.3	4.3	304	1.2	1.6	313	7.0	NW	91	3.9	10.4	2445	08
09	9.4	.5	4.9	349	.5	1.2	315	5.1	NNE	82	3.1	5.4	4465	09
10	16.3	-.4	7.9	316	.4	1.5	315	5.7	NW	58	-1.0	0.0	7450	10
11	16.7	2.4	9.6	345	.9	2.0	013	7.0	NW	64	3.8	.4	5078	11
12	18.2	3.0	10.9	317	.9	1.8	302	6.3	NW	53	1.2	0.0	7455	12
13	21.8	3.0	12.4	284	.7	1.4	353	7.0	S	48	2.6	1.6	6078	13
14	18.6	4.2	11.4	321	.8	1.6	300	5.7	NW	48	1.7	0.0	5997	14
15	16.5	7.0	12.1	293	.9	1.3	357	10.8	WNW	78	7.7	5.6	4530	15
16	20.5	7.4	14.0	277	.7	1.5	300	6.3	WNW	67	7.3	2.6	5480	16
17	24.1	4.8	14.4	298	.9	1.6	327	8.9	WNW	49	3.5	0.0	7035	17
18	22.0	6.9	14.5	293	.8	1.7	043	12.7	WNW	65	7.5	1.2	5607	18
19	22.0	4.3	13.1	013	1.1	2.0	319	7.6	NNE	35	-5.7	0.0	7640	19
20	20.3	4.8	12.5	009	.2	1.5	187	6.3	NE	51	1.4	2.8	4712	20
21	11.2	8.9	16.1	237	.2	.6	260	2.5	SW	90	*****	3.6	1017	21
22	16.4	7.4	12.9	283	1.1	1.5	253	6.3	NW	64	6.7	1.8	5379	22
23	21.3	4.9	13.1	311	.8	1.6	318	7.6	WNW	59	4.6	.8	6205	23
24	18.7	0.0	12.4	304	1.0	1.7	328	8.3	NW	59	6.0	7.4	5600	24
25	17.2	8.9	13.1	305	1.7	1.9	318	7.0	NW	61	5.8	0.0	5943	25
26	10.9	7.1	9.0	268	1.6	1.7	281	6.3	WSW	91	6.4	6.8	585	26
27	8.0	0.0	7.0	269	1.5	1.6	285	6.3	W	94	5.8	5.6	815	27
28	8.7	4.5	6.6	000	.4	1.0	298	4.4	NNE	92	5.0	2.4	2008	28
29	7.4	1.0	4.2	175	.1	1.1	269	7.0	ESE	93	2.8	38.6	1625	29
30	9.7	.9	5.3	302	.5	1.4	317	6.3	WNW	76	2.3	9.0	4958	30
MONTH	24.1	-.4	10.0	302	.7	1.5	043	12.7	NW	67	3.6	166.4	143143	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.2  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 11.4  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 4.4  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 2.5

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE GENERAL NOTES AT THE BACK OF THE REPORT \*\*\*\*

RM CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH DEVIL CANYON WEATHER STATION

DATA START: 01 JUNE . 1981

## R&amp;M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING JUNE , 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	GREATER THAN 20.0	
N	1.36	2.37	.17	0.00	0.00	0.00	0.00	3.90
NNE	1.43	3.59	.31	0.00	0.00	0.00	0.00	5.33
NE	.77	2.68	.07	0.00	0.00	0.00	0.00	3.52
ENE	.63	1.78	0.00	0.00	0.00	0.00	0.00	2.40
E	.77	2.37	.03	0.00	0.00	0.00	0.00	3.17
ESE	1.36	2.75	.03	0.00	0.00	0.00	0.00	4.14
SE	1.85	2.72	0.00	0.00	0.00	0.00	0.00	4.56
SSE	2.75	2.06	0.00	0.00	0.00	0.00	0.00	4.81
S	3.34	2.58	0.00	0.00	0.00	0.00	0.00	5.92
SSW	3.27	1.22	0.00	0.00	0.00	0.00	0.00	4.49
SW	2.72	2.30	0.00	0.00	0.00	0.00	0.00	5.02
WSW	2.16	4.46	.03	0.00	0.00	0.00	0.00	6.65
W	1.95	8.22	.24	0.00	.07	0.00	0.00	10.48
WNW	1.43	11.39	.73	0.00	.03	0.00	0.00	13.58
NW	1.60	10.52	3.66	0.00	0.00	0.00	.03	15.81
NNW	1.22	4.14	.45	0.00	0.00	0.00	.03	5.85
CALM								.35
TOTAL	28.60	65.13	5.75	0.00	.10	0.00	.07	100.00

NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2871 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY



R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING July, 1981

PRECIPITATION VALUES ARE IN MILLIMETERS

DATE	HOUR ENDING																								DATE
	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	
1	.4	.6	0.0	.2	0.0	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	2.2	11.2	3.4	0.0	.2	7
8	0.0	0.0	0.0	0.0	.2	0.0	0.0	.2	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.0	1.2	2.6	3.2	3.0	.4	2.2	1.0	.6	.6	9
10	.6	1.4	1.8	2.8	3.8	3.2	2.4	1.8	0.0	0.0	0.0	1.2	2.0	1.2	1.0	.4	0.0	.2	0.0	0.0	.8	.4	.4	.2	10
11	.4	.4	.2	.2	.2	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	0.0	11
12	.2	.2	.2	.6	0.0	.2	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	.6	.4	.4	.2	.8	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	.8	.2	0.0	0.0	0.0	.6	0.0	0.0	0.0	.2	.2	.4	.2	0.0	.2	.2	0.0	0.0	0.0	.2	0.0	14
15	0.0	.2	.2	.4	.6	.4	.4	.2	.4	.8	.4	.4	.4	.2	.4	0.0	.2	1.2	.8	.6	.6	.4	.6	0.0	15
16	0.0	1.0	1.8	2.6	1.8	1.4	.6	.4	.4	.2	.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	16
17	.4	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	1.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	.4	.2	18
19	0.0	.2	.4	.2	0.0	.4	.4	0.0	0.0	1.0	3.0	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19
20	.2	.2	0.0	0.0	.2	.6	1.4	1.6	1.0	1.4	.8	.8	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.4	1.0	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.4	.6	1.4	22
23	1.0	1.4	1.4	1.6	.2	.2	0.0	0.0	0.0	.6	.2	.4	.2	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.4	1.0	.8	.4	.2	0.0	.2	.2	24
25	.4	0.0	0.0	.8	1.2	1.0	.8	.2	.2	0.0	.6	.6	.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.8	.8	0.0	.6	0.0	.2	0.0	0.0	.4	.8	.6	.4	.6	28
29	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	0.0	0.0	1.4	3.8	7.6	1.8	1.4	29
30	2.0	2.4	2.0	1.0	.6	.4	.2	.4	.2	0.0	.2	0.0	0.0	.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	.6	.2	.2	.2	.4	31

R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING July, 1981

DAY 01

DAY 02

DAY 03

HOUR NDNG	DEW						HOUR NDNG	DEW						HOUR NDNG	DEW											
	TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S						
0300	2.9	2.0	94	095	1.1	106	3.2	2	0300	1.8	.9	94	129	1.2	119	3.2	2	0300	2.5	-.1	83	138	1.1	130	3.2	2
0600	4.0	3.1	94	088	1.1	123	3.2	4	0600	6.2	3.4	82	126	.9	122	3.2	17	0600	5.5	*****	78	089	.6	179	3.2	1
0900	9.2	3.4	67	064	1.0	124	3.8	72	0900	11.6	-3.1	36	044	.5	010	8.3	31	0900	12.6	-4.2	31	322	1.1	286	4.4	3
1200	12.4	.4	44	301	1.7	301	4.4	52	1200	13.0	-6.2	26	328	2.0	333	5.7	53	1200	13.7	-6.1	25	338	1.7	304	5.7	71
1500	11.9	*****	59	293	1.3	305	4.4	22	1500	13.6	-5.7	26	008	3.5	035	8.3	41	1500	14.5	-6.5	23	020	2.4	019	6.3	3
1800	12.5	1.1	46	019	1.6	074	4.4	29	1800	13.4	-5.3	27	359	2.8	003	7.0	19	1800	14.0	-5.8	25	014	2.5	015	5.1	2
2100	10.4	*****	54	071	1.2	019	5.7	3	2100	11.0	*****	41	350	1.3	346	5.1	3	2100	12.1	-2.3	37	004	1.5	022	4.4	3
2400	3.4	1.4	87	145	1.2	133	3.2	1	2400	4.6	*****	70	179	1.0	242	1.9	1	2400	4.9	-1	70	160	1.0	132	1.9	1

DAY 04

DAY 05

DAY 06

HOUR NDNG	DEW						HOUR NDNG	DEW						HOUR NDNG	DEW											
	TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S						
0300	3.9	1.1	82	123	1.0	083	3.2	2	0300	9.4	3.4	66	260	1.6	249	3.2	1	0300	8.7	7.8	94	082	.7	136	2.5	1
0600	7.7	2.4	69	047	1.3	051	3.2	18	0600	9.3	6.0	89	284	1.1	307	3.8	11	0600	9.0	*****	95	068	.3	052	1.9	11
0900	12.3	3.3	54	349	.8	039	3.2	37	0900	10.8	*****	70	310	1.8	312	4.4	24	0900	10.3	*****	87	344	.4	023	1.9	
1200	15.1	.4	37	304	1.7	317	4.4	36	1200	11.9	5.6	65	323	2.1	325	4.4	13	1200	12.3	*****	74	317	.4	344	1.9	28
1500	15.9	-9	32	319	2.0	334	5.1	28	1500	11.7	*****	69	298	.7	299	3.2	8	1500	1.0	-3.3	73	006	.3	031	3.2	20
1800	15.3	-2	35	274	2.0	317	6.3	15	1800	12.1	*****	68	022	.6	012	1.9	6	1800	15.0	5.2	52	328	.9	327	2.5	21
2100	12.9	1.5	46	276	1.6	266	5.1	2	2100	10.6	*****	85	328	.3	321	1.3	1	2100	12.1	*****	77	271	.3	021	2.5	
2400	11.0	4.1	62	256	1.5	272	3.8	1	2400	9.2	7.8	91	116	.5	127	2.5	1	2400	10.1	8.5	90	222	.6	236	2.5	0

DAY 07

DAY 08

DAY 09

HOUR NDNG	DEW						HOUR NDNG	DEW						HOUR NDNG	DEW											
	TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST		TEMP.	POINT	RH	DIR.	SPD.	GUST						
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S						
0300	9.7	7.5	86	247	1.2	279	3.8	1	0300	6.3	5.4	94	069	1.0	112	3.8	1	0300	9.0	8.2	95	255	.9	264	3.2	
0600	9.9	7.3	84	270	1.6	278	3.8	6	0600	6.6	*****	96	115	1.3	114	3.8	2	0600	8.9	7.6	92	293	1.4	316	3.8	2
0900	11.6	7.0	73	295	1.8	277	7.0	20	0900	6.7	6.1	96	094	1.1	098	3.8	3	0900	9.4	*****	94	285	1.2	297	3.8	
1200	12.2	5.9	65	263	2.8	252	10.2	19	1200	9.4	*****	92	340	.5	337	3.2	4	1200	10.0	8.3	89	304	1.3	321	5.1	1
1500	12.6	7.3	70	248	2.6	240	8.9	20	1500	10.9	9.1	89	248	1.3	244	3.2	3	1500	9.6	8.5	93	300	2.3	304	5.1	12
1800	9.7	5.3	74	275	2.4	248	8.3	2	1800	11.7	9.1	84	286	1.9	302	6.3	3	1800	9.1	7.8	92	296	1.5	293	3.8	2
2100	6.6	6.0	96	037	1.2	027	9.5	1	2100	11.1	9.0	87	258	1.4	268	5.1	1	2100	8.7	7.6	93	274	1.1	281	3.2	
2400	5.8	5.2	96	108	1.0	076	3.2	1	2400	10.9	8.5	85	251	1.2	257	2.5	1	2400	8.6	*****	94	261	.7	241	2.5	

