

**SUSITNA
HYDROELECTRIC PROJECT**
FEDERAL ENERGY REGULATORY COMMISSION
PROJECT NUMBER 7114

**GLACIAL LAKE PHYSICAL
LIMNOLOGY STUDIES:
EKLUTNA LAKE, ALASKA**

VOLUME 2

APPENDICES

PREPARED BY:

R&M
R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS
ANCHORAGE, ALASKA

UNDER CONTRACT TO:

HARZA-EBASCO

SUSITNA JOINT VENTURE
ANCHORAGE, ALASKA

DRAFT REPORT

JUNE 1985

DOCUMENT NO.

ALASKA POWER AUTHORITY

**ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT
Federal Energy Regulatory Commission
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Prepared By:
R&M Consultants, Inc.
Anchorage, Alaska

Under Contract To:
Harza-Ebasco Susitna Joint Venture
Anchorage, Alaska

APPENDIX A
SUMMARY OF DATA COLLECTED
IN EKLUTNA LAKE

TABLE A.1
SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Sample Stations and Depth of Sample					Remarks
		Temp. & Cond	Secchi Disk	Turbidity	ISS	Quantum	
12/10/82							Pickup Ryans from lake
01/11/83	JB, CL						
01/13/83	BJ, CL	5, 9 & 11					
02/15/83	RFB, CL						
02/18/83		5, 9 & 11					
03/21/83	JB, J						
03/29/83	JB, J	13				13	
04/30/83	JB, J						
05/14/83	JB, J, RFB	5 & 9	5 & 9				
06/01/83	JB, J, LF						
06/02/83	JB, J, LF	2, 5, 7, 9 10, 11, 13 & 15	2, 5, 7, 9 10, 11, 13 & 15			7	Install- ed Ryans at Sta 9
06/17/83	JB, J						
07/05/83	JB, J, LF						
07/06/83	JB, J, LF	2, 3, 5, 7, 9, 11, 13 & 15	2, 3, 5, 7, 9 11 & 13				
08/02/83	RFB, JB, J	2, 5, 7, 9, 10 11 & 15	2, 7 & 11			2, 7 & 11	
08/03/83	RFB, JB, J						
09/07/83	RFB, LF	2, 5, 7, 8, 9, 10, 11 & 15	2, 7, 9, 11 & 15			15	
09/08/83	RFB, LF						
10/05/83	RFB, JC	2, 5, 7, 8, 9 11 & 15	2, 5, 7, 8, 9, 11 & 15				
10/06/83	RFB, JC						
11/01/83	RFB, LS	2, 5, 7, 9, 11 & 15	2, 5, 7, 9, 11 & 15				
12/03/83	JC						Ice Obsv.
12/04/83							
12/06/83	JC, LS	15	15				Ice Obsv.
01/12/84	JC, LS						Ice Obsv.
01/16/84	JC, LS	5, 9 & 15					
02/16/84	RFB, LS	5, 9 & 15					Ice Obsv.
03/23/84	RFB, BCP	2, 5, 9 & 15					

NOTE: Percent transmittance was measured at Station 13 on March 29, 1983.

TABLE A.1, cont.
SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Sample Stations and Depth of Sample							Remarks
		Temp. & Cond	Secchi Disk	Turbidity		TSS		Quantum	
04/20/84	JC, WSA	11, 15	11, 15	11	1 & 5m	11	1 & 5m	11, 15	
				15	2 & 24m	15	2 & 24m		
05/17/84	JC, WSA	5, 9, 15	5, 9, 15	5	2 & 20m	5	2 & 20m	5, 9, 15	
				9	4 & 20m	9	4 & 20m		
					15 4m	15	4m		
06/05/84	RFB, BCP	2, 5, 9, 11, 15	2, 5, 9, 11, 15	2	0 & 13.5m	2	0 & 13.5m		Installed Ryan string
				5	0 & 9m	5	0 & 9m		
				9	0 & 13m	9	0 & 13m		
				11	0 & 3m	11	0 & 3m		
				15	0m	15	0m		
06/21/84	JC, SB	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	11m	1	11m	1, 2, 3, 9	
				2	10, 14, 20m	2	10, 14, 20m	15	
				3	2, 7, 12, 20m	3	2, 7, 12, 20m		
				9	2, 6, 20m	9	2, 6, 20m		
				15	4m	15	4m		
07/05/84	JC, SG	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	20m	1	20m	1, 2, 3, 9	
				2	4, 9, 20m	2	4, 9, 20m	15	
				3	2, 8, 16, 24m	3	2, 8, 16, 24m		
				9	2, 14, 32m	9	2, 14, 32m		
				15	4m	15	4m		
07/19/84	WSA, SG	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	2, 6m	1	2, 6m	1, 2, 3, 9	
				2	6, 10, 16, 28m	2	6, 10, 16, 28m	15	
				3	2, 8, 16, 28m	3	2, 8, 16, 28m		
				9	4, 16, 36m	9	4, 16, 36m		
				15	4m	15	4m		
08/03/84	WSA, MD	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	1, 3m	1	1, 3m	1, 2, 3, 9	
				2	4, 8, 16, 32m	2	4, 8, 16, 32m	15	
				3	2, 8, 16, 28m	3	2, 8, 16, 28m		
				9	6, 28m	9	6, 28m		
				15	4m	15	4m		
08/16/84	WSA, SG	15	15	15	Profile	15	6m	15	
08/17/84	WSA, SG	10, 11, 12, 13 14	10, 11, 12, 13 14	10	Profile	10	3m	10, 11, 12	
				11	Profile	11	6, 16, 36m	13, 14	
				12	Profile	12	2, 16m		
				13	Profile	13	2, 12, 24m		
				14	Profile	14	2, 10, 20m		

NOTE: Percent transmittance was measured at Stations 1, 2, 3, 9, and 15 on August 3, 1984
and at Station 15 on August 16, 1984 and Stations 10, 11, 12, 13, and 14 on August 17, 1984.

TABLE A.1, cont.
SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Sample Stations and Depth of Sample						Remarks	
		Temp. & Cond	Secchi Disk	Turbidity		TSS	Quantum		
08/18/84	SG, WSA	9	9	9	Profile	9	6,16,44m	9	
08/19/84	SF, WSA	5, 6, 7, 8	5, 6, 7, 8	5	Profile	5	4,24,44m	5, 6, 7, 8	Quantum meas. at 5&6 suspect.
				6	Profile	6	2,20,44m		
				7	Profile	7	6,20,40m		
				8	Profile	8	24,44m		
08/20/84	SF, WSA	1, 2, 3, 4	1, 2, 3, 4	1	Profile	1	6,12m		Quantum sensor not working
				2	Profile	2	2,16,36m		
				3	0,20,44m	3	6,20m		
				4	Profile	4	8,24,44m		
09/03/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	Profile	1	6,12,24m		No Quantum meas. instru. being re-calibrat.
				2	Profile	2	4,24,44m		
				3	Profile	3	0,20,44m		
				9	Profile	9	4,20,44m		
				15	Profile	15	4m		
09/15/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	1m	1	1m	1, 2, 3, 9	
				2	2,10,20m	2	2,10,20m	15	
				3	1,10,28m	3	1,10,28m		
				9	Profile	9	6,20,56m		
				15	Profile	15	6m		
10/01/84	JC, SG	1, 2, 3, 9, 15	1, 2, 3, 9	1	Profile	1	2m	1, 2, 3, 9	No Sta. 15 Quantum & secchi, too dark
				2	Profile	2	4,20m		
				3	Profile	3	4,16,28m		
				9	Profile	9	4,24,48,56m		
				15	4m	15	4m		
10/15/84	WSA, SG	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	1m	1	1m	1, 2, 3, 9	Pump did not work
				2	4,12,24,44m	2	4,12,24,44m		
				3	1,6,16,36m	3	1,6,16,36m		
				9	10,20,40,56m	9	10,20,40,56m		
				15	2,12m	15	2,12m		
10/29/84	SG, DS	1, 2, 3, 9 15	1, 2, 3, 9, 15	1	1m	1	1m	1, 2, 3, 9	Pump did not work
				2	4,12,28,40m	2	4,12,28,40m	15	
				3	4,16,32,44m	3	4,16,32,44m		
				9	6,20,36,52m	9	6,20,36,52m		
				15	2,12m	15	2,12m		
11/12/84	SG, RFB	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	1m	1	1m	1, 2, 3, 9	too cold to run nephelometer.
				2	4,16,28,40m	2	4,16,40m	15	
				3	4,16,28,40m	3	4,16,40m		
				9	4,16,32,48m	9	4,16,48m		
				15	1,12m	15	1m		

NOTE: Percent transmittance was measured at Stations 9 on August 18, 1984; 5, 6, 7 and 8 on August 19, 1984; and 1, 2, 3, and 9 on August 20, 1984.

TABLE A.1, cont.
 SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
 December 10, 1982 to November 26, 1984

<u>Date</u>	<u>Personnel</u>	<u>Sample Stations and Depth of Sample</u>					<u>Quantum</u>	<u>Remarks</u>
		<u>Temp. & Cond</u>	<u>Secchi Disk</u>	<u>Turbidity</u>		<u>ISS</u>		
11/26/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1	1m	1	1m	Pulled Ryans. too cold to run nephele- meter.
				2	4,12,40m	2	4,12,40m	
				3	4,20,40m	3	4,20,40m	
				9	2,16,32,52m	9	2,16,32,52m	
				15	10m	15	10m	
							1, 2, 3, 9 15	

APPENDIX B

WEATHER DATA SUMMARIES

TABLE B.1

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKIUTNA WEATHER STATION
DATA TAKEN DURING December, 1982

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	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SDN	DAY
1	-12.6	-15.3	-14.0	131	.5	.7	356	3.2	SE	**	*****	****	348	1
2	-14.1	-26.1	-20.1	143	.6	.7	112	2.5	SSE	**	*****	****	340	2
3	-21.1	-27.0	-24.1	149	.8	.9	156	2.5	SSE	**	*****	****	338	3
4	1.0	-26.7	-12.9	138	.7	.7	138	5.7	SE	**	*****	****	335	4
5	5.1	-.2	2.5	138	3.6	3.7	117	8.9	SE	**	*****	****	200	5
6	6.0	1.8	3.9	144	2.8	3.3	157	12.7	SE	**	*****	****	273	6
7	6.0	2.4	4.2	148	5.6	5.7	149	15.2	SSE	**	*****	****	328	7
8	7.0	.1	3.6	144	2.3	3.2	145	11.4	SE	**	*****	****	315	8
9	.6	-12.3	-5.9	332M	.7M	.8M	273M	1.9M	N (M)	**	*****	****	468	9
10	-7.6	-15.0	-11.3	***	***	***	***	***	***	**	*****	****	405	10
11	-3.2	-8.4	-5.8	***	***	***	***	***	***	**	*****	****	450	11
12	2.8	-8.1	-2.7	142M	.7M	.9M	125M	5.7M	SE (M)	**	*****	****	338	12
13	4.2	-.6	1.8	146	2.1	2.6	085	10.2	SSE	**	*****	****	278	13
14	1.9	-2.8	-.5	109	.3	.8	327	2.5	ESE	**	*****	****	425	14
15	6.1	-1.7	2.2	146	.7	1.1	123	5.7	SSE	**	*****	****	410	15
16	5.9	.5	3.2	136	2.0	2.3	136	9.5	SE	**	*****	****	290	16
17	6.0	-8.6	-1.3	130	.9	1.4	136	6.3	SE	**	*****	****	360	17
18	-6.1	-12.6	-9.4	145	.6	.6	172	1.9	SE	**	*****	****	460	18
19	3.9	-10.9	-3.5	124	1.0	1.5	117	6.3	SE	**	*****	****	438	19
20	1.4	-8.5	-3.6	052	.4	1.0	128	8.9	NNE	**	*****	****	425	20
21	-7.0	-16.9	-12.0	149	.7	.7	203	2.5	SSE	**	*****	****	453	21
22	-14.6	-19.4	-17.0	149	.6	.6	162	1.9	SSE	**	*****	****	438	22
23	-12.4	-20.2	-16.3	144	.6	.6	117	1.9	SE	**	*****	****	443	23
24	-8.4	-15.2	-11.8	135M	.5M	.5M	155M	1.9M	SE (M)	**	*****	****	438	24
25	3.4	-17.0	-6.8	143M	1.3M	1.4M	145M	7.5M	SE (M)	**	*****	****	425	25
26	6.2	2.6	4.4	149	8.0	8.0	150	16.5	SSE	**	*****	****	143	26
27	6.8	3.5	5.2	142	7.5	7.6	146	18.4	SE	**	*****	****	120	27
28	7.9	2.7	5.3	145	7.0	7.0	140	19.7	SE	**	*****	****	188	28
29	6.2	-1.1	2.6	143	4.8	5.2	140	19.7	SE	**	*****	****	180	29
30	-.7	-7.5	-4.1	097	.3	.7	048	3.8	SE	**	*****	****	478	30
31	-3.2	-8.4	-5.8	123	.5	.6	155	2.5	ESE	**	*****	****	395	31
MONTH	7.9	-27.0	-4.8	143M	2.1M	2.4M	140M	19.7M	SE (M)	**	*****	****	10918	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.1
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

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.

FIGURE B.1

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
December, 1982

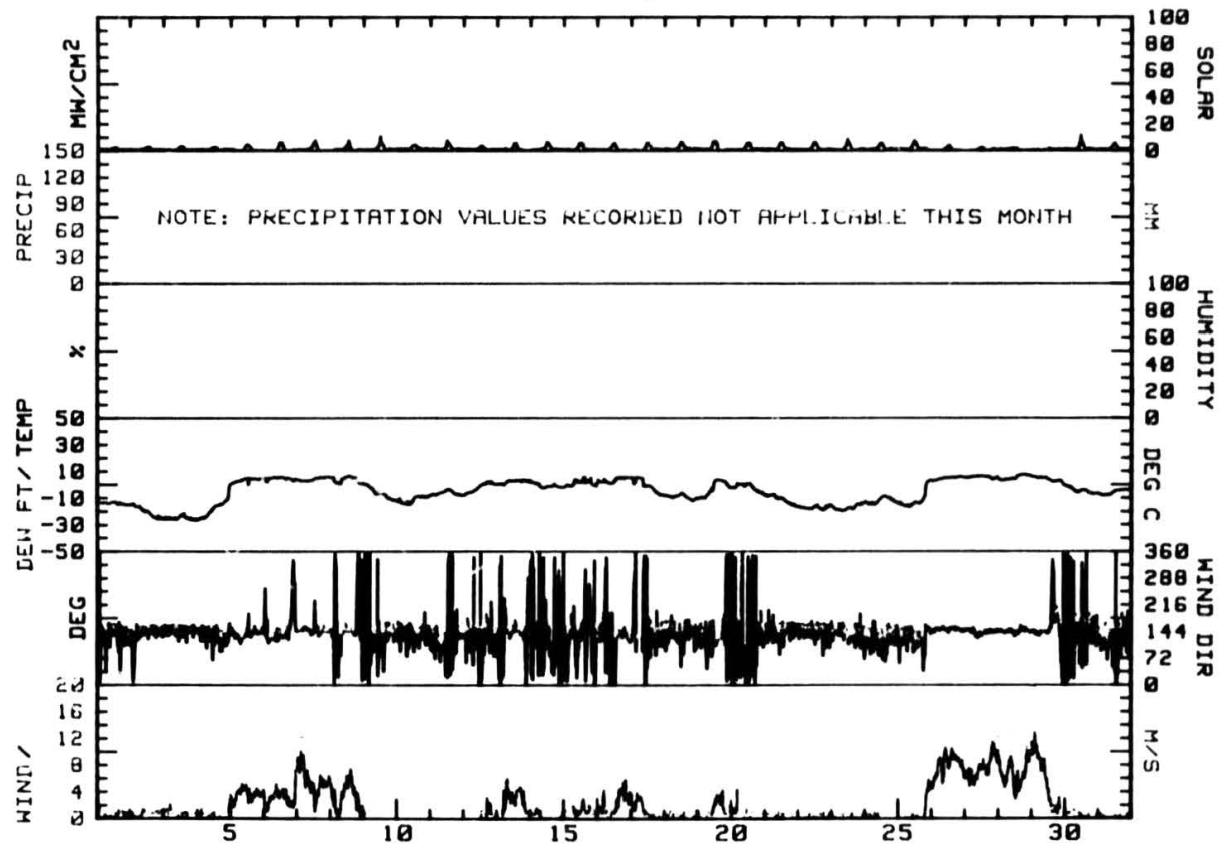


TABLE B.2

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING January, 1983

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. RH %	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-1.9	-3.5	-2.7	119	.3	.6	351	2.5	SSE			XXXX	373	1
2	-2.3	-5.5	-3.9	133	.5	.7	143	3.2	SE			XXXX	398	2
3	-5.0	-7.9	-6.5	090	.2	.5	144	1.9	SE			XXXX	413	3
4	-5.0	-7.9	-6.5	090	.2	.5	144	1.9	SE			XXXX	413	4
5	-17.2	-26.8	-22.0	139M	.4M	.1M	170M	1.9M	SSE(M)			XXXX	343	5
6	-17.3	-29.0	-22.7	003M	.9M	.9M	000M	2.5M	N (M)			XXXX	318	6
7	-19.6	-29.1	-23.9	021	.3	.5	352	2.5	N			XXXX	313	7
8	-29.4M	-32.6M	-31.0M	135M	.4M	.4M	154M	1.9M	SE(M)			XXXX	329M	8
9	-32.1M	-32.1M	-32.1M	107M	.2M	.2M	107M	.6M	ESE(M)	XXXX	XXXX	XXXX	1M	9
10	-22.2M	-25.4M	-24.3M	350M	.2M	.2M	350M	1.3M	N (M)	XXXX	XXXX	XXXX	240M	10
11	-22.1M	-27.9M	-25.1M	112M	.5M	.5M	073M	1.9M	SSE(M)	72M	-29.1M	XXXX	213M	11
12	-20.2	-29.5	-24.9	130	.4	.5	154	2.5	SSE	73	-27.3	XXXX	393	12
13	-19.4	-27.9	-23.1	118	.3	.4	174	1.9	SE	72	-29.7	XXXX	418	13
14	-13.9	-22.3	-18.1	120	.3	.4	147	1.9	SSE	77	-21.6	XXXX	460	14
15	.9	-13.6	-6.4	100	.5	.8	059	3.3	ESE	82	-9.0	XXXX	293	15
16	3.3	-3.9	-.3	042	.3	1.0	059	7.0	SE			XXXX	258	16
17	-3.1	-9.2	-6.3	114	.2	.3	155	1.3	SSE	XX	XXXX	XXXX	250	17
18	4.2	-6.7	-1.3	156	1.0	1.3	149	6.3	SE	97	.2	XXXX	189	18
19	3.7	-5.9	-1.1	125	1.1	2.8	153	9.3	SSE	71	-5.9	XXXX	428	19
20	3.4	-4.9	-.8	136	1.5	2.5	123	7.6	SE	52	-9.6	XXXX	599	20
21	6.2	-9.0	-1.4	139	1.5	2.6	142	10.8	SE	39	-13.2	XXXX	775	21
22	-9.4	-18.9	-14.2	142	.6	.9	079	3.2	SSE	78	-16.8	XXXX	643	22
23	-14.1	-20.2	-17.2	136	.6	.7	158	2.5	SSE	82	-19.8	XXXX	595	23
24	-6.7	-20.5	-13.6	142	.6	.7	159	3.2	SSE	94	-16.3	XXXX	398	24
25	-7.3	-11.1	-9.2	141	.6	.9	126	2.5	SSE	39	-10.2	XXXX	568	25
26	7.7	-8.1	-.2	146	1.5	2.0	143	9.9	SSE	78	.1	XXXX	393	26
27	2.6	-6.0	-1.7	135	.6	.7	117	2.5	SSE			XXXX	664	27
28	-3.1	-12.9	-8.0	142	.5	.6	193	2.5	SSE			XXXX	595	28
29	-10.1	-16.2	-13.2	139	.4	.4	151	1.9	SE	91	-14.1	XXXX	660	29
30	.9	-14.2	-6.7	062	.2	.9	343	3.9	ESE	92	-4.6	XXXX	515	30
31	6.4	0.0	3.2	144	2.1	2.8	147	10.2	SE			XXXX	558	31
MONTH	7.7M	-32.6M	-11.3M	133M	.6M	1.0M	142M	10.9M	SSE(M)	51M	-16.5M	XXXX	13185M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.3

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 ****

FIGURE B.2

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

January, 1983

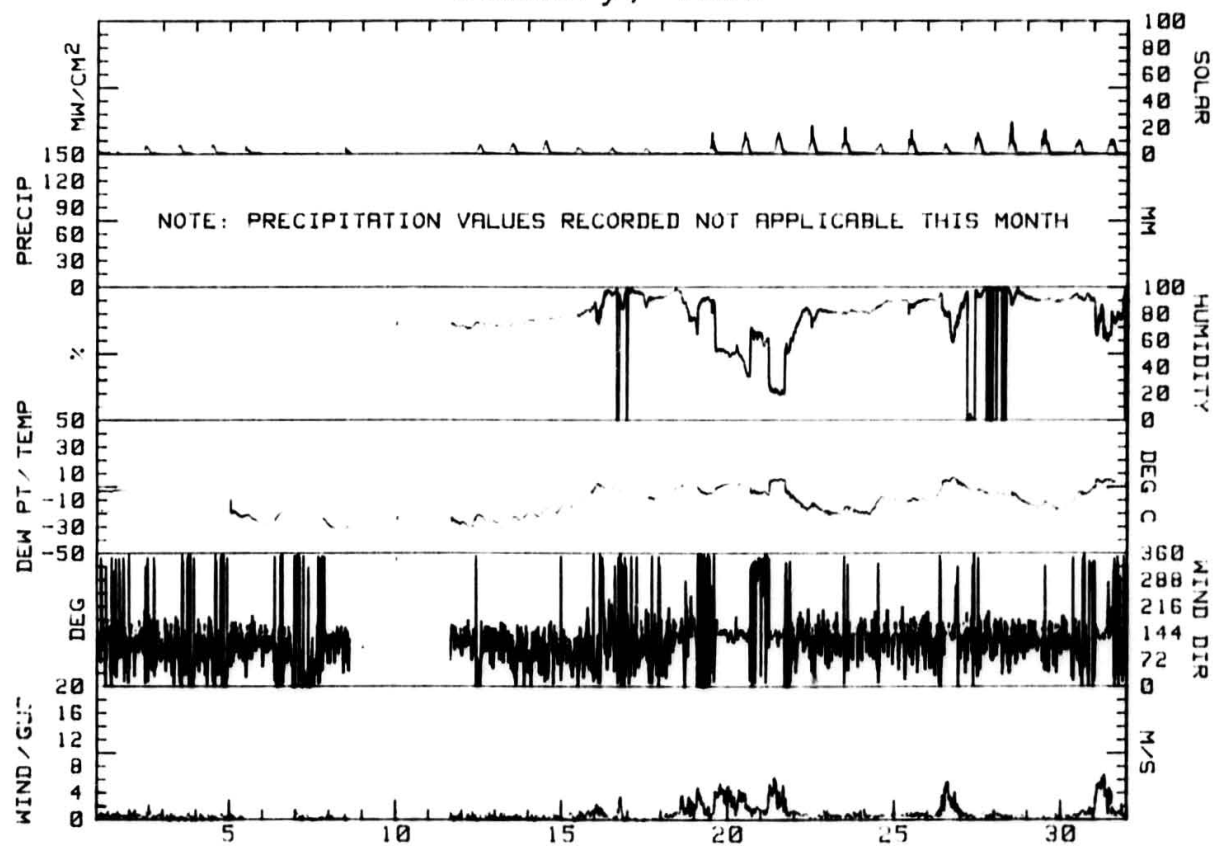


TABLE B.3

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING February, 1983

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/SON	DAY
1	7.7	.4	4.1	148	1.7	2.1	158	11.4	SSE			****	760	1
2	5.9	.9	3.4	148	3.0	3.5	144	11.4	SSE			****	633	2
3	4.8	.4	2.6	155	1.1	1.6	132	8.9	SSE			****	645	3
4	5.1	-7.7	2.2	149	1.2	1.9	159	11.4	SSE			****	950	4
5	4.3	-3.4	.5	151	1.2	1.8	155	8.3	SSE			****	578	5
6	.2	-3.3	-1.6	040M	.2M	.4M	159M	1.9M	N (M)	****		****	273	6
7	-2.3	-4.4	-3.4	152M	.5M	.4M	162M	2.5M	SSE(M)			****	350	7
8	-2.1	-7.2	-4.7	144M	.4M	.4M	169M	2.5M	SSE(M)			****	288	8
9	-7.7M	-23.9M	-15.8M	315M	.3M	.2M	297M	1.3M	NW (M) **	****		****	643M	9
10	****	****	****	***	****	****	***	****	*** **	****		****	****	10
11	****	****	****	***	****	****	***	****	*** **	****		****	****	11
12	****	****	****	***	****	****	***	****	*** **	****		****	****	12
13	****	****	****	***	****	****	***	****	*** **	****		****	****	13
14	****	****	****	***	****	****	***	****	*** **	****		****	****	14
15	****	****	****	***	****	****	***	****	*** **	****		****	****	15
16	****	****	****	***	****	****	***	****	*** **	****		****	****	16
17	-18.2M	-23.6M	-20.9M	138M	.3M	.5M	259M	1.9M	SSE(M) **	****		****	436M	17
18	-7.3M	-11.9M	-9.6M	010M	.3M	.9M	176M	3.2M	N (M)			****	144M	18
19	3.4	-10.1	-3.4	134	.6	1.2	125	8.3	SE			****	1643	19
20	1.4	-8.0	-3.3	012	.5	1.1	002	4.4	N			****	1250	20
21	7.0	-5.8	.6	138	1.7	2.1	149	8.9	SE			****	1823	21
22	6.5	-5.9	.3	130	.4	1.1	142	7.0	SE	66	-3.6	****	2190	22
23	5.3	-7.7	-1.2	042	.2	.8	358	3.8	N	86	-4.5	****	1455	23
24	7.1	-11.4	-2.2	139	2.2	2.5	131	8.9	SE			****	1953	24
25	-2.5	-16.7	-9.6	119	.3	.6	112	2.5	SSE	83	-10.5	****	2200	25
26	7.7	-6.4	.7	118	.9	1.6	138	7.0	SE	68	-3.0	****	2193	26
27	.9	-7.0	-3.1	077	.1	.6	349	2.5	SSE			****	1105	27
28	2.9	-9.2	-3.2	113	.2	.5	148	1.9	ESE			****	1723	28
MONTH	7.7M	-23.9M	-3.2M	139M	.8M	1.3M	158M	11.4M	SSE(M) M	M		****	23231M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.8
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 11.4
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

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 ****

FIGURE B.3

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
February, 1983

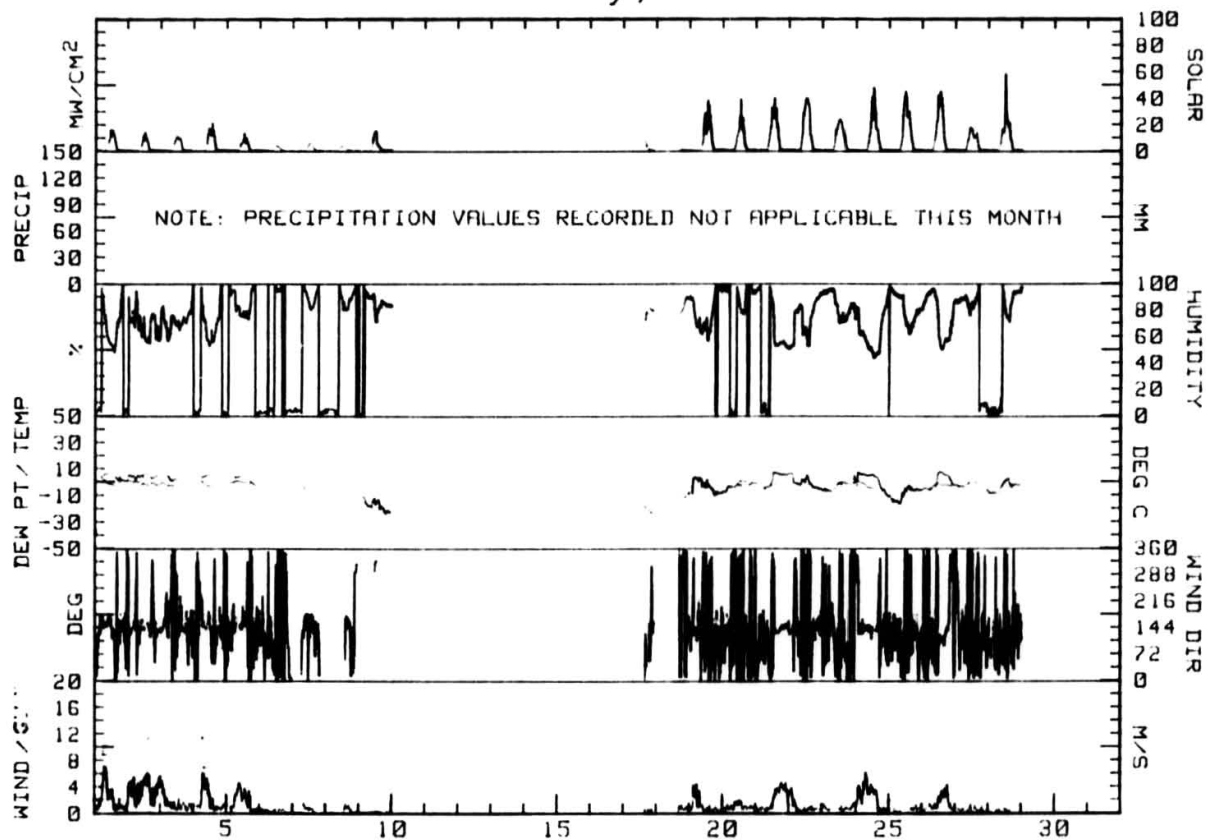


TABLE B.4

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING March, 1983

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/SGH	DAY
1	2.9	-5.0	-1.1	174	.6	.9	201	3.8	S			****	2533	1
2	-8	-17.1	-9.0	142	.2	.6	160	1.9	SSE			****	3038	2
3	-1.5	-21.1	-11.3	128	.2	.5	144	1.9	SSE	89	-18.7	****	2938	3
4	2.2	-17.5	-7.7	102	.2	.6	145	3.8	SE	68	-12.5	****	2653	4
5	2.4	-10.0	-3.8	087	.1	.6	144	1.9	N	66	-8.2	****	3123	5
6	2.9	-13.9	-5.5	124	.3	.6	176	1.9	SSE	82	-10.1	****	2973	6
7	2.8	-16.2	-6.7	122	.3	.5	166	1.9	SSE	83	-13.6	****	3130	7
8	2.1	-19.4	-8.7	136	.3	.6	175	2.5	SE	89	-17.9	****	3335	8
9	.9	-21.0	-10.1	137	.3	.6	180	2.5	SE	58	-14.6	****	3370	9
10	-1.2	-14.2	-7.7	024	.2	.7	288	2.5	N	73	-11.2	****	2428	10
11	6.8	-11.5	-2.4	014	.4	.9	328	5.7	N	73	-5.4	****	2883	11
12	9.1	-3.7	2.7	127	.7	1.3	145	6.3	SE			****	2863	12
13	9.9	-4.1	2.9	109	.2	.6	164	1.9	SSE			****	3368	13
14	9.2	-3.3	3.0	095	.2	.5	028	1.9	ESE			****	3040	14
15	7.3	-5.3	1.0	137	1.6	1.8	149	7.0	SE			****	2923	15
16	6.2	-5.9	.2	104	.2	.6	158	5.1	SE			****	2948	16
17	5.9	-9.4	-1.8	096	.2	.6	226	2.5	SSE			****	4133	17
18	5.1	-13.2	-4.1	128	.2	.6	148	2.5	SSE			****	4273	18
19	4.3	-13.3	-4.5	126	.2	.7	169	2.5	SSE	70	-10.5	****	4298	19
20	5.7	-11.5	-2.9	119	.2	.6	343	2.5	S	69	-7.3	****	3430	20
21	4.6	-9.8	-2.6	090	.1	.5	349	3.2	SSE	58	-6.6	****	4013	21
22	5.7	-11.6	-3.0	086	.1	.6	163	1.9	NNW			****	4508	22
23	6.3M	-14.3M	-4.0M	077	.2	.6	095	2.5	SSE	37	-10.5	****	4688M	23
24	4.8	-5.9	-.6	077	.1	.6	357	1.9	SE	57	-4.9	****	3408	24
25	6.1	-8.8	-1.4	109	.4	1.0	135	5.1	SSE			****	2743	25
26	8.1	-3.8	2.2	073	.2	.7	164	3.2	NNE	82	-3.6	****	3418	26
27	8.5	-6.2	1.2	145	1.7	2.2	155	9.5	SSE			****	4648	27
28	8.5	-3.4	2.6	140	.9	1.4	143	6.3	SE	48	-5.4	****	4183	28
29	6.0	-7.6	-.8	020	.2	.7	005	3.2	N			****	4870	29
30	6.0	-9.3	-1.7	034	.1	.6	357	3.2	N			****	5163	30
31	7.4	-3.7	1.9	032	.1	.8	353	3.2	SE			****	4623	31
MONTH	9.9M	-21.1M	-2.7M	123	.3	.8	155	9.5	SSE	M	M	****	109934M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.9
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

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 ****

FIGURE B.4

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
March, 1983

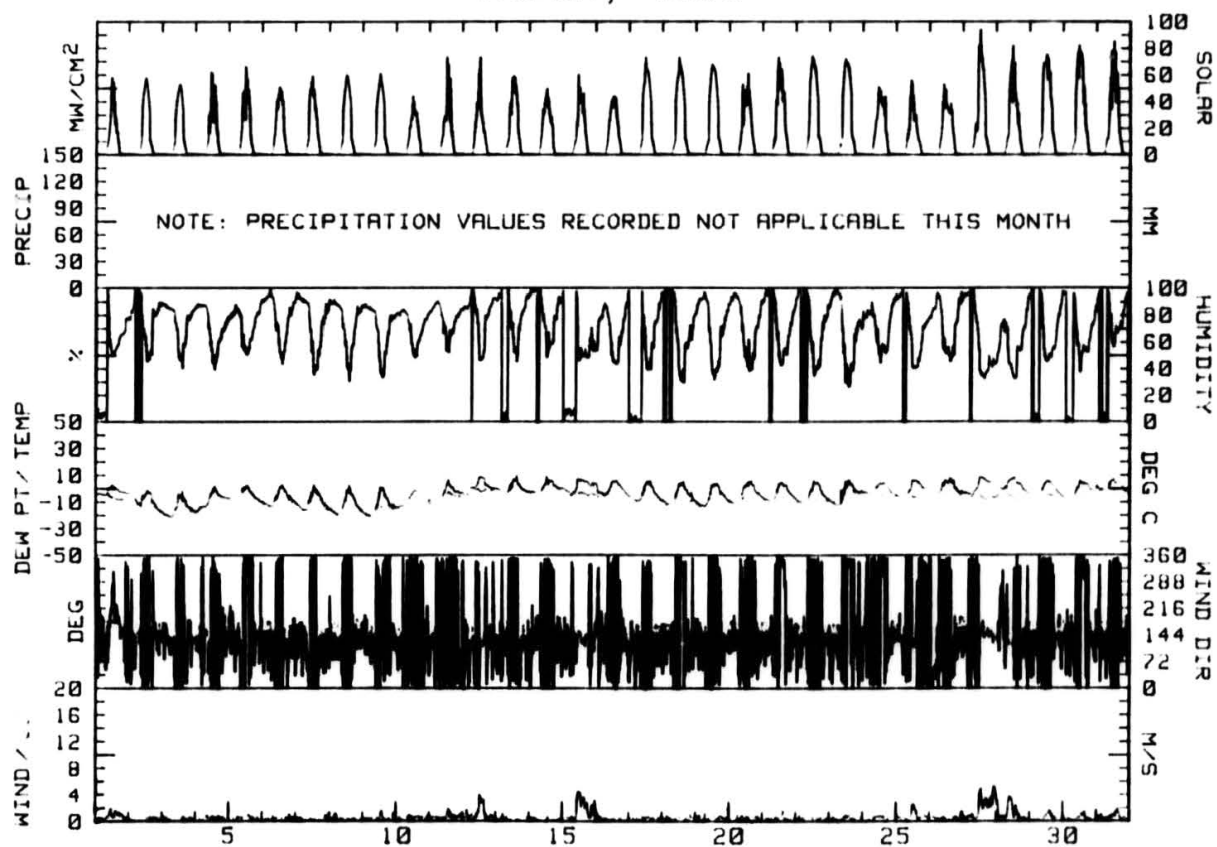


TABLE B.5

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING April, 1983

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
1	8.5	-5.4	1.6	126	.3	1.1	139	7.0	SSE			0.0	5225	1
2	7.1	-7.2	-.1	087	.1	.6	131	1.9	SSE			0.0	5608	2
3	7.8	-6.5	.7	150	2.5	2.7	160	10.2	SSE			4.0	5010	3
4	3.6	.1	1.9	119	.5	1.3	153	8.3	NNE			8.2	1243	4
5	7.0	.1	3.6	151	4.1	4.2	159	10.2	SSE	56	-4.2	11.2	5628	5
6	5.7	-4.4	.7	146	1.6	2.0	157	8.9	SSE	48	-7.4	0.0	5385	6
7	6.0	-7.9	-1.0	029	.1	.8	136	2.5	SSE			0.0	5840	7
8	3.4	-5.4	-1.0	358	.5	1.2	359	4.4	N	67	-4.8	0.0	6550	8
9	.7	-4.5	-1.9	353	.4	1.0	345	3.2	NNW			0.0	3323	9
10	4.1	-7.7	-1.8	026	.3	1.0	000	3.8	SE			0.0	6503	10
11	4.0	-10.8	-3.4	151	3.8	4.2	161	13.3	SSE	60	-5.9	0.0	3253	11
12	5.6	-1.7	2.0	102M	.3M	2.4M	152M	8.3M	SSE(M)			0.0	4605	12
13	3.4	-4.8	-.7	017M	.2M	.3M	006M	1.3M	N (M)			6.0	3105	13
14	8.4	-1.2	3.6	143	3.0	3.4	154	11.4	SE			.4	5160	14
15	5.2	.9	3.1	139	5.1	5.2	147	12.1	SE	57	-3.3	0.0	2873	15
16	4.3	-1.8	1.3	341	.4	.8	001	3.8	NNW			.4	4540	16
17	5.1	-1.6	1.8	347	1.1	1.3	306	5.1	N			0.0	5470	17
18	6.0	-1.6	2.2	144	3.7	3.9	156	8.9	SE			0.0	5978	18
19	5.8	-1.2	2.3	146	1.9	2.5	168	10.8	SSE			0.0	5893	19
20	6.2	-1.4	2.4	152	1.0	1.3	135	5.7	SSE			0.0	5488	20
21	7.8	-1.1	3.4	130	1.5	1.8	134	6.3	SE	55	-2.9	0.0	4565	21
22	10.6	-.5	5.1	144	2.5	2.9	146	8.3	SSE	54	-1.8	0.0	6578	22
23	11.7	-1.7	5.0	154	.9	2.0	163	7.6	SSE	51	-2.3	0.0	3898	23
24	12.4	-3.7	4.4	035	.1	1.0	359	3.2	SSE			0.0	7723	24
25	17.0	-2.2	7.4	139	.5	1.3	166	7.0	SSE			0.0	7735	25
26	10.9	-2.9	4.0	360	.3	1.0	341	3.2	NNW			0.0	7725	26
27	12.0	-.9	5.6	002	.4	1.1	354	3.8	NNW			0.0	7625	27
28	6.6	-1.5	2.6	357	.2	.7	156	2.5	N			.2	3203	28
29	5.8	1.6	3.7	347	.4	.7	343	3.2	N			4.8	3520	29
30	12.0	-.8	5.6	346	.3	1.0	200	3.2	N			2.6	6774	30
MONTH	17.0	-10.8	2.1	140M	1.0M	1.8M	161M	13.3M	SSE(M)	M	M	37.8	158021	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.8
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.7
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.8

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 ****

FIGURE B.5

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

April, 1983

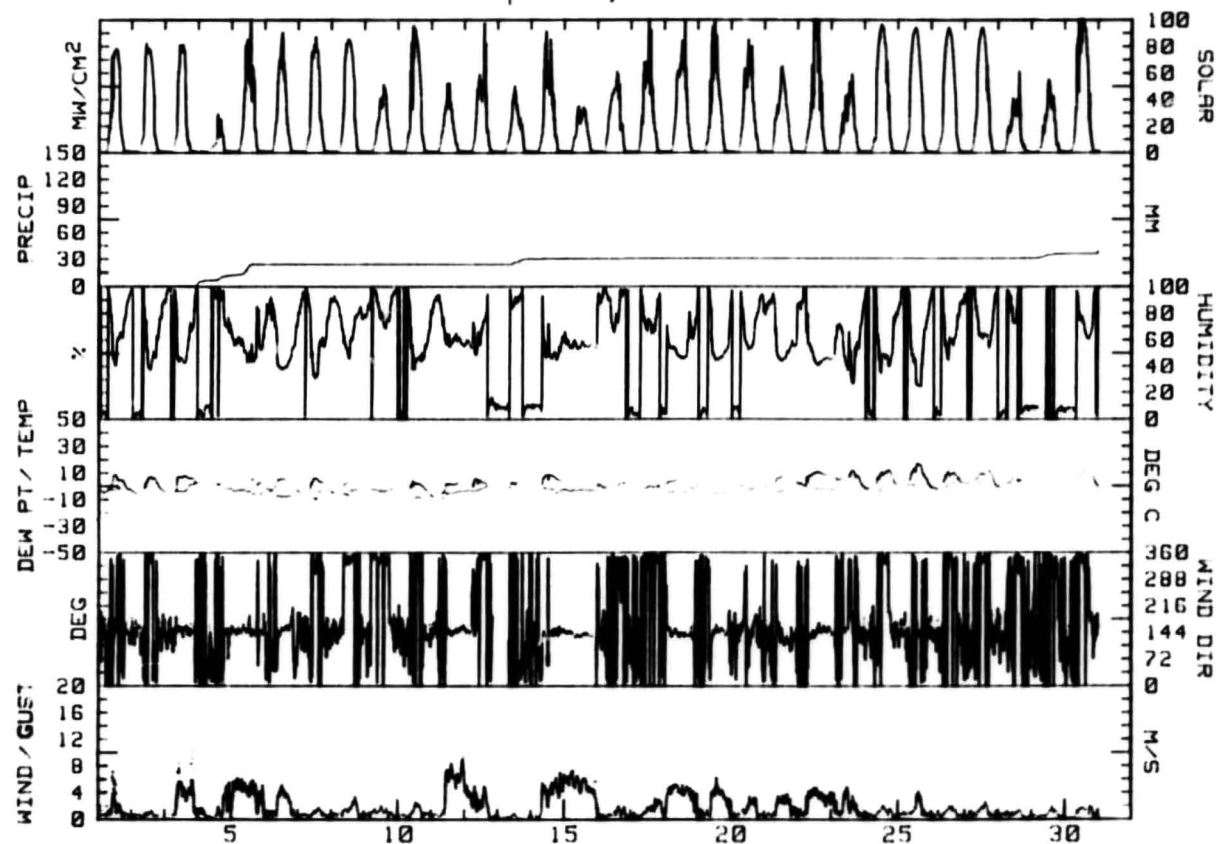


TABLE B.6

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING May, 1983

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/50M	DAY
1	11.5m	-2.3m	4.6m	346	.7	1.3	215	5.1	NNW			0.0	7384m	1
2	5.6	1.2	3.4	352	.8	1.2	347	5.7	NNW			0.0	4258	2
3	6.3	.4	3.4	353	.8	1.0	001	3.8	N			0.0	6965	3
4	8.2	-.7	3.8	140	1.3	1.8	135	7.6	SE			0.0	5798	4
5	9.4	-1.2	4.1	132	.6	1.3	153	5.7	SSE			0.0	5958	5
6	10.8	-2.5	4.2	146	.6	1.4	123	5.1	SSE			0.0	5456m	6
7	12.5m	-2.8m	4.9m	355m	.3m	1.0m	347m	3.8m	NNW(m)			0.0	7946m	7
8	13.2	-1.7	5.6	003	.6	1.1	037	5.7	N			.2	7028	8
9	13.3	-1.6	5.9	148	2.8	3.1	153	8.3	SSE			0.0	8307	9
10	12.9	1.9	7.4	148	2.5	2.9	151	8.3	SSE	29	-9.2	0.0	6903	10
11	13.6	1.0	7.3	158	1.1	1.6	156	6.3	S	33	-5.1	0.0	5358	11
12	13.0	3.1	8.1	148	1.8	2.0	149	7.0	SSE	44	-.1	0.0	6588	12
13	17.1	3.1	10.1	159	.8	1.8	155	7.0	SSE	49	1.3	0.0	8268	13
14	14.4	3.6	9.0	154	1.6	2.1	153	7.6	SSE			.4	6555	14
15	14.4	.1	7.3	150	2.8	3.1	152	9.5	SSE			0.0	8858	15
16	11.1	4.6	7.9	146	3.3	3.5	147	10.2	SE	46	-1.0	0.0	2270	16
17	13.8	2.7	8.3	137	2.5	3.0	140	9.5	SE			0.0	7940	17
18	11.5	-.8	5.4	146	2.4	2.6	139	7.0	SE	51	-.9	0.0	7005	18
19	13.2m	-2.5m	5.4m	007	.7	1.3	351	5.1	N			0.0	7510m	19
20	15.5	-.2	7.7	011	.7	1.3	023	4.4	N			0.0	8253	20
21	10.6	1.5	6.1	356	1.0	1.4	353	5.7	N			0.0	5893	21
22	12.4	4.2	8.3	057	.3	1.0	161	7.6	NNW			0.0	6285	22
23	10.6	5.3	8.0	146	2.8	3.3	143	9.5	SE			0.0	4245	23
24	12.7	6.4	9.6	148	1.4	2.1	145	7.0	SSE	53	.5	0.0	6828	24
25	12.7	4.6	8.7	006	.5	1.1	262	5.1	N			0.0	5551m	25
26	12.6	6.2	9.4	146	3.1	3.2	158	8.3	SE			0.0	7148	26
27	11.9	2.2	7.1	175	.2	.9	204	4.4	SSE			.4	5962	27
28	16.3	2.6	9.5	145	2.1	2.4	156	8.3	SSE			0.0	7384m	28
29	19.0	8.9	14.0	147	2.2	2.5	152	8.9	SSE	52	5.9	0.0	6760	29
30	19.6	9.6	14.6	129	.6	1.6	158	7.6	SE			3.2	3720	30
31	13.6	8.2	10.9	148	2.3	2.5	146	10.2	SSE			1.0	4764m	31
MONTH	19.6m	-2.8m	7.4m	141m	1.1m	2.0m	147m	10.2m	SSE(m)	M	M	5.2	199142m	
GUST VEL. AT MAX. GUST MINUS 2 INTERVALS														7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL														8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL														7.0
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS														7.0

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 ****

FIGURE B.6

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
May, 1983

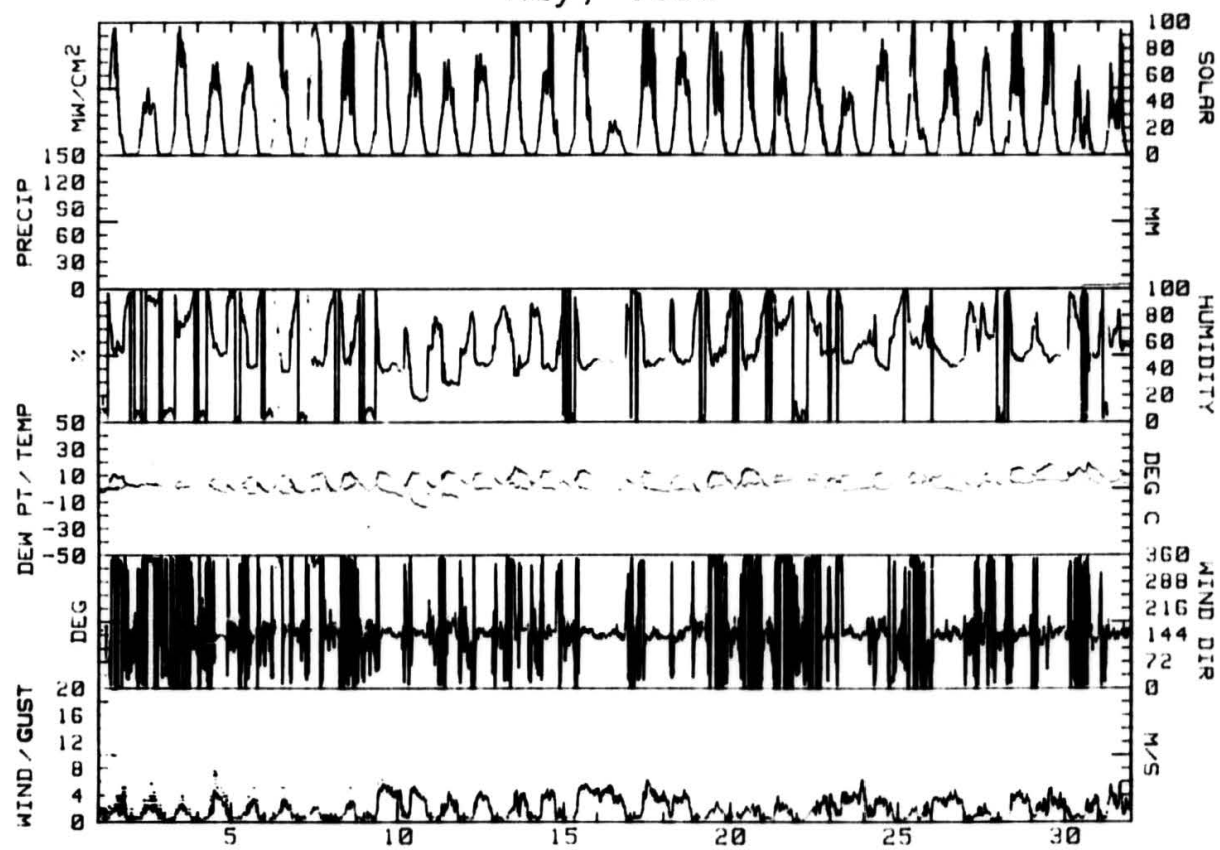


TABLE B.7

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING June, 1983

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
1	14.4	6.7	10.6	075M	.7M	2.1M	143M	8.3M	N (M)			0.0	7374	1
2	11.8	6.7	9.3	359M	.7M	.9M	001M	4.4M	N (M)			4.4	5239	2
3	12.3	6.0	9.2	035M	.6M	1.5M	139M	7.0M	N (M)			.2	4557	3
4	10.7	5.3	8.0	002M	.4M	.7M	353M	2.5M	N (M)			0.0	3567	4
5	15.9	3.7	9.8	353M	.7M	1.1M	359M	4.4M	N (M)			0.0	10490	5
6	16.4M	1.1M	8.8M	016M	.6M	1.2M	008M	4.4M	N (M)			0.0	9061M	6
7	17.9M	-.1M	8.9M	008M	.5M	1.1M	000M	3.8M	N (M)			0.0	9549M	7
8	17.0M	-.3M	8.4M	050M	.1M	.7M	339M	2.5M	S (M)			0.0	6973M	8
9	10.8	1.2	6.0	142M	.2M	.7M	356M	3.2M	SSE (M)			21.6	2677	9
10	15.8M	3.0M	9.4M	019M	.3M	.9M	338M	3.8M	NNW (M)			.2	9365M	10
11	16.4M	6.3M	11.4M	141M	1.7M	2.4M	138M	8.9M	SE (M)			.2	9913M	11
12	15.4M	8.8M	12.1M	153M	2.6M	2.7M	135M	6.3M	SSE (M)			0.0	8225M	12
13	17.3M	5.7M	11.5M	031M	.5M	1.1M	136M	5.1M	N (M)			0.0	9731M	13
14	17.0M	4.0M	10.5M	147M	1.6M	2.0M	168M	7.6M	SSE (M)			0.0	8784M	14
15	14.5M	4.1M	9.3M	358M	.7M	.9M	006M	3.2M	N (M)			0.0	7005M	15
16	17.4M	5.4M	11.4M	007M	.7M	1.1M	320M	5.1M	N (M)			0.0	8687M	16
17	20.9M	3.6M	12.3M	357M	.7M	1.1M	346M	3.8M	N (M)			0.0	12080M	17
18	24.2M	3.3M	13.8M	159M	1.1M	1.8M	182M	7.0M	SSE (M)			0.0	10379M	18
19	18.4M	6.9M	12.7M	360M	1.1M	1.4M	359M	4.4M	N (M)			0.0	11924M	19
20	19.8M	3.5M	11.7M	003M	.8M	1.2M	011M	4.4M	N (M)			0.0	11534M	20
21	26.4M	4.3M	12.4M	359M	.9M	1.2M	004M	3.8M	N (M)			0.0	10722M	21
22	21.5	9.0	15.3	358M	.5M	1.0M	335M	3.8M	NNW (M)			0.0	9400	22
23	20.6M	7.4M	14.0M	137M	1.2M	1.9M	138M	7.0M	SE (M)			0.0	8546M	23
24	23.3M	5.5M	14.4M	357M	.5M	1.0M	333M	3.8M	NNW (M)			0.0	9345M	24
25	23.4M	3.4M	13.4M	101M	.5M	1.5M	140M	7.6M	SE (M)			0.0	7605M	25
26	17.8M	8.2M	13.0M	063M	.6M	1.5M	141M	7.0M	N (M)			0.0	5333M	26
27	19.4M	6.8M	13.1M	019M	.8M	1.4M	096M	6.3M	N (M)			0.0	8075M	27
28	18.1M	6.1M	12.1M	148M	2.0M	2.2M	134M	7.6M	SSE (M)			0.0	6738M	28
29	16.8M	4.9M	10.9M	002M	.6M	1.0M	350M	3.2M	N (M)			0.0	5291M	29
30	20.4	8.2	14.3	009M	.8M	1.1M	005M	4.4M	N (M)			0.0	9450	30
MONTH	24.2M	-.3M	11.2M	069M	.3M	1.4M	138M	8.9M	N (M)	M	M	26.6	246621	
GUST VEL. AT MAX. GUST MINUS 2 INTERVALS														7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL														6.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL														7.6
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 ****

FIGURE B.7

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
June, 1983

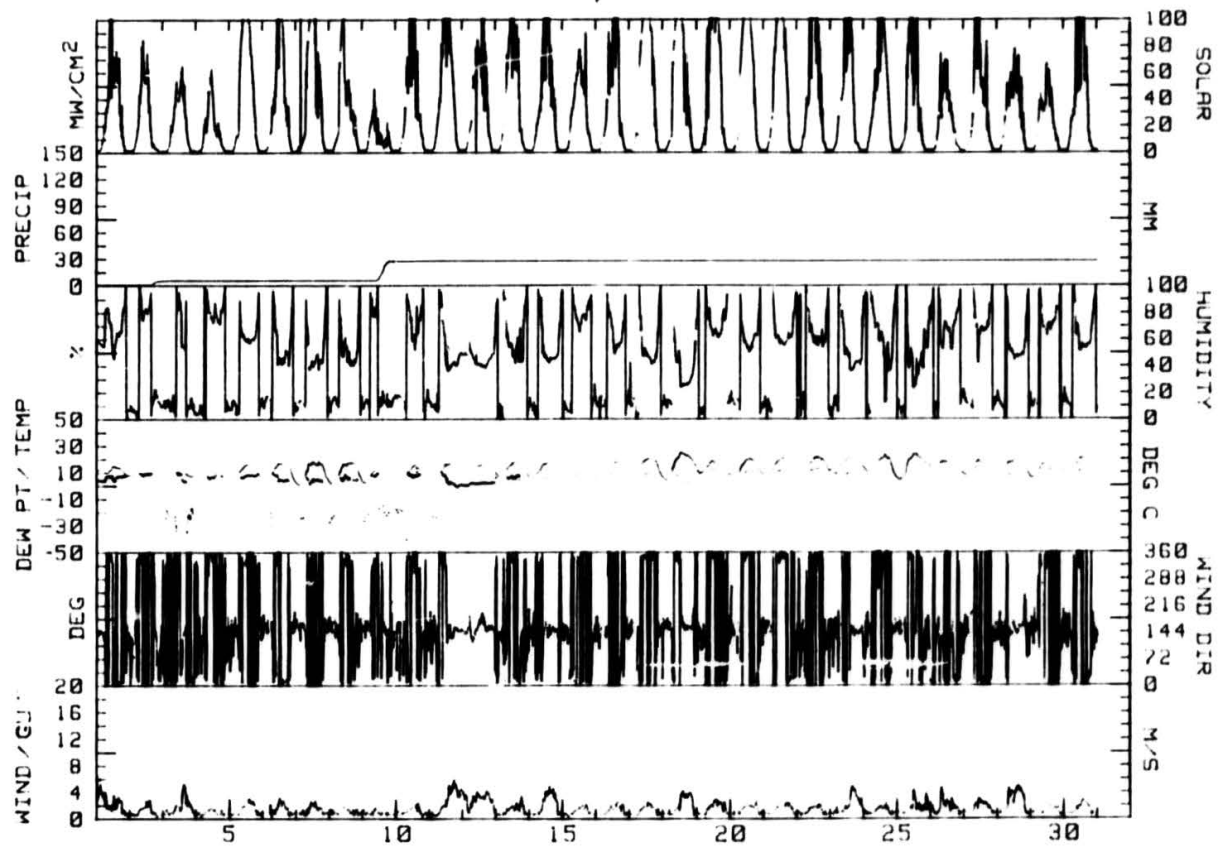


TABLE B.8

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING JULY, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR.	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR.	MAX. GUST SPD. M/S	P'VAL	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH
1	15.4m	10.1m	12.8m	355m	.8m	1.0m	000m	4.4m	N (m)			6.0	4549m 1
2	18.1m	9.7m	13.9m	007m	.8m	1.1m	005m	3.8m	N (m)			.2	7960m 2
3	20.6m	8.0m	14.3m	002m	.7m	1.1m	344m	3.8m	N (m)			0.0	10365m 3
4	18.3m	10.2m	14.3m	005m	.5m	.9m	000m	3.2m	N (m)			0.0	4694m 4
5	18.1m	11.6m	14.9m	356m	.6m	.9m	000m	3.8m	N (m)			6.0	5697m 5
6	13.8m	10.4m	12.1m	039m	.1m	.6m	178m	2.5m	NNW (m)			1.8	2059m 6
7	18.4m	10.4m	14.4m	023m	.3m	1.2m	146m	6.3m	NNW (m)			.4m	6729m 7
8	15.1m	8.6m	11.9m	139m	1.4m	1.6m	136m	6.3m	SE (m)			0.0	2860m 8
9	18.0m	7.6m	12.8m	144m	2.4m	2.4m	145m	8.3m	SE (m)			0.0	6634m 9
10	16.6m	4.7m	10.7m	003m	.6m	.9m	353m	4.4m	N (m)			.8	6209m 10
11	12.2m	9.1m	10.7m	147m	.2m	.7m	025m	2.5m	SSE (m)			2.0m	2062m 11
12	13.2m	7.5m	10.4m	352m	.8m	.9m	350m	3.8m	N (m)			.8	4344m 12
13	17.0m	4.7m	10.9m	142m	.4m	.8m	165m	4.4m	S (m)			1.6m	4459m 13
14	20.3m	4.4m	12.4m	182m	.2m	.9m	349m	3.8m	SSE (m)			.2m	7823m 14
15	21.6m	4.6m	13.1m	162m	.2m	1.0m	351m	3.2m	SSE (m)			0.0	8420m 15
16	18.7m	7.4m	13.1m	028m	.1m	.8m	004m	3.2m	N (m)			0.0m	5358m 16
17	14.7m	9.3m	12.0m	126m	.1m	.7m	038m	2.5m	SSE (m)			1.6m	3223m 17
18	15.9m	7.4m	11.7m	011m	.6m	1.1m	355m	4.4m	N (m)			2.8	6816m 18
19	18.9m	8.5m	13.7m	015m	.4m	.9m	348m	3.2m	N (m)			2.8m	7271m 19
20	15.4m	9.5m	12.5m	131m	.4m	.6m	157m	2.5m	SSE (m)			.2m	4478m 20
21	26.0m	8.8m	14.4m	004m	.5m	1.0m	000m	3.8m	N (m)			0.0	6840m 21
22	19.7m	6.8m	13.3m	002m	.7m	1.1m	008m	3.8m	N (m)			0.0	7335m 22
23	14.2m	8.5m	11.4m	107m	.2m	.7m	346m	3.2m	SSE (m)			7.4	3537m 23
24	18.5m	4.5m	11.5m	356m	.5m	1.2m	000m	5.1m	N (m)			0.0	9394m 24
25	19.2m	1.4m	10.3m	004m	.6m	1.2m	003m	4.4m	N (m)			0.0	9396m 25
26	18.8m	3.3m	11.1m	011m	.6m	1.1m	354m	3.8m	N (m)			0.0	5997m 26
27	20.0m	8.0m	14.0m	347m	.3m	1.0m	358m	4.4m	SSE (m)			0.0	8186m 27
28	22.9m	4.8m	13.9m	007m	.2m	1.2m	349m	4.4m	SSE (m)			0.0	9894m 28
29	17.0m	6.1m	11.6m	002m	.3m	.7m	327m	2.5m	NNW (m)			0.0m	3875m 29
30	18.1m	4.9m	11.5m	007m	.3m	1.0m	002m	3.8m	N (m)			0.0	5533m 30
31	18.9m	3.6m	11.3m	041m	.1m	.9m	000m	3.8m	SSE (m)			.8	6161m 31
MONTH	22.9m	1.4m	12.5m	026m	.3m	1.0m	145m	8.3m	N (m)	M	M	29.4m	187559m

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
 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 7.0

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 ***

FIGURE B.8

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
July, 1983

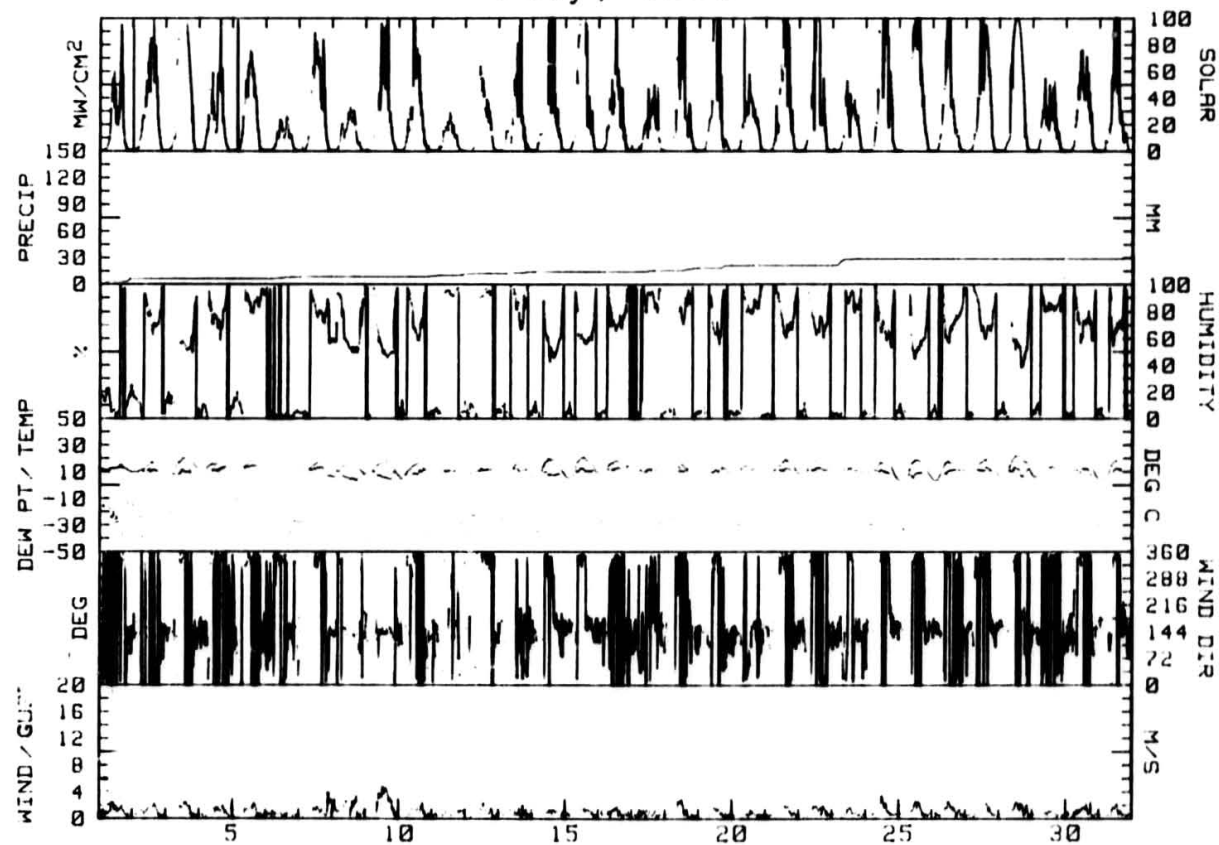


TABLE B.9

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING August, 1983

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. Z	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	19.5m	8.9m	14.2m	165m	.3m	.7m	278m	3.2m	SE (m)			1.8	5384m	1
2	21.1m	7.4m	14.3m	011m	.6m	1.1m	005m	5.1m	N (m)			.2	7353m	2
3	23.4m	4.3m	13.9m	014m	.1m	1.1m	169m	4.3m	SSE (m)			0.0	9511m	3
4	16.7m	9.1m	12.9m	116m	.5m	1.7m	139m	9.5m	SE (m)			0.0	2625m	4
5	14.9m	9.4m	12.2m	074m	.2m	.7m	148m	4.4m	N (m)			1.6	2583m	5
6	18.7m	8.0m	13.4m	141m	2.1m	2.3m	145m	8.0m	SE (m)			.4	5643m	6
7	18.0m	12.4m	15.2m	141m	4.1m	4.2m	140m	13.3m	SE (m)			1.0	3520m	7
8	19.6m	11.1m	15.4m	147m	4.6m	5.1m	147m	14.0m	SSE (m)			4.6	4393m	8
9	15.2m	9.7m	12.5m	346m	.4m	.7m	323m	4.9m	N (m)			.2	3653m	9
10	17.8m	6.5m	11.8m	048m	.2m	.8m	357m	3.8m	SSE (m)			0.0	5308m	10
11	18.5m	1.8m	10.2m	017m	.5m	1.0m	356m	3.8m	N (m)			.2	4309m	11
12	15.5m	8.8m	12.2m	009m	.5m	.9m	357m	4.4m	N (m)			.6	4438m	12
13	13.6m	6.0m	9.8m	354m	.2m	.8m	359m	2.5m	NNW (m)			1.0	4060m	13
14	14.0m	1.2m	7.6m	139m	.2m	1.1m	354m	3.8m	SSE (m)			7.8	5122m	14
15	14.8m	2.5m	8.7m	067m	.2m	.9m	358m	4.4m	SE (m)			2.6	5520m	15
16	16.9m	5.6m	11.3m	349m	.6m	1.1m	324m	3.2m	NNW (m)			0.0	10389m	16
17	15.0m	6.9m	11.0m	021m	.7m	1.1m	001m	4.4m	N (m)			0.0	5513m	17
18	18.8m	1.8m	10.3m	007m	.3m	1.1m	348m	4.4m	SSE (m)			0.0	6490m	18
19	18.9m	1.1m	10.0m	001m	.2m	1.0m	353m	3.8m	SSE (m)			0.0	7541m	19
20	15.7m	6.1m	10.9m	148m	2.5m	2.6m	143m	9.4m	SSE (m)			.2	2313m	20
21	13.0m	7.2m	10.1m	025m	.2m	.6m	356m	3.2m	E (m)			7.2	2840m	21
22	15.3m	6.8m	11.1m	039m	.2m	.8m	002m	3.8m	SSE (m)			.4	4795m	22
23	14.0m	3.1m	11.1m	032m	.2m	.7m	353m	4.5m	ESE (m)			0.0	3666m	23
24	11.9m	7.0m	9.5m	008m	.2m	.7m	165m	2.5m	NNW (m)			1.8m	3009m	24
25	8.3	3.1	5.7	156	.5	.6	188	2.5	SSE			14.8	1445	25
26	15.2	3.5	9.4	045	.2	.8	359	3.8	SSE			.4	5303	26
27	18.2	4.0	11.1	012	.1	.8	001	3.2	SSE			0.0	6438	27
28	18.7	2.6	10.7	119	.2	.8	325	2.5	SSE			0.0	5560	28
29	17.3	3.1	10.2	151	1.5	1.9	158	8.3	SSE			0.0	2443	29
30	16.3	9.5	12.4	034	.6	1.2	155	7.0	N			0.6	3295	30
31	11.9	4.2	8.1	125	.2	.6	342	2.5	SE			.8	2845	31
MONTH	23.4m	1.1m	11.2m	127m	.5m	1.3m	147m	14.0m	SSE (m)			69.2m	148302m	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 13.0
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.1

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.

FIGURE B.9

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
August, 1983

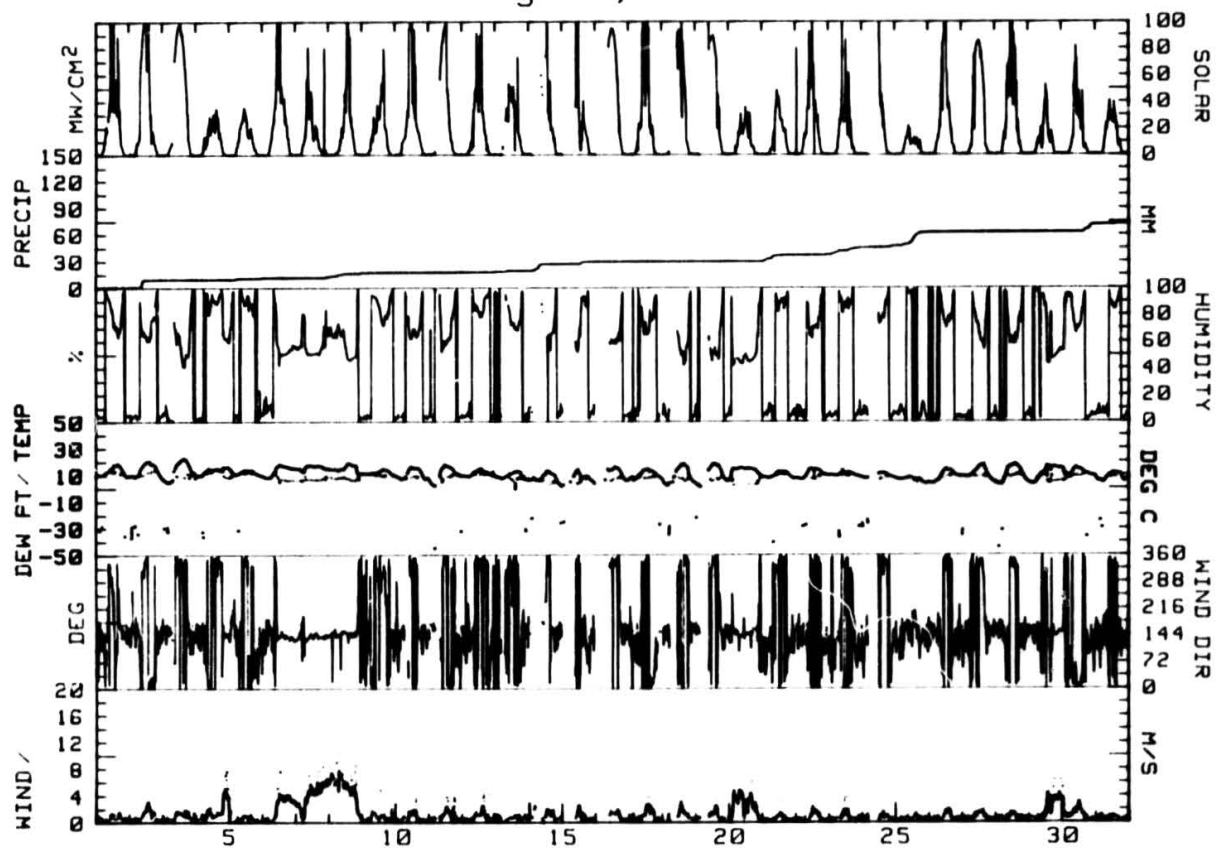


TABLE B.10

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING September, 1983

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/SDH	DAY
1	11.8	4.4	8.1	117	.2	.6	167	1.9	SSE			.8	2330	1
2	13.7	2.0	7.9	006	.5	1.0	311	4.4	N			1.4	5618	2
3	11.5	4.0	7.8	047	.4	1.0	029	4.4	SSE			8.6	3250	3
4	9.9	-1.2	4.4	113	.3	.7	004	3.8	SE			2.0	2820	4
5	12.7	-1.4	5.7	029	.3	1.1	356	4.4	SSE			0.0	5840	5
6	14.0	-2.8	5.6	344	.1	1.0	007	4.4	SSE			0.0	5518	6
7	14.4	-3.2	5.6	102	.1	.8	347	3.2	SSE			0.0	4800	7
8	13.5M	-1.5M	6.0M	089M	.3M	1.0M	133M	5.7M	SSE(M)			0.0M	4187M	8
9	11.9M	4.8M	8.4M	133M	.3M	.4M	319M	1.3M	SSE(M) **	****		.2M	706M	9
10	12.8	-1.5	6.2	163	.2	.6	324	2.5	S			0.0	3423	10
11	12.9	-1.2	6.4	058	.0	.7	354	3.2	SSE			0.0	3218	11
12	14.0	-1.7	6.2	144	2.0	2.1	156	7.6	SSE			0.0	3280	12
13	13.2	9.3	11.3	134	3.0	3.1	138	9.5	SE	49	.8	0.0	3953	13
14	9.1	3.2	6.2	351	.7	1.0	347	3.8	N			6.8	1868	14
15	8.5	-1.6	3.5	276	.0	.8	325	2.5	SSE			.8	3403	15
16	11.1	-3.6	3.8	343	.1	.9	336	3.2	NNW			0.0	4688	16
17	12.7	-4.0	4.4	168	.2	.8	322	2.5	SSE			0.0	4570	17
18	12.8	-3.8	4.5	148	1.9	2.1	148	9.5	SSE			0.0	2385	18
19	12.8	5.9	9.4	139	2.2	2.5	141	10.2	SE			1.8	1520	19
20	13.2	3.6	8.4	108	.2	.8	124	5.7	SSE			8.6	1215	20
21	9.4	3.1	6.3	145	.3	.5	150	1.9	SSE			11.0	1083	21
22	10.4	.5	5.5	029	.3	1.0	036	7.0	ESE			17.4	2050	22
23	1.5	-2.9	-1.7	014	1.5	1.8	020	5.7	N			1.0	638	23
24	-1.3	-8.4	-4.4	358	1.2	1.8	028	5.1	NNE	69	-8.1	.6	1595	24
25	.9	-10.0	-4.6	151	.7	1.0	234	3.2	SE	68	-9.1	1.8	4790	25
26	3.2	-11.8	-4.3	153	.9	1.1	268	3.2	SSE	62	-9.9	1.2	4175	26
27	7.9	-9.3	-1.7	145	.9	2.1	148	8.9	SSE	63	-3.6	.8	2558	27
28	11.7	2.9	7.3	335	1.0	2.1	136	9.5	NNW	72	1.1	0.0	1160	28
29	13.6	6.8	10.2	137	6.6	6.7	145	15.9	SE	67	5.5	26.8	1173	29
30	12.7	4.3	8.5	130	1.0	1.8	130	8.9	SE			0.0	1605	30
MONTH	14.4M	-11.8M	5.1M	126M	.6M	1.5M	145M	15.2M	SE(M) M	M	M	21.6M	89413M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 14.0
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.0
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 14.0
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.7

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.

FIGURE B.10

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
September, 1983

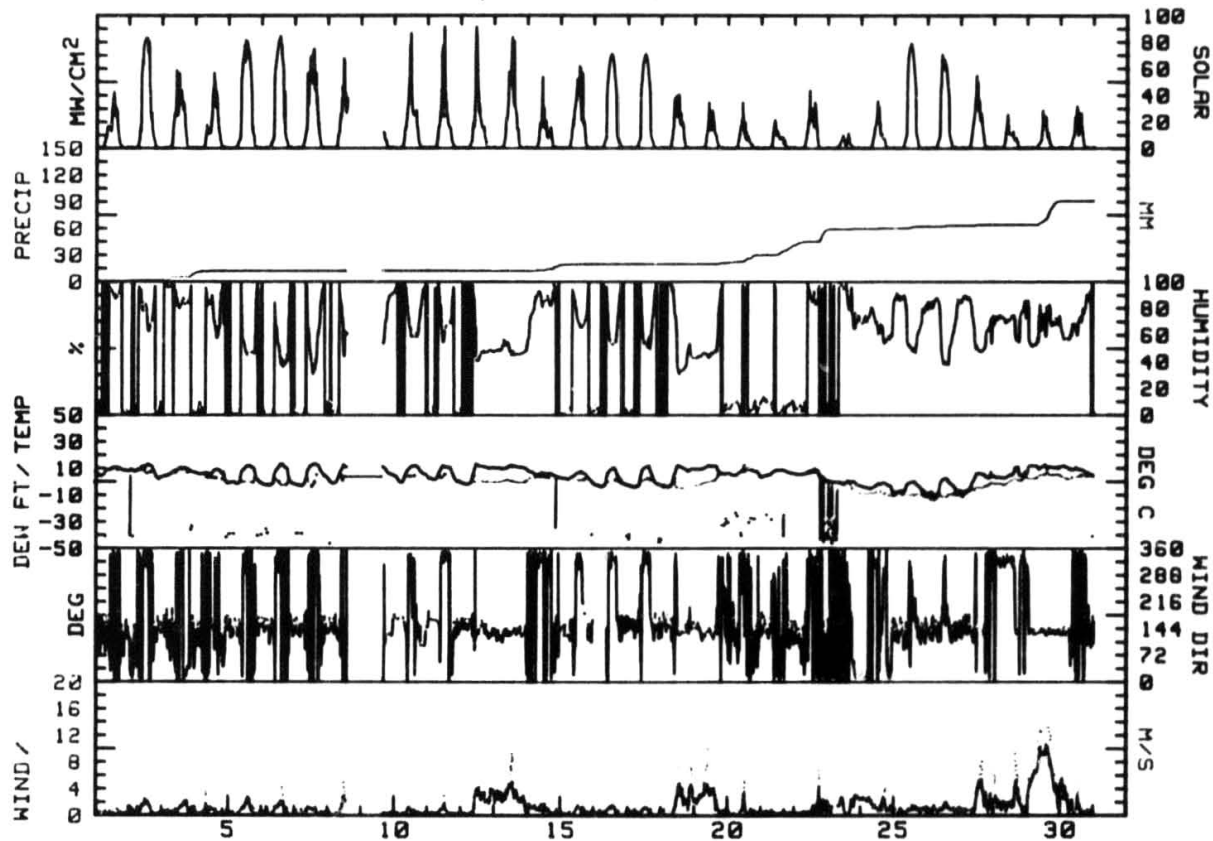


TABLE B.11

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING October, 1983

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/SGH	DAY
1	9.9	1.6	5.8	141	1.2	1.5	138	8.3	SE	54	-1.6	0.0	1118	1
2	10.2	1.6	5.9	334	.5	1.4	130	7.6	NNW	63	.6	.4	2038	2
3	6.2	-3.4	1.4	049	.1	1.1	026	5.1	SSE	47	-6.7	0.0	2513	3
4	6.3	-6.3	0.0	154	.5	1.0	359	3.8	SSE	61	-7.6	0.0	3043	4
5	8.7	-3.2	2.8	159	.5	.8	168	2.5	SSE	55	-5.3	.4	1900	5
6	5.1	-6.1	-5	358	.5	1.5	015	8.3	SSE	56	-7.2	3.4	2218	6
7	2.6	-8.5	-3.0	133	.2	1.1	357	4.4	SSE	57	-11.2	0.0	3113	7
8	2.6	-11.0	-4.2	141	.1	1.0	354	5.1	SSE	49	-13.4	0.0	2615	8
9	8.8	-2.0	3.4	140	2.2	2.9	132	11.4	SE	70	-.4	2.8	455	9
10	12.9	2.6	7.8	141	6.6	6.7	147	14.6	SE	60	2.1	25.0	593	10
11	11.5	2.3	6.9	141	2.5	2.9	138	12.1	SE	55	.5	2.4	1118	11
12	7.6	-.6	3.5	094	.1	1.0	355	4.4	SE	74	.0	.2	2033	12
13	6.2	-5.0	.6	159	.6	1.0	176	3.8	S	62	-4.2	0.0	2525	13
14	8.1	-7.4	.4	165	.4	.8	315	2.5	SSE	60	-8.8	0.0	2403	14
15	7.0	-5.8	.6	160	.6	.9	167	4.4	SSE	58	-6.8	0.0	1805	15
16	3.3	-6.7	-1.7	095	.1	.9	332	3.8	SE	69	-5.7	0.0	1225	16
17	7.1	-1.1	3.0	140	.5	.9	146	4.4	SSE	76	-.5	0.0	960	17
18	9.3	-4.3	2.5	185	.2	1.0	322	3.2	SSE	72	-2.0	0.0	1888	18
19	4.7	-5.8	-.6	139	.4	.8	341	3.8	SSE	85	-2.8	0.0	1088	19
20	6.8	-1.6	2.6	150	.2	1.1	132	5.7	SE	82	-.5	0.0	945	20
21	7.6	.1	3.9	117	.2	.9	337	3.8	SE	77	-.1	0.0	1065	21
22	7.7	-4.7	1.5	143	1.6	1.7	130	8.3	SE	51	-7.5	0.0	1690	22
23	2.3	-5.9	-1.8	144	.6	.9	156	4.4	SE	66	-8.4	0.0	748	23
24	1.3	-5.0	-1.9	160	.1	1.0	324	4.4	SSE	68	-6.4	0.0	1175	24
25	-1.9	-6.0	-4.0	354	1.0	1.3	349	4.4	NNW	70	-8.7	0.0	478	25
26	-1.6	-10.1	-5.9	019	.5	1.1	343	4.4	N	83	-7.7	0.0	203	26
27	-.1	-6.7	-3.4	159	.4	.7	338	4.4	SSE	83	-6.5	0.0	135	27
28	1.0	-6.0	-2.5	332	.4	.9	328	5.1	SSE	86	-2.4	.2	220	28
29	1.3	-6.8	-2.8	327	.2	.8	204	3.8	S	88	-2.8	.2	265	29
30	.5	-5.1	-2.3	354	1.2	.9	350	5.1	N	85	-3.3	0.0	172	30
31	-1.2	-10.2	-5.7	***	***	.8	***	5.1	***	89	-3.7	0.0	50	31
MONTH	12.9	-11.0	.4	138	.6	1.3	147	14.6	SSE	66	-4.5	35.0	41730	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 14.0
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 13.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 13.3

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.11

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
October, 1983

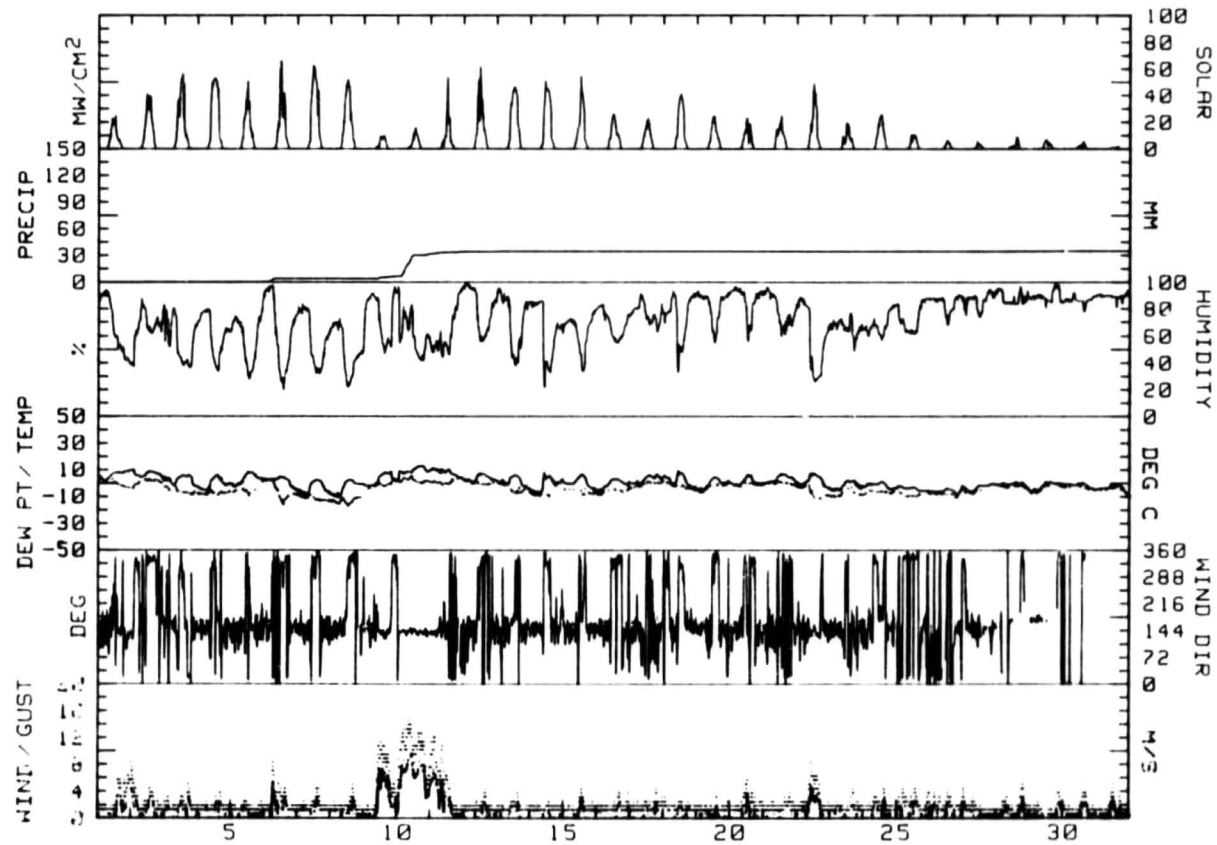


TABLE B.12

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING November, 1983

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	MAX. P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGN	DAY
1	-1.2	-10.0	-5.6	118	1.0	.7	***	2.5	ESE	87	-5.6	****	373	1
2	7.5	-3.4	2.1	140	2.2	2.1	142	10.8	SE	61	-2.8	****	1158	2
3	4.0	-5.2	-0.6	152	.5	.9	070	2.5	SSE	85	-3.1	****	830	3
4	1.1	-9.2	-4.1	151	.5	.8	351	3.2	SSE	87	-7.3	****	585	4
5	-2.0	-5.4	-3.7	157	.8	.9	178	2.5	SSE	91	-5.3	****	345	5
6	-2.9	-13.4	-8.2	159	1.0	1.0	038	3.8	SSE	88	-10.3	****	433	6
7	7.4	-6.2	.6	146	6.0	6.3	140	15.9	SSE	39	-8.1	****	303	7
8	8.8	-2.8	3.0	138	2.9	3.3	142	12.1	SE	46	-6.1	****	440	8
9	8.5	-5.9	1.3	149	1.5	1.7	144	7.6	SSE	56	-8.0	****	1070	9
10	7.4	.6	4.0	146	1.0	1.5	126	7.6	SE	63	-2.4	****	585	10
11	6.5	-3.1	1.7	157	.4	.9	266	3.2	SSE	74	-3.8	****	665	11
12	2.2	-5.1	-1.5	150	.8	.9	141	2.5	SSE	76	-6.0	****	778	12
13	-3.4	-12.2	-7.8	155	1.0	1.0	163	2.5	SSE	83	-11.1	***	663	13
14	-3.6	-11.4	-7.5	156	.8	.9	161	2.5	SSE	87	-10.1	****	453	14
15	3.0	-9.2	-3.1	148	.6	1.0	343	5.7	SSE	88	-4.3	****	318	15
16	-0.6	-11.5	-6.1	330	1.2	.9	334	3.8	NNW	88	-7.7	****	423	16
17	-1.8	-11.8	-6.8	***	****	.8	***	2.5	***	88	-9.2	****	355	17
18	-6.6	-14.2	-10.4	***	****	.8	***	1.9	***	84	-13.3	****	410	18
19	-5.5	-16.6	-11.1	***	****	.8	***	1.9	***	84	-13.6	****	355	19
20	5.3	-17.4	-6.1	140	6.7	5.1	138	14.6	SE	47	-9.0	****	278	20
21	6.1	1.2	3.7	141	4.9	5.4	143	14.6	SE	53	-3.9	****	343	21
22	7.0	-1.6	2.7	132	1.0	1.4	130	7.0	ESE	60	-3.7	****	525	22
23	.2	-2.4	-1.1	340	.8	1.4	343	3.8	NNW	92	-2.2	****	165	23
24	-1.8	-9.4	-5.6	157	.2	1.1	343	5.1	SSE	84	-7.0	****	168	24
25	-3.0	-10.8	-6.9	153	.7	.8	173	2.5	SSE	85	-9.8	****	258	25
26	-0.8	-5.8	-3.3	155	.6	.8	321	4.4	SSE	89	-5.0	****	235	26
27	7.0	-4.8	1.1	146	1.3	1.6	130	9.5	SSE	66	-4.2	****	230	27
28	8.2	5.4	6.8	147	7.3	7.3	143	17.1	SSE	42	-4.8	****	318	28
29	10.6	7.6	9.1	150	5.8	6.2	***	15.9	SSE	**	*****	****	540	29
30	*****	*****	*****	***	****	****	***	****	***	**	*****	****	*****	30
MONTH	10.6	-17.4	-2.2	146	1.8	2.0	143	17.1	SSE	67	-6.7	****	13595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 13.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.0
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.12

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
November, 1983

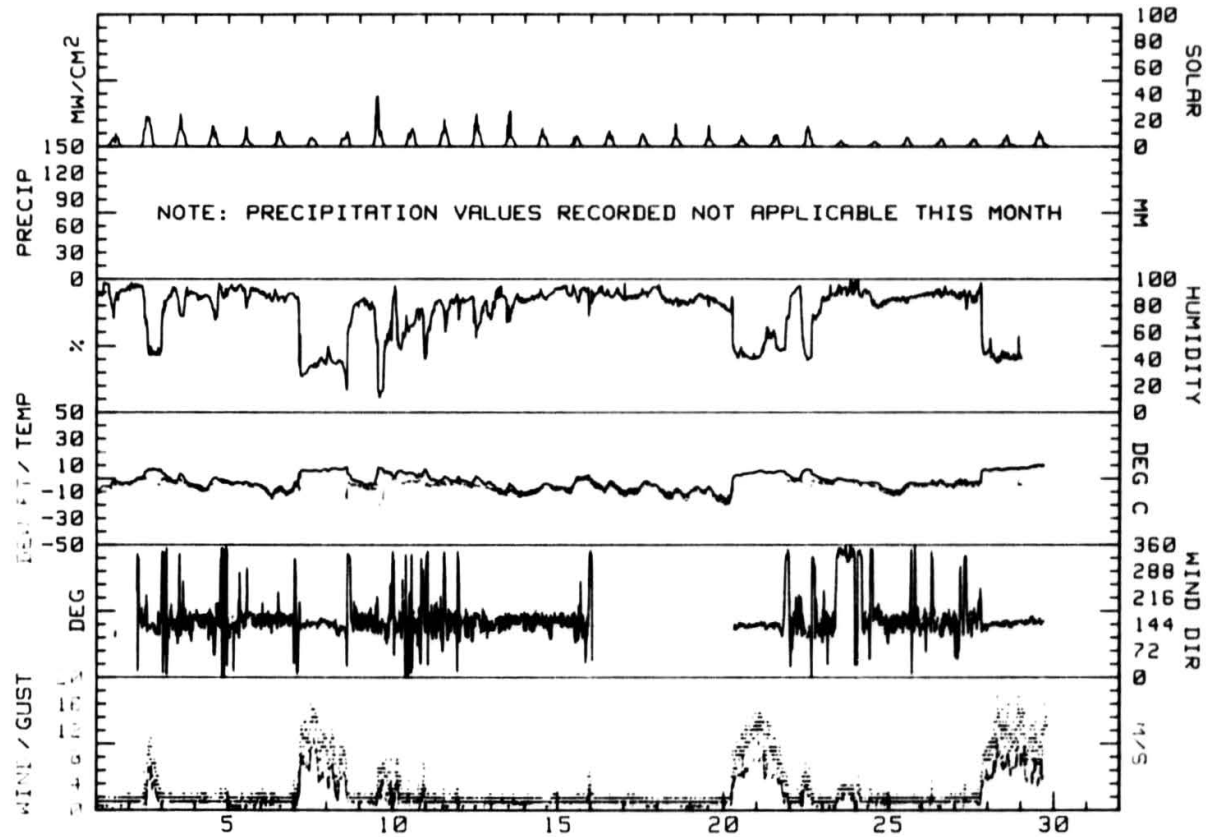


TABLE B.13

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING December, 1983

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
1	****	****	****	***	****	****	***	****	***	**	****	****	*****	1
2	****	****	****	***	****	****	***	****	***	**	****	****	*****	2
3	****	****	****	***	****	****	***	****	***	**	****	****	*****	3
4	****	****	****	***	****	****	***	****	***	**	****	****	*****	4
5	****	****	****	***	****	****	***	****	***	**	****	****	*****	5
6	-7.0	-10.1	-8.6	152	.9	.9	154	2.5	SSE	93	-9.9	****	0	6
7	-7.5	-12.0	-9.8	157	.9	.9	157	2.5	SSE	90	-11.2	****	135	7
8	-10.6	-14.3	-12.5	155	.9	.9	160	1.9	SSE	90	-13.9	****	140	8
9	-5.0	-15.8	-10.4	139	.4	.7	333	3.2	SSE	90	-10.8	****	110	9
10	-6.2	-9.8	-8.0	002	.4	.7	329	4.4	NNW	91	-9.1	****	65	10
11	-4.8	-13.0	-8.9	128	.5	.6	033	2.5	SSE	91	-9.3	****	150	11
12	-7.0	-13.1	-10.1	142	.6	.7	036	2.5	SSE	91	-11.5	****	100	12
13	-6.1	-10.6	-8.4	075	.1	.4	140	1.9	NNW	94	-9.5	****	5	13
14	-9.8	-22.1	-16.0	***	****	****	***	****	E	89	-14.3	****	30	14
15	-18.2	-25.4	-21.8	***	****	****	***	****	SE	79	-26.2	****	65	15
16	-8.0	-17.3	-12.7	092	.2	.3	082	1.9	SE	87	-16.4	****	35	16
17	-6.0	-11.1	-8.6	059	.1	.3	038	1.9	ESE	92	-8.8	****	15	17
18	-9.9	-18.1	-14.0	***	****	****	***	****	SE	89	-16.4	****	55	18
19	-5.9	-18.4	-12.2	128	.3	.3	144	2.5	SE	85	-19.6	****	40	19
20	-2.3	-6.0	-4.2	118	.2	.2	085	1.9	SE	95	-5.9	****	5	20
21	-2.3	-13.2	-7.8	116	.2	.2	120	1.3	SE	93	-8.6	****	50	21
22	-13.4	-18.5	-16.0	***	****	****	***	****	SE	87	-17.5	****	50	22
23	-17.4	-19.7	-18.6	***	****	****	***	****	SE	83	-21.1	****	50	23
24	-15.1	-19.2	-17.2	130	.3	.3	151	1.3	SE	84	-19.5	****	40	24
25	-10.9	-15.2	-13.1	128	.4	.4	124	1.3	SE	**	****	****	35	25
26	-13.4	-17.7	-15.6	131	.2	.2	117	1.3	ESE	87	-17.5	****	35	26
27	-16.7	-19.4	-18.1	***	****	****	***	****	SE	84	-20.0	****	30	27
28	-18.7	-21.7	-20.2	***	****	****	***	****	SE	81	-22.5	****	30	28
29	-21.0	-23.9	-22.5	***	****	****	***	****	SE	80	-25.0	****	30	29
30	-10.9	-24.1	-17.5	125	.1	.1	137	1.3	SE	80	-23.9	****	30	30
31	-8.8	-12.9	-10.9	124	.2	.2	143	1.3	ESE	91	-12.5	****	35	31
MONTH	-2.3	-25.4	-13.2	136	.3	.5	329	4.4	SE	86	-15.2	****	1365	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 3.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 2.5

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.13

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
December, 1983

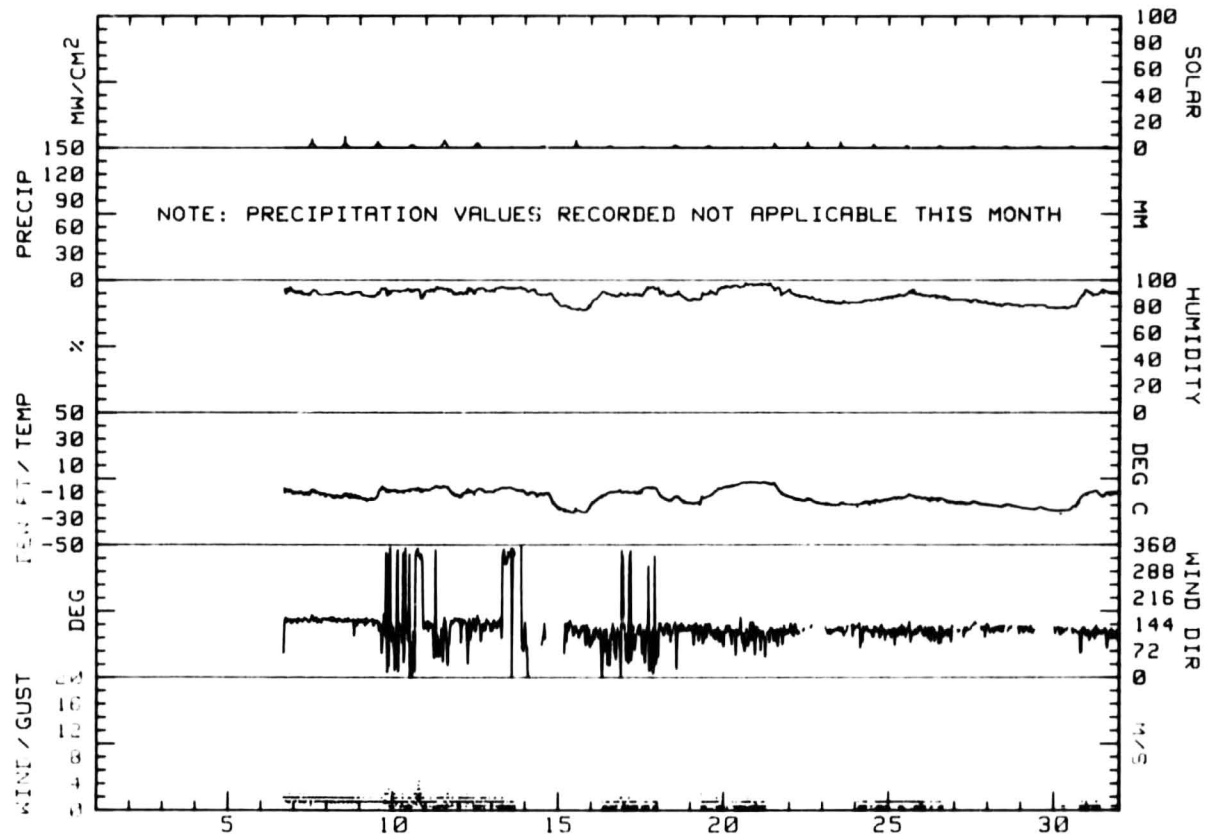


TABLE B.14

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING January, 1984

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
1	-1.6	-11.7	-6.7	121	.1	.1	143	1.3	ESE	96	-3.3	****	25	1
2	7.5	-2.9	2.3	140	5.5	5.6	135	12.7	SE	73	-1.7	****	195	2
3	6.9	-1.2	2.9	134	3.6	4.3	139	11.4	SE	60	-2.5	****	135	3
4	-1.6	-27.9	-14.8	350	1.4	1.8	358	5.7	NNW	89	-10.1	****	110	4
5	-6.7	-32.0	-19.4	169	.3	1.0	336	5.1	SSE	83	-16.9	****	130	5
6	-9.5	-16.2	-12.9	160	.8	.8	225	3.2	SSE	94	-11.7	****	160	6
7	-13.6	-21.6	-17.6	152	.5	.6	159	1.9	SSE	85	-20.6	****	165	7
8	0.0	-22.6	-11.3	***	****	****	***	****	SSE	85	-19.8	****	175	8
9	-1.2	-14.6	-7.9	***	****	****	***	****	SSE	93	-10.0	****	120	9
10	6.4	-3.3	1.6	144	1.1	1.8	136	8.3	SSE	83	-.6	****	90	10
11	5.6	-4.5	.6	138	4.4	5.0	138	16.5	SE	70	-2.1	****	180	11
12	7.5	4.4	6.0	141	8.3	8.4	142	17.8	SE	66	.1	****	130	12
13	7.2	-.6	3.3	141	2.8	3.0	141	12.1	SE	58	-2.7	****	185	13
14	.7	-2.9	-1.1	128	.5	.6	145	2.5	SE	89	-2.3	****	95	14
15	-2.6	-19.9	-11.3	***	****	****	***	****	***	82	-15.0	****	120	15
16	-7.9	-20.2	-14.1	***	****	****	***	****	***	81	-16.7	****	85	16
17	-4.1	-10.9	-7.5	***	****	****	***	****	***	86	-8.8	****	45	17
18	-3.5	-6.2	-4.9	***	****	****	***	****	***	86	-7.1	****	65	18
19	-6.2	-19.6	-12.9	***	****	****	***	****	***	84	-12.9	****	45	19
20	-17.1	-24.6	-20.9	***	****	****	***	****	***	76	-24.5	****	145	20
21	-16.3	-27.1	-21.7	***	****	****	***	****	***	74	-25.7	****	135	21
22	-15.4	-30.4	-22.9	***	****	****	***	****	***	75	-25.1	****	75	22
23	-29.6	-35.2	-32.4	***	****	****	***	****	***	65	-37.0	****	165	23
24	-30.0	-37.8	-33.9	***	****	****	***	****	***	61	-40.2	****	195	24
25	-19.0	-36.9	-28.0	***	****	****	***	****	***	65	-34.8	****	130	25
26	-13.7	-23.2	-18.5	***	****	****	***	****	***	75	-21.4	****	160	26
27	-10.1	-20.7	-15.4	***	****	****	***	****	***	79	-17.1	****	75	27
28	2.7	-27.0	-12.2	145	5.0	5.0	137	12.1	SE	73	-19.0	****	85	28
29	5.6	1.8	3.7	142	5.4	5.5	146	14.0	SE	49	-6.0	****	420	29
30	5.1	-2.8	1.2	132	1.1	1.7	131	8.3	SE	50	-7.2	****	410	30
31	-1.7	-11.4	-6.6	170	.3	.5	185	2.5	S	81	-6.7	****	345	31
MONTH	7.5	-37.8	-10.7	139	2.4	2.9	142	17.8	SE	75	-13.8	****	4595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.6
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 17.8

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.14

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
January, 1984

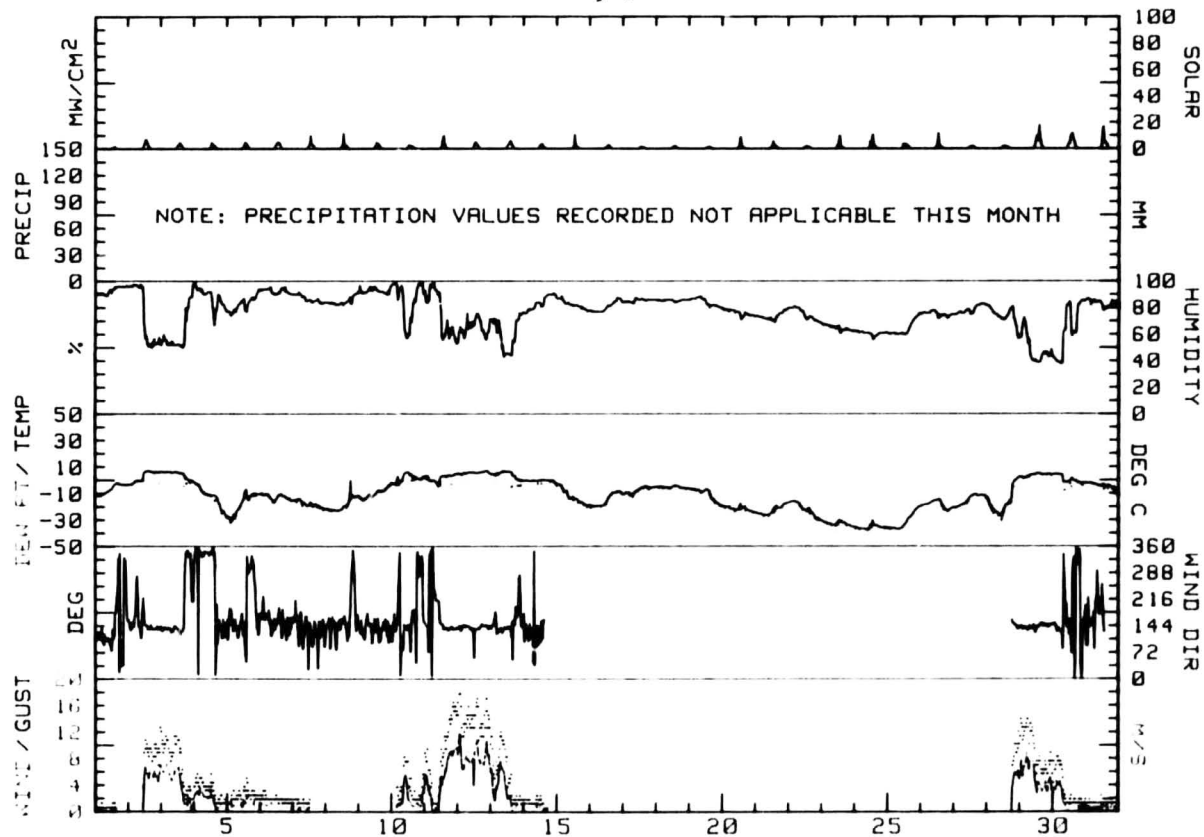


TABLE B.15

R & M CONSULTANTS, INC.

SUSTYNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION

DATA TAKEN DURING February, 1984

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 Z	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH	DAY
1	-4.2	-17.5	-10.9	***	***	.5	***	1.9	***	82	-13.0	***	200	1
2	-5.4	-10.1	-7.8	***	***	.4	***	1.9	***	**	***	***	200	2
3	-7.4	-12.5	-10.0	***	***	.4	***	1.9	***	**	***	***	130	3
4	3.1	-8.3	-2.6	092	.6	2.6	155	10.8	KNW	76	-7.5	***	600	4
5	-8.1	-15.1	-11.6	005	.2	.8	349	3.8	SSE	81	-12.8	***	190	5
6	.7	-17.6	-8.5	150	.7	1.1	144	8.9	ESE	59	-13.4	***	185	6
7	-6.5	-12.9	-9.7	347	1.3	1.2	340	7.0	NNW	80	-11.9	***	135	7
8	-11.7	-27.7	-19.7	093	.1	.5	356	3.2	SSE	80	-14.5	***	360	8
9	-23.1	-32.9	-27.5	145	.2	.4	160	1.9	SSE	**	***	***	505	9
10	-13.6	-33.8	-23.7	090	.1	.5	178	2.5	SSE	**	***	***	210	10
11	-9.2	-22.2	-15.7	160	.3	.5	160	2.5	SSE	81	-17.8	***	550	11
12	-9.4	-21.7	-15.6	133	.3	.6	153	1.9	SE	80	-18.4	***	535	12
13	-8.9	-20.9	-14.9	***	***	.5	***	1.9	***	**	***	***	350	13
14	-4.5	-17.5	-11.0	***	***	.9	***	5.1	***	76	-10.8	***	390	14
15	-8.6	-21.9	-15.3	***	***	.5	***	2.5	***	83	-13.1	***	415	15
16	1.4	-10.4	-4.5	213	.3	1.2	259	7.6	SE	74	-5.7	***	176	16
17	4.3	-1.8	1.3	140	1.6	2.4	128	9.5	SE	**	***	***	900	17
18	1.0	-5.9	-2.5	148	.1	.7	125	9.5	NW	**	***	***	165	18
19	-5.1	-14.3	-9.7	334	.6	.7	335	3.8	NNW	**	***	***	155	19
20	-12.5	-21.6	-17.1	023	.5	.6	022	2.5	NNE	**	***	***	205	20
21	2.1	-20.3	-9.1	139	2.4	2.6	150	13.3	SE	**	***	***	1365	21
22	.8	-8.9	-4.1	000	.4	.8	071	5.1	NNE	**	***	***	1360	22
23	-7.3	-20.3	-13.8	131	.2	.5	156	2.5	SSE	**	***	***	2020	23
24	-5.1	-22.1	-13.6	151	.4	.7	143	2.5	SE	**	***	***	1460	24
25	-3.3	-9.2	-4.8	144	.1	.7	334	2.5	SSE	**	***	***	1790	25
26	1.2	-11.0	-4.9	140	.1	.5	146	1.9	SSE	**	***	***	2290	26
27	-5.5	-11.4	-6.0	116	.1	.6	314	2.5	SE	**	***	***	1765	27
28	.6	-13.4	-6.4	111	.2	.6	134	1.9	SE	**	***	***	2625	28
29	-2.1	-16.2	-9.2	136	.5	.7	129	2.5	SSE	**	***	***	1615	29
MONTH	4.3	-33.8	-10.6	125	.3	.8	150	13.3	SE	75	-12.6	***	22846	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.9

GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2

GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 11.4

GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.15

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
February, 1984

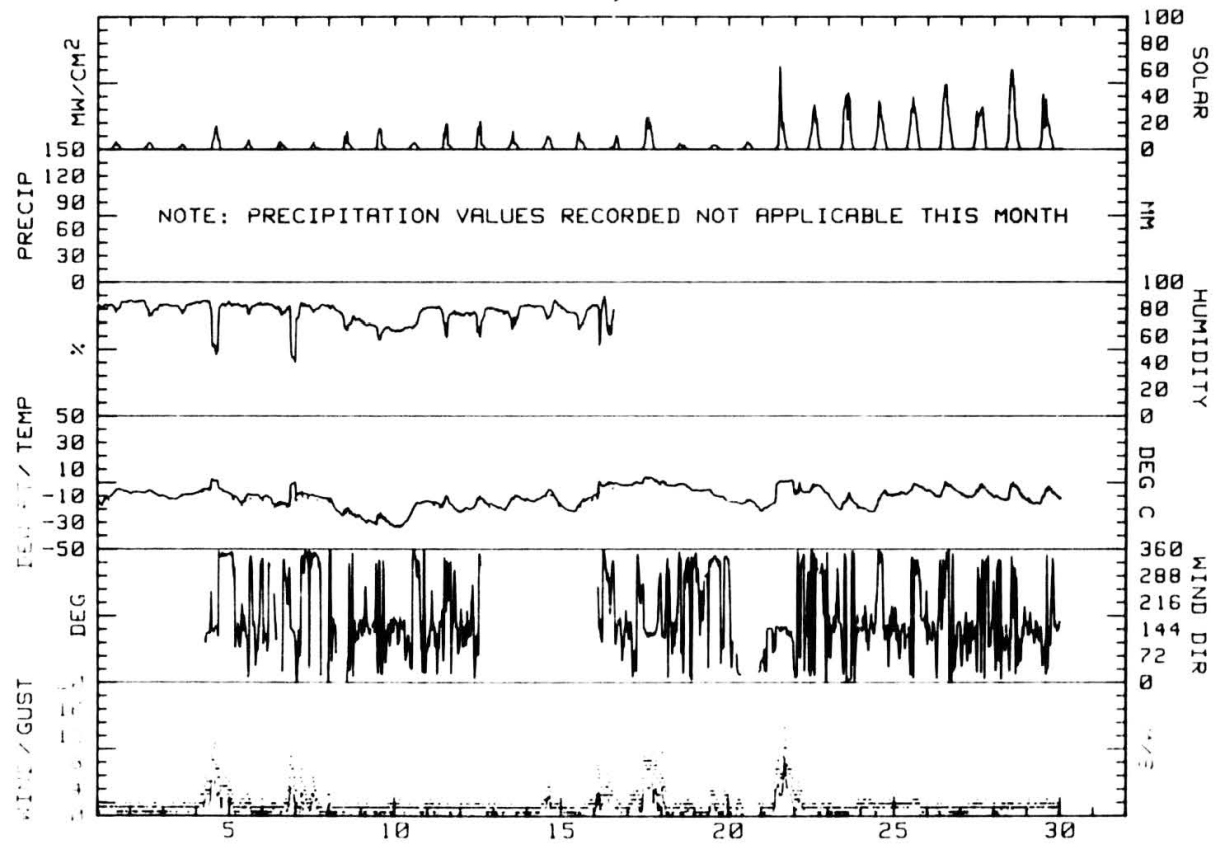


TABLE B.16

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING March, 1984

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	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH	DAY
1	1.6	-15.4	-6.9	155	.2	.5	346	2.5	SSE	**	*****	****	1885	1
2	3.5	-17.7	-7.1	155	.5	1.2	147	11.4	SE	**	*****	****	2000	2
3	6.6	-7	3.0	141	4.6	4.9	162	17.1	SE	**	*****	****	1355	3
4	8.8	1.0	4.9	134	4.7	5.0	139	15.2	SE	**	*****	****	1690	4
5	11.1	.9	6.0	136	2.6	3.6	138	10.8	SE	**	*****	****	1505	5
6	9.6	-2.0	3.8	140	.9	1.3	134	7.6	SE	**	*****	****	2870	6
7	9.8	.7	5.3	164	.2	.8	332	4.4	SE	**	*****	****	2590	7
8	10.5	-7	4.9	142	.8	1.5	354	7.6	SE	**	*****	****	715	8
9	10.7	2.1	6.4	137	1.1	2.1	135	10.2	SE	**	*****	****	2230	9
10	10.5	1.6	6.1	140	1.4	1.9	142	8.9	SE	**	*****	****	2840	10
11	11.0	-1.7	4.7	149	.2	.8	334	3.8	SE	**	*****	****	2510	11
12	5.5	-5.2	.2	141	.2	.6	161	1.9	SSE	**	*****	****	3545	12
13	6.1	-7.0	-5	182	.3	.7	192	2.5	SSE	**	*****	****	3360	13
14	5.3	-6.3	-5	154	.3	.7	327	2.5	SSE	**	*****	****	3585	14
15	7.3	-6.1	.6	144	1.4	1.7	129	6.3	SSE	**	*****	****	3260	15
16	6.0	-3.7	1.2	116	.1	.7	145	1.9	SE	**	*****	****	3870	16
17	5.2	-5.8	-3	138	.1	.7	347	3.2	NNW	**	*****	****	3970	17
18	3.8	-9.6	-2.9	192	.1	.7	343	2.5	SSE	**	*****	****	3935	18
19	4.1	-10.9	-3.4	150	.3	.7	141	2.5	SSE	**	*****	****	4080	19
20	4.2	-8.1	-2.0	132	.2	.9	357	3.2	SSE	**	*****	****	3155	20
21	3.5	-9.8	-3.2	167	.1	.7	329	2.5	SSE	**	*****	****	4370	21
22	4.9	-11.2	-3.2	202	.1	.7	338	3.2	SSE	**	*****	****	4410	22
23	2.4	-11.2	-4.4	216	.1	.8	155	2.5	SSE	**	*****	****	4505	23
24	4.4	-11.5	-3.6	184	.1	1.0	332	3.8	SSE	**	*****	****	4065	24
25	4.0	-2.1	1.0	317	.2	.7	341	3.2	NW	**	*****	****	3655	25
26	7.4	-1.9	2.8	147	1.8	1.8	137	8.3	SSE	**	*****	****	3020	26
27	7.2	-2.7	2.3	143	3.0	3.2	145	8.3	SE	**	*****	****	4675	27
28	7.6	-6.7	.5	135	1.2	1.7	138	8.3	SE	**	*****	****	4875	28
29	3.7	-1.6	1.1	169	1.0	1.3	149	7.0	S	**	*****	****	2150	29
30	.9	-2.6	-.9	333	.4	.5	338	1.9	NNW	**	*****	****	1565	30
31	7.4	-7.4	0.0	142	3.4	2.6	145	10.2	SE	**	*****	****	3965	31
MONTH	11.1	-17.7	.5	142	.9	.8	162	17.1	SE	**	*****	****	95195	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 4.4
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.0

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.16

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
March, 1984

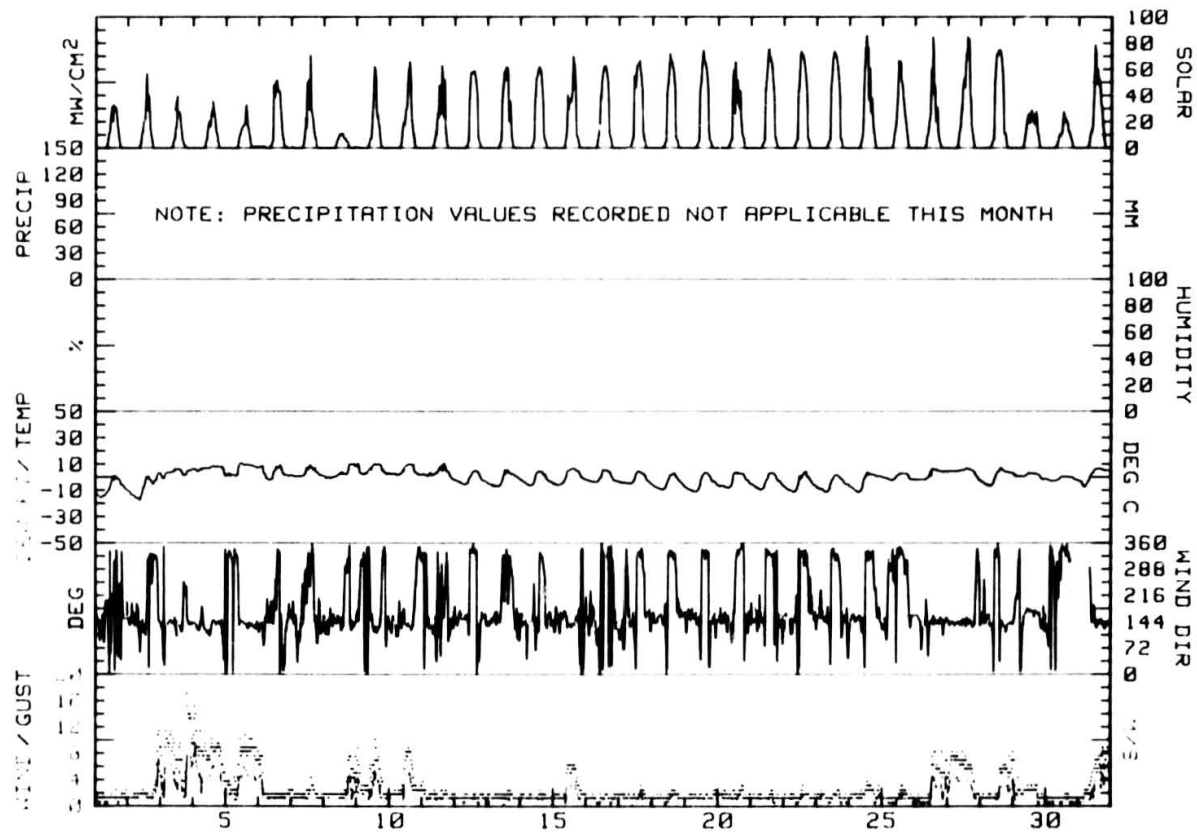


TABLE B.17

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING April, 1984

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/SGH	DAY
1	6.9	.1	3.5	115	.8	1.7	127	8.3	SE	**	*****	3.4	4530	1
2	4.6	-1.4	1.6	336	.7	.7	344	3.2	NNW	**	*****	4.4	4790	2
3	4.1	-2.4	.9	350	.3	.7	345	3.8	NNW	**	*****	0.0	4610	3
4	8.8	-6.5	1.2	096	.4	1.1	126	5.7	ESE	**	*****	0.0	4960	4
5	8.2	-1.6	3.3	093	.5	1.8	130	8.9	SE	**	*****	0.0	4645	5
6	2.8	-8.2	-2.7	338	.8	.8	348	3.2	NNW	**	*****	1.8	5485	6
7	2.8	-2.8	0.0	338	.8	1.0	334	4.4	NNW	**	*****	0.0	5325	7
8	5.8	-5.4	.2	137	1.5	2.0	138	8.3	SE	**	*****	.2	5500	8
9	6.8	-2.4	2.2	221	.2	1.0	244	3.2	SE	**	*****	0.0	3950	9
10	2.2	-3.0	-.4	332	.9	1.2	343	4.4	NNW	**	*****	0.0	4935	10
11	3.0	-4.5	-.8	343	.5	.8	335	3.2	NNW	**	*****	3.2	5940	11
12	7.4	-6.6	.4	010	.3	.9	062	5.1	NNW	**	*****	0.0	5740	12
13	8.3	-3.8	2.3	147	1.2	1.5	138	8.3	SSE	**	*****	.2	3800	13
14	6.8	-3.5	1.7	332	.4	1.1	339	3.8	NNW	**	*****	0.0	6220	14
15	3.2	-4.0	-.4	343	.7	1.3	342	5.7	NNW	**	*****	0.0	5220	15
16	.2	-3.9	-1.9	340	.7	.8	346	3.8	NNW	**	*****	3.0	1595	16
17	2.1	-3.3	-.6	335	.7	.5	329	1.9	NNW	**	*****	6.6	3445	17
18	3.9	-3.6	.2	315	.4	.9	174	3.8	NNW	**	*****	6.6	4715	18
19	6.8	-7.3	-.3	343	.1	.8	347	3.8	NNW	**	*****	0.0	5725	19
20	7.4	-1.1	3.2	148	.2	.9	021	8.3	SSE	**	*****	4.8	4250	20
21	6.5	-2.5	2.0	159	1.1	2.0	140	7.0	SSE	**	*****	4.0	3630	21
22	2.5	-5.0	-1.3	329	.6	1.3	346	5.1	NNW	**	*****	2.6	7605	22
23	5.5	-9.6	-2.1	152	.3	1.2	144	5.1	SSE	**	*****	0.0	7790	23
24	6.7	-5.3	.7	159	1.4	1.8	151	7.6	SSE	**	*****	0.0	7950	24
25	7.0	-7.5	-.3	142	2.3	2.6	135	8.3	SE	**	*****	0.0	7940	25
26	7.2	2.4	4.8	124	3.2	3.4	126	7.6	SE	**	*****	0.0	4410	26
27	10.6	.9	5.8	103	.9	2.0	121	10.2	SE	**	*****	0.0	4585	27
28	11.7	3.6	7.7	128	3.8	4.0	132	10.8	SE	**	*****	0.0	6640	28
29	10.4	3.8	7.1	097	.8	2.2	130	7.6	SE	**	*****	0.0	4365	29
30	11.9	2.6	7.3	138	2.9	3.1	130	8.3	SE	**	*****	0.0	6255	30
MONTH	11.9	-9.6	1.5	122	.5	1.5	132	10.8	NNW	**	*****	40.8	156550	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.17

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
April, 1984

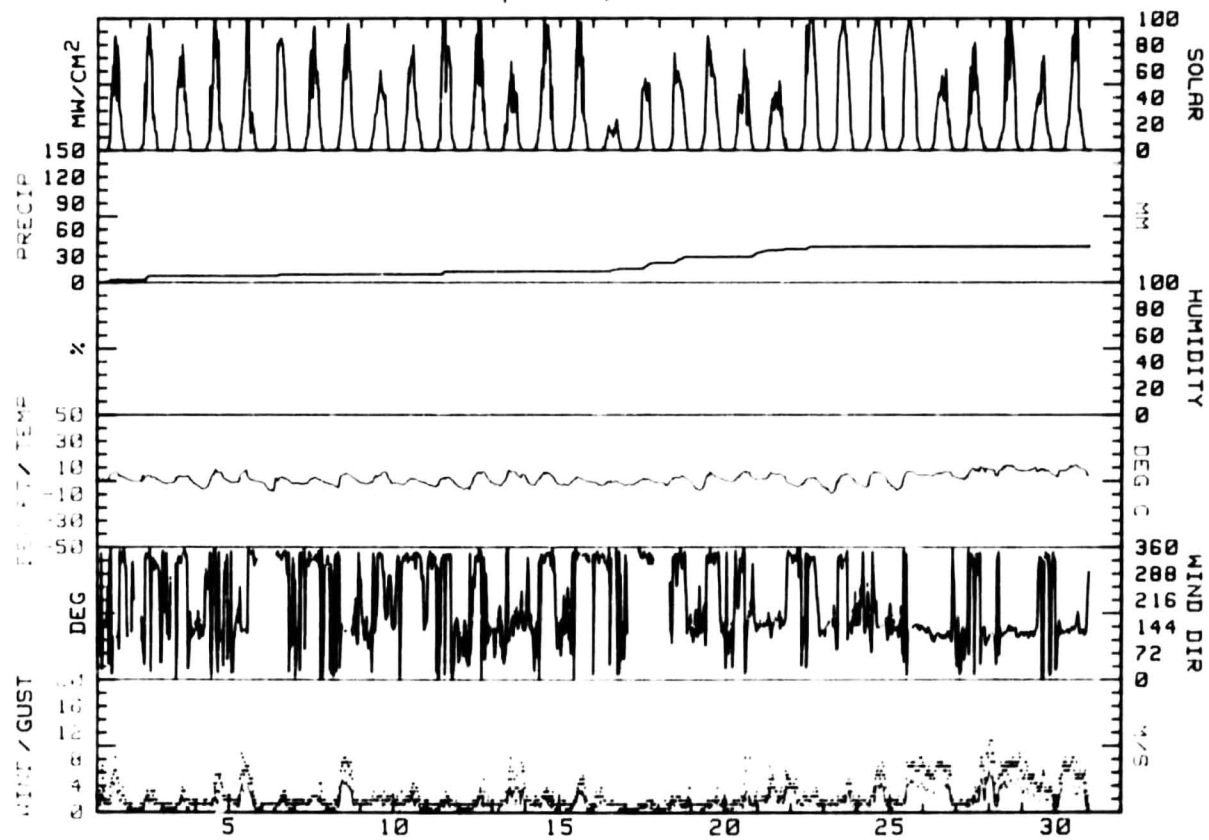


TABLE B.18

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SUSITNA WEATHER STATION
DATA TAKEN DURING May, 1984

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	D'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAYS SOLAR ENERGY WH/50W	DAY
1	10.8	.8	5.8	040	.6	1.7	129	7.0	NNW	**	*****	0.0	5870	1
2	8.8	-2.1	3.4	140	1.5	2.1	136	7.6	SE	**	*****	0.0	7555	2
3	9.7	-2.0	3.4	139	1.0	1.9	313	7.6	SE	**	*****	0.0	7225	3
4	9.4	-1.6	3.9	142	1.1	2.0	121	7.6	SE	**	*****	0.0	6570	4
5	9.3	-1.7	3.8	058	.2	1.8	142	6.3	SSE	**	*****	0.0	8265	5
6	9.6	-5.0	2.3	131	.9	1.8	151	7.0	SSE	**	*****	0.0	9275	6
7	12.3	-3.2	4.6	226	.2	1.2	339	3.8	SSE	**	*****	0.0	8645	7
8	16.1	-3.5	6.3	228	.3	1.3	293	4.4	SSE	**	*****	0.0	8910	8
9	15.3	-1.2	7.1	331	.4	1.3	346	4.4	SSE	**	*****	0.0	8795	9
10	14.2	-1.8	6.2	341	.5	1.2	341	3.8	NNW	**	*****	0.0	8095	10
11	11.1	-3.1	4.5	342	1.0	1.7	344	6.3	NNW	**	*****	0.0	9515	11
12	11.4	-3.9	3.8	335	.5	1.3	337	3.8	SSE	**	*****	0.0	7595	12
13	13.1	-2.5	5.3	342	.4	1.3	343	3.8	SSE	**	*****	0.0	7695	13
14	15.6	-2.4	6.6	153	.9	1.8	152	7.0	SSE	**	*****	0.0	9145	14
15	14.7	-1.8	7.0	141	2.0	2.3	160	7.0	SE	**	*****	0.0	8260	15
16	16.1	4.2	10.2	161	1.0	1.8	141	5.7	SSE	**	*****	0.0	8950	16
17	16.7	-1.2	8.3	135	1.9	2.8	147	10.8	SE	**	*****	0.0	8320	17
18	15.5	6.1	10.8	135	2.4	3.0	128	8.9	SE	**	*****	0.0	8265	18
19	13.4	4.6	9.0	349	.6	1.1	352	5.1	NNW	**	*****	.2	6830	19
20	16.3	2.9	9.6	131	.9	1.6	134	6.3	SSE	**	*****	0.0	5540	20
21	13.2	6.3	9.8	129	.9	1.8	133	7.0	SE	**	*****	0.0	4965	21
22	11.1	.9	6.0	345	.7	1.1	347	5.1	NNW	**	*****	0.0	5870	22
23	17.0	-2.2	7.4	153	.5	1.6	168	6.3	SSE	**	*****	0.0	8320	23
24	13.8	.5	7.2	352	1.0	1.6	348	5.1	NNW	**	*****	0.0	9810	24
25	16.1	.8	8.5	358	.4	1.0	339	4.4	SSE	**	*****	0.0	6170	25
26	17.3	.6	9.0	***	***	***	***	***	***	**	*****	0.0	7310	26
27	18.8	-3.3	7.8	***	***	***	***	***	***	**	*****	0.0	9870	27
28	21.2	-6.5	7.4	***	***	***	***	***	***	**	*****	0.0	9513	28
29	15.1	-5.3	5.9	***	***	***	***	***	***	**	*****	3.6	3780	29
30	13.7	-1.2	6.8	***	***	***	***	***	***	**	*****	1.2	6640	30
31	15.3	1.0	8.2	***	***	***	***	***	***	**	*****	.8	7075	31
MONTH	21.2	-6.5	6.6	125	.4	1.7	147	10.8	SSE	**	*****	5.8	233853	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 9.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.9
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.18

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
May, 1984

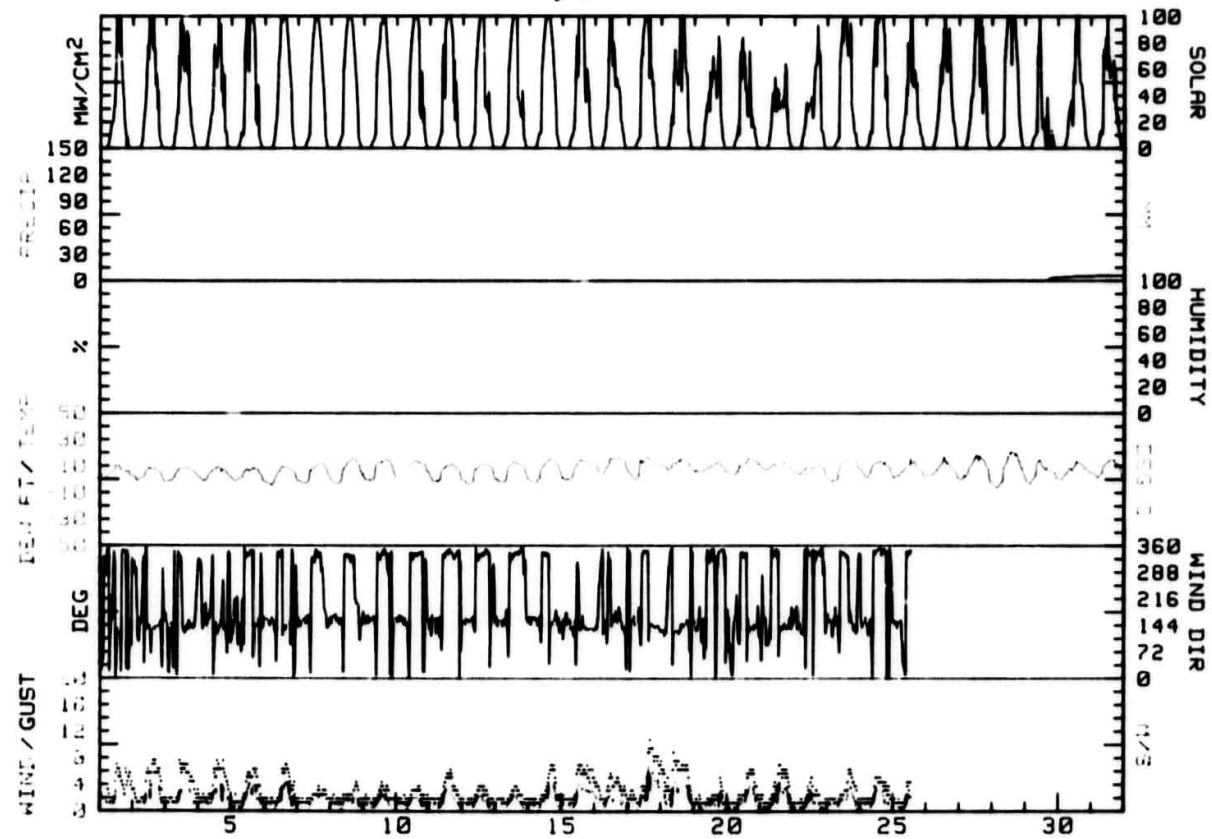


TABLE B.19

P & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EXLUTNA WEATHER STATION

DATA TAKEN DURING June, 1984

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/SGM	DAY
1	19.6	-1.9	9.9	090	.4	1.4	333	3.8	SE	**	*****	0.0	7660	1
2	19.5	-1.4	9.6	348	.4	1.1	012	3.8	ESE	**	*****	0.0	10130	2
3	19.0	.1	9.6	006	.3	1.3	333	5.1	SE	**	*****	0.0	9125	3
4	20.4	.5	10.5	345	.2	1.2	329	5.1	ESE	**	*****	0.0	10595	4
5	24.0	1.6	12.8	346	.2	1.0	194	4.4	ESE	**	*****	.6	8795	5
6	13.0	3.9	8.5	020	.4	1.2	043	5.1	NNW	**	*****	6.2	4510	6
7	15.3	-1.4	7.5	000	.5	1.3	000	5.7	N	**	*****	0.0	1235	7
8	16.2	5.9	11.1	352	.8	1.1	002	4.4	N	**	*****	.2	6785	8
9	15.6	5.1	10.4	350	.6	1.2	352	5.1	N	**	*****	.6	8955	9
10	17.4	4.1	10.8	001	.7	1.2	359	3.8	N	**	*****	0.0	9300	10
11	16.1	6.1	11.1	350	.5	.9	137	4.4	NNW	**	*****	0.0	6960	11
12	14.9	8.9	11.9	107	.2	.7	043	2.5	SE	**	*****	2.8	3565	12
13	15.1	6.9	11.0	147	1.2	1.7	138	7.0	SSE	**	*****	0.0	5660	13
14	14.6	3.1	8.9	156	1.1	1.5	163	7.0	SSE	**	*****	1.8	4995	14
15	10.4	6.0	8.2	350	.4	.9	002	4.4	N	**	*****	7.0	1625	15
16	13.3	7.4	8.9	347	.4	.9	358	3.2	N	**	*****	6.0	3325	16
17	16.3	7.8	12.1	355	.8	1.2	000	3.8	N	**	*****	1.2	11120	17
18	20.2	4.3	12.3	355	.3	1.0	358	3.2	NNW	**	*****	0.0	9905	18
19	19.1	3.8	11.5	348	.3	1.0	354	3.8	S	**	*****	0.0	10455	19
20	20.1	4.1	12.1	353	.6	1.1	359	4.4	NNW	**	*****	0.0	9575	20
21	19.4	4.6	12.0	354	.5	1.0	346	3.8	NNW	**	*****	0.0	10545	21
22	21.2	3.4	12.3	318	.1	1.0	348	3.8	S	**	*****	0.0	9660	22
23	19.7	3.9	11.8	154	1.1	1.9	160	7.0	SSE	**	*****	0.0	7355	23
24	18.2	8.3	13.3	157	2.1	2.3	148	8.3	SSE	**	*****	0.0	6275	24
25	17.9	10.2	14.0	154	2.2	2.3	139	7.0	SSE	**	*****	0.0	5770	25
26	15.3	8.7	12.0	002	.3	.9	121	4.4	NNW	**	*****	.4	4905	26
27	12.0	6.0	9.0	015	.9	1.2	028	4.4	N	**	*****	3.4	3885	27
28	19.7	4.6	12.2	149	1.0	2.0	157	8.9	SSE	**	*****	0.0	8795	28
29	18.9	13.6	16.3	148	3.9	4.0	131	2.3	SSE	**	*****	0.0	9875	29
30	17.8	9.2	13.5	033	.5	1.3	148	5.7	N	**	*****	0.0	6670	30
MONTH	24.0	-1.9	11.1	107	.2	1.4	157	8.9	SSE	**	*****	30.2	226410	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3

GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.19

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
June, 1984

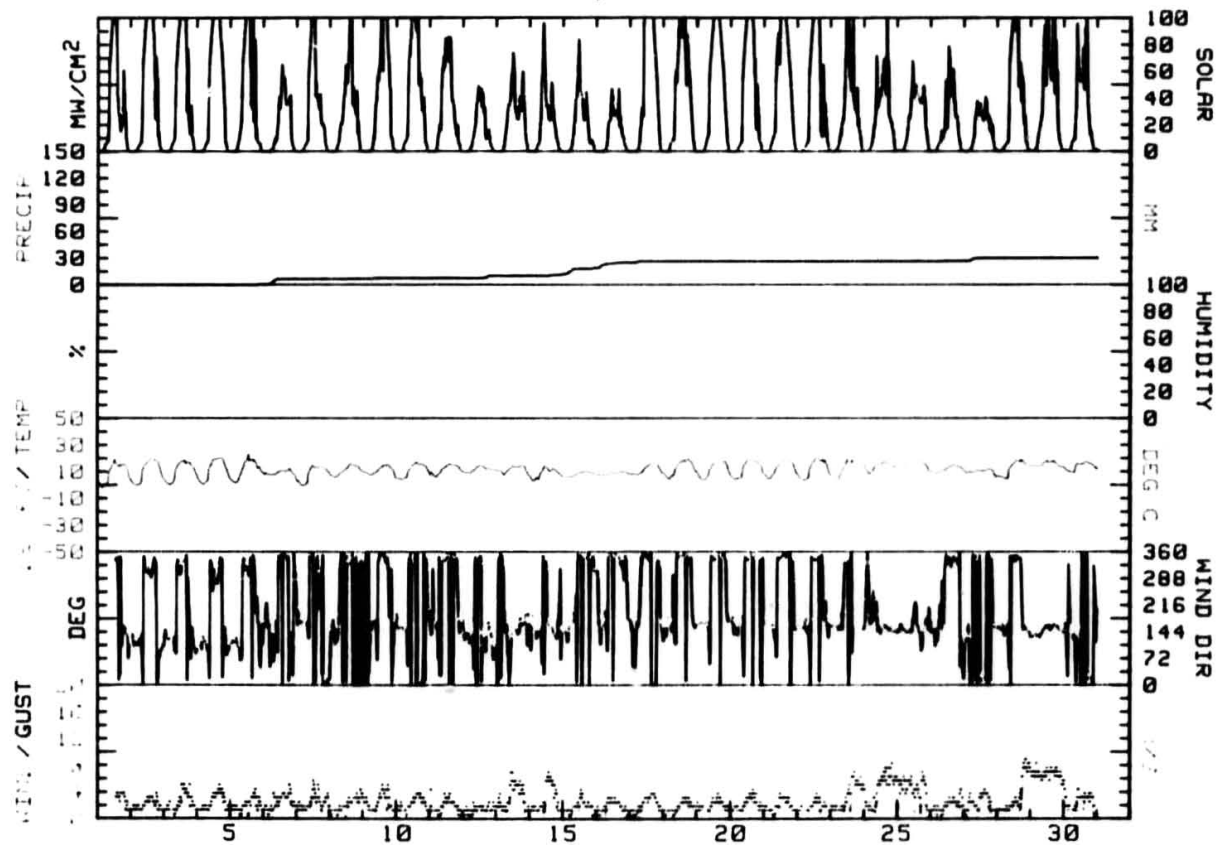


TABLE B.20

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SUSITNA WEATHER STATION
DATA TAKEN PERIOD: July 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	PFS. 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.	PEAK RH %	MEAN DP DEG C	PRECIP MM	DAT S SOLAR WH/500	DAY
1	12.5	9.6	11.1	354	.4	.7	357	3.2	NNW	**	*****	1.6	2830	1
2	14.6	8.1	11.4	351	.3	.7	354	3.2	NNW	**	*****	1.2	6090	2
3	14.9	9.2	12.1	176	.3	.7	176	2.5	SSE	**	*****	.2	3655	3
4	21.5	8.3	14.9	353	5	1.0	359	4.4	N	**	*****	0.0	2000	4
5	22.0	10.7	16.4	017	.2	1.0	013	4.4	NNW	**	*****	.2	2585	5
6	22.3	8.7	15.5	002	.1	1.0	002	3.8	N	**	*****	.2	2735	6
7	21.0	7.1	14.1	009	.3	1.2	000	5.1	N	**	*****	0.0	2545	7
8	13.3	8.8	11.1	163	.1	.8	350	3.2	SSE	**	*****	4.0	2150	8
9	15.7	7.6	12.2	359	.4	1.1	359	4.4	N	**	*****	1.4	2310	9
10	15.2	7.5	11.4	143	1.0	1.6	145	6.3	SSE	**	*****	3.4	2440	10
11	15.9	6.8	12.9	135	.9	1.9	142	5.1	SSE	**	*****	0.0	2665	11
12	19.9	4.1	12.6	026	.3	1.1	021	5.1	SSE	**	*****	.2	4990	12
13	17.8	9.9	13.4	033	.1	1.0	013	5.7	SSE	**	*****	6.0	2015	13
14	12.9	3.4	9.2	173	.1	.7	336	1.9	SSE	**	*****	1.4	2655	14
15	19.6	3.1	11.1	312	.2	.9	347	3.2	NNW	**	*****	0.0	2665	15
16	13.4	10.0	11.7	019	.4	.8	351	3.2	N	**	*****	1.4	2695	16
17	12.5	9.1	11.0	046	.2	.7	354	3.2	N	**	*****	1.0	1200	17
18	13.0	8.4	10.7	353	.4	.8	351	3.2	N	**	*****	.6	3700	18
19	14.7	9.4	12.1	355	.3	.8	013	4.4	NNW	**	*****	0.0	3990	19
20	13.4	9.1	11.3	343	.3	.7	359	3.2	NNW	**	*****	.4	2600	20
21	18.1	8.5	13.5	355	.5	1.1	000	4.4	N	**	*****	0.0	2185	21
22	16.4	8.8	12.6	330	.1	.8	327	2.5	NNW	**	*****	0.0	4380	22
23	20.0	11.1	15.6	335	.4	.8	303	3.8	NNW	**	*****	0.0	6405	23
24	19.7	11.0	14.9	007	.2	.8	350	3.2	N	**	*****	0.0	4970	24
25	14.9	10.6	12.8	350	.2	.6	338	2.5	NNW	**	*****	2.6	3580	25
26	15.1	9.3	12.2	204	.1	.7	334	2.5	SSE	**	*****	1.0	1545	26
27	17.8	9.3	13.3	203	.1	.7	170	1.9	SSE	**	*****	0.0	3575	27
28	16.3	10.8	13.6	180	.2	.9	242	2.5	S	**	*****	.2	2600	28
29	15.2	9.4	12.8	006	.7	1.2	000	5.1	N	**	*****	.6	5230	29
30	19.4	7.5	13.5	354	.5	1.0	349	3.8	NNW	**	*****	0.0	6410	30
31	17.8	9.1	13.5	000	1.0	1.3	359	4.4	N	**	*****	.4	6030	31
MONTH	22.3	3.1	12.6	012	.2	.5	145	6.3	SSE	**	*****	28.0	163285	

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 6.3
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.20
R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
July, 1984

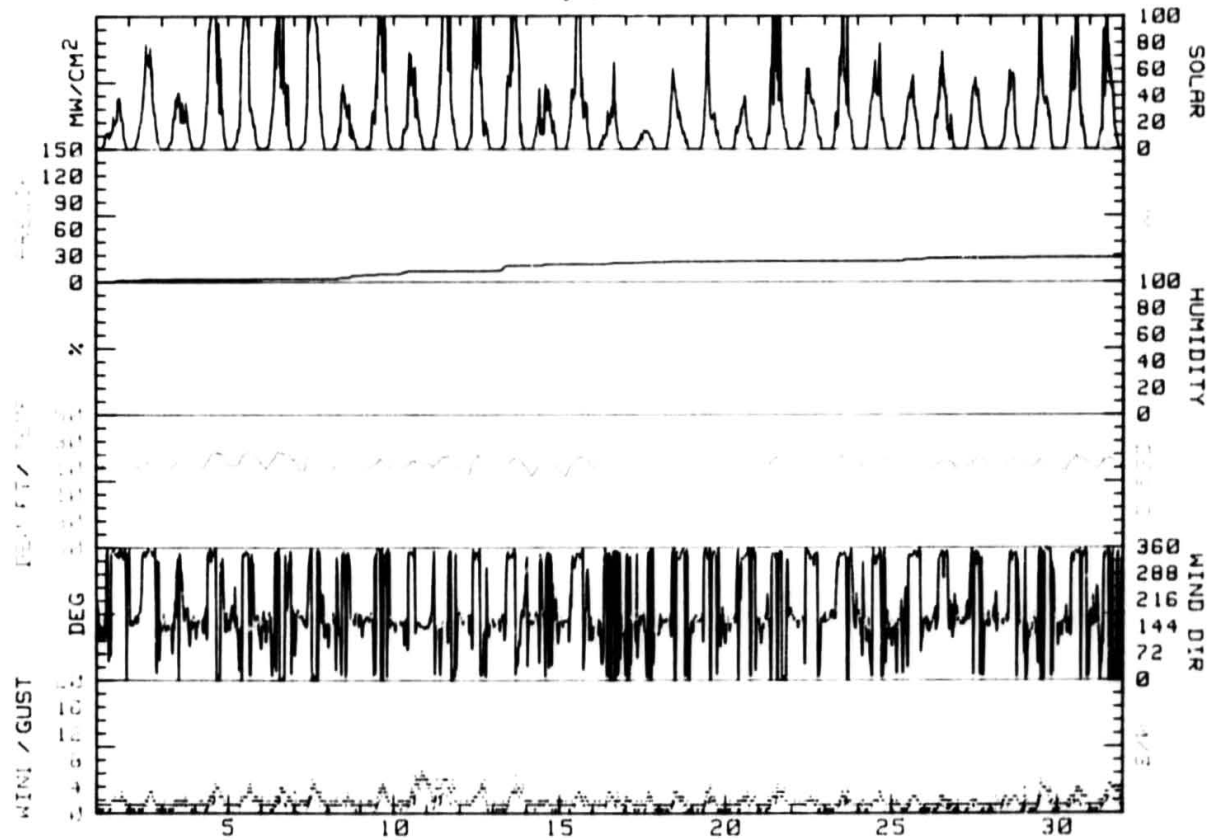


TABLE B.21

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EXLUTNA WEATHER STATION
DATA TAKEN DURING August, 1989

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	PVAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAYS SOLAR ENERGY WH/50M	DAY
1	15.6	10.3	13.0	351	.4	.8	357	3.2	NNW	**	*****	0.0	4130	1
2	17.8	9.6	13.7	353	.3	.9	354	3.2	NNW	**	*****	0.0	4235	2
3	18.7	12.1	15.4	330	.2	.8	357	3.8	SSE	**	*****	.2	4160	3
4	20.7	11.3	16.0	179	.2	1.0	339	3.2	SSE	**	*****	0.0	6640	4
5	18.4	11.6	14.0	196	.1	.7	976	2.5	S	**	*****	4.8	3765	5
6	17.4	8.8	13.1	286	.1	.8	346	2.5	NNW	**	*****	.4	3925	6
7	20.7	9.7	15.2	313	.1	.9	350	3.2	S	**	*****	1.0	6490	7
8	17.2	11.5	14.4	332	.1	.8	340	2.5	SSE	**	*****	.4	7350	8
9	17.4	9.0	13.2	152	.2	.9	301	1.4	S	**	*****	10.6	5150	9
10	19.0	8.4	13.7	177	.4	.7	167	2.5	S	**	*****	5.4	3825	10
11	19.2	8.2	13.7	175	.3	.7	323	2.5	S	**	*****	1.0	5285	11
12	20.2	3.1	11.7	351	.1	1.1	300	5.1	S	**	*****	0.0	7730	12
13	20.2	2.9	11.6	312	.2	1.0	340	3.6	S	**	*****	1.0	7505	13
14	21.7	2.5	12.1	134	.1	1.0	356	4.4	S	**	*****	0.0	7300	14
15	21.7	3.4	12.6	208	.1	.9	350	3.2	S	**	*****	0.0	7320	15
16	21.1	6.0	13.6	193	.2	.8	334	3.2	S	**	*****	0.0	5550	16
17	19.0	4.1	11.2	396	.1	1.7	149	7.6	N	**	*****	0.0	5940	17
18	15.9	11.3	13.6	150	2.1	2.8	160	10.2	SSE	**	*****	0.0	1605	18
19	15.4	10.1	12.8	084	.2	1.6	161	8.3	NNW	**	*****	.6	3860	19
20	17.0	9.3	13.2	359	.8	1.1	035	5.1	NNW	**	*****	.2	5960	20
21	16.1	8.9	12.5	153	3.8	3.1	162	6.3	SSE	**	*****	0.0	3190	21
22	15.7	9.5	12.6	039	.4	1.2	142	6.3	N	**	*****	.8	2625	22
23	13.7	6.9	10.3	184	.1	.5	262	1.9	SSE	**	*****	1.2	2540	23
24	16.5	7.5	12.0	148	1.8	2.1	150	9.5	SSE	**	*****	7.0	1500	24
25	11.1	6.0	8.7	036	.9	1.5	356	9.5	NNE	**	*****	13.0	1575	25
26	12.1	-1.5	5.3	016	1.8	2.1	357	7.0	NE	**	*****	3.2	5560	26
27	12.8	-3.6	4.6	302	.2	1.0	322	4.4	SSE	**	*****	0.0	6415	27
28	12.4	-4.7	3.9	341	.1	.9	339	3.2	S	**	*****	0.0	5300	28
29	12.6	-3.6	4.5	004	.2	1.1	356	4.4	S	**	*****	0.0	5765	29
30	12.3	-3.0	4.7	194	.1	.9	345	3.2	S	**	*****	0.0	5385	30
31	11.1	-4.4	3.4	007	.2	1.0	359	5.1	S	**	*****	0.0	5710	31
MONTH	21.7	-4.7	11.2	116	.2	1.2	160	10.2	S	**	*****	45.8	117660	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 9.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.21
R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
August, 1984

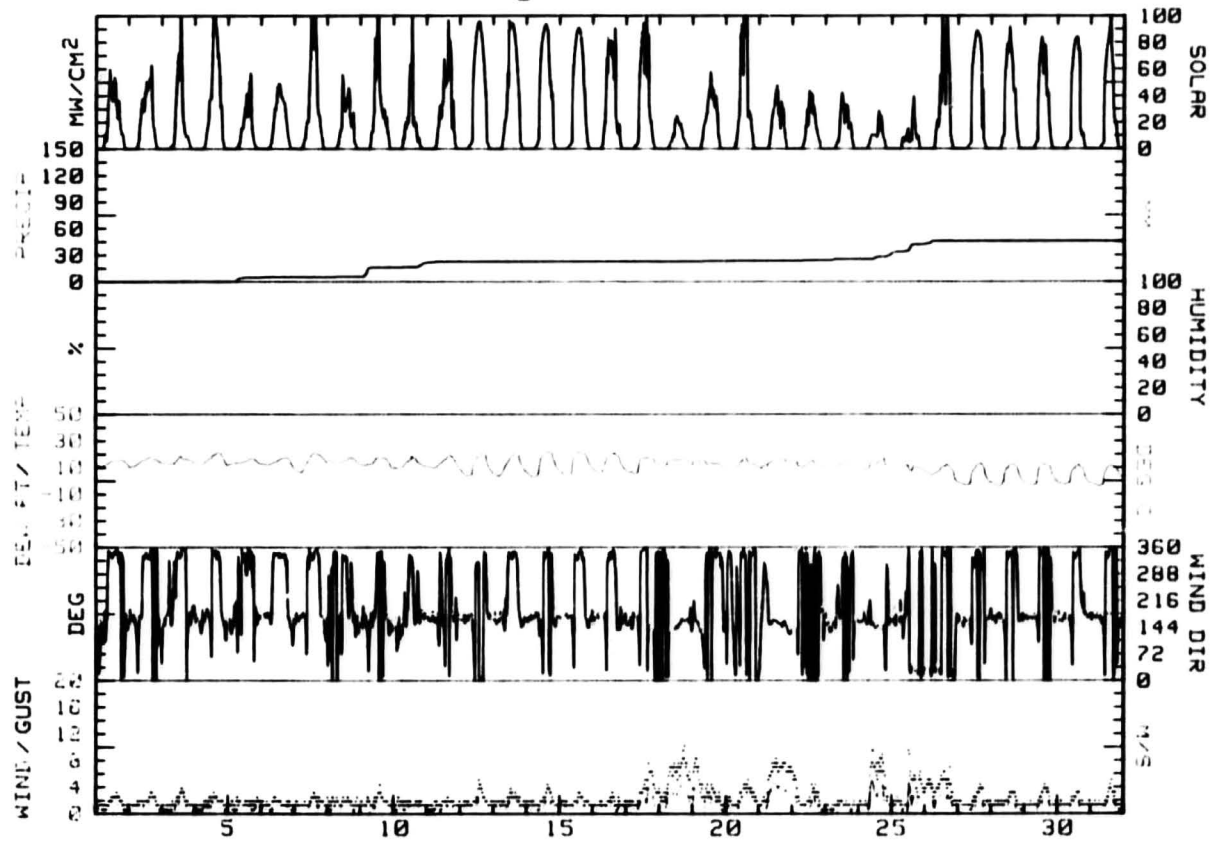


TABLE B.22

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1984

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	MAX. P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH	DAY
1	14.6	-1.5	7.1	201	.2	.8	339	2.5	S	**	*****	0.0	4965	1
2	15.6	-2.0	6.8	189	.3	.9	358	3.8	S	**	*****	0.0	5335	2
3	16.1	-2.2	7.0	205	.2	.8	335	2.5	S	**	*****	0.0	4985	3
4	10.8	.3	5.6	158	.6	.6	165	1.9	SSE	**	*****	0.0	3424	4
5	14.4	-1.9	6.3	207	.1	.8	343	3.2	SSE	49	1.7	0.0	4970	5
6	15.6	-2.0	6.8	126	.7	1.5	128	6.3	SSE	41	-1.0	0.0	4140	6
7	15.2	1.8	8.5	149	1.2	1.5	141	5.7	SE	46	-1.9	0.0	3515	7
8	16.9	1.9	9.4	143	1.3	1.4	144	5.7	SSE	29	-3.7	0.0	4635	8
9	16.0	-1.8	7.6	196	.1	.7	322	2.5	SSE	41	.9	0.0	4265	9
10	15.8	-1.1	7.4	190	.2	.8	339	3.2	SSE	52	3.7	0.0	4799	10
11	11.2	-1.2	6.7	173	.3	.8	314	6.5	SSE	54	2.7	0.0	3210	11
12	14.5	.2	7.3	117	.8	1.5	131	5.7	SSE	45	.7	0.0	3930	12
13	14.1	7.4	10.8	156	1.2	1.6	123	7.6	SE	41	-1.1	.2	1290	13
14	11.1	5.9	8.5	165	.4	.9	215	3.8	SE	62	.9	6.0	1615	14
15	13.6	1.8	7.7	149	1.1	1.1	136	5.7	SSE	48	1.3	.4	1815	15
16	14.4	.6	7.5	232	.1	.8	335	3.8	SSE	58	4.0	0.0	3360	16
17	12.5	4.4	8.5	355	.1	.7	356	3.8	SSE	63	2.9	0.0	1965	17
18	11.3	3.4	7.4	067	.1	1.0	349	4.4	SSE	40	-5.0	2.2	1975	18
19	11.9	1.1	6.5	023	.6	1.4	006	9.3	SSE	62	.1	11.0	3670	19
20	9.3	-1.2	5.6	163	.3	.9	337	3.8	SSE	60	1.3	3.2	3330	20
21	11.7	-2.9	4.4	244	.1	.9	323	2.5	SSE	61	-1.1	.2	3930	21
22	13.7	-3.4	5.2	172	.3	.9	330	3.2	SSE	59	-3.0	0.0	3315	22
23	14.3	2.6	8.5	144	2.5	2.5	158	8.3	SE	22	-19.5	0.0	1355	23
24	13.0	8.1	10.6	125	3.6	3.7	126	8.3	SE	26	-7.7	0.0	1070	24
25	12.7	4.9	8.8	212	.1	1.4	124	5.7	WNW	52	-1.7	.4	2105	25
26	12.3	-1.6	5.4	185	.3	1.0	319	4.4	SSE	68	.4	0.0	3175	26
27	12.2	-1.6	5.6	189	.4	.9	276	3.2	SSE	66	-1.0	0.0	2359	27
28	12.8	2.6	7.7	138	.6	.9	131	6.3	SE	53	-1.3	0.0	1120	28
29	14.7	6.4	8.6	336	.4	.9	211	4.4	WNW	67	2.8	24.8	550	29
30	12.6	3.2	7.9	143	1.9	2.1	146	10.8	SE	65	1.1	4.2	1385	30
MONTH	16.9	-3.4	7.5	144	.6	1.2	146	10.8	SSE	48	-1.4	52.6	92056	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.22