## R &amp; M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING July, 1981

DAY 10

DAY 11

DAY 12

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW				
0300	8.4	*****	2	039	.2	347	1.3	1	0300	9.1	*****	96	258	.6	292	1.9	1	0300	9.4	8.3	93	270	1.6	275	4.4	1
0600	8.6	*****	2	013	.2	059	1.3	4	0600	8.7	-35.1	2	311	.8	329	2.5	5	0600	9.4	7.8	90	280	1.5	284	4.4	2
0900	9.6	*****	89	327	.5	327	1.3	13	0900	9.0	7.6	91	299	1.1	310	3.2	10	0900	9.7	8.3	91	298	1.9	314	5.1	3
1200	10.7	8.8	88	020	.3	108	2.5	10	1200	9.6	8.0	90	302	1.8	307	5.7	10	1200	11.0	*****	84	238	.8	267	3.2	6
1500	11.1	9.3	89	110	1.3	127	3.8	13	1500	11.2	8.8	85	288	1.7	297	5.7	13	1500	12.0	8.9	81	188	.5	012	3.2	6
1800	11.4	9.8	90	073	.4	112	3.2	11	1800	12.0	8.5	79	290	2.1	292	7.0	7	1800	12.9	*****	82	320	.5	358	3.2	12
2100	9.9	*****	93	271	.9	278	2.5	1	2100	10.8	9.0	89	282	1.9	295	5.7	1	2100	11.4	*****	85	279	.9	265	3.2	1
2400	9.4	8.9	97	269	.7	321	2.5	0	2400	10.0	8.4	90	269	1.6	282	5.7	0	2400	9.4	*****	90	204	.6	208	1.9	1

DAY 13

DAY 14

DAY 15

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW				
0300	9.2	*****	93	279	.7	265	2.5	1	0300	8.8	*****	93	087	.2	124	2.5	1	0300	9.2	*****	4	119	.0	328	1.3	1
0600	9.2	*****	91	288	.7	301	2.5	8	0600	9.0	*****	92	131	.6	158	2.5	5	0600	9.9	*****	3	024	.5	033	1.9	7
0900	9.8	8.1	89	275	.8	276	2.5	11	0900	10.1	8.2	88	298	.9	289	3.8	9	0900	11.7	9.4	86	305	1.0	305	2.5	26
1200	10.7	8.6	87	272	1.1	304	3.8	19	1200	10.4	8.6	89	308	1.8	307	4.4	12	1200	12.8	10.8	88	296	1.4	281	2.5	38
1500	11.1	9.2	88	288	1.5	302	4.4	31	1500	10.6	9.2	91	311	1.7	301	4.4	8	1500	12.5	10.9	90	293	1.2	291	2.5	24
1800	11.1	9.3	89	291	1.7	299	5.1	4	1800	9.9	8.6	92	310	1.6	329	4.4	5	1800	11.9	10.6	92	282	1.3	281	2.5	7
2100	10.4	*****	93	236	.2	327	1.9	1	2100	9.4	8.5	94	318	1.1	310	2.5	1	2100	11.3	*****	92	268	.9	276	1.9	1
2400	9.3	*****	91	127	.7	141	2.5	1	2400	9.4	*****	4	306	.5	319	1.9	1	2400	10.7	*****	91	205	.4	229	1.3	1

DAY 16

DAY 17

DAY 18

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST			
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW				
0300	10.6	*****	97	196	.2	193	1.3	1	0300	11.4	*****	90	093	.2	085	2.5	1	0300	9.5	*****	89	211	.8	245	1.9	1
0600	11.1	*****	0	262	.2	277	1.3	6	0600	11.8	*****	95	052	.1	117	1.9	5	0600	10.3	7.9	85	271	.8	229	2.5	8
0900	11.9	10.5	91	294	.8	284	2.5	12	0900	12.4	*****	91	326	.7	276	3.2	6	0900	10.8	8.4	85	308	1.3	299	3.2	14
1200	12.5	10.7	89	298	1.9	293	3.8	20	1200	13.6	11.0	84	309	1.8	306	3.8	25	1200	11.7	9.3	85	312	1.9	305	5.7	12
1500	14.4	11.6	83	311	1.9	316	4.4	22	1500	15.5	11.3	76	311	2.4	303	4.4	53	1500	11.8	9.5	86	308	2.0	324	5.1	27
1800	14.2	11.4	83	303	1.3	294	3.2	7	1800	14.0	5.7	57	304	2.2	311	5.1	29	1800	11.0	9.4	90	304	1.6	303	3.1	4
2100	12.7	*****	88	257	.8	265	2.5	1	2100	14.3	*****	74	289	1.5	284	3.8	3	2100	10.1	*****	90	275	.8	286	3.1	1
2400	11.7	*****	90	185	.5	227	1.3	1	2400	11.6	9.0	84	259	1.0	259	2.5	1	2400	9.6	*****	90	213	.3	274	1.3	0

## R &amp; M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING July, 1981

DAY 19

DAY 20

DAY 21

DAY 19							DAY 20							DAY 21												
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.							
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.						
	DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.						
					M/S	MW						M/S	MW							M/S	MW					
0300	9.4	*****	97	220	.2	267	1.3	1	0300	9.9	*****	91	274	.5	260	1.9	1	0300	10.1	*****	95	270	.6	291	1.9	1
0600	9.6	*****	99	035	.1	017	1.3	3	0600	10.2	*****	93	350	.3	307	1.3	4	0600	10.6	*****	89	290	.4	276	1.3	
0900	10.6	*****	87	360	.7	358	1.9	12	0900	10.2	8.6	90	299	1.3	304	3.2	8	0900	11.9	*****	87	304	.5	243	1.3	15
1200	10.9	9.1	89	317	1.5	336	4.4	12	1200	10.9	9.0	88	312	1.5	299	3.2	16	1200	.4	*****	84	316	.9	338	3.8	22
1500	11.8	9.9	88	312	1.7	318	3.8	9	1500	11.1	9.5	90	307	1.7	308	3.8	13	1500	14.2	10.5	78	302	2.1	306	4.4	29
1800	11.1	9.3	89	309	1.8	301	3.8	4	1800	11.2	9.6	90	308	1.5	315	3.8	5	1800	14.1	10.7	80	303	1.8	306	5.1	15
2100	11.1	*****	90	289	.8	296	4.4	1	2100	10.8	*****	91	290	.8	291	2.5	1	2100	11.8	10.2	90	250	.4	313	1.9	1
2400	10.2	*****	91	216	.5	164	1.3	0	2400	10.1	*****	92	296	.9	293	2.5	0	2400	11.0	*****	90	172	.6	156	1.9	

DAY 22

DAY 23

DAY 24

DAY 22							DAY 23							DAY 24												
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.							
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.						
	DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.						
					M/S	MW						M/S	MW							M/S	MW					
0300	10.3	*****	88	175	.5	170	1.3	1	0300	11.1	*****	93	235	.1	239	1.3	1	0300	11.3	*****	89	172	.3	193	1.3	1
0600	11.9	*****	84	256	.4	252	1.9	11	0600	11.1	*****	97	047	.2	053	1.3	6	0600	12.0	*****	88	061	.4	073	1.3	12
0900	12.9	9.6	80	300	.9	298	2.5	18	0900	12.0	10.2	89	035	.7	061	2.5	11	0900	14.3	*****	85	019	.9	013	1.9	20
1200	14.2	10.3	77	304	1.9	293	3.8	27	1200	12.0	10.4	90	309	1.1	316	3.2	15	1200	13.0	10.9	63	069	1.3	093	3.2	39
1500	14.9	10.6	75	316	2.1	315	4.4	22	1500	13.1	11.1	88	296	1.4	293	3.2	18	1500	16.3	12.7	79	068	1.8	055	4.4	6
1800	14.7	*****	78	310	1.3	330	3.2	4	1800	13.6	*****	88	296	.5	308	1.9	9	1800	12.2	10.6	90	299	1.6	276	5.1	4
2100	12.1	*****	91	258	1.0	262	3.8	1	2100	12.7	*****	90	227	.3	280	1.3	1	2100	11.4	*****	92	258	.9	287	2.5	1
2400	11.2	*****	90	114	.3	117	1.9	1	2400	11.9	*****	91	206	.5	186	1.3	0	2400	10.2	*****	89	146	.5	073	1.9	1

DAY 25

DAY 26

DAY 27

DAY 25							DAY 26							DAY 27												
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.							
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.						
	DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.		DEG C	DEG C	%	DEG.	M/S	DEG.						
					M/S	MW						M/S	MW							M/S	MW					
0300	10.0	*****	91	197	.9	194	1.9	1	0300	8.8	*****	89	181	.6	165	2.5	1	0300	6.5	*****	93	139	.7	117	2.5	1
0600	10.2	*****	90	084	.6	071	1.9	4	0600	9.6	*****	87	111	.4	131	1.9	8	0600	7.9	*****	89	065	.5	112	1.9	8
0900	13.4	*****	84	048	.6	118	1.9	27	0900	12.0	8.9	81	308	1.1	312	3.2	26	0900	12.7	8.0	73	321	1.0	301	3.8	19
1200	12.7	*****	87	340	.5	043	2.5	16	1200	13.6	*****	75	298	.8	281	2.5	29	1200	14.9	8.7	66	311	1.6	325	4.4	34
1500	11.7	9.8	88	310	1.5	299	5.1	22	1500	14.4	8.9	69	325	1.4	310	3.8	21	1500	15.5	8.6	63	316	2.6	305	6.3	27
1800	11.9	*****	86	296	1.5	310	3.8	7	1800	14.4	9.1	70	322	1.6	319	3.8	9	1800	14.8	9.0	68	310	2.2	322	5.7	5
2100	10.3	*****	91	294	.9	319	4.4	1	2100	10.0	8.4	90	201	.9	314	2.5	1	2100	11.9	9.5	85	251	.9	260	3.2	1
2400	9.5	*****	90	169	.6	122	1.9	1	2400	8.4	*****	91	182	.7	191	1.9	1	2400	9.8	*****	87	178	1.0	166	2.5	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING July, 1981