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
September, 1984

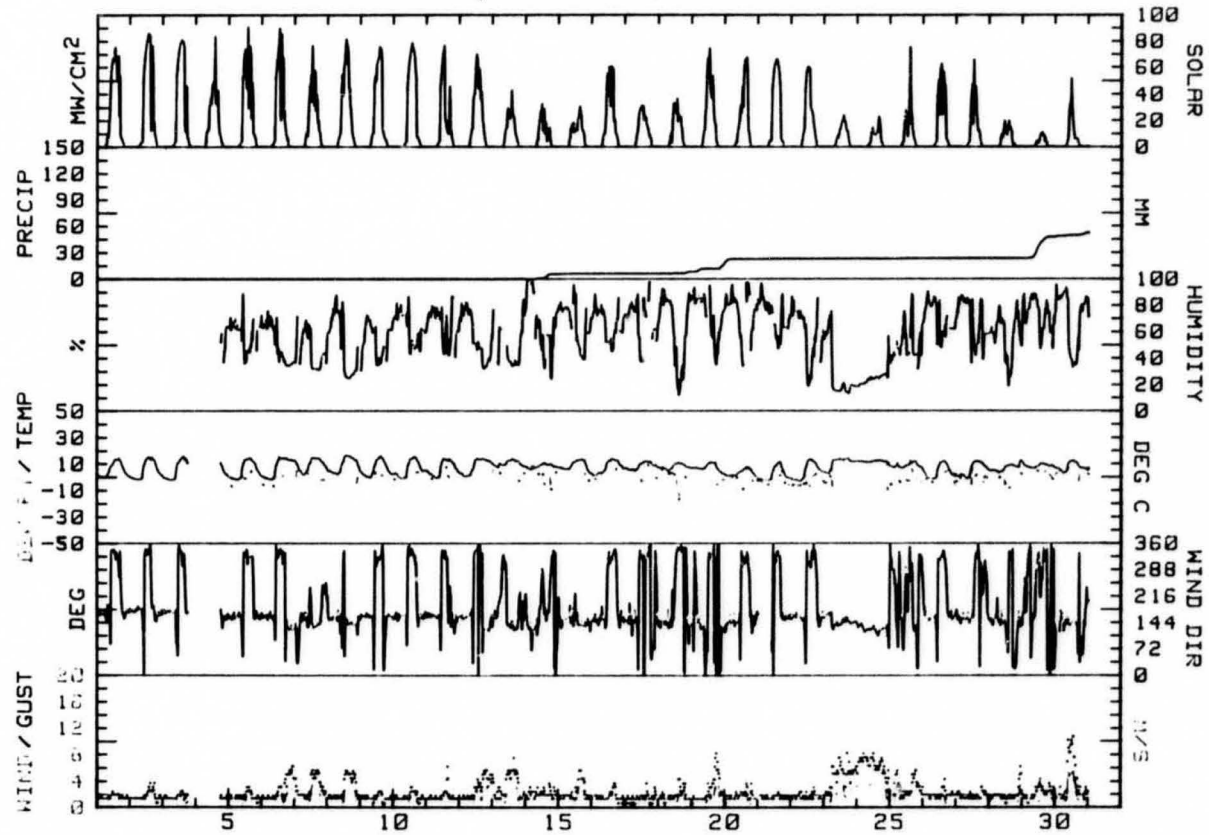


TABLE B.23

R & M CONSULTANTS, INC.,
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING October, 1984

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. DEG	MEAN RH %	MEAN TP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQ	DAY
1	12.8	4.9	8.9	127	1.5	1.8	142	6.3	SE	58	2.1	.2	1920	1
2	12.6	6.3	9.5	134	2.4	2.6	128	7.6	SE	46	-1.1	.4	2780	2
3	12.2	-2.5	4.9	160	.8	1.1	167	5.1	SSE	52	-2.9	0.0	2670	3
4	10.0	-4.9	2.6	176	.4	.9	152	2.5	SSE	62	-6.0	0.0	2900	4
5	11.6	.7	6.2	156	1.1	1.6	121	7.6	S	46	-2.5	.6	1330	5
6	11.9	2.6	7.2	133	1.8	1.9	109	7.6	SE	56	.2	.2	1750	6
7	7.6	3.6	5.2	183	.1	.7	340	3.2	SSE	67	.3	.6	1300	7
8	1.7	2.1	3.4	978	.8	.9	346	3.8	SSE	72	-.8	11.6	500	8
9	6.8	-3.2	2.3	159	.8	.8	169	2.5	SSE	75	-1.6	0.0	2285	9
10	5.0	-3.7	.7	167	.7	.8	170	1.9	SSE	71	-6.1	0.0	1560	10
11	3.9	-4.7	-.5	165	.7	.8	165	2.5	SSE	71	-4.7	1.0	1150	11
12	7.0	-3.5	1.8	176	.4	.8	145	2.5	SSE	59	-5.3	0.0	2365	12
13	6.0	-5.5	.3	181	.6	.9	160	2.5	SSE	63	-6.3	0.0	2380	13
14	2.9	-7.5	-2.3	306	.3	1.0	336	3.2	SSE	66	-8.4	0.0	2295	14
15	3.4	-8.5	-2.6	168	.5	.9	183	2.5	SSE	67	-9.2	0.0	1295	15
16	6.1	-7.5	-.7	172	.9	1.0	159	2.5	SSE	64	-9.6	0.0	2255	16
17	4.8	-9.9	-3.6	168	1.0	1.1	175	3.2	SSE	56	-12.8	0.0	2385	17
18	2.4	-10.3	-4.0	168	.9	1.0	158	3.2	SSE	63	-12.9	0.0	1185	18
19	4.0	-4.0	0.0	161	.6	.8	173	2.5	SSE	59	-8.2	0.0	775	19
20	1.8	-.8	.5	162	.5	.5	181	1.9	SSE	**	*****	1.6	595	20
21	9.9	-.1	4.9	351	.4	1.9	161	9.5	NNW	67	-1.5	7.2	930	21
22	11.3	1.9	6.6	139	3.6	4.7	148	13.3	SSE	55	-1.3	6.4	935	22
23	1.7	-6.0	-2.2	358	.3	1.4	819	4.4	NNW	76	-4.2	2.6	775	23
24	-1.4	-9.2	-5.3	175	.8	.9	167	2.5	S	72	-10.5	0.0	960	24
25	.1	-10.9	-5.4	157	1.1	1.1	168	3.2	SSE	67	-12.4	0.0	1545	25
26	-1.1	-12.7	-6.9	170	1.8	1.1	***	3.2	SSE	67	-14.1	0.0	1560	26
27	-1.0	-13.3	-7.2	178	.9	1.1	***	2.5	S	69	-13.8	0.0	1485	27
28	-.6	-13.9	-7.3	182	1.0	1.1	187	2.5	S	69	-14.8	0.0	1430	28
29	-2.4	-16.7	-9.6	285	.6	1.1	***	2.5	W	66	-17.5	0.0	1370	29
30	-.3	-17.0	-6.2	248	.3	1.1	338	4.4	S	65	-11.3	0.0	795	30
31	5.0	-8.6	-1.5	142	2.1	2.3	139	7.0	SE	39	-10.2	0.0	940	31
MONTH	12.8	-16.7	.0	148	.8	1.3	148	13.3	SSE	62	-6.9	32.6	48315	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.23

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
October, 1984

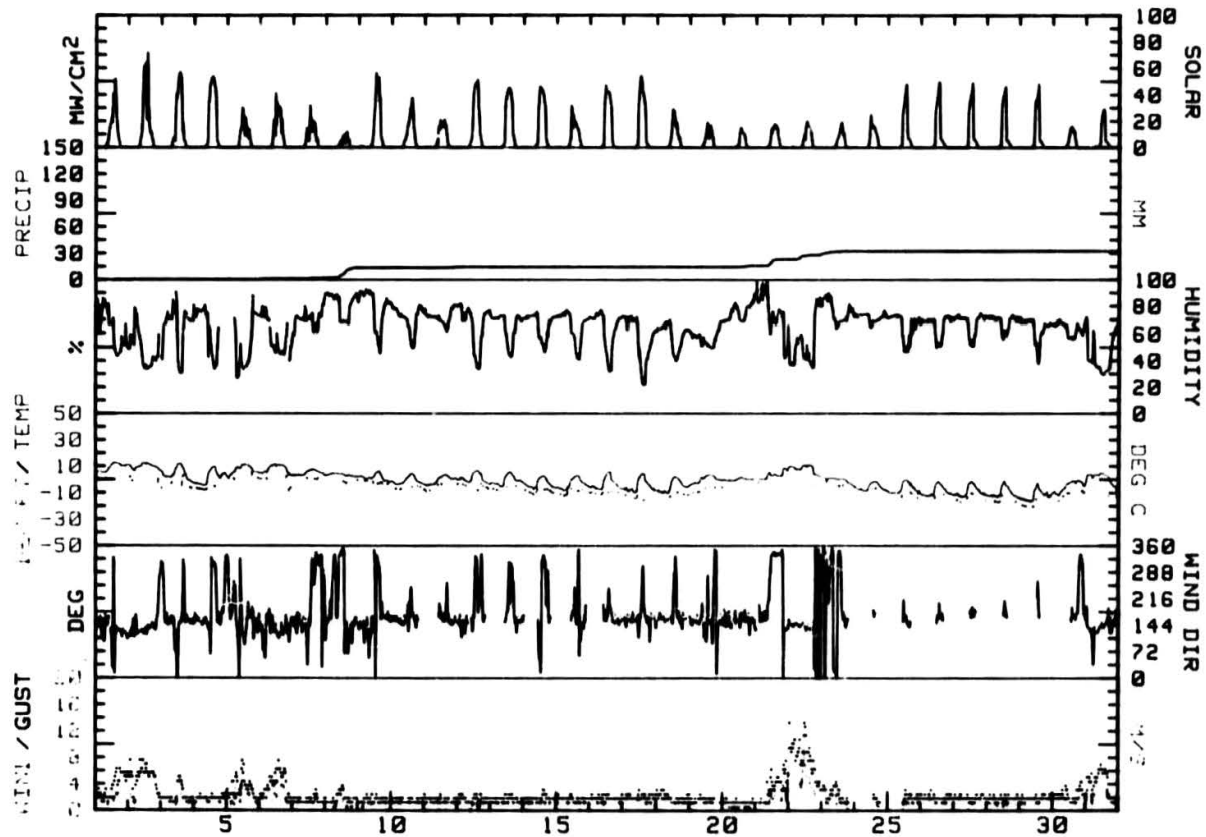


TABLE B.24

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

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	PAY'S SOLAR ENERGY WH/SQM	DAY
1	-1.5	-13.7	-7.6	167	1.1	1.1	159	2.5	SSE	67	-15.0	****	1205	1
2	-4.3	-15.1	-9.7	167	1.1	1.1	169	2.5	SSE	68	-18.1	****	1032	2
3	-2.2	-13.7	-8.0	165	1.2	1.2	169	3.2	SSE	62	-15.6	****	1210	3
4	-1.2	-13.4	-7.3	168	1.1	1.1	170	3.2	SSE	66	-11.0	****	1110	4
5	6.5	-4.2	1.2	106	.4	1.7	121	7.0	NNW	53	-6.7	****	395	5
6	3.7	-1.3	1.2	145	.2	.9	023	3.2	SSE	58	-5.8	****	985	6
7	1.5	-5.9	-2.3	149	.3	.8	116	3.2	SSE	63	-5.9	****	435	7
8	-1.8	-12.5	-7.2	162	.8	.9	158	1.9	SSE	70	-13.6	****	490	8
9	-6.9	-15.4	-11.2	167	1.0	1.0	170	1.9	SSE	68	-16.8	****	570	9
10	-6.8	-15.7	-11.3	168	1.0	1.0	169	2.5	SSE	69	-17.2	****	470	10
11	-8.8	-18.6	-13.7	162	1.1	1.1	177	3.2	SSE	68	-19.3	****	685	11
12	-12.2	-21.4	-16.8	165	1.2	1.2	150	2.5	SSE	66	-22.1	****	590	12
13	-12.9	-22.5	-17.7	166	1.2	1.2	179	2.5	SSE	64	-23.8	****	470	13
14	-4.5	-21.1	-12.8	222	.2	1.3	334	4.4	SSE	64	-17.8	****	235	14
15	-2.7	-6.8	-4.8	323	.2	1.3	337	5.1	SSE	63	-11.2	****	365	15
16	-4.1	-11.4	-7.8	167	.9	.9	167	2.5	SSE	72	-12.1	****	555	16
17	-3.3	-11.3	-7.3	168	.8	.9	167	2.5	SSE	71	-10.8	****	565	17
18	-5.6	-10.3	-8.0	169	.8	.9	160	2.5	SSE	72	-12.4	****	165	18
19	6.3	-12.3	-3.0	157	1.8	1.9	151	12.1	SSE	52	-9.9	****	320	19
20	6.4	2.4	4.4	150	4.5	4.9	144	14.6	SE	54	-4.8	****	130	20
21	6.6	-.2	2.9	135	1.2	1.6	131	9.9	SE	59	-3.9	****	65	21
22	.1	-7.9	-3.9	***	****	.6	***	1.9	***	82	-4.7	****	95	22
23	-2.4	-5.9	-4.2	***	****	.6	***	2.5	***	71	-8.1	****	115	23
24	-4.2	-7.5	-5.9	***	****	.9	***	3.2	***	71	-9.5	****	55	24
25	-7.7	-18.6	-13.2	***	****	.9	***	2.5	***	70	-18.4	****	100	25
26	-10.8	-18.9	-14.9	***	****	.8	***	2.5	***	68	-21.1	****	70	26
27	-10.5	-15.3	-12.9	***	****	.8	***	1.9	***	70	-16.5	****	80	27
28	-6.1	-12.0	-9.1	***	****	.6	***	1.9	***	72	-15.1	****	85	28
29	-7.0	-13.4	-10.2	***	****	.5	***	1.9	***	73	-13.1	****	85	29
30	2.7	-10.5	-3.9	***	****	.6	***	5.1	***	72	-7.6	****	115	30
MONTH	6.5	-22.5	-7.5	160	1.0	1.1	144	14.6	SSE	65	-13.0	****	12567	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6

GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.1

GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 13.3

GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.1

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
November, 1984

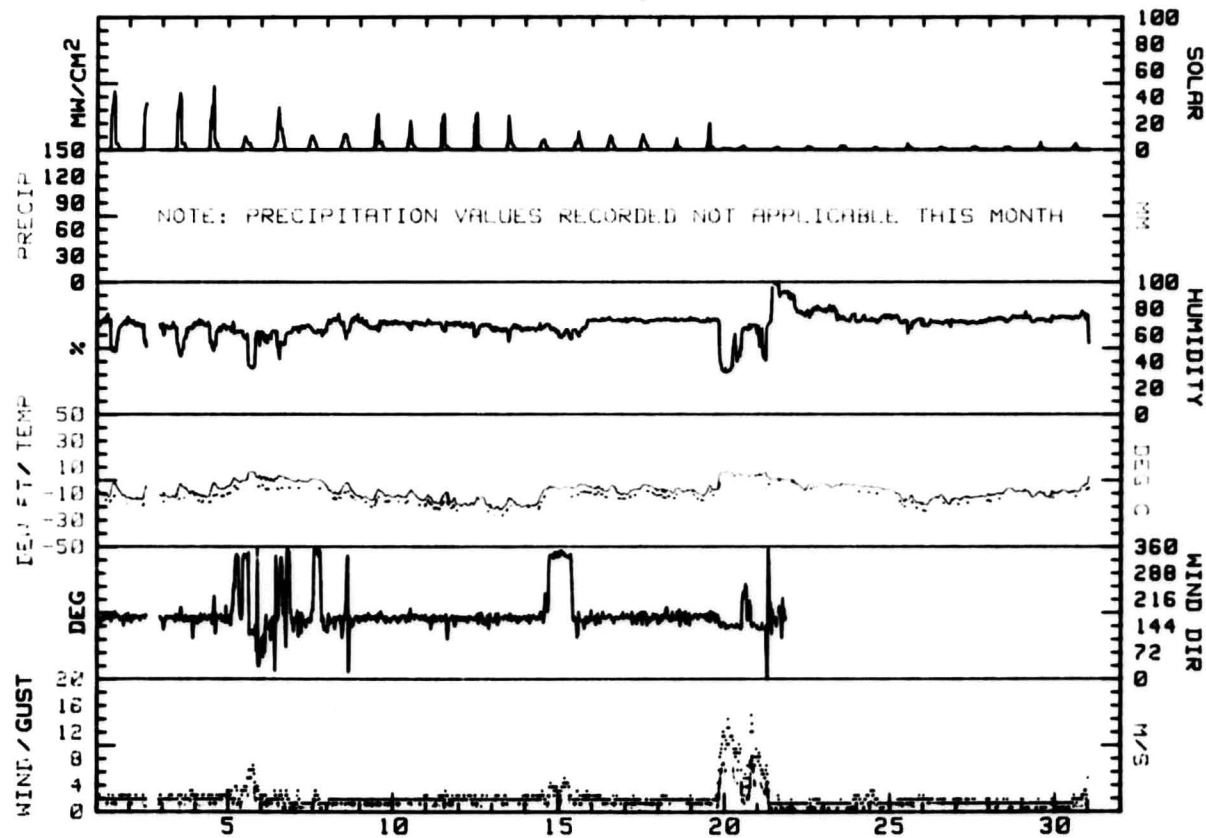


TABLE B.25

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING December, 1984

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/50M	DAY
1	5.7	-9	2.4	139	3.2	3.3	148	8.9	SE	38	-8.9	****	370	1
2	5.1	-1	2.5	147	.9	1.6	126	7.0	SE	49	-8.0	****	145	2
3	7.9	-8	3.6	143	3.4	3.4	131	9.5	SE	50	-3.7	****	230	3
4	6.3	1.7	4.0	138	1.4	2.5	136	10.2	SE	75	.1	****	100	4
5	7.2	.7	4.0	143	2.2	2.6	133	10.8	SE	65	-7	****	160	5
6	1.9	-7.0	-2.6	150	.5	.6	121	1.9	SSE	95	-5.4	****	165	6
7	-5.5	-9.5	-6.5	152	.5	.7	356	3.8	SSE	92	-6.7	****	155	7
8	-5.6	-14.9	-9.5	339	.4	.7	004	3.8	NW	89	-5.6	****	15	8
9	-14.8	-17.7	-16.3	***	***	.6	***	1.9	***	85	-17.8	****	0	9
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	10
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	11
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	12
13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	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	7.9	-17.7	-2.0	142	1.5	1.9	133	10.8	SE	59	-6.3	****	1340	

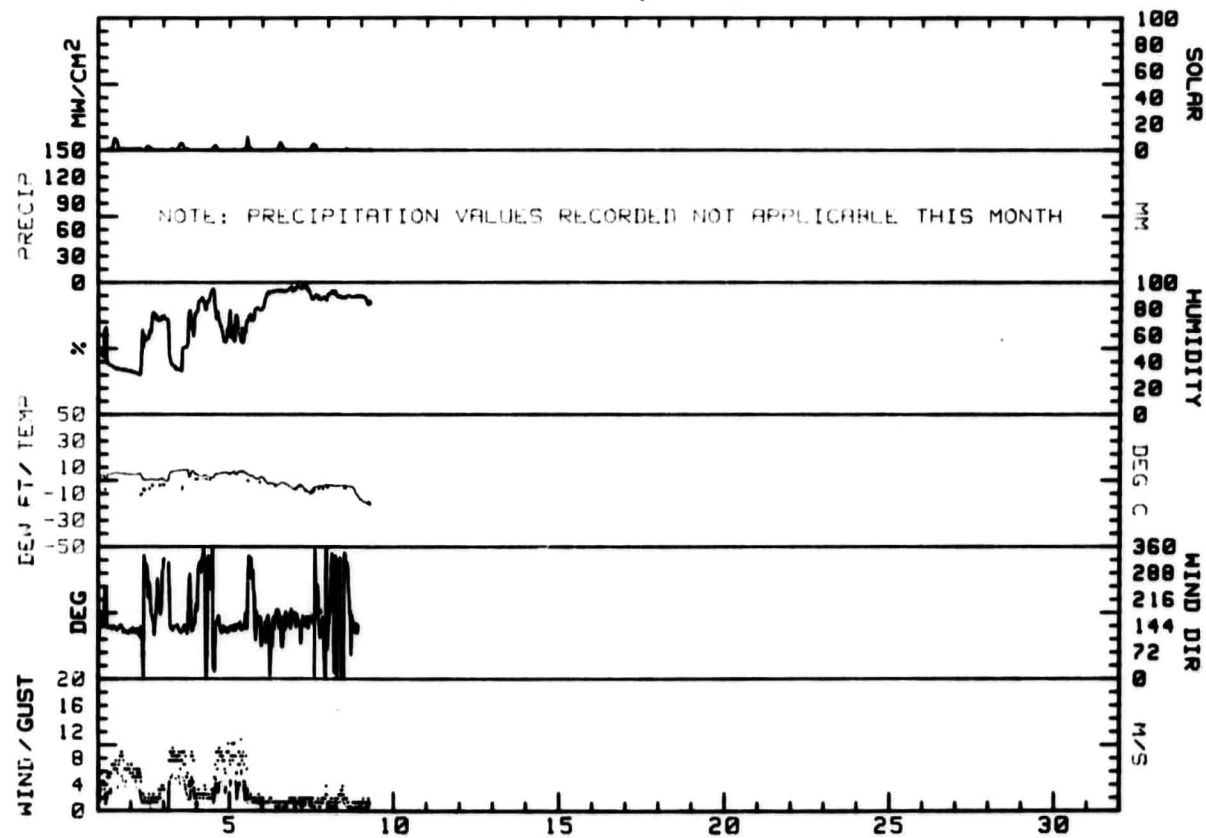
GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.0
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 8.3

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 INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.25

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
December, 1984



APPENDIX C

ICE OBSERVATIONS AND FIELD WEATHER OBSERVATIONS

Ice Conditions at Eklutna Lake - Winter of 1983-84

With the importance of the ice cover to the winter energy balance (and thus to the DYRESM modelling), special efforts were made to document the timing, extent, and characteristics of the lake freeze-up and breakup processes. Sources of information were field observations by R&M staff, Chugach State Park Rangers, and USGS personnel, and information published in an Anchorage newspaper. The following is a summary of freezeup and breakup lake observations.

The various field observations from the period of advanced fall overturn in November, through freeze-up and winter ice cover, to final disappearance of the lake ice in May are listed in Table 1. Important aspects worthy of note are:

- The temperature of outflow (at the powerhouse) first dropped to 4°C on November 22, 1983, indicating the water in the lake at the north end may have cooled sufficiently to begin cooling and freezing the surface water.
- The first ice on the lake was observed December 3 and December 4, 1983. A bridge had apparently formed across the narrow part of the lake near Station 10. Once the bridge forms, movement of surface waves along the lake is inhibited, which will enhance the freeze-up process.
- The north half of the lake was essentially ice covered on December 8, 1983. The south end was still open on December 9, 1983.
- The south half of the lake had developed its ice cover by December 12 - December 14, 1983.

- ° The ice thickness was approximately 30 cm at Station 15 on January 1, 1984.
- ° The snow on the lake melted during a rainy thaw period around January 12, 1984, but the surface had re-frozen solidly by January 16, 1984. The ice thickness on January 16, 1984 averaged 28 cm at 3 stations.
- ° The ice thickness on February 16 averaged 36 cm at 3 stations.
- ° Rain fell at the lake in early March.
- ° The March 23, 1984 ice thickness averaged 41 cm at 4 stations.
- ° The area near the power intake was the first to melt open, starting to lose its ice cover by April 15, 1984.
- ° The lake was still covered with ice and snow on April 20, 1984, but overflow and rainfall that day probably saturated all the snow and reduced its insulation effectiveness.
- ° The open area near the power intake had grown by May 6, 1984, and there may have been a continuous open lead up the whole length of the lake by then.
- ° The lake was completely open on May 17, 1984.

TABLE C.1
Summary of Eklutna Lake Ice Observations, Winter of 1983-84

Date	Source of Information	Description
11/01/83	R&M Field Trip	Lake profiles taken. Lake isothermal at 5-6°C (a little cooler at North end).
11/22/83	Ak Power Admin.	Outflow temperature first drops to 4°C (back up to 5°C the next day).
12/03/83	R&M Observation	No ice on lake as far as visible from north end except for small (180 m ²) free-floating piece. May be continuous ice cover further south, starting near Station 10. Ice along north shore in very small, local pockets. Ground at lake level is about 5% snow-covered, 100% snow-covered above 900 m level. Took photos.
12/04/83	R&M Observation	Ice in place along SW shore at 10:30 a.m. near Stations 11 and 12 but broken up by SE wind by 12:30 p.m. Climbed up hill to north of lake and observed ice bridge across lake near Station 10. Ice stayed intact through wind. Lake surface was open further south.
12/06/83	R&M Field Trip	Ice sheet across lake near Station 10 (see Figure 1). Area covered was about 50 ha. Ice thickness ranged from 3-10 cm,

TABLE C.1, cont.

		thicker further south. Water temperature ranged from 1.4° at the surface to 3.5°C at the bottom (21m) at Station 15. Later in the day, cold temperatures and calm winds allowed formation of a skim of ice on the southwest half of the open water from Station 10 to the northwest end of the lake. Noted that sun never shone on north half of lake at all (blocked by mountains). Took photos.
12/08/83	R&M Observation, QUADRA Surveyor	North half of lake is frozen completely except for 2 small open areas, one about 1 ha and the other about 100 m ² . Heard from surveyor working in the area that large area had frozen up since yesterday: a 30 m wide corridor along the northeast shore from the northwest tip of the lake to almost Station 11 (roughly 10 ha, total).
12/09/83	Chugach State Park (CSP)	Ranger returned from a glacier trip today. No ice at south end of lake. The north end is frozen.
12/12 - 12/14/83	CSP Ranger	Lake frozen completely, except at the edges (observation made sometime in 12/12-12/14 period).
12/17/83	Newspaper Report	Anchorage Daily News started weekly feature of reporting snow and weather conditions for local recreation areas Reports

TABLE C.1, cont.

		obtained from Chugach State Park rangers. Reported 20 cm snowfall this week, unknown accumulation after settling. Lake frozen but ice questionable.
12/24/83	Newspaper Report	Surface condition unknown, likely hardpack around lake. No new snow; accumulation about 4 cm. Lake partially frozen; use caution.
12/26/83	CSP Ranger	Snowmachines on lake, people running around. Two inches snow cover and surface hoar on lake.
12/31/83	Newspaper Report	No new snow in past week, accumulation about 4 cm. Lake partially frozen.
01/01/84	R&M Observation	Ice thickness = 30 cm near Station 15. Depth of snow and surface hoar frost on ice is 3-5 cm. Weather has been cold and calm the past few days. Freezing rain today, about -3°C. Noted transverse line of rough ice across lake between Stations 9 and 5 (which were both marked with buoys), probably due to ice being stacked up by wind and waves from the southeast prior to freeze-up.
01/03/84	USGS	Went up to maintain lake level recorder. Weather was very warm and quite windy. Quite a bit of overflow and lots of water on the ice.

TABLE C.1, cont.

01/05/84	CSP Ranger	Total snow accumulation of 20 cm.
01/12/84	R&M Field Trip	Strong, warm southeast wind over lake, air temperature = 6°C at 10:00 a.m. Much ponded water on lake and patches of open water along the shore. Took photos.
01/15/84	R&M Observation	Clear, calm, and very cold (-18°C at 5:00 p.m.). Sharp contrast to today's weather in Anchorage (which is wet, foggy, about 0°C all day). Eklutna had low-level fog over most of the lake. There was 10 cm of fresh, light snow on the lake, which had probably fallen yesterday (when it snowed in Anchorage also). No evidence of snow thawing after it fell. Skiers who went to near Station 10 or 9 reported no open water.
01/16/84	R&M Field Trip	Clear, calm and cold (0°F) at the lake. Ice thicknesses of 29 cm, 28 cm, and 24 cm at Stations 15, 9 and 5 respectively. Three inches of fresh, light snow at each station.
01/21/84	Newspaper Report	Lake well frozen, 5-9 cm snow over glare ice. Area open to snowmachines.
01/27/84	USGS	Lake frozen, about 5 cm snow on ice.
01/28/84	Newspaper Report	Six inches of powder remains on the lake.

TABLE C.1, cont.

02/04/84	Newspaper Report	Trace of new snow, 7-10 cm old snow on lake.
02/16/84	R&M Field Trip	Overcast, slight breeze, snowing, about 15°F. Ice thicknesses of 41 cm, 36 cm and 33 cm at Stations 15, 9, and 1 respectively. Snow depths (same order) were 9 cm, 24 cm, 28 cm. Encountered overflow 8-10 cm deep just to north of Station 5.
02/18/84	Newspaper Report	Settled powder, ski conditions good on the road. New snow data unavailable; base about 30-36 cm settled. Snowmachining good on the lake with areas of overflow at far end (south end) of lake.
02/25/84	Newspaper Report	Powder; skiing excellent. No new snow. Snowmachining excellent.
03/03/84	R&M Observation	Mostly clear sky, moderate south breeze, heavy clouds to south (over mountains and glaciers), 1°C. Sun shone on entire lake today from fairly high angle - probably has been shining onto whole lake for several weeks.
03/03/84	Newspaper Report	Trace of new snow, settled accumulation about 40 cm.
03/10/84	Newspaper Report	Hard-packed and icy. Rain in recent days. Settled accumulation about 20-25

TABLE C.1, cont.

		cm. Snowmachining discouraged on lake due to overflow.
03/23/84	R&M Field Trip	Clear sky, no wind all day, temperature = 3°C at 1445 AST at weather station. Ice thicknesses of 45 cm, 45 cm, 40 cm, and 35 cm at Stations 15, 9, 5, and 2, respectively. Lake clear of snow. All overflow on lake frozen. Lots of cracking of ice today. Lots of snow on hills above 600 m elevation, almost bare below 600 m.
04/15/84	R&M Observation	Lake still ice-covered except for open water area (approximately 100 m long, 50 m wide) next to shore at power plant intake and small open lead (approximately 2 m x 4 m) at mouth of stream flowing out of north end parking lot. Parking lot stream is still ice-covered. No snow or overflow on top of lake ice. Snow almost completely gone from hills around lake except on north-facing slopes. Ice thickness of 38 cm at Station 15. Weather: overcast but clearing at 10:30 a.m. Light and steady north wind, snow flurries, approximately 4°C.
04/20/84	R&M Field Trip	High overcast with 8-12 m/sec wind from southeast. It has snowed several nights this week already (storm on April 15 left 15 cm wet snow in the Anchorage bowl, up to 20 cm on Anchorage hillside. Anchorage weather today is snowing ,

TABLE C.1, cont.

calm, 0°C, 2 cm snow accumulated overnight). Weather at lake (weather station) at 1600 AST = overcast, light drizzle, light wind variable between southeast and northwest, temperature = 7.1°C. Encountered rain/sleet and strong southeast wind after that, which made snow on lake surface all wet.

Ice thicknesses of 36 cm and 34 cm at Stations 15, and 11, respectively. Lake has snow over entire surface but 1.5 km or so at south end has overflow within the snow - flow is apparently coming from mouth of stream or that vicinity.

05/06/84	R&M Observation	Still mostly ice-covered, with large open-water area along NE shore up to near Station 10 (approximately 5 km long by 0.2 km = 1.0 square km). The rest of the ice on the lake is dark, obviously floating and saturated. Distinct difference in color between floating (dark) and grounded (white) ice. Weather: clear, calm, nearly dark at 10:00 p.m. AST, approximately 3°C. The open water along the shore is probably due to solar melting. The solar effects are probably stronger at the south end of the lake, so it may also be open.
05/06/84	CSP Ranger	Lake ice is pretty broken up - suspect there's open water continuous from end to end.

TABLE C.1, cont.

05/17/84	R&M Field Trip	Lake complete open. Clear, sunny day, moderate breeze from northwest, air temperature approximately 15°C. Lake surface (water) temperature was 6-7°C, bottom temperature about 4°C.
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**Summary of Eklutna Lake Freeze-Up Observations
November through December, 1984**

Special efforts were again undertaken in the late fall of 1984 to observe ice formation on Eklutna Lake. All observations were taken by R&M personnel during lake profiling and ice observation trips.

- ° The first ice was observed on Eklutna Lake near the mouth of Eklutna Creek on November 12. Shelf ice had formed at the shore of the lake near the streams mouth and frazil collected in the immediate area. Water temperatures at the inflow stream previous week (11/9) ranged from 0.0 °C to 0.1 °C. Lake temperatures at sampling stations ranged from a low of 3.0 °C on the surface at Station 1 to 4.6 °C throughout Station 9.
- ° Drifting frazil ice covered approximately 8% of the lake surface during the profiling trip of November 26. The ice was confined mainly to the center of the lake between Stations 7 and 8 in the coves of the SW shore. The lake had overturned with bottom temperatures at around 3.5 °C, being warmer than those at the surface generally 2.5 °C.
- ° On November 30 the entire southern section of the lake had frozen comprising 75% of the lake surface area. The ice was thickest (12 cm near the shore) at the narrowest section, and thinner farther south (2 cm near the shore). Drifting ice was seen in the northern open section.
- ° A Chinook wind blew warm weather and rain into the area between November 30 and December 3. On December 3 the same areas of the lake were frozen as on November 30. No frazil ice was seen, and there was water over the ice on the southern section. Ice thickness measurements near the same location as the previous trip indicated that the ice was thicker at 3 cm.

- ° Falling temperatures and continued cold weather caused the lake to be 90% frozen by December 7. Large areas of drifting ice covered much of the northern end of the lake.
- ° By December 10 the lake was 99% frozen. The only open portion was an area approximately 4,000 square meters along 80 meters of the southern shore in the northern part of the lake.
- ° On December 14th the lake was 100% frozen.

Attached is a tabulation of weather observations made during field trips since the start of the glacial lake study at Eklutna Lake in May 1982.

Three types of observations are included in the list. The source of each observation is also identified in the list. The types are:

1. Observations by R&M crews during data-collection trips to the lake;
2. Notes by visitors to the cabin at the south end of the lake, transcribed from the cabin logbook; and
3. Observations made by USGS personnel during installation or maintenance of their lake level recorder since June 1983.

TABLE C.2
EKLUTNA LAKE WEATHER OBSERVATIONS
May 1982 Through January 1984

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
5-16-82		2	Clear, calm, snow and ice on road
5-25-82		1	Cloudy
5-29-82		2	Windy from North
5-30-82		2	Clear
6-8-82		1	Clear, windy
6-10-82		2	Light rain, warm
6-12-82		2	Cloudy, high winds
6-17-82	1100	1	Partly sunny, light breeze from SE, 11.5°C
6-24-82		2	Clear, hot
6-25-82		1,2	Clear, calm, 60°F
7-1-82		1	Strong wind from SE, 55°F
7-9-82		1	Overcast, 55-60°F
7-14-82		1	Clear, wind from NW starting at 1245
7-15-82		1	Partly cloudy, calm in AM
7-20-82		2	Windy at noon, calm in PM
7-24-82		2	Raining
7-27-82		1	Clear, light NW wind, 70°F
7-28-82	0900	1	80 percent cloud cover, calm, 60°F
7-31-82		2	Clear, calm
8-5-82		2	Clear, calm
8-8-82		2	Intermittent rain and sun
8-10-82		1	Overcast, wind in afternoon, snow at 5000 ft
8-11-82		1	Overcast, rain all night stopped in AM, strong wind
8-12-82		1	Calm, 48-50°F in AM, SE breeze at noon, NW in evening
8-24-82		1	Partly cloudy, wind from NW
8-25-82		1	Overcast, calm, 15°C, light rain starting at noon.
8-29-82		2	Rain, snow in mountains
9-9-82	AM	1	Partly cloudy, calm 17°C
	1000	1	Clear, SE, wind, 19°C
9-18-82		2	Windy
9-19-82		2	Raining
9-21-82	AM	1	SE winds
	Noon	1	Calm, downpour
	evening	1	Clear, NW wind
9-30-82		2	Snow, wind

1) R&M field observations; 2) notes from cabin log at S end of lake.

3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
10-4-82		2	Calm, rainy
10-5-82		2	Clear, calm
10-8-82		1,2	6-10 inches new snow
10-9-82	0000-1700	1	Snowing, 9 inches new snow, 33°F
10-14-82	AM	1	Snowing, slight wind from N, 0°C
	noon	1	Clearing, 2.4°C
10-30-82		2	Clear
10-31-82		2	22°F, 6-12 inches snow on ground, no ice on lake
11-1-82		2	Raining
11-3-82		2	Snowing, mid 20°, no ice on lake
11-4-82		1	Overcast, snow flurries, variable N breeze, 26°F
11-6-82		2	Overcast, some snow
11-7-82		2	Clear
11-23-82		2	Cloudy, 25°F, 6-10 inches snow on ground Thin layer of ice on lake
12-23-82		2	Clear, windy, -8°F
12-24-82		2	Partly cloudy
1-11-83		1	Clear, calm, cold, variable winds
1-15-83		2	Cloudy and mild
1-29-83		2	Clear and calm
2-11-83		2	-10°F
2-15-83		1	Clear, calm, -22°C
2-18-83		1	Overcast, calm, -6°C
2-20-83		2	Clear, calm
2-21-83		2	Partly sunny, 1" new snow
3-3-83		2	Clear, calm, 30°F
3-4-83		2	Clear
3-18-83		2	Clear, calm, 30°F
3-22-83		2	Clear, 40°F
3-23-83		1	Clear, calm
3-27-83		2	Clear

- 1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
4-17-83		2	Overcast
4-24-83		2	Clear
5-8-83	AM	2	Few clouds, temperature 51°F
5-14-83	1045	1	Overcast, slight wind from S, 55°F
5-22-83		2	Rainy
5-27-83		2	Clear, windy
5-28-83		2	Windy
5-30-83		2	Overcast, drizzling
6-1-83	0830	1	Broken overcast, wind from N, 50°F
	1200	1	Clear, east wind
	1800	1	Clear, north wind
6-2-83		1	Overcast and drizzle, wind from N
6-4-83		2	Cloudy, cool
6-12-83		2	Cloudy
6-17-83		1,2,3	Clear and hot
6-18-83		2	Clear and hot
6-21-83		1,2	Clear and hot
6-22-83		2,3	Clear, windy
6-29-83		2	Windy
7-2-83		2	Light rain
7-5-83		1	Partly sunny, light N wind, 60°F
7-6-83	1100	1	Overcast, drizzle, 11°C
	1500	1	Rain stopped
7-9-83		2	Windy
7-24-83		2	Cloudy
8-2-83		1,3	Clear and calm
8-3-83	1000	1	Clear, calm
	1500	1	Wind from N
8-6-83		2	Light rain
8-19-83		2	Light rain
8-21-83	1340	2	Cloudy, occasional light rain, light winds, 58°F
8-22-83		2	Rained all night
8-23-83		3	Partly sunny, calm

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
9-3-83		2	Cloudy, 50°F
9-4-83		2	Rainy, fog, 40°F
9-5-83		2	Nice day
9-7-83		1,2	Partly sunny, calm, 50°F
9-8-83		3	Cloudy, slight mist, drizzle
9-17-83		2	Sunny and glorious
9-27-83		2	Rainy evening
10-5-83	AM	1	Partly cloudy, high thin clouds, S wind, 40°
	1200	1	N breeze, 7.4°C
10-6-83	AM	1	Cloudy, rain changing to snow, wind from W, 40°F temperature dropped from 36 to 33°F between 0700 and 0800, stopped snowing and blowing at 0900. Clearing toward noon with slight breeze from W
11-1-83		1	Partly cloudy, calm, 10 inches new snow on ground
12-3-83		1	Clear, calm, 20°F
12-4-83		1	Overcast, wind from SE, 30°F
12-5-83		2,3	Clear, shore ice on lake, open in center
12-6-83		1	Clear, calm, 20°F
12-7-83		2	Clear
12-8-83	1145	1,2	Clear calm, 17°F at N end of lake northern ½ of lake almost 100% ice covered
12-9-83		2	Clear
12-10-83		2	Light snow last night, +6°F
12-21-83		2	Clear
12-22-83		2	Clear
12-26-83		2	Nice

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
1-1-84	1145	1	Overcast, snowing, calm, 18°F
	1330	1	Raining, calm, 25°F, 2 inches snow at S end
	1530	1	Light drizzle, 26°F
1-6-84		2	Clear, cold
1-7-84		2	Clear, cold
1-12-84		1	Overcast, raining, strong SE wind, 42°F
1-15-84	1700	1	Clear, calm, 0°F at N end of lake
1-16-84	AM	1	Clear, calm, 0°F, 3 inches new snow
	1600	1	Overcast, calm
1-27-84		3	Lake frozen, about 2 inches snow on ice

- 1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

APPENDIX D

INFLOW WATER QUALITY DATA - EAST FORK AND GLACIER FORK

NOTE FOR DRAFT: Tables D.1 and D.2 are included for July 1984 only. Tables for other months (May, June, and August-November 1984) will be included in the final report.

TABLE D.1

EAST FORK

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

A.
INFLOW/OUTFLOW DATA
(East Fork)

MONTH: July 1984

Date	Time AST	Gage Height (ft)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @25°C (Umho/cm)	Secchi Disk (ft)	Instant Q (cfs)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/3/84	1045	2.90	170	4.9	85	0.5	170	110	48	
7/6/84	0920	3.26	371	6.4	N/A	0.2	321	180	156	Temp at 1110 AST Secchi from LB d/s of bridge
7/10/84	1119	3.27	331	6.0	78	0.5	326	110	72.5	Temp, turb, TSS, Cond & Secchi from LB 10m d/s of bridge
7/13/84	1056	3.11	248	5.0	75	0.5	261	80	53	T=Tryan + 0.5°C
7/17/84	0953	3.06	235	4.6	76	0.5	227	82	50	
7/20/84	1600	3.08	223	6.1	75	0.8	235	98	45	
	1800	3.09		5.6	74	0.7	240	110	61	
	2000	3.09		5.6	73	0.7	240	110	64	
	2200	3.08		5.6	73	0.6	235	108	50	
	2400	3.07		5.0	73	N/A	231	108	50	
7/21/84	0200	3.06	261	5.0	74	N/A	227	105	45	
	0400	3.06		4.4	78	0.7	227	107	42	
	0545	3.06		4.4	78	0.7	227	83	38	
	0830	3.05		5.3	82	0.8	223	83	46	
	1030	3.07		6.4	71	0.7	231	91	45	
	1230	3.12		8.3	69	0.5	252	128	73	
	1430	3.16		8.9	69	0.5	271	155	102	
	1630	3.21		8.9	61	0.4	295	200	188	
7/24/84	1010	3.20	321	5.8	62	N/A	290	196	132	
7/27/84	1010	3.11	275	5.6	67	0.5	248	44	53	All cond. & turb. values for 8/27 & 8/31 are from Chem/Geo.
7/31/84	1025	3.16	280	6.1	56	0.6	271	50	58	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

TABLE D.2
GLACIER FORK

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

B. INFLOW/OUTFLOW DATA (Glacier Fork)

MONTH: July 1984

Date	Time AST	Gage Height (ft)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @25°C (Umho/cm)	Secchi Disk (ft)	Instant Q (cfs)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/3/84	1120	3.94	356	1.4	34	0.2	356	580	514	
7/6/84	1610	4.54	597	1.6	N/A	0.2	647	430	568	
7/10/84	1226	4.46	603	N/A	55	0.2	622	500	572	
7/13/84	1207	4.23	480	N/A	49	0.2	490	430	417	
7/17/84	1050	4.07	417	0.9	44	0.3	412	220	248	
7/20/84	1640	4.16	431	0.8	35	0.4	455	220	264	
	1830	4.10		1.6	34	0.4	426	220	246	
	2030	4.15		1.6	34	0.4	450	230	216	
	2230	4.11		1.6	38	0.4	431	220	216	
7/21/84	0030	4.11	511	1.6	38	N/A	431	230	226	
	0230	4.10		1.6	38	N/A	426	250	213	
	0430	4.11		1.6	38	0.4	431	240	259	
	0610	4.12		1.6	41	0.4	436	210	263	
	0900	4.14		1.4	43	0.3	445	250	247	
	1100	4.21		1.9	39	0.3	480	260	293	
	1300	4.32		2.5	32	0.3	539	240	271	
	1500	4.35		2.5	30	0.3	556	260	313	
	1700	4.39		1.6	27	0.3	579	310	493	
7/24/84	1120	4.39	591	1.8	34	0.3	579	300	228	
7/27/84	1050	4.31	533	1.7	36	0.3	533	144	297	
7/31/84	1105	4.33	550	1.7	34	0.2	545	146	373	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

APPENDIX E
INFLOW QUANTITY DATA - EAST FORK AND GLACIER FORK

TABLE E.1
1983 EAST FORK MEAN DAILY DISCHARGE

Day	May		June		July		August		September		October	
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs
1			3.20	290	3.54	502	3.37	384	3.00	204	2.86	157
2			3.15	266	3.53	494	3.44	429	3.00	204	2.78	135
3			3.09	240	3.53	494	3.48	457	2.94*	183	2.70	115
4			3.00	204	3.59	541	3.56	517	2.88*	164	2.65	104
5			2.97	193	3.62	566	3.62	566	2.82*	146	2.63	100
6			3.05	223	3.62	566	3.54	502	2.76*	130	2.61	96
7			3.07	231	3.56	517	3.53	494	2.68	111		
8			3.11	248	3.55	509	4.03	1014	2.69	113		
9			3.09	240	3.48	457	3.65	592	2.68	111		
10			3.02	212	3.41	409	3.50	472	2.67	108		
11			3.03	215	3.37	384	3.38	390	2.64	102		
12			3.04	219	3.36	378	3.31	348	2.61	96		
13			3.03	215	3.40	403	3.26	321	2.61	96		
14	2.53	81	3.08	235	3.43	423	3.16	271	2.59	92		
15	2.54	83	3.10	244	3.47	450	3.05	223	2.56	86		
16	2.55	84	3.12	253	3.52	486	2.98	197	2.54	83		
17	2.5*	76	3.14	261	3.54	502	2.98	197	2.52	79		
18	2.6*	94	3.23	305	3.45	436	3.00	204	2.50	76		
19	2.6*	94	3.30	343	3.42	416	3.01	208	2.50	76		
20	2.6*	94	3.42	416	3.43	423	3.02	212	2.76	130		
21	2.7*	115	3.41	409	3.42	416	3.05	223	2.86	157		
22	2.7*	115	3.43	423	3.44	429	3.03	215	2.89	167		
23	2.6*	94	3.55	509	3.65	592	3.05	223	2.74	125		
24	2.8*	140	3.53	494	3.55	509	3.01	208	2.71	117		
25	2.7*	115	3.52	486	3.45	436	3.04	219	2.65	104		
26	2.9*	170	3.51	479	3.38	390	3.01	208	2.61	96		
27	3.0*	204	3.53	494	3.40	403	3.01	208	2.59	92		
28	3.1*	244	3.55	509	3.45	436	3.05	223	2.58	90		
29	3.3*	343	3.47	450	3.49	464	3.08	235	2.82	146		
30	3.3*	343	3.46	443	3.44	429	3.11	248	3.17	275		
31	3.45*	436			3.39	396	3.04	219				
Tot		2,925		9,749		14,256		10,427		3,759		707
Avg		162		325		460		336		125		118
Max		436		509		566		1,014		275		157
Min		81		193		378		197		76		96

* Estimated

TABLE E.2
1984 EAST FORK EKLUTNA CREEK
MEAN DAILY DISCHARGE (C.F.S.)

Day	May		June		July		August		September		October		Nov
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	Q* cfs
1			2.45	87	3.00	277	3.18	386	2.66	140	2.98	266	37
2			2.52	103	2.94	247	3.24	429	2.64	134	2.79	183	37
3			2.61	125	2.90	228	3.30*	476	2.63	131	2.68	146	37
4			2.67	143	2.98	266	3.38*	546	2.64	134	2.62	128	33
5			2.73	162	3.22	414	3.44*	603	2.64	134	2.59	120	38
6			2.81	191	3.35	519	3.46*	623	2.63	131	2.58	117	44
7			2.76	172	3.42	583	3.42*	483	2.62	128	2.56	112	39
8			2.74	165	3.36	527	3.38	546	2.63	131	2.57	115	35
9			2.79	183	3.34	510	3.43	593	2.61	125	2.52	103	35
10			2.80	187	3.28	460	3.32	493	2.61	125	2.48	94	32
11			2.79	183	3.22	414	3.28	460	2.61	125	2.46	89	30
12			2.80	187	3.17	379	3.22	414	2.60	123	2.44	85	27
13			2.84	203	3.14	359	3.16	372	2.63	131	2.41	80	25
14			2.82	195	3.11	340	3.15	365	2.80	187	2.39	76	25
15			2.78	179	3.09	327	3.19	392	2.81	191	2.37	72	25
16			2.79	183	3.11	340	3.24	429	2.66	140	2.36	71	25
17			2.82	195	3.08	321	3.23	421	2.62*	128	2.34	67	
18	2.43	83	2.90	228	3.07	316	3.27	452	2.56	112	2.33	66	
19	2.45	87	2.97	261	3.06	310	3.63	818	2.54	107	2.33	66	
20	2.47	92	3.06	310	3.05	304	3.40	564	2.48	94	2.32	64	
21	2.48	94	3.09	327	3.16	372	3.19	392	2.47*	92	2.32	64	
22	2.48	94	3.05	304	3.24	429	3.20	400	2.46	89	2.41	80	
23	2.45	87	3.06	310	3.26	444	3.17	379	2.43	83	2.38	74	
24	2.48	94	3.08	321	3.26	444	3.35	519	2.41*	80	2.33	66	
25	2.49	96	3.15	365	3.22	414	3.46	623	2.43*	83	2.29	59	
26	2.47	92	3.12	346	3.17	379	3.20	400	2.42	81	2.26	55	
27	2.46	89	3.01	282	3.17	379	2.99	271	2.40	78	2.25	54	
28	2.46	89	2.95	251	3.18	386	2.88	219	2.43	83	2.22	50	
29	2.47	92	3.06	310	3.18	386	2.82	195	3.45	613	2.20	47	
30	2.46	89	3.03	293	3.18	386	2.74	165	3.11	340	2.18	45	
31	2.42	81			3.20	400	2.70	152			2.16	42	
Tot		1,259		6,751		11,860		13,580		4,278		2,756	
Avg		90		225		383		438		143		89	
Max		96		365		583		818		613		266	
Min		81		87		228		152		78		42	

* Estimated

TABLE E.3
1983 GLACIER FORK MEAN DAILY DISCHARGE

Day	June		July		August		September		October	
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs
1	3.15	130	4.08	417	4.31	533	-	-	3.16	132
2	3.08	118	4.11	431	4.32	539	-	-	3.06	114
3	2.94	96	4.18	465	4.44	609	-	-	2.95	97
4	2.78	74	4.3*	528	4.49	641	-	-	2.81	78
5	2.75	71	4.32	539	4.56	687	-	-	2.70	65
6	2.82	79	4.27	511	4.52	660	-	-	2.63	58
7	2.85	83	4.28	517	4.56	687	-	-		
8	2.92	93	4.28	517	5.16	1197	3.13	127		
9	2.95	97	4.23	490	5.03	1068	3.10	121		
10	2.93	94	4.13	440	4.86	915	3.08	118		
11	3.02	108	4.06	408	4.60	715	3.03	110		
12	2.96	99	4.05	403	4.48	635	2.96	99		
13	3.02	108	4.08	417	4.36	562	3.02	108		
14	3.08	118	4.23	490	4.12	436	2.87	86		
15	3.05	113	4.22	485	3.95	360	2.72	67		
16	3.06	114	4.27	511	3.83	314	2.62	57		
17	3.16	132	4.24	495	3.82	310	2.57	52		
18	3.36	174	4.23	490	3.82	310	2.52	48		
19	3.61	241	4.31	533	3.80	303	2.58	53		
20	3.72	275	4.34	550	3.85	321	2.88	87		
21	3.67	259	4.32	539	3.94	356	3.21	142		
22	3.71	272	4.37	567	3.89	336	3.13	127		
23	3.77	292	4.49	641	3.97	369	3.02	108		
24	3.83	314	4.47	628	3.94	356	2.88	87		
25	3.88	333	4.38	573	3.87	329	2.81	78		
26	3.94	356	4.32	539	3.76	289	2.78	74		
27	4.00	381	4.29	522	3.84	317	2.72	67		
28	3.98	373	4.38	573	3.85	321	2.63	58		
29	3.97	369	4.43	603	3.87	329	2.90	90		
30	3.99	377	4.33	545	-	-	3.63	247		
31			4.31	533	-	-	-	-		
Tot		5,743		15,900		14,804		2,211		544
Avg		191		513		510		92		91
Max		381		641		1,197		247		132
Min		71		403		289		48		58

* Estimated

No Record for May

TABLE E.4
1984 GLACIER FORK EKLUTNA RIVER
MEAN DAILY DISCHARGE (C.F.S.)

Day	May		June		July		August		September		October		Nov
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	Q* cfs
1			2.00	17	3.87	329	4.33	545	3.44	194	3.48	204	19
2			2.14	23	3.87	329	4.44	609	3.38	179	3.22	144	18
3			2.30	32	3.94	356	4.56	687	3.36	174	3.03	110	17
4			2.47	44	4.18	465	4.63	736	3.30	161	2.93	94	16
5			2.63	58	4.33	545	4.74	818	3.25	150	2.86	85	18
6			2.92	93	4.42	597	4.66	757	3.23	146	2.85	83	15
7			2.92	93	4.42	597	4.68	772	3.25	150	2.75	71	13
8			2.98	102	4.38	573	4.68	772	3.25	150	2.71	66	12
9			2.95	97	4.39	579	4.72	802	3.18	136	2.59	54	10
10			2.95	97	4.43	603	4.57	694	3.13	128	2.49	45	10
11			2.99	103	4.39	579	4.54	634	3.11	123	2.44	41	10
12			3.09	118	4.24	495	4.45	616	3.14	129	2.39	38	10
13			3.17	134	4.21	480	4.38	573	3.18	136	2.34	34	10
14			3.09	118	4.15	450	4.36	562	3.46	199	2.31	32	10
15			3.04	111	4.12	436	4.36	562	3.48	204		30*	
16			3.01	106	4.12	436	4.46	622	3.21	142		28*	
17			3.07	116	4.08	417	4.44	609	3.12	125		27*	
18	Gage Started		3.20	140	4.04	399	4.57	694	3.14	129		26*	
19	1.96	15	3.44	194	4.06	408	4.81	873	3.13	128		24*	
20	2.08	20	3.72	272	4.11	431	4.61	722	2.95	97		24*	
21	2.18	25	3.67	259	4.27	511	4.42	597	2.82	79		23*	
22	2.07	20	3.66	256	4.35	556	4.63	736	2.79	76		33*	
23	1.95	15	3.72	272	4.40	585	4.49	641	2.75	71		28*	
24	2.05	19	3.80	303	4.41	591	4.59	707	2.72	67	2.18	25*	
25	2.03	18	3.83	314	4.38	573	4.81	873	2.73	69		25*	
26	1.98	16	3.84	252	4.31	533	4.46	622	2.66	61	2.18	25*	
27	1.94	15	3.82	310	4.31	533	4.15	450	2.62	57		24*	
28	1.92	14	3.81	306	4.31	533	4.00	381	2.67	62		22*	
29	1.92	14	3.94	356	4.32	539	3.82	310	3.90	342		21*	
30	1.97	16	3.92	348	4.35	556	3.67	259	3.60	238	2.08	20*	
31	1.95	15			4.34	550	3.53	217				20*	
Tot		222		5,044		15,564		19,452		4,102		1,526	
Avg		17		168		502		627		137		49	
Max		25		356		603		873		342		204	
Min		14		17		329		217		57		20	

* Estimated

TABLE E.5
EKLUTNA LAKE
INFLOW DISCHARGE MEASUREMENTS

Date	East Fork		Glacier Fork	
	Discharge (cfs)	Stage (ft)	Discharge (cfs)	Stage (ft)
05/18/84	77	2.40	16	2.03
06/12/84	-	-	114	3.08
06/15/84	194	2.78	-	-
07/06/84	481	3.36	-	-
08/28/84	216	2.86	297	4.01
10/05/84	129	2.48	-	-
10/12/84	-	-	32	2.42
10/26/84	49	2.26	-	-
05/14/83	80*	2.53	14	-
06/01/83	295	3.23	126	3.15
07/05/83	500	3.58	-	-
08/02/83	-	-	589	4.45
05/25/83	70*	-	15*	2.87
06/08/82	220*	3.0	110	3.0
06/25/82	320	3.21	230	3.47
07/09/82	370	3.38	350*	3.61
07/29/82	770	2.80	800	4.75
08/12/82	260	3.16	300	3.75
09/25/82	-	-	117	3.16
10/08/82	-	-	75	2.3

Rating Curves:

$$\text{Glacier Fork 1982 - 1984 Discharge} = \frac{(\text{Stage})^{4.49256}}{1.06532} \quad R^2=0.99$$

$$\text{East Fork 1984 Discharge} = 0.5326 \text{ Stage}^{5.6914} \quad R^2=0.99$$

$$\text{East Fork 1982 - 1983 Discharge} = \frac{(\text{Stage})^{5.43243}}{1.12702} \quad R^2=0.99$$

*poor measurement, not used for rating curve.

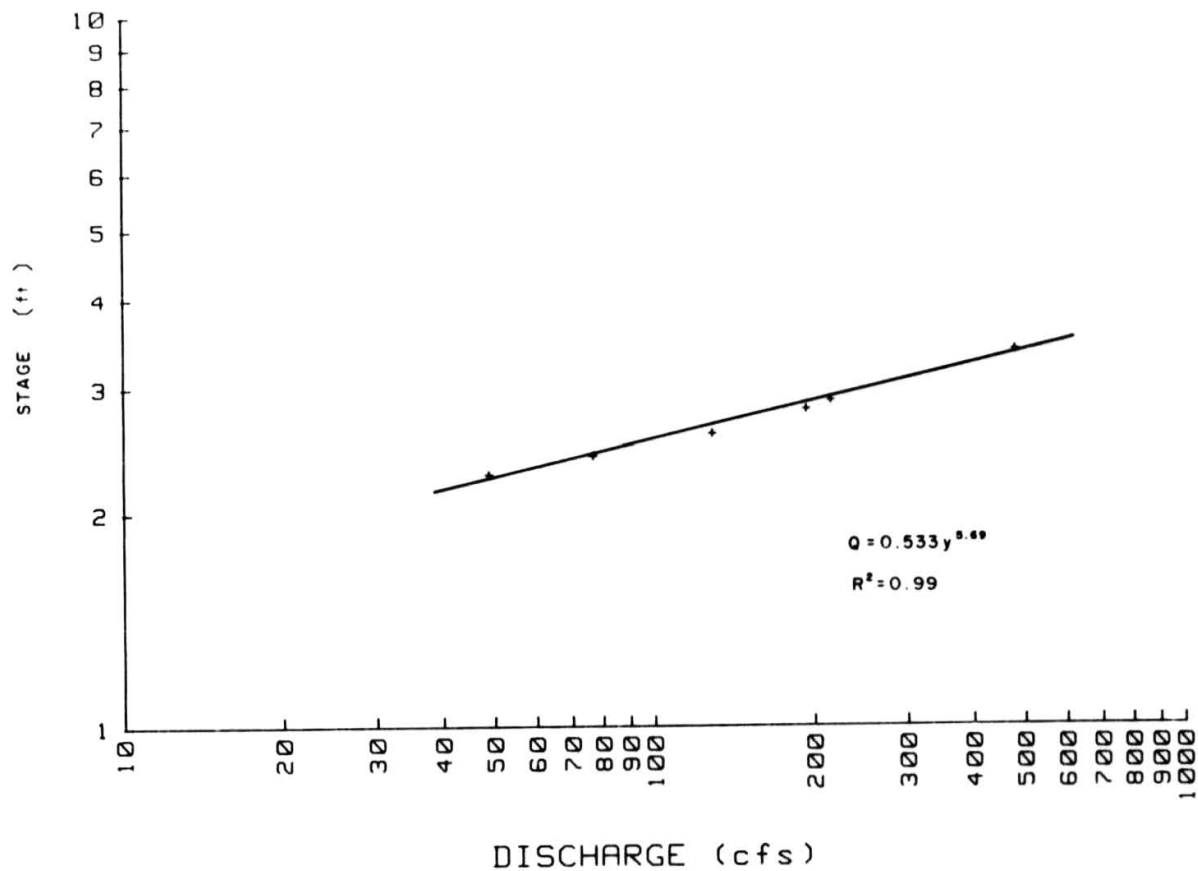


FIGURE E.1

PREPARED BY:

R&M
R&M CONSULTANTS, INC.
 ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

1984 EAST FORK DATA:
STAGE
vs.
DISCHARGE RATING CURVE

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE

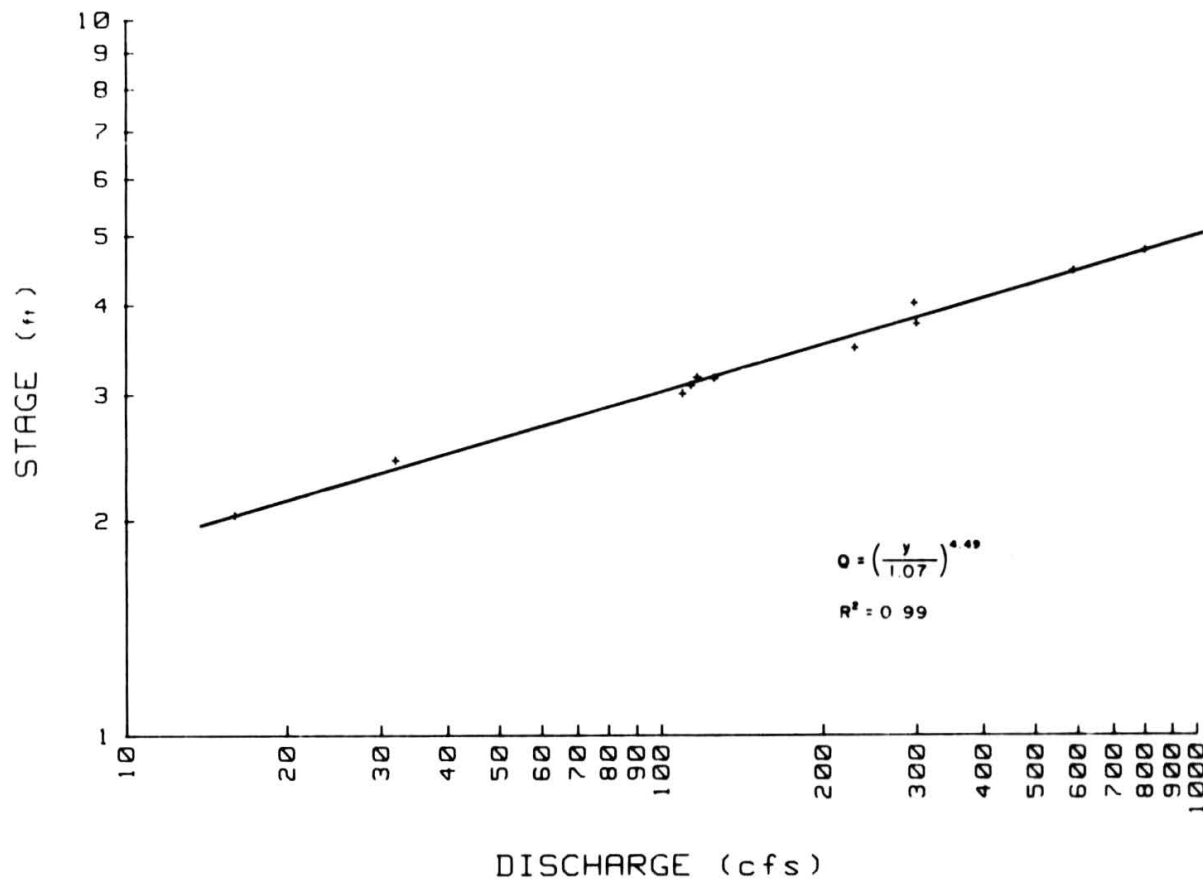


FIGURE E.2

PREPARED BY:

R&M
R&M CONSULTANTS, INC.
 ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

GLACIER FORK DATA:
STAGE
vs.
DISCHARGE RATING CURVE

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE

APPENDIX F

**PARTICLE-SIZE DISTRIBUTIONS - EAST FORK,
GLACIER FORK, AND TAILRACE (1984)**

TABLE F.1
PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS
SAMPLE: EAST FORK 7/20/84

2000
5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 4.86 MEDIAN = 4.86 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 5.18 +/- 20.35 (393.15%) SKEWNESS = .02

ARITHMETIC VOLUME MEAN = 16.64 +/- 30.44 (182.91%) SKEWNESS = .39

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 239.90 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 71.32 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 17.83 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .43 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .14 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .10 +/- .07 (74.81%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .12 +/- .13 (112.77%) SKEWNESS = .49

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.58 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .28 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

TABLE F.2

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
 115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CREEK 1030 8/28/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 32.19 MEDIAN = 14.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 15.34 +/- 47.78 (311.60%) SKEWNESS = -.35

ARITHMETIC VOLUME MEAN = 36.12 +/- 47.40 (131.25%) SKEWNESS = .08

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 292.11 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 213.16 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 128.76 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 56.76 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 14.09 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 4.29 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT 1.67 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .73 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .37 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .29 MEDIAN = .57 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .63 +/- .55 (86.73%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .80 +/- .82 (101.33%) SKEWNESS = .64

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 8.05 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 3.78 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.89 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT 1.01 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .57 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .37 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .29 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .29 MICRONS AND LARGER

TABLE F.3

PARTICLE SIZE ANALYSIS BY ELZOME METHOD--PARTICLE DATA LABORATORIES, LTD.
115 MAHON STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5656

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CR 1130 10/23/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

=====

INDICES

VOLUME MODE = 27.50 MEDIAN = 14.99 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.14 +/- 27.22 (297.72%) SKEWNESS = -.67

ARITHMETIC VOLUME MEAN = 17.45 +/- 15.15 (86.79%) SKEWNESS = -.66

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 65.40 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 57.43 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 44.29 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 29.99 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 14.99 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 2.43 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .53 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

=====

INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .66 +/- .23 (35.25%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .70 +/- .41 (59.04%) SKEWNESS = .46

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 4.65 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 2.04 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.16 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

TABLE F.4
PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS, INC.
SAMPLE: GLACIER FORK 7/20/84 1640

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 6.8, MEDIAN = 9.72 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.15 +/- 42.78 (467.69%) SKEWNESS = .05

ARITHMETIC VOLUME MEAN = 28.85 +/- 42.15 (146.09%) SKEWNESS = .52

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 285.28 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 201.73 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 109.99 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 46.25 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 9.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.23 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .15 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .09 +/- .06 (70.47%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .11 +/- .12 (111.11%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .56 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .26 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .13 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

TABLE F.5

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 1300 B 18 NOV 84 :DATE
SAMPLE: GLACIER FORK EKLUTNA CREEK 1820 10/28/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 13.32 MEDIAN = 17.14 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 18.01 +/- 50.63 (281.07%) SKEWNESS = .09

ARITHMETIC VOLUME MEAN = 40.89 +/- 58.60 (143.29%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 400.29 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 292.11 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 53.29 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 17.14 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 6.25 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .89 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .44 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .37 MEDIAN = .65 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .75 +/- .60 (79.96%) SKEWNESS = .64

ARITHMETIC COUNTS MEAN = .94 +/- .98 (104.54%) SKEWNESS = .58

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 11.03 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT 1.14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .65 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .47 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .39 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .37 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .37 MICRONS AND LARGER

TABLE F.6

PARTICLE SIZE ANALYSIS BY ELZOME METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: GLACIER FORK EKLUTNA CR 1420 10/23/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 4.65 MEDIAN = 4.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.23 +/- 10.01 (236.70%) SKEWNESS = -.04

ARITHMETIC VOLUME MEAN = 8.73 +/- 11.84 (135.62%) SKEWNESS = .34

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 77.78 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 55.00 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 34.15 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 11.07 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 4.09 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .69 +/- .29 (42.34%) SKEWNESS = .62

ARITHMETIC COUNTS MEAN = .75 +/- .45 (60.45%) SKEWNESS = .53

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 5.30 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 2.54 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.33 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .82 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

TABLE F.7

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

6 SEP 84 :DATE

SAMPLE: TAILRACE 7/21/84 2000

8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = .71 MEDIAN = 1.15 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 1.58 +/- 3.37 (212.46%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 4.39 +/- 12.08 (275.15%) SKEWNESS = .30

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 119.15 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 73.74 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 13.39 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 3.17 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 1.15 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT .64 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .47 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .36 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .29 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .51 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .53 +/- .23 (43.80%) SKEWNESS = .07

ARITHMETIC COUNTS MEAN = .57 +/- .26 (46.35%) SKEWNESS = .21

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.06 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 1.53 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT .91 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .68 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .41 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .24 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .20 MICRONS AND LARGER

TABLE F.8

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 8 18 NOV 84 :DATE
SAMPLE: EKLUTNA POWER PLANT TAILRACE 1930 10728 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

=====

INDICES

VOLUME MODE = 6.41 MEDIAN = 4.54 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.95 +/- 30.72 (620.02%) SKEWNESS = -.05

ARITHMETIC VOLUME MEAN = 26.89 +/- 46.86 (174.24%) SKEWNESS = .44

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 252.70 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 191.51 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 126.35 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 33.85 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.54 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .75 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .33 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .19 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

=====

INDICES

COUNTS MODE = .17 MEDIAN = .17 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .17 +/- .15 (88.70%) SKEWNESS = .01

ARITHMETIC COUNTS MEAN = .21 +/- .17 (81.30%) SKEWNESS = .24

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.64 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .74 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .45 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .28 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .17 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .10 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .04 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .03 MICRONS AND LARGER

TABLE F.9

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
 115 MAHN STREET - ELNHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: EKLUTNA POWER PLANT TAILRACE 900 10/23 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = .51 MEDIAN = 3.75 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.03 +/- 13.82 (342.42%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 10.58 +/- 13.89 (131.30%) SKEWNESS = .72

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 71.32 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 59.97 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 38.89 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 17.07 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 3.75 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT .86 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .58 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .64 +/- .20 (31.02%) SKEWNESS = .66

ARITHMETIC COUNTS MEAN = .67 +/- .30 (44.60%) SKEWNESS = .54

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.59 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 1.65 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.07 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .58 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

APPENDIX G

LAKE PROFILING DATA
JANUARY 1983-NOVEMBER 1984

TITLE: EKLUTNA LAKE
 DATE: JANUARY 13, 1983
 STATION NUMBER: 5
 STARTING TIME: 1230 (1305 THRU ICE)
 ENDING TIME: 1415
 SECCHI DISC: N/A
 SURFACE TEMP: 0.0
 LAKE DEPTH: 60.1

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR.CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	0.0				
1.0	0.16				18.0
2.0	0.62	48	86		
4.0	2.02				
6.0	2.67	49	83		
8.0	2.90	44	74		
10.0	3.12				
12.0	3.27	62	102		20.0
14.0	3.43				
16.0	3.60	72	119		
18.0	3.66				
20.0	3.67	82	135		
23.0	3.79				
24.0	3.81	88	145		16.5
28.0	3.94	90	145		
30.0	3.96				
32.0	3.97				24.0
36.0	3.98	93	150		
40.0	3.96				
44.0	3.93	99	159		
48.0	3.90	80	132		18.0
50.0	3.87	103	170		
52.0	3.88	105	173		18.0
54.0	3.83				
56.0	3.63	108	178		

WEATHER MOSTLY CLEAR, COLD CALM TO LIGHT NORTH WIND
 TURBIDITY RUN IN LAB 1 FEB 83, VALUES VARIED +/- 2NTU.
 ICE THICKNESS 13", 1.5" SNOW
 0113E

TITLE: EKLUTNA LAKE
 DATE: January 13, 1983
 STATION NUMBER: 9
 STARTING TIME: 0920
 ENDING TIME: 1118
 SECCHI DISC:
 SURFACE TEMP: *
 LAKE DEPTH: *

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	0.00				
1.0	.02				21.0
2.0	.40	64	115 *		
4.0	2.02	64	108 *		
6.0	2.50	64	106 *		
8.0	2.82				
10.0	3.00				
12.0	3.21				20.0
14.0	3.35				
16.0	3.44	62	102 *		
18.0	3.55				
20.0	3.61	67	108 *		
22.0	3.69				
24.0	3.79	76	122 *		
26.0	3.81	93	150 *		
30.0	3.81				
32.0	3.82	101	163 *		22.5
34.0	3.83				
36.0	3.80	108	174 *		
38.0	3.80				
40.0	3.79				
44.0	3.66	112	180 *		
48.0	3.53	101	163 *		25.0
52.0	3.66	102	164 *		25.0
56.0	3.58				43.0
56.0	3.58	134	216 *		

!Cold, mostly clear, 1 Inch of snow on ice.
 !L01131

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: JANUARY 11, 1983
 STATION NUMBER: 11
 STARTING TIME: 0920
 ENDING TIME: 1215
 SECCHI DISC: N/A
 SURFACE TEMP: 0.0
 LAKE DEPTH: 60.1

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.0				
1	0.88				26
2	1.18				
3	1.48				
4.0	1.67				
6.0	2.22				
9.0	2.48				20
10.0	2.75				
12.0	2.82	66	90		
14.0	3.02				
16.0	3.17	76	104		23
18.0	3.29				
20.0	3.39				
22.0	3.46				
24.0	3.63				
26.0	3.64				
28.0	3.66				54
30.0	3.55	104	146		
32.0	3.53				19
34.0	3.51	105	148		
36.0	3.46	105	150		
38.0	3.44				
40.0	3.45	107	152		
44.0	3.59	109	154		
48.0	3.59				20.5
50.0	3.80	118	168		24
52.0	3.92	127	182		

WEATHER: CLEAR AND COLD, BRISK NORTH WIND

ICE THICKNESS 17.5 INCHES, 0.75 INCHES SNOW ON TOP

WATER SURFACE 2 INCHES BELOW ICE

TURBIDITIES RUN IN LAB, JAN. 17, 1983, ALL HIGHLY VARIABLE, 14-5 NTU

IE0111K:HG,0,1

TITLE: EKLUTNA LAKE
 DATE: February 18, 1983
 STATION NUMBER: 5
 STARTING TIME: 1400
 ENDING TIME: 1550
 ECCHI DISC: N/A
 IR TEMP: -7 C
 LAKE DEPTH: 58.3

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	0.54	108	157		
1.0	1.07	109	150		
2.0	1.57	108	142		
3.0	1.95	107	145		
4.0	2.17	105	166		
6.0	2.71	105	166		
8.0	2.93	103	161		
0.0	3.06	103	157		
2.0	3.18	103	170		
6.0	3.37	104	173		
8.0	3.52	99	169		9
0.0	3.55	99	165		9
2.0	3.60	94	162		9
4.0	3.67	95	163		
6.0	3.68	103	175		
8.0	3.68	105	168		
0.0	3.67	105	172		
4.0	3.64	105	168		
8.0	3.55	107	163		
2.0	3.45	107	163		
6.0	3.41	109	160		
0.0	3.40	109	164		
4.0	3.50	110	159		
8.0	3.52	111	154		
0.0	3.51	111	148		

Ice thickness: 20.5 inches

Partly sunny, Low clouds on Mitre, Mod. to brisk north wind.
E0218E

TITLE: EKLUTNA LAKE
 DATE: February 18, 1983
 STATION NUMBER: 9
 STARTING TIME: 1205
 ENDING TIME: 1345
 SECCHI DISC: N/A
 AIR TEMP: -6 C
 LAKE DEPTH: 58.3

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	-0.09	106	117		
1.0	0.25	106	112		11
2.0	1.05	101	99		
4.0	1.98	95	89		
6.0	2.35	96	94		8
8.0	2.63	98	97		
10.0	2.91	103	122		
12.0	3.09	104	121		
14.0	3.32	103	120		
16.0	3.50	105	123		
18.0	3.64	104	125		
20.0	3.65	104	132		
22.0	3.68	104	134		
24.0	3.68	104	134		14
26.0	3.66	104	136		
28.0	3.64	104	136		
30.0	3.67	104	135		
34.0	3.60	106	137		
38.0	3.56	107	138		
42.0	3.56	107	139		
46.0	3.58	108	141		
50.0	3.59	109	142		11.5
52.0	3.73	109	143		
54.0	3.79	110	144		
58.0	3.86	114	150		

BOTTOM @ 59 M.
 Mostly cloudy mod north breeze
 Ice thickness 21.5 inches
 E02181

TITLE: EKLUTNA LAKE
 DATE: FEBRUARY 18, 1983
 STATION NUMBER: 11
 STARTING TIME: 0850 (THRU ICE 1010AST)
 ENDING TIME: 1145
 ECCHI DISC: N/A
 SURFACE TEMP: 0.48
 LAKE DEPTH: 58.3

DEPTH meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	0.48				
1.0	1.17				11
2.0	1.54	88			
3.0	1.77				
4.0	1.99	90			
6.0	2.49	89			
8.0	2.82	93			
10.0	3.07	94			
12.0	3.23	96			
14.0	3.40	100			12
16.0	3.57	100			
18.0	3.66	101			
20.0	3.73	101			
22.0	3.75	101			
24.0	3.73	101			11
26.0	3.72	102			
28.0	3.69	102			
30.0	3.66	103			12.5
34.0	3.66	103			
36.0	3.67	104			12.5
38.0	3.74	104			
40.0	3.74	104			
44.0	3.84	106			
50.0	4.24	137			

BOTTOM

WEATHER OVERCAST AIR TEMP -6 C. PARTLY SUNNY BY 1000, CALM.
 ICE THICKNESS 25 INCHES

TITLE: EKLITNA LAKE
 DATE: May 14, 1983
 STATION NUMBER: 5
 STARTING TIME: 1820
 ENDING TIME: 2000
 SECCHI DISC: 4.7 ft.
 SURFACE TEMP: 4.2
 LAKE DEPTH: 51.7

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	4.21		*	*	3
1	4.21				
2	4.19				
4	4.16				
6	4.18				
8	4.12				9
12	4.06				
16	4.05				
20	4.03				
24	3.96				8
28	3.83				
32	3.80				
40	3.73				8
48	3.41				

!Conductivity data is unreliable.
 !Overcast.
 !E0514E

TITLE: EKLUTNA LAKE
 DATE: May 14, 1983
 STATION NUMBER: 9
 STARTING TIME: 2040
 ENDING TIME: 2049
 SECCHI DISC: 4.9 ft.
 SURFACE TEMP: 4.4
 LAKE DEPTH: 51.7

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	4.41	*	*	*	*
1	4.47				
2	4.5				
4	4.53				
6	4.51				
8	4.49				12
10	4.43				
12	4.35				
16	3.86				
20	3.76				
24	3.67				7
28	3.66				
32	3.67				
40	3.70				13
48	3.80				

!No conductivity available---data unreliable>
 !Calm,
 !L05141

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 2
 STARTING TIME: 1521
 ENDING TIME: 1535
 SECCHI DISC: 3.2 ft.
 SURFACE TEMP: 7.0
 LAKE DEPTH: 50.5

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDIT (NTU) =====
0	7.04	*	*	*	*
1	7.04				
2	7.02				
4	7.00				
6	6.97				
7	6.88				
8	6.83				7
9	6.77				
10	6.75				
11	6.73				
12	6.72				
14	6.68				
16	6.50				
18	6.39				
20	6.23				11
22	6.15				
24	5.86				26
26	5.64				
28	5.30				
30	4.91				
32	4.79				
34	4.78				
36	4.74				
38	4.68				
40	4.72				12.5
44	4.67				
48	4.67				

!North wind, overcast, raining.
 !No conductivity available>
 !E0602B

TITLE: EKLUTNA
 DATE: June 2, 1983
 STATION NUMBER: 5
 STARTING TIME: 1555
 ENDING TIME: 1608
 SECCHI DISC: 3.0 ft.
 SURFACE TEMP: 6.1
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	6.12	*	*	*	*
1	6.11				
2	6.09				
4	5.85				
6	5.83				
8	5.71				
10	5.67				
12	5.63				
16	5.57				
20	5.51				
24	5.41				
28	5.39				
32	5.33				
36	5.31				
40	5.14				
44	5.07				
48	5.01				

!Light N wind, misty, overcast.
 !No conductivity available>
 !E0602E

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 7
 STARTING TIME: 1418
 ENDING TIME: 1447
 SECCHI DISC: 2.9 ft.
 SURFACE TEMP: 6.2
 LAKE DEPTH: 50.5

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	6.20	*	*	*	*
1	6.19				
2	6.18				
3	6.17				
4	6.17				
5	6.17				15
6	6.11				
7	5.58				
8	5.49				6
9	5.42				
10	5.39				
12	5.31				
14	5.22				
16	5.17				
18	5.12				
20	5.11				
22	5.08				
24	5.01				14
26	4.99				
28	4.96				
30	4.92				
32	4.85				
36	4.41				
40	4.47				16
44	4.46				
48	4.50				

!Moderate North wind, overcast, drizzle.
 !No conductivity available--data unreliable.
 !Main inlet channel temp. 6.2 deg Cel.
 !C0602G

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 9
 STARTING TIME: 1629
 ENDING TIME: 1635
 SECCHI DISC: 3.7 ft.
 SURFACE TEMP: 6.2
 LAKE DEPTH: 50.5

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	6.18	*	*	*	*
2	6.14				
4	6.12				
6	6.10				
8	6.02				
10	5.96				
12	5.90				
16	5.56				
20	5.20				
24	5.01				
28	4.97				
32	4.92				
36	4.80				
40	4.70				
44	4.69				
48	4.69				

!Raining cats and dogs, slight N wind.
 !E0602I

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 11
 STARTING TIME: 1709
 ENDING TIME: 1719
 SECCHI DISC: 3.7
 SURFACE TEMP: 6.3
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	6.28	*	*	*	15
2	6.27				
4	6.27				
6	6.27				
10	6.27				
12	6.27				
14	6.27				
20	6.23				
22	5.83				
24	5.70				
26	5.00				
28	4.88				
32	4.76				
36	4.65				
40	4.56				
44	4.56				

!Light Northerly breeze, overcast and raining.
 !E0602K

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 10
 STARTING TIME: 1646
 ENDING TIME: 1654
 SECCHI DISC: 3.7 ft.
 SURFACE TEMP: 6.7
 LAKE DEPTH: 50.5

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	6.66	*	*	*	*
2	6.65				
4	6.64				
6	6.63				
8	6.62				
10	6.60				
12	6.44				
13	6.20				
14	6.08				
16	5.60				
18	4.72				
20	4.53				
22	4.50				
24	4.42				
28	4.65				
32	4.67				

!Bottom at 32 m.
 !Overcast, raining, light N wind.
 !E0602J

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 13
 STARTING TIME: 1726
 ENDING TIME: 1735
 SECCHI DISC: 3.6 ft.
 SURFACE TEMP: 6.7
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	6.66	*	*	*	*
2	6.66				
6	6.62				
8	6.60				
10	6.48				
11	6.00				
12	5.51				
13	5.38				
14	5.31				
16	5.15				
18	5.00				
20	4.90				
22	4.82				
24	4.78				
29	4.50				
32	4.48				

!Bottom at 32 m.
 !Overcast, raining, almost calm.
 !No conductivity available
 !E0602M

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 15
 STARTING TIME: 1740
 ENDING TIME: 1743
 SECCHI DISC: 3.5 ft.
 SURFACE TEMP: 6.25
 LAKE DEPTH: 50.5

```

=====
DEPTH      TEMP.      CONDUCTIVITY  CORR. CONDUCT.  TRANSMISS.  TURBIDITY
(meter)    (celsius)    (umho)        (umho)         (%)          (NTU)
=====
0          6.25         *              *              *           *
2          6.11
4          5.85
6          5.75
  
```

!Bottom at 7.0 m.

!Calm, overcast, raining

!E06020

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 2
 STARTING TIME: 1057
 ENDING TIME: 1130
 SECCHI DISC: 2.2 ft.
 SURFACE TEMP: 14.3
 LAKE DEPTH: 51.9

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	14.28			*	*
2	14.24				
4	13.94				
6	13.28				16
8	10.56				45
9	10.20				
10	9.93				4-1
11	9.65				
12	9.55				
14	8.68				
16	7.50				
18	6.68				
20	6.55				
22	6.36				
24	6.21				18.5
28	5.68				
32	5.67				
36	5.57				
40	5.53				
44	5.40				

!Bottom at 46.2 m.
 !Air temp. 11.4, Misty.
 !Main inlet channel temp. 3.70
 !E0706B

TLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 3
 STARTING TIME: 1213
 ENDING TIME: 1230
 CECCHI DISC: 2.9 ft.
 SURFACE TEMP: 14.3
 LAKE DEPTH: 51.9 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
1	14.29	*	*	*	*
	14.25				
	13.7				
	12.16				
	11.64				
	11.08				73
	10.66				
	10.24				75
	9.98				
	9.22				
	8.65				
	7.98				
	6.61				
	6.30				
	6.14				
	5.98				
	5.84				
	5.54				
	5.23				

bottom at 39.6+/- m.
 no conductivity this station
 0706C

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 5
 STARTING TIME: 1256
 ENDING TIME: 1310
 SECCHI DISC: 2.3 ft.
 SURFACE TEMP: 13.9
 LAKE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	13.91				
2	13.67				
4	13.30				
6	11.30				
8	10.00				
10	9.76				
12	9.25				
16	8.23				
20	6.5				
24	6.11				
28	5.67				
32	5.42				
36	5.28				
40	5.21				
44	5.02				
48	4.91				

!Bottom at 48.8 m.

!Conductivity not available--data unreliable.

!E0706F

TLE: EKLUTNA LAKE
 TE: July 6, 1983
 ATION NUMBER: 7
 ARTING TIME: 1324
 IDING TIME: 1335
 CCHI DISC: 2.1 ft.
 RFACE TEMP: 14.0
 KE DEPTH: 51.9 m.

DEPTH meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	14.0	*	*	*	*
	13.73				
	13.23				
	12.14				
	10.24				
	8.90				
	8.21				
	7.39				
	6.35				
	5.80				
	5.57				
	5.41				
	5.16				
	5.06				
	4.94				
	4.83				

ottom at 50.8 m.
 onductivity not available.
 0706G

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 9
 STARTING TIME: 1455
 ENDING TIME: 1508
 SECCHI DISC: 2.1 ft.
 SURFACE TEMP: 13.6
 LAKE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	13.65	*	*	*	*
2	13.17				
4	12.8				
6	11.00				
8	10.00				
10	9.63				
12	8.52				
16	7.34				
20	6.44				
24	6.03				
28	5.80				
32	5.47				
36	5.42				
40	5.26				
44	4.96				
48	4.88				

!Bottom at 49.6 m.

!Conductivity unavailable--data unreliable>

!Overcast, drizzle.

!E0706I

TLE: EKLUTNA LAKE
 TE: July 6, 1983
 ATION NUMBER: 11
 ARTING TIME: 1535
 IDING TIME: 1544
 CCHI DISC: 1.9 ft.
 RFACE TEMP: 13.0
 KE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	12.91	*	*	*	*
	12.83				
	12.23				
	11.14				
	10.64				
	10.12				
	9.59				
	8.3				
	6.7				
	6.08				
	5.6				
	5.42				
	5.34				
	5.21				

bottom at 42.2 m.
 0706K

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 13
 STARTING TIME: 1519
 ENDING TIME: 1530
 ECCHI DISC: 2.0 ft.
 SURFACE TEMP: 12.8
 LAKE DEPTH: 51.9 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	12.75	*	*	*	*
2	12.52				
4	11.38				
6	10.66				
8	10.3				
10	9.64				
12	9.22				
14	8.83				
16	8.47				
18	7.00				
24	6.12				
28	5.54				
32	5.37				

Bottom at 32.3 m.
 Drizzle stopped at 1500.
 E0706M

TLE: EKLUTNA LAKE
TE: July 6, 1983
ATION NUMBER: 15
ARTING TIME: 1553
DING TIME: 1556
RFACE TEMP: 12.8
KE DEPTH: 51.9

=====

EPH eter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	12.80				
	12.56				
	12.44				
	12.09				
	11.80				

ottom at 7.1 m.
07060

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 2
 STARTING TIME: 1417
 ENDING TIME: 1440
 SECCHI DISC: 1.8 FT.
 SURFACE TEMP: 16.8
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2	16.53	102	117	*	*
4	16.18	101	117		
5	15.25	92	109		
6	14.37	96	117		
7	10.94	80	104		
8	10.47	72	94		
10	9.88	70	93		
12	9.22	69	94		
14	8.73	70	93		
16	8.42	68	93		
18	8.25	71	96		
20	7.8	75	106		
22	7.19	79	112		
24	6.64	80	116		
26	6.39	80	119		
28	6.2	80	118		
32	5.97	80	119		
36	5.91	80	119		
40	5.7	79	118		
44	5.6	79	118		
48	5.50	78	118		
52	5.40	80	122		

!Bottom at 50 m.

!YSI S-C-T 17 deg., 104 Micromhos at surface.

!E0803B

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 5
 STARTING TIME: 1440
 ENDING TIME: 1500
 SURFACE TEMP: 16.9
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	16.92	97	111	*	*
1	16.06	93	108		
2	15.63	97	113		
3	15.38	95	111		
4	14.8	94	113		
5	12.89	90	113		
6	11.6	76	98		
7	11.02	71	95		
8	10.68	68	90		
9	10.41	70	92		
10	10.16	70	93		
12	10.16	70	93		
14	9.09	71	97		
16	8.8	71	98		
18	8.53	71	99		
20	7.83	76	108		
22	7.62	78	110		
22	7.62	78	110		
24	6.76	79	115		
26	6.39	79	116		
28	6.18	80	118		
32	5.96	79	118		
36	5.96	79	118		
40	5.72	79	118		
44	5.45	78	118		
48	5.22	78	119		
52	5.09	79	119		

!Bottom at 52.7 m)
 !Clear, calm, hot.
 !E0803E

TITLE: ERLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 7
 STARTING TIME: 1505
 ENDING TIME: 1520
 SECCHI DISC: 2.0 ft.
 SURFACE TEMP: 17.2
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	17.19	98	112	*	*
1	16.1	98	113		
2	15.77	96	113		
3	15.51	96	112		
4	14.59	95	113		
5	12.63	88	112		
6	10.88	81	107		
7	10.15	76	102		
8	9.93	73	98		40
9	9.56	72	97		
10	9.33	73	100		46
12	9.02	72	99		
14	8.76	73	101		
16	8.24	75	104		
18	7.98	76	107		
20	7.76	77	108		
22	7.33	78	112		
24	6.85	79	115		
26	6.62	80	116		
28	6.45	80	116		
32	6.08	81	119		
36	5.75	79	118		
40	5.49	80	119		
44	5.4	80	119		
48	5.26	79	120		
52	5.1	79	120		
54	5.07	74	121		

!Bottom at 55.0 m.
 !Clear, Calm, Hot.

TLE: EKLUTNA LAKE
 TE: August 3, 1983
 TATION NUMBER: 9
 TARTING TIME: 1500
 IDING TIME: 1515
 IRFACE TEMP: 16.00
 IKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	16.00	100	114	*	*
	15.94	99	115		
	15.49	99	116		
	15.18	99	116		
	15.09	98	115		
	13.53	97	118		
	11.42	89	113		
	10.37	79	105		
	10.23	78	102		
	10.06	77	102		
	9.76	76	103		
	9.18	76	103		
	8.73	76	104		
	8.39	79	108		
	8.06	80	112		
	7.43	82	117		
	7.03	82	117		
	6.79	83	118		
	6.55	83	119		
	6.32	84	121		
	6.12	83	121		
	5.96	82	122		
	5.87	83	122		
	5.67	83	121		
	5.64	82	122		
	5.55	83	122		
	5.17	83	123		

ottom at 53.2 m.
 and from North starting again.
 0803I

TITLE: FKLUTNA LAKE
DATE: August 3, 1983
STATION NUMBER: 10
STARTING TIME: 1626
ENDING TIME: 1645
SURFACE TEMP: 15.1
LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	15.09	99	115	*	*
1	15.03	98	115		
2	15.05	99	115		
3	14.97	98	115		
4	12.51	93	116		
5	12.09	89	112		
6	11.2	84	107		
7	10.95	81	105		
8	10.76	80	102		
9	9.8	79	103		
10	9.76	79	103		
12	9.5	80	105		
14	9.32	81	108		
16	8.98	81	109		
18	8.80	87	113		
20	7.8	85	117		
22	6.65	85	120		
24	6.03	85	124		
26	5.89	85	123		
28	5.76	85	124		
30	5.63	86	124		
32	5.51	85	124		
34	5.26	84	124		

Bottom at 36.7 m.

F0803J

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 11
 STARTING TIME: 1650
 ENDING TIME: 1705
 SIGHTING DISC: 1.9 ft.
 SURFACE TEMP: 15.22
 LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	15.22	99	115	*	*
	15.07	98	115		
	14.27	99	117		
	13.6	97	117		
	12.66	96	117		
	12.16	93	116		
	11.29	90	114		
	10.44	85	109		
	10.32	80	104		
	10.05	80	104		
	9.69	80	106		
	9.50	81	106		
	8.92	86	114		
	8.44	85	116		
	8.00	84	116		
	7.30	85	119		
	7.08	86	120		
	6.75	86	122		
	6.39	86	124		
	6.06	85	123		
	5.96	85	124		
	5.79	86	124		
	5.68	85	125		
	5.63	86	125		

Bottom at 46.2 m.
 0803K
 Light North wind.

TITLE: EKLUTNA LAKE
DATE: August 3, 1983
STATION NUMBER: 15
STARTING TIME: 1715
ENDING TIME: 1720
SECCHI DISC: N/A
SURFACE TEMP: 13.74
LAKE DEPTH: 55.4 m

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DEPTH meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	13.74	93	117	*	*
2	13.40	96	117		
4	12.21	95	118		
6	11.47	90	114		
7	11.37	89	113		
9	10.82	86	111		

!Clear, calm, not
!E08030

TLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 2
 STARTING TIME: 1600
 ENDING TIME: 1620
 COCHI DISC: 3.0
 SURFACE TEMP: 12.29
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.29	72	95 *		
1.0	12.33	73	96 *		
2.0	12.00	73	96 *		
3.0	11.74	73	96 *		
4.0	11.46	73	99 *		
5.0	11.40	72	97 *		
6.0	11.39	72	97 *		
7.0	11.33	72	97 *		
8.0	11.24	72	97 *		
9.0	11.00	72	97 *		
10.0	10.73	72	97 *		
11.0	10.27	72	99 *		
11.5	9.97	70	97 *		
12.0	9.65	68	94 *		
12.5	9.39	67	94 *		
13.0	9.26	67	94 *		
14.0	9.09	65	92 *		18.0
15.0	8.76	63	89 *		
16.0	8.53	65	92 *		
18.0	8.00	65	94 *		
19.0	7.69	66	96 *		
20.0	7.36	68	101 *		
24.0	7.15	70	104 *		27.0
26.0	6.99	71	106 *		
28.0	6.85	71	106 *		
30.0	6.71	72	107 *		
32.0	6.60	72	107 *		
34.0	6.45	71	109 *		
36.0	6.37	72	110 *		23.0
38.0	6.27	72	110 *		
40.0	6.10	72	110 *		

aim cloudy

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 5
 STARTING TIME: 1515
 ENDING TIME: 1540
 ECCHI DISC: *
 SURFACE TEMP: 11.96
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.96	68	90 *		
.5	11.59	68	90 *		
1.0	11.43	68	92 *		
2.0	11.26	68	92 *		
3.0	11.23	67	90 *		
4.0	11.20	68	92 *		
5.0	11.17	68	92 *		
6.0	11.15	67	90 *		
7.0	11.13	67	90 *		
8.0	11.07	67	90 *		
9.0	11.02	67	90 *		
10.0	10.65	68	92 *		
11.0	10.01	63	87 *		
12.0	9.52	60	83 *		
13.0	9.24	58	82 *		
14.0	8.99	57	80 *		
16.0	8.69	56	79 *		
18.0	8.51	58	82 *		
20.0	8.21	60	87 *		
22.0	7.91	60	87 *		
24.0	7.61	62	90 *		
26.0	7.33	63	94 *		
28.0	7.03	65	97 *		
30.0	6.85	67	100 *		
32.0	6.69	66	98 *		
36.0	6.35	67	103 *		
40.0	6.16	68	104 *		
44.0	6.02	67	103 *		
48.0	5.95	65	99 *		

Calm, cloudy.
 F0907E.

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 7
 STARTING TIME: 1430
 ENDING TIME: 1500
 CCHI DISC: 3.1 ft.
 SURFACE TEMP: 12.26
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.26	68	90 *		
.5	11.60	68	90 *		
1.0	11.47	68	92 *		
2.0	11.37	66	89 *		
3.0	11.31	67	90 *		
4.0	11.19	67	90 *		
5.0	11.08	66	89 *		
6.0	10.98	65	88 *		
7.0	10.84	63	85 *		
8.0	10.47	61	84 *		
9.0	9.88	58	80 *		
0.0	9.50	57	79 *		
1.0	9.32	56	79 *		
2.0	9.16	54	76 *		
4.0	8.80	53	75 *		
6.0	8.58	53	75 *		
8.0	8.21	56	81 *		
0.0	7.90	58	84 *		
2.0	7.48	61	91 *		
4.0	7.30	60	89 *		
6.0	7.17	62	92 *		
8.0	6.97	63	94 *		
0.0	6.82	65	97 *		
2.0	6.65	66	98 *		
6.0	6.42	65	99 *		
0.0	6.23	66	101 *		
8.0	6.05	65	99 *		
2.0	5.95	63	96 *		
6.0	5.90	65	99 *		

alm. cloudy.
 0907G

TE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 8
 STARTING TIME: 1710
 ENDING TIME: 1725
 ECCHI DISC: *
 SURFACE TEMP: 11.29
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.29	75	101 *		
.5	11.30	77	104 *		
2.0	11.22	77	104 *		
4.0	11.01	76	103 *		
6.0	10.96	76	103 *		
8.0	10.85	76	103 *		
9.0	10.72	75	101 *		
10.0	9.83	75	104 *		
11.0	9.40	68	96 *		
12.0	9.24	66	93 *		
14.0	8.85	66	93 *		
16.0	8.71	66	93 *		
18.0	8.46	66	96 *		
20.0	8.21	66	96 *		
22.0	7.83	67	97 *		
24.0	7.27	72	107 *		
26.0	7.00	73	109 *		
28.0	6.87	75	112 *		
30.0	6.70	75	112 *		
32.0	6.60	75	112 *		
36.0	6.40	75	115 *		
40.0	6.27	77	118 *		
44.0	6.12	76	116 *		
48.0	6.01	76	116 *		
52.0	5.93	76	116 *		
56.0	5.86	75	115 *		

Calm, cloudy.
 E0907H

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TLE: EKLUTNA LAKE
 TE: September 7, 1983
 ATION NUMBER: 9
 ARTING TIME: 1130
 DING TIME: 1200
 CCHI DISC: 2.7 ft.
 RFACE TEMP: 10.97
 KE DEPTH: 60.1 m

DEPTH (meters)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.97	71	96 *		
.5	10.96	72	97 *		
1.0	10.94	72	97 *		
2.0	10.91	72	97 *		
3.0	10.86	71	96 *		
4.0	10.80	71	96 *		
5.0	10.73	72	97 *		
6.0	10.66	71	96 *		
7.0	10.63	72	97 *		
8.0	10.63	72	97 *		
9.0	10.62	71	96 *		
10.0	10.62	71	96 *		
12.0	10.38	70	97 *		
13.0	9.85	66	91 *		
14.0	9.61	66	91 *		
16.0	9.03	62	87 *		
17.0	8.73	61	86 *		33.0
18.0	8.67	62	87 *		
20.0	8.23	62	90 *		
22.0	8.01	63	91 *		
24.0	7.72	65	94 *		31.0
26.0	7.38	66	98 *		
28.0	7.30	67	100 *		
30.0	7.19	67	100 *		
32.0	6.98	68	101 *		
34.0	6.60	70	104 *		
36.0	6.27	68	104 *		18.5
38.0	6.08	68	104 *		

aim,cloudy.
 0907I

TE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 10
 STARTING TIME: 1100
 ENDING TIME: 1130
 ECCHI DISC: *
 SURFACE TEMP: 10.82
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.82	71	96 *		
.5	10.82	72	97 *		
1.0	10.81	71	96 *		
2.0	10.72	70	95 *		
4.0	10.59	70	95 *		
6.0	10.46	68	94 *		
8.0	10.36	70	97 *		
10.0	10.22	68	94 *		
11.0	9.73	63	87 *		
12.0	9.47	66	93 *		
13.0	9.16	62	87 *		
14.0	9.00	62	87 *		
16.0	8.66	63	89 *		
18.0	8.52	65	92 *		
20.0	8.48	66	96 *		
22.0	8.27	66	96 *		
24.0	8.11	66	96 *		
26.0	7.75	67	97 *		
28.0	7.26	70	104 *		
30.0	6.79	70	104 *		
32.0	6.60	71	106 *		

Calm, cloudy.
 1E0907J

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 11
 STARTING TIME: 1035
 ENDING TIME: 1100
 CATCH DISC: 2.7 ft.
 SURFACE TEMP: 10.64
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.64	72	97 *		
.5	10.67	75	101 *		
1.0	10.64	73	99 *		
2.0	10.60	72	97 *		
3.0	10.44	72	99 *		
4.0	10.36	71	98 *		
5.0	10.26	71	98 *		
6.0	10.26	72	99 *		
7.0	10.25	72	99 *		
8.0	10.26	72	99 *		
9.0	10.21	71	98 *		
10.0	9.98	71	98 *		
11.0	9.60	71	98 *		
12.0	9.21	66	93 *		
13.0	8.95	63	89 *		
14.0	8.83	63	89 *		
15.0	8.65	65	92 *		
16.0	8.43	65	94 *		
17.0	8.04	66	96 *		
18.0	7.68	68	99 *		
19.0	7.27	70	104 *		
20.0	6.87	71	106 *		
21.0	6.73	70	104 *		
22.0	6.43	72	110 *		
23.0	6.34	72	110 *		
24.0	6.27	72	110 *		
25.0	6.23	71	109 *		

Rain, Cloudy.
 0907K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 15
 STARTING TIME: 1000
 ENDING TIME: 1025
 ECCHI DISC: 2.4 ft.
 SURFACE TEMP: 10.28
 LAKE DEPTH: 60.1 m

```

=====
DEPTH      TEMP.      CONDUCTIVITY  CORR. CONDUCT.  TRANSMISS.  TURBIDITY
(meter)    (celsius)    (umho)       (umho)         (%)          (NTU)
=====
0.0        10.28        72           99 *
.5         10.27        73           101 *
2.0        10.00        72           99 *
4.0        9.88         72           99 *
6.0        9.50         71           98 *
8.0        9.09         68           96 *
10.0       8.98         67           94 *
Calm, cloudy.
E09070
  
```

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 2
 STARTING TIME: 1315
 ENDING TIME: 1330
 SECCHI DISC: 2.8 ft
 SURFACE TEMP: 7.46
 LAKE DEPTH: 61 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.46	83	124 *		
2.0	7.35	83	124 *		
4.0	7.30	83	124 *		
6.0	7.30	83	124 *		
8.0	7.30	83	124 *		
12.0	7.30	82	122 *		
16.0	7.29	83	124 *		
20.0	7.29	83	124 *		
24.0	7.29	83	124 *		6.4
28.0	7.28	83	124 *		
32.0	7.27	84	125 *		
36.0	7.04	83	124 *		
40.0	6.89	83	124 *		15.0
44.0	6.85	84	125 *		
48.0	6.74	85	127 *		
52.0	6.60	86	128 *		

!Conductivity data is unreliable,
 !Calm cloudy
 !E1005B

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKIUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 7
 STARTING TIME: 1145
 ENDING TIME: 1200
 SECCHI DISC: 2.9 ft
 SURFACE TEMP: 7.47
 LAKE DEPTH: 61 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
2.0	7.40	81	121 *		
4.0	7.35	81	121 *		
6.0	7.34	81	121 *		
8.0	7.33	81	121 *		
10.0	7.34	81	121 *		
12.0	7.33	81	121 *		
14.0	7.33	81	121 *		
16.0	7.33	81	121 *		
20.0	7.33	80	119 *		
24.0	7.33	81	121 *		
28.0	7.32	81	121 *		
32.0	7.24	82	122 *		
36.0	7.12	82	122 *		
40.0	7.05	82	122 *		
44.0	6.98	82	122 *		
48.0	6.90	83	124 *		
52.0	6.58	84	125 *		
56.0	6.42	85	130 *		

!Conductivity data is unreliable,
 !Partly sunny
 !E1005G

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

*****;

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 8
 STARTING TIME: 1445
 ENDING TIME: 1500
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 7.35
 LAKE DEPTH: 61 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY, (NTU) =====
2.0	7.24	82	122 *		
4.0	7.22	81	121 *		
6.0	7.21	82	122 *		
8.0	7.22	82	122 *		
10.0	7.22	82	122 *		
12.0	7.22	82	122 *		
16.0	7.22	83	124 *		
20.0	7.22	82	122 *		
24.0	7.21	83	124 *		
28.0	7.20	82	122 *		
32.0	7.14	83	124 *		
36.0	7.04	83	124 *		
40.0	6.93	83	124 *		
44.0	6.85	82	122 *		
48.0	6.72	84	125 *		
52.0	6.62	84	125 *		
56.0	6.43	85	130 *		

!Conductivity data is unreliable,
 !Partly sunny
 !E1005H

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 9
 STARTING TIME: 0916
 ENDING TIME: 0940
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 7.27
 LAKE DEPTH: 61 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
1.0	7.28	82	122 *		
2.0	7.28	84	125 *		
3.0	7.28	83	124 *		
4.0	7.28	83	124 *		
5.0	7.27	83	124 *		
6.0	7.28	84	125 *		
8.0	7.28	84	125 *		
12.0	7.28	83	124 *		
16.0	7.28	83	124 *		
20.0	7.27	83	124 *		
24.0	7.27	84	125 *		6.9
28.0	7.24	84	125 *		
30.0	7.15	84	125 *		
32.0	7.09	85	127 *		
36.0	7.04	84	125 *		
40.0	6.96	85	127 *		10.0
44.0	6.82	86	128 *		
48.0	6.76	86	128 *		
50.0	6.71	85	127 *		
52.0	6.62	86	128 *		
54.0	6.56	86	128 *		

!Conductivity data is unreliable
 !Partly sunny
 !E1005I

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 11
 STARTING TIME: 0845
 ENDING TIME: 0900
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 7.25
 LAKE DEPTH: 61m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
1.0	7.26	84	125 *		
2.0	7.25	84	125 *		
3.0	7.26	84	125 *		
4.0	7.26	84	125 *		
5.0	7.25	83	124 *		
6.0	7.25	84	125 *		
7.0	7.25	84	125 *		
8.0	7.25	84	125 *		
9.0	7.25	83	124 *		
10.0	7.25	83	124 *		
11.0	7.26	84	125 *		
12.0	7.25	84	125 *		
13.0	7.27	84	125 *		
14.0	7.26	84	125 *		
16.0	7.26	83	124 *		
18.0	7.26	84	125 *		
20.0	7.25	84	125 *		
24.0	7.24	84	125 *		
28.0	7.21	84	125 *		
30.0	7.05	85	127 *		
34.0	6.89	87	130 *		
38.0	6.80	87	130 *		
42.0	6.59	87	130 *		
46.0	6.52	87	130 *		
50.0	6.44	87	133 *		

!Conductivity data is unreliable
 !Partly sunny
 !E1005K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: October 05, 1983
STATION NUMBER: 15
STARTING TIME: 0825
ENDING TIME: 0835
SECCHI DISC: 2.6 ft
SURFACE TEMP: 7.14
LAKE DEPTH: 61m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
1.0	7.15	80	119 *		
2.0	7.14	80	119 *		
4.0	7.14	80	119 *		
6.0	7.14	80	119 *		
8.0	7.15	80	119 *		
10.0	7.15	80	119 *		

!Conductivity data is unreliable,
!Partly cloudy
!L10050

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: November 01, 1983
 STATION NUMBER: 2
 STARTING TIME: 1215
 ENDING TIME: 1225
 SECCHI DISC: 3.1'
 SURFACE TEMP: 5.57
 LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2.0	5.60	75	115 *		
4.0	5.62	76	116 *		
8.0	5.61	76	116 *		
12.0	5.63	76	116 *		
16.0	5.62	77	118 *		
20.0	5.62	77	118 *		
24.0	5.62	77	118 *		11.0
28.0	5.62	77	118 *		
32.0	5.60	77	118 *		
36.0	5.60	77	118 *		
40.0	5.60	77	118 *		12.0
44.0	5.60	77	118 *		
48.0	5.60	77	118 *		
52.0	5.60	77	118 *		
56.0	5.60	77	118 *		

!Cloudy, calm
 !E1101B

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 5
STARTING TIME: 1200
ENDING TIME: 1210
SECCHI DISC: 3.0'
SURFACE TEMP: 5.61
LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2.0	5.61	75	115 *		
4.0	5.62	75	115 *		
8.0	5.62	75	115 *		
12.0	5.62	76	116 *		
16.0	5.62	76	116 *		
20.0	5.62	75	115 *		
24.0	5.63	76	116 *		
28.0	5.61	75	115 *		
32.0	5.59	76	116 *		
36.0	5.59	76	116 *		
40.0	5.59	75	115 *		
44.0	5.58	75	115 *		
48.0	5.59	76	116 *		
52.0	5.59	76	116 *		
56.0	5.58	76	116 *		

!Cloudy, calm
!E1101E

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: November 01, 1983
 STATION NUMBER: 7
 STARTING TIME: 1140
 ENDING TIME: 1150
 SECCHI DISC: 3.0'
 SURFACE TEMP: 5.62
 LAKE DEPTH: 60m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
2.0	5.62	77	118 *		
4.0	5.64	77	118 *		
8.0	5.63	77	118 *		
12.0	5.64	77	118 *		
16.0	5.64	77	118 *		
20.0	5.65	77	118 *		
24.0	5.66	78	119 *		
28.0	5.65	78	119 *		
32.0	5.64	77	118 *		
36.0	5.65	77	118 *		
40.0	5.65	77	118 *		
44.0	5.64	77	118 *		
48.0	5.65	77	118 *		
52.0	5.64	77	118 *		
56.0	5.64	77	118 *		

!Cloudy, calm
 !E1101G

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

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*****

TITLE:          EKLUTNA LAKE
DATE:           November 01,1983
STATION NUMBER: 9
STARTING TIME:  0940
ENDING TIME:    0950
SECCHI DISC:    3.1'
SURFACE TEMP:   5.51
LAKE DEPTH:     60m

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=====
DEPTH      TEMP.      CONDUCTIVITY  CORR.CONDUCT.  TRANSMISS.  TURBIDITY
(meter)    (celsius)    (umho)       (umho)        (%)          (NTU)
=====
2.0        5.54         83           127 *
4.0        5.56         84           129 *
8.0        5.56         83           127 *
12.0       5.59         84           129 *
16.0       5.57         83           127 *
20.0       5.57         83           127 *
24.0       5.58         84           129 *
28.0       5.56         84           129 *
32.0       5.57         84           129 *
36.0       5.58         84           129 *
40.0       5.56         84           129 *
44.0       5.56         82           125 *
48.0       5.58         81           124 *
52.0       5.56         82           125 *
56.0       5.50         82           125 *

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!Cloudy, calm
!E11011

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NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: November 01,1983
 STATION NUMBER: 11
 STARTING TIME: 0905
 ENDING TIME: 0915
 SECCHI DISC: 3.0'
 SURFACE TEMP: 5.24
 LAKE DEPTH: 60m

.....

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
1.0	5.29	84	132 *		
2.0	5.28	84	132 *		
3.0	5.28	83	130 *		
4.0	5.28	84	132 *		
6.0	5.29	84	132 *		
8.0	5.28	84	132 *		
10.0	5.28	84	132 *		
12.0	5.28	84	132 *		
16.0	5.28	84	132 *		
24.0	5.28	84	132 *		
28.0	5.29	84	132 *		
32.0	5.29	84	132 *		
36.0	5.29	84	132 *		
40.0	5.28	84	132 *		
44.0	5.28	85	133 *		
48.0	5.28	85	133 *		
52.0	5.22	85	133 *		

!Cloudy, calm
 !E1101K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 15
STARTING TIME: 0845
ENDING TIME: 0900
SECCHI DISC: 3.1ft
SURFACE TEMP: 4.92
LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
1.0	5.01	82	129 *		
2.0	5.02	83	130 *		
3.0	5.06	82	129 *		
5.0	5.07	83	130 *		
6.0	5.09	83	130 *		
8.0	5.09	83	130 *		
10.0	5.07	83	130 *		
12.0	5.05	83	130 *		
15.0	5.01	83	130 *		

!Partly cloudy, calm
!C11010

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: December 06, 1983
 STATION NUMBER: 15
 STARTING TIME: 1155
 ENDING TIME: 1225
 SECCHI DISC: 3.6'
 SURFACE TEMP: 1.4
 LAKE DEPTH: 61.6

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	1.43	69	118		
0.67	2.24	70	117		
1.33	2.93	71	117	x	x
2	3.00	73	120		
3	3.00	71	117		
4	3.00	71	117		
5	3.15	71	116		
6	3.23	72	118		
8	3.28	72	118		
10	3.31	72	117		
12	3.34	72	117		
15	3.36	73	119		
18	3.38	73	119		
20	3.44	73	119		
21	3.46	73	119		

!Bottom at 21 m.
 !Corrected Conductivities are computed
 !Clear, calm and air temp. of 20 F
 !E12060

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 5
 STARTING TIME: 1610
 ENDING TIME: 1630
 SECCHI DISC: N/A
 SURFACE TEMP: 1.00
 LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	1.00	72	124		
0.5	1.49			x	x
1	1.67	85	145		
1.5	1.88				
2	2.12				
3	2.84				
4	2.96				
5	3.16				
6	3.44				
8	3.64				
10	3.86				
12	3.94				
16	3.98				
20	4.01				
24	3.98				
28	3.98				
32	3.95				
36	3.95				
40	3.95				
44	3.94				
48	3.92				
52	3.94				
56	3.92				
60	3.91				
64	3.92				

!Bottom at 64 m.
 !Overcast. Calm
 !C0116E

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 9
 STARTING TIME: 1150
 ENDING TIME: 1220
 SECCHI DISC: N/A
 SURFACE TEMP: 0.35
 LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.35	68	122		
0.5	0.61		x	x	x
1	1.18				
1.5	1.36				
2	1.60				
3	2.50				
4	2.58				
5	2.74				
6	3.02				
8	3.48				
10	3.62				
12	3.74				
16	3.93				
20	3.94				
24	3.94	78	132		
32	3.95				
40	3.91	79	132		
48	3.91				
56	4.02				
60	4.12				
64	4.16				

!Bottom at 64 m.
 !Partly cloudy, calm
 !E0116I

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 15
 STARTING TIME: 1030
 ENDING TIME: 1105
 SECCHI DISC: N/A
 SURFACE TEMP: 0.3
 LAKE DEPTH: 60

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.35	78	136		
0.5	0.72		x	x	x
1	1.20				
1.5	2.04				
2	2.22				
3	2.47				
4	2.79				
5	3.10	72	124		
6	3.33				
8	3.59				
10	3.70	76	128		
15	3.86				
18	4.01				

!Bottom at 18 m.

!Clear, calm and air temp. of -19 C

!E01160

TITLE: EKIUTNA LAKE
 DATE: February 16, 1984
 STATION NUMBER: 5
 STARTING TIME: 1126
 ENDING TIME: 1132
 SECCHI DISC: N/A
 SURFACE TEMP: 0.20
 LAKE DEPTH: 57.6

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	0.20	*	*	*	
1	0.99				
2	2.10				
3	2.59				
4	3.36				
5	3.46				
6	3.48				
7	3.51				
8	3.51				
9	3.51				
10	3.52				
12	3.52				
16	3.51				
20	3.51				
24	3.57				
28	3.56				
32	3.52				
36	3.54				
40	3.52				
44	3.50				
48	3.41				
52	3.44				
56	3.44				
60	3.62				

!Bottom at 60 m.
 !Snowing and calm
 !E0216E

TITLE: ERLUTNA LAKE
 DATE: February 16, 1984
 STATION NUMBER: 9
 STARTING TIME: 1000
 ENDING TIME: 1021
 SECCHI DISC: N/A
 SURFACE TEMP: 0.20
 LAKE DEPTH: 57.6

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.20	*	*	*	
1	1.10				
2	1.70				
3	2.34				
4	2.50				
5	2.62				
6	2.70				
7	2.78				
8	2.88				
9	2.94				
10	3.04				
12	3.15				
16	3.30				
20	3.33				
24	3.38				5.6
28	3.35				
32	3.28				
36	3.20				
40	3.19				6.9
44	3.21				
48	3.20				
52	3.29				
56	3.53				
60	3.54				

1Bottom at 60 m.

1Partly cloudy, light breeze

1E0216I

TITLE: EKLUTNA LAKE
 DATE: February 16, 1984
 STATION NUMBER: 15
 STARTING TIME: 0904
 ENDING TIME: 0912
 SECCHI DISC: N/A
 SURFACE TEMP: 0.20
 LAKE DEPTH: 57.6

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY ^y (NTU) =====
0	0.20	x	*	x	x
1	0.76				
2	1.69				
3	2.40				
4	2.92				
5	3.19				
6	3.34				
7	3.38				
8	3.39				
10	3.42				
12	3.44				

!Bottom at 12 m.

!Clear and Calm

!E02160

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 2
 STARTING TIME: 1400
 ENDING TIME: 1420
 SECCHI DISC: N/A
 SURFACE TEMP: 0.63
 LAKE DEPTH: 54.8

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	0.63	*	*	*	
0.5	3.72				
1	3.81				
2	3.48				6.4

!Bottom at 2.5m.
 !Clear and Calm
 !E0323R

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 5
 STARTING TIME: 1315
 ENDING TIME: 1344
 SECCHI DISC: N/A
 SURFACE TEMP: 1.7
 LAKE DEPTH: 54.8

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	1.7	*	*	*	*
1	3.94				
2	4.18				
3	4.18				
4	4.15				
5	4.13				
6	4.10				
7	4.08				
8	4.08				
9	4.08				
10	4.06				
12	4.06				
16	4.07				
20	3.95				43.2
24	3.90				
28	3.90				
32	3.89				
36	3.88				
40	3.89				6.1
44	3.92				
48	3.94				
52	4.10				
56	4.06				

!Bottom at 56 m.
 !Clear and Calm
 !E0323E

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 9
 STARTING TIME: 1030
 ENDING TIME: 1048
 SECCHI DISC: N/A
 SURFACE TEMP: 0.31
 LAKE DEPTH: 54.8

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	0.31	*	*	*	
1	3.32				
2	3.50				
3	3.93				
4	3.97				
5	4.03				
6	4.04				
7	4.05				
8	4.05				
9	4.05				
10	4.06				
12	4.06				
16	4.05				
20	4.04				4.2
24	4.04				
28	4.07				
32	4.03				
36	4.01				
40	4.06				4.2
44	4.11				
48	4.16				
52	4.35				
56	4.35				

!Bottom at 56 m.
 !Clear and Calm
 !E03231

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 15
 STARTING TIME: 0920
 ENDING TIME: 0930
 SECCHI DISC: N/A
 SURFACE TEMP: 1.60
 LAKE DEPTH: 54.8

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	1.60	*	*	*	
1	3.70				
2	4.07				
3	4.16				
4	4.15				
5	4.12				3.1
6	4.09				
7	4.12				
8	4.11				
9	4.15				

!Bottom at 9 m.
 !Clear and Calm
 !E03230

TITLE: EKLUTNA LAKE
 DATE: April 20, 1984
 STATION NUMBER: 11
 STARTING TIME: 1220
 ENDING TIME: 1320
 SECCHI DISC: 6.3 ft
 SURFACE TEMP: 0.6
 LAKE DEPTH: 52.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.6	*	*	*	
0.5	2.7				
1	3.3				
1.5	3.6				
2	3.6				2.6
4	3.7				
6	3.5				
8	3.4				
12	3.2				
16	3.2				
20	3.2				
24	3.3				1.8
28	3.3				
32	3.4				
36	3.4				
40	3.5				
42	3.6				

Bottom at 42m.
 Overcast and light breeze
 E0420K

TLE: EKLUTNA LAKE
 .TE: April 20, 1984
 ATION NUMBER: 15
 ARTING TIME: 0950
 DING TIME: 1110
 CCHI DISC: 7.5 ft
 RFACE TEMP: 0.6
 KE DEPTH: 52.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	0.6	*	*	*	
.5	0.9				
	3.0				2.0
	3.5				
	3.4				
	-				
.5	3.3				1.8

ottom at 5.5m.
 vercast and light breeze
 04200

TITLE: EKLUTNA LAKE
 DATE: May 17, 1984
 STATION NUMBER: 5
 STARTING TIME: 1415
 ENDING TIME: 1505
 SECCHI DISC: 6.7 ft
 SURFACE TEMP: 6.1
 LAKE DEPTH: 50.5 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	5.84	70	102		
0.5	5.90	71	103		
1.0	5.80	70	103		
2.0	5.62	70	102		
4.0	5.10	70	102		2.5
8.0	4.89	69	102		
12.0	4.70	69	102		
16.0	4.55	68	102		
20.0	4.15	67	102		2.1
24.0	3.90	68	102		
28.0	3.87	67	102		
32.0	3.85	68	103		
35.0	3.75	69	103		

TURBIDITIES RUN IN THE LAB ON 5/21/84.
 WEATHER PARTLY CLOUDY, STRONG BREEZE FROM SE.
 WAVES 1 FT.
 L0517E

TLE: EKLUTNA LAKE
 TE: MAY 17, 1984
 ATION NUMBER: 9
 ARTING TIME: 1050
 DING TIME: 1105
 CCHI DISC: 6.4 ft
 RFACE TEMP: 7.0
 KE DEPTH: 50.5

EPH eter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR.CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTL) =====
0.0	6.84				
0.5	6.84				
1.0	6.84				
2.0	6.67				
4.0	6.31				3.8
8.0	5.52				
2.0	5.09				
6.0	4.94				
0.0	4.69				3.5
4.0	4.48				
8.0	4.41				
2.0	4.28				
6.0	4.21				
0.0	4.13				
4.0	4.02				
6.0	3.79				

WEATHER SUNNY AND CLEAR, WIND FROM NW.
 SWITCHED FROM SE.
 L05171

TITLE: EKLUTNA LAKE
 DATE: MAY 17, 1984
 STATION NUMBER: 15
 STARTING TIME: 1245
 ENDING TIME: 1320
 ECCHI DISC: 7.0 ft
 SURFACE TEMP: 7.4
 LAKE DEPTH: 50.5 m

DEPTH meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.20	69	98		
0.5	7.19	69	100		
1.0	7.13	70	101		
2.0	7.09	69	100		
4.0	6.93	68	98		3.0
6.4	6.19	67	98		

!WEATHER SUNNY, MODERATE BREEZE FROM NW.
 !WAVES 0.3 FT.
 !L05170

TITLE: EKLOTNA LAKE

DATE: JUNE 6, 1984

STATION NUMBER: 2

STARTING TIME: *

ENDING TIME: *

SECCHI DISC: 7.5 ft

SURFACE TEMP: 11.4

LAKE DEPTH: 50.1 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	11.13	104			3.3
1.0	11.20	104			
2.0	11.19	104			
4.0	11.03	104			
6.0	10.20	103			
7.0	10.16	101			
8.0	9.82	100			
9.0	9.19	99			
10.0	8.71	99			
12.0	8.87	98			
13.5					4.4
14.0	6.61	95			
16.0	6.01	92			
20.0	5.38	90			
24.0	5.11	90			
28.0	4.90	*			
32.0	4.82	*			
36.0	4.72	*			
40.0	4.73	*			

TURBIDITIES RUN IN THE LAB ON 06/07/84.
 BOUY DEPLOYED AT THIS SITE.
 E0606B

TITLE: EKLUTNA LAKE
 DATE: June 6, 1984
 STATION NUMBER: 5
 STARTING TIME: *
 ENDING TIME: *
 SECCHI DISC: 9.0 ft.
 SURFACE TEMP: 10.8
 LAKE DEPTH: 50.1 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	10.67	104			
1.0	10.66	103			2.1
2.0	10.67	103			
4.0	10.66	104			
6.0	10.00	103			
7.0	9.67	102			
8.0	9.04	101			
9.0	8.14	100			4.3
10.0	7.17	98			
12.0	6.39	96			
14.0	6.17	94			
16.0	5.85	93			
20.0	5.36	91			
24.0	5.01	91			
28.0	4.82	90			
32.0	4.56	90			
36.0	4.35	90			
40.0	4.13	90			
44.0	4.08	89			

!wind coming from North. buoy deployed at this site.
 !E0606E

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: JUNE 6, 1984
 STATION NUMBER: 9
 STARTING TIME: *
 ENDING TIME: *
 SECCHI DISC: 8.0 ft
 SURFACE TEMP: 10.2
 LAKE DEPTH: 50.1 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	9.96	102			2.1
1.0	9.99	101			
2.0	10.00	102			
3.0	9.99	101			
4.0	9.57	101			
5.0	9.52	100			
6.0	9.44	100			
7.0	9.41	100			
8.0	9.03	99			
9.0	8.81	99			
10.0	8.41	98			
12.0	8.02	98			
13.0					2.3
14.0	6.93	94			
16.0	6.50	92			
18.0	5.70	91			
20.0	5.61	91			
24.0	5.11	90			
29.0	4.80	90			
32.0	4.57	89			
36.0	4.46	89			
40.0	4.31	89			
44.0	4.17	89			

TURBIDITIES RUN IN THE LAB ON 06/07/84.
 106061

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*****

TITLE:                EKLUTNA LAKE
DATE:                 JUNE 6, 1984
STATION NUMBER:      11
STARTING TIME:       1109
ENDING TIME:         *
SECCHI DISC:         8.5 ft
SURFACE TEMP:        9.9
LAKE DEPTH:          50.1 m
  
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DEPTH      TEMP.      CONDUCTIVITY    CORR.CONDUCT.    TRANSMISS.    TURBIDITY
(meter)    (celsius)    (umho)          (umho)          (%)           (NTU)
=====
0.0        9.78          98              98              2.1
1.0        9.72          94              94
2.0        8.70          97              97              2.2
3.0        8.21          95
4.0        7.87          94
5.0        7.42          93
6.0        7.08          92
7.0        6.96          92
8.0        6.86          91
9.0        6.75          91
10.0       6.60          90
12.0       6.02          90
14.0       5.78          89
16.0       5.62          89
20.0       5.34          88
24.0       5.09          88
28.0       4.73          88
32.0       4.46          87
  
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TURBIDITIES RUN IN THE LAB ON 06/07/84.
1E0606K
  
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TITLE: EKUSTRA LAKE

DATE: June 6, 1984

STATION NUMBER: 15

STARTING TIME: 1052

ENDING TIME:

SECCHI DISC: 8.5 ft.

SURFACE TEMP: 9.5

LAKE DEPTH: 50.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	9.30	94			5.2
1.0	9.26	94			
2.0	9.12	94			
3.0	8.92	94			
4.0	8.89	94			
5.0	7.69	94			
8.0	6.50	90			

100% overcast, light rain, 50 degrees F, calm.

1206060

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLOTNA LAKE

DATE: June 21, 1984

STATION NUMBER: 1

STARTING TIME: 1705

ENDING TIME: 1745

SECCHI DISC: 3.2 ft

SURFACE TEMP: 14.8

LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.80	97			
0.5	14.75	97			
1.0	14.50	96			
2.0	14.31	95			
3.0	14.26	94			
4.0	14.17	95			
5.0	13.78	92			
6.0	13.80	90			
7.0	13.73	91			
8.0	13.20	89			
9.0	12.32	86			
10.0	12.00	84			
10.5	10.42	82			
11.0	8.00	83			
11.5	7.60	82			
12.0	7.28	80			
13.0	6.90	81			
14.0	6.73	79			
15.0	6.64	81			

7)

creek water is very turbid, anchored 100 feet from creek slope.
E0621a

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLEUTNA LAKE

DATE: June 21, 1984

STATION NUMBER: 2

STARTING TIME: 1550

ENDING TIME: 1654

SECCHI DISC: 3.6 ft

SURFACE TEMP: 14.5

LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.34	72			
0.5	14.36	71			
1.0	14.37	77			
2.0	14.36	80			
3.0	14.31	80			
4.0	14.26	82			
5.0	14.24	84			
6.0	14.21	84			
7.0	14.00	85			
8.0	13.74	85			
8.5	13.10	83			
9.0	10.62	79			
10.0	10.00	78			30
12.0	8.64	78			
13.0	7.20	74			
14.0	6.88	73			15.0
16.0	6.82	72			
20.0	5.98	75			6.4
24.0	5.74	74			
28.0	5.65	74			
32.0	5.50	73			
36.0	5.72	73			

may be problem with creek affecting the temperatures, creek mouth is 200yds

1E0621B

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN

TITLE: EKLUTNA LAKE

DATE: June 21, 1984

STATION NUMBER: 3

STARTING TIME: 1440

ENDING TIME: 1540

SECCHI DISC: 3.8 ft

SURFACE TEMP: 13.9

LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.85	80			
0.5	13.91	82			
1.0	13.92	82			
2.0	13.91	83			7.2
3.0	13.84	84			
4.0	13.80	84			
5.0	13.76	85			
6.0	13.60	86			
6.5	13.15	86			
7.0	12.38	82			14.0
8.0	12.13	83			
9.0	10.80	81			
10.0	10.16	80			
12.0	8.56	79			28
16.0	7.40	76			
20.0	5.60	-			6.4
24.0	5.17	72			
28.0	5.11	72			
32.0	4.82	66			
35.0	4.70	55			

Marker buoy is labelled "5", moved from 5 today.
1506210

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLOTNA LAKE
 DATE: June 21, 1984
 STATION NUMBER: 9
 STARTING TIME: 1218
 ENDING TIME: 1420
 SECCHI DISC: 6 ft
 SURFACE TEMP: 13.2
 LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.14	83			
0.5	13.13	84			
1.0	13.13	84			
2.0	12.94	83			4.8
3.0	12.53	84			
4.0	12.40	83			
5.0	12.25	85			
6.0	11.45	84			6.2
8.0	9.88	83			
10.0	8.56	79			
12.0	7.87	80			
16.0	6.71	77			
20.0	5.58	77			3.4
24.0	5.07	75			
28.0	4.98	74			
32.0	4.89	72			
36.0	4.80	63			
40.0	4.54	65			
44.0	4.43	65			
45.0	4.36	32			

0006211

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE

DATE: June 21, 1984

STATION NUMBER: 15

STARTING TIME: 1110

ENDING TIME: 1205

SECCHI DISC: 4.5 ft

SURFACE TEMP: 11.6

LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.55	85			
0.5	11.54	85			
1.0	11.51	86			
2.0	11.40	85			
3.0	11.29	87			
4.0	11.13	86			5.0
5.0	11.12	86			
6.0	11.02	86			
7.0	-	-			
8.0	10.11	82			

WIND FROM WSW STARTING TO MAKE WHITE CAPS (0.4 ft WAVES).

E06210

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUITNA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 1

STARTING TIME: 1638

ENDING TIME: 1754

SECCHI DISC: 2.5 ft

SURFACE TEMP: 15.9

LAKE DEPTH: 50.7 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	15.80	90			
0.5	15.72	90			
1.0	15.58	86			
2.0	15.20	82			
3.0	14.66	70			
4.0	14.76	74			
5.0	13.90	78			
6.0	13.00	80			
7.0	12.80	86			
8.0	12.59	88			
9.0	12.30	90			
10.0	11.40	86			
11.0	12.15	89			
12.0	12.00	88			
13.0	11.50	87			
14.0	11.80	87			
15.0	11.70	87			
16.0	11.20	89			
17.0	11.40	86			
18.0	9.80	85			
19.0	9.60	84			
20.0	9.60	79			
24.0	9.10	76			
25.5	8.80	78			

130

PROFILE DIFFICULT TO INTERPRET BECAUSE OF WANDERING STREAM PLUM

10705A

TITLE: EKLOTNA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 2

STARTING TIME: 1528

ENDING TIME: 1620

SECCHI DISC: 1.95 ft

SURFACE TEMP: 15.4

LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.33	76			
0.5	15.34	75			
1.0	15.35	75			
2.0	15.19	69			
4.0	15.12	58			6.4
5.0	14.10	81			
6.0	13.53	87			
8.0	12.61	81			
9.0	12.42	84			
10.0	10.48	83			80
12.0	9.59	81			
14.0					
16.0	7.59	85			
20.0	5.82	85			6.8
24.0	5.78	85			
27.0 BOTTOM					

MOSTLY CLOUDY WITH HAZE

WIND FROM NNW

WAVES 0.3 ft

L0705E

TITLE: EXLUTNA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 3

STARTING TIME: 1415

ENDING TIME: 1518

SECCHI DISC: 2.0 ft

SURFACE TEMP: 15.7

LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.56	116			
0.5	15.52	119			
1.0	15.38	119			
2.0	15.00	119			6.6
3.0	13.86	109			
4.0	13.75	82			
6.0	13.00	69			
7.0	12.30	81			
8.0	11.30	55			21
10.0	10.66	74			
12.0	9.43	81			
16.0	7.95	80			18.0
20.0	5.82	82			
24.0	5.37	81			3.5
28.0	5.22	82			
32.0	5.19	83			
36.0	5.00	83			
37.1	4.94	83			

SCATTERED CLOUDS. MOSTLY SUNNY

WAVES 0.5 ft

WIND FROM NW

L0705C

TITLE: EKOLINA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 9

STARTING TIME: 1253

ENDING TIME: 1355

SECCHI DISC: 1.9 ft

SURFACE TEMP: 14.6

LAKE DEPTH: 50.7 m

DEPTH (meters)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.63	124			
0.5	14.58	124			
1.0	14.38	124			
2.0	14.05	123			13.0
4.0	12.85	120			
6.0	11.55	115			
8.0	11.15	112			
10.0	9.80	107			
12.0	8.76	75			
14.0					26.
16.0	7.10	71			
20.0	6.34	78			
24.0	5.91	82			
28.0	5.70	82			
32.0	5.36	82			3.4
36.0	5.30	82			
40.0	5.04	84			
44.0	4.65	86			
46.0	4.43	88			
46.0 bottom					

07051

TITLE: FKLOTNA LAKE
 DATE: JULY 5, 1984
 STATION NUMBER: 15
 STARTING TIME: 1155
 ENDING TIME: 1235
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 12.0
 LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.75	116			
0.5	12.57	118			
1.0	12.57	118			
2.0	12.42	117			
4.0	11.90	116			14.0
6.0	11.33	113			
7.5	11.19	112			
7.5 bottom					

SCATTERED CLOUDS
 WIND FROM WSW
 WAVES 0.3 ft
 L07050

TITLE: EXLUTNA LAKE

DATE: JULY 19, 1984

STATION NUMBER: 1

STARTING TIME: 1530

ENDING TIME: 1600

SFECCHI DISC: 1.2 ft

SURFACE TEMP: 14.3

LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.30	112			
0.5	14.34	112			
1.0	14.31	113			
2.0	14.23	113			26
3.0	14.23	112			
4.0	8.50	61			
5.0	5.96	58			
6.0	6.95	67			64
7.0	7.86	69			
7.5 bottom					

PROFILE DIFFICULT TO INTERPRET BECAUSE OF WANDERING STREAM PLUM.
 (L07)94

TITLE: EKLUTNA LAKE

DATE: JULY 19, 1984

STATION NUMBER: 2

STARTING TIME: 1350

ENDING TIME: 1410

SECCHI DISC: 1.3 ft

SURFACE TEMP: 13.6

LAKE DEPTH: 53.0

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.80	61			
0.5	13.84	66			
1.0	13.88	62			
2.0	13.92	58			
4.0	13.94	60			
6.0	13.94	76			28
8.0	13.28	74			
10.0	10.51	76			61
12.0	9.67	81			
14.0					
16.0	8.33	82			56
20.0	7.50	81			
24.0	6.04	85			
28.0	5.59	87			18.0
32.0	5.18	88			
36.0	4.96	88			
39.0 bottom					

COMPLETE OVERCAST
15 MPH WIND FROM NW
110719B

TITLE: ERLOTNA LAKE
 DATE: JULY 19, 1984
 STATION NUMBER: 3
 STARTING TIME: 1245
 ENDING TIME: 1305
 SECCHI DISC: 1.3 ft
 SURFACE TEMP: 13.9
 LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.08	71			
0.5	14.05	75			
1.0	14.09	79			
2.0	14.05	81			26
4.0	13.96	83			
6.0	12.95	78			
8.0	11.60	79			58
10.0	10.32	75			
12.0	9.32	80			
14.0					
16.0	8.30	82			58
20.0	7.42	85			
24.0	6.03	88			
28.0	5.50	87			16.0
32.0	5.20	83			
36.0	5.05	81			
39.0 bottom					

OVERCAST, WIND FROM NW 5 TO 10 MPH
 10719C

TITLE: EKLUTNA LAKE

DATE: JULY 19, 1984

STATION NUMBER: 9

STARTING TIME: 1040

ENDING TIME: 1105

SECCHI DISC: 1.2 ft

SURFACE TEMP: 13.3

LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.45	104			
0.5	13.43	105			
1.0	13.42	105			
2.0	13.23	107			
4.0	12.92	106			52
6.0	11.44	98			
8.0	10.32	76			
10.0	9.92	83			
12.0	9.40	86			
16.0	8.60	92			37
20.0	7.24	93			
24.0	6.30	88			
28.0	5.88	86			
32.0	5.66	86			
36.0	5.48	86			35
40.0	5.10	86			
44.0	4.80	88			
48.0	4.63	89			
50.0	bottom				

BROKEN CLOUDS WITH SUNSHINE

107191

TITLE: EKLUTNA LAKE

DATE: JULY 19, 1984

STATION NUMBER: 15

STARTING TIME: 0945

ENDING TIME: *

SECTHI DISC: 1.3 ft

SURFACE TEMP: 12.8

LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.68	97			
0.5	12.42	99			
1.0	12.39	98			
2.0	12.11	98			
4.0	11.76	97			
6.0	11.53	97			
8.0	11.24	99			
10.0	10.63	100			

56

OVERCAST WITH PATCHES OF BLUE SKY. OCCASIONAL DRIZZLE
 LIGHT BREEZE FROM NW
 1207190

TITLE: EKLUTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 1

STARTING TIME: 1100

ENDING TIME: 1200

SECCHI DISC: 1.9 ft

SURFACE TEMP: 15.8

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.35			13.1	
0.5	15.12			11.9	
1.0	14.99			10.1	9.5
1.5				8.8	
2.0	13.41			<5.0	
3.0	9.05			<5.0	29
3.5 bottom					

!OVERCAST. NO RAIN

!WIND FROM N

!L0803A

TITLE: EKLUTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 2

STARTING TIME: 1215

ENDING TIME: 1400

SECCHI DISC: 1.7 ft

SURFACE TEMP: 16.5

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	16.49			9.6	
0.5	15.70			9.6	
1.0	15.67			10.0	
2.0	15.13			10.3	
3.0				10.3	
4.0	14.54			10.3	9.8
5.0				<5.0	
6.0	13.18			<5.0	
7.0				<5.0	
8.0	11.13			<5.0	20
10.0	10.63			<5.0	
12.0	10.27			<5.0	
16.0	10.22			<5.0	48
20.0	9.07			<5.0	
24.0	7.14			<5.0	
28.0	6.41			21.8	
32.0	5.97			30.9	5.6
36.0	5.89			36.9	
40.0	5.74				
43.0 bottom					

!OVERCAST WITH PATCHES OF BLUE

!WIND FROM N

!L0803B

TITLE: EKLUTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 3

STARTING TIME: 1420

ENDING TIME: 1540

SECCHI DISC: 2.0 ft

SURFACE TEMP: 15.7

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.74			11.0	
0.5	15.77			11.0	
1.0	15.77			10.9	
2.0	15.75			10.8	11.0
3.0				10.4	
4.0	14.85			10.2	
5.0				8.6	
6.0	12.96			5.1	
8.0	11.15			<5.0	22
10.0	10.63			<5.0	
12.0	9.98			<5.0	
16.0	9.50			<5.0	43
20.0	8.93			<5.0	
24.0	7.38			6.8	
28.0	6.32			26.0	7.4
32.0	5.96			31.6	
36.0	5.70			36.6	
40.0	5.61				
41.0 bottom					

EL0803C

TITLE: EKLUTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 9

STARTING TIME: 1610

ENDING TIME: 1800

SECCHI DISC: 1.8 ft

SURFACE TEMP: 14.3

LAKE DEPTH: 55.0 m

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.25			8.4	
0.5	14.37			8.6	
1.0	14.42			8.5	
2.0	14.30			8.1	
3.0				7.5	
4.0	12.60			6.7	
6.0	11.66			<5.0	22
8.0	10.58			<5.0	
9.0				<5.0	
10.0	9.94			<5.0	
12.0	9.53			<5.0	
16.0	9.10			<5.0	
20.0	8.25			<5.0	
24.0	6.80			12.2	
28.0	6.35			18.4	7.4
32.0	6.08			24.4	
36.0	5.87			29.6	
40.0	5.70			32.4	
44.0	5.55			37.5	
48.0	5.40				
52.0	5.10				
55.0 bottom					

OVERCAST, NO BLUE

WIND FROM NNW

LGR031

TITLE: EKLOTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 15

STARTING TIME: 2040

ENDING TIME: 2130

SFECCHI DISC: 1.5 ft

SURFACE TEMP: 13.0

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.96			6.6	
0.5	12.98			6.4	
1.0	12.75			6.1	
2.0	12.69			5.8	
3.0				5.7	
4.0	11.95			5.3	13.0
5.0				5.4	
6.0	11.71			<5.0	
7.0				<5.0	
8.0	11.31			<5.0	
10.0	10.84			<5.0	
12.0	10.53			<5.0	
16.0	9.57				
17.0	BOTTOM				

! CALM AND OVERCAST

! L08030

TITLE: EXLUTIN LAKE
 DATE: AUGUST 20, 1984
 STATION NUMBER: 1
 STARTING TIME: 1551
 ENDING TIME: 1658
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 12.9
 LAKE DEPTH: 57.8 m

DEPTH (meter) =====	TEMP. (Celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	12.87	102		<5.0	32
0.5	12.85	101		<5.0	--
1.0	12.84	103		<5.0	36
2.0	12.82	104		<5.0	33
4.0	12.82	104		<5.0	22
6.0	12.79	105		<5.0	35
8.0	12.77	105		<5.0	35
10.0	12.10	101		<5.0	60
12.0	11.27	96		<5.0	100

WEATHER MOSTLY CLOUDY. WIND FROM NORTH
 WAVES 0.6ft
 160820H

TITLE: EKLOTNA LAKE
 DATE: AUGUST 20, 1984
 STATION NUMBER: 2
 STARTING TIME: 1330
 ENDING TIME: *
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 12.9
 LAKE DEPTH: 57.8 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	12.95	99		<5.0	34
0.5	12.90	99		<5.0	--
1.0	12.83	101		<5.0	35
2.0	12.75	101		<5.0	36
4.0	12.33	99		<5.0	34
6.0	12.26	95		<5.0	34
8.0	12.20	92		<5.0	36
10.0	11.66	88		<5.0	35
12.0	10.80	84		<5.0	46
16.0	9.38	78		<5.0	115
20.0	8.94	77		<5.0	90
24.0	8.50	78		<5.0	77
28.0	7.60	84		<5.0	100
32.0	6.16	87		<5.0	17.8
56.0	5.77	91		28.5	12.5

WEATHER MOSTLY CLOUDY. WIND FROM NORTH
 WAVES 0.9 ft. TROUGH TO CREST
 110820B

TITLE: EKLOTNA LAKE

DATE: AUGUST 20, 1984

STATION NUMBER: 3

STARTING TIME: 1154

ENDING TIME: 1325

SECCHI DISC: 1.4 ft

SURFACE TEMP: 12.5

LAKE DEPTH: 57.8 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	12.62	90		<5.0	35
0.5	12.59	92		<5.0	--
1.0	12.58	98		<5.0	33
2.0	12.60	98		<5.0	33
4.0	12.47	95		<5.0	37
6.0	12.24	92		<5.0	40
8.0	12.22	94		<5.0	35
10.0	11.66	95		<5.0	62
12.0	10.52	90		<5.0	90
16.0	9.02	80		<5.0	64
20.0	8.39	79		<5.0	72
24.0	8.23	78		<5.0	125
28.0	6.50	94		<5.0	24
30.0	----	--		8.8	11.5

WEATHER PARTLY CLOUDY, WIND FROM NW

WAVES 0.5 ft

108200

TITLE: EKLUTNA LAKE

DATE: AUGUST 20, 1984

STATION NUMBER: 4

STARTING TIME: 0905

ENDING TIME: 1130

SECCHI DISC: 1.6 ft

SURFACE TEMP: 12.5

LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.52	104		<5.0	36
0.5	12.47	104		<5.0	--
1.0	12.46	105		<5.0	33
2.0	12.36	104		<5.0	33
4.0	12.22	97		<5.0	34
6.0	12.20	98		<5.0	35
8.0	12.11	101		<5.0	37
10.0	11.60	102		<5.0	46
12.0	10.10	94		<5.0	76
16.0	9.50	88		<5.0	76
20.0	8.50	92		<5.0	63
24.0	8.00	94		<5.0	50
28.0	6.55	101		<5.0	33
32.0	6.08	101		16.8	23
36.0	5.76	102		33.1	16.8
40.0	5.51	102		44.6	8.9
44.0	5.36	103		50.5	8.5
46.0	----	---		----	9.5
48.0	5.22	104		51.5	---
52.0	5.09	102		50.5	11.5
56.0	4.97	104		----	---

WEATHER OVERCAST WITH A FEW PATCHES OF BLUE SKY

WIND FROM SSE

008200

TITLE: EKLUTNA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 5
 STARTING TIME: 1645
 ENDING TIME: 1850
 SFOCHI DISC: 1.1 ft
 SURFACE TEMP: 11.8
 LAKE DEPTH: 57.8 m

DEPTH (meters) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	11.84	91		<5.0	40
0.5	11.84	95		<5.0	--
1.0	11.82	98		<5.0	42
2.0	11.80	100		<5.0	42
4.0	11.46	97		<5.0	40
6.0	11.11	95		<5.0	45
8.0	10.83	95		<5.0	48
10.0	10.60	92		<5.0	57
12.0	10.53	92		<5.0	60
16.0	9.55	91		<5.0	47
20.0	8.94	88		<5.0	68
24.0	8.77	85		<5.0	65
28.0	7.96	91		<5.0	65
32.0	7.27	93		<5.0	19.5
36.0	6.23	98		15.6	14.0
40.0	5.95	98		31.1	11.5
44.0	5.80	100		36.2	10.5
48.0	5.66	99		45.6	13.8
52.0	5.22	101		40.2	16.5

WEATHER HIGH OVERCAST WITH A FEW PATCHES OF BLUE SKY
 FL0819E

TITLE: EKLUTNA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 6
 STARTING TIME: 1400
 ENDING TIME: 1600
 SECCHI DISC: 1.0 ft
 SURFACE TEMP: 10.6
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.64	93		<5.0	54
0.5	10.62	94		<5.0	--
1.0	10.63	96		<5.0	52
2.0	10.63	96		<5.0	48
4.0	10.60	96		<5.0	54
6.0	10.34	92		<5.0	56
8.0	10.00	92		<5.0	61
10.0	9.88	90		<5.0	75
12.0	9.74	86		<5.0	68
16.0	9.29	86		<5.0	70
20.0	9.16	86		<5.0	70
24.0	8.94	87		<5.0	69
28.0	8.22	86		<5.0	56
32.0	7.86	84		<5.0	75
36.0	7.06	83		<5.0	65
40.0	6.70	92		<5.0	32
42.0	----	--		<5.0	--
44.0	6.40	95		---	25

WEATHER OVERCAST WITH STRONG WIND FROM NNW
 WAVES 1.0 ft
 110819F

TITLE: EKILUTNA LAKE

DATE: AUGUST 19, 1984

STATION NUMBER: 7

STARTING TIME: 0825

ENDING TIME: 1125

SECCHI DISC: 1.1 ft

SURFACE TEMP: 13.4

LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.56	100		<5.0	32
0.5	13.52	101		<5.0	--
1.0	13.52	100		<5.0	31
2.0	13.19	99		<5.0	31
4.0	12.52	98		<5.0	31
6.0	11.50	96		<5.0	35
8.0	10.96	93		<5.0	34
10.0	10.51	94		<5.0	35
12.0	10.24	95		<5.0	36
16.0	9.08	93		<5.0	43
20.0	8.72	93		<5.0	48
24.0	8.16	97		<5.0	30
28.0	7.63	95		5.7	19.6
32.0	6.60	97		28.3	4.9
36.0	5.88	97		41.6	6.6
40.0	5.38	96		47.6	5.3
44.0	5.26	94		49.8	4.8
48.0	5.16	96		49.4	---

WEATHER MOSTLY OVERCAST WITH SOME BLUE PATCHES, LIGHT RAIN

WINDS CALM, WAVES 0.1 ft

AT 0840, WIND STARTED BLOWING FROM N AND STARTED RAINING

L0819G

TITLE: EKLUENA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 8
 STARTING TIME: 1150
 ENDING TIME: 1345
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 13.4
 LAKE DEPTH: 57.8 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	13.36	102		<5.0	31
0.5	13.36	108		<5.0	--
1.0	13.36	110		<5.0	34
2.0	13.31	110		<5.0	33
4.0	12.06	102		<5.0	42
6.0	10.98	95		<5.0	56
8.0	9.80	90		<5.0	54
10.0	9.19	88		<5.0	50
12.0	8.97	85		<5.0	54
16.0	8.82	82		<5.0	63
20.0	8.49	85		<5.0	58
24.0	7.95	86		<5.0	56
28.0	7.33	93		<5.0	25
32.0	6.54	95		13.6	15.5
36.0	5.77	97		31.7	5.5
40.0	5.44	96		39.6	7.5
44.0	5.35	95		46.6	4.7
46.0	----	--		----	4.5
48.0	5.16	96		46.6	---
52.0	5.07	96		----	---

WEATHER OVERCAST WITH DRIZZLE
 WIND FROM NNW
 1108194

TITLE: EKUITNA LAKE

DATE: AUGUST 18, 1984

STATION NUMBER: 9

STARTING TIME: 0745

ENDING TIME: 1030

SFECCHI DTSC: 1.5 ft

SURFACE TEMP: 13.8

LAKE DEPTH: 57.8 m

DEPTH (METER)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.78	115		5.4	26
0.5	13.79	115		5.5	--
1.0	13.80	115		5.4	26
2.0	13.76	116		5.3	26
4.0	12.78	108		<5.0	26
6.0	10.75	94		<5.0	30
8.0	10.04	89		<5.0	65
10.0	9.77	87		<5.0	50
12.0	9.56	87		<5.0	69
16.0	8.74	82		<5.0	75
20.0	8.63	78		<5.0	67
24.0	8.31	82		<5.0	51
28.0	7.67	84		8.5	13.0
32.0	6.13	91		19.9	12.6
36.0	5.73	90		28.2	10.5
40.0	5.54	89		32.5	7.1
44.0	5.39	88		42.6	5.5
48.0	5.14	88		41.8	
50.0					7.6
52.0	4.94	88		42.6	
54.0					2)

WEATHER OVERCAST. MEDIUM WIND FROM NNW

WAVES 0.3 ft

L0818J

TITLE: EKLUENA LAKE

DATE: AUGUST 17, 1984

STATION NUMBER: 10

STARTING TIME: 1810

ENDING TIME: 1950

SECCHI DISC: 1.6 ft

SURFACE TEMP: 15.1

LAKE DEPTH: 57.8 m

DEPTH (meters)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.19	97		6.4	25
0.5	15.17	103		6.4	--
1.0	15.16	103		6.4	23
2.0	15.14	99		6.4	25
4.0	12.15	96		<5.0	40
6.0	10.62	80		<5.0	42
8.0	9.68	76		<5.0	52
10.0	9.38	74		<5.0	55
12.0	9.16	73		<5.0	62
16.0	8.73	76		<5.0	65
20.0	8.30	76		<5.0	30
24.0	7.65	80		5.8	24
28.0	6.53	79		20.8	15.2
30.0					10.2
32.0	5.70	80		32.7	

WEATHER HIGH OVERCAST. WIND FROM NNW
 160817J

TITLE: EKLOTNA LAKE

DATE: AUGUST 17, 1984

STATION NUMBER: 11

STARTING TIME: 1425

ENDING TIME: 1715

SFECCHI DISC: 1.4 ft

SURFACE TEMP: 14.9

LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
-----	-----	-----	-----	-----	-----
0.0	14.96	108		6.1	26
0.5	14.94	108		6.3	--
1.0	14.90	108		6.4	25
2.0	14.68	108		6.1	25
4.0	13.74	102		<5.0	37
6.0	11.68	95		<5.0	42
8.0	10.43	88		<5.0	47
10.0	9.82	86		<5.0	43
12.0	9.54	84		<5.0	38
16.0	9.15	81		<5.0	35
20.0	8.67	78			56
24.0	8.06	74		<5.0	43
28.0	6.88	80		12.7	20
32.0	5.84	82		28.7	11.0
36.0	5.57	84		36.8	9.0
40.0	5.47	85		37.8	8.5
42.0				37.0	
44.0	5.30	84			9.5

WEATHER MOSTLY CLOUDY, LIGHT WINDS FROM NW
 120817Z

TITLE: EKUTNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 12
 STARTING TIME: 1300
 ENDING TIME: 1350
 SECCHI DISC: 1.3 ft
 SURFACE TEMP: 13.9
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.04	98		5.6	32
0.5	14.00	100		5.8	--
1.0	13.92	106		5.6	28
2.0	13.60	105		5.2	32
4.0	13.16	98		<5.0	47
6.0	11.12	80		<5.0	41
8.0	10.50	76		<5.0	40
10.0	9.98	78		<5.0	39
12.0	9.45	77		<5.0	55
16.0	8.64	76		<5.0	47
20.0	8.15	75		<5.0	43
24.0	7.62	75		<5.0	45

WEATHER MOSTLY CLOUDY, WIND FROM NW
 WAVES 0.5 ft
 120817L

 TITLE: EKLOTNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 15
 STARTING TIME: 1047
 ENDING TIME: *
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 14.9
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.88	82		6.5	28
0.5	14.85	85		6.6	--
1.0	14.78	93		6.4	27
2.0	14.15	95		6.2	30
4.0	12.33	90		<5.0	47
6.0	11.14	84		<5.0	48
8.0	10.46	89		<5.0	40
10.0	9.86	96		<5.0	40
12.0	9.45	93		<5.0	44
14.0	8.88	88		<5.0	45
20.0	8.56	86		<5.0	42
24.0	7.82	83		<5.0	43
28.0	7.21	86		14.0	25

150% CLOUDY. SUN STILL OUT ON UPPER LAKE
 WIND FROM WNW
 WIND BLEW BOAT, DRAGGING ANCHOR APPROX. 150m UP LAKE
 100817m

TITLE: EKOUTNA LAKE

DATE: AUGUST 17, 1984

STATION NUMBER: 14

STARTING TIME: 0830

ENDING TIME: 0950

SECCHI DISC: 1.3 ft

SURFACE TEMP: 14.7

LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
*****	*****	*****	*****	*****	*****
0.0	14.69	83		<5.0	25
0.5	14.70	86		6.6	--
1.0	14.44	107		6.6	36
2.0	13.85	109		6.2	38
4.0	12.12	90		<5.0	55
6.0	11.30	97		<5.0	52
8.0	10.45	93		<5.0	49
10.0	9.70	100		<5.0	47
12.0	9.28	95		<5.0	50
16.0	8.76	90		<5.0	54
20.0	8.42	88		<5.0	58
24.0	7.86	89		<5.0	57

WEATHER MOSTLY SUNNY. LIGHT BREEZE FROM SOUTHEAST
 FOG JUST CLEARED LAKE
 110817N

TITLE: EKLOTNA LAKE

DATE: AUGUST 16, 1984

STATION NUMBER: 15

STARTING TIME: 1640

ENDING TIME: 1840

SFECCHI DISC: 1.4 ft

SURFACE TEMP: 15.8

LAKE DEPTH: 56.4 m

DEPTH (meters)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.92	74		6.1	35
0.5	15.85	75		6.1	35
1.0	15.79	76		6.1	35
2.0	14.10	43		6.0	40
4.0	12.60	51		<5.0	50
6.0	11.15	78		<5.0	48
8.0	9.99	86		<5.0	44
10.0	9.45	81		<5.0	42
12.0	9.17	84		<5.0	44
14.0	8.80	78		<5.0	45
16.5					

WEATHER MOSTLY SUNNY. LIGHT WIND FROM THE EAST

WAVES 0.2 ft

L08160

TITLE: EKLUTNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 2
 STARTING TIME: 1427
 ENDING TIME: 1542
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 12.9
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY Y (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.93	96			20
0.5	12.11	96			--
1.0	10.85	93			21
2.0	10.63	92			22
4.0	10.55	92			23
6.0	10.51	90			22
8.0	10.46	84			22
10.0	10.35	79			22
12.0	9.79	82			30
16.0	8.62	79			40
20.0	8.22	78			37
24.0	7.76	77			35
28.0	7.00	81			25
32.0	6.50	83			19.0
36.0	6.22	83			17.4
40.0	5.95	83			15.2
44.0	5.77	83			12.9
47.5	bottom				

SUNNY, WINDS CALM
 ROLLING WAVES 0.1 ft
 120903B

TITLE: EKLOTNA LAKE

DATE: SEPTEMBER 3, 1984

STATION NUMBER: 1

STARTING TIME: 1550

ENDING TIME: 1650

SFECCHI DISC: 1.6 ft

SURFACE TEMP: 12.7

LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.57	89			40
0.5	11.70	92			--
1.0	10.85	96			45
2.0	10.66	94			45
4.0	10.51	95			40
6.0	10.48	94			55
8.0	10.47	96			29
10.0	10.32	94			35
12.0	9.62	88			35
16.0	8.60	84			34
20.0	8.24	83			34
24.0	7.60	86			33
25.6 bottom					

· CLEAR WITH A FEW CLOUDS

· LIGHT BREEZE FROM SSE

· L0903A

TITLE: EKUTNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 5
 STARTING TIME: 1705
 ENDING TIME: 1755
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 12.6
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.46	105			
0.5	11.76	106			
1.0	11.02	105			
2.0	10.68	104			
4.0	10.54	102			
6.0	10.47	101			
8.0	10.45	99			
10.0	10.40	99			
12.0	9.89	94			
16.0	8.68	89			
20.0	8.16	88			
24.0	7.88	89			
28.0	6.96	95			
32.0	6.52	98			
36.0	6.21	98			
40.0	5.88	101			
44.0	5.54	100			
47.0 bottom					

HL0903C

TITLE: EKOUTNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 9
 STARTING TIME: 1200
 ENDING TIME: 1412
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 11.4
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.43	83			22
0.5	10.70	90			--
1.0	10.65	88			22
2.0	10.58	82			22
4.0	10.46	84			22
6.0	10.40	80			25
8.0	10.36	82			25
10.0	10.25	81			27
12.0	10.24	85			32
16.0	8.99	81			40
20.0	8.33	79			50
24.0	7.84	80			34
28.0	7.42	82			36
32.0	7.05	86			24
36.0	6.32	88			17.5
40.0	6.06	90			16.0
44.0	5.84	90			15.1
48.0	5.67	90			14.1
52.0	5.43	90			14.0
56.0	5.26	90			13.7
57.0	bottom				

!WIND FROM NW STARTED AT 1309
 !WAVES APPROX. 0.3 ft
 !L0903I

TITLE: EKLOTNA LAKE

DATE: SEPTEMBER 3, 1984

STATION NUMBER: 15

STARTING TIME: 1035

ENDING TIME: 1125

SECCHI DISC: 1.4 ft

SURFACE TEMP: 10.6

LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.70	70			24
0.5	10.50	88			--
1.0	10.23	88			24
2.0	10.10	78			26
4.0	10.10	82			25
6.0	10.07	77			27
8.0	10.00	83			25
10.0	9.90	77			26
12.0	9.75	82			27
14.0	----	--			29
16.0	9.04	75			--
16.8 bottom					

!CLEAR, NO CLOUDS

!SLIGHT BREEZE FROM SSE

!09030

TITLE: EKLUTNA LAKE

DATE: SEPTEMBER 17, 1984

STATION NUMBER: 1

STARTING TIME: 1720

ENDING TIME: 1737

SECCHI DISC: 1.4 ft

SURFACE TEMP: 10.8

LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.85	96			
0.5	10.75	96			
1.0	8.95	98			
1.5	7.35	94			14.5
1.7 bottom					

OVERCAST. CALM

10917A

TITLE: EKLUTNA LAKE
 DATE: SEPTEMBER 17, 1984
 STATION NUMBER: 2
 STARTING TIME: 1555
 ENDING TIME: 1700
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 10.5
 LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.49	92			
0.5	10.46	93			
1.0	10.46	95			
2.0	10.43	95			
4.0	10.28	87			15.0
6.0	9.94	87			
8.0	9.87	89			
10.0	9.84	89			17.5
12.0	9.82	92			
16.0	8.69	90			
20.0	8.14	89			25
24.0	7.40	89			
28.0	6.95	93			
32.0	6.46	94			
36.0	6.25	96			
40.0	6.10	97			10.5
44.0	5.87	98			
47.5 bottom					

OVERCAST
 BREEZE FROM N
 WAVES 0.5 ft
 10917B

TITLE: EKLUTNA LAKE

DATE: SEPTEMBER 17, 1984

STATION NUMBER: 3

STARTING TIME: 1415

ENDING TIME: 1545

SECCHI DISC: 1.5 ft

SURFACE TEMP: 10.9

LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.89	92			
0.5	10.52	91			
1.0	10.36	93			15.5
2.0	10.18	91			
4.0	10.15	91			
6.0	10.13	88			
8.0	10.11	89			
10.0	9.95	88			17.0
12.0	9.40	89			
16.0	8.81	86			
20.0	8.19	85			
24.0	7.64	85			
28.0	6.74	90			17.8
32.0	6.38	92			
36.0	6.18	94			
40.0	5.88	94			9.5
44.0	5.70	96			
47.5 bottom					

OVERCAST, CALM.