DAY 28

DAY 29

DAY 30

DAY 28							DAY 29							DAY 30												
HR	DEW	WIND	WIND	GUST	MAX.		HR	DEW	WIND	WIND	GUST	MAX.		HR	DEW	WIND	WIND	GUST	MAX.							
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	NDNG		
DEC C	DEC C	%	DEC.	M/S	DEC.	M/S	MW	DEC C	DEC C	%	DEC.	M/S	DEC.	M/S	MW	DEC C	DEC C	%	DEC.	M/S	DEC.	M/S	MW			
0300	8.9	*****	91	161	.6	154	1.9	0	0300	10.2	9.7	97	279	.4	319	2.5	1	0300	9.1	8.3	95	160	.5	131	1.9	1
0600	9.4	*****	91	153	.5	165	1.9	3	0600	10.0	8.1	88	251	1.1	240	3.2	3	0600	9.3	*****	95	053	.4	105	1.9	3
0900	11.1	*****	88	281	.5	277	1.9	7	0900	11.1	9.5	94	279	1.2	278	3.2	20	0900	10.2	*****	86	331	.5	032	2.5	15
1200	10.7	8.8	88	287	1.3	306	3.2	7	1200	12.8	8.1	73	310	1.9	321	3.8	22	1200	11.5	*****	85	286	.9	281	1.9	14
1500	10.6	8.7	88	305	1.5	312	3.8	3	1500	14.4	9.1	70	296	1.5	309	4.4	16	1500	13.6	*****	80	295	.2	280	1.9	38
1800	10.3	*****	88	272	.9	299	2.5	1	1800	13.4	8.7	73	292	.4	327	3.2	17	1800	13.9	*****	82	357	.4	113	1.9	6
2100	9.9	*****	90	281	1.2	304	3.8	1	2100	10.7	9.6	93	225	.5	252	3.8	0	2100	11.9	10.6	92	152	.3	099	1.9	1
2400	9.7	*****	94	240	.5	259	1.9	1	2400	9.7	*****	91	136	.3	103	2.5	1	2400	10.4	*****	90	160	.6	154	2.5	0

DAY 31

HR	DEW	WIND	WIND	GUST	MAX.			
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	NDNG
DEC C	DEC C	%	DEC.	M/S	DEC.	M/S	MW	
0300	9.0	*****	89	185	.6	170	1.9	1
0600	10.4	*****	87	217	.2	186	1.9	12
0900	11.2	8.3	82	296	1.4	296	3.2	17
1200	12.6	9.1	79	297	1.5	302	3.2	20
1500	13.6	9.7	77	286	1.4	286	3.2	5
1800	12.1	10.0	87	263	.6	252	3.2	2
2100	10.5	9.2	92	268	1.2	297	3.8	1
2400	10.0	9.1	94	288	1.5	303	3.8	1

R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING July, 1981

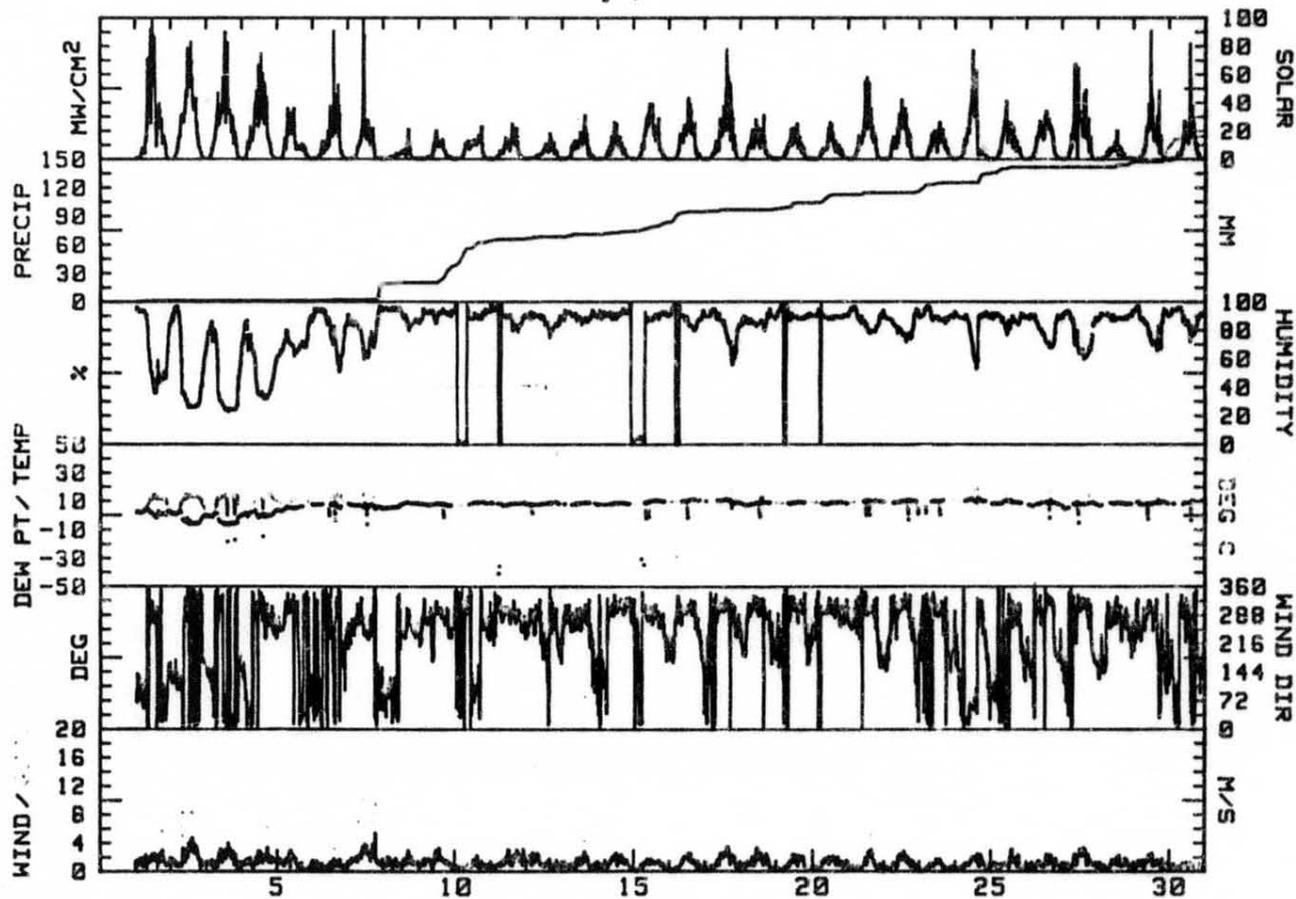
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SGLAR ENERGY DAY WH/SGM
1	14.5	2.6	8.6	046	.5	1.5	019	5.7	ENE	68	1.7	1.6	5898 1
2	15.0	1.1	8.1	010	.9	1.9	010	8.3	N	51	-2.7	0.0	5703 2
3	15.3	.3	7.8	015	.9	1.7	019	6.3	NNE	46	-3.9	0.0	5275 3
4	17.0	.2	8.6	300	.9	1.6	317	6.3	W	53	.8	0.0	4628 4
5	12.3	9.2	10.8	304	.8	1.2	312	4.4	NW	72	5.2	0.0	2270 5
6	15.3	.1	7.7	340	.2	.8	031	3.2	NNW	81	7.1	.8	3013 6
7	14.9	.6	7.8	269	1.3	2.1	252	10.2	W	80	6.6	17.2	2755 7
8	12.6	5.5	9.1	250	.3	1.3	302	6.3	WSW	91	7.7	1.0	760 8
9	11.0	.4	5.7	287	1.3	1.4	321	5.1	WNW	92	7.9	18.2	1105 9
10	12.0	8.4	10.2	013	.1	.8	127	3.8	W	68	9.3	25.6	1548 10
11	12.0	8.7	10.4	288	1.4	1.5	292	7.0	WNW	83	6.4	2.2	1575 11
12	13.2	3.4	8.3	272	.9	1.2	314	5.1	WNW	87	8.3	2.0	993 12
13	11.7	8.9	10.3	279	.8	1.0	299	5.1	WNW	90	8.7	2.6	1683 13
14	10.9	8.7	9.8	311	.8	1.2	307	4.4	NW	84	8.7	3.2	1438 14
15	12.8	.2	6.5	291	.7	.9	305	2.5	WNW	64	8.3	9.8	2885 15
16	15.2	1.0	8.1	290	.8	1.0	316	4.4	WNW	80	10.8	11.0	2695 16
17	17.4	11.3	14.4	303	1.1	1.4	311	5.1	NW	82	10.3	2.0	3810 17
18	14.6	1.5	8.1	294	1.0	1.3	305	5.7	WNW	87	8.8	1.0	1833 18
19	11.9	9.4	10.7	308	.8	1.0	336	4.4	NW	87	9.3	6.2	1660 19
20	11.3	9.8	10.6	303	1.0	1.1	308	3.8	WNW	88	9.0	8.8	1535 20
21	14.7	.4	7.6	293	.8	1.0	306	5.1	WNW	87	10.2	2.0	3050 21
22	15.4	1.0	8.2	297	.8	1.1	315	4.4	NW	83	10.1	2.8	2710 22
23	13.7	1.9	7.8	302	.4	.7	316	3.2	WNW	90	10.1	7.6	1840 23
24	19.9	10.2	15.1	035	.3	1.1	276	5.1	NNE	84	11.1	10.2	3273 24
25	14.7	9.5	12.1	323	.3	1.1	299	5.1	WNW	88	9.6	6.4	2290 25
26	17.0	4.0	10.5	290	.5	1.1	310	3.8	S	82	8.8	0.0	2775 26
27	15.9	1.0	8.5	304	.8	1.5	305	6.3	NW	77	8.1	0.0	3740 27
28	11.1	8.7	9.9	273	.6	.9	312	3.8	W	90	8.5	5.2	860 28
29	15.1	.4	7.8	283	.8	1.2	309	4.4	WNW	84	8.7	16.6	2695 29
30	14.4	0.0	7.2	293	.1	.7	032	2.5	NW	89	8.6	10.6	2428 30
31	13.9	9.3	11.5	279	.9	1.1	297	3.8	WNW	85	9.2	2.0	1705 31
MONTH	19.9	0.0	9.3	300	.6	1.2	252	10.2	WNW	80	7.5	176.6	80423

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 6.3  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 4.4

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\* SEE NOTES AT THE BACK OF THIS REPORT \*\*\*