SKIES CLEARING OVER GLACIER.

AT 1520, WIN INCREASING FROM THE WEST. WAVES 0.3 ft.

120917C

TITLE: EKLUTNA LAKE

DATE: SEPTEMBER 17, 1984

STATION NUMBER: 9

STARTING TIME: 1130

ENDING TIME: 1400

SECCHI DISC: 1.7 ft

SURFACE TEMP: 10.4

LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.39	97			23
0.5	10.28	97			--
1.0	10.20	97			23
2.0	10.12	92			24
4.0	10.09	92			24
6.0	10.08	91			23
8.0	9.96	91			25
10.0	9.64	92			25
12.0	9.20	97			26
16.0	8.70	89			33
20.0	8.17	85			29
24.0	7.92	84			32
28.0	7.46	86			30
32.0	7.07	88			24
36.0	6.80	91			19.5
40.0	6.19	94			14.0
44.0	5.90	94			15.0
48.0	5.70	95			17.0
52.0	5.25	96			16.0
56.0	5.18	97			18.0
59.0 bottom					

OVERCAST. CALM.

WIND FROM NW AT 1140, DIED DOWN AT 1240.

1109171

TITLE: EKLOUTNA LAKE
 DATE: SEPTEMBER 17, 1984
 STATION NUMBER: 15
 STARTING TIME: 0920
 ENDING TIME: 1110
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 10.0
 LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.09	99			26
0.5	10.08	98			--
1.0	10.08	97			23
2.0	10.06	94			23
4.0	10.05	90			24
6.0	10.05	88			30
8.0	10.03	88			29
10.0	9.99	86			30
12.0	9.78	84			36
16.0	8.50	86			34
19.3 bottom					

PARTLY CLOUDY
 LIGHT WIND FROM SSE
 1209170

TITLE: EKLOTNA LAKE

DATE: OCTOBER 1, 1984

STATION NUMBER: 1

STARTING TIME: 1100

ENDING TIME: 1210

SECCHI DISC: 0.6 ft

SURFACE TEMP: 7.0

LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)	T
=====	=====	=====	=====	=====	=====	
0.0	7.0	88			25	
0.5	7.2	88			71	
1.0	6.5	81			163	
2.0	4.0	82			320	
2.2 bottom						

WEATHER CALM. LIGHT INTERMITTENT RAIN, OVERCAST

READINGS VERY UNSTABLE BECAUSE OF WANDERING STREAM PLUME

LI001A

TITLE: EKLOTNA LAKE

DATE: OCTOBER 1, 1984

STATION NUMBER: 2

STARTING TIME: 1240

ENDING TIME: 1420

SECCHI DISC: 2.2 ft

SURFACE TEMP: 9.0

LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	9.00	87			12.7
0.5	8.94	88			-----
1.0	8.96	91			12.8
2.0	8.77	90			12.9
4.0	8.74	92			13.0
6.0	8.72	91			14.0
8.0	8.70	91			15.0
10.0	8.68	86			14.2
12.0	8.62	86			14.5
16.0	8.49	91			14.7
20.0	8.29	92			18.2
24.0	7.96	92			24
28.0	7.54	91			32
32.0	7.13	93			
34.0					15.0
36.0	6.53	95			
38.0					18.5
40.0	6.37	96			
42.0					16.0
44.0	6.30	97			
46.0					18.0
47.1	6.23	98			
47.1 bottom					

WIND FROM NNW AT 6 MPH, GUSTING TO 7 MPH.

130618

TITLE: ERLUTNA LAKE
 DATE: OCTOBER 1, 1984
 STATION NUMBER: 3
 STARTING TIME: 1430
 ENDING TIME: 1600
 SECCHI DISC: 2.3 ft
 SURFACE TEMP: 9.1
 LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY, (NTU)
=====	=====	=====	=====	=====	=====
0.0	9.11	86			12.0
0.5	9.08	86			-----
1.0	9.05	89			12.0
2.0	8.96	89			12.0
4.0	8.83	88			12.0
6.0	8.81	86			12.0
8.0	8.80	85			15.0
10.0	8.80	85			13.0
12.0	8.73	85			13.0
16.0	8.40	86			16.0
20.0	7.80	87			18.0
24.0	7.62	87			12.0
28.0	7.35	89			16.0
32.0	6.94	90			15.0
36.0	6.64	91			13.5
40.0	6.38	92			15.3
44.0	6.84	90			11.6
48.0	6.74	89			
49.8	6.72	89			

1 PARTLY SUNNY, OVERCAST.
 1 WIND FROM ESE AT 9 MPH.
 1 10010.

TITLE: EKOLINA LAKE

DATE: OCTOBER 1, 1984

STATION NUMBER: 9

STARTING TIME: 1620

ENDING TIME: *

SECCHI DISC: 2.3 ft

SURFACE TEMP: 8.8

LAKE DEPTH: 61.2 m

DEPTH (meters)	TEMP (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	9.91	97			15.1
0.5	8.90	97			-----
1.0	8.88	98			16.0
2.0	8.85	97			13.7
4.0	8.81	95			19.0
6.0	8.79	95			13.6
8.0	8.77	97			14.0
10.0	8.75	97			15.0
12.0	8.72	97			15.0
16.0	8.61	98			13.8
20.0	8.57	97			14.6
22.0	8.55				
24.0	8.61	97			15.0
26.0	6.93	100			14.7
32.0	6.73	100			15.0
36.0	6.56	101			12.0
40.0	6.20	102			11.5
44.0	5.95	103			17.8
48.0	5.71	102			26.
50.0	5.98	102			
52.0	6.13	102			62
56.0	6.29	101			75
58.0	6.33				
59.0	6.33	100			
59.3 bottom					

(BROKEN CLOUDS, OVERCAST,
 WIND FROM SE AT 8 MPH
 WIND PICKED UP TO 18 MPH FROM S AT 1850.
 (1900))

TITLE: EKLOTNA LAKE
 DATE: OCTOBER 1, 1984
 STATION NUMBER: 15
 STARTING TIME: 1920
 ENDING TIME: 1935
 SECCHI DISC: *
 SURFACE TEMP: 8.8
 LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	8.82	105			
1.0	8.82	104			
2.0	8.83	105			
4.0	8.82	101			10.3
6.0	8.82	101			
8.0	8.82	102			
10.0	8.82	102			
12.0	8.82	103			
14.0	8.82	104			
16.0	8.82	103			
18.5					
18.5	bottom				

*WIND PICKED UP AT STATION 9 TO STEADY 18 MPH FROM S
 *WAVES 1.5 TO 2.0 ft
 *L10010

TITLE: EKLOTNA LAKE

DATE: OCTOBER 15, 1984

STATION NUMBER: 1

STARTING TIME: 1115

ENDING TIME: 1135

SECCHI DISC: 3.9 ft

SURFACE TEMP: 1.5

LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	1.12	92			
0.5	1.59	93			
1.0	1.34	94			6.5
1.5 bottom					

SLIGHT OVERCAST

SLIGHT BREEZE FROM SSE

EL1915A

TITLE: EKLUTNA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 2
 STARTING TIME: 1145
 ENDING TIME: 1230
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 7.5
 LAKE DEPTH: 61.8 m

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0.0	7.32	85			
0.5	7.31	86			
1.0	7.32	87			
2.0	7.32	87			
4.0	7.33	87			
6.0	7.33	81			11.2
8.0	7.32	82			
10.0	7.32	82			
12.0	7.31	80			11.2
16.0	7.30	81			
20.0	7.29	82			
24.0	7.16	82			11.2
28.0	6.84	86			
32.0	6.58	88			
36.0	6.45	88			
40.0	6.24	89			
44.0	6.22	89			17.8
48.0	6.15	89			
49.0 bottom					

921015B

TITLE: EKLOTNA LAKE

DATE: OCTOBER 15, 1984

STATION NUMBER: 3

STARTING TIME: 0835

ENDING TIME: 1050

SECCHI DISC: 2.5 ft

SURFACE TEMP: 7.5

LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.25	89			
0.5	7.30	83			
1.0	7.31	82			11.6
2.0	7.31	71			
4.0	7.29	68			
6.0	7.29	64			11.8
8.0	7.29	64			
10.0	7.29	77			
12.0	7.29	76			
16.0	7.28	75			12.6
20.0	7.29	74			
24.0	7.00	82			
28.0	6.81	84			
32.0	6.68	85			
36.0	6.34	88			17.2
40.0	6.28	89			
44.0	6.17	89			
48.0	6.03	90			
49.0 bottom					

WEATHER SLIGHTLY HAZY
1110150

TITLE: EKLUTNA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 9
 STARTING TIME: 1320
 ENDING TIME: 1510
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 7.6
 LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	7.48	79			
0.5	7.45	80			
1.0	7.47	81			
2.0	7.45	82			11.4
4.0	7.43	82			
6.0	7.41	81			
8.0	7.40	80			
10.0	7.41	81			11.7
12.0	7.40	82			
16.0	7.39	82			
20.0	7.39	82			12.4
24.0	7.39	81			
28.0	7.15	83			
32.0	6.75	84			
36.0	6.47	85			
40.0	6.30	86			18.4
44.0	6.18	86			
48.0	6.11	86			
52.0	6.01	87			
56.0	5.80	86			21
60.0	5.70	87			
60.0 bottom					

OVERCAST WITH HIGH THIN HAZE
 WINDS CALM. WAVES < 0.1 ft
 110151

TITLE: EKLUTNA LAKE

DATE: OCTOBER 15, 1984

STATION NUMBER: 15

STARTING TIME: 1530

ENDING TIME: *

SECCHI DISC: 2.7 ft

SURFACE TEMP: 7.5

LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.25	83			
0.5	7.25	83			
1.0	7.25	83			
2.0	7.25	83			10.6
4.0	7.21	82			
6.0	7.20	82			
8.0	7.19	81			
10.0	7.18	82			
12.0	7.16	82			11.1
16.0	7.19	82			
19.0 bottom					

MOSTLY CLEAR

13 TO 4 MPH WINDS FROM W

110150

TITLE: EMLUTNA LAKE

DATE: OCTOBER 29, 1984

STATION NUMBER: 1

STARTING TIME: 1355

ENDING TIME: 1420

SECCHI DISC: 2.5 ft

SURFACE TEMP: 5.2

LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	4.62	73			
0.5	4.70	76			
1.0	4.70	78			8.4
2.0	4.39	78			
2.0 bottom					

WEATHER VERY CLEAR, WIND FROM SE
11039A

TITLE: EXLUTNA LAKE

DATE: OCTOBER 29, 1984

STATION NUMBER: 2

STARTING TIME: 1240

ENDING TIME: 1330

SECCHI DISC: 2.1 ft

SURFACE TEMP: 6.0

LAKE DEPTH: 61.7 m

DEPTH (meters)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	5.88	76			
0.5	5.96	79			
1.0	5.92	79			
2.0	5.96	80			
4.0	5.96	79			
6.0	5.95	79			11.0
8.0	5.94	62			
10.0	5.94	60			
12.0	5.94	63			10.9
16.0	5.93	63			
20.0	5.92	64			
24.0	5.93	65			
28.0	5.93	66			11.3
32.0	5.93	69			
36.0	5.93	70			
40.0	5.90	70			11.2
44.0	5.85	71			
47.5 bottom					

WEATHER CLEAR, NO WIND

110298

TITLE: EKLUTNA LAKE

DATE: OCTOBER 29, 1984

STATION NUMBER: 3

STARTING TIME: 0940

ENDING TIME: 1215

SECCHI DISC: 2.1 ft

SURFACE TEMP: 6.2

LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	5.73	73			
0.5	5.74	79			
1.0	5.76	79			
2.0	5.76	79			
4.0	5.77				11.0
6.0	5.76				
8.0	5.75				
10.0	5.75	66			
12.0	5.75	69			
16.0	5.75	66			11.0
20.0	5.75	71			
24.0	5.76	72			
28.0	5.76	72			
32.0	5.73	73			10.8
36.0	5.69	73			
40.0	5.66	74			
44.0	5.65	76			10.9
48.0	5.55	76			
48.9 bottom					

WEATHER MOSTLY CLEAR

SLIGHT WIND FROM SE

11029C

TITLE: EKLOTNA LAKE

DATE: OCTOBER 29, 1984

STATION NUMBER: 9

STARTING TIME: 1515

ENDING TIME: *

SECCHI DISC: 2.1 ft

SURFACE TEMP: 6.3

LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	5.69	81			
0.5	5.78	81			
1.0	5.77	81			
2.0	5.82	82			
4.0	5.82	81			
6.0	5.83	83			11.3
8.0	5.85	82			
10.0	5.85	82			
12.0	5.85	74			
16.0	5.86	75			
20.0	5.86	72			11.5
24.0	5.86	71			
28.0	5.86	71			
32.0	5.87	72			
36.0	5.86	72			11.0
40.0	5.87	72			
44.0	5.87	72			
48.0	5.87	73			
52.0	5.87	74			
56.0	5.86	74			11.2
59.3	5.87	74			
59.3 bottom					

WEATHER CLEAR

WIND FROM NW 5 MPH

WAVES 0.4 ft

LI0791

TITLE: EKLUTNA LAKE
 DATE: OCTOBER 29, 1984
 STATION NUMBER: 15
 STARTING TIME: 1640
 ENDING TIME: *
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 5.5
 LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	5.07	81			
0.5	5.19	81			
1.0	5.21	81			
2.0	5.22	82			10.2
4.0	5.28	82			
6.0	5.28	83			
8.0	5.29	79			
10.0	5.28	79			
12.0	5.28	77			11.0
14.0	5.25	76			
20.0	5.23	76			
21.0 bottom					

WEATHER MOSTLY CLEAR, NO WIND
 GETTING DARK
 10290

TITLE: EKLUTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 1
 STARTING TIME: 0945
 ENDING TIME: 1030
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 4.0
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.72	75			
0.5	3.73	72			
1.0	3.75	72			11.0
2.0	3.77	80			
2.0 bottom.					

!WEATHER CLEAR
 !LIGHT BREEZE FROM SE
 !FOG MOVING TOWARD NW
 !L1112A

TITLE: EKLUTNA LAKE

DATE: NOVEMBER 12, 1984

STATION NUMBER: 2

STARTING TIME: 1040

ENDING TIME: 1210

SECCHI DISC: 2.7 ft

SURFACE TEMP: 4.8

LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	4.48	67			
0.5	4.56	69			
1.0	4.56	74			
2.0	4.58	71			
4.0	4.57	70			11.3
6.0	4.61	71			
8.0	4.60	76			
10.0	4.61	76			
12.0	4.60	78			
16.0	4.59	79			11.0
20.0	4.59	79			
24.0	4.61	79			
28.0	4.60	79			10.0
32.0	4.60	80			
36.0	4.59	79			
40.0	4.59	80			9.4
44.0	4.59	79			
48.0	4.49	70			
48.5 bottom					

WEATHER CLEAR, CALM

SOME FOG

111128

TITLE: ERJUTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 5
 STARTING TIME: 1225
 ENDING TIME: *
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 4.6
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	4.30	74			
0.5	4.32	74			
1.0	4.32	73			
2.0	4.31	73			
4.0	4.39	69			8.4
6.0	4.40	70			
8.0	4.41	71			
10.0	4.41	71			
12.0	4.40	72			
16.0	4.46	73			9.6
20.0	4.46	73			
24.0	4.44	73			
28.0	4.43	74			9.6
32.0	4.38	75			
36.0	4.36	75			
40.0	4.31	76			9.7
44.0	4.22	76			
45.5 BOTTOM					

011120

TITLE: EKLUTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 9
 STARTING TIME: 1400
 ENDING TIME: *
 SECCHI DISC: 2.8 ft
 SURFACE TEMP: 4.8
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY .. (NTU)
0.0	4.57	83			
0.5	4.55	83			
1.0	4.57	83			
2.0	4.60	83			
4.0	4.60	83			10.6
6.0	4.61	78			
8.0	4.61	76			
10.0	4.61	74			
12.0	4.61	76			
16.0	4.61	76			10.8
20.0	4.62	77			
24.0	4.61	77			
28.0	4.61	78			
32.0	4.62	78			11.0
36.0	4.62	79			
40.0	4.62	79			
44.0	4.61	78			
48.0	4.61	79			9.8
52.0	4.61	79			
56.0	4.66	79			
56.0 bottom					

011121

TITLE: ERLOUTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 15
 STARTING TIME: 1600
 ENDING TIME: 1620
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 4.2
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.80	86			
0.5	3.82	87			
1.0	3.84	87			10.8
2.0	3.92	85			
4.0	3.96	76			
6.0	3.92	76			
8.0	3.93	78			
10.0	3.92	79			
12.0	3.93	78			10.4
16.0	4.00	79			
16.5 bottom					

111120

TITLE: EKLUTNA LAKE

DATE: NOVEMBER 26, 1984

STATION NUMBER: 1

STARTING TIME: 0950

ENDING TIME: 1040

SECCHI DISC: 2.7 ft

SURFACE TEMP: 2.1

LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	2.40	72			
0.5	2.53	72			
1.0	2.65	73			
2.0	2.97	68			9.0
2.5 bottom					

WEATHER CLEAR, CALM
 LIGHT BREEZE FROM S
 111264

TITLE: EKLUINA LAKE

DATE: NOVEMBER 26, 1984

STATION NUMBER: 2

STARTING TIME: 1045

ENDING TIME: 1145

SECCHI DISC: 3.0 ft

SURFACE TEMP: 3.5

LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.25	77			
0.5	3.34	77			
1.0	3.48	77			
2.0	3.50	74			
4.0	3.63	73			8.2
6.0	3.65	69			
8.0	3.68	70			
10.0	3.66	69			
12.0	3.68	70			
16.0	3.68	70			
20.0	3.68	70			7.9
24.0	3.67	70			
28.0	3.66	70			
32.0	3.66	70			
36.0	3.68	70			
40.0	3.67	70			8.4
44.0	3.65	71			
48.0	3.61	70			
48.1 bottom					

SLIGHT AND VARIABLE WIND
 SLIGHTLY OVERCAST
 111268

TITLE: EKLUTNA LAKE

DATE: NOVEMBER 26, 1984

STATION NUMBER: 5

STARTING TIME: 1155

ENDING TIME: 1240

SECCHI DISC: 3.0 ft

SURFACE TEMP: 2.8

LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	2.56	74			
0.5	2.58	74			
1.0	2.61	74			
2.0	2.75	73			
4.0	2.97	73			8.2
6.0	3.00	70			
8.0	3.10	71			
10.0	3.21	70			
12.0	3.26	71			
16.0	3.22	70			
20.0	3.22	71			7.9
24.0	3.22	71			
28.0	3.32	72			
32.0	3.40	72			
36.0	3.42	72			
40.0	3.41	72			8.4
44.0	3.41	72			
44.5 bottom					

WEATHER OVERCAST
 LIGHT AND VARIABLE WIND
 11126C

TITLE: EKLUINA LAKE

DATE: NOVEMBER 26, 1984

STATION NUMBER: 9

STARTING TIME: 1300

ENDING TIME: 1410

SECCHI DISC: 3.0 ft

SURFACE TEMP: 1.9

LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	2.10	77			
0.5	2.14	77			
1.0	2.14	77			
2.0	2.25	75			8.8
4.0	2.62	74			
6.0	2.92	71			
8.0	3.26	73			
10.0	3.50	75			
12.0	3.58	75			
16.0	3.61	77			9.2
20.0	3.62	76			
24.0	3.64	77			
28.0	3.63	76			
32.0	3.62	77			9.0
36.0	3.62	77			
40.0	3.63	77			
44.0	3.64	77			
48.0	3.62	77			
52.0	3.61	78			8.2
56.0	3.66	78			
58.0 bottom					

WEATHER CLEAR OVER LAKE
 OVERCAST OVER GLACIER
 LIGHT BREEZE FROM NNE
 111261

TITLE: EKLUTNA LAKE
 DATE: NOVEMBER 26, 1984
 STATION NUMBER: 15
 STARTING TIME: 1420
 ENDING TIME: *
 SECCHI DISC: 3.0 ft
 SURFACE TEMP: 2.5
 LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	2.72	83			
0.5	2.74	83			
1.0	2.77	83			
2.0	2.82	83			
4.0	2.92	77			
6.0	3.13	79			
8.0	3.24	81			
10.0	3.28	79			9.2
12.0	3.31	81			
15.0	3.42	80			
19.6 bottom					

WEATHER CLEAR
 15 MPH BREEZE FROM NW
 THIN FOG ON LAKE
 11260

APPENDIX H

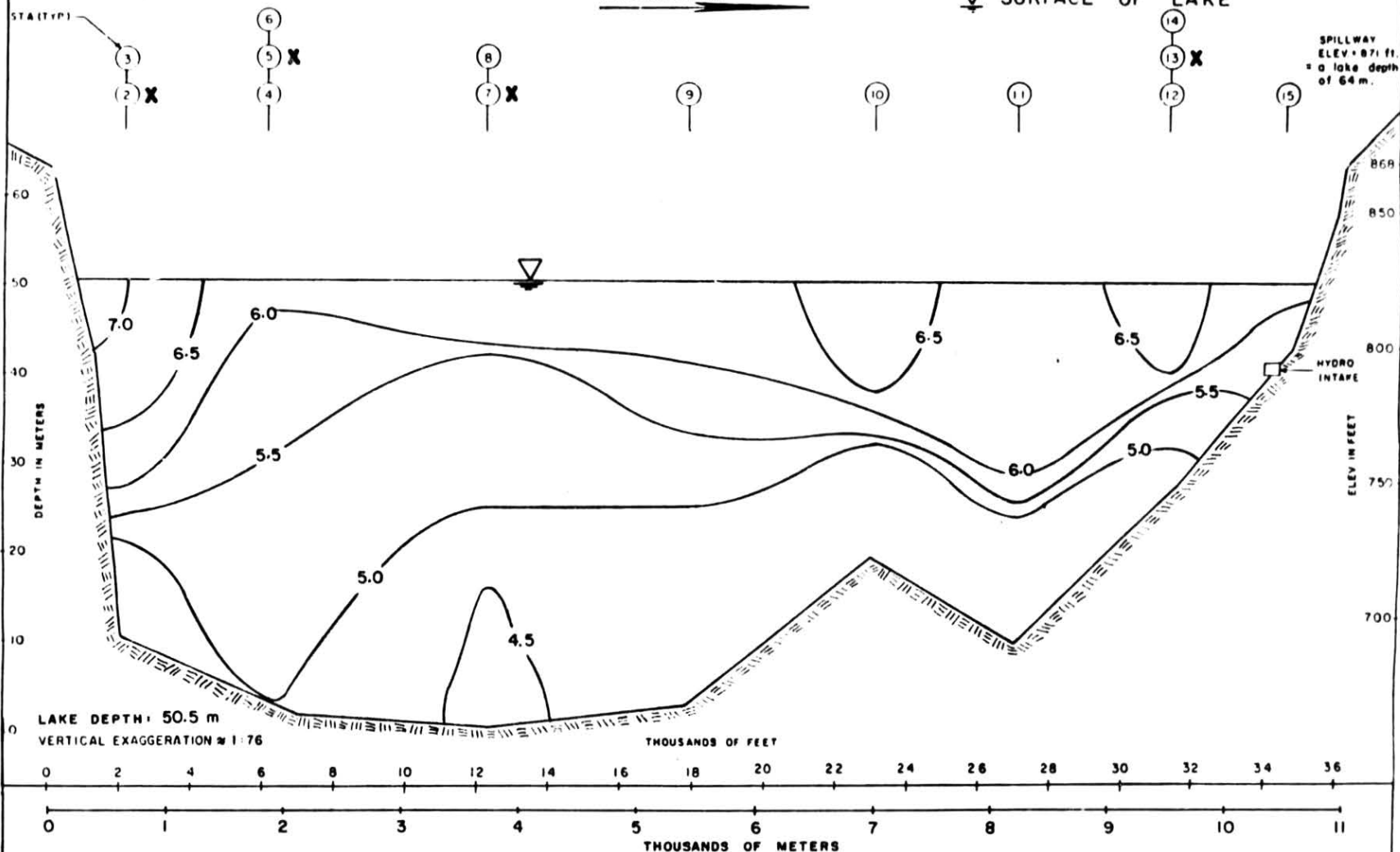
LAKE TEMPERATURE ISOPLETHS

x STATION USED FOR THIS PROFILE

▽ SURFACE OF LAKE

SPILLWAY
ELEV = 871 ft.
= a lake depth
of 64 m.

DIRECTION OF FLOW



PREPARED BY:

R&M

R&M CONSULTANTS, INC.

ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

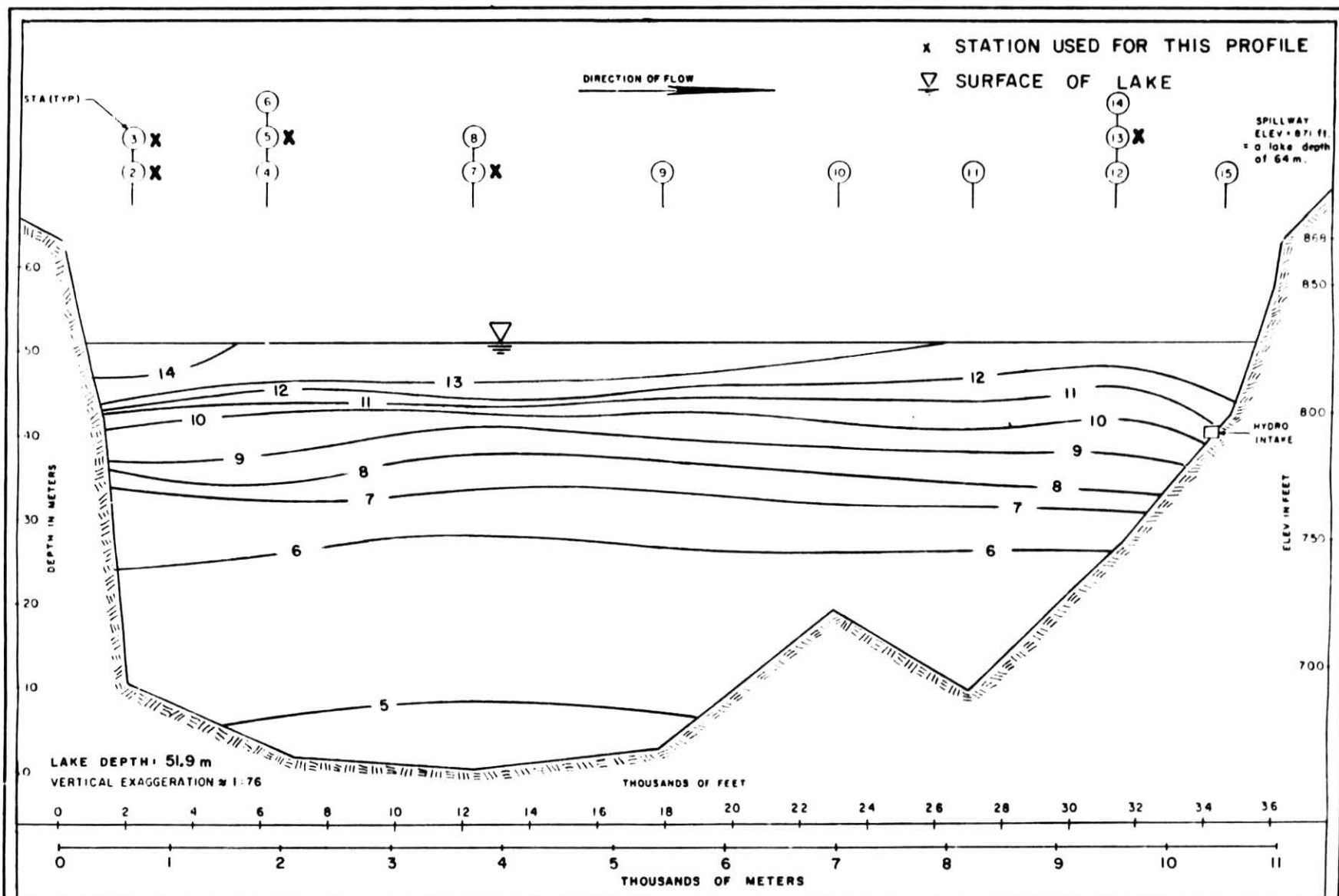
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JUNE 2, 1983

FIGURE H.1

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

R&M
R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

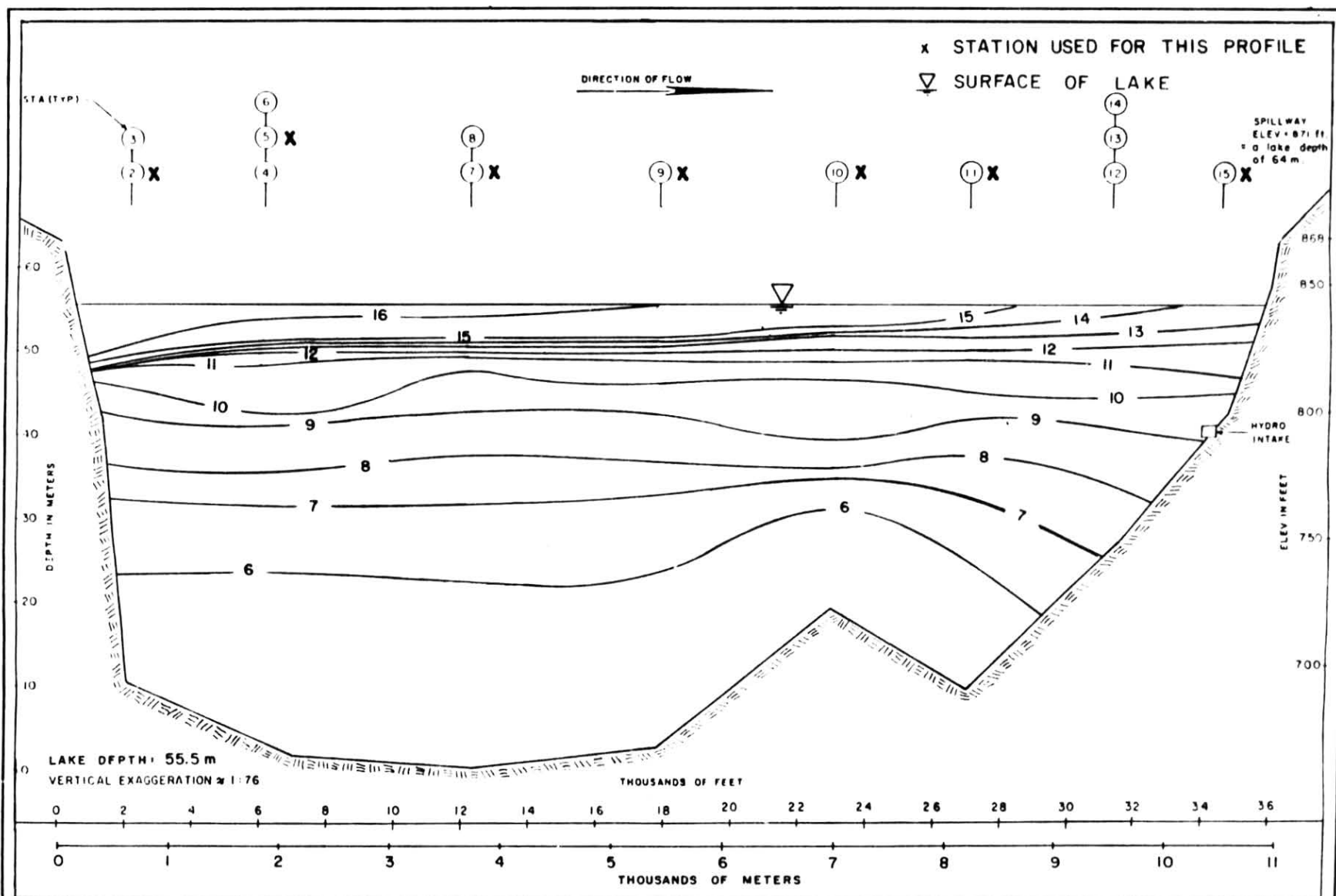
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JULY 6, 1983

FIGURE H.2

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

R&M

R&M CONSULTANTS, INC.

ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

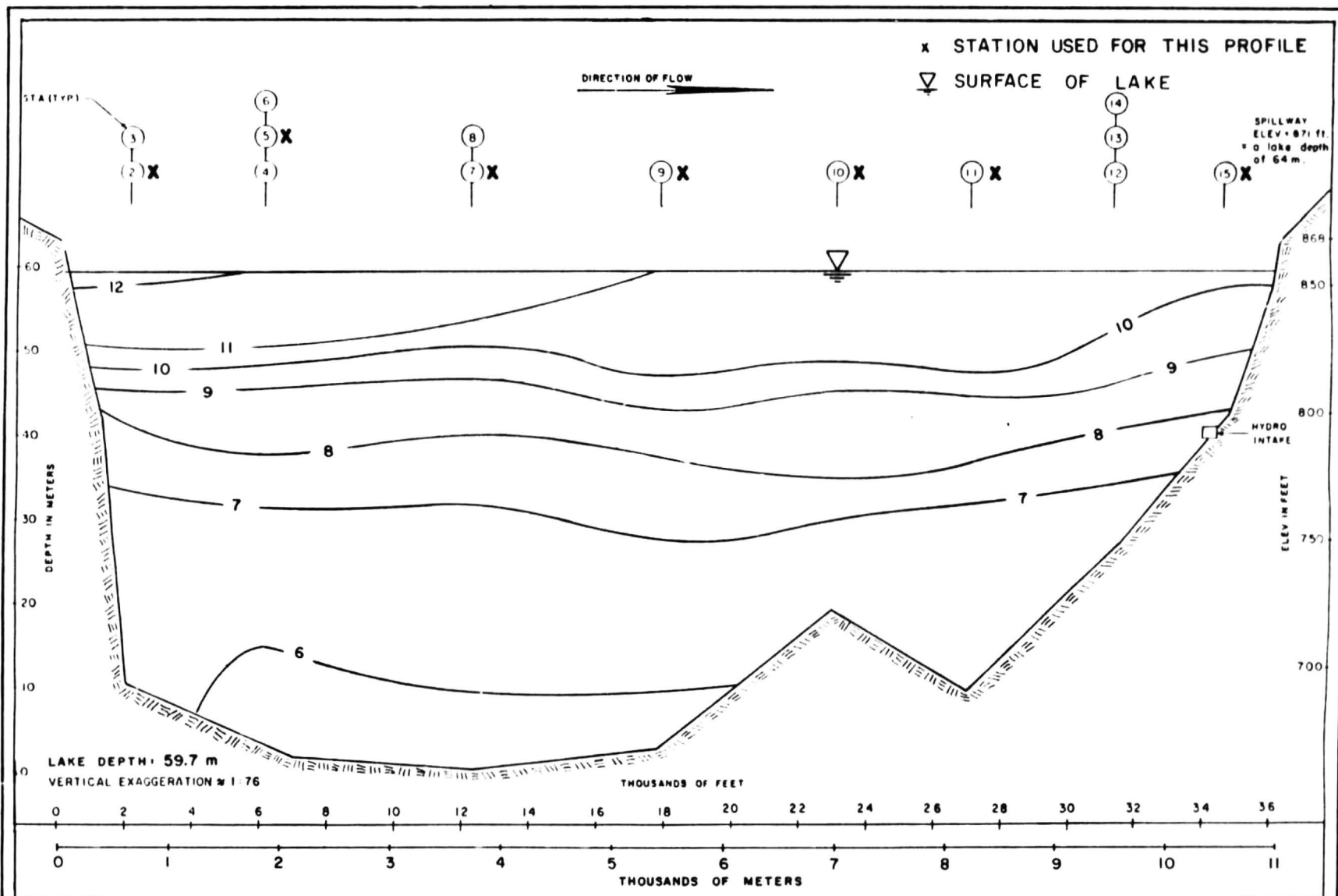
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
AUGUST 3, 1983**

FIGURE H.3

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

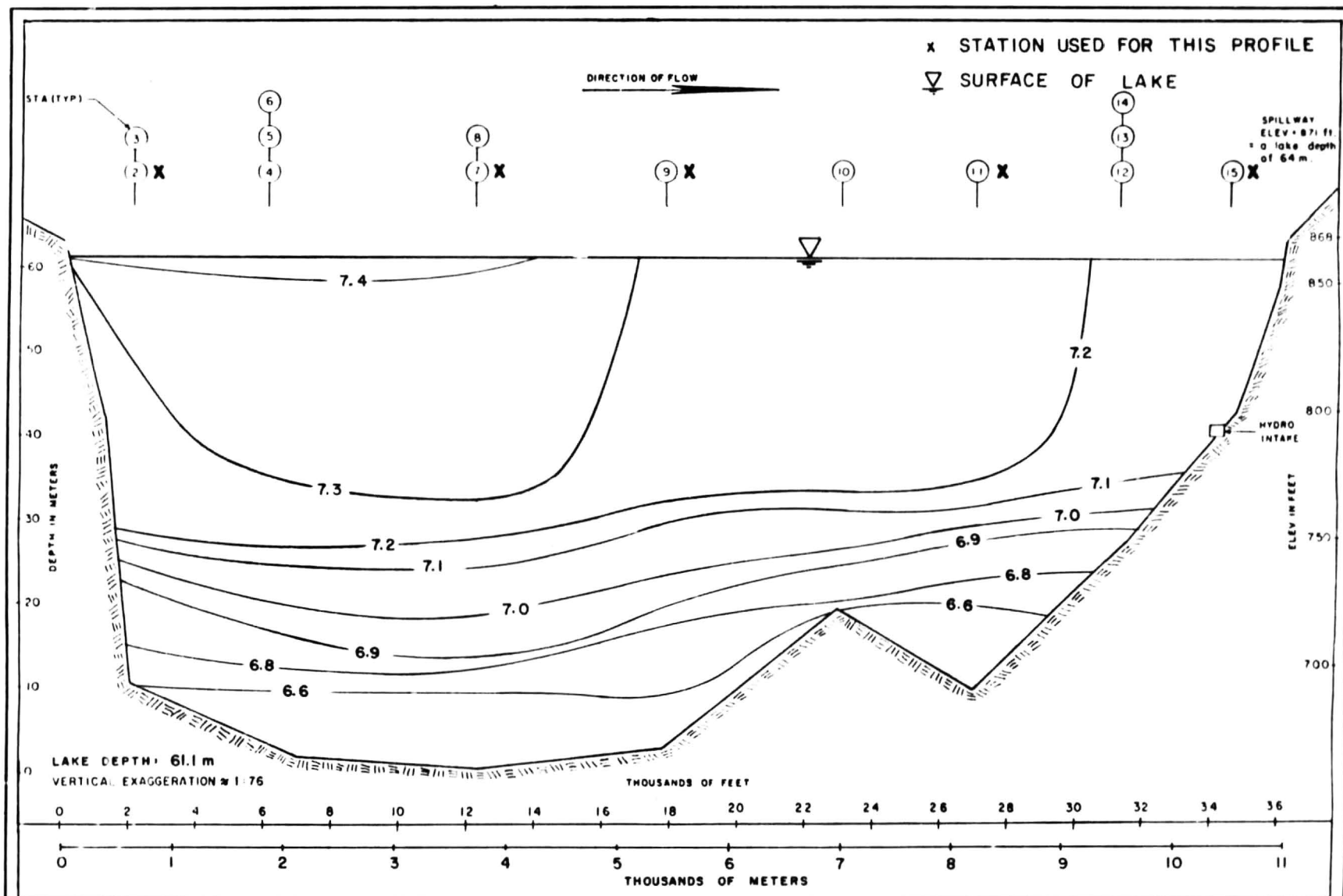
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 7, 1983

FIGURE H.4

PREPARED FOR:

HARZA-EBASCO
SUSITNA JOINT VENTURE



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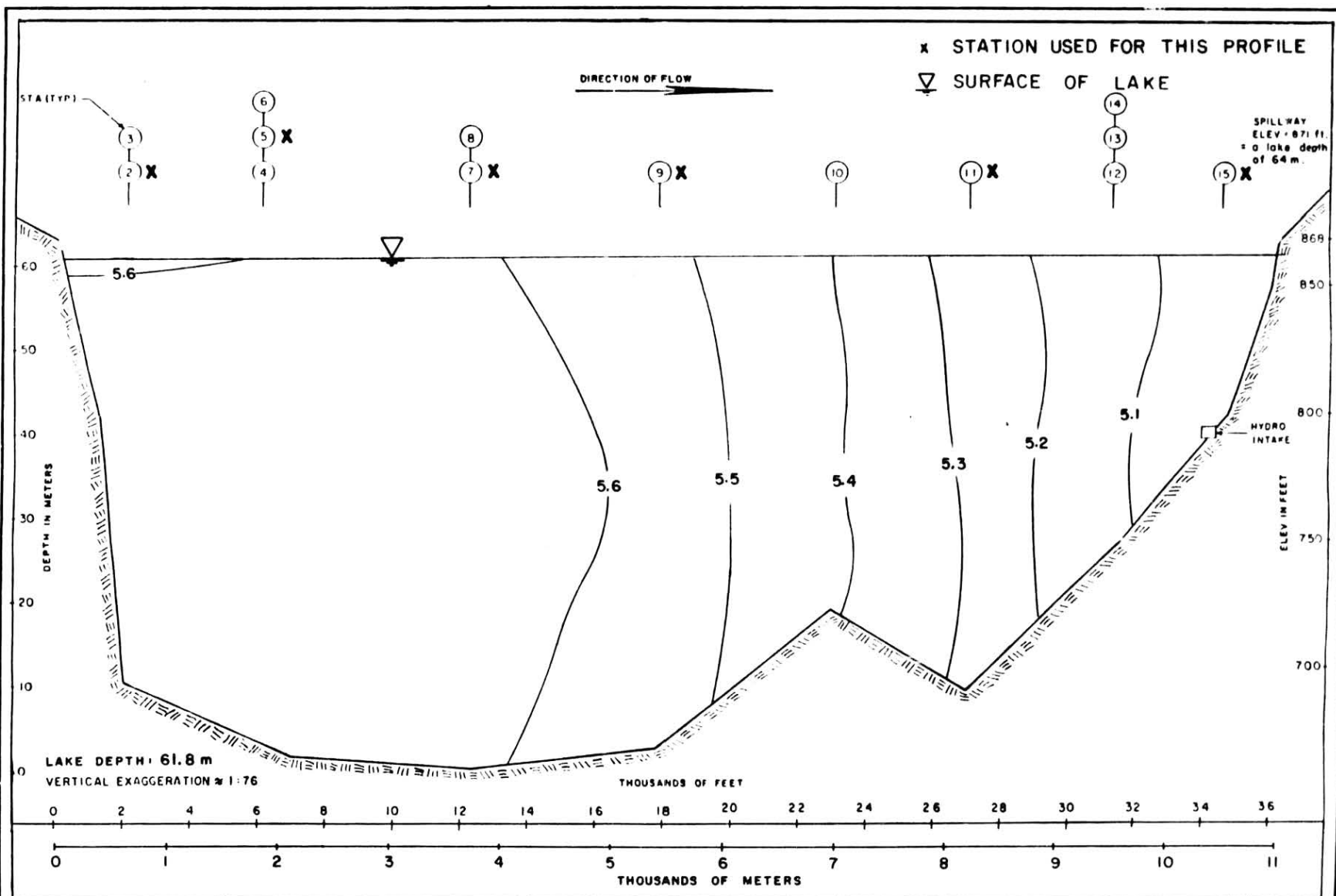
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 5, 1983**

FIGURE H.5

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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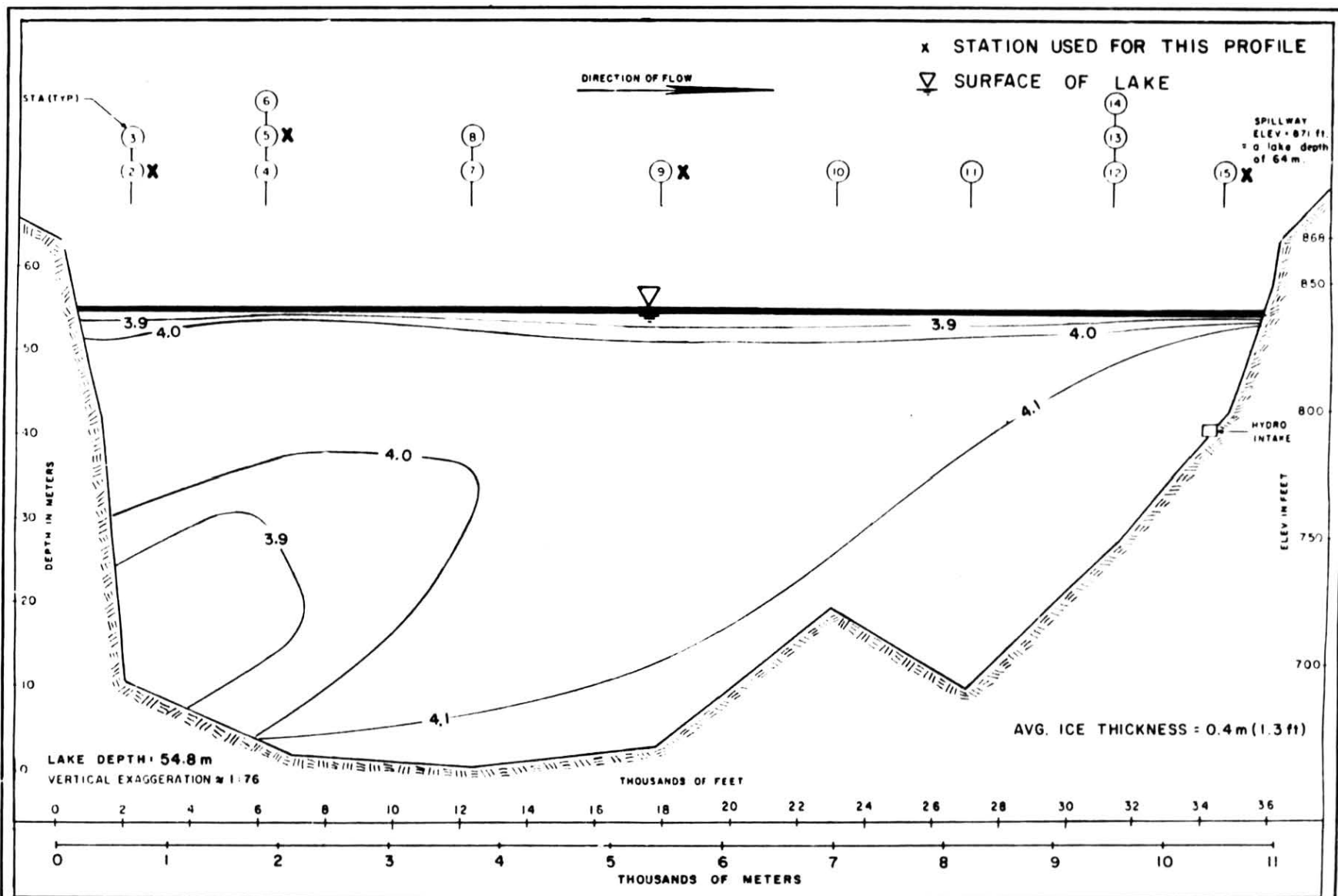
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 1, 1983**

FIGURE H.6

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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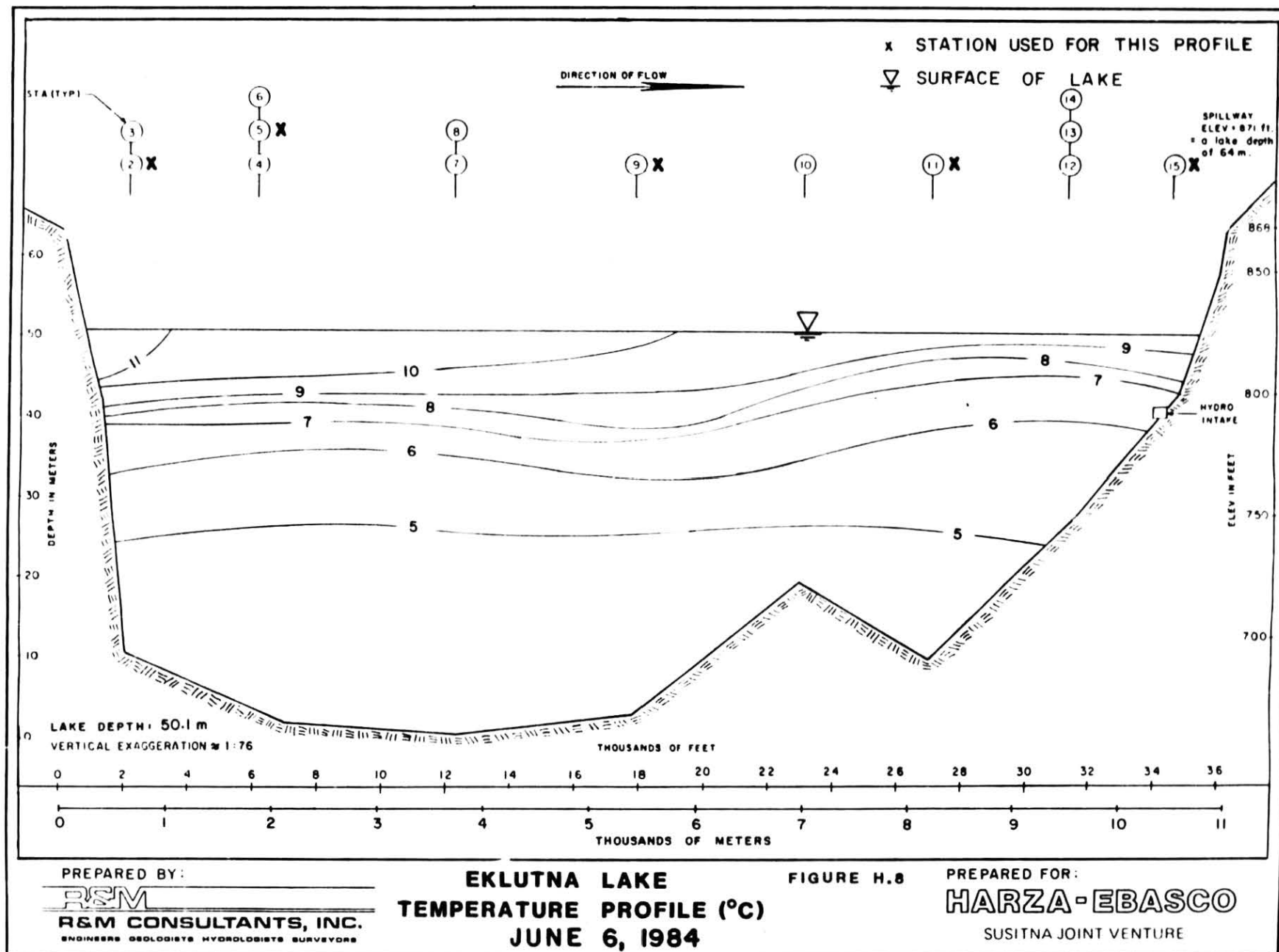
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
MARCH 23, 1984**

FIGURE H.7

PREPARED FOR:

HARZA-EDASCO

SUSITNA JOINT VENTURE

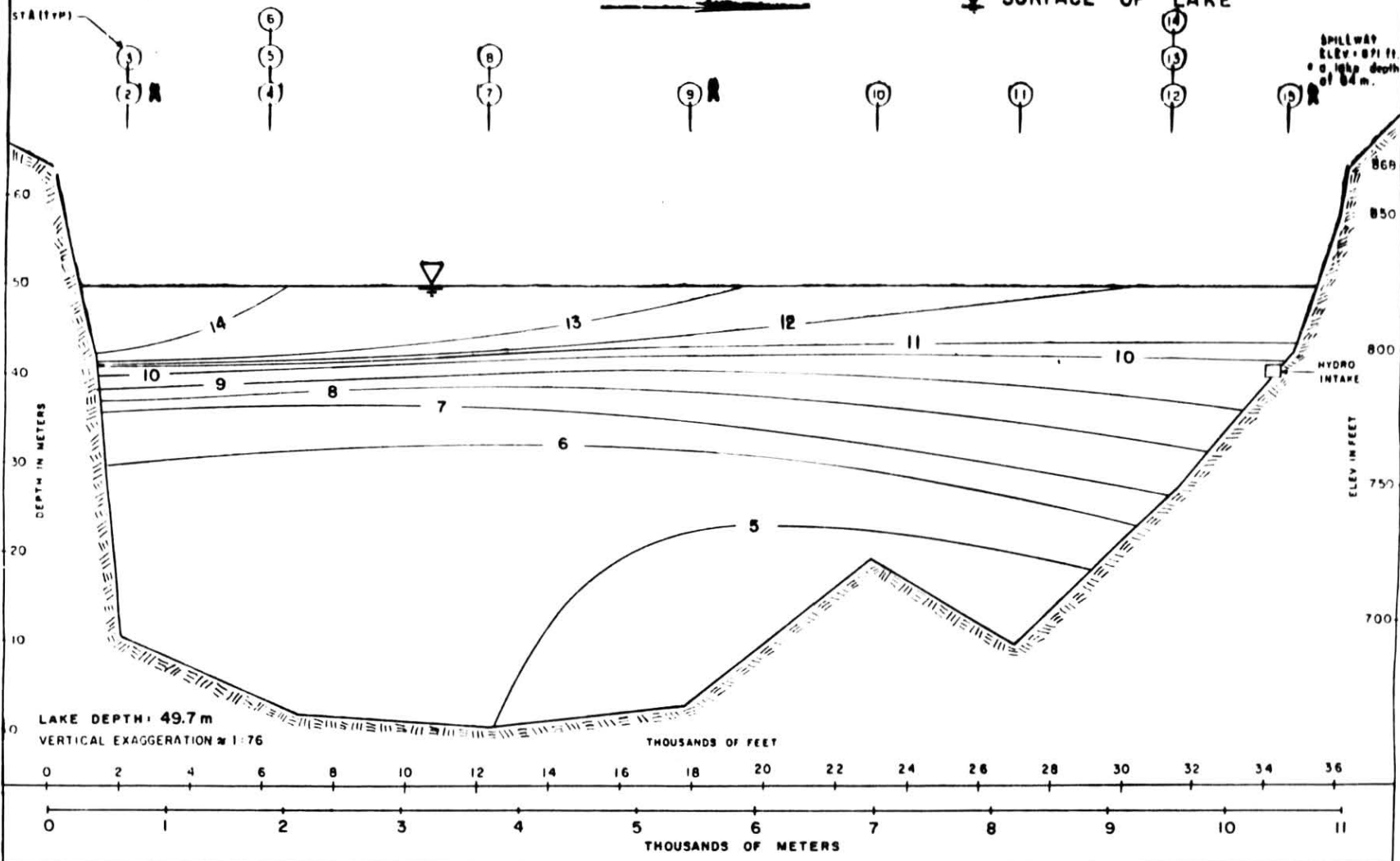


A STATION USED FOR THIS PROFILE

▽ SURFACE OF LAKE

DIRECTION OF FLOW

SPILLWAY
ELEV. = 871 ft.
+ 0.5 m. depth
of 8.4 m.



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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JUNE 21, 1984

FIGURE H.9

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE

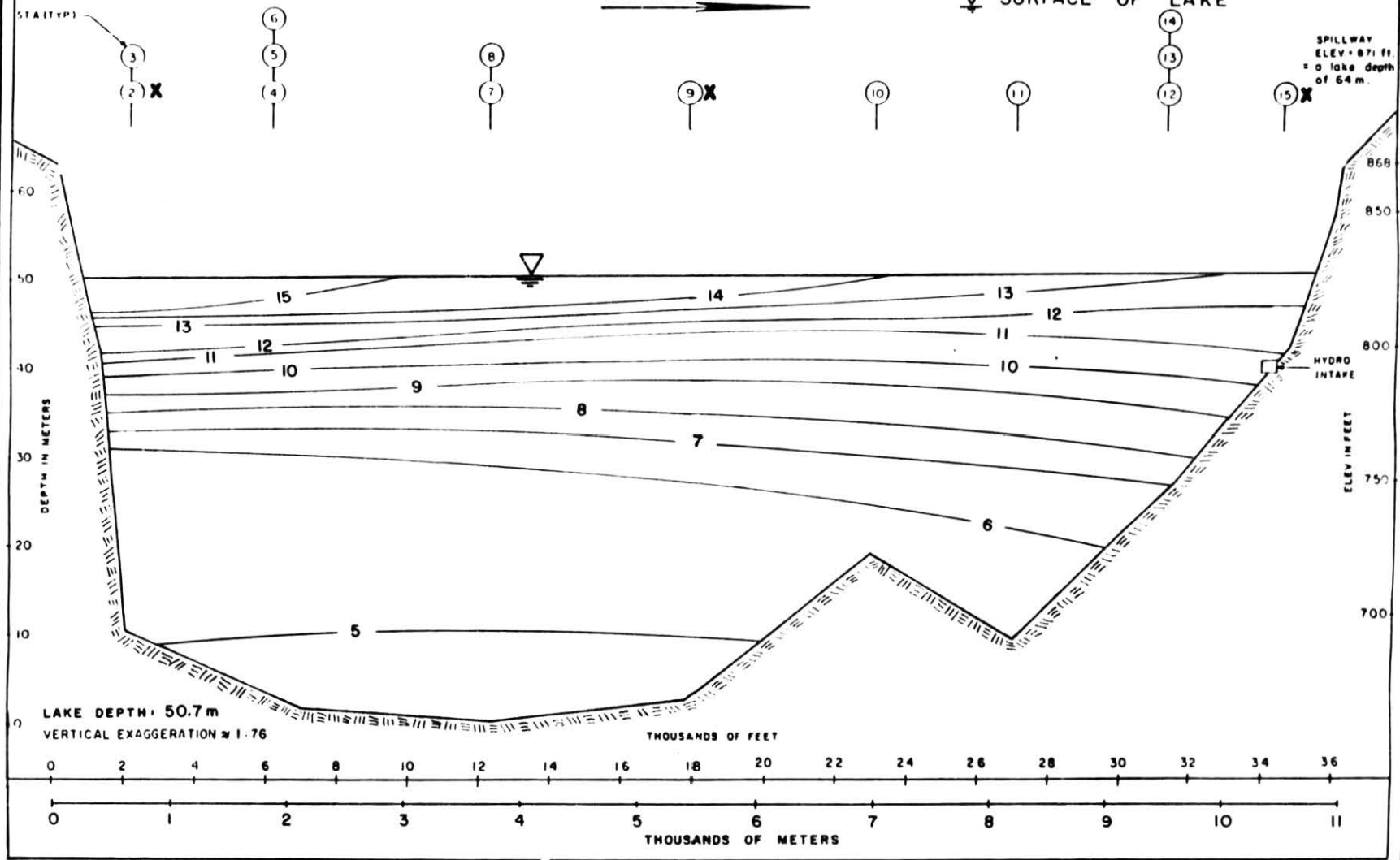
x STATION USED FOR THIS PROFILE

▽ SURFACE OF LAKE

SPILLWAY
ELEV. 871 ft.
= a lake depth
of 64 m.

DIRECTION OF FLOW

STA (TYP)

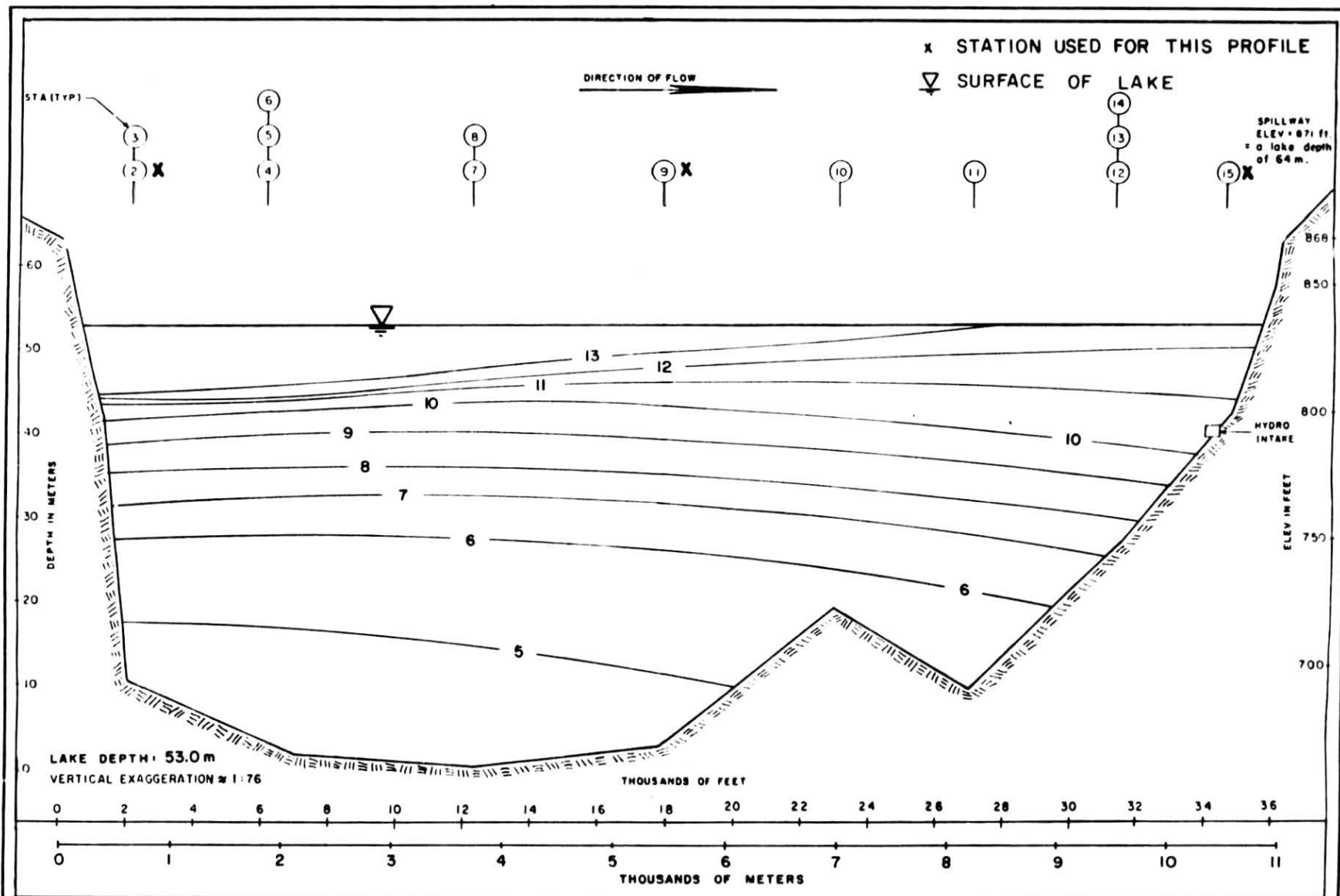


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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JULY 5, 1984

FIGURE H.10

PREPARED FOR:
HARZA-EBASCO
SUSITNA JOINT VENTURE



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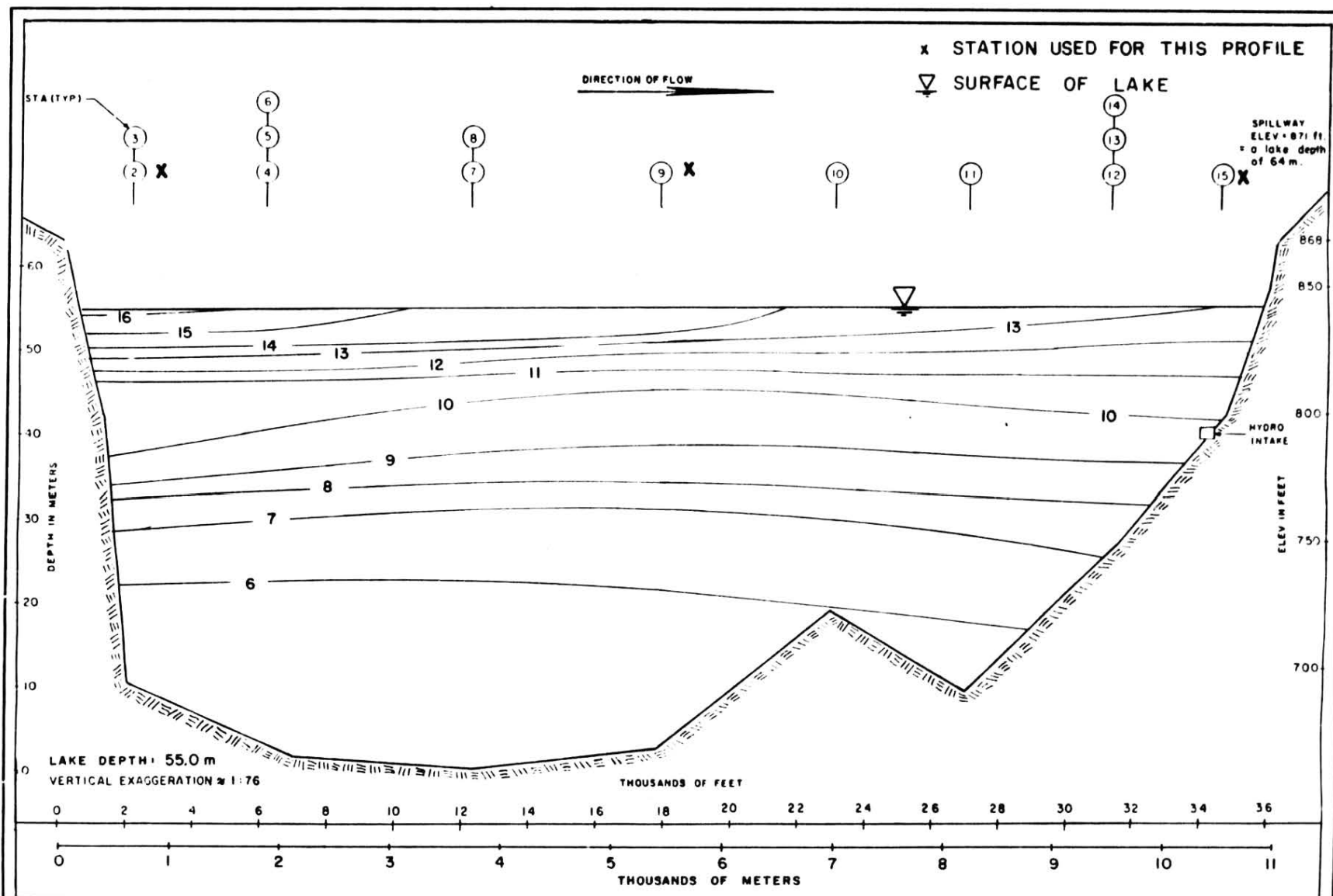
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JULY 19, 1984**

FIGURE H.11

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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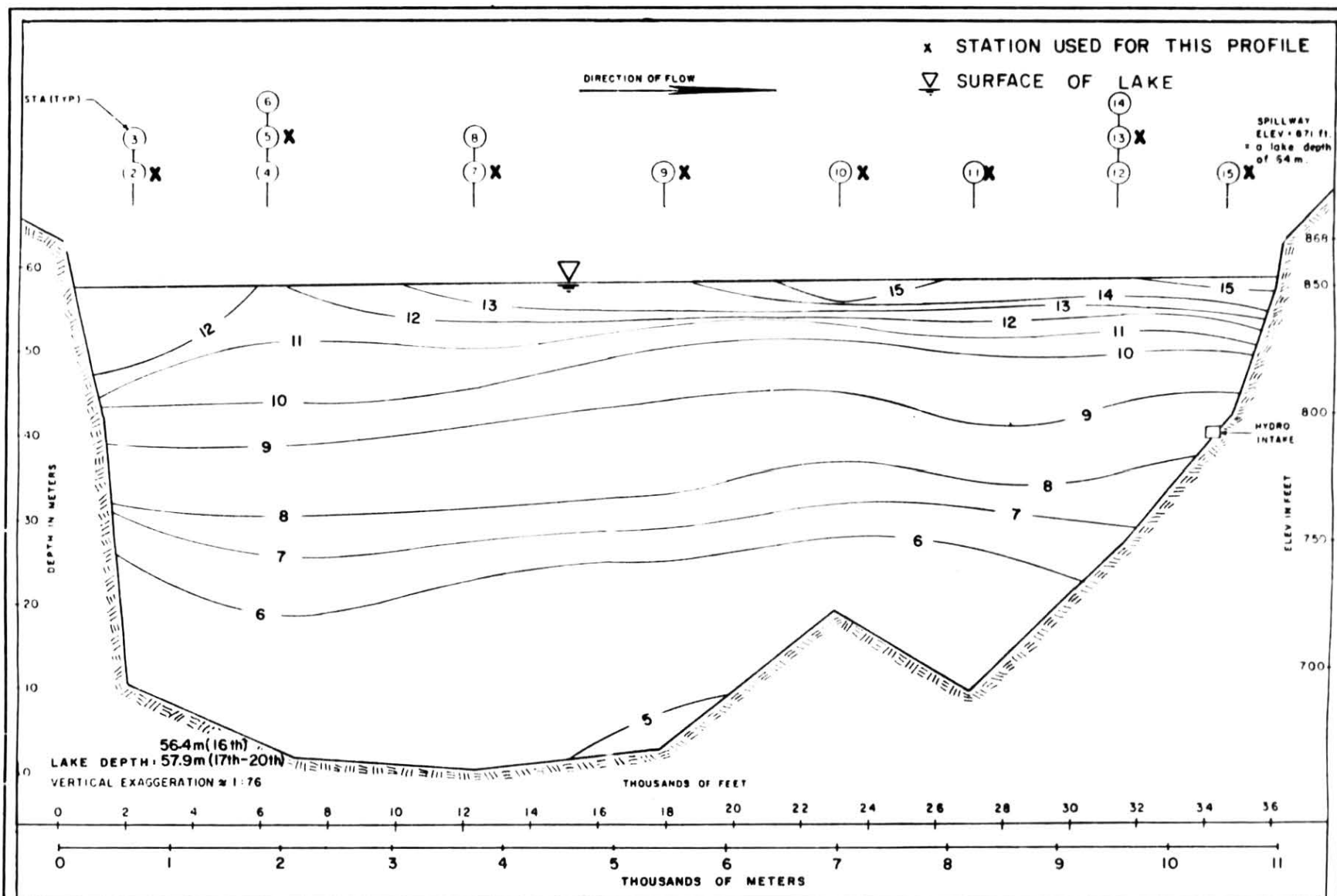
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
AUGUST 3, 1984

FIGURE H.12

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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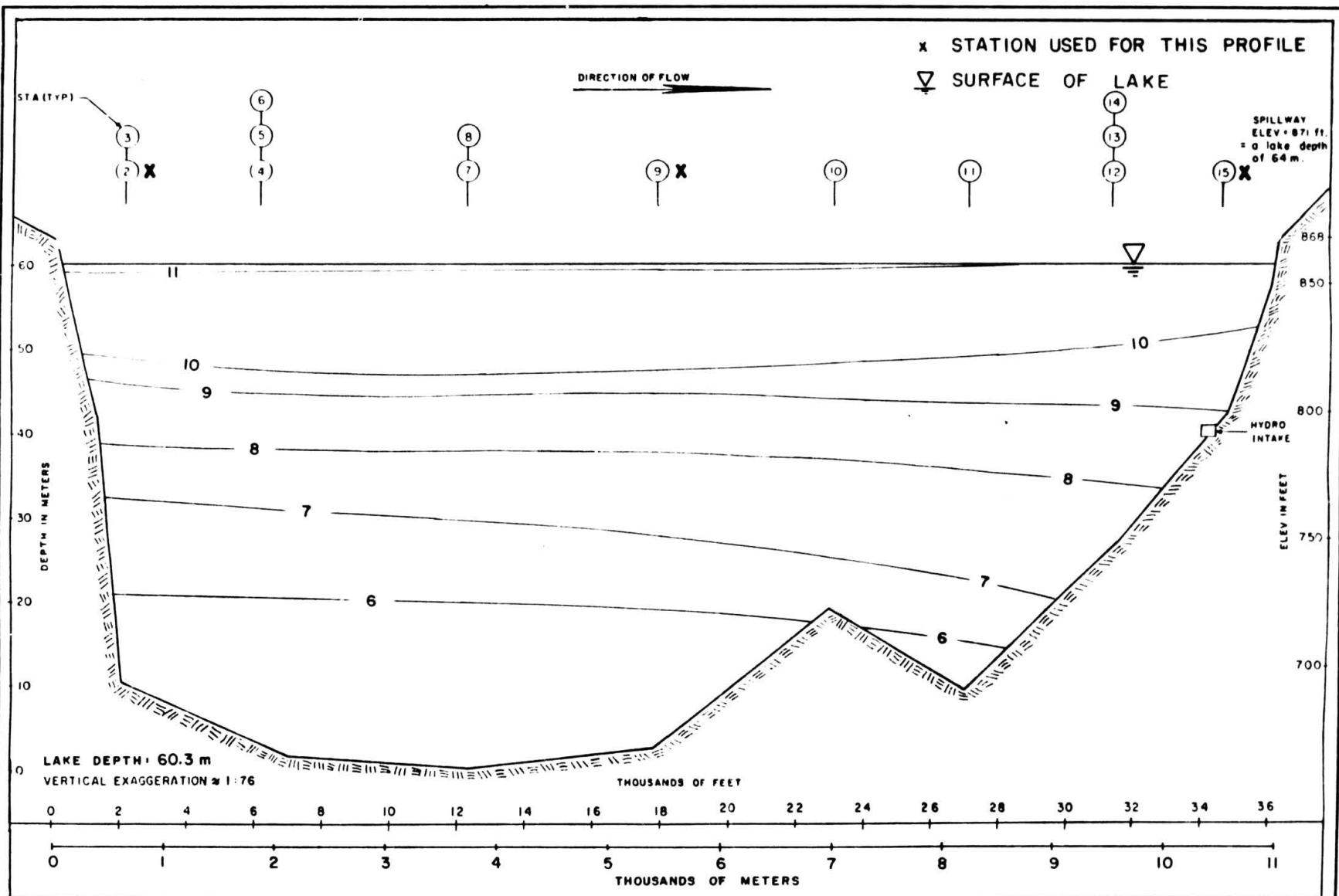
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
AUGUST 16-20, 1984**