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
July, 1981



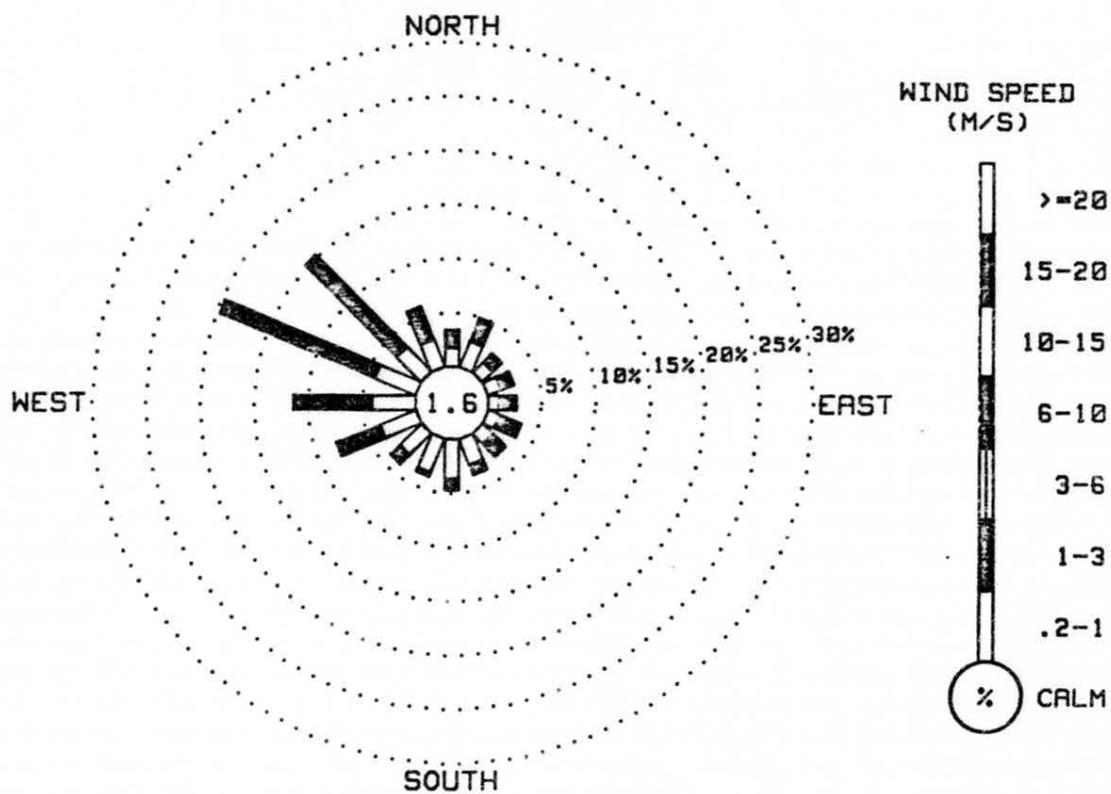
R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING July, 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	
N	1.75	1.38	.27	0.00	0.00	0.00	0.00	3.39
NNE	2.55	1.85	.37	0.00	0.00	0.00	.07	4.84
NE	1.34	1.11	.03	0.00	0.00	0.00	0.00	2.49
ENE	1.34	1.24	0.00	0.00	0.00	0.00	0.00	2.59
E	.97	1.68	0.00	0.00	0.00	0.00	0.00	2.66
ESE	1.21	2.12	0.00	0.00	0.00	0.00	0.00	3.33
SE	1.38	1.65	0.00	0.00	0.00	0.00	0.00	3.03
SSE	2.55	1.01	0.00	0.00	0.00	0.00	0.00	3.56
S	3.63	1.04	0.00	0.00	0.00	0.00	0.00	4.67
SSW	3.36	.37	0.00	0.00	0.00	0.00	0.00	3.73
SW	2.82	1.14	.03	0.00	0.00	0.00	0.00	4.00
WSW	3.60	4.00	.34	0.00	0.00	0.00	0.00	7.93
W	4.10	7.09	.03	0.00	0.00	0.00	.10	11.33
WNW	4.13	15.26	.20	0.00	0.00	0.00	.07	19.66
NW	3.23	11.60	.30	0.00	0.00	0.00	.07	15.19
NNW	2.72	2.99	.27	0.00	0.00	0.00	0.00	5.98
CALM								1.61
TOTAL	40.71	55.53	1.85	0.00	0.00	0.00	.30	100.00

NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT  
2975 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
July, 1981



WIND ROSE PLOT



## R &amp; M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING August, 1981

DAY 01

DAY 02

DAY 03

DAY 01							DAY 02							DAY 03								
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.			
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.		
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		
0300	9.0	****	98	271	.6	294 2.5	0	0300	9.4	8.3	93	203	.3	120 1.9	0	0300	8.3	****	89	147	.9	169 2.5
0600	10.2	****	98	135	.7	092 3.2	2	0600	9.6	****	95	104	.4	168 1.9	7	0600	10.0	****	85	123	.4	114 2.5
0900	10.9	****	99	014	.2	083 1.9	4	0900	11.1	****	88	021	.7	016 1.9	18	0900	15.2	7.6	60	026	.9	043 2.5
1200	11.9	****	89	004	.8	031 2.5	10	1200	13.4	8.9	74	004	1.0	344 2.5	39	1200	19.9	4.7	37	045	1.2	004 3.8
1500	11.9	****	89	354	.6	357 1.9	7	1500	13.8	****	74	008	.8	027 2.5	26	1500	20.4	3.9	34	298	1.4	019 4.4
1800	11.3	9.7	90	267	.9	270 2.5	3	1800	14.2	****	78	027	.8	012 2.5	9	1800	14.4	****	79	255	.7	156 5.1
2100	10.6	8.5	87	250	.8	246 2.5	0	2100	11.1	****	90	170	.3	196 1.9	1	2100	10.6	****	89	183	.3	163 1.9
2400	9.9	****	86	253	.9	242 2.5	1	2400	9.0	****	90	132	1.3	137 3.2	1	2400	8.9	****	90	165	.7	140 2.5

DAY 04

DAY 05

DAY 06

DAY 04							DAY 05							DAY 06								
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.			
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.		
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		
0300	6.8	5.4	91	175	.6	197 2.5	1	0300	6.7	****	85	173	.8	140 3.8	0	0300	11.3	6.3	71	166	1.1	118 3.8
0600	8.0	5.1	82	080	1.1	081 3.8	18	0600	13.2	4.9	57	160	1.2	141 3.2	17	0600	11.4	****	76	165	.9	170 2.5
0900	15.9	4.3	46	043	1.4	059 3.8	43	0900	16.5	4.5	45	050	1.5	062 5.1	50	0900	15.5	6.8	56	082	.9	080 3.8
1200	20.1	-1	26	096	2.1	069 5.1	73	1200	18.8	3.3	36	060	-1.6	071 33.2	25	1200	17.5	5.7	46	081	1.7	095 4.4
1500	21.6	-5	23	112	2.9	108 6.3	53	1500	18.4	3.7	38	089	2.1	105 6.3	12	1500	15.3	9.9	70	353	.5	095 4.4
1800	20.3	-2.8	21	096	2.6	098 57.0	21	1800	16.1	9.4	64	115	2.1	109 5.7	7	1800	15.0	9.6	70	320	1.3	306 5.1
2100	14.8	1.2	40	125	1.8	097 5.1	1	2100	1.8	-4.0	65	170	.8	183 2.5	1	2100	13.8	7.6	66	060	.3	090 3.8
2400	.3	-8.2	53	138	2.0	135 4.4	1	2400	12.6	5.1	60	152	1.3	138 4.4	1	2400	12.2	6.5	68	102	2.8	067 10.8

DAY 07

DAY 08

DAY 09

DAY 07							DAY 08							DAY 09								
HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.		HOUR	DEW	WIND	WIND	GUST	MAX.			
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.		
DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		
0300	9.2	****	91	117	1.9	112 7.0	0	0300	11.8	8.7	81	141	2.0	160 3.2	1	0300	8.9	****	91	111	.6	105 2.5
0600	9.4	****	91	210	.7	212 1.9	4	0600	11.8	9.4	85	153	1.2	126 3.8	6	0600	9.6	****	93	133	.2	194 1.3
0900	10.9	8.8	87	240	.5	248 2.5	13	0900	15.9	8.0	59	059	.7	078 3.2	15	0900	10.7	8.8	88	019	1.0	024 2.5
1200	15.5	10.1	70	015	.4	047 3.8	61	1200	16.4	9.4	63	276	.8	225 4.4	87	1200	****	****	**	***	***	305 3.8
1500	14.6	8.2	65	095	2.9	124 7.0	16	1500	15.5	****	63	281	1.5	260 5.7	12	1500	11.3	9.4	88	315	1.1	297 3.8
1800	13.1	8.8	75	096	2.2	100 7.0	6	1800	11.1	9.5	90	157	.8	133 2.5	7	1800	12.0	9.4	84	287	1.5	292 4.4
2100	11.6	9.5	87	138	1.6	110 5.1	1	2100	8.7	****	92	171	.7	224 3.8	1	2100	10.8	8.9	88	259	1.2	261 3.2
2400	11.1	9.7	91	142	1.4	127 4.4	0	2400	8.9	****	89	121	.8	131 2.5	1	2400	10.0	****	88	199	.7	249 2.5

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR LEVIL CANYON WEATHER STATION  
DATA TAKEN DURING August, 1981

DAY 10

DAY 11

DAY 12

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		MW	DEG C	DEG C	%	DEG.	M/S	DEG.		M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	9.4	****	89	216	.5	177	1.9	0	0300	7.7	****	91	172	.4	134	1.9	1	0300	6.5	4.6	88	115	1.0	109	2.5	1
0600	9.7	7.6	87	127	.6	125	2.5	8	0600	7.7	****	89	103	.8	091	2.5	3	0600	5.9	****	92	123	1.2	120	3.2	6
0900	12.3	9.5	83	012	.6	118	2.5	16	0900	8.6	6.7	88	003	.3	285	2.5	11	0900	6.8	****	92	082	.7	095	2.5	11
1200	12.8	8.1	73	306	1.8	332	4.4	23	1200	11.0	7.3	78	285	1.5	263	3.2	26	1200	8.5	7.1	91	347	.7	026	1.9	12
1500	10.7	8.9	89	295	1.9	317	5.1	12	1500	11.4	7.2	75	313	2.2	304	5.1	16	1500	****	****	**	***	****	292	1.9	***
1800	10.1	8.7	91	292	1.4	281	3.2	3	1800	8.2	6.8	91	288	1.2	299	3.8	3	1800	****	****	**	***	****	***	****	***
2100	8.7	****	91	255	1.0	277	3.2	0	2100	7.2	5.6	90	271	.8	292	2.5	1	2100	****	****	**	***	****	***	****	***
2400	8.2	****	89	107	.6	140	1.9	0	2400	6.5	****	89	259	.8	289	2.5	0	2400	****	****	**	***	****	***	****	***

DAY 13

DAY 14

DAY 15

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		MW	DEG C	DEG C	%	DEG.	M/S	DEG.		M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	****	****	**	***	****	127	1.9	***	0300	****	****	**	***	****	***	****	***	0300	****	****	**	***	****	***	****	***
0600	****	****	**	***	****	***	****	***	0600	****	****	**	***	****	***	****	***	0600	****	****	**	***	****	***	****	***
0900	****	****	**	***	****	***	****	***	0900	****	****	**	***	****	***	****	***	0900	****	****	**	***	****	***	****	***
1200	****	****	**	***	****	***	****	***	1200	****	****	**	***	****	***	****	***	1200	****	****	**	***	****	***	****	***
1500	****	****	**	***	****	***	****	***	1500	****	****	**	***	****	***	****	***	1500	****	****	**	***	****	***	****	***
1800	****	****	**	***	****	***	****	***	1800	****	****	**	***	****	***	****	***	1800	****	****	**	***	****	***	****	***
2100	****	****	**	***	****	***	****	***	2100	****	****	**	***	****	***	****	***	2100	****	****	**	***	****	***	****	***
2400	****	****	**	***	****	***	****	***	2400	****	****	**	***	****	***	****	***	2400	****	****	**	***	****	***	****	***

DAY 16

DAY 17

DAY 18

HOUR NDNG	DEW							HOUR NDNG	DEW							HOUR NDNG	DEW									
	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.		TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST MAX.			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S		MW	DEG C	DEG C	%	DEG.	M/S	DEG.		M/S	MW	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	****	****	**	***	****	***	****	***	0300	****	****	**	***	****	***	****	***	0300	****	****	**	***	****	***	****	***
0600	****	****	**	***	****	***	****	***	0600	****	****	**	***	****	***	****	***	0600	****	****	**	***	****	***	****	***
0900	****	****	**	***	****	***	****	***	0900	****	****	**	***	****	***	****	***	0900	****	****	**	***	****	***	****	***
1200	****	****	**	***	****	***	****	***	1200	****	****	**	***	****	***	****	***	1200	****	****	**	***	****	***	****	***
1500	****	****	**	***	****	***	****	***	1500	****	****	**	***	****	***	****	***	1500	****	****	**	***	****	***	****	***
1800	****	****	**	***	****	***	****	***	1800	****	****	**	***	****	***	****	***	1800	****	****	**	***	****	***	****	***
2100	****	****	**	***	****	***	****	***	2100	****	****	**	***	****	***	****	***	2100	****	****	**	***	****	***	****	***
2400	****	****	**	***	****	***	****	***	2400	****	****	**	***	****	***	****	***	2400	****	****	**	***	****	***	****	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING August, 1981

DAY 19

DAY 20

DAY 21

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.		
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	
	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	
0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****
0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****
0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****
1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****
1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****
1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****
2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****
2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****

DAY 22

DAY 23

DAY 24

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.		
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	
	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	
0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****
0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****
0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****
1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****
1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****
1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****
2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****
2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****

DAY 25

DAY 26

DAY 27

HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.	HOUR	DEW	WIND	WIND	GUST	MAX.		
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	TEMP.	POINT	RH	DIR.	SPD.	DIR.	
	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	DEG C	DEG C	%	DEG.	M/S	DEG. M/S	
0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****	**	0300	*****	*****	**	**	****
0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****	**	0600	*****	*****	**	**	****
0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****	**	0900	*****	*****	**	**	****
1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****	**	1200	*****	*****	**	**	****
1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****	**	1500	*****	*****	**	**	****
1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****	**	1800	*****	*****	**	**	****
2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****	**	2100	*****	*****	**	**	****
2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****	**	2400	*****	*****	**	**	****

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING August, 1981

DAY 28

DAY 29

DAY 30

HOUR	DEW						HOUR	DEW						HOUR	DEW					
	NDNG	TEMP.	POINT	RH	DIR.	SPD.		NDNG	TEMP.	POINT	RH	DIR.	SPD.		NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG. M/S		DEG C	DEG C	%	DEG. M/S	DEG. M/S		DEG C	DEG C	%	DEG. M/S	DEG. M/S		
0300	*****	*****	**	***	****	***	0300	*****	*****	**	***	****	***	0300	*****	*****	**	***	****	
0600	*****	*****	**	***	****	***	0600	*****	*****	**	***	****	***	0600	*****	*****	**	***	****	
0900	*****	*****	**	***	****	***	0900	*****	*****	**	***	****	***	0900	*****	*****	**	***	****	
1200	*****	*****	**	***	****	***	1200	*****	*****	**	***	****	***	1200	*****	*****	**	***	****	
1500	*****	*****	**	***	****	***	1500	*****	*****	**	***	****	***	1500	*****	*****	**	***	****	
1800	*****	*****	**	***	****	***	1800	*****	*****	**	***	****	***	1800	*****	*****	**	***	****	
2100	*****	*****	**	***	****	***	2100	*****	*****	**	***	****	***	2100	*****	*****	**	***	****	
2400	*****	*****	**	***	****	***	2400	*****	*****	**	***	****	***	2400	*****	*****	**	***	****	

DAY 31

HOUR	DEW					
	NDNG	TEMP.	POINT	RH	DIR.	SPD.
	DEG C	DEG C	%	DEG.	M/S	DEG. M/S
0300	*****	*****	**	***	****	***
0600	*****	*****	**	***	****	***
0900	*****	*****	**	***	****	***
1200	*****	*****	**	***	****	***
1500	*****	*****	**	***	****	***
1800	*****	*****	**	***	****	***
2100	*****	*****	**	***	****	***
2400	*****	*****	**	***	****	***

R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING August, 1981

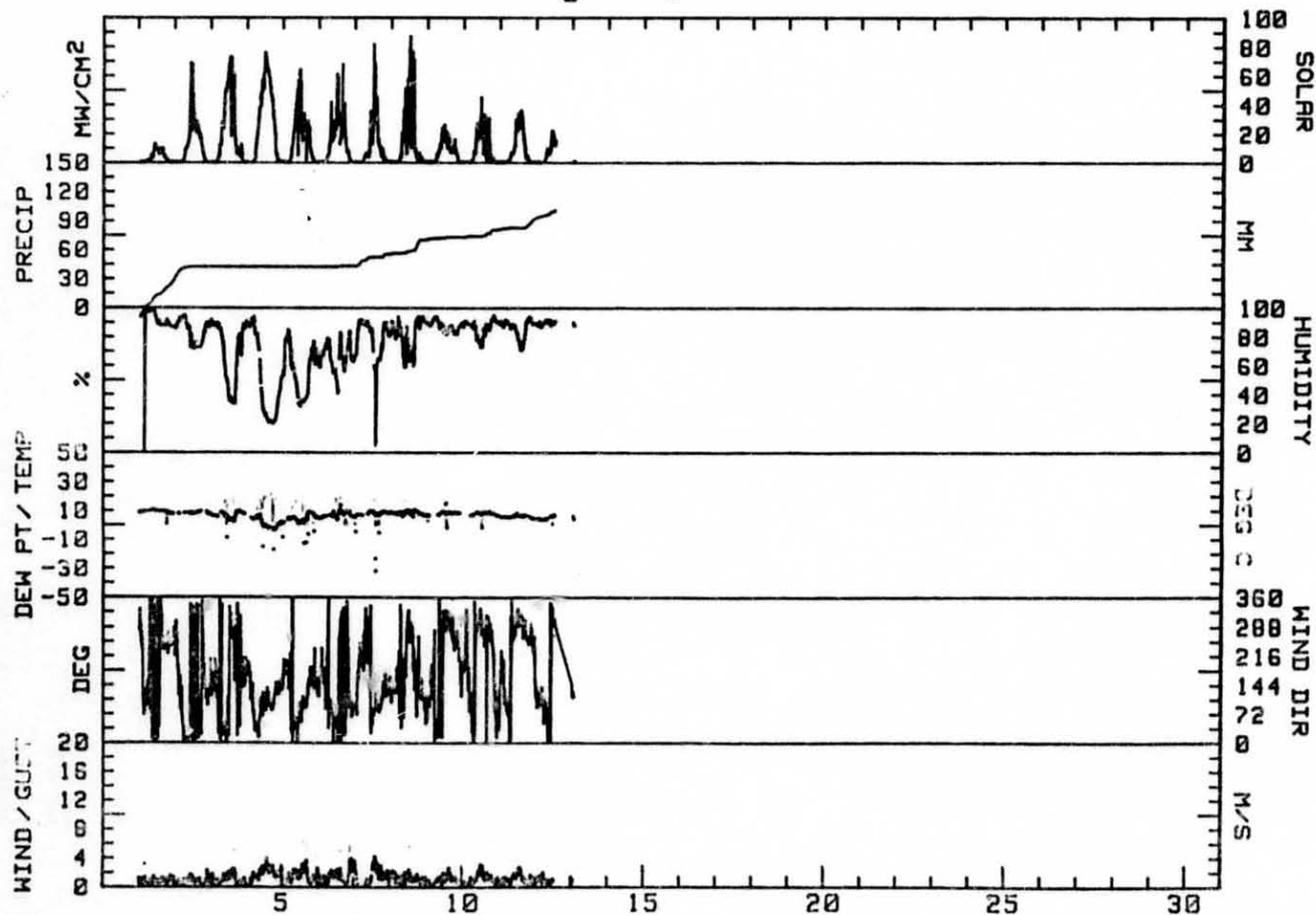
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQ	DAY
1	12.2	1.0	6.6	291	.3	.8	092	3.2	WSW	92	9.5	32.2	913	1
2	14.4	9.0	11.7	053	.3	.9	137	3.2	NNE	84	8.8	10.2	3085	2
3	20.9	1.0	11.0	065	.1	1.1	156	5.1	SSE	70	6.0	0.0	4983	3
4	21.9	.3	11.1	106	1.6	1.9	098	57.0	ESE	60	.7	0.0	6248	4
5	20.4	1.0	10.7	111	1.0	1.5	071	33.2	S	67	4.0	0.0	3875	5
6	19.0	1.0	10.0	098	.7	1.5	067	10.8	ESE	86	7.3	.8	3439	6
7	17.6	.3	9.0	118	1.1	1.6	112	7.0	ESE	89	7.1	12.8	2458	7
8	16.4	8.7	12.6	160	.5	1.3	260	5.7	SE	82	9.0	15.0	3525	8
9	18.0	1.0	9.5	298	.5	1.0	292	4.4	NNE	97	9.0	2.2	1834	9
10	13.5	1.3	7.4	291	.6	1.2	317	5.1	WNW	87	8.5	8.0	2313	10
11	12.2	6.5	9.4	290	.6	1.1	304	5.1	W	87	6.7	12.2	2173	11
12	8.7	.6	4.7	095	.6	1.0	120	3.2	ESE	90	5.1	7.2	1798	12
13	6.6	6.5	6.6	126	.8	.8	127	1.9	ESE	89	4.7	****	144	13
14	****	****	****	***	****	****	***	****	***	**	****	****	****	14
15	****	****	****	***	****	****	***	****	***	**	****	****	****	15
16	****	****	****	***	****	****	***	****	***	**	****	****	****	16
17	****	****	****	***	****	****	***	****	***	**	****	****	****	17
18	****	****	****	***	****	****	***	****	***	**	****	****	****	18
19	****	****	****	***	****	****	***	****	***	**	****	****	****	19
20	****	****	****	***	****	****	***	****	***	**	****	****	****	20
21	****	****	****	***	****	****	***	****	***	**	****	****	****	21
22	****	****	****	***	****	****	***	****	***	**	****	****	****	22
23	****	****	****	***	****	****	***	****	***	**	****	****	****	23
24	****	****	****	***	****	****	***	****	***	**	****	****	****	24
25	****	****	****	***	****	****	***	****	***	**	****	****	****	25
26	****	****	****	***	****	****	***	****	***	**	****	****	****	26
27	****	****	****	***	****	****	***	****	***	**	****	****	****	27
28	****	****	****	***	****	****	***	****	***	**	****	****	****	28
29	****	****	****	***	****	****	***	****	***	**	****	****	****	29
30	****	****	****	***	****	****	***	****	***	**	****	****	****	30
31	****	****	****	***	****	****	***	****	***	**	****	****	****	31
MONTH	21.9	.3	9.2	107	.3	1.2	098	57.0	ESE	82	6.7	100.6	36784	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 4.4

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE NOTES AT THE BACK OF THIS REPORT \*\*\*\*

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
August, 1981



R & M CONSULTANTS, INC.