FIGURE H.13

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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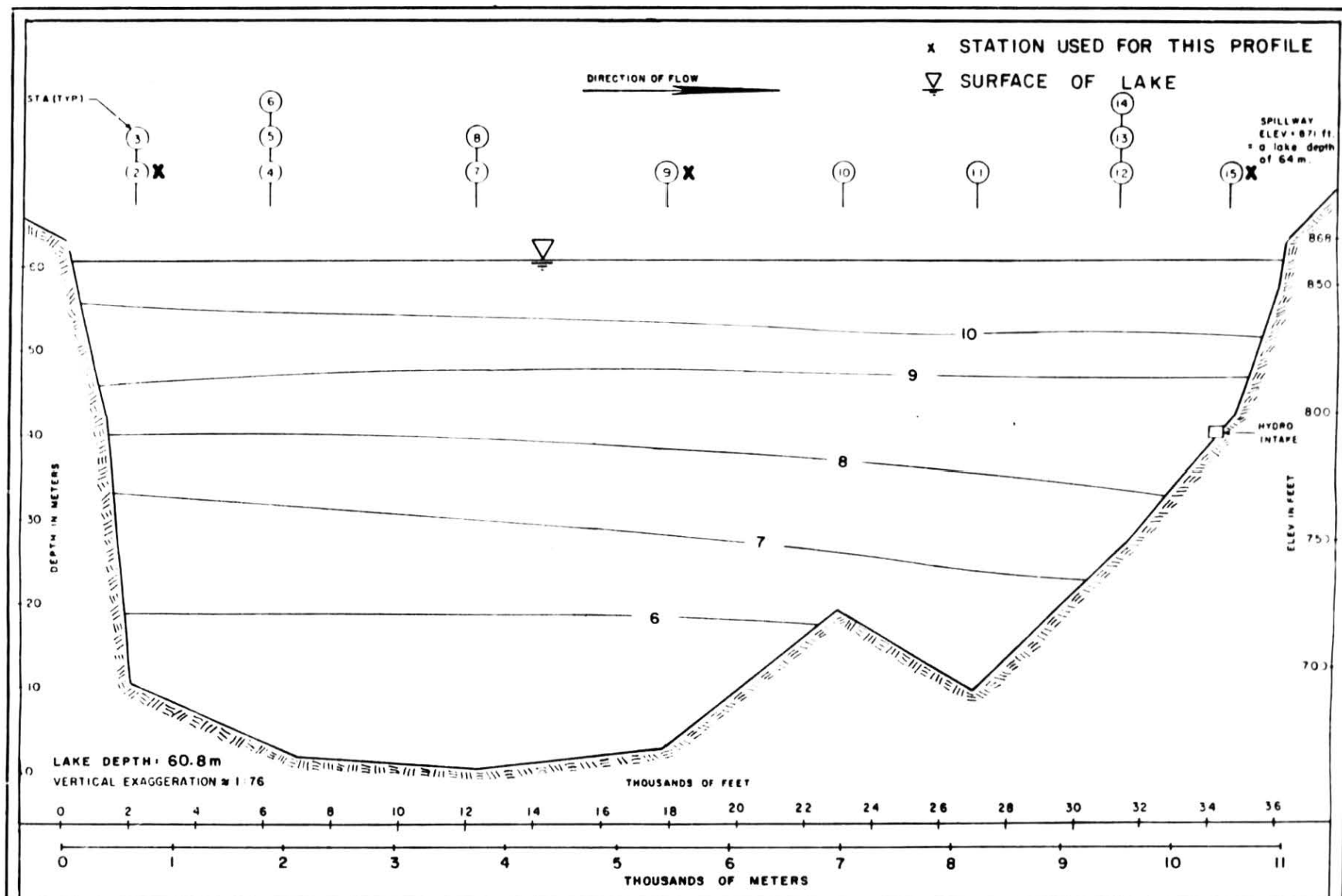
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 3, 1984**

FIGURE H.14

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

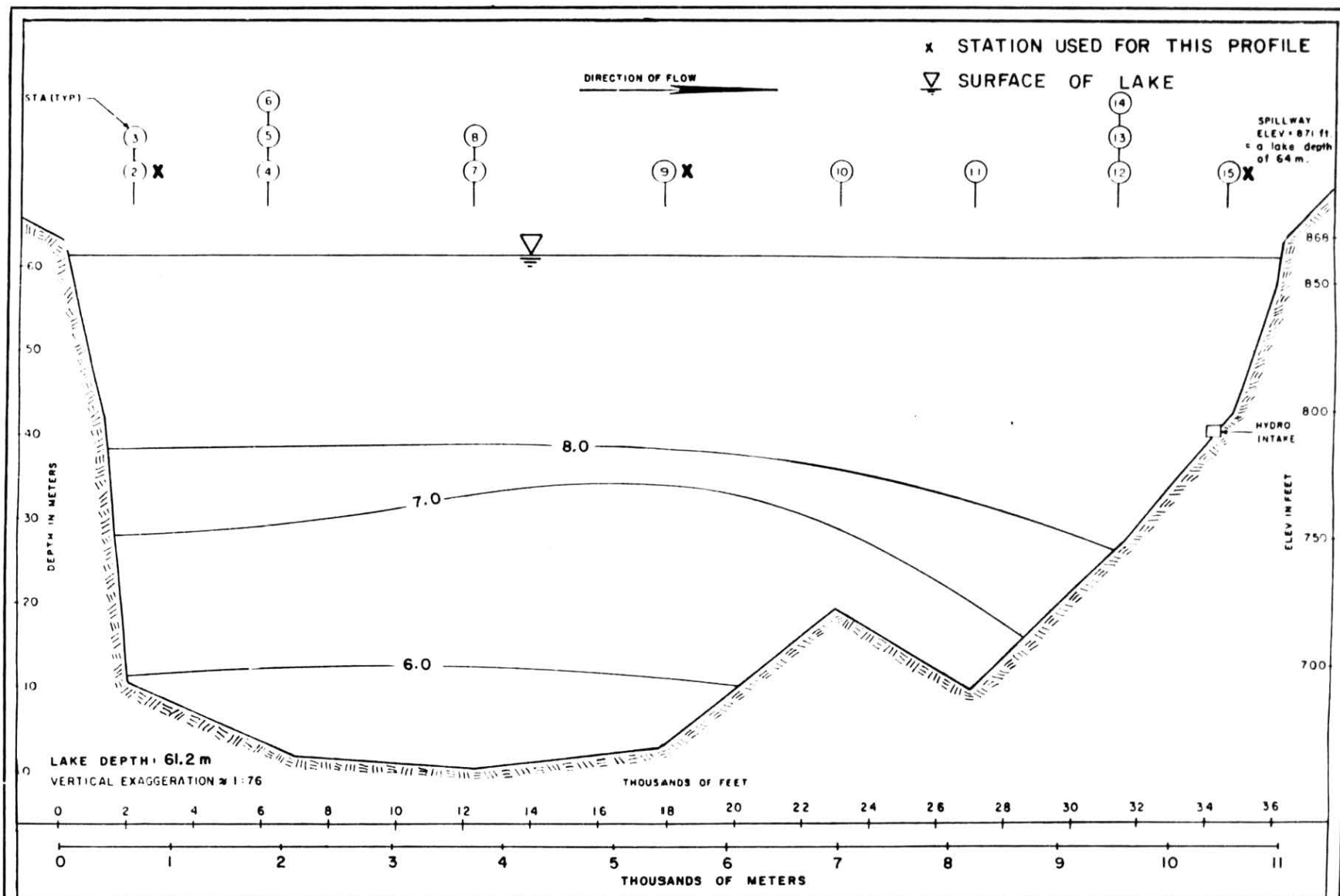
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 17, 1984

FIGURE H.15

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



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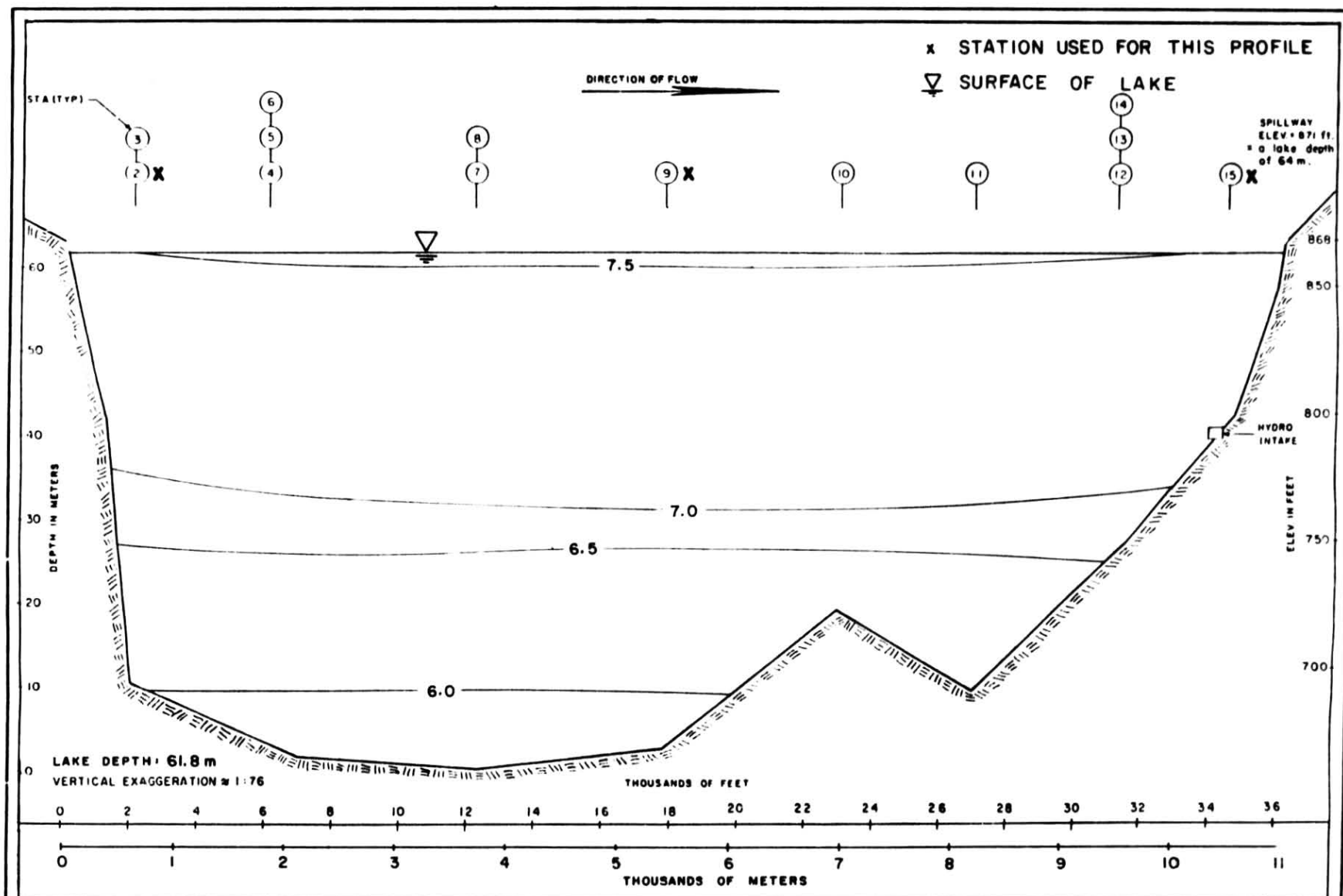
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 1, 1984

FIGURE H.10

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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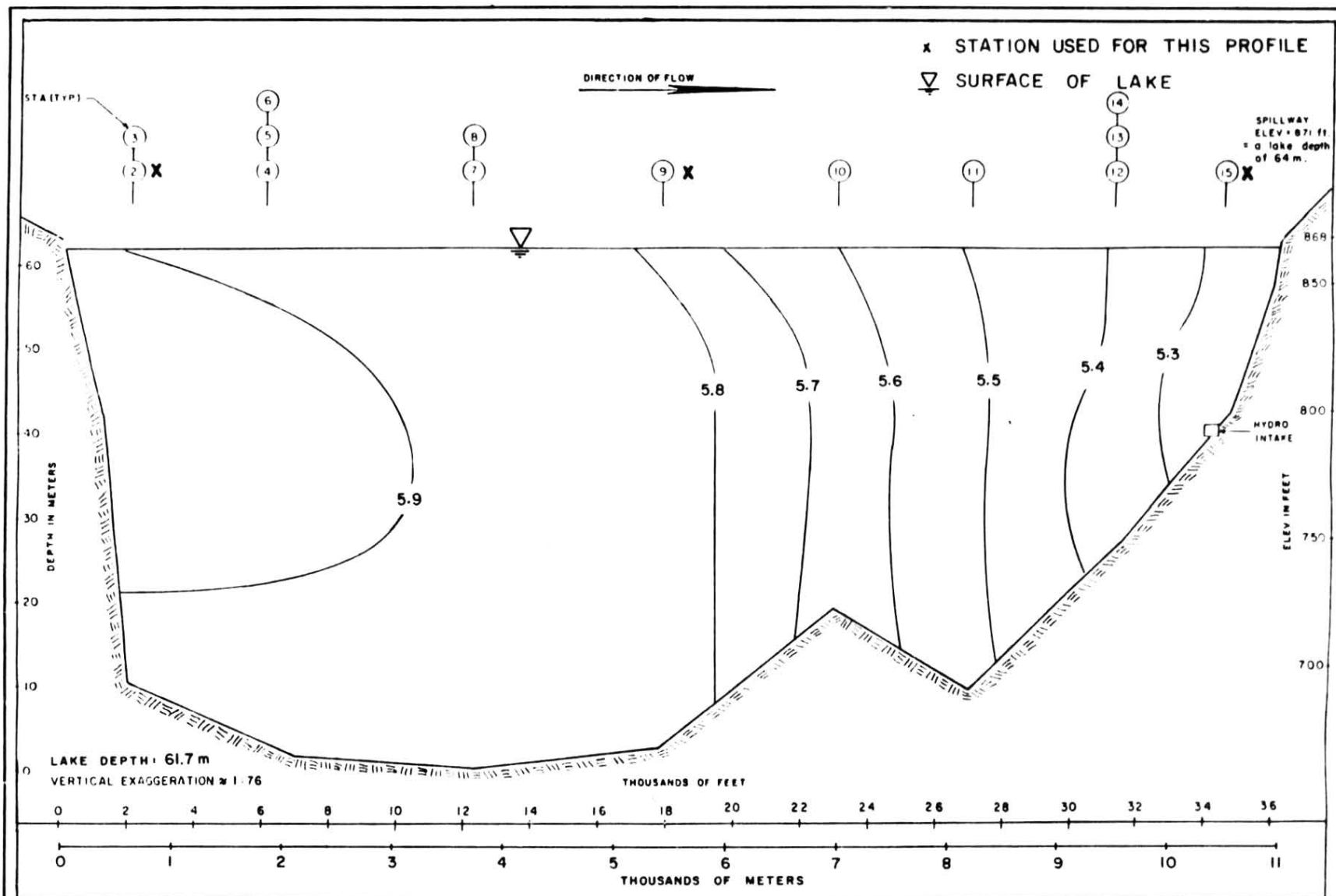
**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 15, 1984**

FIGURE H.17

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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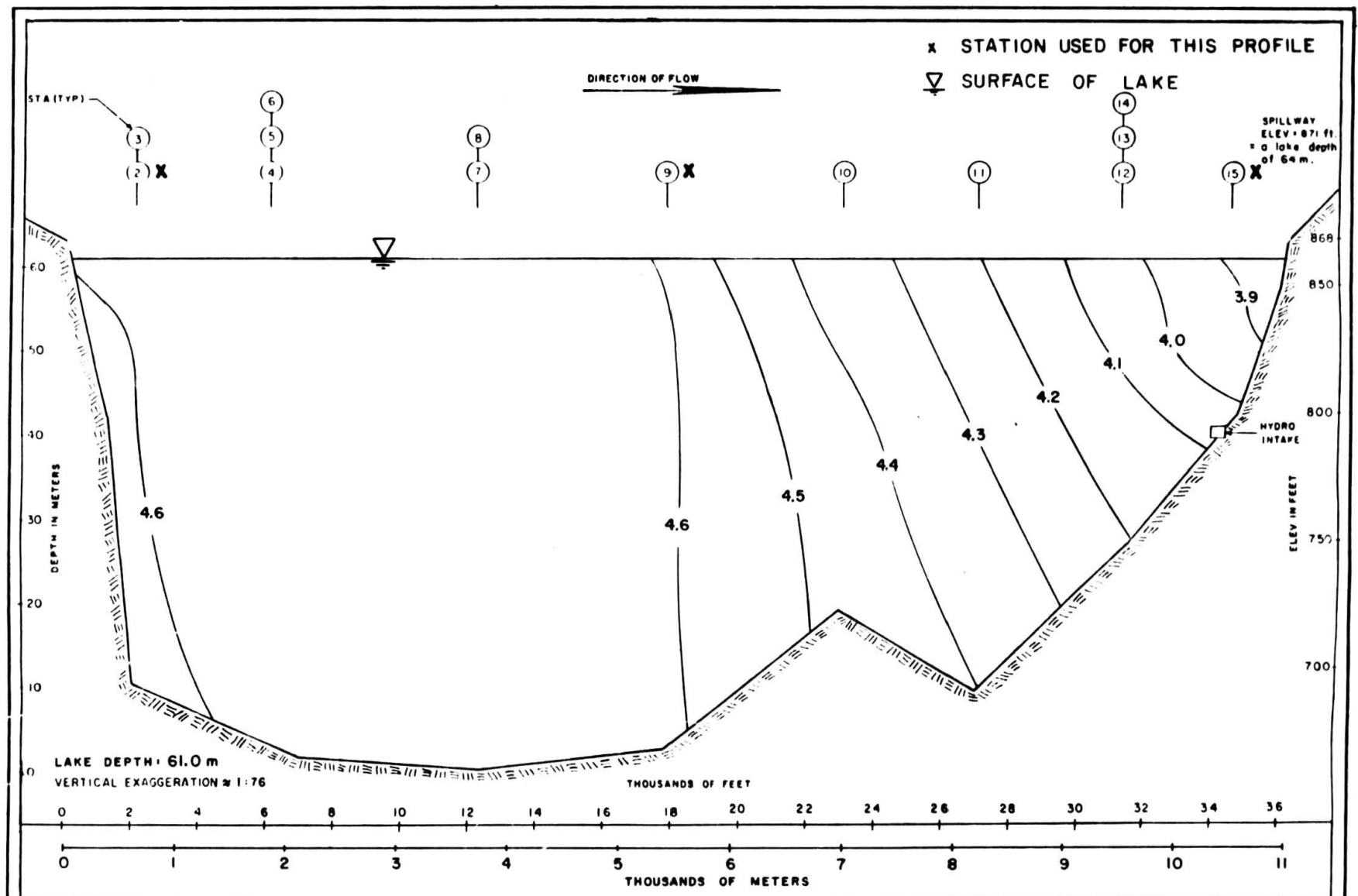
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 29, 1984

FIGURE H.18

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

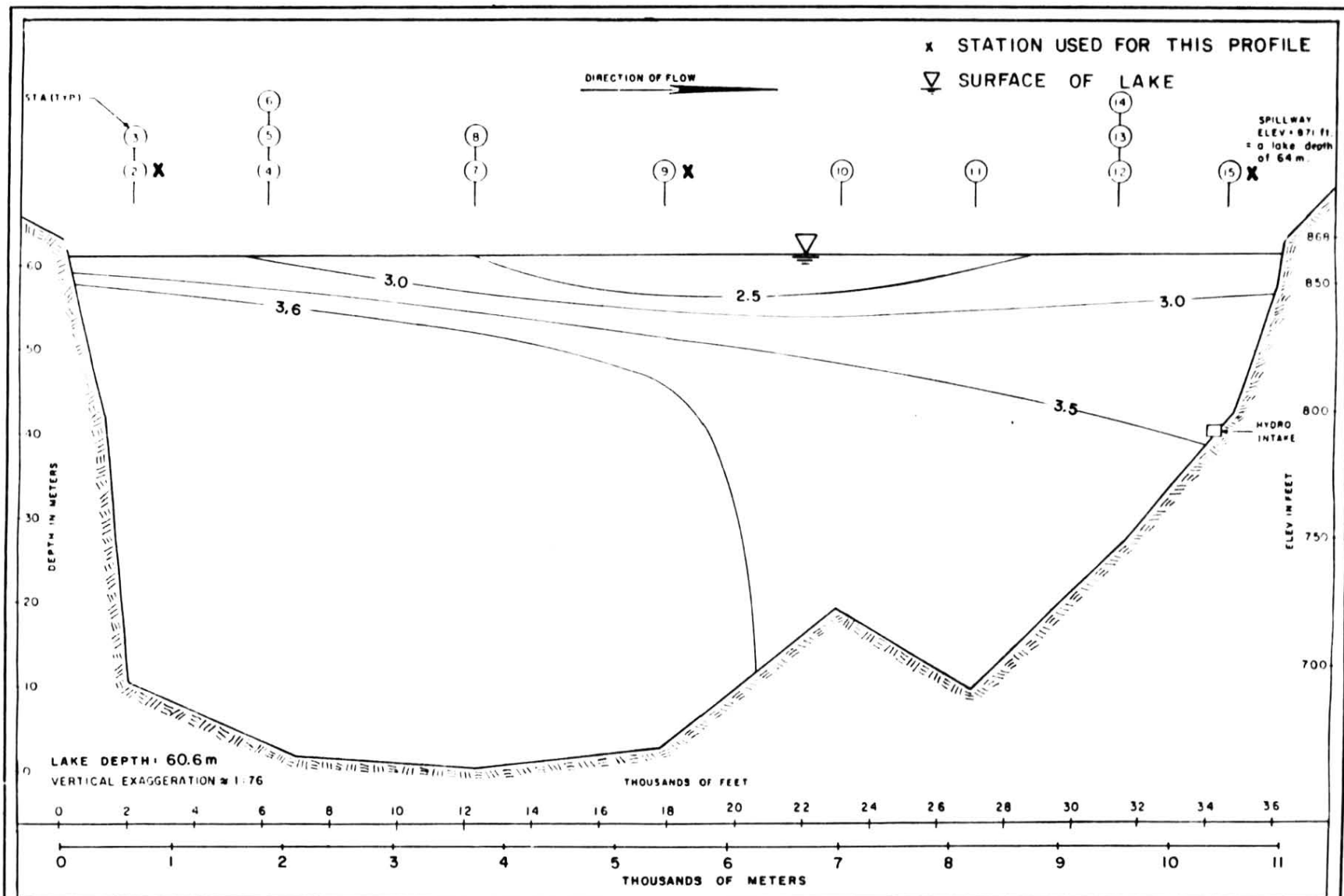
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**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 12, 1984**

FIGURE H.19

PREPARED FOR:

HARZA-EBASCO
SUSITNA JOINT VENTURE



PREPARED BY:

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**EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 26, 1984**

FIGURE H.20

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE

APPENDIX I

EKLUTNA LAKE LIGHT PENETRATION MEASUREMENTS

TABLE 1.1

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	03/29/83	06/02/83	08/02/83	08/03/83	08/03/83	09/07/83	04/20/84	04/20/84
Station	13	7	2	7	11	15	11	15
Time (AST)	1600	1420	N/A	N/A	N/A	1000	1220	1125
Irradiance (Microeinsteins per square centimeter per second)								
Sensor in Air	340	460	1500	1400	1550	800	850	580
Depth (m)								
Surface	145	420	1450	1450	1400	730	800	520
0.5	-	-	630	550	273	400	390	250
1.0	60	97	268	238	159	165	250	160
1.45	-	-	-	-	-	-	200	110
1.9	31	42	57	48	30	43	155	74
2.35	-	-	-	-	-	-	120	53
2.8	13	14.5	12	11	5.6	12.5	94	41
3.3	-	-	-	-	-	-	70	30
3.8	5.8	6.0	2.7	1.9	0.65	3.5	55	24
4.3	-	-	-	-	-	-	43	19
4.8	2.7	2.05	0.55	0.18	0.00	0.95	34	15
5.3	-	-	-	-	-	-	26	11
5.8	1.15	0.66	0.066	0.00	-	0.20	18	9.5*
6.3	-	-	-	-	-	-	13	-
6.8	0.55	0.3	-	-	-	0	9.6	-
7.3	-	-	-	-	-	-	6.9	-
7.8	0.2	-	-	-	-	-	4.8	-
8.3	-	-	-	-	-	-	3.0	-
8.8	-	-	-	-	-	-	-	-
Extinction								
Coefficient (/m)	0.83	1.05	1.69	1.82	1.93	1.40	0.60	0.66
r ²	0.99	0.99	0.99	0.99	0.99	1.00	0.99	0.97
Secchi Trans (/m)	N/A	1.13	1.82	1.73	1.73	1.37	0.48	0.44

* Lake bottom at 5.8m

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	05/17/84	05/17/84	05/17/84	06/21/84	06/21/84	06/21/84	06/21/84	06/21/84
Station	9	15	5	15	9	3	2	1
Time (AST)	1330	1300	1430	1200	1400	1530	1650	1740
Irradiance (Microeinsteins per square centimeter per second)								
Sensor in Air	1500	1530	N/A	1580	1580	1350	1000	940±20
Depth (m)								
0.0	1550±50	1450±100	810±20	1490	1490	1350±100	1000	860±50
0.5	1100±50	1100±100	630±20	930	1010	730±50	710	550±30
1.0	820±30	900±50	790±10	630	760	450±20	480	265±20
1.45	-	-	-	-	-	-	-	-
1.9	620±20	580±10	600±20	290	415	185	208	66
2.35	-	-	-	-	-	-	-	-
2.8	420±10	375	295	179	233	75	109	6.0±0.2
3.3	-	-	-	-	-	-	-	-
3.8	245	230	210	87	100	32	45	0
4.3	-	-	-	-	-	-	-	-
4.8	174	149	150-175	42	47	4	17.6	-
5.3	-	-	-	-	-	-	-	-
5.8	116	97	115	22.3	21.4	0.3	4.1	-
6.3	-	73	-	-	-	-	0.7	-
6.8	78	-	69	10.8	11.0	-	-	-
7.3	-	-	-	-	-	-	-	-
7.8	48	-	47	-	5.1	-	-	-
8.3	-	-	-	-	-	-	-	-
8.8	32	-	32	-	-	-	-	-
Extinction								
Coef. (/m)	0.43	0.47	0.38	0.71	0.73	1.33	1.04	1.76
r ²	1.00	1.00	0.98	1.00	1.00	0.96	0.96	0.97
Secchi Trans (/m)	0.51	0.47	0.49	0.73	0.55	0.86	0.91	1.02

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	07/05/84	07/05/84	07/05/84	07/05/84	07/05/84	07/19/84	07/19/84	07/19/84	07/19/84	07/19/84
Station	15	9	3	2	1	15	9	3	2	1
Time (AST)	1230	1330	1500	1600	1740	1000	1130	1300	1410	1550
Irradiance (Microeinsteins per square centimeter per second)										
Sensor in Air	1500	1250	487	420	230	440	470	300	295	310
Depth (m)										
0.0	1500±100	1190±10	390±10	390±10	195±5	370	410	210	245	190
0.5	650±50	720±10	182	190	82	105	145	57	66	40
1.0	238	258	77	73	36	29	41	21	22	14
1.45	-	-	-	-	-	13.5	12.5	9.1	8.7	4.5
1.9	54	69	20	18.5	9.5	4.1	4.6	3.3	3.3	2.3
2.35	-	-	-	-	-	1.1	1.90	1.45	1.5	0.7
2.8	13.1	17.0	5.75	5.05	2.1	0.3	0.70	0.60	0.6	0.45
3.3	-	-	-	-	-	0.15	0.20	0.25	0.25	0.10
3.8	2.8	4.6	1.58	1.27	0.25	-	0.10	0.10	.05	-
4.3	-	-	-	-	-	-	-	-	-	-
4.8	0.58	0.97	0.42	0.36	0.01	-	-	-	-	-
5.3	-	-	-	-	-	-	-	-	-	-
5.8	0.15±.05	0.22	0.08	0.08	-	-	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-
6.8	-	0.04	-	-	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	1.59	1.51	1.43	1.45	1.96	2.43	2.24	1.99	2.13	2.18
r ²	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99
Secchi Trans. (/m)	2.05	1.73	1.64	1.64	1.31	2.52	2.73	2.52	2.52	2.73

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS										
Date	08/03/84	08/03/84	08/03/84	08/03/84	08/03/84	08/03/84	08/16/84	08/17/84	08/17/84	08/17/84
Station	1	2	2	3	9	15	15	14	13	11
Time (AST)	1130	1320	1330	1510	1640	2100	1710	0900	1120	1510
Irradiance (Microeinsteins per square centimeters per second)										
Sensor in Air	1400	660	1050	490	220	19.0	830±30	820	970	630
Depth (m)										
0.0	1250	460	880	320	170	11.4	780±50	720	1400	550
0.5	450	250	370	110	43	2.4	255	245	410	152
1.0	155	95	165	46	16.0	0.96	73.0	80	59.0	48
1.45	75	54	57	20.0	6.6	0.25	23.5	32	19.0	10.8
1.9	28	18.0	25.5	10.0	3.1	0.10	9.8	10.5	8.3	8.3
2.35	2.9	7.9	11.0	4.4	1.2		1.23	4.8	4.0	3.45
2.8	0.4	4.0	5.1	1.7	0.5		0.95	1.45	1.5	1.3
3.3		1.45	1.9	0.63	0.18		0.15	0.50	0.58	0.39
3.8		0.60	0.85	0.30	0.05			0.10	0.17	0.14
4.3		0.30	0.35	0.10						
4.8		0.10	0.10							
5.3										
5.8										
6.3										
6.8										
7.3										
7.8										
8.3										
8.8										
Extinction Coef. (/m)	2.74	1.78	1.87	1.85	2.05	2.47	2.58	2.28	2.29	2.11
r ²	0.95	1.00	1.00	1.00	1.00	0.99	0.99	1.00	0.99	0.99
Secchi Trans. (/m)	1.73	1.93	1.93	1.64	1.82	2.19	2.34	1.44	2.34	2.34

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	08/17/84	08/18/84	09/17/84	09/17/84	09/17/84	09/17/84	09/17/84	10/01/84	10/01/84	10/01/84
Station	10	9	15	9	3	2	1	1	2	3
Time (AST)	1830	0830	1020	1220	1450	1630	1730	1130	1310	1450
Irradiance (Microeinsteins per square centimeter per second)										
Sensor in Air	120	77	325	460	180	115	126	420	420	291
Depth (m)										
0.0	88	71	300	409	190	100	108	350	365	260
0.5	18.0	23.5	127	203	89	49	46	(0.1m)54	168	125
1.0	9.2	5.6	65	81	38	18.5	16.5	(0.2)14.5	82	57.5
1.45	2.45	1.62	31	32	17.5	8.8	5.9	(0.3)4.7	37.5	31.5
1.9	1.00	0.70	15.8	16.7	7.45	4.7	1.45	(0.4)1.4	22.3	16.2
2.35	0.45	0.38	7.9	8.6	4.10	2.20		(0.5)0.8	13.2	10.7
2.8	0.20	0.09	3.7	3.9	2.17	1.15		(0.6)0.06	7.15	5.9
3.3	0.05		1.81	1.90	1.00	0.55			3.91	3.4
3.8			0.82	0.80	0.44	0.25			2.12	1.79
4.3			0.41	0.38		0.12			1.12	1.03
4.8			0.18						0.59	0.58
5.3									0.34	0.32
5.8										
6.3										
6.8										
7.3										
7.8										
8.3										
8.8										
Extinction Coef. (/m)	2.17	2.34	1.54	1.64	1.60	1.57	2.24	13.1	1.30	1.24
r ²	0.99	0.99	1.00	1.00	1.00	1.00	0.99	0.98	1.00	1.00
Secchi Trans. (/m)	2.05	2.19	2.05	1.93	2.19	2.19	2.34	5.47	1.49	1.43

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	10/01/84	10/15/84	10/15/84	10/15/84	10/15/84	10/15/84	10/29/84	10/29/84	10/29/84	10/29/84
Station	9	3	1	2	9	15	3	2	1	9
Time (AST)	1640	1000	1130	1220	1500	1550	1100	1300	1410	1600
Irradiance (Microeinsteins per square centimeter per second)										
Sensor in Air	83	120	422	319	215	98	300	410	84	45
Depth (m)										
0.0	67	119	360	320	215	93	125	120	74	35
0.5	33	63	228	137	114	49	52	32	30	17.6
1.0	15.9	31.4	137	73	56.5	24.7	15.7	15.5	16.2	7.4
1.45	7.0	-	85	-	-	-	-	-	-	-
1.9	4.4	8.55	-	22.3	17.0	7.71	4.65	4.7	8.3	2.26
2.35	2.46	-	-	-	-	-	-	-	-	-
2.8	1.42	2.96	-	7.5	6.1	2.88	1.31	1.25	4.9	0.73
3.3	0.82	-	-	-	-	-	-	-	-	-
3.8	0.31	0.89	-	2.26	1.86	0.95	0.42	0.45	-	0.20
4.3	0.22	-	-	-	-	-	-	-	-	-
4.8	0.14	0.30	-	0.75	0.61	0.32	0.11	0.10	-	-
5.3	-	-	-	-	-	-	-	-	-	-
5.8	-	0.07	-	0.26	0.19	0.07	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-
6.8	-	-	-	0.09	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	1.30	1.27	1.00	1.19	1.21	1.21	1.34	1.40	1.42	1.36
r ²	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00
Secchi Trans (/m)	1.43	1.31	0.84	1.26	1.22	1.22	1.56	1.56	1.31	1.56

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	10/29/84	11/12/84	11/12/84	11/12/84	11/12/84	11/12/84	11/26/84	11/26/84	11/26/84	11/26/84	11/26/84
Station	15	1	2	3	9	15	1	2	3	9	15
Time (AST)	1640	1030	1200	1240	1420	1610	1030	1130	1220	1330	1430
Irradiance (Microeinsteins per square centimeter per second)											
Sensor in Air	20.5	58	320	250	57	21.4	41.0	83	130	82	52
Depth (m)											
0.0	19.0	49	165	250	37	18	38.5	67	115	67	45
0.5	6.8	25	82	130	24	10.05	20.0	42	61	33	20.5
1.0	3.3	12	37	55	9.2	4.60	11.5	24.5	38	17	9.8
1.45	2.05	6.5	-	-	-	2.40	7.1	-	-	-	-
1.9	0.35	4.2	12.5	20	3.25	1.44	5.0	8.9	15	7.0	3.7
2.35	0.15	-	-	-	-	0.97	2.9	-	-	-	-
2.8	-	-	4.2	6.5	1.20	0.61	-	3.7	5.5	2.95	1.48
3.3	-	-	-	-	-	-	-	-	-	-	-
3.8	-	-	1.42	2.3	0.32	0.22	-	0.85	2.3	1.1	0.47
4.3	-	-	-	-	-	-	-	-	-	-	-
4.8	-	-	-	0.7	0.14	-	-	0.15	0.35	0.45	0.15
5.3	-	-	-	-	-	-	-	-	-	-	-
5.8	-	-	-	-	-	-	-	-	0.10	0.10	-
6.3	-	-	-	-	-	-	-	-	-	-	-
6.8	-	-	-	-	-	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	2.04	1.32	1.25	1.21	1.19	1.17	1.07	1.24	1.01	1.06	1.16
r ²	0.97	1.00	1.00	1.00	0.99	0.99	1.00	0.99	1.00	1.00	1.00
Secchi Trans (/m)	1.26	1.26	1.22	1.26	1.17	1.26	1.22	1.09	1.09	1.09	1.09

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE I.2
EKLUTNA LAKE SECCHI DISK MEASUREMENTS (FEET) (1983-84)

Date	Lake Sampling Station									
	2	3	5	7	8	9	10	11	13	15
5/14/83	-	-	4.7	-	-	4.9	-	-	-	-
6/02/83	3.2	-	3.0	2.9	-	3.7	3.7	3.7	3.6	3.5
7/06/83	2.2	2.9	2.3	2.1	-	2.1	-	1.9	2.0	-
8/03/83	1.8	-	-	1.9	-	-	-	1.9	-	-
9/07/83	3.0	-	-	3.1	-	2.7	-	2.7	-	2.4
10/05/83	2.8	-	2.7	2.9	2.6	2.7	-	2.6	-	2.6
11/01/83	3.1	-	3.0	3.0	-	3.1	-	3.0	-	3.1
12/06/83	-	-	-	-	-	-	-	-	-	3.6
4/20/84	-	-	-	-	-	-	-	6.3	-	7.5
5/17/84	-	-	6.7	-	-	6.4	-	-	-	7.0
6/06/84	7.5	-	9.0	-	-	8.0	-	8.5	-	8.5
6/21/84	3.6	3.8	-	-	-	6.0	-	-	-	4.5
7/05/84	1.95	2.0	-	-	-	1.9	-	-	-	1.6
7/19/84	1.3	1.3	-	-	-	1.2	-	-	-	1.3
8/03/84	1.7	2.0	-	-	-	1.8	-	-	-	1.5
8/16-20/84	1.4	1.4	1.1	1.1	1.5	1.5	1.6	1.4	1.4	1.4
9/03/84	1.5	1.6	-	-	-	1.4	-	-	-	1.4
9/17/84	1.5	1.5	-	-	-	1.7	-	-	-	1.6
10/01/84	2.2	2.3	-	-	-	2.3	-	-	-	-
10/15/84	2.6	2.5	-	-	-	2.7	-	-	-	2.7
10/29/84	2.1	2.1	-	-	-	2.1	-	-	-	2.6
11/12/84	2.7	2.6	-	-	-	2.8	-	-	-	2.6
11/26/84	3.0	3.0	-	-	-	3.0	-	-	-	3.0

APPENDIX J

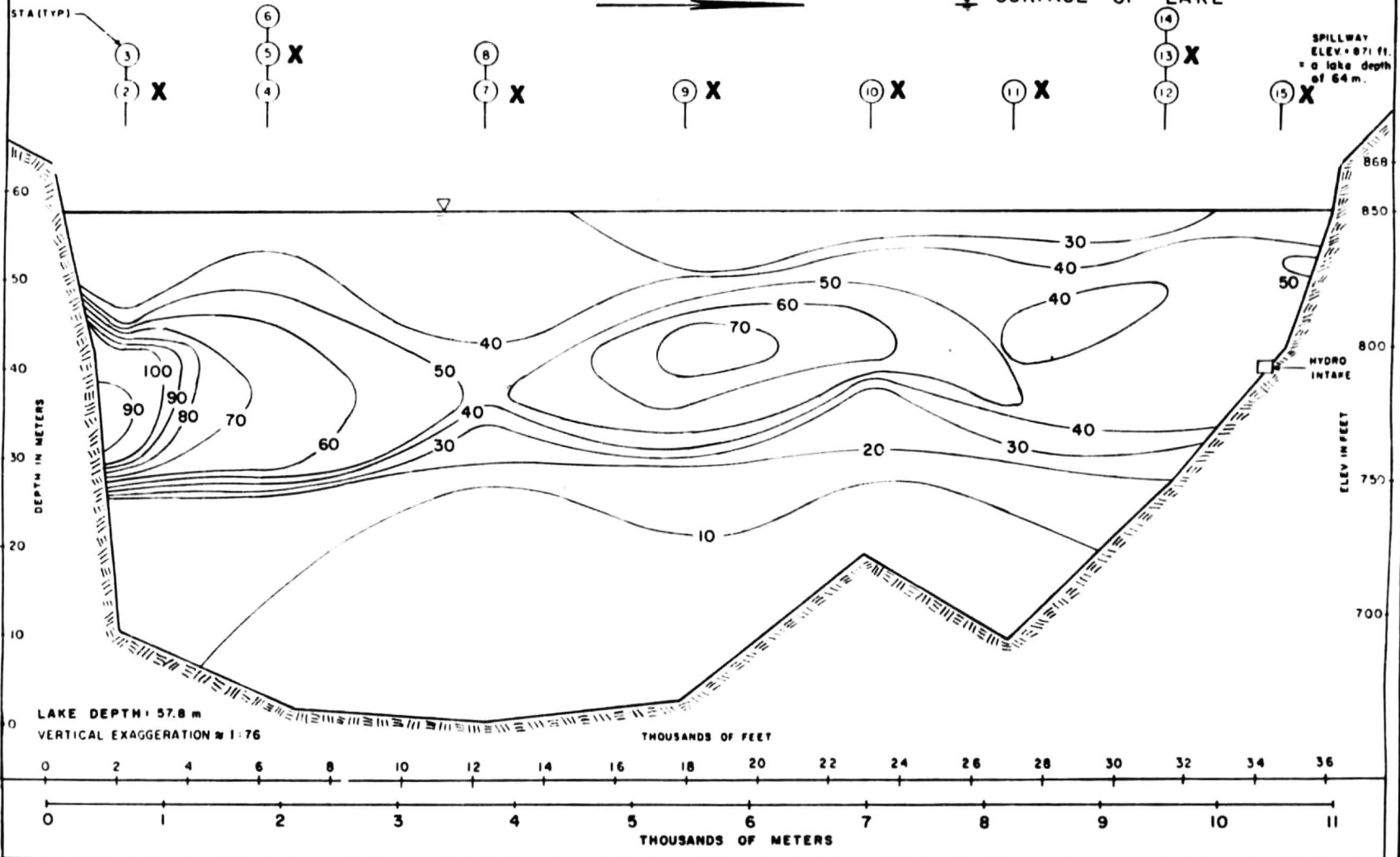
EKLUTNA LAKE TURBIDITY AND LIGHT
TRANSMISSION AUGUST 16-20, 1984

x STATION USED FOR THIS PROFILE

▽ SURFACE OF LAKE

SPILLWAY
ELEV. = 871 ft.
= a lake depth
of 64 m.

DIRECTION OF FLOW



PREPARED BY:

R&M
R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

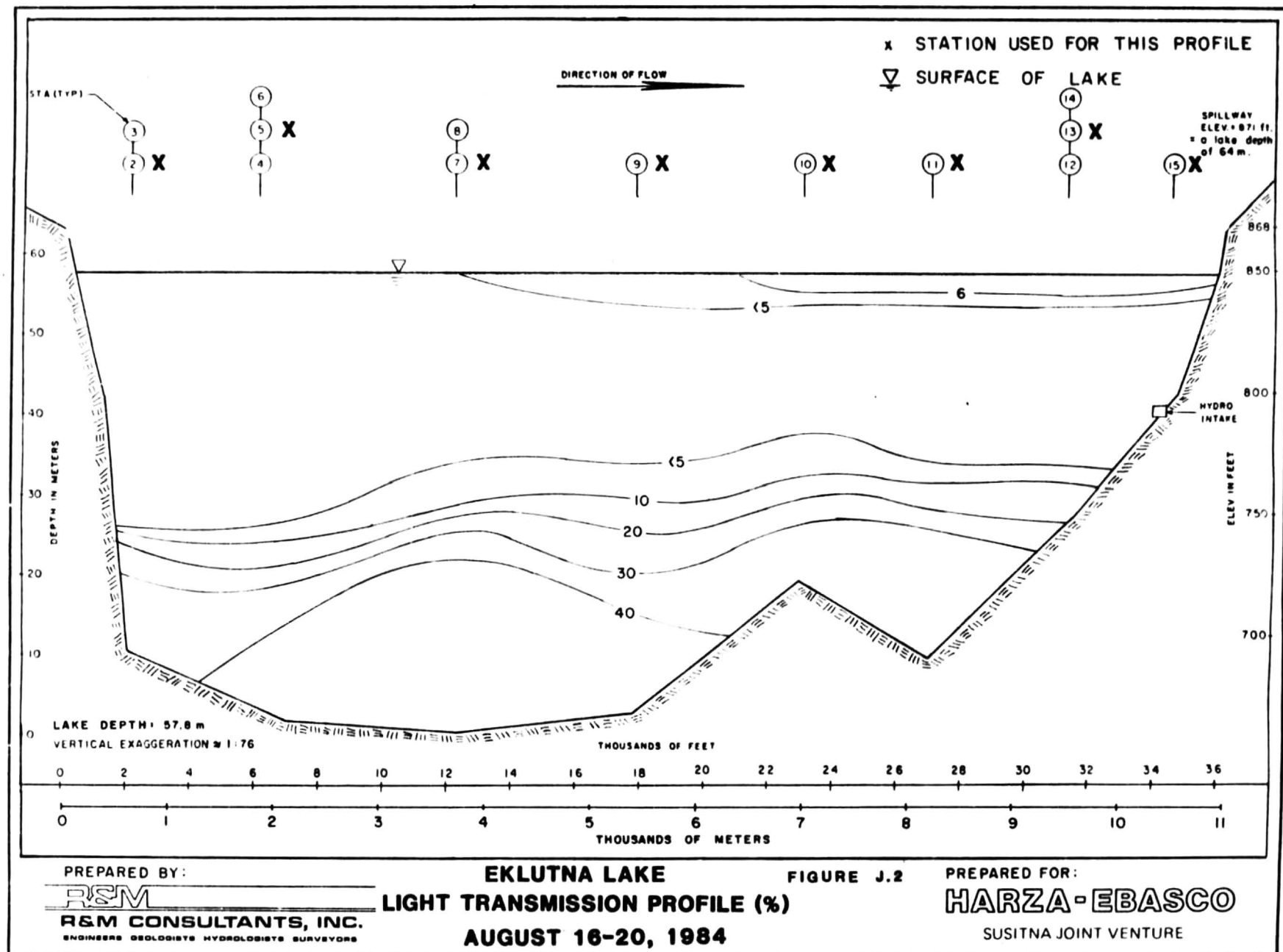
EKLUTNA LAKE
TURBIDITY PROFILE (NTU)
AUGUST 16-20, 1984

FIGURE J.1

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



APPENDIX K

MONTHLY SUMMARIES OF FIELD OBSERVATIONS

M14/56

TABLE K.1
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: March, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3	Q in (Mean Daily)	Q out (Mean Daily) 3 3	Q out (Mean Daily)	Stations		
<u>Sampled</u>	<u>(ft, msl)</u>	<u>(m)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
3/23	837.9	54.2			1261	516	2,5,9,15	Clear & calm.	

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
3/23	1315	5	20	4.0	N/A	N/A	N/A	N/A	3.2	3.7	Ice thickness= 16".
			40	3.9	N/A	N/A	N/A	N/A	6.1	2.7	
	1030	9	20	4.0	N/A	N/A	N/A	N/A	4.2	2.1	Ice thickness= 18".
			40	4.1	N/A	N/A	N/A	N/A	4.2	2.3	
	0920	15	5	4.1	N/A	N/A	N/A	N/A	3.1	2.8	Ice thickness= 18".

NOTE: N/A = Not Available.

TABLE K.2

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

M14/56

Month: April, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3	Q in (Mean Daily)	Q out (Mean Daily) 3 3	Q out (Mean Daily)	Stations		
<u>Sampled</u>	<u>(ft,msl)</u>	<u>(m)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
4/20/84	830.8	51.1m	120 (est.)	49 (est.)	1164	476	15 & 11	Overcast, light breeze	Ice Thickness= 13.5-14"

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
4/20	1110	15	1	3.0	N/A	7.5	0.66	6.2	2.1	1.3	Ice = 14' Secchi and quantum done through ice.
			5	3.4	131						
	1330	11	2	3.6	129	6.8	0.60	7.05	2.6	1.1	Ice = 13.5" secchi and quantum done through ice.
			24	3.3	N/A						

NOTE: N/A = Not Available.

M14/56

TABLE K.3
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: May, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather	Remarks
Sampled	(ft,msl)	(m)					Profiled		
5/17/84	826.1	50.6m	245 (est.)	100 (est.)	1102	450	5,9&15	Sunny, clear	

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
5/17/84	1415	5	4 20	5.1 4.2	127 127	6.7	0.38	9 m	2.5 2.1	1.0 2.0	Var. sun-shine during quantum.
	1050	9	4 20	6.3 4.7	130 130	6.4	0.43	9 m	3.8 3.5	1.7 2.0	
	1245	15	4	6.9	130	7.0	0.47	6.4 m	3.0	1.5	bottom - 6.4m

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
5/18	1200	EF	2.43	77	65	5.7	153	N/A	2.9	3.7	Gaging stations installed Q's from measurements
	1700	GF	2.00	16	N/A	7.4	77	N/A	38	48	
5/22	N/A	EF	2.48	73	73	5.6	140	N/A	3.2	2.2	
	N/A	GF	2.07	20	20	2.2	93	N/A	45	18.9	
	N/A	TR	N/A			6.7	129	N/A	4.2	2.5	
5/25	N/A	EF	2.49	74	74	4.4	N/A	N/A	N/A	2.3	
	N/A	GF	2.03	18	18	3.9	N/A	N/A	N/A	11	
	N/A	TR	N/A			6.1	N/A	N/A	N/A	2.4	
5/29	N/A	EF	2.47	71	71	2.0	132	N/A	2.7	0.8	
	N/A	GF	1.93	14	14	0.0	113	N/A	22	6.4	
	N/A	TR	N/A			7.2	148	N/A	3.7	1.6	

NOTE: Abbreviations used - N/A Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

M14/56

TABLE K.4
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: June, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily)	Q in (Mean Daily)	Q out (Mean Daily)	Q out (Mean Daily)	Stations		
<u>Sampled</u>	<u>(ft,msl)</u>	<u>(m)</u>	<u>3 3</u> <u>(10 m /day)</u>	<u>(cfs)</u>	<u>3 3</u> <u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
6/6/84	824.4	50.1	784	320	937	383	2,5,9,11, 15	100% overcast light rain, moderate wind from North.	Q in only for EF and GF
6/21/84	823.1	49.7	1634	668	1075	439	1,2,3,9, 15	Mostly clear, light wind from NW	Q includes EF, GF, and est. Q for 3 streams on the north shore.

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
6/6/84	N/A	2	0	11.1	140	7.5	N/A	N/A	3.3	2.0	
			13.5	6.6	140	-	-	-	4.4	N/A	
	N/A	5	0	10.7	141	9.0	N/A	N/A	2.1	1.3	
			9	8.1	145	-	-	-	4.3	3.1	
	N/A	7	0	10.0	141	8.0	N/A	N/A	2.1	1.9	
			13	7.5	141	-	-	-	2.3	N/A	
6/21/84	N/A	11	0	9.8	135	8.5	N/A	N/A	2.1	1.4	
			3	8.2	138	-	-	-	2.2	N/A	
	N/A	15	0	9.3	132	8.5	N/A	N/A	5.2	2.5	
	1725	1	11	8.0	120	3.2	1.76	2.8	71	134	
	1620	2	10	10.0	108	3.6	1.04	4.8	30	25	
			14	6.9	109	-	-	-	15	13	
			20	6.0	115	-	-	-	6.4	14	
	1510	3	2	13.9	104	3.8	1.33	3.7	7.2	4.8	
			7	12.4	107	-	-	-	14	10	
			12	8.7	112	-	-	-	28	24	
			20	5.6	N/A	-	-	-	6.2	8.1	
	1250	9	2	12.9	107	6.0	0.73	6.4	4.8	3.0	
			6	11.4	116	-	-	-	6.2	3.3	
			20	5.6	119	-	-	-	3.4	1.3	
		15	4	11.1	116	4.5	0.71	6.3	5.0	3.1	

TABLE K.4, cont.

Month: June, 1984

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
6/1	1200	EF	2.43	83	87	7.1	N/A	N/A	4.8	3.2	
	1100	GF	1.90	13	17	5.9	N/A	N/A	32	7.6	
	N/A	TR	N/A	N/A	375	7.8	N/A	N/A	4.3	0.9	
6/5	1128	EF	2.73	162	162	6.4	120	N/A	12	12	
	1025	GF	N/A	N/A	58	2.6	71	N/A	77	77	
	N/A	TR	N/A	N/A	345	N/A	128	N/A	4.0	1.5	
6/8	1245	EF	2.71	155	165	5.6	123	N/A	12	4.0	
	1220	GF	3.05	113	102	1.9	81	N/A	120	301	
	1444	TR	N/A	N/A	392	8.5	150	N/A	3.0	0.5	
6/12	1130	EF	2.80	187	187	5.1	110	1.5	2.4	12	
	1250	GF	3.08	118	118	1.9	64	0.4	120	128	
	N/A	TR	N/A	N/A	405	11.3	144	4.0+	4.6	2	
6/15	1255	EF	2.78	179	179	4.8	108	1.5	21	6	
	1335	GF	3.07	116	111	1.6	60	0.4	140	135	
	1547	TR	N/A	N/A	480	11.6	144	4.0+	5.6	2	
6/19	1050	EF	2.92	237	261	6.2	104	1.1	34	26	
	1130	GF	3.37	177	194	2.4	77	0.2	500	526	
	1410	TR	N/A	N/A	460	11.2	143	4.0	8	4.0	
6/22	1050	EF	2.97	261	304	5.9	91	0.5	78	77	
	1050	GF	3.66	256	256	2.3	59	0.3	180	154	
	1355	TR	N/A	N/A	430	12.8	149	3.3	8.0	2.4	
6/26	1045	EF	3.09	327	346	4.1	86	0.3	290	257	
	1130	GF	3.84	317	252	1.4	66	0.25	420	341	
	N/A	TR	N/A	0	0	-	-	-	-	-	Power plant shut down.
6/29	1000	EF	2.99	271	310	5.5	80	0.5	130	83	
	1025	GF	3.90	340	356	2.4	55	0.25	350	297	
	N/A	TR	N/A	N/A	184	N/A	N/A	N/A	N/A	N/A	No sample taken.

NOTE: Abbreviations used - N/A Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.5
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3	Q in (Mean Daily)	Q out (Mean Daily) 3 3	Q out (Mean Daily)	Stations		
<u>Sampled</u>	<u>(ft,msl)</u>	<u>(m)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
7/5/84	826.4	50.7	2,560	1,046	1,074	439	1,2,3,9,15	Clear to overcast, winds first out of WSW, then NNW	Qin does not include streams on the north shore
7/19/84	835.1	53.4	1,956	799	406	166	1,2,3,9,15	Overcast, some drizzle winds from calm to strong, from the NW.	Lake elevation is that given for 7/20 in the AP Admin monthly summary. Qin includes the two major streams draining the north shore.

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction	Turbidity (NTU)	TSS (mg/l)	Remarks
7/05/84	1730	1	20	9.6	111	2.5	1.96	2.5	128	202	
	1600	2	4.0	15.1	71	2.0	1.45	3.1	6.4	5.0	
	-	-	9.0	12.4	110	-	-	-	80	115	
	-	-	20	5.8	131	-	-	-	6.8	8.0	
	1445	3	2.0	15.0	145	2.0	1.43	3.1	6.6	6.0	
	-	-	8.0	11.3	75	-	-	-	22	13	
	-	-	16	8.0	116	-	-	-	18	22	
	-	-	24	5.4	126	-	-	-	3.5	5.0	
	1330	9	2.0	14.0	154	1.9	1.51	3.1	13	9.0	
	-	-	14	7.9	106	-	-	-	26	15	
	-	-	32	5.4	127	-	-	-	3.4	3.0	
	1220	15	4.0	11.9	153	1.6	1.59	2.8	14	8.0	
7/19/84	1515	1	2.0	14.2	128	1.2	2.18	2.0	26	3.0	
	-	-	6.0	7.0	112	-	-	-	64	29	
	1400	2	6.0	13.9	125	1.3	2.13	2.1	28	2.0	
	-	-	10	10.5	113	-	-	-	61	25	
	-	-	16	8.3	119	-	-	-	56	7.7	
	-	-	28	5.6	132	-	-	-	18	3.6	
	1300	3	2.0	14.0	128	1.3	1.99	2.2	26	2.1	
	-	-	8.0	11.6	125	-	-	-	58	4.9	
	-	-	16	8.3	116	-	-	-	58	12.4	
	-	-	28	5.3	125	-	-	-	16	5.0	

TABLE K.5, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT (Continued)

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction	Turbidity (NTU)	TSS (mg/l)	Remarks
7/19/84	1050	9	4.0	12.9	125	1.2	2.24	2.02	52	3.3	The light extinction measurements were run twice yielding different values.
	-	-	16.0	8.6	125	-	2.25	1.98	37	4.6	
	-	-	36.0	5.5	125	-	-	-	35	3.8	
	0950	15	4.0	11.8	125	1.3	2.43	1.89	56	4.4	

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/3/84	1045	EF	2.90	228	228	4.9	85	0.5	88	48	Gage height from staff near the right edge of water
	1120	GF	3.94	356	356	1.4	34	0.2	580	514	
	N/A	TR	1.84	N/A	434	11.9	144	1.8	18	6.0	
7/6/84	0920	EF	3.26	444	519	6.4	N/A	0.2	140	156	Temp at 1110 AST Secchi from LB d/s of bridge
	1610	GF	4.54	674	597	1.6	N/A	0.2	430	568	
	2014	TR	1.90	N/A	355	12.2	N/A	1.8	17	4.7	
7/10/84	1119	EF	3.27	452	460	6.0	78	0.5	88	72.5	Temp, turb, TSS, Cond & Secchi from LB 10m d/s of bridge
	1226	GF	4.46	622	603	N/A	55	0.2	500	572	
	1518	TR	1.73	N/A	156	N/A	142	1.4	22	9.0	
7/13/84	1056	EF	3.11	340	359	5.0	75	0.5	64	53	T=Tryan + 0.5°C
	1207	GF	4.23	490	480	N/A	49	0.2	430	417	
	1425	TR	1.19	N/A	160	N/A	143	1.1	28	18	
7/17/84	0953	EF	3.06	310	321	4.6	76	0.5	66	50	
	1050	GF	4.07	412	417	0.9	44	0.3	220	248	
	1319	TR	0.91	N/A	156	10.0	134	1.3	31	9.0	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.5, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

3. INFLOW/OUTFLOW DATA (Continued)

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/20/84	1600	EF	3.08	321	304	6.1	75	0.8	98	45	
	1640	GF	4.16	455	431	0.8	35	0.4	216	264	
	1800	EF	3.09	327		5.6	74	0.7	110	61	
	1830	GF	4.10	426		1.6	34	0.4	224	246	
	2000	EF	3.09	327		5.6	73	0.7	110	64	
	2030	GF	4.15	450		1.6	34	0.4	232	216	
	2200	EF	3.08	321		5.6	73	0.6	108	50	
	2230	GF	4.11	431		1.6	38	0.4	224	216	
	2400	EF	3.07	316		5.0	74	N/A	108	50	
7/21/84	0030	GF	4.11	431	511	1.6	38	N/A	230	226	
	0200	EF	3.06	310	372	5.0	74	N/A	105	45	
	0230	GF	4.10	426		1.6	38	N/A	250	213	
	0400	EF	3.06	310		4.4	78	0.7	107	42	
	0430	GF	4.11	431		1.6	38	0.4	240	259	
	0545	EF	3.06	310		4.4	78	0.7	83	38	
	0610	GF	4.12	436		1.6	41	0.4	210	263	
	0830	EF	3.05	304		5.3	82	0.8	66	46	
	0900	GF	4.14	445		1.4	37	0.3	250	247	
	1030	EF	3.07	316		6.4	71	0.7	73	45	
	1100	GF	4.21	480		1.9	39	0.3	260	293	
	1230	EF	3.12	346		8.3	69	0.5	102	73	
	1300	GF	4.32	539		2.5	32	0.3	250	271	
	1430	EF	3.16	372		8.9	69	0.5	124	102	
	1500	GF	4.35	556		2.5	30	0.3	260	313	
	1630	EF	3.21	407		8.9	61	0.4	160	188	
	1700	GF	4.39	579		1.6	27	0.3	310	493	
	2000	TR	0.72	N/A	144	11.9	135	1.2	31	6.1	
7/24/84	1010	EF	3.20	400	444	5.8	62	N/A	196	132	
	1120	GF	4.39	579	591	1.8	34	0.3	370	228	
	1440	TR	1.49	N/A	164	11.7	130	1.4	36	6.8	
7/27/84	1010	EF	3.11	340	379	5.6	67	0.5	44	53	All cond & turb values for these dates are from Chem/Geo.
	1050	GF	4.31	533	533	1.7	36	0.3	144	297	
	1320	TR	1.21	N/A	144	11.4	130	1.4	20	36	
7/31/84	1025	EF	3.16	372	400	6.1	56	0.6	50	58	
	1105	GF	4.33	545	550	1.7	34	0.2	146	373	
	1410	TR	1.41	N/A	147	11.4	120	1.4	18	3.3	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.
Chem/Geo = Chemicals & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank

TABLE K.6
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation (ft,msl)	Lake Depth (m)	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather
8/3	840.6	55.0	3040	1243	329	134	1,2,3,9,15	Overcast. Calm in the morning, strong-wind out the W in the afternoon, abating in the evening.
8/16- 8/20	845.2- 849.8	56.4- 57.9	2790-4360 Qm=3575	1140-1782 Qm = 1461	340-347 Qm=345	139-142 Qm=141	1-15	8/16. Mostly sunny with a light wind from the east. Waves approx. 0.2ft. 8/17. Mostly cloudy to overcast. Light to strong wind moving from SSE early to WNW in the afternoon, to NNW in the evening. NW later. 8/18. Overcast. Strong wind first from NNW, then shifting at 1050 to blow from SSE. Waves 1-2 ft. 8/19. Light rain in the morning, ending after noon. Winds from NNW calm early building in the afternoon raising the wave height from 0.1 to 1 ft. 8/20. Mostly cloudy. Wind shifted from SSE in the morning to NW after noon.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/03	1130	1	1.0	15.0	137	1.9	2.75	1.9	9.5	3.7	
			3.0	9.0	116				29	41	
			4.0	14.5	133				9.8	2.6	
	1300	2	8.0	11.1	125	1.7	1.78	2.7	20	14	
			16	10.2	106				48	66	
			32	6.0	138				5.6	11	
			2.0	15.7	135				11	2.4	
			8.0	11.1	121				22	22	
	1500	3	16	9.5	103	2.0	1.85	2.5	43	56	
			28	6.3	132				8.7	9.5	
			6.0	11.7	120				22	8.0	
	1700	9				1.8	2.05	2.1			

TABLE K.6, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August 1984

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/03	2100	15	28	6.4	136	1.5	2.47	1.8	7.4	3.5	
			4.0	11.9	131				13	2.3	
8/16	1740	15	6.0	11.1	105	1.4	2.58	1.8	46	11	
8/17	0910	14	2.0	13.8	137	1.3	2.28	2.1	38	4.2	
			10	9.7	139				47	8.7	
			20	8.4	126				58	11	
	1150	13	2.0	14.2	118	1.4	2.29	1.8	30	4.2	
			12	9.4	130				44	5.5	
			28	7.2	127				25	6.4	
	1330	12	2.0	13.6	133	1.3	N/A	N/A	32	3.9	
			16	8.6	109				47	4.4	
	1600	11	6.0	11.7	126	1.4	2.11	2.1	42	13	
			16	9.2	113				35	3.9	
			36	5.6	130				9.0	1.2	
	1900	10	30	6.1	122	1.6	2.17	2.0	10.2	2.0	
8/18	0910	9	6.0	10.2	129	1.5	2.34	1.9	30	5.9	
			16	8.7	116				75	31	
			44	5.4	136				5.5	1.1	
8/19	1250	8	6.0	11.0	128	1.5	N/A	N/A	56	26	
			24	7.9	125				56	27	
			44	5.4	147				4.7	1.9	
	1000	7	6.0	11.5	131	1.1	N/A	N/A	35	3.9	
			20	8.7	132				48	21	
			40	5.4	149				5.3	2.3	
	1500	6	2.0	10.6	131	1.0	N/A	N/A	48	23	
			20	9.2	120				70	35	
			44	6.4	143				25	21	
	1750	5	4.0	11.5	130	1.1	N/A	N/A	40	13	
			24	8.7	121				65	30	
			44	5.8	154				10.5	4.0	
8/20	1020	4	8.0	12.1	133	1.6	N/A	N/A	37	7.8	
			24	8.0	136				50	28	
			44	5.4	160				8.5	3.0	
	1240	3	6	12.2	121	1.4	N/A	N/A	40	6.8	
			20	8.4	113				72	40	
			30	6.0	148				11.5	10	
	1430	2	2	12.8	132	1.4	N/A	N/A	36	8.0	
			16	9.4	109				115	61	
			36	5.8	140				12.5	11	
	1630	1	1	12.8	134	1.5	N/A	N/A	36	9.4	
			6	12.8	136				35	4.0	
			12	12.0	127				100	47	

TABLE K.6, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA

MONTH: August, 1984

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/3	1134	EF	N/A	N/A	476	7.0	N/A	N/A	70	126	Mean Daily Q is estimated for EF
	1237	GF	4.61	722	687	2.7	N/A	N/A	130	380	
	1520	TR	1.57	N/A	134	11.5	N/A	N/A	16	4.2	
8/7	1030	EF	3.36	527	483	6.5	50	0.3	85	143	Mean daily Q estimated for EF
	1300	GF	4.74	818	772	2.7	20	0.2	156	470	
	1530	TR	1.80	N/A	146	11.4	121	1.3	20	5.1	
8/10	1121	EF	3.28	460	493	5.1	N/A	0.6	55	75	
	1210	GF	4.55	680	694	1.4	N/A	0.2	140	370	
	1410	TR	1.67	N/A	143	10.8	N/A	1.4	19	3.2	
8/14	1015	EF	3.10	333	365	4.7	65	0.6	76	44	
	1100	GF	4.29	522	562	1.6	27	0.3	196	262	
	1200	EF	3.13	352		6.2	61	0.6	84	89	
	1230	GF	4.41	591		1.9	24	0.2	220	217	
	1400	EF	3.17	379		7.5	60	0.6	104	56	
	1500	GF	4.45	616		1.7	24	0.2	228	349	
	1600	EF	3.20	400		7.5	57	0.6	96	82	
	1700	GF	4.49	641		1.4	21	0.4	220	336	
	1800	EF	3.24	429		6.8	55	0.5	132	123	
	1900	GF	4.45	616		1.3	19	0.3	204	290	
	1930	EF	3.25	436		5.9	58	0.4	120	110	
	2015	GF	4.46	622		1.2	21	0.4	180	235	
	2300	EF	3.24	429		4.5	64	N/A	116	N/A	
	2330	GF	4.35	556		1.1	26	N/A	188	N/A	
	2400	EF	3.22	414		4.4	61	N/A	108	78	
8/15	0030	GF	4.34	550	562	1.0	26	N/A	160	215	Staff gage removed from TR.
	0200	EF	3.18	385	392	4.1	64	N/A	120	96	
	0230	GF	4.28	517		1.0	31	N/A	180	228	
	0430	EF	3.16	372		4.0	61	N/A	96	66	
	0500	GF	4.26	506		0.9	N/A	N/A	180	244	
	0600	EF	3.14	359		3.9	64	0.5	80	51	
	0630	GF	4.22	485		1.0	31	0.3	188	226	
	0800	EF	3.12	346		3.9	64	0.5	88	48	
	0830	GF	4.20	475		1.0	26	0.3	192	216	
	1000	EF	3.12	346		4.6	72	0.6	66	51	
	1030	GF	4.22	485		1.3	42	0.2	196	225	
	1200	EF	3.14	359		6.5	113	0.6	72	48	
	1230	GF	4.38	573		1.8	89	0.2	180	331	
	N/A	TR	N/A	N/A	146	10.0	N/A	1.1	26	3.0	
8/17	1130	EF	N/A	N/A	421	5.8	N/A	N/A	100	64	
	1215	GF	4.47	628	609	1.5	N/A	N/A	205	247	
	1440	TR	N/A	N/A	143	9.5	N/A	N/A	38	26	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.6, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August, 1984

3. INFLOW/OUTFLOW DATA (Continued)

<u>Date</u>	<u>Time AST</u>	<u>Site</u>	<u>Gage Height (ft)</u>	<u>Instant. Q (cfs)</u>	<u>Mean Daily Q (cfs)</u>	<u>Water Temp. (°C)</u>	<u>Conductivity @ 25°C(umho/cm)</u>	<u>Secchi Disk (ft)</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)</u>	<u>Remarks</u>
8/21	1035	EF	3.12	346	392	4.8	N/A	0.7	110	91	
	1111	GF	4.41	591	597	1.5	N/A	0.3	370	429	
	1307	TR	N/A	N/A	143	11.4	N/A	1.4	46	19	
8/24	1110	EF	3.06	310	519	5.0	N/A	1.0	53	76	
	1200	GF	4.55	680	707	2.0	N/A	0.5	170	270	
	1410	TR	N/A	N/A	139	10.5	N/A	1.1	12	15	
8/28	1030	EF	2.86	211	219	3.7	N/A	0.9	27	18	Q Inst. From discharge measurements on EF & GF
	1300	GF	4.01	386	381	1.4	N/A	0.2	220	280	
	1930	TR	N/A	N/A	146	10.3	N/A	1.3	26	5.0	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.
 Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank

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TABLE K.7
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: September, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3	Q in (Mean Daily)	Q out (Mean Daily) 3 3	Q out (Mean Daily)	Stations
Sampled	(ft, msl)	(m)	(10 m /day)	(cfs)	(10 m /day)	(cfs)	Profiled Weather
9/3	858.4	60.5	947	387	350	143	1,2,3,9,15 Clear, calm.
9/17	860.2	61.0	819	335	390	159	1,2,3,9,15 Overcast, calm.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
9/03	1620	1	6.0	10.5	129	1.6	N/A	N/A	55	2.6	
			12	9.6	122				35	13	
			24	7.6	126				33	12	
	1510	2	4.0	10.6	125	1.5	N/A	N/A	23	6.1	
			24	7.7	112				35	15	
			40	6.0	127				13.2	4.7	
	1730	3	0.0	12.5	138	1.6	N/A	N/A	22	4.2	
			20	8.2	126				16.0	8.5	
			44	5.5	155				7.6	3.4	
	1100	9	4.0	10.5	114	1.4	N/A	N/A	22	3.2	
			20	8.3	114				50	21	
			44	5.8	139				13.1	1.9	
9/17	1730	1	4.0	10.1	113	1.4	N/A	N/A	25	3.4	
	1630	2	1.0	9.0	138	1.4	2.24	2.1	14.5	7.1	
			2	10.4	130				16.0	3.4	
			10	9.8	124				17.5	3.2	
	1500	3	20	8.1	129	1.5	1.60	2.9	25	8.1	
			40	6.1	148				10.5	2.9	
			1	10.4	127				15.5	3.1	
			10	10.0	121				17.0	1.9	
			28	6.7	135				17.8	3.1	
			40	5.9	144				9.5	3.0	
	1245	9	6.0	10.1	126	1.7	1.64	2.79	23	2.0	
			20	8.2	122				29	3.6	
			56	5.2	151				18	2.0	
	1000	15	6.0	10.0	121	1.6	1.54	2.97	30	1.6	

TABLE K.7, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA

MONTH: September, 1984

<u>Date</u>	<u>Time AST</u>	<u>Site</u>	<u>Gage Height (ft)</u>	<u>Instant. Q (cfs)</u>	<u>Mean Daily Q (cfs)</u>	<u>Water Temp. (°C)</u>	<u>Conductivity @ 25°C(umho/cm)</u>	<u>Secchi Disk (ft)</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)</u>	<u>Remarks</u>
9/1	1100	EF	2.65	137	140	4.2	104	1.4	7.0	7.4	
	1145	GF	3.41	186	194	1.1	40	0.4	120	203	
	1500	TR	N/A	N/A	147	9.1	92	1.1	36	11	
9/4	1315	EF	2.61	96	102	5.5	105	1.4	9.0	4.6	
	1420	GF	3.30	161	161	1.4	29	0.5	85	87	
	2055	TR	N/A	N/A	149	9.5	102	1.1	32	2.8	
9/6	1030	EF	2.59	120	131	3.9	104	1.4	10.5	5.4	
	1115	GF	3.19	138	146	1.5	46	0.6	95	107	
	1330	TR	N/A	N/A	141	9.5	116	1.4	25	9.3	
9/11	1010	EF	2.58	117	125	3.8	104	1.4	10.6	0.8	
	1050	GF	3.02	108	123	1.1°C	43	0.5	90	102	
	1314	TR	N/A	N/A	161	9.1	111	1.4	24	4.4	
9/14	1023	EF	2.69	149	187	4.7	104	1.4	17.5	16	
	1106	GF	3.29	159	199	1.1	35	0.4	57	183	
	1310	TR	N/A	N/A	141	9.9	116	1.7	19.7	4.5	
9/18	1030	EF	2.56	112	112	4.5	112	1.4	11.5	4.4	
	1117	GF	3.13	127	129	1.4	48	0.5	127	126	
	1300	TR	N/A	N/A	159	9.1	113	1.6	24	5.6	
9/21	1045	EF	2.47	92	92	2.7	108	1.4	2.9	3.8	GH & Mean Daily Q est for EF.
	1120	GF	2.82	79	79	0.7	70	0.5	100	72	
	1310	TR	N/A	N/A	169	8.9	98	1.6	13.4	5.2	
9/25	1100	EF	2.42	81	83	4.6	131	1.4	2.2	1.7	GH & Mean Daily Q est for EF
	1130	GF	2.70	65	69	1.6	54	0.8	49	45	
	1345	TR	N/A	N/A	168	8.9	129	1.7	13.3	2.5	
9/28	1115	EF	2.40	78	83	4.3	N/A	1.3	1.95	1.1	
	1145	GF	2.61	56	62	1.3	52	N/A	31	36	
	1310	TR	N/A	N/A	150	8.1	112	2.0	12.0	5.0	

NOTE: Abbreviations used: N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.
 Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank.

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TABLE K.8
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: October, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather	
Sampled	(ft,msl)	(m)					Profiled		
10/01	861.9	61.5	1350	552	459	187	1,2,3,9,15	Calm in a.m. Wind picking up to 18 mph in p.m. intermittent rain.	Light extinction measurement and turbidity profile were not run at Sta. 15 because of darkness.
10/15	862.7	61.8	349	143	401	164	1,2,3,9,15	Cloudy, cold mostly calm.	Turbidity profile not run; pump not functioning.
10/29	862.4	61.7	216	88	912	373	1,2,3,9,15	Clear, calm, cold.	Turbidity profile was not run because of a pump malfunction.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/01	1130	1	2.0	4.0	132	0.6	13.1	0.3	220	95	
	1330	2	4.0	8.7	131	2.2	1.30	3.4	13.0	3.7	
			20	8.2	132				18.2	1.1	
			46	6.3	147				18	4.8	
	1515	3	4.0	8.8	125	2.3	1.24	3.5	12	1.6	
			16	8.4	123				16	3.1	
			28	7.4	131				16	1.7	
	1730	9	4.0	8.8	135	2.3	1.30	3.4	19	2.9	
			24	7.6	143				15	2.0	
			48	5.7	157				26	14	
			56	6.3	154				75	39	
	1930	15	4.0	8.8	143	N/A	N/A	N/A	11.3	4.6	Too dark for light extinction and secchi measurements.
10/15	1130	1	1.0	1.3	161	3.9	1.00	4.6	6.5	0.86	
	1210	2	4.0	7.3	129	2.6	1.19	3.6	11.2	1.5	
			12	7.3	118				11.2	0.22	
			24	7.2	122				11.2	0.46	
			44	6.2	134				17.8	3.9	

TABLE K.8, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: October, 1984

2. LAKE DATA SUMMARY (continued)

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/15	0940	3	1.0	7.3	121	2.5	1.27	3.6	11.6	0.96	
			6.0	7.3	94				11.8	0.41	
			16	7.3	111				12.6	0.27	
			36	6.3	134				17.2	4.0	
	1420	9	2	7.4	120	2.7	1.21	3.7	11.4	2.6	
			10	7.4	119				11.7	1.5	
			20	7.4	120				12.4	2.0	
			40	6.3	130				18.4	5.9	
			56	5.8	132				21	8.3	
	1550	15	2	7.2	122	2.7	1.21	3.8	10.6	0.33	
			12	7.2	121				11.1	1.8	
10/29	1400	1	1	4.7	123	2.5	1.42	3.2	8.4	5.1	Conductivity measurements for 10/29 performed in the labora- tory.
	1300	2	4	6.0	120	2.1	1.40	3.0	11.0	6.4	
			12	5.9	96				10.9	6.5	
			28	5.9	101				11.3	6.0	
			40	5.9	107				11.2	5.4	
	1100	3	4	5.8	129	2.1	1.34	3.2	11.0	4.3	
			16	5.8	102				11.0	5.7	
			32	5.7	112				10.8	5.5	
			44	5.6	117				10.9	5.7	
	1600	9	6	5.8	127	2.1	1.36	3.3	11.3	6.6	
			20	5.9	110				11.5	4.6	
			36	5.9	111				11.0	5.3	
			56	5.9	114				11.2	6.1	
	1700	15	2	5.2	128	2.6	2.04	2.3	10.2	5.4	
			12	5.3	120				11.0	6.7	

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/2	1330	EF	2.75	168	183	4.9	106	1.3	30	35	Secchi at EF indicates clear view to bottom at a deep scour area d/s of gage. Q inst at EF is from a discharge measurement.
	1430	GF	3.23	146	144	1.7	77	0.3	338	190	
	1630	TR			177	8.9	115	2.3	10.5	3.2	
10/5	1000	EF	2.57	129	120	3.5	125	3.0	7.4	7.9	
	1200	GF	2.86	85	85	1.7	90	0.3	160	107	
	1620	TR			190	9	119	1.8	12.0	3.5	

" " indicates that the secchi disc was visible to the bottom.