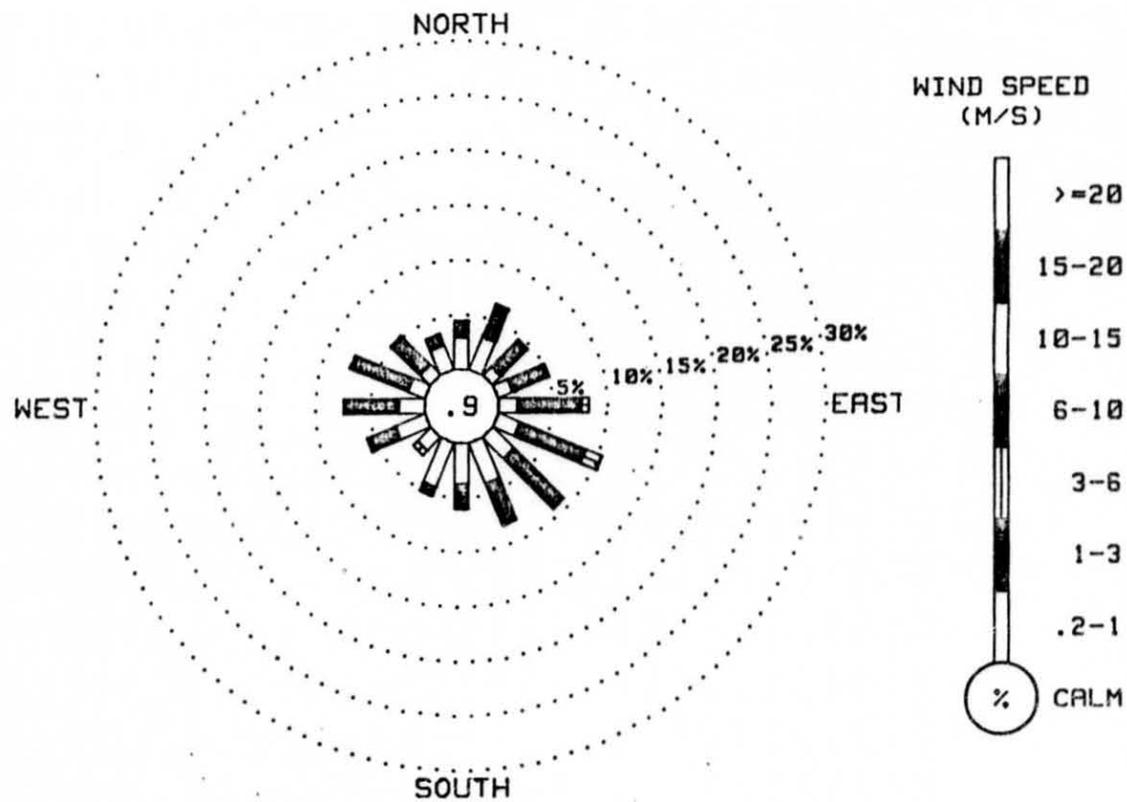
SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING August, 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	
N	2.98	1.27	0.00	0.00	0.00	0.00	.18	4.43
NNE	3.35	3.07	0.00	0.00	0.00	0.00	0.00	6.42
NE	1.08	3.53	0.00	0.00	0.00	0.00	0.00	4.61
ENE	1.45	3.44	.18	0.00	0.00	0.00	0.00	5.06
E	1.81	5.79	.72	0.00	0.00	0.00	0.00	8.32
ESE	2.17	6.51	1.54	0.00	0.00	0.00	.09	10.31
SE	2.71	6.42	.09	0.00	0.00	0.00	0.00	9.22
SSE	3.98	4.07	0.00	0.00	0.00	0.00	.09	8.14
S	3.71	2.26	0.00	0.00	0.00	0.00	0.00	5.97
SSW	4.34	.81	0.00	0.00	0.00	0.00	0.00	5.15
SW	1.72	.54	0.00	0.00	0.00	0.00	0.00	2.26
WSW	2.89	2.80	0.00	0.00	0.00	0.00	0.00	5.70
W	2.35	4.88	0.00	0.00	0.00	0.00	.18	7.41
WNW	1.72	5.70	0.00	0.00	0.00	0.00	0.00	7.41
NW	1.36	3.35	.18	0.00	0.00	0.00	.27	5.15
NNW	2.44	1.08	0.00	0.00	0.00	0.00	0.00	3.53
CALM								.90
TOTAL	40.05	55.52	2.71	0.00	0.00	0.00	.81	100.00

NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT  
 1106 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.  
 SUSITNA HYDROELECTRIC PROJECT  
 DEVIL CANYON WEATHER STATION  
 August, 1981







## R &amp; M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING September, 1981

DAY 10

DAY 11

DAY 12

HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.			
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.		GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S		DIR. DEG.	GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.
0300	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
0600	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
0900	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
1200	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
1500	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
1800	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
2100	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***
2400	****	****	**	***	****	***	****	****	****	**	***	****	***	****	****	****	**	***	****	***	****	***

DAY 13

DAY 14

DAY 15

HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.					
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.		GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S		DIR. DEG.	GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S	
0300	****	****	**	***	****	***	0300	****	****	**	***	****	***	0300	5.2	1.2	75	167	1.0	121	2.5	1		
0600	****	****	**	***	****	***	0600	****	****	**	***	****	***	0600	7.0	1.9	70	158	1.0	152	2.5	1		
0900	****	****	**	***	****	***	0900	****	****	**	***	****	***	0900	6.9	****	87	141	.6	146	2.5	18		
1200	****	****	**	***	****	***	1200	11.0	-1.2	43	046	.8	088	2.5	29	1200	9.9	4.1	67	054	.9	066	3.2	25
1500	****	****	**	***	****	***	1500	14.0	-6.9	23	070	1.3	092	5.7	17	1500	11.0	3.3	59	056	1.4	035	3.8	5
1800	****	****	**	***	****	***	1800	12.7	-8.0	23	073	2.0	076	5.7	4	1800	7.1	5.5	90	216	.5	193	1.9	2
2100	****	****	**	***	****	***	2100	8.1	-3.8	43	127	2.2	121	5.1	1	2100	5.0	3.5	90	177	1.0	184	2.5	1
2400	****	****	**	***	****	***	2400	4.7	****	61	148	1.2	169	2.5	1	2400	3.4	****	90	145	.9	137	2.5	1

DAY 16

DAY 17

DAY 18

HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.		HOUR NDNG	DEW		WIND		GUST MAX.							
	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.		GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S		DIR. DEG.	GUST M/S	TEMP. DEG C	POINT DEG C	RH %	DIR. DEG.	SPD. M/S	DIR. DEG.	GUST M/S			
0300	3.4	****	91	119	.8	120	2.5	1	0300	5.3	****	82	203	.7	149	1.9	1	0300	6.8	-1.6	55	114	1.0	063	4.4	1
0600	3.4	2.0	91	096	1.0	074	3.2	2	0600	4.0	****	89	188	.7	195	1.3	2	0600	6.2	****	77	141	1.1	114	5.7	3
0900	6.5	****	84	069	.7	074	2.5	16	0900	9.9	****	53	154	.1	138	1.9	30	0900	10.5	.2	49	118	1.5	103	5.7	29
1200	11.2	-.4	45	040	.8	045	3.2	17	1200	12.2	-1.8	38	063	.9	071	3.2	43	1200	11.1	.2	47	106	2.4	095	6.3	20
1500	10.8	.5	49	310	.6	283	3.2	8	1500	14.4	-4.5	27	344	1.1	047	5.1	30	1500	10.5	****	59	105	1.2	116	3.8	10
1800	7.9	1.3	63	250	1.7	270	4.4	2	1800	12.6	-6.0	27	039	2.0	008	6.3	3	1800	8.5	2.6	66	212	.5	285	1.9	1
2100	6.3	****	76	201	.7	244	2.5	1	2100	6.8	****	48	120	.4	016	4.4	1	2100	6.9	5.0	88	144	1.3	142	3.2	1
2400	5.1	****	82	201	.8	231	1.9	1	2400	5.3	****	60	156	.9	119	2.5	1	2400	6.6	5.1	90	152	.7	115	2.5	1

## R &amp; M CONSULTANTS, INC.

## SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING September, 1981

DAY 19

DAY 20

DAY 21

DAY 19										DAY 20										DAY 21									
HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	6.6	5.2	91	196	1.0	208	2.5	1	0300	3.9	****	90	107	.9	110	2.5	1	0300	.6	-9	90	113	.8	130	2.5	1			
0600	7.4	4.9	84	174	1.0	144	2.5	1	0600	4.2	2.2	87	092	.8	080	1.9	2	0600	1.3	-3	89	082	.6	077	1.9	1			
0900	7.3	5.4	88	144	.8	130	2.5	5	0900	7.2	3.1	75	085	.9	073	3.2	31	0900	3.5	1.5	87	052	.8	098	3.2	17			
1200	8.8	****	86	167	.5	137	2.5	11	1200	8.4	****	73	090	1.2	096	3.8	6	1200	8.3	****	61	303	.8	317	2.5	17			
1500	7.9	6.3	99	236	.2	195	3.2	7	1500	6.2	4.2	87	153	.4	248	5.7	4	1500	8.0	-5	55	083	1.4	090	5.1	18			
1800	7.2	5.5	89	125	.8	137	2.5	1	1800	4.9	2.6	85	106	1.0	082	3.8	1	1800	6.6	-4.6	45	022	2.1	022	7.0	2			
2100	5.7	****	88	180	.8	146	2.5	1	2100	2.6	****	90	138	1.4	114	2.5	1	2100	4.9	-5.5	47	042	1.8	029	7.0	1			
2400	4.4	2.2	86	120	1.1	143	2.5	1	2400	1.1	****	90	126	1.1	142	2.5	1	2400	2.6	-3.5	64	136	.7	091	4.4	1			

DAY 22

DAY 23

DAY 24

DAY 22										DAY 23										DAY 24									
HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	.1	-2.8	81	149	.9	173	1.9	1	0300	.4	-1.7	86	084	1.0	084	2.5	1	0300	-1	****	96	073	.1	084	1.3	1			
0600	-1.6	-3.7	96	146	1.2	170	2.5	2	0600	.3	-1.8	86	075	1.1	080	3.2	1	0600	.1	****	98	331	.1	076	1.9	1			
0900	3.9	****	60	146	.2	127	2.5	27	0900	1.5	-1.2	82	052	1.0	100	2.5	15	0900	.3	****	92	265	.3	192	1.3	2			
1200	6.8	-6.3	39	303	.5	249	2.5	40	1200	4.5	****	69	024	-1.1	028	3.2	9	1200	2.0	****	81	289	.1	255	1.3	7			
1500	7.9	-7.1	34	281	1.3	287	3.8	23	1500	2.8	1.3	90	311	.6	302	3.2	4	1500	2.6	****	73	054	.1	108	1.9	17			
1800	4.3	-6.1	47	240	1.1	272	3.8	1	1800	.3	****	91	187	.1	106	1.9	1	1800	-1	****	87	120	.7	135	2.5	1			
2100	1.2	****	65	173	1.1	190	2.5	1	2100	0.0	****	89	049	.1	061	1.9	1	2100	-1.6	-4.9	78	125	1.3	118	3.2	1			
2400	1.2	****	71	172	.4	138	2.5	1	2400	.1	****	94	063	.2	081	1.9	1	2400	-2.6	****	89	133	.9	119	2.5	1			

DAY 25

DAY 26

DAY 27

DAY 25										DAY 26										DAY 27									
HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.		HOUR	DEW		WIND		GUST MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD			
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW			
0300	-2.8	****	90	157	.7	171	1.9	1	0300	-7.6	****	83	085	1.6	091	4.4	1	0300	-7.5	-11.7	72	087	1.7	082	3.8	1			
0600	-2.8	****	89	126	.8	126	2.5	1	0600	-8.3	-10.8	82	104	1.6	107	3.8	1	0600	-9.3	-12.3	79	075	1.8	086	3.2	1			
0900	.8	****	75	108	.6	111	2.5	21	0900	-4.5	-11.1	60	069	1.8	069	3.8	32	0900	-3.9	-12.6	51	064	2.1	071	3.8	30			
1200	3.9	****	40	317	.4	346	2.5	43	1200	.9	-11.3	40	063	1.6	093	3.8	38	1200	-3	-11.5	43	101	2.0	105	4.4	33			
1500	3.5	-12.2	31	078	1.2	113	3.8	15	1500	1.3	-10.9	40	139	2.2	136	4.4	12	1500	.7	-10.9	42	119	2.0	102	4.4	9			
1800	-5	-9.4	51	128	1.2	955	3.2	1	1800	-3.1	-12.1	50	138	1.4	127	3.8	1	1800	-5	-9.7	50	113	1.4	139	3.8	1			
2100	-2.9	-8.5	65	127	1.4	143	3.2	1	2100	-5.2	-11.1	63	121	2.0	112	3.8	1	2100	-1.6	****	75	122	1.0	107	2.5	1			
2400	-5.0	-10.7	64	092	1.6	115	4.4	1	2400	-6.3	-10.8	70	080	1.2	122	3.8	1	2400	-2.9	-6.9	74	117	.9	104	1.9	1			

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING September, 1981

DAY 28

DAY 29

DAY 30

DAY 28									DAY 29									DAY 30								
HR	DEW	WIND	WIND	GUST MAX.		HR	DEW	WIND	WIND	GUST MAX.		HR	DEW	WIND	WIND	GUST MAX.										
NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD	NDNG	TEMP.	POINT	RH	DIR.	SPD.	DIR.	GUST	RAD
	DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW		DEG C	DEG C	%	DEG.	M/S	DEG.	M/S	MW
0300	-5.4	-7.8	83	125	1.3	138	2.5	1	0300	-2.5	-12.6	46	149	1.2	113	4.4	1	0300	.4	-9.7	47	145	1.4	162	3.2	1
0600	-7.4	****	91	141	1.1	128	2.5	1	0600	-2.0	-12.7	44	131	1.7	153	3.8	2	0600	1.3	-8.6	48	145	1.1	196	3.2	1
0900	-1.5	****	54	221	.3	172	2.5	25	0900	.9	-12.0	38	103	2.7	106	8.9	36	0900	4.0	-7.2	44	111	1.6	116	3.8	16
1200	.9	-10.4	43	095	2.7	075	7.0	35	1200	1.7	-11.2	38	099	3.6	103	9.5	31	1200	6.4	-6.3	40	108	1.5	071	6.3	27
1500	.9	-10.7	42	085	3.3	107	7.6	13	1500	2.6	-10.4	38	081	2.6	107	7.0	13	1500	****	****	**	***	****	100	3.2	***
1800	.1	-11.4	42	078	2.7	082	7.6	1	1800	.6	-10.1	45	102	2.3	117	5.7	1	1800	****	****	**	***	****	***	****	***
2100	.1	-11.1	43	120	3.0	107	7.0	1	2100	-.3	****	48	121	1.4	108	5.1	1	2100	****	****	**	***	****	***	****	***
2400	-.9	-12.0	43	094	2.7	096	7.0	1	2400	-.1	-9.9	48	147	1.5	144	3.2	1	2400	****	****	**	***	****	***	****	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR DEVIL CANYON WEATHER STATION  
 DATA TAKEN DURING September, 1981

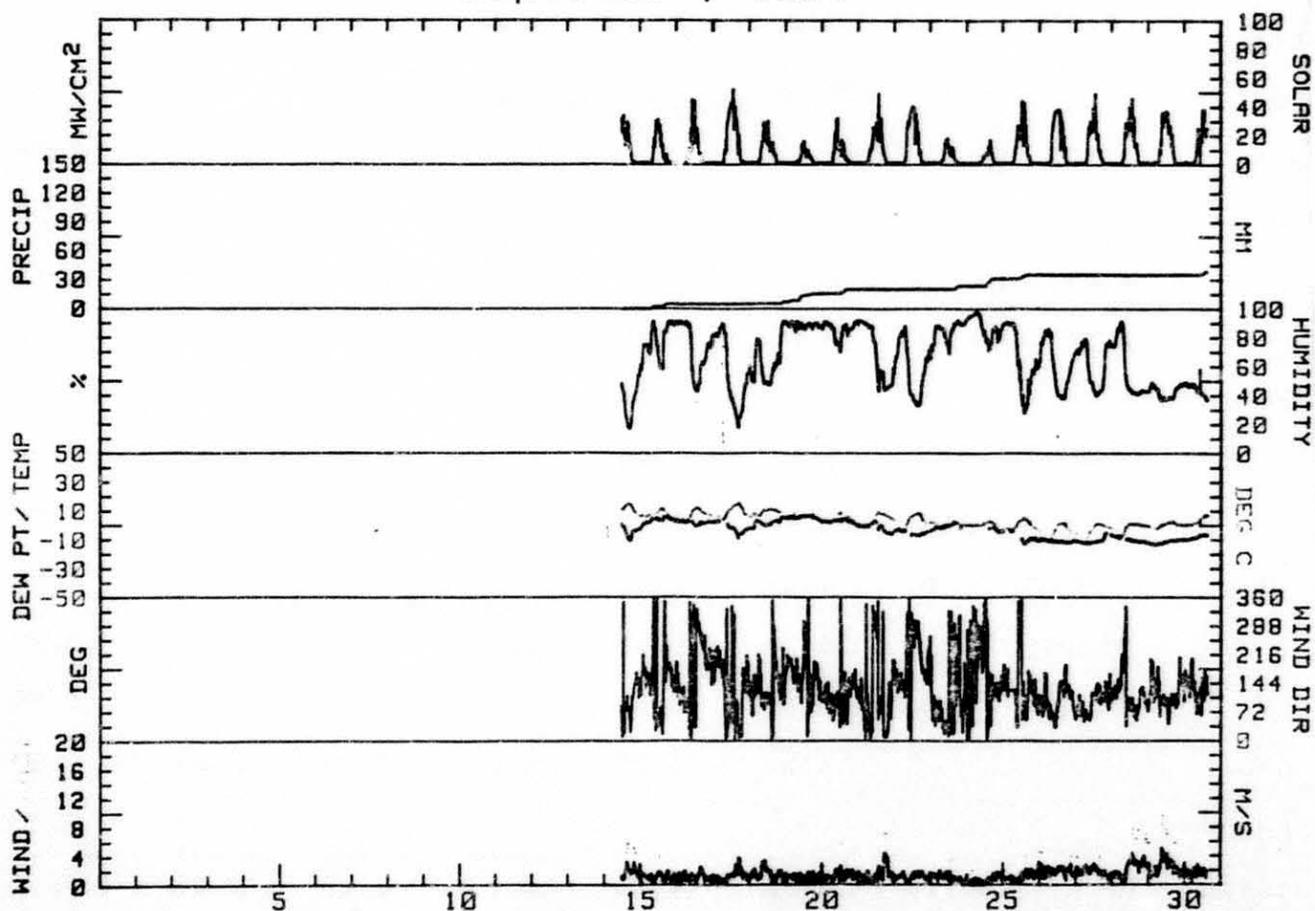
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM
1	****	****	****	***	****	****	***	****	***	**	****	****	****
2	****	****	****	***	****	****	***	****	***	**	****	****	****
3	****	****	****	***	****	****	***	****	***	**	****	****	****
4	****	****	****	***	****	****	***	****	***	**	****	****	****
5	****	****	****	***	****	****	***	****	***	**	****	****	****
6	****	****	****	***	****	****	***	****	***	**	****	****	****
7	****	****	****	***	****	****	***	****	***	**	****	****	****
8	****	****	****	***	****	****	***	****	***	**	****	****	****
9	****	****	****	***	****	****	***	****	***	**	****	****	****
10	****	****	****	***	****	****	***	****	***	**	****	****	****
11	****	****	****	***	****	****	***	****	***	**	****	****	****
12	****	****	****	***	****	****	***	****	***	**	****	****	****
13	****	****	****	***	****	****	***	****	***	**	****	****	****
14	14.7	4.7	9.7	100	1.3	1.8	092	5.7	E	36	-5.0	0.0	2762
15	11.2	3.4	7.3	136	.6	1.0	035	3.8	S	78	3.1	4.6	1648
16	12.0	3.1	7.6	166	.2	1.0	270	4.4	E	72	1.6	.2	1865
17	15.3	4.0	9.7	077	.3	1.2	008	6.3	S	55	-3.1	0.0	3270
18	11.3	5.8	8.6	125	1.1	1.4	095	6.3	ESE	64	1.2	2.4	1643
19	8.9	3.8	6.4	160	.7	.9	195	3.2	SSE	89	4.9	8.6	870
20	8.7	.8	4.8	110	.9	1.2	248	5.7	ESE	85	2.5	4.2	1299
21	9.2	.2	4.7	055	.8	1.4	022	7.0	NNE	68	-2.3	.2	2148
22	9.5	-1.9	3.3	200	.5	1.0	287	3.8	SE	59	-5.2	0.0	2698
23	4.7	-1	2.3	051	.5	.9	080	3.2	ENE	85	-1.4	3.6	990
24	2.9	-2.7	.1	126	.3	.6	118	3.2	SE	87	-3.5	7.4	798
25	5.2	-5.0	.1	111	.8	1.1	115	4.4	SE	64	-10.0	4.0	2223
26	1.6	-8.8	-3.6	102	1.5	1.8	091	4.4	ENE	61	-11.0	0.0	2808
27	.9	-9.4	-4.3	096	1.5	1.7	105	4.4	ESE	61	-10.9	0.0	2298
28	1.3	-7.8	-3.3	101	2.0	2.2	107	7.6	E	57	-10.0	0.0	2413
29	2.7	-3.8	-.6	110	2.0	2.3	103	9.5	ESE	43	-11.3	0.0	2513
30	7.2	-1.6	2.8	117	1.3	1.7	071	6.3	ESE	45	-7.5	3.2	2053
MONTH	15.3	-9.4	3.3	109	.8	1.3	103	9.5	ESE	66	-4.0	38.4	34492

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3  
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.9  
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.9  
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

\*\*\*\* SEE NOTES AT THE BACK OF THIS REPORT \*\*\*\*

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
September, 1981



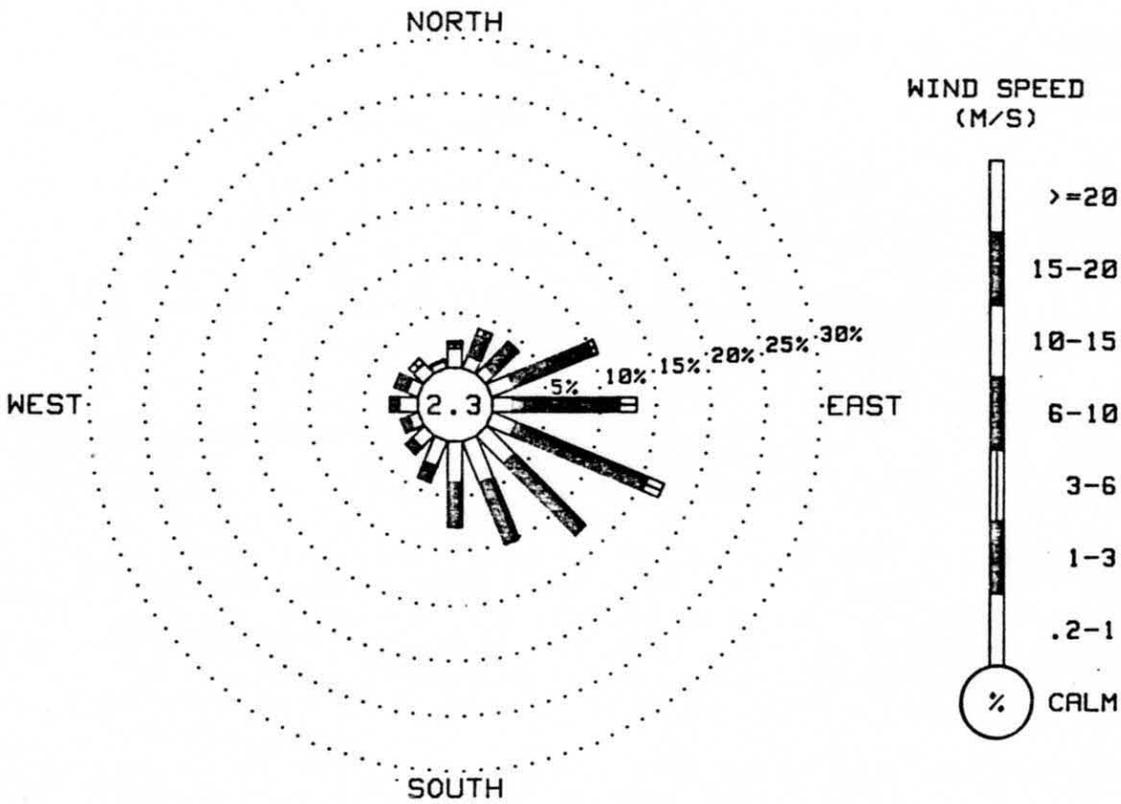
R & M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR DEVIL CANYON WEATHER STATION  
DATA TAKEN DURING September, 1981