TABLE K.8, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA (Continued)

MONTH: October, 1984

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C(umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/9	1215	EF	2.54	107	103	3.3	130	➤3.0	3.2	3.3	
	1300	GF	2.59	54	54	1.3	85	0.5	95	78	
	1450	TR			155	8.0	115	2.1	15.5	6.0	
10/12	1250	EF	2.44	85	85	2.9	128	➤3.0	2.1	1.1	Q inst at GF is from a discharge measurement.
	1030	GF	2.42	40	38	0.5	89	0.7	63	41	
	1530	TR			155	8.0	105	2.1	8.6	2.4	
10/16	1030	EF	2.37	72	71	1.3	142	➤3.0	1.6	0.15	Stillling well frozen at GF from this date on Q estimated for GF.
	1115	GF	N/A	28	28	0.3	84	0.9	54	16	
	1400	TR			159	7.4	117	2.7	11.4	0.56	
10/19	1130	EF	2.33	66	66	2.2	142	➤3.0	1.1	2.1	
	1200	GF	N/A	25	24	0.0	85	0.4	50	40	
	1400	TR			209	7.1	111	2.6	10.5	6.9	
10/23	1130	EF	2.38	74	74	2.2	145	➤3.0	1.6	1.1	Q inst at GF is from a discharge measurement Q MD for GF is estimated.
	1330	GF	N/A	25	28	0.7	95	1.0	45	30	
	0900	TR			309	6.9	113	2.7	11.3	4.4	
10/26	1030	EF	2.26	55	55	N/A	152	➤3.0	0.9	1.8	Q inst at EF is from a discharge measurement. QMD and Q inst estimated for GF.
	1250	GF	N/A	24	25	0.0	102	1.0	50	23	
	1440	TR			349	6.2	123	2.3	11.5	3.4	
10/30	1217	EF	2.18	45	45	1.7	151	➤3.0	1.3	4.1	GH estimated for EF, water surface is below orifice in stilling well. Q inst & QMD estimated for GF.
	1317	GF	N/A	20	20	0.0	109	1.0	47	14	
	1440	TR			356	5.7	128	2.3	12.2	4.0	

" " indicates that the secchi disc was visible to the bottom.

M14/87

TABLE K.9
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: November, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3	Q in (Mean Daily)	Q out (Mean Daily) 3 3	Q out (Mean Daily)	Stations	Weather
Sampled	(ft,msl)	(m)	(10 m /day)	(cfs)	(10 m /day)	(cfs)	Profiled	
11/12	859.6	61.0	159*	65*	868	355	1,2,3,9,15	-10°F, foggy calm.
11/26	859.0	60.8	159*	65*	783	320	1,2,3,9,15	5°F, clear light breeze variable.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/12	1000	1	1	3.8	117	2.6	1.32	3.5	11.0	4.2	Cond from field YSI
	1130	2	4 16 28 40	4.6 4.6 4.6 4.6	112 126 126 127	2.7	1.25	3.6	11.3 11.0 10.0 9.4	3.4 3.3 N/A 3.1	
	1300	3	4 16 28 40	4.4 4.5 4.4 4.3	110 115 117 116	2.6	1.21	3.7	8.4 9.6 9.6 9.7	2.5 5.4 N/A 2.4	
	1500	9	4 16 32 48	4.6 4.6 4.6 4.6	133 121 124 126	2.8	1.19	3.8	10.6 10.8 11.0 9.8	3.3 3.2 N/A 3.0	
	1630	15	1 12	3.8 3.9	141 128	2.6	1.17	3.8	10.8 10.4	2.4 N/A	
11/26	0930	1	1	2.6	122	2.7	1.07	4.23	9.0	3.3	
	1120	2	4 12 40	3.6 3.7 3.7	117 113 114	3.0	1.24	3.9	8.8 9.6 8.6	3.0 3.4 3.3	
	1220	3	4 20 40	3.0 3.2 3.4	120 117 117	3.0	1.01	4.5	8.2 7.9 8.4	3.8 3.6 3.4	

* Estimate

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.9, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

2. LAKE DATA SUMMARY

Month: November, 1984

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/26	1330	9	2	2.2	127	3.0	1.06	4.2	8.8	3.2	
			16	3.6	125				9.2	3.9	
			32	3.6	125				9.0	5.0	
			52	3.6	127				8.2	4.0	
	1440	15	10	3.3	130	3.0	1.16	3.8	9.2	4.7	

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/2	1315	EF	2.11	37	37*	0.9	149	> 3	0.8	0.61	EF GH from levels.
	1230	GF	N/A	18*	18*	0.0	N/A	1.0*	N/A	N/A	GF has ice dam d/s of gage and water over, inbetween, and below ice.
	1550	TR			355	5.5	122	2.4	10.2	7.6	
11/6	1300	EF	2.17	44	44*	2.1	142	> 3	0.74	0.38	EF GH from levels.
	1230	GF	N/A	15*	15*	0.0	102	1.0	41	27	
	1450	TR			332	5.4	113	2.5	9.8	5.3	
11/9	1220	EF	N/A	35*	35*	0.1	146	> 3	0.85	0.30	
	1130	GF	N/A	N/A	10*	0.0	103	1.0	40	19	
	1400	TR			343	5.0	139	2.8	10.2	3.2	
11/13	1330	EF	N/A	27*	25*	-0.1	168	> 3	0.98	1.7	Ice damming, anchor ice, Shelf ice at EF.
	1430	GF	N/A	N/A	10*	-0.2	114	1.0*	36	24	
	1550	TR			355	4.3	128	2.6	8.5	7.5	
11/16	1200	EF	N/A	27*	25*	1.0	156	> 3	0.85	0.60	
	1230	GF	N/A	N/A	10*	-0.1	112	1.0	35	17	
	1340	TR			362	4.0	125	2.7	9.5	4.2	
11/23	1500	TR			292	3.8	127	2.6	6.6	2.3	
11/30	1400	TR			357	N/A	129	2.6	6.7	2.2	

* Estimate

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

APPENDIX L

OUTFLOW WATER QUALITY DATA - POWERPLANT TAILRACE

TABLE L.1

SUMMARY OF TAILRACE WATER QUALITY DATA

NOTE FOR DRAFT: Table L.1 is included for July 1984 only.

Tables for other months (May, June, and August-
November 1984) will be included in the final
report.

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

C. INFLOW/OUTFLOW DATA (Tailrace)
MONTH: July 1984

<u>Date</u>	<u>Time AST</u>	<u>Gage Height (ft)</u>	<u>Mean Daily Q (cfs)</u>	<u>Water Temp. (°C)</u>	<u>Conductivity @25°C (Umho/cm)</u>	<u>Secchi Disk (ft)</u>	<u>Instant Q (cfs)</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)</u>	<u>Remarks</u>
7/3/84	N/A	1.84	435	11.9	144	1.8	N/A	18	6.0	Gage height from staff near the right edge of water
7/6/84	2014	1.90	335	12.2	N/A	1.8	N/A	17	9.0	
7/10/84	1518	1.73	106	N/A	142	1.4	N/A	22	9.0	
7/13/84	1425	1.19	160	N/A	143	1.1	N/A	28	18	
7/17/84	1319	0.91	106	10.0	134	1.3	N/A	31	9.0	
7/21/84	2000	0.72	144	11.9	162	1.2	N/A	31	6.1	
7/24/84	1440	1.49	164	11.7	130	1.4	N/A	29	6.8	
7/27/84	1320	1.21	144	11.4	130	1.4	N/A	16	36	
7/31/84	1410	1.41	147	11.4	120	1.4	N/A	14	3.3	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

APPENDIX M

DATA FROM EKLUTNA WATER PROJECT

TABLE M.1
RAW WATER ANALYSES DURING PILOT STUDY¹

Parameter	JMM	ChemLab
Physical		
Turbidity (NTU)	7.5-68	—
Temperature (°F)	39-56	—
pH	7.7-8.2	—
Color Units	3-10 ²	10-25 ³
Taste Threshold (No Units)	—	1-2
Odor Threshold (No Units)	—	1-2
General Mineral		
Ca	18.2-20.5	17-23
K	0.3-0.6	0.5-2
Mg	2.9-3.4	2.7-3.4
Na	2.4-2.9	1.0-2.3
HCO ₃	55.9-66.0	—
CO ₃	0.07-0.5	—
Cl	0.1-0.3	<1.0
SO ₄	9.5-16.3	5-14
F	<0.1	—
NO ₃	<0.4	—
Alkalinity as CaCO ₃	46-55	48-64
Hardness as CaCO ₃	58-65	54-71
TDS	70-86	60-74
Conductivity (micromhos/cm)	129-145	100-130
Fe	0.17-0.84	—
Mn	<0.03	—
Cu	<0.012	—
Zn	0.02-0.12	—
Silica	3.1-4.4	—
MBAS	<0.04	—
Asbestos (million fibers/liter)	<0.5	—
Trace Metals		
Ag	<0.005	—
As	<0.001	—
Ba	<0.04	—
Cd	<0.003	—
Cr	<0.029	—
Hg	<0.0003	—
Pb	<0.002	—
Se	<0.009	—
Organics		
TOC	0.17-0.61	—
TPTHM ⁴	0.016-0.018	—
Endrin	<0.0001	—
Lindane	<0.0001	—
Methoxychlor	<0.0001	—
Toxaphene	<0.0005	—
2,4-D	<0.0001	—
2,4,5-TP Silvex	<0.0001	—
Radionuclides		
Gross Alpha (pCi/l)	0.0-0.3 (+0.1-0.6)	—
Gross Beta (pCi/l)	0.3-1.5 (+0.4-1.0)	—
Microbiology		
Total Plate Count (per 100 ml)	—	30-2,500
Total Coliforms (per 100 ml)	—	<2

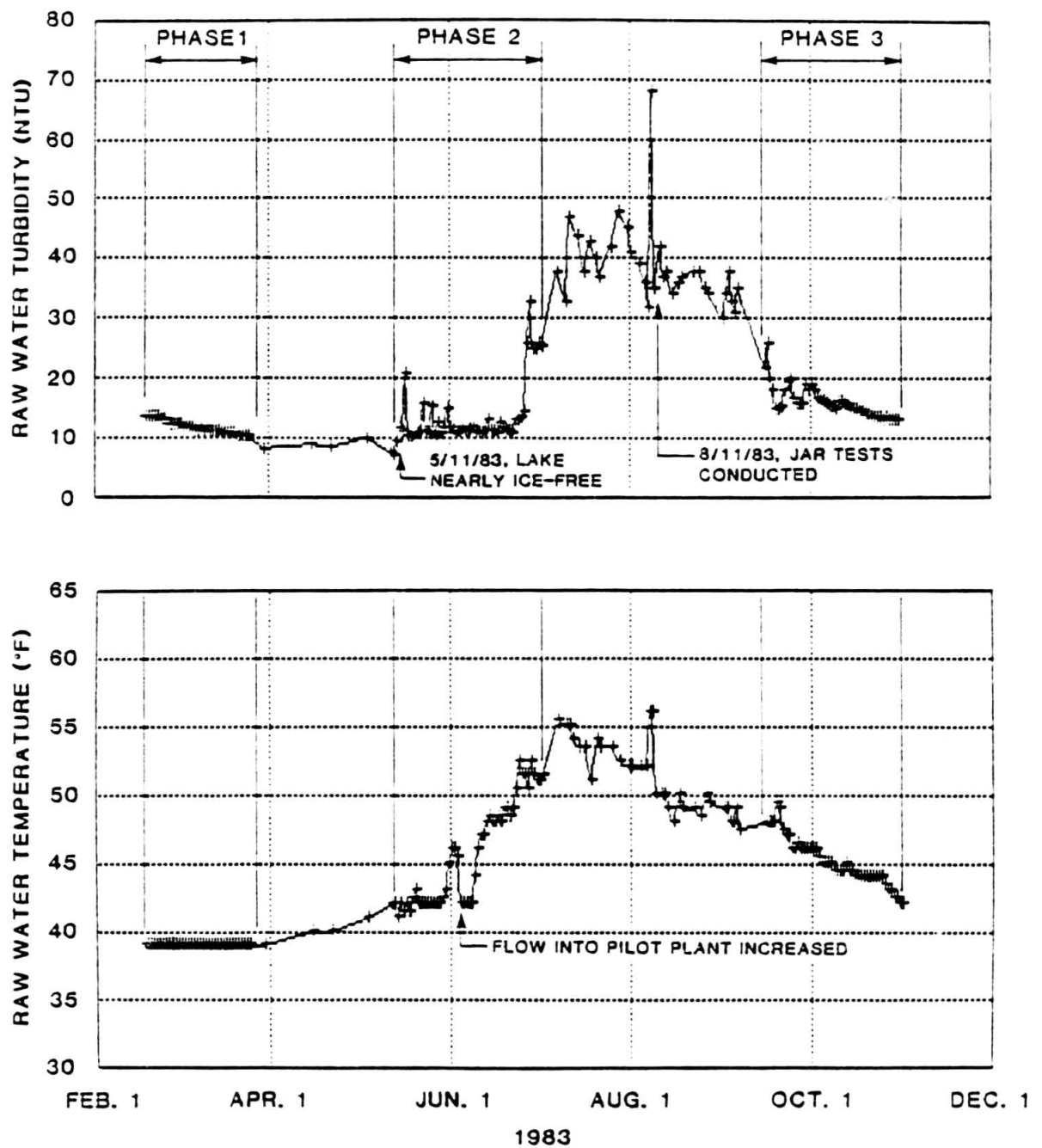
Notes:

1. All results reported in mg/l unless otherwise noted. They include the ranges observed during the three testing phases.
2. True color, measured after filtration.
3. Apparent color, measured before filtration.
4. TPTHM = Total Potential Trihalomethanes
5. Source: Montgomery Engineers (1984).

TABLE M.2
TSS MEASUREMENTS OF RAW WATER

<u>Date</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)¹</u>			<u>Approximate Median Particle Size (microns)²</u>
		<u>Particles Larger than 0.7 micron</u>	<u>Particles Larger than 0.2 micron</u>	<u>Particles Larger than 0.1 micron</u>	
PHASE 1					
03/17/83	11.5	1.3	5.3	6.3	0.4
03/23/83	11.0	2.6	5.1	6.0	0.6
PHASE 2					
05/23/83	15.2	2.3	6.7	9.0	0.5
05/23/83	16.0	6.6	7.6	9.8	1.2
06/28/83	26	14	16	17	>1.2
06/29/83	27	7	13	17	0.6
PHASE 3					
08/11/83	42	23	25	26	>1.2
09/21/83	18.0	3.5	5.0	6.0	0.8
10/20/83	13.0	1.9	2.8	4.1	0.6

1. Three different aliquots of the same sample were applied to filters having the approximate pore sizes shown.
2. Median particle size for particles larger than 0.1 micron. This was determined by plotting the data (in terms of percent passing a certain size) on probability graph paper as demonstrated in Figure 4-5.
3. Source: Montgomery Engineers (1984).



SOURCE: MONTGOMERY ENGINEERS (1984).



FIGURE M.1
RAW WATER TURBIDITY AND
TEMPERATURE

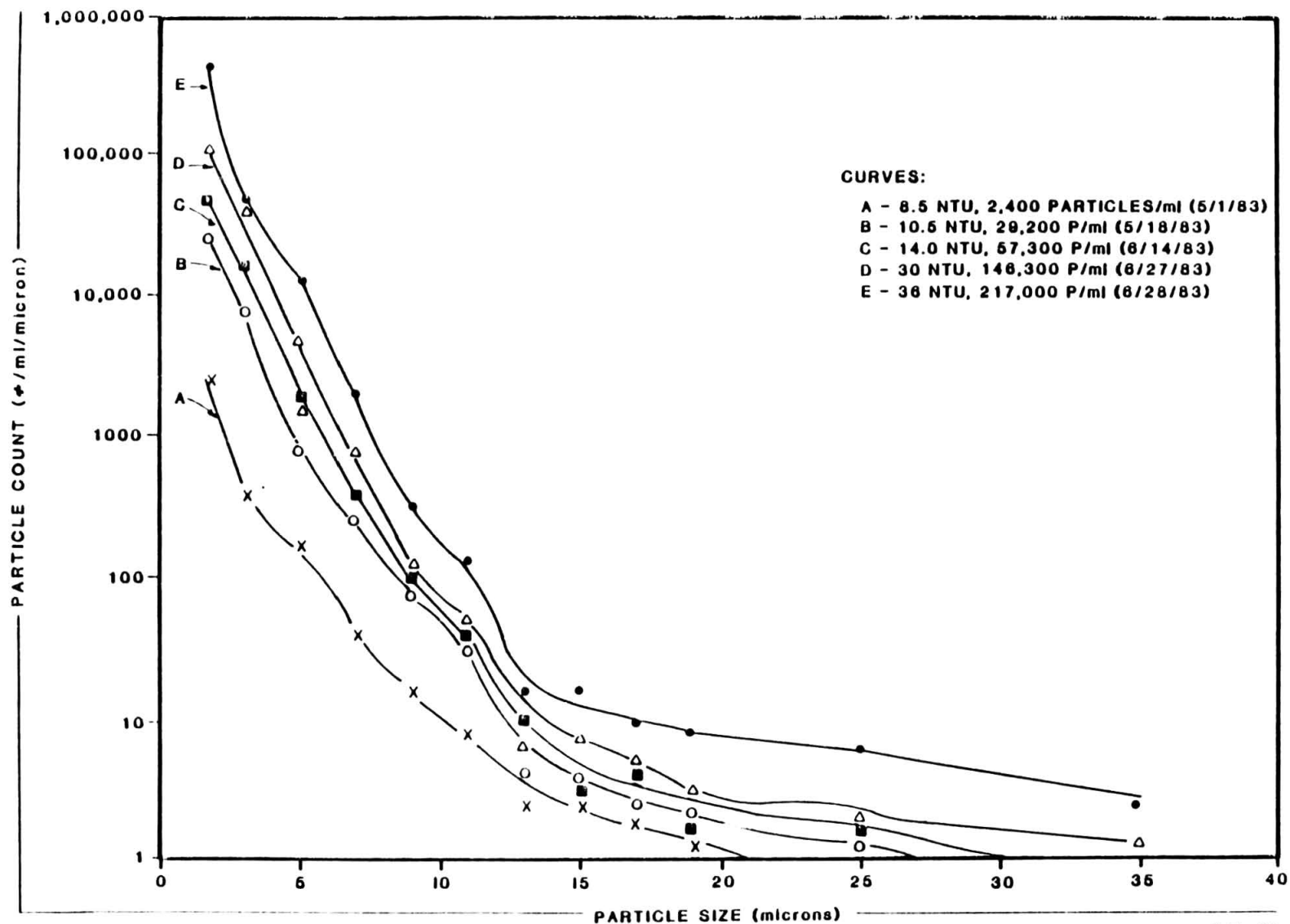


FIGURE M.2
RAW WATER PARTICLE
SIZE DISTRIBUTIONS DURING PHASE 2
 SOURCE: MOPON UMMEI ENGINEERS 1984



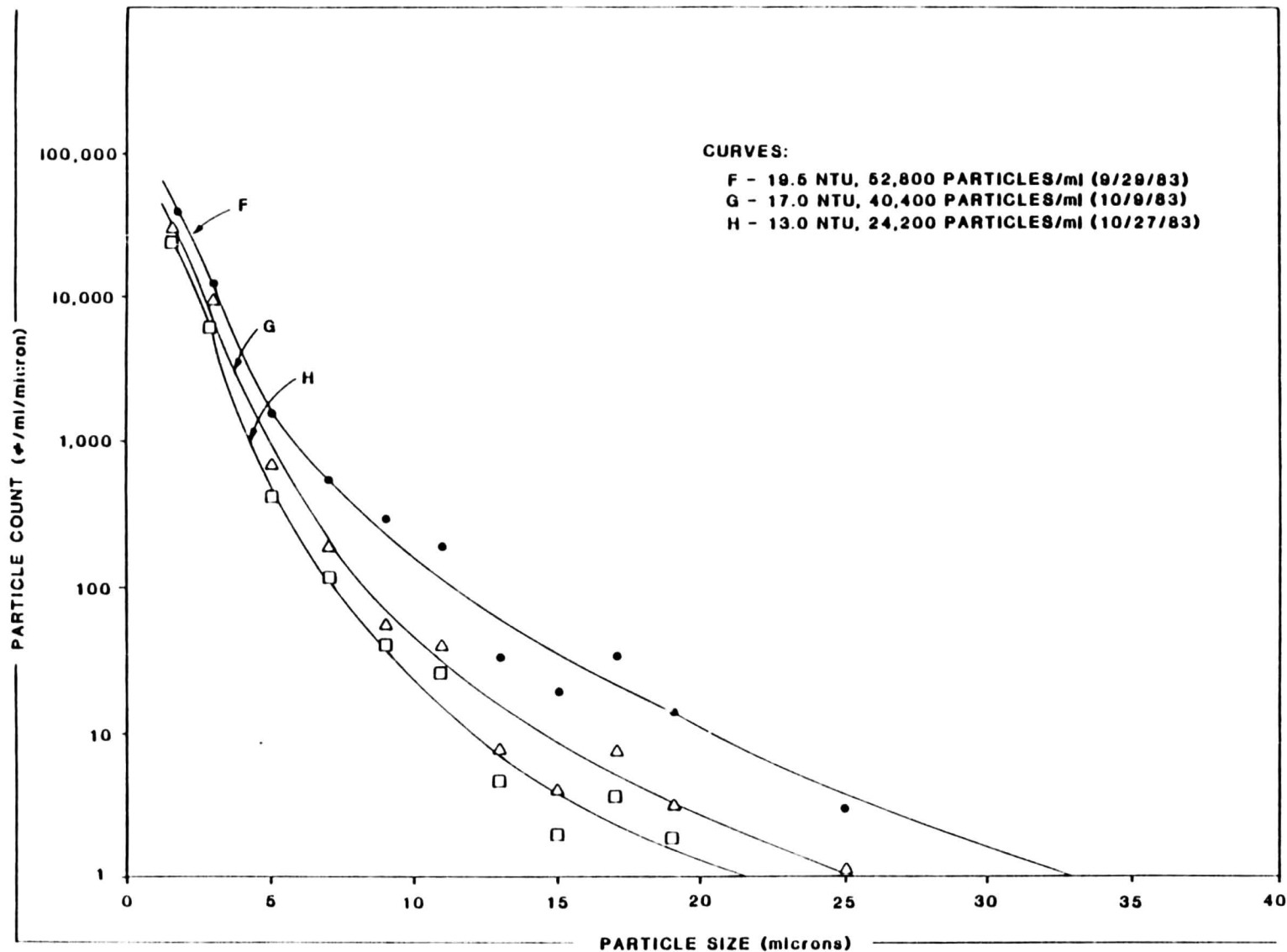


FIGURE M.3
RAW WATER PARTICLE
SIZE DISTRIBUTIONS DURING PHASE 3

SOURCE: MONTGOMERY ENGINEERS (1984).

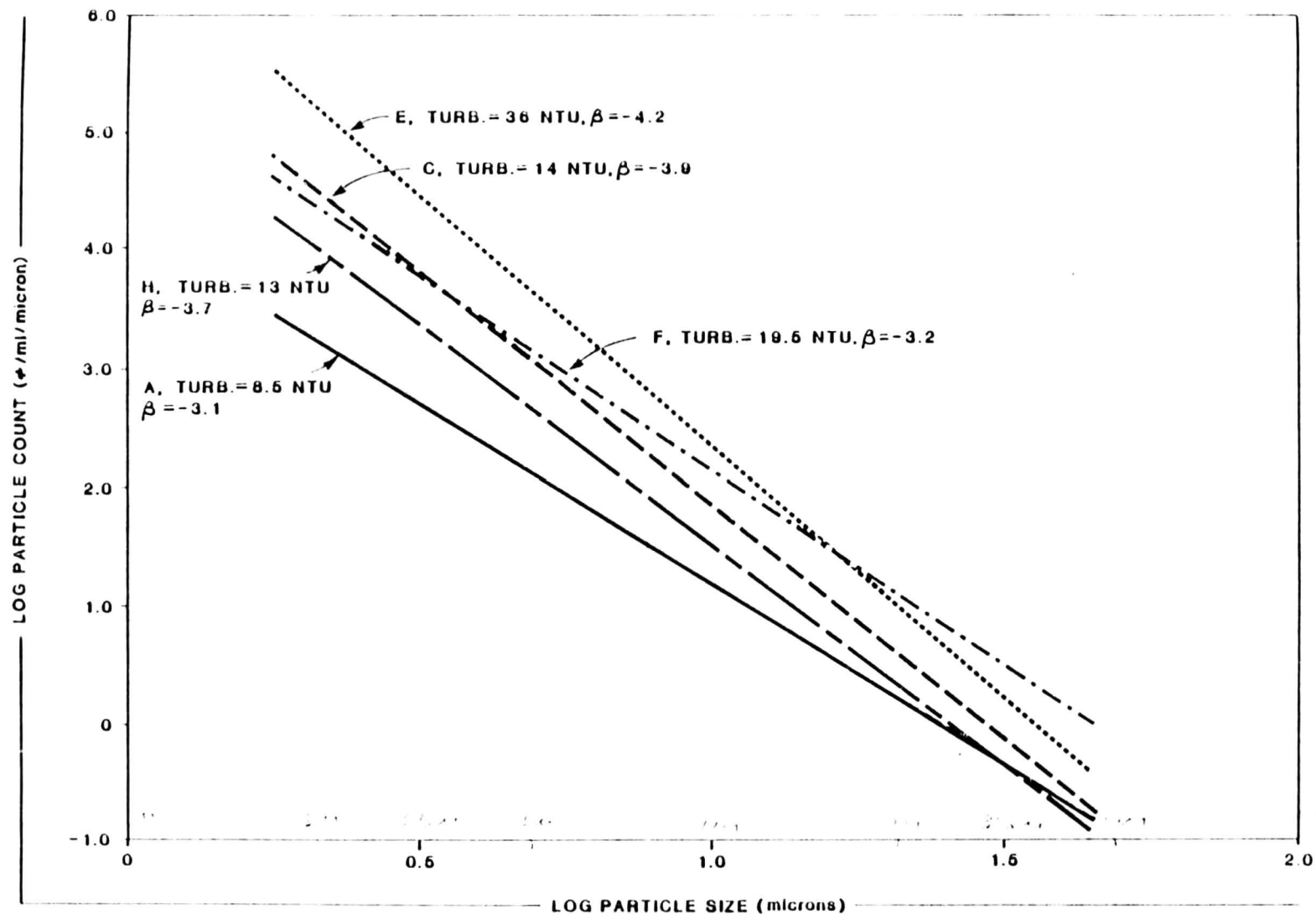


FIGURE M.4
LOGARITHMIC RAW WATER
PARTICLE SIZE DISTRIBUTIONS
 SOURCE: MONTGOMERY ENGINEERS (1984).

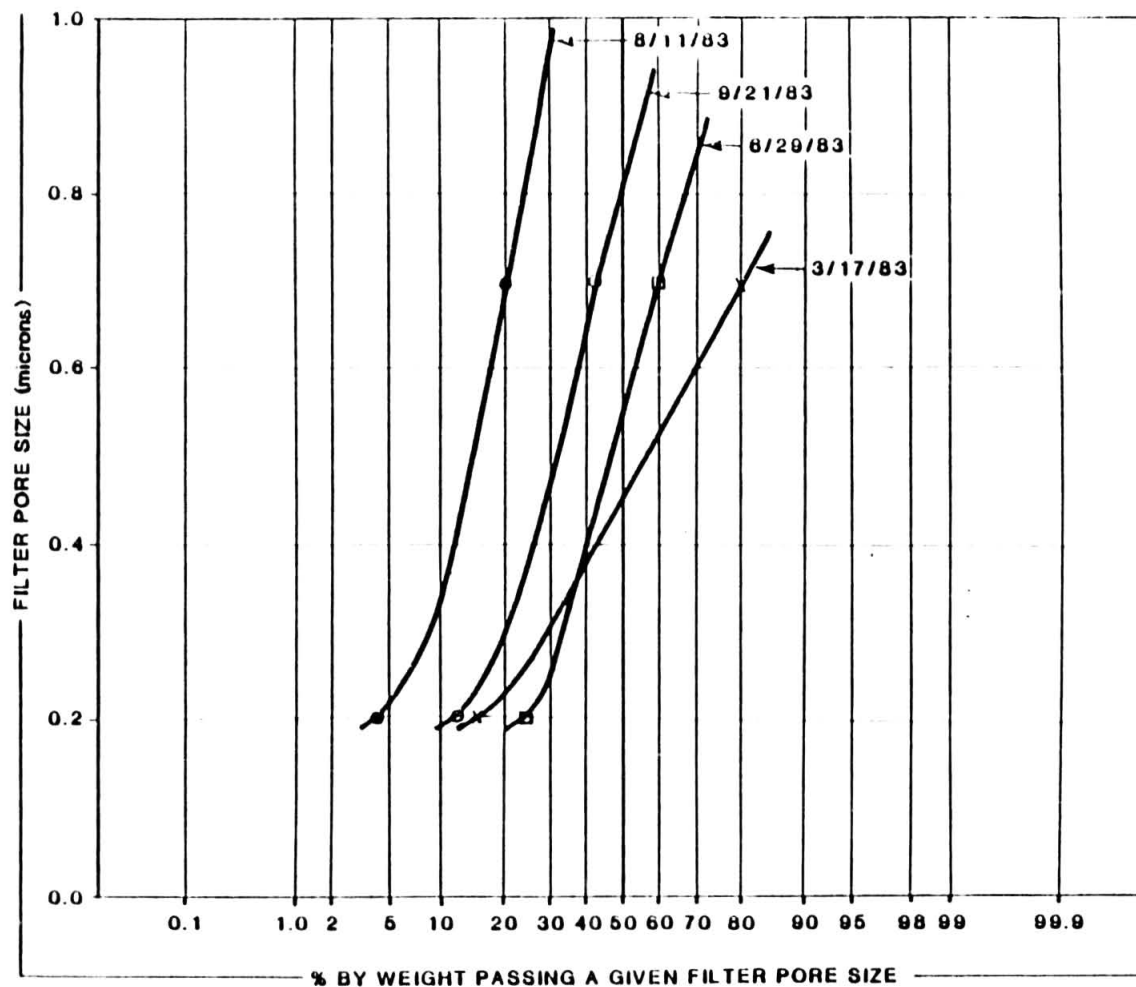


FIGURE M.5
PROBABILITY PLOTS OF
TSS DATA TO PREDICT
MEDIAN PARTICLE SIZE

SOURCE : MONTGOMERY ENGINEERS (1984).



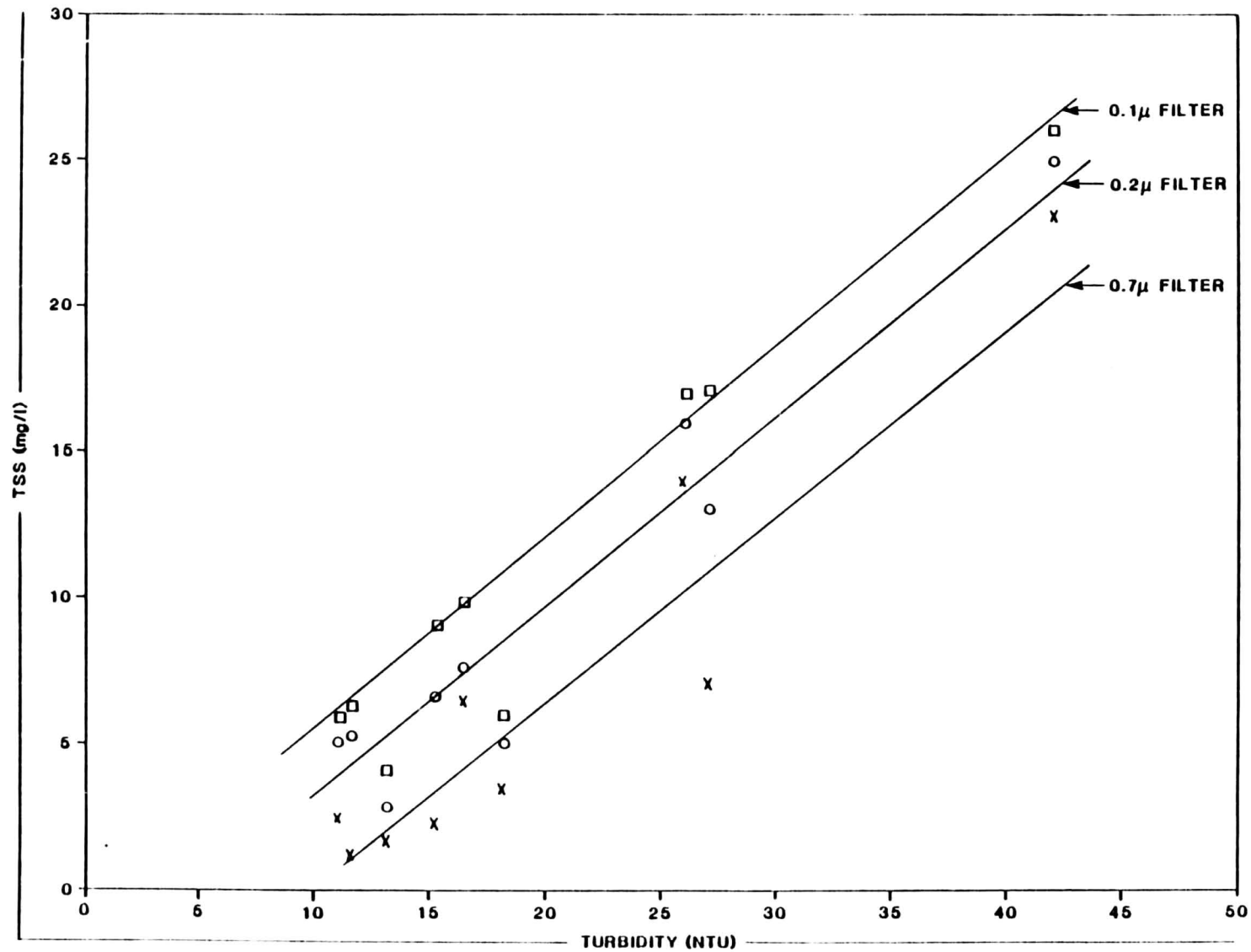
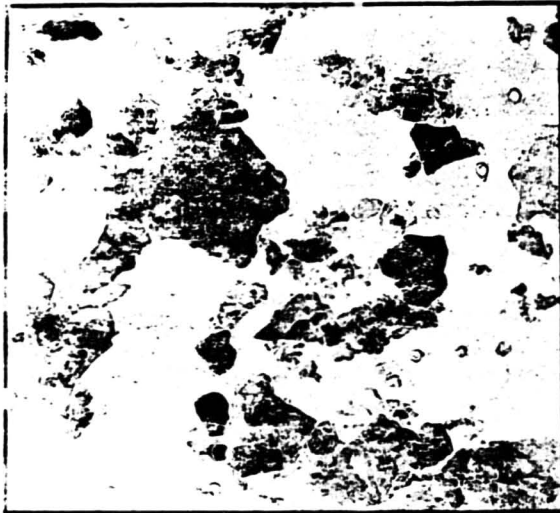


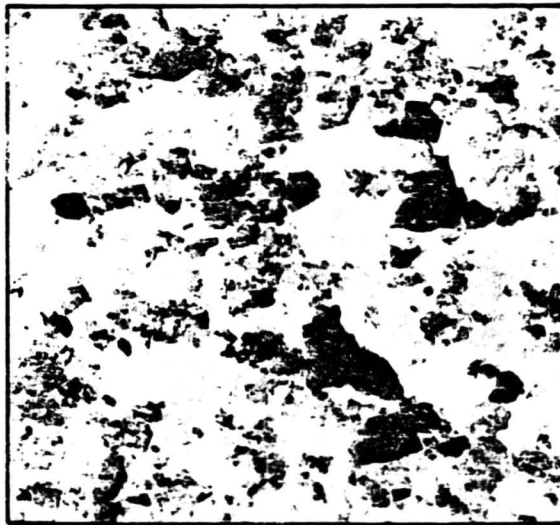
FIGURE M.6
RAW WATER TURBIDITY
VERSUS TSS



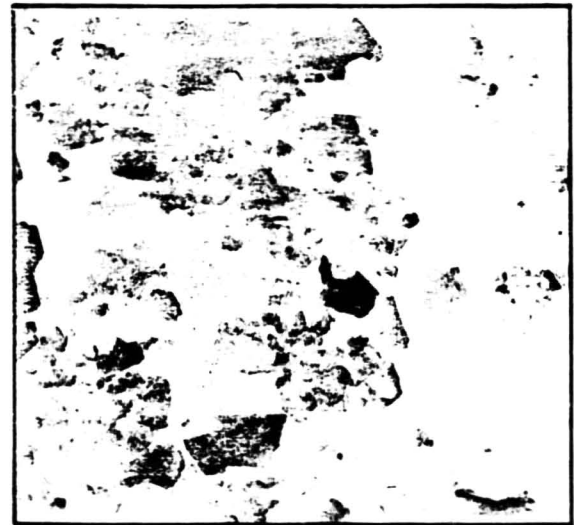
20,000x



8,000x



8,000x



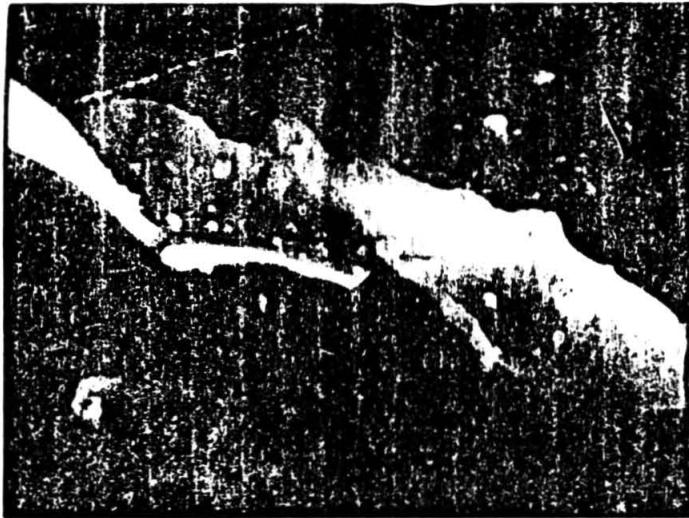
20,000x

PHOTO M.1

TEM PHOTOGRAPHS OF
OF RAW WATER PARTICLES

SOURCE : MONTGOMERY ENGINEERS (1984).

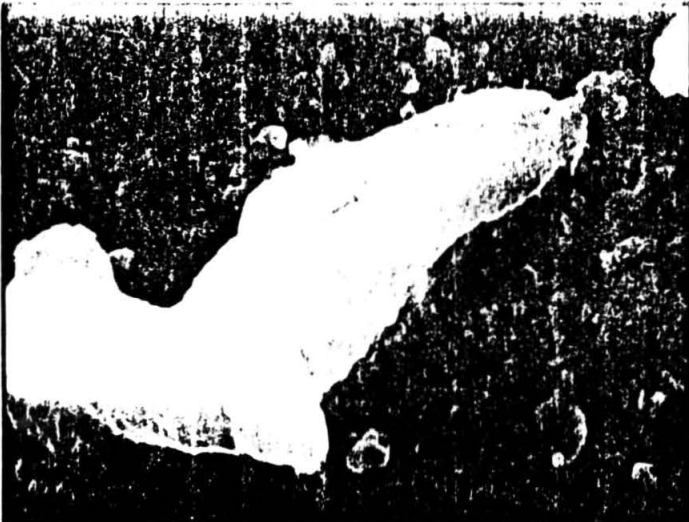




1,500x



2,000x



5,000x



15,000x



PHOTO M.2

SEM PHOTOGRAPHS OF
RAW WATER PARTICLES

SOURCE : MONTGOMERY ENGINEERS (1984).

APPENDIX N

DYRESM INPUT DATA

APPENDIX N.1. EKLUTNA LAKE PHYSICAL DATA

Spillway Level	64.3
Bottom Offtake Level	40.73
Length at Crest of Spillway	11,000
Length @ Bottom Offtake	9,800
Width at Crest of Spillway	1,260
Width at Bottom Offtake	1,005
Bottom Offtake Diameter	2.74

- NOTES: 1. Dimensions are in meters.
2. Levels are referenced to lake bottom at 201 meters (660 feet).

APPENDIX N.2. WEATHER DATA

DECEMBER

JANUARY

1	2	3	4	5	6	7
02350	1656.0	1.0	-14.0	1.91	0.7	4.50
02351	1656.0	1.0	-20.1	0.79	0.7	0.50
02352	1617.0	0.0	-24.1	0.51	0.7	0.00
02353	1600.0	0.0	-12.9	1.55	0.7	0.00
02354	1600.0	1.0	2.5	5.83	5.7	0.00
02355	1600.0	1.0	5.9	8.62	5.5	0.00
02356	1191.0	0.5	4.2	8.84	5.7	15.20
02357	1139.0	0.5	5.0	5.95	3.2	0.00
02358	1600.0	0.0	-5.9	5.05	0.5	0.00
02359	1600.0	0.0	-11.5	1.76	0.0	0.00
02360	1600.0	0.0	-2.0	2.59	0.0	0.00
02361	1610.0	1.0	-2.7	5.71	0.9	2.00
02362	1600.0	1.0	1.0	5.91	2.0	0.00
02363	1550.0	1.0	-0.5	0.59	0.0	5.00
02364	1470.0	1.0	2.2	5.06	1.1	0.20
02365	1600.0	0.0	5.2	5.92	2.5	0.20
02366	1600.0	0.5	-1.5	4.77	1.4	0.00
02367	1600.0	0.0	-9.4	2.52	0.0	0.00
02368	1577.0	0.0	-5.5	5.80	1.5	0.00
02369	1550.0	0.0	-5.5	5.26	1.0	0.00
02370	1551.0	0.0	-12.0	1.85	0.7	0.00
02371	1577.0	0.0	-17.0	1.15	0.0	0.00
02372	1500.0	0.0	-10.5	1.05	0.0	0.00
02373	1577.0	0.0	-11.0	1.85	0.5	0.00
02374	1550.0	0.0	-0.0	2.06	1.4	0.00
02375	1500.0	1.0	-5.9	5.06	0.0	0.00
02376	1500.0	1.0	5.5	8.04	7.0	0.00
02377	1577.0	1.0	5.5	8.52	7.0	7.20
02378	1500.0	1.0	2.0	5.05	5.2	0.00
02379	1577.0	0.0	-4.1	5.80	0.7	0.00
02380	1600.0	0.0	-5.5	5.05	0.0	0.00
05001	1500.0	1.0	-2.7	5.05	0.0	0.00
05002	1455.0	0.9	-5.9	5.70	0.7	0.00
05003	1407.0	1.0	-0.5	2.90	0.5	0.00
05004	1407.0	0.5	-0.5	1.94	0.5	0.14
05005	1250.0	0.1	-22.0	0.57	0.4	0.00
05006	1140.0	0.5	-22.7	0.42	0.9	0.00
05007	1140.0	0.7	-25.9	0.50	0.5	0.16
05008	1140.0	0.1	-31.0	0.16	0.4	0.00
05009	1500.0	0.0	-52.1	0.15	0.2	0.00
05010	1500.0	0.4	-24.5	0.20	0.2	0.00
05011	1500.0	0.0	-25.1	0.21	0.5	0.00
05012	1510.0	0.5	-24.9	0.25	0.5	0.00
05013	1500.0	0.5	-25.1	0.41	0.4	0.00
05014	1500.0	0.7	-18.1	0.00	0.5	0.00
05015	1600.0	1.0	-0.4	2.50	0.0	0.00
05016	1600.0	1.0	-0.5	4.05	1.0	0.50
05017	1600.0	1.0	-0.5	2.91	0.5	0.05
05018	1677.0	1.0	-1.5	4.59	1.5	0.15
05019	1500.0	0.9	-1.1	4.90	2.0	0.21
05020	2515.0	0.9	-0.0	4.40	2.5	0.00
05021	2700.0	0.9	-1.4	5.75	2.5	0.00
05022	2555.0	0.0	-14.2	1.20	0.0	0.00
05023	2100.0	0.0	-17.2	0.94	0.7	0.00
05024	1655.0	0.7	-15.0	1.07	0.7	0.00
05025	2000.0	0.9	-5.2	1.50	0.0	0.00
05026	1577.0	1.0	-0.2	5.90	2.0	0.00
05027	2575.0	0.0	-1.7	4.05	0.7	0.00
05028	2500.0	0.5	-0.0	2.57	0.0	0.00
05029	2570.0	0.5	-15.2	1.59	0.9	0.00
05030	1500.0	0.9	-6.7	2.77	0.5	0.11
05031	1500.0	1.0	5.2	8.26	2.0	1.00

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7	
FEBRUARY	05052	2736.0	1.0	4.1	5.30	2.1	0.06	LEGEND
	05053	2279.0	1.0	3.4	5.47	3.3	0.04	
	05054	2522.0	0.9	2.0	5.45	1.0	0.00	
	05055	3420.0	1.0	2.2	5.01	1.9	0.00	
	05056	2081.0	0.6	0.5	4.50	1.3	0.00	
	05057	985.0	1.0	-1.6	4.19	0.4	0.14	
	05058	1260.0	1.0	-3.4	3.91	0.4	0.59	
	05059	1051.0	1.0	-4.7	3.12	0.4	0.20	
	05060	2315.0	0.0	-15.0	1.22	0.2	0.00	
	05061	2315.0	0.2	-15.0	1.30	0.2	0.00	
	05062	2315.0	0.2	-15.0	1.29	0.2	0.00	
	05063	2315.0	0.2	-15.0	1.29	0.2	0.00	
	05064	2315.0	0.2	-15.0	1.29	0.2	0.00	
	05065	1570.0	0.3	-20.9	0.73	0.3	0.00	
	05066	1570.0	0.3	-20.9	0.75	0.3	0.00	
	05067	1570.0	0.3	-20.9	0.80	0.3	0.00	
	05068	1570.0	0.3	-20.9	0.72	0.3	0.00	
	05069	318.0	0.9	-4.0	2.04	0.9	0.00	
	05070	5915.0	0.0	-3.4	3.68	1.2	0.00	
	05071	4500.0	1.0	-3.3	3.43	1.1	0.00	
MARCH	05072	6062.0	0.9	0.6	4.06	2.1	0.00	1 Date (Year-Julian Day)
	05073	7884.0	0.0	0.3	4.37	1.1	0.00	
	05074	5251.0	1.0	-1.2	3.37	0.8	0.00	
	05075	7051.0	0.7	-2.2	3.26	2.5	0.00	
	05076	7060.0	0.0	-4.0	2.10	0.6	0.00	
	05077	7800.0	1.0	0.7	4.30	1.0	0.00	
	05078	7978.0	0.9	-3.1	3.73	0.0	0.02	
	05079	8205.0	0.9	-3.2	3.83	0.5	0.00	
	05080	9110.0	1.0	-1.1	4.32	0.9	0.00	
	05081	10537.0	0.0	-7.0	2.15	0.6	0.00	
	05082	10577.0	0.2	-11.3	1.59	0.5	0.00	
	05083	9551.0	0.7	-7.7	1.07	0.6	0.00	
	05084	11045.0	1.0	-3.0	3.07	0.0	0.00	
	05085	11008.0	1.0	-7.3	2.52	0.5	0.00	
	05086	11200.0	0.7	-6.7	2.53	0.5	0.00	
	05087	12000.0	0.0	-5.7	2.07	0.5	0.00	
	05088	12110.0	0.0	-11.1	1.55	0.6	0.00	
	05089	7331.0	1.0	-7.7	2.03	0.7	0.00	
	05090	10000.0	0.9	-2.4	3.75	0.9	0.00	
	05091	10800.0	1.0	2.7	3.27	1.3	0.00	
	05092	12160.0	0.9	2.9	4.00	0.6	0.00	
	05093	10800.0	1.0	3.0	4.33	0.5	0.00	
	05094	10025.0	1.0	1.0	4.73	1.8	0.00	
	05095	10015.0	1.0	0.2	4.52	0.6	0.00	
	05096	11070.0	0.1	-1.3	3.50	0.6	0.00	
	05097	1533.0	1.2	-4.1	3.93	0.6	0.00	
	05098	15000.0	0.3	-4.3	2.85	0.7	0.00	
	05099	10800.0	1.0	-2.9	3.02	0.6	0.00	
	05100	10000.0	0.7	-2.0	3.20	0.5	0.00	
	05101	11000.0	0.3	-3.0	3.04	0.6	0.00	
	05102	10877.0	0.3	-0.0	2.71	0.6	0.00	
	05103	12000.0	1.0	-0.0	4.01	0.6	0.00	
	05104	10700.0	0.7	-1.4	3.60	1.0	0.00	
	05105	10500.0	1.0	2.2	3.70	0.7	0.00	
	05106	16733.0	0.0	1.2	3.80	2.2	0.00	
	05107	15000.0	0.9	2.0	4.00	1.0	0.00	
	05108	17532.0	0.0	-0.8	3.32	0.7	0.00	
	05109	16507.0	0.3	-1.7	3.08	0.9	0.00	
	05110	16045.0	0.3	1.9	4.27	0.5	0.00	

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7	
APRIL	05091	14152.0	0.0	1.0	4.32	1.1	0.00	LEGEND 1 Date (Year-Julian Day) 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared) 3 Cloud Cover (Sky fraction in tenths) 4 Median Air Temperature (Degrees Celsius) 5 Vapor Pressure (Millibars) 6 Average Windspeed (Meters per second) 7 Precipitation (Millimeters)
	05092	14152.0	0.0	-0.1	4.94	0.0	0.00	
	05093	14152.0	0.0	-0.1	4.09	2.7	4.00	
	05094	14152.0	1.0	1.4	5.60	1.3	8.20	
	05095	14152.0	0.4	5.0	5.19	4.0	11.20	
	05096	14152.0	0.0	0.7	4.79	2.0	0.00	
	05097	14152.0	0.0	-1.0	4.86	0.0	0.00	
	05098	14152.0	1.0	-1.0	4.10	1.2	0.00	
	05099	14152.0	0.4	-1.0	4.34	1.0	0.00	
	05100	14152.0	0.1	-1.5	4.20	1.0	0.00	
	05101	14152.0	0.4	-3.4	3.72	4.2	0.00	
	05102	14152.0	1.0	2.0	4.21	2.4	0.00	
	05103	14152.0	1.0	-0.7	5.19	0.3	8.00	
	05104	14152.0	1.0	3.0	5.52	3.4	0.40	
	05105	14152.0	1.0	3.1	5.54	3.2	0.00	
	05106	14152.0	1.0	1.3	6.04	0.0	0.40	
	05107	14152.0	0.0	1.0	5.13	1.3	0.00	
	05108	14152.0	1.0	2.2	5.08	3.4	0.00	
	05109	14152.0	1.0	2.3	5.33	2.5	0.00	
	05110	14152.0	1.0	2.4	5.49	1.3	0.00	
MAY	05111	14152.0	1.0	5.4	5.40	1.3	0.00	
	05112	14152.0	0.4	5.1	5.10	2.4	0.00	
	05113	14152.0	1.0	3.1	4.74	2.0	0.00	
	05114	14152.0	0.0	0.4	5.32	1.7	1.00	
	05115	14152.0	0.1	7.4	6.16	1.3	0.00	
	05116	14152.0	0.0	0.0	5.74	1.7	0.00	
	05117	14152.0	0.1	3.0	6.10	1.1	0.00	
	05118	14152.0	1.0	2.0	5.34	0.7	0.20	
	05119	14152.0	1.0	3.7	7.00	0.7	4.80	
	05120	14152.0	0.3	3.6	5.24	1.0	2.00	
	05121	14152.0	0.0	4.0	5.49	-1.3	0.00	
	05122	14152.0	1.0	3.4	6.20	-1.2	0.00	
	05123	14152.0	1.0	3.4	6.10	1.0	0.00	
	05124	14152.0	1.0	3.3	6.04	1.3	0.00	
	05125	14152.0	1.0	4.1	5.44	1.3	0.00	
	05126	14152.0	0.4	4.2	5.14	1.4	0.00	
	05127	14152.0	0.7	4.4	5.20	1.0	0.00	
	05128	14152.0	0.7	3.3	5.37	1.1	0.20	
	05129	14152.0	0.7	3.4	5.50	3.1	0.00	
	05130	14152.0	1.0	7.4	5.35	2.4	0.00	
	05131	14152.0	1.0	7.3	4.94	1.3	0.00	
	05132	14152.0	1.0	3.1	6.02	2.0	0.00	
	05133	14152.0	0.7	10.1	6.20	1.3	0.00	
	05134	14152.0	1.0	3.0	6.43	2.1	0.40	
	05135	14152.0	0.4	7.3	6.24	3.1	0.00	
	05136	14152.0	1.0	7.4	7.50	3.3	0.00	
	05137	14152.0	1.0	3.3	7.12	3.0	0.00	
	05138	14152.0	0.0	3.4	5.20	2.0	0.00	
	05139	14152.0	0.1	3.4	5.14	1.3	0.00	
	05140	14152.0	0.0	7.7	5.54	1.3	0.20	
	05141	14152.0	1.0	6.1	6.24	1.4	0.00	
	05142	14152.0	1.0	6.3	7.50	1.3	0.00	
	05143	14152.0	1.0	0.0	7.19	3.3	0.30	
	05144	14152.0	1.0	4.0	7.13	2.1	0.00	
	05145	14152.0	0.4	0.7	6.30	1.1	0.00	
	05146	14152.0	0.4	3.4	5.40	3.0	0.00	
	05147	14152.0	1.0	7.1	6.35	0.7	0.40	
	05148	14152.0	0.4	3.3	3.94	2.4	0.00	
	05149	14152.0	1.0	14.0	12.04	2.3	0.30	
	05150	14152.0	1.0	14.0	12.00	1.3	0.00	
	05151	14152.0	1.0	10.4	6.60	2.3	3.20	

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7	
JUNE	05102	11302.0	1.0	10.6	8.41	2.1	1.00	
	05103	11302.0	0.4	8.3	8.61	0.7	1.00	
	05104	11302.0	1.0	8.2	8.26	1.3	0.40	
	05105	8080.0	1.0	8.0	7.29	0.7	0.20	
	05106	20302.0	0.4	4.4	7.94	1.1	0.00	
	05107	20302.0	0.6	8.5	8.10	1.2	0.00	
	05108	20302.0	0.5	8.4	5.29	1.1	0.00	
	05109	11302.0	0.2	8.4	7.71	0.9	0.00	
	05110	11302.0	1.0	8.0	7.61	0.7	0.20	
	05111	21302.0	0.7	8.4	7.40	0.9	0.20	
	05112	21302.0	0.7	11.4	7.14	2.4	0.20	
	05113	20302.0	1.0	12.1	7.00	2.7	0.00	
	05114	20302.0	1.0	11.3	11.12	1.1	0.10	
	05115	20302.0	0.4	10.5	7.11	2.0	0.00	
	05116	12302.0	0.4	9.3	7.61	0.9	0.00	
	05117	21302.0	0.6	11.4	8.09	1.1	0.00	
	05118	30302.0	0.0	12.5	7.47	1.1	0.00	
	05119	20302.0	0.5	13.0	7.57	1.8	0.00	
	05120	20302.0	0.0	12.7	8.86	1.4	0.00	
	05121	20302.0	0.6	11.7	7.77	1.2	0.00	
	05122	20302.0	0.9	12.4	7.20	1.2	0.00	
	05123	20302.0	0.6	12.3	9.21	1.0	0.00	
	05124	21302.0	0.9	14.0	8.07	1.9	0.00	
	05125	23302.0	0.6	14.1	8.53	1.0	0.00	
	05126	10302.0	0.2	13.1	8.60	1.5	0.00	
	05127	13302.0	0.9	13.0	9.45	1.5	0.00	
	05128	10302.0	0.0	13.1	8.64	1.4	0.00	
	05129	10302.0	1.0	12.1	8.59	2.2	0.00	
	05130	10302.0	1.0	10.7	8.60	1.0	0.00	
	05131	20302.0	1.0	14.3	10.27	1.1	0.00	
JULY	05132	11302.0	1.0	12.0	12.71	1.0	0.00	
	05133	20302.0	0.4	13.9	9.60	1.1	0.20	
	05134	20302.0	0.2	14.3	10.27	1.1	0.00	
	05135	12302.0	0.0	11.3	10.92	0.7	0.00	
	05136	10302.0	0.7	14.0	12.64	0.4	1.00	
	05137	10302.0	1.0	12.1	11.70	0.0	0.40	
	05138	10302.0	0.4	14.1	11.63	1.0	0.00	
	05139	10302.0	1.0	11.9	10.57	1.0	0.00	
	05140	10302.0	0.0	12.0	10.20	2.1	0.00	
	05141	10302.0	0.0	10.7	8.10	0.9	0.00	
	05142	05302.0	1.0	10.7	8.59	0.7	2.00	
	05143	11302.0	1.0	10.4	10.77	0.7	0.00	
	05144	11302.0	0.9	10.4	8.52	0.7	1.80	
	05145	10302.0	0.8	12.1	8.60	0.7	0.20	
	05146	10302.0	0.5	13.1	10.10	1.0	0.00	
	05147	10302.0	1.0	13.1	11.40	0.3	0.00	
	05148	05302.0	0.0	12.0	8.59	0.7	1.60	
	05149	10302.0	0.9	11.7	8.00	1.1	2.00	
	05150	10302.0	0.5	13.7	9.87	0.7	2.00	
	05151	10302.0	1.0	12.5	9.12	0.3	0.20	
	05152	10302.0	0.4	10.4	11.42	1.0	0.00	
	05153	10302.0	0.6	13.3	8.77	1.1	0.00	
	05154	10302.0	1.0	11.4	8.70	0.7	7.00	
	05155	05302.0	0.0	11.0	8.75	1.0	0.00	
	05156	20302.0	0.4	10.3	7.60	1.0	0.10	
	05157	10302.0	0.9	11.1	8.46	1.1	0.20	
	05158	05302.0	0.0	11.0	11.03	1.0	0.00	
	05159	20302.0	0.2	13.9	10.82	0.7	0.10	
	05160	05302.0	0.0	11.5	9.02	1.0	0.00	
	05161	05302.0	0.4	11.3	10.61	0.7	0.00	

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

AUGUST	1	2	3	4	5	6	7
	05213	13500.0	0.7	14.2	11.80	0.7	1.20
	05214	13500.0	0.4	14.5	12.71	1.1	0.20
	05215	13500.0	0.5	15.9	9.21	1.1	0.00
	05216	13500.0	1.0	12.9	11.60	1.7	0.00
	05217	13500.0	1.0	12.2	12.00	0.7	12.40
	05218	13500.0	1.0	15.4	10.61	2.0	0.00
	05219	13500.0	1.0	15.2	10.30	4.2	1.00
	05220	13500.0	1.0	15.4	11.90	5.1	4.20
	05221	13500.0	0.0	9.0	7.00	0.7	0.20
	05222	13500.0	0.7	11.0	9.90	0.9	0.00
	05223	13500.0	0.0	10.2	5.83	1.1	0.20
	05224	13500.0	1.0	12.2	4.52	0.7	0.00
	05225	13500.0	1.0	9.0	7.99	0.0	0.20
	05226	13500.0	0.7	9.0	6.24	0.0	0.00
	05227	13500.0	0.0	7.9	7.50	1.0	0.00
	05228	13500.0	0.0	11.5	9.77	1.1	0.00
	05229	13500.0	1.0	11.0	9.97	1.2	0.00
	05230	13500.0	0.2	10.5	4.52	1.1	0.00
	05231	13500.0	0.4	10.1	9.40	1.0	0.00
	05232	13500.0	1.0	10.9	7.95	2.0	0.20
	05233	13500.0	1.0	10.2	10.50	0.0	0.40
	05234	13500.0	1.0	11.1	10.57	0.0	0.40
	05235	13500.0	1.0	11.1	10.37	0.0	7.20
	05236	13500.0	1.0	7.5	7.77	0.0	1.90
	05237	13500.0	0.9	5.4	7.55	0.0	10.00
	05238	13500.0	0.0	9.2	0.75	0.0	0.00
	05239	13500.0	0.5	12.1	10.87	0.0	0.00
	05240	13500.0	0.5	10.7	4.59	0.0	0.00
	05241	6100.0	1.0	10.2	8.83	1.7	0.00
	05242	8500.0	0.9	12.5	4.27	1.5	0.00
	05243	7200.0	0.7	8.1	7.90	0.6	0.80

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

SEPTEMBER

83244	6000.00	1.00	5.10	9.13	0.60	0.40
83245	14200.00	0.60	7.90	8.01	1.00	1.90
83246	4200.00	1.00	7.00	10.25	1.00	4.40
83247	7100.00	0.60	5.40	5.02	0.70	3.90
83248	14700.00	0.60	5.70	5.74	1.10	0.20
83249	13400.00	0.10	5.60	5.61	1.00	0.00
83250	12000.00	0.50	5.60	5.82	0.40	0.00
83251	9200.00	0.50	6.00	7.25	1.00	0.20
83252	2542.00	0.40	8.40	7.21	0.40	0.00
83253	4600.00	0.50	5.20	7.89	0.50	0.20
83254	9100.00	0.60	5.40	8.28	0.70	0.00
83255	8500.00	0.80	5.20	6.87	2.10	0.20
83256	10000.00	1.00	11.30	6.90	5.10	0.00
83257	4700.00	1.00	5.20	6.25	1.00	5.90
83258	4600.00	0.70	5.50	5.95	0.40	0.40
83259	11900.00	0.10	3.40	5.81	0.30	0.00
83260	11500.00	0.00	4.40	4.06	0.40	0.00
83261	6000.00	1.00	9.50	6.08	2.10	0.00
83262	3400.00	1.00	9.40	6.85	2.50	1.40
83263	3120.00	1.00	8.90	5.55	0.40	5.40
83264	2700.00	1.00	5.50	4.75	0.50	11.00
83265	5200.00	1.00	5.50	7.59	1.00	17.40
83266	1600.00	1.00	-0.70	2.73	1.60	1.00
83267	4000.00	0.70	-4.40	2.12	1.80	0.60
83268	12000.00	0.20	-4.60	2.37	1.00	1.40
83269	10500.00	0.30	-4.30	2.65	1.10	1.20
83270	6400.00	1.00	-0.70	3.49	2.10	0.40
83271	2300.00	1.00	7.30	5.13	2.10	0.00
83272	3000.00	1.00	10.20	7.05	6.70	0.40
83273	2000.00	0.90	8.50	6.89	1.40	0.00

APPENDIX N.2. WEATHER DATA, cont.

1 2 3 4 5 6 7

OCTOBER

83274	5500.00	1.00	5.80	6.39	1.50	0.00
83275	5600.00	1.00	5.90	6.13	1.40	0.00
83276	6800.00	0.20	1.40	3.63	1.10	0.00
83277	8100.00	0.50	0.00	3.85	1.00	0.00
83278	5200.00	1.00	2.80	5.39	0.50	0.00
83279	6000.00	0.70	-0.50	4.11	1.50	0.00
83280	8300.00	0.40	-3.00	2.77	1.10	0.00
83281	7100.00	0.80	-9.20	2.91	1.00	0.00
83282	1600.00	1.00	3.40	4.67	2.40	0.00
83283	2000.00	1.00	7.80	6.00	5.70	0.00
83284	3400.00	0.90	6.90	6.21	2.40	0.00
83285	5500.00	0.70	3.50	5.62	1.00	0.00
83286	6400.00	0.60	0.60	5.23	1.00	0.00
83287	6600.00	0.20	0.90	4.24	0.80	0.00
83288	5000.00	0.70	0.60	3.85	0.90	0.00
83289	3500.00	1.00	-1.70	3.65	0.30	0.00
83290	2800.00	0.90	3.00	4.24	0.30	0.00
83291	5200.00	0.90	2.50	4.84	1.00	0.00
83292	3100.00	1.00	-0.50	4.92	0.30	0.00
83293	2800.00	1.00	2.50	4.29	1.10	0.00
83294	2400.00	1.00	3.90	4.94	0.40	0.00
83295	4700.00	1.00	1.50	4.81	1.70	0.00
83296	2400.00	1.00	-1.90	4.29	0.40	0.00
83297	3400.00	1.00	-1.90	3.60	1.00	0.00
83298	1600.00	0.30	-4.00	2.34	1.50	0.00
83299	5700.00	1.00	-5.30	3.81	1.10	0.00
83300	7800.00	1.00	-5.30	3.61	0.70	0.00
83301	3800.00	1.00	-2.50	4.77	0.30	0.00
83302	1100.00	1.00	-2.80	4.57	0.70	0.00
83303	7800.00	1.00	-2.50	4.33	0.40	0.00
83304	4700.00	0.90	-5.70	3.45	0.40	0.00

LEGEND

- 1 Date
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Radiation Intensity
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(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
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(Millibars)
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(Meters per second)
- 7 Precipitation
(Millimeters)

NOVEMBER

83305	3500.00	1.00	-5.10	3.23	0.70	0.00
83306	2420.00	0.30	2.10	4.41	2.10	0.00
83307	2090.00	1.00	-0.60	3.99	0.90	0.00
83308	1470.00	1.00	-4.10	3.41	0.30	0.00
83309	870.00	0.60	-3.70	3.22	0.30	0.00
83310	1090.00	1.00	-4.20	2.95	1.00	0.00
83311	760.00	1.00	0.60	3.25	4.50	0.00
83312	1560.00	1.00	4.00	3.91	4.51	0.00
83313	2700.00	0.30	1.30	3.65	1.70	0.00
83314	1470.00	1.00	4.00	3.52	1.50	0.00
83315	1680.00	1.00	1.70	3.81	0.90	0.00
83316	1960.00	0.90	-1.50	4.22	0.90	0.00
83317	1670.00	0.20	-7.80	2.87	1.00	0.00
83318	1140.00	0.90	-7.50	2.74	0.90	0.00
83319	800.00	1.00	-3.10	3.64	1.00	0.00
83320	1070.00	0.90	-6.10	3.34	0.40	0.00
83321	400.00	1.00	-6.80	2.90	0.30	0.00
83322	1040.00	0.70	-10.40	2.91	0.80	0.00
83323	890.00	0.10	-11.10	2.17	0.80	0.00
83324	700.00	1.00	-5.10	2.62	5.10	0.00
83325	860.00	1.00	3.70	4.30	5.40	0.00
83326	1320.00	1.00	2.70	4.87	1.40	0.00
83327	420.00	1.00	-1.10	4.25	1.40	0.00
83328	420.00	0.40	-5.60	3.05	1.10	0.00
83329	550.00	1.00	-5.30	2.64	0.50	0.00
83330	590.00	1.00	-5.50	3.05	0.80	0.00
83331	540.00	0.50	1.10	3.32	1.50	0.00
83332	800.00	1.00	5.80	4.14	7.50	0.00
83333	1560.00	1.00	4.10	4.10	9.20	0.00
83334	790.00	1.00	-4.00	4.05	1.70	0.00

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
DECEMBER							
83335	700.00	1.00	-8.00	3.90	1.70	0.00	0.00
83336	700.00	0.10	-8.00	3.63	1.00	0.00	0.00
83337	700.00	1.00	-8.00	3.37	1.00	0.00	0.00
83338	700.00	1.00	-8.00	3.84	1.00	0.00	0.00
83339	700.00	1.00	-8.00	4.35	1.00	0.00	0.00
83340	300.00	0.90	-9.60	3.48	0.30	0.00	0.00
83381	770.00	0.90	-9.80	3.00	0.30	0.00	0.00
83382	770.00	0.90	-12.50	2.44	0.30	0.00	0.00
83383	560.00	0.10	-10.40	2.46	0.70	0.00	0.00
83384	550.00	1.00	-8.00	2.19	0.70	0.00	0.00
83385	590.00	1.00	-9.90	2.59	0.50	0.00	0.00
83386	560.00	0.90	-10.10	2.64	0.70	0.00	0.00
83387	400.00	1.00	-9.40	3.11	0.30	0.00	0.00
83388	420.00	1.00	-15.00	2.34	0.00	0.00	0.00
83389	620.00	0.50	-21.90	1.79	0.00	0.00	0.00
83390	500.00	0.40	-12.70	1.88	0.20	0.00	0.00
83391	320.00	1.00	-8.60	2.53	0.20	0.00	0.00
83392	480.00	1.00	-14.00	2.41	0.00	0.00	0.00
83393	430.00	1.00	-12.20	2.65	0.20	0.00	0.00
83394	580.00	1.00	-4.20	3.24	0.20	0.00	0.00
83395	470.00	1.00	-7.80	3.66	0.10	0.00	0.00
83396	480.00	0.40	-15.00	2.65	0.00	0.00	0.00
83397	430.00	0.00	-19.60	2.03	0.00	0.00	0.00
83398	440.00	0.40	-17.20	2.04	0.20	0.00	0.00
83399	430.00	0.60	-13.10	3.03	0.40	0.00	0.00
83400	540.00	0.00	-15.60	2.67	0.10	0.00	0.00
83401	490.00	0.00	-19.10	2.05	0.00	0.00	0.00
83402	540.00	0.60	-20.20	1.91	0.00	0.00	0.00
83403	530.00	0.40	-22.50	1.53	0.00	0.00	0.00
83404	490.00	0.00	-17.50	1.79	0.10	0.00	0.00
83405	450.00	1.00	-10.90	2.22	0.10	0.00	0.00

LEGEND

- Date
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Radiation Intensity
(Kilojoules/meters squared)
- Cloud Cover
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(Millibars)
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(Meters per second)
- Precipitation
(Millimeters)

JANUARY							
84001	65.00	1.00	-5.70	3.02	0.10	0.00	0.00
84002	490.00	1.00	-2.30	4.73	3.10	0.00	0.00
84003	340.00	1.00	-2.40	4.87	4.30	0.00	0.00
84004	280.00	0.70	-14.90	1.83	1.80	0.00	0.00
84005	330.00	0.80	-14.40	1.74	1.00	0.00	0.00
84006	400.00	1.00	-12.90	2.42	0.30	0.00	0.00
84007	420.00	0.70	-17.60	2.44	0.40	0.00	0.00
84008	440.00	0.30	-11.30	2.12	0.00	0.00	0.00
84009	300.00	1.00	-7.90	2.49	0.00	0.00	0.00
84010	230.00	1.00	-1.60	3.15	1.60	0.00	0.00
84011	450.00	1.00	0.60	4.43	5.00	0.00	0.00
84012	330.00	1.00	4.00	4.98	4.00	0.00	0.00
84013	470.00	0.40	4.30	5.13	4.00	0.00	0.00
84014	240.00	1.00	-1.10	5.09	0.50	0.00	0.00
84015	300.00	1.00	-11.30	4.69	2.40	0.00	0.00
84016	210.00	1.00	-14.10	3.49	2.30	0.00	0.00
84017	110.00	1.00	-7.50	3.54	2.40	0.00	0.00
84018	160.00	1.00	-9.90	3.87	2.30	0.00	0.00
84019	110.00	1.00	-12.90	2.04	2.40	0.00	0.00
84020	350.00	0.00	-20.30	2.13	2.40	0.00	0.00
84021	540.00	0.90	-21.70	1.85	2.40	0.00	0.00
84022	190.00	0.00	-22.40	1.45	2.40	0.00	0.00
84023	420.00	0.00	-12.40	1.07	2.40	0.00	0.00
84024	490.00	0.00	-33.30	0.98	2.30	0.00	0.00
84025	330.00	0.70	-29.00	0.94	2.40	0.00	0.00
84026	400.00	0.20	-19.50	1.61	2.40	0.00	0.00
84027	170.00	1.00	-13.40	1.71	2.40	0.00	0.00
84028	210.00	1.00	-12.20	1.95	3.00	0.00	0.00
84029	1060.00	1.00	3.70	3.32	3.50	0.00	0.00
84030	1030.00	1.20	1.20	4.25	1.70	0.00	0.00
84031	870.00	0.90	-5.60	3.44	0.50	0.00	0.00

APPENDIX N.2. WEATHER DATA, cont.