DIRECTION	VELOCITY (M/S)							TOTAL
	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	
N	1.76	.38	.25	0.00	0.00	0.00	0.00	2.39
NNE	1.26	1.95	.63	0.00	0.00	0.00	0.00	3.84
NE	1.13	2.89	.06	0.00	0.00	0.00	0.00	4.09
ENE	2.20	7.74	.50	0.00	0.00	0.00	0.00	10.45
E	1.89	9.75	1.57	0.00	0.00	0.00	0.00	13.22
ESE	2.39	12.96	1.64	0.00	0.00	0.00	0.00	16.99
SE	3.59	9.13	.06	0.00	0.00	0.00	0.00	12.78
SSE	4.09	6.04	0.00	0.00	0.00	0.00	0.00	10.13
S	3.78	4.03	0.00	0.00	0.00	0.00	0.00	7.80
SSW	2.52	1.51	0.00	0.00	0.00	0.00	0.00	4.03
SW	1.57	.82	0.00	0.00	0.00	0.00	0.00	2.39
WSW	1.01	.76	0.00	0.00	0.00	0.00	0.00	1.76
W	1.83	.82	0.00	0.00	0.00	0.00	0.00	2.64
WNW	1.20	1.20	0.00	0.00	0.00	0.00	0.00	2.39
NW	1.32	.63	0.00	0.00	0.00	0.00	0.00	1.95
NNW	.69	.13	0.00	0.00	0.00	0.00	0.00	.82
CALM								2.33
TOTAL	32.22	60.73	4.72	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT  
1589 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.  
SUSITNA HYDROELECTRIC PROJECT  
DEVIL CANYON WEATHER STATION  
September, 1981



WIND ROSE PLOT

\*\*\*\*\*  
R & M CONSULTANTS, INC.

CLIMATE DATA SUMMARIES  
DOCUMENTATION  
\*\*\*\*\*

A. GRAPHICAL DATA PLOT

1. GRAPHICAL REPRESENTATION OF VALID RECORDED AND/OR COMPUTED DATA.

B. HOURLY PRECIPITATION SUMMARY TABLE

1. HOURLY PRECIPITATION VALUES ARE CALCULATED AS THE DIFFERENCE BETWEEN VALID CONSEQUITIVE HOURLY READINGS. WHEN EITHER OF THE HOURLY PRECIPITATION READINGS IS INVALID, NO VALUE IS REPORTED AND ZERO PRECIPITATION IS ASSUMED.
2. A NON-AUTOMATIC ROLL-OVER TO ZERO, AS WHEN THE TAPE IS CHANGED, MUST BE FLAGGED WITH A NEGATIVE ONE (-1) AS THE PRECIPITATION VALUE.

C. MONTHLY SUMMARY TABLE

1. MAXIMUM DAILY AND MONTHLY TEMPERATURES ARE DETERMINED FROM ALL VALID RECORDED TEMPERATURES.
2. MINIMUM DAILY AND MONTHLY TEMPERATURES ARE DETERMINED FROM ALL VALID RECORDED TEMPERATURES.
3. MEAN DAILY AND MONTHLY TEMPERATURES ARE DETERMINED FROM ALL VALID RECORDED TEMPERATURES. THE MEAN DAILY TEMPERATURE IS DETERMINED FROM THE MEAN OF THE MAXIMUM AND MINIMUM TEMPERATURES. THE MEAN MONTHLY TEMPERATURE IS DETERMINED FROM THE MEAN OF ALL REPORTED DAILY MEAN TEMPERATURES.
4. RESULTANT DAILY AND MONTHLY WIND DIRECTIONS AND SPEEDS ARE SUMMED VECTORIALLY FROM ALL VALID READINGS.
5. AVERAGE DAILY AND MONTHLY WIND SPEEDS ARE ARITHMETICALLY MEANED FROM ALL VALID READINGS.
6. MAXIMUM DAILY AND MONTHLY GUST SPEEDS ARE DETERMINED FROM ALL VALID READINGS. ASSOCIATED DIRECTIONS ARE THE RESULTANT DIRECTIONS FROM THE RECORDING INTERVAL IN WHICH THE PEAK INTERVAL GUST WAS OBSERVED.
7. PREVAILING DAILY AND MONTHLY DIRECTIONS ARE DETERMINED FROM ALL VALID READINGS. THE REPORTED VALUE IS THE MOST FREQUENT DIRECTION OBSERVED.
8. MEAN DAILY AND MONTHLY RELATIVE HUMIDITIES ARE DETERMINED FROM ALL VALID READINGS. (ARITHMETIC MEAN)
9. MEAN DAILY AND MONTHLY DEWPOINT TEMPERATURES ARE DETERMINED FROM ALL VALID READINGS. (ARITHMETIC MEAN) WHEN THE WIND SPEED IS LESS THAN 1 m/s, WHEN THE DEWPOINT CALCULATES TO A VALUE GREATER THAN THE RECORDED TEMPERATURE, WHEN OR THE DEWPOINT CALCULATES TO LESS THAN MINUS 47 DEGREES OR MORE THAN 27 DEGREES, THE DEWPOINT IS NOT USED.
10. DAILY AND MONTHLY PRECIPITATION VALUES ARE DETERMINED FROM ALL VALID READINGS.
11. DAILY AND MONTHLY SOLAR ENERGY VALUES ARE DETERMINED FROM ALL VALID

READINGS. DAILY SOLAR ENERGY IS DETERMINED BY AVERAGING THE RECORDED SOLAR INTENSITY AND CONVERTING THE UNITS. THE MONTHLY VALUE IS THE SUM OF THE DAILY VALUES.

D. THREE HOUR SUMMARY TABLES

1. THE TEMPERATURE REPORTED IS THE TEMPERATURE RECORDED AT THE SPECIFIED TIME.
2. THE DEWPOINT TEMPERATURE REPORTED IS THE DEWPOINT CALCULATED AT THE SPECIFIED TIME. DEWPOINTS ARE OMITTED WHEN THE WIND SPEED IS LESS THAN 1m/s, WHEN THE DEWPOINT IS CALCULATED TO A VALUE GREATER THAN THE RECORDED TEMPERATURE, OR WHEN THE DEWPOINT CALCULATES TO LESS THAN MINUS 47 DEGRESS OR MORE THAN 27 DEGREES.
3. THE RELATIVE HUMIDITY REPORTED IS THE HUMIDITY RECORDED AT THE SPECIFIED TIME.
4. THE WIND DIRECTION REPORTED IS THE THREE-HOUR VECTORIAL RESULTANT SUM OF DATA RECORDED UP TO THE SPECIFIED TIME.
5. THE WIND SPEED REPORTED IS THE THREE-HOUR VECTORIAL RESULTANT OF DATA RECORDED UP TO THE SPECIFIED TIME.
6. THE GUST DIRECTION REPORTED IS THE DIRECTION OF THE MAXIMUM GUST RECORDED DURING THE PRECEDING THREE-HOUR PERIOD.
7. THE GUST REPORTED IS THE MAXIMUM RECORDED DURING THE THREE-HOUR PERIOD.
8. THE RADIATION REPORTED IS THE SOLAR RADIATION INTENSITY RECORDED AT THE SPECIFIED TIME.

E. WIND FREQUENCY SUMMARY TABLE

1. REPORTED DATA ARE DETERMINED FROM ALL VALID READINGS.

F. WIND ROSE GRAPHICAL PLOT

1. PLOT IS A GRAPHICAL REPRESENTATION OF THE WIND FREQUENCY SUMMARY TABLE.

## G. GENERAL NOTES

1. THE FIRST DAY OF EACH MONTH MUST HAVE THE PRECEDING DAY'S LAST READING, AT 2400 HOURS, INSERTED AS THE FIRST READING OF THE FIRST DAY OF THE MONTH, AT 0000 HOURS, PRIOR TO RUNNING THE SUMMARY. THIS PROVIDES AN INITIAL VALUE FOR PRECIPITATION SUMMARY TABLE.
2. FLAGGED DATA IS NOT USED. WHEN AN ENTIRE LINE IS FLAGGED, NO DATA IN THAT LINE IS USED.
3. BAD DATA CAN BE USER-FLAGGED AS BEING BAD DATA BY REPLACING THE RAW DATA WITH THE VALUE '999'.
4. MISSING DATA IS ASSUMED TO BE BAD DATA.
5. IF A DATA LINE IS SHIFTED OVER AT ANY POINT, THE ENTIRE LINE WILL BE TREATED AS BAD DATA.
6. THE FOLLOWING ARE THE VALID DATA RANGES; DATA OUTSIDE THESE RANGES ARE NOT USED:

TIME : 0000 through 2400 - at specified time intervals.  
TEMP : -50 through +35  
WIND : 0 through 99.9 and less than or equal to GUST  
DIR : 0 through 360  
RH : 0 through 99  
PRCP : 0 through 99.8 & greater than last PRCP except in the case of an automatic roll-over. The difference between PRCPs cannot exceed 30mm. A '-1' implies a manual re-start.  
SOL : 0 through 150  
GUST : 0 through 99.9  
BATT : 9 through 14.5

7. THE FOLLOWING ARE THE DIRECTION RANGES USED IN THE PREVAILING DIRECTION, WIND FREQUENCY AND WIND ROSE SUMMARIES:

DIRECTION	COMPASS HEADING
NORTH	350 through 11
NORTH-NORTHEAST	12 through 34
NORTHEAST	35 through 56
EAST-NORTHEAST	57 through 79
EAST	80 through 101
EAST-SOUTHEAST	102 through 124
SOUTHEAST	125 through 146
SOUTH-SOUTHEAST	147 through 169
SOUTH	170 through 191
SOUTH-SOUTHWEST	192 through 214
SOUTHWEST	215 through 236
WEST-SOUTHWEST	237 through 259
WEST	260 through 281
WEST-NORTHWEST	282 through 304
NORTHWEST	305 through 326
NORTH-NORTHWEST	327 through 349