FEBRUARY

	1	2	3	4	5	6	7
84032	500.00	1.00	-10.90	2.60	0.50	0.00	0.00
84033	500.00	1.00	-7.80	2.21	0.40	0.00	0.00
84034	530.00	1.00	-10.00	2.07	0.40	0.00	0.00
84035	1510.00	1.00	-2.60	1.32	2.60	0.00	0.00
84036	480.00	1.00	-11.60	2.74	0.40	0.00	0.00
84037	470.00	1.00	-4.50	2.32	1.10	0.00	0.00
84038	370.00	0.90	-9.70	2.25	1.20	0.00	0.00
84039	410.00	1.00	-14.70	1.64	0.50	0.00	0.00
84040	1270.00	0.20	-27.50	1.22	0.40	0.00	0.00
84041	530.00	1.00	-25.70	1.30	0.50	0.00	0.00
84042	1320.00	0.50	-15.70	1.24	0.50	0.00	0.00
84043	1350.00	1.00	-15.60	2.03	0.60	0.00	0.00
84044	880.00	1.00	-14.30	2.12	0.50	0.00	0.00
84045	980.00	0.80	-11.00	2.54	0.40	0.00	0.00
84046	1050.00	0.80	-15.30	2.48	0.50	0.00	0.00
84047	440.00	1.00	-4.50	2.86	1.20	0.00	0.00
84048	2270.00	1.00	1.30	3.54	2.40	0.00	0.00
84049	420.00	1.00	-2.50	3.33	0.70	0.00	0.00
84050	390.00	1.00	-2.70	1.93	0.70	0.00	0.00
84051	520.00	0.80	-17.10	1.21	0.20	0.00	0.00
84052	3440.00	0.90	-3.10	1.46	2.60	0.00	0.00
84053	3430.00	1.00	-4.10	2.09	0.40	0.00	0.00
84054	5090.00	0.70	-13.80	2.42	0.50	0.00	0.00
84055	3680.00	0.80	-15.60	2.49	0.70	0.00	0.00
84056	4510.00	1.00	-4.80	3.01	0.70	0.00	0.00
84057	5770.00	1.00	-4.90	3.51	0.50	0.00	0.00
84058	4450.00	1.00	-6.00	2.27	0.60	0.00	0.00
84059	4620.00	0.80	-6.40	2.66	0.60	0.00	0.00
84060	4070.00	0.80	-9.20	2.41	0.70	0.00	0.00

LEGEND

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Radiation Intensity
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(Meters per second)
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(Millimeters)

MARCH

84061	4750.00	1.00	-5.90	2.50	0.50	0.00	0.00
84062	5040.00	1.00	-7.10	3.21	1.20	0.00	0.00
84063	3420.00	0.80	5.00	3.73	4.40	0.00	0.00
84064	4260.00	1.00	4.90	4.54	5.00	0.00	0.00
84065	3790.00	1.00	6.00	4.89	5.60	0.00	0.00
84066	7230.00	0.70	5.80	4.67	1.40	0.00	0.00
84067	4500.00	0.90	5.30	4.90	0.40	0.00	0.00
84068	1800.00	1.00	4.90	5.12	1.50	0.00	0.00
84069	5620.00	1.00	6.40	5.07	2.10	0.00	0.00
84070	7160.00	1.00	5.10	4.74	1.40	0.00	0.00
84071	6325.00	0.70	4.70	5.20	0.80	0.00	0.00
84072	8440.00	0.20	0.20	4.37	0.50	0.00	0.00
84073	8470.00	0.90	-0.50	4.13	0.70	0.00	0.00
84074	9030.00	0.70	-0.50	4.15	0.70	0.00	0.00
84075	8220.00	0.90	0.60	3.68	1.70	0.00	0.00
84076	9750.00	0.60	1.20	3.42	0.70	0.00	0.00
84077	10000.00	0.70	-0.50	3.07	0.70	0.00	0.00
84078	9920.00	0.90	-2.40	2.77	0.70	0.00	0.00
84079	10400.00	0.10	-5.40	3.25	0.70	0.00	0.00
84080	7450.00	0.80	-2.00	3.00	0.70	0.00	0.00
84081	11000.00	0.60	-5.20	3.07	0.70	0.00	0.00
84082	11100.00	0.30	-5.20	2.90	0.70	0.00	0.00
84083	11600.00	0.10	-4.40	2.77	0.40	0.00	0.00
84084	10700.00	0.80	-5.60	2.62	1.00	0.00	0.00
84085	9690.00	1.00	1.00	3.20	0.70	0.00	0.00
84086	8110.00	0.90	2.80	4.71	1.30	0.00	0.00
84087	12400.00	1.00	2.40	4.69	5.20	0.00	0.00
84088	12800.00	0.20	0.50	3.92	1.70	0.00	0.00
84089	5400.00	1.00	1.10	4.34	1.50	0.00	0.00
84090	3360.00	0.20	-0.20	4.30	0.50	0.00	0.00
84091	10500.00	1.00	0.00	4.64	2.50	0.00	0.00

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
APRIL	84092	11900.00	1.00	3.50	4.91	1.70	3.40
	84093	12000.00	0.70	1.60	4.91	0.70	1.00
	84094	12100.00	0.70	0.40	3.60	0.70	0.00
	84095	12900.00	0.70	1.20	4.36	1.10	0.00
	84096	12200.00	1.00	3.30	5.05	1.80	0.00
	84097	14400.00	0.80	-2.70	4.41	0.30	1.80
	84098	13900.00	0.90	0.00	4.72	1.00	0.00
	84099	14300.00	1.00	0.20	4.40	2.00	0.00
	84100	10500.00	1.00	2.20	3.55	1.00	0.00
	84101	12900.00	1.00	-0.40	2.55	1.20	0.00
	84102	15500.00	0.80	-0.80	3.20	0.30	3.20
	84103	14900.00	0.80	0.40	3.65	0.40	0.00
	84104	10100.00	1.00	2.30	3.91	1.30	0.20
	84105	16200.00	0.60	1.70	4.71	1.10	0.00
	84106	13600.00	1.00	-0.40	4.79	1.30	0.00
	84107	4500.00	1.00	-1.90	3.94	0.80	3.00
	84108	9100.00	1.00	-0.60	3.92	0.30	4.50
	84109	12400.00	0.20	0.20	2.59	0.30	6.60
	84110	14900.00	0.90	-0.30	3.35	0.30	0.00
	84111	14800.00	1.00	3.20	5.14	0.40	4.40
	84112	9614.00	1.00	2.00	4.92	2.00	1.00
	84113	19611.00	0.00	-1.30	3.11	1.30	2.40
	84114	20125.00	0.60	-2.10	2.92	1.20	0.00
	84115	20551.00	0.40	0.70	3.41	1.40	0.00
	84116	20538.00	0.10	-0.30	3.77	2.60	0.00
	84117	11664.00	1.00	4.40	4.95	4.40	0.00
	84118	12096.00	1.00	5.80	5.23	2.00	0.00
	84119	17312.00	0.90	7.70	5.44	4.00	0.00
	84120	11567.00	1.00	7.10	5.22	2.20	0.00
	84121	16292.00	1.00	7.30	5.50	4.10	0.00
MAY	84122	15304.00	1.00	5.80	5.49	1.70	0.00
	84123	19517.00	1.00	3.40	4.84	2.10	0.00
	84124	18744.00	1.00	3.40	5.05	1.30	0.00
	84125	17035.00	1.00	3.40	5.29	2.00	0.00
	84126	21344.00	0.70	3.80	5.16	1.80	0.00
	84127	23902.00	0.80	2.30	4.84	1.80	0.00
	84128	22302.00	0.10	4.60	4.36	1.20	0.00
	84129	23020.00	0.10	5.30	4.19	1.30	0.00
	84130	22694.00	0.60	7.10	4.29	1.30	0.00
	84131	20481.00	0.00	6.20	4.63	1.20	0.00
	84132	21974.00	0.00	4.50	3.13	1.70	0.00
	84133	19706.00	0.00	3.80	3.44	1.30	0.00
	84134	19404.00	0.10	5.30	4.63	1.30	0.00
	84135	23600.00	0.80	5.60	5.43	1.40	0.00
	84136	21342.00	0.90	7.00	5.49	2.30	0.00
	84137	18114.00	1.00	10.20	5.29	1.80	0.00
	84138	21513.00	0.70	3.40	5.94	2.30	0.00
	84139	20424.00	0.90	10.80	6.37	3.00	0.00
	84140	15196.00	0.90	3.00	6.82	1.10	0.00
	84141	13961.00	0.90	4.60	6.54	1.60	0.00
	84142	12512.00	1.00	3.80	6.54	1.30	0.00
	84143	14792.00	0.80	6.00	6.04	1.10	0.00
	84144	20966.00	0.60	7.40	6.80	1.80	0.00
	84145	24721.00	0.80	7.20	6.05	1.00	0.00
	84146	15544.00	1.00	3.30	6.32	1.00	0.00
	84147	18021.00	1.00	9.00	6.23	1.40	0.00
	84148	22352.00	1.00	7.00	5.63	1.40	0.00
	84149	23073.00	0.20	7.40	5.65	1.40	0.00
	84150	9526.00	0.20	3.30	6.17	1.40	3.50
	84151	16733.00	1.00	5.80	6.44	1.80	1.20
	84152	17824.00	0.90	3.20	6.75	1.40	0.00

LEGEND

- Date
(Year-Julian Day)
- Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- Cloud Cover
(Sky fraction in tenths)
- Median Air Temperature
(Degrees Celsius)
- Vapor Pressure
(Millibars)
- Average Windspeed
(Meters per second)
- Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

JUNE

1	2	3	4	5	6	7
84153	19305.00	0.20	8.90	7.14	1.40	0.00
84154	25524.00	0.20	9.60	6.89	1.10	0.00
84155	22995.00	0.60	9.60	6.72	1.50	0.00
84156	26624.00	0.30	10.50	6.62	1.20	0.20
84157	22165.00	0.40	12.80	7.35	1.00	0.60
84158	11365.00	1.00	9.50	7.15	1.20	6.20
84159	18232.00	0.40	7.50	7.35	1.30	0.70
84160	17094.00	1.00	11.10	7.93	1.10	0.20
84161	22567.00	0.80	10.40	7.19	1.20	0.60
84162	23436.00	1.00	10.80	6.99	1.20	0.00
84163	17534.00	1.00	11.10	7.59	0.90	0.00
84164	8984.00	0.40	11.90	8.10	0.70	2.80
84165	17265.00	1.00	11.00	7.46	1.70	0.00
84166	13000.00	0.80	8.90	7.33	1.50	1.90
84167	11655.00	1.00	9.20	7.90	0.40	7.00
84168	8474.00	1.00	9.20	7.45	0.20	6.00
84169	28022.00	0.60	12.10	8.13	1.20	1.20
84170	24361.00	0.80	12.30	8.41	1.00	0.00
84171	26347.00	0.50	11.50	7.81	1.00	0.00
84172	24124.00	0.50	12.10	8.41	1.10	0.00
84173	26460.00	0.60	12.00	8.29	1.00	0.00
84174	22831.00	0.20	12.30	8.56	1.00	0.00
84175	18535.00	0.90	11.80	8.64	1.00	0.00
84176	15816.00	0.90	13.30	8.33	2.30	0.00
84177	14540.00	1.00	14.00	8.14	2.00	0.00
84178	12361.00	1.00	12.00	8.22	0.40	0.70
84179	9790.00	0.30	9.00	8.01	1.20	3.40
84180	22165.00	0.80	12.20	8.50	2.00	0.00
84181	24845.00	1.00	16.40	7.64	4.00	0.00
84182	16408.00	0.90	13.50	7.77	1.40	0.00

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squarec)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

JULY

84183	7132.00	0.90	11.10	8.74	0.70	1.50
84184	15347.00	1.00	11.40	8.47	0.70	1.20
84185	9211.00	0.70	12.10	9.17	0.70	0.20
84186	24444.00	0.60	14.40	9.94	1.00	0.00
84187	19114.00	0.80	16.40	9.96	1.00	0.20
84188	19631.00	0.70	15.50	9.89	1.00	0.20
84189	24872.00	0.70	14.10	8.44	1.20	0.70
84190	4492.00	1.00	11.10	9.65	0.50	0.70
84191	17732.00	1.00	12.20	9.62	1.10	1.40
84192	12250.00	0.90	11.40	8.90	1.60	3.40
84193	24435.00	1.00	12.90	8.34	1.40	0.00
84194	18157.00	0.90	12.00	8.05	1.10	0.20
84195	20727.00	1.00	13.40	8.94	1.00	0.00
84196	9790.00	1.00	9.20	7.87	0.70	1.40
84197	19432.00	0.60	11.10	8.77	0.40	0.00
84198	7295.00	1.00	11.70	8.98	0.80	1.30
84199	3528.00	1.00	11.00	9.10	0.70	1.00
84200	9466.00	1.00	10.70	9.04	0.80	0.60
84201	10554.00	1.00	12.10	8.82	0.80	0.00
84202	5766.00	1.00	11.30	9.25	0.70	0.10
84203	14523.00	0.90	13.50	9.77	1.10	0.00
84204	10798.00	1.00	12.50	10.14	0.30	0.00
84205	16657.00	0.90	13.60	9.83	0.30	0.00
84206	13066.00	1.00	14.90	9.67	0.20	0.00
84207	9563.00	1.00	12.80	11.05	0.60	2.60
84208	11383.00	0.80	12.20	10.64	0.70	1.00
84209	3513.00	0.40	13.20	10.43	0.70	0.00
84210	2584.00	1.00	13.60	9.90	0.40	0.20
84211	13709.00	1.00	12.40	9.67	1.20	0.60
84212	16670.00	1.00	13.50	10.04	1.00	0.20
84213	15687.00	1.00	13.50	10.04	1.30	0.40

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
AUGUST							
84214	15506.00	1.00	14.00	10.84	0.80	0.20	
84215	15966.00	1.00	14.70	11.20	0.70	0.30	
84216	15678.00	1.00	13.40	11.11	0.80	0.20	
84217	24424.00	0.80	15.00	12.17	1.00	0.00	
84218	10728.00	1.00	14.00	11.44	0.70	0.40	
84219	14760.00	0.70	13.10	11.31	0.40	0.40	
84220	24102.00	0.90	13.20	11.35	0.90	0.00	
84221	12794.00	1.00	14.40	10.86	0.40	0.40	
84222	19224.00	0.50	13.20	9.95	0.30	10.50	
84223	11880.00	1.00	14.70	9.97	0.70	5.40	
84224	19728.00	0.50	13.70	10.86	0.70	1.00	
84225	28512.00	0.20	11.70	8.54	1.10	0.00	
84226	27702.00	0.40	11.60	8.72	1.00	0.00	
84227	26464.00	0.70	12.10	9.17	1.00	0.00	
84228	26658.00	0.40	12.60	10.60	0.90	0.70	
84229	21742.00	1.00	13.60	10.31	0.90	0.00	
84230	22046.00	1.00	11.20	9.15	1.70	0.00	
84231	6544.00	1.00	13.60	10.57	2.40	0.00	
84232	14670.00	1.00	12.30	9.35	1.50	0.60	
84233	22122.00	1.00	13.20	9.85	1.10	0.20	
84234	12312.00	1.00	12.50	8.80	3.10	0.20	
84235	10206.00	1.00	12.50	9.49	1.20	0.40	
84236	9428.00	0.70	10.50	9.35	0.30	1.20	
84237	6102.00	1.00	12.00	10.44	2.10	7.00	
84238	6408.00	0.80	8.70	8.52	1.50	10.00	
84239	20736.00	0.40	5.40	4.47	2.10	3.20	
84240	23778.00	0.10	4.00	4.63	1.00	0.00	
84241	21654.00	1.00	5.40	5.05	0.40	0.00	
84242	19492.00	0.30	3.50	5.84	1.10	0.00	
84243	20088.00	0.50	4.70	4.56	0.40	0.00	
84244	21222.00	0.70	3.40	5.35	1.00	0.00	

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

SEPTEMBER							
84245	14558.00	0.40	7.10	0.00	0.80	0.00	
84246	19436.00	0.00	5.40	0.00	0.40	0.20	
84247	14954.00	0.00	7.00	0.00	0.30	0.00	
84248	19572.00	0.00	5.10	0.00	0.00	0.00	
84249	19234.00	0.30	6.30	0.00	0.80	0.00	
84250	15696.00	0.80	5.00	0.00	1.50	0.00	
84251	13320.00	1.00	8.50	0.00	1.50	0.00	
84252	17924.00	0.30	3.40	0.00	1.40	0.20	
84253	16002.00	1.00	7.60	0.00	0.70	0.00	
84254	17928.00	0.50	7.40	0.00	0.80	0.20	
84255	12258.00	0.20	5.70	0.00	0.80	0.00	
84256	14832.00	1.00	7.30	0.00	1.50	0.20	
84257	7488.00	1.00	10.40	0.00	1.50	0.20	
84258	6480.00	1.00	4.50	0.00	0.30	5.00	
84259	7182.00	1.00	7.70	0.00	1.10	0.40	
84260	12690.00	0.60	7.50	0.00	0.90	0.00	
84261	7650.00	0.90	8.50	0.00	0.70	0.00	
84262	7740.00	1.00	7.40	0.00	1.00	2.20	
84263	13698.00	1.00	6.50	0.00	1.40	11.00	
84264	12636.00	0.70	5.60	0.00	0.40	3.20	
84265	14724.00	0.20	4.40	0.00	0.40	0.20	
84266	12546.00	1.00	5.20	0.00	0.90	0.00	
84267	5418.00	1.00	4.50	0.00	2.50	0.00	
84268	9698.00	1.00	10.60	0.00	5.70	0.00	
84269	8190.00	1.00	9.80	0.00	1.40	0.10	
84270	12042.00	0.50	5.40	0.00	1.00	0.20	
84271	9126.00	0.90	5.60	0.00	0.30	0.00	
84272	8604.00	1.00	7.70	0.00	0.30	0.00	
84273	2520.00	1.00	8.60	0.00	0.40	24.40	
84274	5540.00	1.00	7.90	0.00	2.10	0.20	

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
OCTOBER	84275	7246.00	0.00	5.90	0.00	1.80	0.00
	84276	10566.00	0.00	3.50	0.00	2.60	0.00
	84277	10206.00	0.00	1.40	0.00	1.10	0.00
	84278	11052.00	0.00	2.60	0.00	0.90	0.00
	84279	5435.00	0.00	5.20	0.00	1.60	0.00
	84280	6940.00	0.00	7.20	0.00	1.90	0.00
	84281	5238.00	0.00	5.20	0.00	0.70	0.00
	84282	2322.00	0.00	3.40	0.00	0.30	0.00
	84283	7884.00	0.00	2.30	0.00	0.80	0.00
	84284	5416.00	0.00	0.70	0.00	0.80	0.00
	84285	4140.00	0.00	-0.50	0.00	0.80	0.00
	84286	4514.00	0.00	1.80	0.00	0.80	0.00
	84287	4564.00	0.00	0.50	0.00	0.90	0.00
	84288	5252.00	0.00	-2.50	0.00	1.00	0.00
	84289	4662.00	0.00	-2.60	0.00	0.40	0.00
	84290	4114.00	0.00	-0.70	0.00	1.00	0.00
	84291	4546.00	0.00	-2.60	0.00	1.10	0.00
	84292	2266.00	0.00	-4.00	0.00	1.00	0.00
	84293	2790.00	0.00	0.00	0.00	0.80	0.00
	84294	2142.00	0.00	0.50	0.00	0.30	0.00
	84295	3344.00	0.00	4.90	0.00	1.40	0.00
	84296	3366.00	0.00	5.60	0.00	4.70	0.00
	84297	2790.00	0.00	-3.20	0.00	1.40	0.00
	84298	3456.00	0.00	-3.50	0.00	0.30	0.00
	84299	5562.00	0.00	-5.40	0.00	1.10	0.00
	84300	5616.00	0.00	-5.90	0.00	1.10	0.00
	84301	5346.00	0.00	-7.20	0.00	1.10	0.00
	84302	5144.00	0.00	-7.50	0.00	1.10	0.00
	84303	4932.00	0.00	-9.60	0.00	1.10	0.00
	84304	2538.00	0.00	-5.20	0.00	1.10	0.00
	84305	3444.00	0.00	-1.50	0.00	2.50	0.00
NOVEMBER	84306	4318.00	0.00	-7.60	0.00	1.10	0.00
	84307	3715.00	0.00	-3.70	0.00	1.10	0.00
	84308	4356.00	0.00	-5.00	0.00	1.20	0.00
	84309	3906.00	0.00	-7.50	0.00	1.10	0.00
	84310	1422.00	0.00	1.20	0.00	1.70	0.00
	84311	3546.00	0.00	1.20	0.00	0.40	0.00
	84312	1540.00	0.00	-2.50	0.00	0.30	0.00
	84313	1764.00	0.00	-7.20	0.00	0.40	0.00
	84314	2412.00	0.00	-11.20	0.00	1.00	0.00
	84315	1692.00	0.00	-11.50	0.00	1.00	0.00
	84316	2178.00	0.00	-13.70	0.00	1.10	0.00
	84317	2124.00	0.00	-15.80	0.00	1.20	0.00
	84318	1692.00	0.00	-17.70	0.00	1.20	0.00
	84319	1026.00	0.00	-12.80	0.00	1.50	0.00
	84320	1314.00	0.00	-9.80	0.00	1.50	0.00
	84321	1278.00	0.00	-7.80	0.00	0.40	0.00
	84322	1314.00	0.00	-7.50	0.00	0.80	0.00
	84323	394.00	0.00	-9.00	0.00	0.40	0.00
	84324	1356.00	0.00	-3.00	0.00	1.20	0.00
	84325	468.00	0.00	4.40	0.00	4.40	0.00
	84326	244.00	0.00	2.40	0.00	1.50	0.00
	84327	342.00	0.00	-3.40	0.00	0.50	0.00
	84328	414.00	0.00	-4.20	0.00	0.50	0.00
	84329	148.00	0.00	-5.40	0.00	0.40	0.00
	84330	560.00	0.00	-13.20	0.00	0.30	0.00
	84331	252.00	0.00	-14.30	0.00	0.80	0.00
	84332	288.00	0.00	-12.90	0.00	0.40	0.00
	84333	106.00	0.00	-9.10	0.00	0.50	0.00
	84334	106.00	0.00	-10.20	0.00	0.50	0.00
	84335	414.00	0.00	-5.40	0.00	0.50	0.00

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

APPENDIX N.3. WIND SPEED DATA

DECEMBER

WINDSPEED (meters/sec.)				
DATE	0600	1200	1800	2400
02/553	-0.50	0.50	0.50	0.70
02/556	0.50	1.70	0.70	0.90
02/557	1.00	0.50	0.70	0.90
02/558	0.70	0.50	0.50	0.90
02/559	2.00	4.50	5.50	5.90
02/560	2.10	5.90	5.50	2.20
02/561	5.00	5.40	5.80	5.00
02/562	1.00	3.30	5.30	-0.30
02/563	-0.70	0.00	0.00	0.00
02/564	0.00	0.00	0.00	0.00
02/565	0.00	0.00	0.00	0.00
02/566	0.00	0.00	0.50	0.50
02/567	-0.30	3.70	5.70	0.00
02/568	0.20	0.50	0.00	-0.50
02/569	0.60	0.70	1.00	0.50
02/570	1.50	0.60	2.40	5.70
02/571	1.00	0.40	0.50	0.50
02/572	0.50	0.50	0.70	0.50
02/573	0.70	0.50	2.00	0.50
02/574	-0.50	-0.20	-0.50	0.70
02/575	0.70	0.50	0.50	0.50
02/576	0.50	0.70	0.50	0.50
02/577	0.00	0.50	0.50	0.50
02/578	0.50	0.00	0.00	0.00
02/579	0.50	0.00	0.50	5.50
02/580	0.60	8.40	0.50	0.00
02/581	6.20	7.20	7.70	2.70
02/582	0.50	7.10	5.60	5.90
02/583	10.10	7.00	1.00	0.70
02/584	-0.50	0.00	0.50	0.50
02/585	0.50	0.00	-0.50	0.50

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JANUARY

03/001	0.34	0.28	0.20	0.24
03/002	0.64	0.05	0.45	0.52
03/003	0.03	0.54	-0.20	-0.55
03/004	0.45	0.54	-0.20	-0.55
03/005	0.40	0.55	0.50	0.50
03/006	0.50	0.50	0.50	-0.40
03/007	-0.54	-0.25	-0.55	0.17
03/008	0.00	0.45	0.20	0.50
03/009	0.50	0.00	0.50	0.20
03/010	0.50	0.50	0.50	-0.20
03/011	0.50	0.50	0.50	0.00
03/012	0.00	0.20	0.20	0.40
03/013	0.55	0.00	0.55	0.20
03/014	0.20	0.50	0.07	0.44
03/015	0.05	0.00	0.50	0.50
03/016	-0.07	0.40	-0.10	-0.50
03/017	0.10	0.10	0.01	0.19
03/018	0.04	0.05	1.40	1.75
03/019	-0.04	-1.20	2.50	0.20
03/020	5.14	5.15	1.20	-1.50
03/021	-0.07	0.55	2.10	0.50
03/022	0.50	0.60	0.42	0.70
03/023	0.50	0.55	0.47	0.50
03/024	0.70	0.50	0.55	0.55
03/025	0.50	0.05	0.60	0.50
03/026	0.00	0.50	5.00	1.07
03/027	0.70	0.50	0.50	0.50
03/028	0.00	0.50	0.50	0.50
03/029	0.00	0.50	0.50	0.50
03/030	0.00	0.50	0.50	0.50
03/031	0.50	0.50	0.50	0.50

APPENDIX N.3. WIND SPEED DATA, cont.

FEBRUARY

WINDSPEED (meters/sec.)				
DATE	0600	1200	1800	2400
85052	0.07	0.50	1.11	0.54
85053	2.82	2.30	4.19	2.80
85054	2.92	0.45	0.49	0.77
85055	-0.10	0.29	0.75	0.20
85056	0.70	5.29	0.60	0.40
85057	0.87	0.10	-0.55	-0.19
85058	0.85	0.59	0.50	0.10
85059	1.07	0.31	0.95	0.17
85060	-2.55	-0.20	-0.50	0.77
85061	1.01	0.77	-0.51	-0.77
85062	2.05	-1.52	-1.02	0.00
83043	-1.53	1.52	1.99	-0.77
85064	-1.55	-2.29	2.89	-2.09
85065	2.60	2.29	2.04	1.27
85066	1.78	2.29	2.04	1.27
85067	1.55	1.55	5.00	0.00
85068	1.27	1.77	0.20	0.30
85069	5.05	-5.57	-0.20	-0.11
85070	1.26	0.50	0.70	0.55
85071	0.84	-1.04	-0.47	-0.89
85072	0.82	0.41	2.80	5.35
85073	1.55	-0.19	-0.45	0.70
85074	0.12	0.45	0.45	-0.07
85075	1.05	0.19	2.50	0.19
85076	0.15	0.29	0.15	0.51
85077	-0.85	0.20	2.70	0.51
85078	-0.05	-0.27	0.10	0.22
85079	0.52	0.21	0.25	0.64

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

MARCH

23060	0.80	0.20	-1.00	2.50
25061	0.30	0.15	-0.10	0.85
85062	0.50	0.19	-0.22	0.54
85063	0.62	0.87	-0.50	0.50
85064	0.45	0.50	-0.63	0.60
85065	0.45	0.15	0.21	0.55
85066	0.45	0.19	0.10	0.40
85067	0.75	0.19	-0.21	0.50
85068	0.59	0.26	0.20	0.50
85069	0.33	-0.22	-0.89	0.20
85070	0.45	-0.20	-0.99	-0.74
85071	0.46	-0.31	1.55	0.44
85072	0.40	0.19	-0.01	0.50
85073	0.39	0.20	-0.40	0.00
85074	0.55	1.20	5.45	1.25
85075	0.84	0.20	-0.55	0.60
85076	0.40	0.25	-0.05	0.45
85077	0.60	-0.25	-0.40	0.60
85078	0.49	0.15	-0.49	0.70
85079	0.20	0.45	-0.40	0.40
85080	0.60	0.10	-0.60	0.40
85081	0.50	0.20	-0.57	0.55
85082	0.43	0.50	-0.50	0.29
85083	1.15	-0.15	-0.52	0.54
85084	0.81	-0.26	0.55	-0.75
85085	0.54	-0.20	-0.53	0.10
85086	0.45	-0.50	5.29	5.54
85087	0.50	0.14	0.51	0.40
85088	0.55	-0.40	-0.49	0.50
85089	0.45	-0.21	-0.67	0.55
85090	0.50	-0.15	-1.10	0.42

APPENDIX N.3. WIND SPEED DATA, cont.

APRIL

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
05071	0.50	1.70	-0.50	0.50
05072	0.50	-0.50	-0.50	0.50
05073	0.50	5.00	0.10	2.20
05074	-1.00	-0.10	-0.50	2.20
05075	0.70	0.90	0.40	2.50
05076	-0.10	1.00	5.00	0.70
05077	0.00	-0.20	-1.00	0.50
05078	0.70	-0.50	-2.10	-0.20
05079	-0.20	-1.20	-1.10	0.50
05100	0.50	-0.50	-2.70	0.50
05101	0.50	1.20	0.70	0.00
05102	3.40	-0.20	-2.70	-0.10
05103	0.00	-0.40	-0.50	-0.20
05104	-0.20	2.90	1.10	5.50
05105	0.00	5.50	5.50	5.50
05106	0.50	-0.50	-1.10	-2.20
05107	0.70	-0.70	-1.00	-2.20
05108	5.20	1.00	0.40	2.50
05109	-0.90	1.40	4.40	2.30
05110	-0.60	0.70	2.40	0.40
05111	0.40	1.00	2.60	1.10
05112	-0.50	5.50	5.50	5.10
05113	1.10	2.10	-0.20	0.50
05114	0.60	-0.50	-1.20	0.70
05115	0.70	-0.50	1.00	0.10
05116	0.00	-0.80	-1.50	0.50
05117	0.50	-0.50	-1.00	0.50
05118	0.70	-0.40	-0.20	-0.20
05119	0.00	-0.40	-1.50	-0.10
05120	0.20	-1.10	-1.10	0.10

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

MAY

05121	0.00	-0.00	-1.50	-0.40
05122	0.00	-1.00	-2.00	-0.50
05123	-0.00	-1.00	-1.50	-0.10
05124	-0.10	0.20	5.00	1.20
05125	0.00	-0.20	2.40	0.20
05126	0.10	-0.10	2.10	1.20
05127	0.50	-1.20	-1.00	0.00
05128	0.60	-0.00	-2.10	0.10
05129	0.70	1.20	5.10	4.50
05130	2.00	1.00	4.00	2.00
05131	0.00	0.70	2.00	0.00
05132	0.50	2.40	5.00	0.00
05133	0.10	-1.20	1.50	2.00
05134	0.50	2.20	4.10	-0.50
05135	0.00	1.00	5.00	0.50
05136	1.00	0.70	5.50	1.20
05137	-0.50	1.40	5.10	3.50
05138	2.20	3.00	5.70	1.10
05139	0.00	-0.00	-2.10	-0.50
05140	0.80	-0.70	-1.00	-1.00
05141	0.00	-1.00	-2.10	-0.00
05142	0.10	1.20	-1.00	1.00
05143	1.50	1.00	5.50	1.50
05144	1.00	2.00	1.50	-0.00
05145	0.20	-1.10	-0.00	-0.50
05146	5.00	5.10	5.00	2.00
05147	0.00	0.00	0.00	-0.10
05148	0.00	1.00	2.00	0.00
05149	0.00	0.10	5.50	2.00
05150	0.00	-0.00	-0.00	2.00
05151	0.00	5.00	5.50	2.50

APPENDIX N.3. WIND SPEED DATA, cont.

JUNE

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
65170	3.10	-1.50	-1.10	-0.10
65171	-0.10	-1.20	-1.40	-0.20
65172	-0.10	-1.10	1.00	-1.50
65173	0.20	-0.40	-0.80	-0.20
65174	1.20	-1.10	-2.10	-0.20
65175	0.00	-0.20	-2.00	0.50
65176	0.00	-0.40	-0.20	-0.20
65177	0.10	-0.20	-1.80	-0.80
65178	0.10	-0.80	0.40	0.40
65179	0.50	-0.80	-0.10	0.50
65180	0.50	-1.20	5.50	5.80
65181	2.00	2.10	5.10	2.20
65182	0.20	-0.20	-1.50	0.10
65183	0.50	1.00	5.00	1.20
65184	0.50	-0.20	-1.50	-0.20
65185	0.50	-0.50	-1.10	-0.20
65186	0.40	-1.00	-1.10	0.20
65187	0.00	-2.50	2.50	1.10
65188	0.50	-1.50	-2.50	-0.10
65189	0.50	-1.00	-1.10	-0.50
65190	0.50	-1.20	-1.70	-0.40
65191	0.50	-1.00	-1.50	0.50
65192	0.00	-1.00	2.20	0.40
65193	0.40	-1.00	-1.40	0.40
65194	0.50	-0.60	-0.20	1.20
65195	-0.40	1.00	-0.80	-0.60
65196	0.10	-1.10	-2.00	-0.50
65197	0.10	2.60	1.00	1.20
65198	0.00	-0.10	-1.40	-0.40
65199	0.50	-1.00	-2.10	-0.20

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JULY

65200	-0.40	-1.10	-1.40	-0.50
65201	0.50	-0.10	-1.10	-0.20
65202	0.10	-0.50	-1.40	0.50
65203	0.50	-0.80	-1.40	-0.50
65204	0.20	-1.00	-1.10	0.10
65205	-0.10	-0.80	0.20	0.50
65206	-0.20	-0.10	-1.50	1.10
65207	1.80	1.20	2.10	0.50
65208	0.70	1.00	5.50	0.20
65209	0.40	-0.70	-1.40	0.50
65210	0.50	0.50	0.20	-0.10
65211	0.10	-1.20	-1.50	-0.50
65212	0.00	-0.50	0.50	0.40
65213	0.10	-0.50	0.40	0.10
65214	0.50	-0.20	-1.20	0.20
65215	0.10	-0.10	-0.10	0.50
65216	0.20	-0.10	-0.20	0.50
65217	0.00	-1.50	-0.10	0.50
65218	0.00	-0.50	-0.80	0.50
65219	0.50	-0.50	-0.10	0.40
65220	0.50	-0.10	-0.50	0.50
65221	0.50	-0.10	-1.50	-0.40
65222	0.50	-0.10	-0.50	0.50
65223	0.50	-0.10	-1.10	0.10
65224	0.10	-0.10	-1.50	-0.50
65225	0.10	-1.00	-1.20	0.10
65226	0.10	-0.10	-0.40	-0.50
65227	0.00	-0.10	-1.00	-0.20
65228	0.50	0.50	-1.40	0.10
65229	0.10	-0.10	-0.50	0.50

APPEND N.3. WIND SPEED DATA, cont.

AUGUST

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
83213	0.35	-0.32	0.01	0.21
83214	0.20	-0.23	0.23	0.22
83215	0.23	-0.07	-0.39	0.45
83216	0.30	0.15	-0.37	1.78
83217	0.25	0.07	0.08	0.40
83218	0.26	0.55	2.17	2.14
83219	1.18	2.52	2.89	3.54
83220	3.34	3.29	2.62	0.76
83221	0.12	-0.04	-0.57	0.13
83222	0.20	0.04	0.07	0.26
83223	0.18	0.16	0.15	0.22
83224	0.27	0.07	-0.17	0.10
83225	0.22	-0.22	-0.15	0.28
83226	0.64	-0.22	0.01	0.29
83227	-0.34	-0.34	0.31	0.43
83228	-0.54	-0.54	-0.27	0.23
83229	0.33	-0.01	0.29	0.38
83230	0.25	-0.18	-0.24	0.15
83231	0.24	-0.57	-0.21	0.27
83232	0.45	2.12	1.72	0.44
83233	0.28	-0.13	-0.03	0.22
83234	0.22	0.11	0.05	0.22
83235	0.22	0.03	-0.30	0.37
83236	0.38	-0.01	-0.31	0.14
83237	0.25	0.22	0.14	0.27
83238	0.23	0.22	-0.20	0.40
83239	0.27	-0.01	-0.35	0.24
83240	0.26	0.18	-0.17	0.34
83241	0.24	0.23	0.52	1.75
83242	0.43	0.48	5.14	0.24
83243	0.26	0.10	0.00	0.27

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

SEPTEMBER	83244	0.34	0.32	-0.07	0.27
	83245	0.32	-0.04	-0.31	0.28
	83246	0.26	0.14	0.23	0.34
	83247	0.25	0.23	0.23	0.38
	83248	0.26	0.02	0.00	0.18
	83249	0.31	-0.10	-0.56	0.22
	83250	0.24	0.12	-0.20	0.33
	83251	0.25	0.32	0.34	0.34
	83252	0.20	0.10	0.20	0.23
	83253	0.04	-0.13	0.02	0.33
	83254	0.04	-0.14	-0.15	0.51
	83255	0.25	0.23	1.53	2.12
	83256	2.38	2.41	2.48	1.33
	83257	-0.21	-0.98	-0.13	0.34
	83258	0.44	0.17	-0.62	0.34
	83259	0.24	0.03	-0.37	0.31
	83260	0.31	-0.10	-0.29	0.30
	83261	0.20	0.23	2.20	1.34
	83262	1.71	2.72	1.44	-0.14
	83263	0.13	2.73	2.64	0.72
	83264	0.21	0.08	0.24	0.26
	83265	0.37	0.01	0.00	0.24
	83266	-0.03	-0.13	0.15	1.10
	83267	0.72	-0.57	-0.67	0.33
	83268	0.53	0.31	-0.01	0.57
	83269	0.58	0.24	0.24	0.33
	83270	0.37	0.42	2.14	-0.30
	83271	-0.04	-0.84	0.67	-0.32
	83272	3.56	5.60	6.53	2.37
	83273	2.75	0.14	-0.05	0.30

APPENDIX N.3. WIND SPEED DATA, cont.

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
83274	0.70	0.50	1.40	2.30
83275	-0.10	0.00	-1.80	-0.30
83276	0.20	0.10	-0.60	0.40
83277	0.80	0.40	0.10	0.30
83278	0.80	0.40	0.20	0.50
83279	0.80	-2.20	-1.70	0.30
83280	1.00	0.10	-1.30	0.30
83281	1.00	0.90	-1.90	0.20
83282	0.60	2.30	6.00	-0.10
83283	5.30	8.50	7.20	5.30
83284	5.80	4.20	0.20	0.40
83285	0.70	0.50	-1.30	0.30
83286	0.60	0.90	0.30	0.70
83287	0.80	0.20	-0.20	0.50
83288	0.70	0.20	0.60	0.30
83289	0.90	0.30	-1.10	0.30
83290	0.80	0.50	-0.20	0.30
83291	-0.40	0.40	-0.40	0.30
83292	0.80	0.50	-0.40	0.50
83293	0.70	-0.30	-0.20	0.50
83294	0.60	0.50	-0.40	-0.10
83295	0.80	2.10	2.70	0.50
83296	0.90	0.50	0.40	0.70
83297	0.70	-0.80	-0.40	0.90
83298	-1.00	-1.30	-1.30	-0.40
83299	-0.60	-1.00	-1.10	0.30
83300	-0.20	0.70	0.40	0.30
83301	-0.30	-0.40	0.30	-0.30
83302	0.70	0.50	0.30	-1.10
83303	-0.60	-0.50	-1.70	-0.50
83304	-0.60	-1.30	-0.90	-0.50

OCTOBER

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

83305	-0.60	0.20	1.00	1.10
83306	-0.60	0.80	4.30	1.70
83307	0.20	0.80	0.50	0.30
83308	1.00	0.90	0.50	-0.50
83309	0.60	0.80	0.90	1.10
83310	1.00	1.00	0.80	0.20
83311	2.20	7.00	0.10	5.30
83312	5.40	3.80	1.70	0.20
83313	1.00	1.00	2.50	1.20
83314	2.00	0.80	0.50	0.30
83315	0.90	0.80	0.20	0.70
83316	0.80	0.80	0.80	1.30
83317	0.20	1.00	1.00	1.10
83318	1.00	0.80	0.60	0.40
83319	0.80	0.80	0.70	-0.20
83320	-1.20	1.00	1.00	1.10
83321	1.00	1.00	1.00	1.10
83322	1.00	2.00	2.00	1.50
83323	1.50	2.00	2.00	1.50
83324	1.60	5.40	6.30	8.10
83325	8.20	5.10	5.20	-0.10
83326	0.70	1.00	1.00	0.30
83327	0.60	-0.20	-2.00	-1.30
83328	-0.90	-0.20	1.00	1.10
83329	0.20	0.80	0.50	0.40
83330	0.80	0.30	0.60	0.90
83331	0.50	0.20	0.80	3.30
83332	5.80	8.20	7.20	8.20
83333	6.80	4.40	5.40	1.20
83334	1.30	1.30	1.10	1.20

NOVEMBER

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
	DATE	0600	1200	1800	2400
DECEMBER	83335	1.30	1.30	1.10	1.20
	83336	1.30	1.30	1.10	1.20
	83337	1.30	1.00	1.10	1.20
	83338	1.00	1.00	1.10	1.20
	83339	1.00	1.00	1.10	1.20
	83340	1.00	1.00	0.70	0.30
	83341	1.00	0.90	0.90	0.30
	83342	0.90	1.00	0.90	0.30
	83343	0.90	0.90	0.90	-0.30
	83344	-0.30	-0.20	-0.60	-0.70
	83345	0.50	0.40	0.40	0.70
	83346	0.70	0.60	0.60	0.70
	83347	0.60	-0.30	-0.30	0.30
	83348	0.40	0.30	0.30	0.30
	83349	0.40	0.30	0.30	0.30
	83350	0.40	0.20	-0.20	0.20
	83351	-0.20	0.10	0.10	0.20
	83352	0.40	0.30	0.30	0.30
	83353	0.40	0.30	0.40	0.20
	83354	0.00	0.10	0.20	0.20
	83355	0.20	0.00	0.00	0.30
	83356	0.40	0.30	0.30	0.30
	83357	0.40	0.30	0.30	0.30
	83358	0.20	0.20	0.20	0.10
	83359	0.40	0.30	0.40	0.30
	83360	0.10	0.00	0.10	0.30
	83361	0.10	0.10	0.10	0.10
	83362	0.10	0.10	0.10	0.10
	83363	0.00	0.00	0.00	0.20
	83364	0.00	0.10	0.00	0.20
	83365	0.10	0.20	0.00	0.10

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JANUARY	84001	0.20	0.00	0.00	0.20
	84002	1.00	1.60	5.80	5.30
	84003	6.40	5.80	3.20	-1.10
	84004	-3.00	-2.20	-1.10	0.50
	84005	0.80	0.90	-0.60	0.30
	84006	1.00	0.90	0.70	0.50
	84007	0.50	0.40	0.00	0.50
	84008	0.50	0.40	0.20	0.40
	84009	0.40	2.80	1.00	0.40
	84010	0.40	2.80	1.00	0.50
	84011	1.20	0.90	6.20	3.30
	84012	8.60	7.70	8.80	8.20
	84013	3.80	5.80	1.40	0.50
	84014	0.60	0.60	0.60	2.30
	84015	2.30	2.20	2.00	2.30
	84016	2.30	2.20	2.00	2.30
	84017	2.30	2.20	2.00	2.30
	84018	2.30	2.20	2.00	2.30
	84019	2.30	2.20	2.00	2.30
	84020	2.30	2.20	2.00	2.30
	84021	2.30	2.20	2.00	2.30
	84022	2.30	2.20	2.00	2.30
	84023	2.30	2.20	2.00	2.30
	84024	2.30	2.20	2.00	2.30
	84025	2.30	2.20	2.00	2.30
	84026	2.30	2.20	2.00	2.30
	84027	2.30	2.20	2.00	2.30
	84028	2.30	2.20	2.00	5.20
	84029	7.10	6.00	3.60	1.10
	84030	3.20	0.80	-0.20	-0.20
	84031	0.40	0.20	0.80	-0.20

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
DATE	0600	1200	1800	2400	
FEBRUARY	84032	1.00	1.00	0.80	-0.20
	84033	1.00	1.20	1.00	-1.00
	84034	1.50	1.80	1.80	-2.70
	84035	2.00	2.00	1.80	-2.70
	84036	-0.80	0.50	-0.30	-0.10
	84037	0.30	0.40	-0.40	2.30
	84038	-1.00	-1.00	-1.70	-0.80
	84039	-0.20	0.40	-0.20	0.40
	84040	0.40	0.20	-0.20	0.20
	84041	0.50	0.40	-0.40	0.30
	84042	0.60	0.40	0.20	0.30
	84043	0.50	0.30	0.20	0.30
	84044	0.50	0.30	0.20	0.30
	84045	0.30	0.40	0.20	0.30
	84046	0.30	0.50	0.20	0.30
	84047	1.20	1.00	-0.20	0.40
	84048	0.60	0.40	0.50	1.30
	84049	1.10	0.30	-0.30	-0.30
	84050	0.10	-0.40	-1.20	-0.20
	84051	0.00	-0.60	0.20	-0.20
	84052	-0.20	1.80	5.00	2.30
	84053	-1.00	-0.20	-0.50	-0.30
	84054	0.40	0.10	-0.40	0.40
	84055	0.60	0.50	-0.20	0.70
	84056	0.60	0.60	-1.00	0.30
	84057	0.40	0.20	-0.30	0.30
	84058	0.40	0.40	-0.50	0.30
	84059	-0.20	0.50	-0.10	0.50
	84060	0.70	0.50	0.50	0.20

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

MARCH	84061	0.60	0.20	-0.20	0.30
	84062	0.50	0.50	-0.10	1.20
	84063	3.90	5.40	2.80	6.10
	84064	6.50	4.00	5.40	2.30
	84065	1.40	1.60	5.20	5.30
	84066	2.70	0.60	-0.10	0.30
	84067	0.60	0.40	-0.50	0.50
	84068	0.80	0.90	-0.30	1.70
	84069	0.60	0.40	3.60	-0.10
	84070	0.80	1.40	4.20	-0.30
	84071	-0.30	0.50	0.30	0.40
	84072	0.50	0.20	-0.60	0.20
	84073	0.60	0.40	-0.60	0.50
	84074	0.60	0.50	-0.40	0.50
	84075	0.60	1.80	3.20	0.20
	84076	0.60	0.20	-0.60	0.20
	84077	0.30	0.50	-1.00	0.50
	84078	0.60	0.10	-1.40	0.50
	84079	0.60	0.40	-0.80	0.30
	84080	0.70	0.70	-1.10	0.20
	84081	0.60	0.30	-0.90	0.40
	84082	0.70	0.20	-1.00	0.20
	84083	0.80	0.20	-1.20	0.30
	84084	0.80	0.10	-1.40	0.30
	84085	0.30	-0.40	-1.30	0.40
	84086	0.50	0.40	3.60	2.30
	84087	4.00	4.00	3.50	0.50
	84088	0.60	-0.10	1.40	3.20
	84089	0.50	1.40	1.80	0.50
	84090	-0.10	-0.30	-0.70	-0.20
	84091	0.30	0.20	3.60	4.50

APPENDIX N.3. WIND SPEED DATA, cont.

WINDSPEED (meters/sec.)						
DATE	0600	1200	1800	2400		
APRIL	84092	1.20	2.30	1.80	-0.50	
	84093	0.10	-0.30	-1.50	-0.30	
	84094	0.10	-0.40	-1.40	0.50	
	84095	0.60	-0.20	-1.00	0.30	
	84096	0.90	2.40	-1.70	-0.50	
	84097	0.60	-0.40	-1.50	-0.20	
	84098	-0.30	-0.70	-1.40	-1.00	
	84099	-0.40	1.70	4.10	0.50	
	84100	0.60	0.30	-0.90	0.50	
	84101	-0.30	-1.30	-2.00	-0.20	
	84102	-0.50	-0.50	-1.30	0.20	
	84103	0.40	-0.20	-1.40	0.50	
	84104	0.50	-0.70	2.10	2.00	
	84105	0.40	-0.20	-1.70	-0.20	
	84106	0.50	-0.40	-2.80	-0.30	
	84107	-1.00	-1.00	-0.70	-0.20	
	84108	0.20	-0.40	-0.90	-0.30	
	84109	-0.40	-0.60	-0.90	0.50	
	84110	0.40	-0.10	-1.10	0.20	
	84111	0.40	-0.50	-0.60	0.20	
	84112	1.20	2.30	2.00	-1.10	
84113	-1.80	-0.30	-1.50	0.50		
84114	0.80	-0.30	-0.50	1.30		
84115	0.60	-0.10	3.20	2.00		
84116	0.70	-0.40	4.50	4.40		
84117	3.60	3.80	4.10	1.50		
84118	0.40	-0.40	-1.10	4.10		
84119	3.50	3.40	4.30	4.30		
84120	3.90	1.70	-1.80	-1.00		
84121	2.10	4.30	3.30	2.10		
MAY	84122	-0.60	0.50	1.10	0.70	
	84123	-0.30	0.00	3.60	1.70	
	84124	0.60	-2.00	3.50	1.20	
	84125	0.20	0.40	3.00	1.20	
	84126	0.50	7.80	1.10	0.30	
	84127	0.90	-0.70	3.50	0.50	
	84128	0.80	-0.40	-1.70	1.10	
	84129	0.90	-0.40	-1.40	1.30	
	84130	0.90	-0.30	-2.20	0.00	
	84131	0.80	-0.40	-2.10	0.30	
	84132	0.90	-0.70	-3.10	-0.30	
	84133	0.90	-0.50	-2.10	-0.20	
	84134	0.90	-0.40	2.10	-0.20	
	84135	0.90	-0.50	1.10	2.00	
	84136	1.00	0.10	3.70	3.30	
	84137	0.60	0.10	2.20	1.70	
	84138	0.60	-0.60	2.60	3.30	
	84139	2.00	2.20	3.90	1.70	
	84140	0.70	-0.50	-1.30	-1.20	
	84141	0.40	-0.50	1.50	2.10	
	84142	0.30	-1.20	2.40	2.00	
84143	2.00	-1.00	-1.90	-0.20		
84144	0.80	-0.40	0.60	1.20		
84145	0.70	-0.90	-2.40	-2.00		
84146	0.60	-1.10	0.20	1.20		
84147	0.70	-0.20	0.20	1.00		
84148	0.70	-0.20	0.20	1.20		
84149	0.70	-0.20	0.20	1.00		
84150	0.70	-0.20	0.10	1.20		
84151	0.70	-0.20	0.10	1.00		
84152	0.70	-0.20	0.10	1.00		

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

APPENDIX N.3. WIND SPEED DATA, cont.

WINDSPEED (meters/sec.)					
DATE	0600	1200	1800	2400	
JUNE	84153	0.70	-0.20	-1.20	1.20
	84154	0.80	-0.50	-1.50	0.50
	84155	0.70	-0.40	-2.10	0.30
	84156	0.70	-0.40	-1.70	0.50
	84157	0.70	-2.00	-1.10	0.50
	84158	0.40	0.30	-1.70	0.30
	84159	0.70	0.60	-1.10	1.30
	84160	0.40	-0.50	-1.50	-1.50
	84161	0.70	0.10	-1.90	0.30
	84162	0.70	-0.50	2.00	-0.70
	84163	0.60	-0.90	-1.50	0.10
	84164	0.40	0.60	0.30	0.50
	84165	-0.50	1.40	2.70	1.30
	84166	0.70	-0.30	3.20	0.30
	84167	0.60	-0.20	-1.50	-0.50
	84168	0.40	0.20	-1.20	-0.30
	84169	0.40	-0.20	-2.00	-0.40
	84170	0.60	-0.50	-1.60	0.10
	84171	0.70	-0.40	-1.60	-0.10
	84172	0.70	-0.20	-2.00	-0.50
	84173	0.70	-0.60	-1.70	0.20
	84174	0.70	0.10	-1.40	0.20
	84175	0.70	-0.30	1.00	3.00
	84176	0.50	1.50	3.10	3.40
	84177	2.70	2.50	1.50	2.00
	84178	0.60	1.60	-1.30	0.50
	84179	0.40	-0.90	2.10	0.70
	84180	0.50	-0.40	-1.10	5.00
	84181	2.10	3.20	0.30	3.50
	84182	0.60	0.80	1.70	1.00

NOTE:

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JULY	84183	0.30	-0.30	-1.00	-0.70
	84184	0.40	-0.20	-1.30	-0.20
	84185	0.50	0.10	0.40	0.50
	84186	0.50	-0.60	-1.20	0.20
	84187	0.40	-0.50	-1.60	0.30
	84188	0.60	-0.50	-1.70	0.20
	84189	0.50	-0.10	-2.20	0.30
	84190	0.70	-0.20	-0.50	0.50
	84191	0.50	0.20	-2.00	-0.30
	84192	0.80	0.30	0.20	2.30
	84193	1.10	1.80	1.10	-0.30
	84194	0.60	-0.40	-1.40	0.20
	84195	0.50	-0.10	-1.50	0.70
	84196	0.50	0.20	-0.30	0.40
	84197	0.80	-0.30	-1.30	0.40
	84198	0.60	-0.70	-1.10	-0.50
	84199	-0.20	0.30	-0.50	-0.20
	84200	0.50	-0.60	-1.20	-0.20
	84201	0.50	-0.80	-1.20	0.20
	84202	0.40	-0.20	-1.10	-0.30
	84203	0.50	-0.50	-1.80	-0.20
	84204	0.60	-0.10	-1.00	0.20
	84205	0.30	-0.50	-1.40	0.10
	84206	0.40	-0.30	-1.20	0.20
	84207	0.40	0.10	-1.10	-0.30
	84208	0.50	-0.20	-0.60	0.50
	84209	0.70	-0.20	-0.60	0.40
	84210	0.60	1.10	-0.80	0.20
	84211	-0.40	-0.20	-2.10	-0.50
	84212	0.50	0.00	-1.70	-0.50
	84213	0.30	-0.60	-2.30	-1.10

APPENDIX N.3. WIND SPEED DATA, cont.

WINDSPEED (meters/sec.)						
DATE	0600	1200	1800	2400		
AUGUST	84214	0.30	-0.50	-1.30	-0.10	
	84215	0.50	-0.10	-1.40	-0.40	
	84216	0.30	-0.40	-1.30	0.50	
	84217	0.50	0.20	-1.40	0.70	
	84218	0.50	-0.10	-0.60	0.50	
	84219	0.80	-0.60	-0.20	0.50	
	84220	0.60	-0.20	-1.50	0.50	
	84221	-0.50	-0.30	-0.40	0.50	
	84222	0.50	0.50	-1.10	0.20	
	84223	0.60	0.20	0.30	0.70	
	84224	0.40	0.40	-0.40	0.50	
	84225	0.70	0.10	-1.80	0.50	
	84226	0.80	0.20	-1.30	0.20	
	84227	0.80	0.60	-1.70	0.50	
	84228	0.70	0.20	-1.30	0.30	
	84229	0.60	-0.10	-0.80	0.30	
	84230	0.80	-0.30	-0.70	-0.30	
	84231	-1.10	2.90	4.00	2.70	
	84232	2.60	-0.60	-1.60	-0.30	
	84233	-0.30	-0.40	-1.70	-1.20	
	84234	-0.30	3.50	0.20	3.20	
	84235	1.70	-0.60	-1.50	-0.20	
	84236	0.40	0.50	-0.60	0.20	
	84237	0.60	2.70	3.20	0.20	
	84238	0.70	0.40	-2.70	2.70	
	84239	-2.30	-2.00	-2.60	-0.70	
	84240	0.60	-0.10	-1.60	0.20	
	84241	0.70	0.20	-2.00	0.50	
	84242	0.70	0.30	-1.10	0.50	
	84243	0.70	0.10	-1.90	0.20	
	84244	0.70	0.10	-1.90	0.20	

NOTE:

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2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

SEPTEMBER	84245	0.60	-0.10	-0.80	0.50
	84246	0.70	0.10	-0.40	0.50
	84247	0.70	0.20	-0.60	0.50
	84248	0.70	0.20	0.40	0.50
	84249	0.70	0.10	-1.20	0.50
	84250	0.70	0.05	-0.90	2.20
	84251	0.70	0.80	3.00	0.20
	84252	0.60	0.40	2.60	1.50
	84253	0.60	0.10	-0.80	0.50
	84254	0.80	0.10	-1.00	0.50
	84255	0.70	0.20	3.40	1.30
	84256	0.70	-0.20	-1.00	2.40
	84257	0.80	0.60	2.90	0.50
	84258	0.80	0.60	0.70	-0.30
	84259	0.60	0.60	2.40	0.30
	84260	0.80	0.40	-1.30	0.30
	84261	0.50	-0.04	-0.80	-0.20
	84262	0.60	0.60	-1.60	-0.30
	84263	0.20	-0.30	-1.20	-1.20
	84264	0.70	0.50	-1.10	0.20
	84265	0.80	0.60	-0.70	0.30
	84266	0.90	0.30	-0.90	0.50
	84267	1.00	3.10	2.80	3.10
	84268	4.20	4.10	3.80	2.20
	84269	0.30	-0.20	0.40	-0.20
	84270	0.90	0.30	-1.00	0.30
	84271	0.80	1.00	-0.50	0.50
	84272	0.80	0.80	-0.30	1.10
	84273	0.20	-0.10	-0.80	-1.70
	84274	0.80	3.30	2.70	0.50

APPENDIX N.3. WIND SPEED DATA, cont.

WINDSPEED (meters/sec.)					
DATE	0600	1200	1800	2400	
OCTOBER	84275	0.80	0.80	1.30	1.10
	84276	1.40	1.50	1.30	1.30
	84277	0.40	0.40	1.60	0.30
	84278	1.00	0.80	-0.50	0.20
	84279	0.80	1.60	1.80	0.30
	84280	0.80	2.10	1.00	1.30
	84281	0.80	0.60	-0.50	-0.40
	84282	0.30	-0.80	-0.40	0.50
	84283	0.70	0.60	-0.40	0.70
	84284	0.80	0.70	0.60	0.30
	84285	0.80	0.70	0.60	0.30
	84286	0.80	0.60	-0.30	0.30
	84287	1.00	1.00	0.50	0.70
	84288	1.00	-0.50	-0.50	1.30
	84289	1.00	0.90	0.20	0.30
	84290	1.00	1.00	0.30	1.30
	84291	1.20	1.00	0.70	1.10
	84292	1.30	1.00	0.40	0.30
	84293	0.80	0.80	0.30	0.10
	84294	0.50	0.40	0.50	0.50
	84295	0.50	-0.60	-2.40	1.50
	84296	5.80	5.60	4.80	-2.10
	84297	-1.00	-2.00	0.20	0.30
	84298	1.20	1.00	0.30	0.50
	84299	1.20	0.40	1.30	0.50
	84300	1.20	1.00	1.00	0.50
	84301	1.20	0.70	1.00	0.50
	84302	1.20	0.60	1.00	0.50
	84303	1.20	0.90	0.60	0.50
	84304	1.20	0.90	0.60	-0.70
	84305	2.00	1.10	2.80	0.30

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

NOVEMBER	84306	1.10	1.00	1.10	1.10
	84307	1.10	1.00	1.10	1.30
	84308	1.10	1.20	1.10	1.20
	84309	1.10	1.10	0.90	1.10
	84310	0.40	-0.60	1.30	1.20
	84311	0.80	0.40	-0.30	-0.20
	84312	0.60	0.70	-0.80	0.30
	84313	0.90	0.80	0.30	1.20
	84314	1.00	1.00	1.00	1.30
	84315	-1.00	1.00	0.90	1.30
	84316	1.00	1.00	1.00	1.30
	84317	1.20	1.30	1.10	1.10
	84318	1.20	1.20	1.20	1.10
	84319	1.20	1.10	0.30	-1.30
	84320	-2.10	-0.50	0.80	1.30
	84321	1.00	0.20	0.80	0.30
	84322	0.90	0.70	0.70	0.30
	84323	0.90	0.90	0.80	0.70
	84324	0.80	0.80	0.80	4.30
	84325	4.90	4.90	1.80	5.50
	84326	4.00	-0.70	0.60	0.50

APPENDIX N.4. INFLOW DATA

DECEMBER

1	2	3	4	5	6	7
02551	100.	0.1	0.0	20.	0.1	0.0
02552	90.	0.1	0.0	20.	0.1	0.0
02553	81.	0.1	0.0	20.	0.1	0.0
02554	67.	0.1	0.0	20.	0.1	0.0
02555	62.	0.1	0.0	20.	0.1	0.0
02556	70.	0.1	0.0	20.	0.1	0.0
02557	75.	0.1	0.0	20.	0.1	0.0
02558	69.	0.1	0.0	20.	0.1	0.0
02559	60.	0.1	0.0	10.	0.1	0.0
02560	60.	0.1	0.0	10.	0.1	0.0
02561	60.	0.1	0.0	10.	0.1	0.0
02562	60.	0.1	0.0	10.	0.1	0.0
02563	60.	0.1	0.0	10.	0.1	0.0
02564	60.	0.1	0.0	10.	0.1	0.0
02565	60.	0.1	0.0	10.	0.1	0.0
02566	60.	0.1	0.0	10.	0.1	0.0
02567	60.	0.1	0.0	10.	0.1	0.0
02568	60.	0.1	0.0	10.	0.1	0.0
02569	60.	0.1	0.0	10.	0.1	0.0
02570	60.	0.1	0.0	10.	0.1	0.0
02571	60.	0.1	0.0	10.	0.1	0.0
02572	60.	0.1	0.0	10.	0.1	0.0
02573	60.	0.1	0.0	10.	0.1	0.0
02574	60.	0.1	0.0	10.	0.1	0.0
02575	60.	0.1	0.0	10.	0.1	0.0
02576	60.	0.1	0.0	10.	0.1	0.0
02577	60.	0.1	0.0	10.	0.1	0.0
02578	60.	0.1	0.0	10.	0.1	0.0
02579	60.	0.1	0.0	10.	0.1	0.0
02580	60.	0.1	0.0	10.	0.1	0.0
02581	60.	0.1	0.0	10.	0.1	0.0
02582	60.	0.1	0.0	10.	0.1	0.0
02583	60.	0.1	0.0	10.	0.1	0.0
02584	60.	0.1	0.0	10.	0.1	0.0
02585	60.	0.1	0.0	10.	0.1	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Minor Tributaries
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

JANUARY

03061	60.	0.1	0.0	0.	0.0	0.0
03062	60.	0.1	0.0	0.	0.0	0.0
03063	60.	0.1	0.0	0.	0.0	0.0
03064	60.	0.1	0.0	0.	0.0	0.0
03065	60.	0.1	0.0	0.	0.0	0.0
03066	60.	0.1	0.0	0.	0.0	0.0
03067	60.	0.1	0.0	0.	0.0	0.0
03068	60.	0.1	0.0	0.	0.0	0.0
03069	60.	0.1	0.0	0.	0.0	0.0
03070	60.	0.1	0.0	0.	0.0	0.0
03071	60.	0.1	0.0	0.	0.0	0.0
03072	60.	0.1	0.0	0.	0.0	0.0
03073	60.	0.1	0.0	0.	0.0	0.0
03074	60.	0.1	0.0	0.	0.0	0.0
03075	60.	0.1	0.0	0.	0.0	0.0
03076	60.	0.1	0.0	0.	0.0	0.0
03077	60.	0.1	0.0	0.	0.0	0.0
03078	60.	0.1	0.0	0.	0.0	0.0
03079	60.	0.1	0.0	0.	0.0	0.0
03080	60.	0.1	0.0	0.	0.0	0.0
03081	60.	0.1	0.0	0.	0.0	0.0
03082	60.	0.1	0.0	0.	0.0	0.0
03083	60.	0.1	0.0	0.	0.0	0.0
03084	60.	0.1	0.0	0.	0.0	0.0
03085	60.	0.1	0.0	0.	0.0	0.0
03086	60.	0.1	0.0	0.	0.0	0.0
03087	60.	0.1	0.0	0.	0.0	0.0
03088	60.	0.1	0.0	0.	0.0	0.0
03089	60.	0.1	0.0	0.	0.0	0.0
03090	60.	0.1	0.0	0.	0.0	0.0
03091	60.	0.1	0.0	0.	0.0	0.0
03092	60.	0.1	0.0	0.	0.0	0.0
03093	60.	0.1	0.0	0.	0.0	0.0
03094	60.	0.1	0.0	0.	0.0	0.0
03095	60.	0.1	0.0	0.	0.0	0.0
03096	60.	0.1	0.0	0.	0.0	0.0
03097	60.	0.1	0.0	0.	0.0	0.0
03098	60.	0.1	0.0	0.	0.0	0.0
03099	60.	0.1	0.0	0.	0.0	0.0
03100	60.	0.1	0.0	0.	0.0	0.0

APPENDIX N.4. INFLOW DATA, cont.

FEBRUARY

1	2	3	4	5	6	7
05032	55.0	0.1	0.0	0.0	0.0	0.0
05033	55.0	0.1	0.0	0.0	0.0	0.0
05034	55.0	0.1	0.0	0.0	0.0	0.0
05035	55.0	0.1	0.0	0.0	0.0	0.0
05036	55.0	0.1	0.0	0.0	0.0	0.0
05037	55.0	0.1	0.0	0.0	0.0	0.0
05038	55.0	0.1	0.0	0.0	0.0	0.0
05039	55.0	0.1	0.0	0.0	0.0	0.0
05040	55.0	0.1	0.0	0.0	0.0	0.0
05041	55.0	0.1	0.0	0.0	0.0	0.0
05042	55.0	0.1	0.0	0.0	0.0	0.0
05043	55.0	0.1	0.0	0.0	0.0	0.0
05044	55.0	0.1	0.0	0.0	0.0	0.0
05045	55.0	0.1	0.0	0.0	0.0	0.0
05046	55.0	0.1	0.0	0.0	0.0	0.0
05047	55.0	0.1	0.0	0.0	0.0	0.0
05048	55.0	0.1	0.0	0.0	0.0	0.0
05049	55.0	0.1	0.0	0.0	0.0	0.0
05050	55.0	0.1	0.0	0.0	0.0	0.0
05051	55.0	0.1	0.0	0.0	0.0	0.0
05052	55.0	0.1	0.0	0.0	0.0	0.0
05053	55.0	0.1	0.0	0.0	0.0	0.0
05054	55.0	0.1	0.0	0.0	0.0	0.0
05055	55.0	0.1	0.0	0.0	0.0	0.0
05056	55.0	0.1	0.0	0.0	0.0	0.0
05057	55.0	0.1	0.0	0.0	0.0	0.0
05058	55.0	0.1	0.0	0.0	0.0	0.0
05059	55.0	0.1	0.0	0.0	0.0	0.0
05060	55.0	0.1	0.0	0.0	0.0	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Minor Tributaries
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

MARCH

05061	55.0	0.1	0.0	0.0	0.0	0.0
05062	55.0	0.1	0.0	0.0	0.0	0.0
05063	55.0	0.1	0.0	0.0	0.0	0.0
05064	55.0	0.1	0.0	0.0	0.0	0.0
05065	55.0	0.1	0.0	0.0	0.0	0.0
05066	55.0	0.1	0.0	0.0	0.0	0.0
05067	55.0	0.1	0.0	0.0	0.0	0.0
05068	55.0	0.1	0.0	0.0	0.0	0.0
05069	55.0	0.1	0.0	0.0	0.0	0.0
05070	55.0	0.1	0.0	0.0	0.0	0.0
05071	55.0	0.1	0.0	0.0	0.0	0.0
05072	55.0	0.1	0.0	0.0	0.0	0.0
05073	55.0	0.1	0.0	0.0	0.0	0.0
05074	55.0	0.1	0.0	0.0	0.0	0.0
05075	55.0	0.1	0.0	0.0	0.0	0.0
05076	55.0	0.1	0.0	0.0	0.0	0.0
05077	55.0	0.1	0.0	0.0	0.0	0.0
05078	55.0	0.1	0.0	0.0	0.0	0.0
05079	55.0	0.1	0.0	0.0	0.0	0.0
05080	55.0	0.1	0.0	0.0	0.0	0.0
05081	55.0	0.1	0.0	0.0	0.0	0.0
05082	55.0	0.1	0.0	0.0	0.0	0.0
05083	55.0	0.1	0.0	0.0	0.0	0.0
05084	55.0	0.1	0.0	0.0	0.0	0.0
05085	55.0	0.1	0.0	0.0	0.0	0.0
05086	55.0	0.1	0.0	0.0	0.0	0.0
05087	55.0	0.1	0.0	0.0	0.0	0.0
05088	55.0	0.1	0.0	0.0	0.0	0.0
05089	55.0	0.1	0.0	0.0	0.0	0.0
05090	55.0	0.1	0.0	0.0	0.0	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2 3 4 5 6 7					
APRIL	85091	100.	0.1	0.0	10.	0.0	0.0
	85092	100.	0.1	0.0	50.	0.1	0.0
	85093	120.	0.1	0.0	50.	0.1	0.0
	85094	120.	0.1	0.0	50.	0.1	0.0
	85095	120.	0.2	0.0	50.	0.1	0.0
	85096	120.	0.3	0.0	50.	0.2	0.0
	85097	120.	0.4	0.0	50.	0.4	0.0
	85098	120.	0.5	0.0	50.	0.4	0.0
	85099	120.	0.5	0.0	50.	0.5	0.0
	85100	120.	0.6	0.0	50.	0.6	0.0
	85101	120.	0.6	0.0	50.	0.7	0.0
	85102	120.	0.7	0.0	50.	0.8	0.0
	85103	120.	0.7	0.0	50.	0.9	0.0
	85104	120.	0.8	0.0	50.	1.0	0.0
	85105	120.	0.9	0.0	50.	1.0	0.0
	85106	100.	1.0	0.0	20.	1.1	0.0
	85107	100.	1.0	0.0	20.	1.1	0.0
	85108	100.	1.1	0.0	20.	1.2	0.0
	85109	100.	1.1	0.0	20.	1.3	0.0
	85110	100.	1.2	0.0	20.	1.4	0.0
MAY	85111	100.	1.3	0.0	20.	1.4	0.0
	85112	100.	1.3	0.0	20.	1.5	0.0
	85113	100.	1.4	0.0	20.	1.6	0.0
	85114	100.	1.5	0.0	20.	1.6	0.0
	85115	100.	1.6	0.0	20.	1.7	0.0
	85116	100.	1.6	0.0	20.	1.7	0.0
	85117	100.	1.7	0.0	20.	1.7	0.0
	85118	100.	1.8	0.0	20.	1.8	0.0
	85119	100.	1.9	0.0	20.	1.9	0.0
	85120	100.	2.0	0.0	20.	2.0	0.0
	85121	100.	2.0	0.0	20.	2.0	0.0
	85122	100.	2.0	0.0	20.	2.0	0.0
	85123	100.	2.0	0.0	20.	2.1	0.0
	85124	100.	2.0	0.0	20.	2.2	0.0
	85125	175.	2.1	0.0	50.	2.4	0.0
	85126	100.	2.2	0.0	50.	2.4	0.0
	85127	100.	2.3	0.0	50.	2.5	0.0
	85128	145.	2.3	0.0	50.	2.5	0.0
	85129	200.	2.3	0.0	50.	2.7	0.0
	85130	200.	2.4	0.0	50.	2.8	0.0
	85131	212.	2.4	0.0	50.	2.9	0.0
	85132	210.	2.7	0.0	50.	3.0	0.0
	85133	220.	2.8	0.0	50.	3.1	0.0
	85134	220.	2.8	0.0	50.	3.2	0.0
	85135	241.	2.9	0.0	50.	3.3	0.0
	85136	255.	3.0	0.0	50.	3.4	0.0
	85137	257.	3.0	0.0	50.	3.5	0.0
	85138	303.	3.0	0.0	50.	3.7	0.0
	85139	328.	3.0	0.0	50.	3.7	0.0
	85140	355.	3.1	0.0	50.	3.7	0.0
	85141	366.	3.3	0.0	50.	3.9	0.0
	85142	370.	3.2	0.1	50.	4.0	0.0
	85143	385.	3.2	0.0	50.	4.1	0.0
	85144	100.	3.4	0.0	50.	4.2	0.0
	85145	100.	3.3	0.0	50.	4.3	0.0
	85146	100.	3.2	0.0	50.	4.4	0.0
	85147	602.	3.6	0.0	50.	4.5	0.0
	85148	750.	3.5	0.0	50.	4.6	0.0
	85149	770.	4.0	0.0	50.	4.7	0.0
	85150	1000.	3.7	0.0	50.	4.8	0.0
	85151	1000.	4.0	0.0	50.	4.9	0.0

LEGEND

- Date
(Year-Julian Day)
East Fork & Glacier Fork
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
Minor Tributaries
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
JUNE	05156	275.	5.1	0.0	0.0	5.0	0.0
	05155	176.	5.1	0.0	0.0	5.2	0.0
	05154	675.	5.1	0.0	0.0	5.7	0.0
	05153	538.	5.1	0.0	0.0	5.9	0.0
	05152	567.	5.1	0.0	0.0	6.1	0.0
	05151	607.	5.1	0.0	0.0	6.5	0.0
	05150	650.	5.0	0.0	0.0	6.6	0.0
	05149	669.	5.0	0.0	0.0	6.8	0.0
	05148	678.	5.0	0.0	0.0	7.0	0.0
	05147	611.	5.0	0.0	0.0	7.2	0.0
	05146	605.	5.0	0.0	0.0	7.4	0.0
	05145	657.	5.1	0.0	0.0	7.6	0.0
	05144	665.	5.0	0.0	0.0	7.8	0.0
	05143	707.	5.0	0.0	0.0	8.0	0.0
	05142	717.	5.0	0.0	0.0	8.2	0.0
	05141	759.	5.0	0.0	0.0	8.4	0.0
	05140	802.	5.1	0.0	175.	8.6	0.0
	05139	1009.	5.0	0.0	175.	8.8	0.0
	05138	1204.	5.1	0.0	175.	9.0	0.0
	05137	1551.	5.0	0.0	175.	9.0	0.0
	05136	1965.	5.0	0.0	175.	9.0	0.0
	05135	1542.	5.0	0.0	175.	9.0	0.0
	05134	1808.	5.1	0.0	175.	9.0	0.0
	05133	1610.	5.0	0.0	175.	9.0	0.0
	05132	1327.	5.0	0.0	175.	9.0	0.0
	05131	1058.	5.0	0.0	175.	9.0	0.0
	05130	1907.	5.0	0.0	175.	9.0	0.0
	05129	1970.	5.1	0.0	175.	9.0	0.0
	05128	1005.	5.1	0.0	175.	9.0	0.0
	05127	1005.	5.0	0.0	225.	9.0	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

Minor Tributaries

JULY	05182	2041.	3.3	0.0	225.	9.0	0.0
	05181	2050.	5.0	0.0	225.	9.0	0.0
	05180	2105.	5.0	0.0	225.	9.0	0.0
	05179	2150.	5.0	0.0	225.	9.0	0.0
	05178	2103.	5.0	0.0	225.	9.0	0.0
	05177	2105.	5.0	0.0	225.	9.0	0.0
	05176	2100.	5.0	0.0	225.	9.0	0.0
	05175	2179.	5.0	0.0	225.	9.0	0.0
	05174	2000.	5.0	0.0	225.	9.0	0.0
	05173	1951.	5.0	0.0	225.	9.0	0.0
	05172	1703.	5.0	0.0	225.	9.0	0.0
	05171	1505.	5.0	0.0	225.	9.0	0.0
	05170	1500.	5.0	0.0	225.	9.0	0.0
	05169	1500.	5.0	0.0	225.	9.0	0.0
	05168	1500.	5.0	0.0	225.	9.0	0.0
	05167	1500.	5.0	0.0	225.	9.0	0.0
	05166	1500.	5.0	0.0	225.	9.0	0.0
	05165	1500.	5.0	0.0	225.	9.0	0.0
	05164	1500.	5.0	0.0	225.	9.0	0.0
	05163	1500.	5.0	0.0	225.	9.0	0.0
	05162	1500.	5.0	0.0	225.	9.0	0.0
	05161	1500.	5.0	0.0	225.	9.0	0.0
	05160	1500.	5.0	0.0	225.	9.0	0.0
	05159	1500.	5.0	0.0	225.	9.0	0.0
	05158	1500.	5.0	0.0	225.	9.0	0.0
	05157	1500.	5.0	0.0	225.	9.0	0.0
	05156	1500.	5.0	0.0	225.	9.0	0.0
	05155	1500.	5.0	0.0	225.	9.0	0.0
	05154	1500.	5.0	0.0	225.	9.0	0.0
	05153	1500.	5.0	0.0	225.	9.0	0.0
	05152	1500.	5.0	0.0	225.	9.0	0.0
	05151	1500.	5.0	0.0	225.	9.0	0.0
	05150	1500.	5.0	0.0	225.	9.0	0.0
	05149	1500.	5.0	0.0	225.	9.0	0.0
	05148	1500.	5.0	0.0	225.	9.0	0.0
	05147	1500.	5.0	0.0	225.	9.0	0.0
	05146	1500.	5.0	0.0	225.	9.0	0.0
	05145	1500.	5.0	0.0	225.	9.0	0.0
	05144	1500.	5.0	0.0	225.	9.0	0.0
	05143	1500.	5.0	0.0	225.	9.0	0.0
	05142	1500.	5.0	0.0	225.	9.0	0.0
	05141	1500.	5.0	0.0	225.	9.0	0.0
	05140	1500.	5.0	0.0	225.	9.0	0.0
	05139	1500.	5.0	0.0	225.	9.0	0.0
	05138	1500.	5.0	0.0	225.	9.0	0.0
	05137	1500.	5.0	0.0	225.	9.0	0.0
	05136	1500.	5.0	0.0	225.	9.0	0.0
	05135	1500.	5.0	0.0	225.	9.0	0.0
	05134	1500.	5.0	0.0	225.	9.0	0.0
	05133	1500.	5.0	0.0	225.	9.0	0.0
	05132	1500.	5.0	0.0	225.	9.0	0.0
	05131	1500.	5.0	0.0	225.	9.0	0.0
	05130	1500.	5.0	0.0	225.	9.0	0.0
	05129	1500.	5.0	0.0	225.	9.0	0.0
	05128	1500.	5.0	0.0	225.	9.0	0.0
	05127	1500.	5.0	0.0	225.	9.0	0.0
	05126	1500.	5.0	0.0	225.	9.0	0.0
	05125	1500.	5.0	0.0	225.	9.0	0.0
	05124	1500.	5.0	0.0	225.	9.0	0.0
	05123	1500.	5.0	0.0	225.	9.0	0.0
	05122	1500.	5.0	0.0	225.	9.0	0.0
	05121	1500.	5.0	0.0	225.	9.0	0.0
	05120	1500.	5.0	0.0	225.	9.0	0.0
	05119	1500.	5.0	0.0	225.	9.0	0.0
	05118	1500.	5.0	0.0	225.	9.0	0.0
	05117	1500.	5.0	0.0	225.	9.0	0.0
	05116	1500.	5.0	0.0	225.	9.0	0.0
	05115	1500.	5.0	0.0	225.	9.0	0.0
	05114	1500.	5.0	0.0	225.	9.0	0.0
	05113	1500.	5.0	0.0	225.	9.0	0.0
	05112	1500.	5.0	0.0	225.	9.0	0.0
	05111	1500.	5.0	0.0	225.	9.0	0.0
	05110	1500.	5.0	0.0	225.	9.0	0.0
	05109	1500.	5.0	0.0	225.	9.0	0.0
	05108	1500.	5.0	0.0	225.	9.0	0.0
	05107	1500.	5.0	0.0	225.	9.0	0.0
	05106	1500.	5.0	0.0	225.	9.0	0.0
	05105	1500.	5.0	0.0	225.	9.0	0.0
	05104	1500.	5.0	0.0	225.	9.0	0.0
	05103	1500.	5.0	0.0	225.	9.0	0.0
	05102	1500.	5.0	0.0	225.	9.0	0.0
	05101	1500.	5.0	0.0	225.	9.0	0.0
	05100	1500.	5.0	0.0	225.	9.0	0.0
	05099	1500.	5.0	0.0	225.	9.0	0.0
	05098	1500.	5.0	0.0	225.	9.0	0.0
	05097	1500.	5.0	0.0	225.	9.0	0.0
	05096	1500.	5.0	0.0	225.	9.0	0.0
	05095	1500.	5.0	0.0	225.	9.0	0.0
	05094	1500.	5.0	0.0	225.	9.0	0.0
	05093	1500.	5.0	0.0	225.	9.0	0.0
	05092	1500.	5.0	0.0	225.	9.0	0.0
	05091	1500.	5.0	0.0	225.	9.0	0.0
	05090	1500.	5.0	0.0	225.	9.0	0.0
	05089	1500.	5.0	0.0	225.	9.0	0.0
	05088	1500.	5.0	0.0	225.	9.0	0.0
	05087	1500.	5.0	0.0	225.	9.0	0.0
	05086	1500.	5.0	0.0	225.	9.0	0.0
	05085	1500.	5.0	0.0	225.	9.0	0.0
	05084	1500.	5.0	0.0	225.	9.0	0.0
	05083	1500.	5.0	0.0	225.	9.0	0.0
	05082	1500.	5.0	0.0	225.	9.0	0.0
	05081	1500.	5.0	0.0	225.	9.0	0.0
	05080	1500.	5.0	0.0	225.	9.0	0.0
	05079	1500.	5.0	0.0	225.	9.0	0.0
	05078	1500.	5.0	0.0	225.	9.0	0.0
	05077	1500.	5.0	0.0	225.	9.0	0.0
	05076	1500.	5.0	0.0	225.	9.0	0.0
	05075	1500.	5.0	0.0	225.	9.0	0.0
	05074	1500.	5.0	0.0	225.	9.0	0.0
	05073	1500.	5.0	0.0	225.	9.0	0.0
	05072	1500.	5.0	0.0	225.	9.0	0.0
	05071	1500.	5.0	0.0	225.	9.0	0.0
	05070	1500.	5.0	0.0	225.	9.0	0.0
	05069	1500.	5.0	0.0	225.	9.0	0.0
	05068	1500.	5.0	0.0	225.	9.0	0.0
	05067	1500.	5.0	0.0	225.	9.0	0.0
	05066	1500.	5.0	0.0	225.	9.0	0.0
	05065	1500.	5.0	0.0	225.	9.0	0.0
	05064	1500.	5.0	0.0	225.	9.0	0.0
	05063	1500.	5.0	0.0	225.	9.0	0.0
	05062	1500.	5.0	0.0	225.	9.0	0.0
	05061	1500.	5.0	0.0	225.	9.0	0.0
	05060	1500.	5.0	0.0	225.	9.0	0.0
	05059	1500.	5.0	0.0	225.	9.0	0.0
	05058	1500.	5.0	0.0	225.	9.0	0.0
	05057	1500.	5.0	0.0	225.	9.0	0.0
	05056	1500.	5.0	0.0	225.	9.0	0.0
	05055	1500.	5.0	0.0	225.	9.0	0.0
	05054	1500.	5.0	0.0	225.	9.0	0.0
	05053	1500.	5.0	0.0	225.	9.0	0.0
	05052	1500.	5.0	0.0	225.	9.0	0.0
	05051	1500.	5.0	0.0	225.	9.0	0.0
	05050	1500.	5.0	0.0	225.	9.0	0.0
	05049	1500.	5.0	0.0	225.	9.0	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
AUGUST	83213	2290.	5.0	0.0	150.	7.5	0.0
	83214	2310.	5.5	0.0	150.	7.2	0.0
	83215	2410.	5.1	0.0	150.	7.4	0.0
	83216	2440.	5.4	0.0	150.	7.2	0.0
	83217	3070.	5.4	0.0	150.	7.2	0.0
	83218	2850.	5.5	0.0	150.	7.2	0.0
	83219	2840.	5.4	0.0	150.	7.2	0.0
	83220	5910.	5.4	0.0	150.	7.2	0.0
	83221	4060.	5.1	0.0	150.	7.2	0.0
	83222	5344.	5.0	0.0	150.	7.2	0.0
	83223	2705.	5.1	0.0	150.	7.2	0.0
	83224	2402.	5.7	0.0	150.	7.2	0.0
	83225	2150.	5.1	0.0	150.	7.2	0.0
	83226	1720.	5.2	0.0	150.	7.2	0.0
	83227	1452.	5.2	0.0	150.	7.2	0.0
	83228	1248.	5.2	0.0	150.	7.2	0.0
	83229	1157.	5.0	0.0	150.	7.2	0.0
	83230	1259.	5.2	0.0	150.	7.2	0.0
	83231	1251.	5.2	0.0	150.	7.2	0.0
	83232	1306.	5.2	0.0	150.	7.2	0.0
	83233	1418.	5.2	0.0	150.	7.2	0.0
	83234	1353.	5.2	0.0	150.	7.2	0.0
	83235	1452.	5.1	0.0	150.	7.2	0.0
	83236	1382.	5.1	0.0	150.	7.2	0.0
	83237	1349.	5.2	0.0	150.	7.2	0.0
	83238	1217.	5.5	0.0	150.	7.2	0.0
	83239	1287.	5.2	0.0	150.	7.2	0.0
	83240	1336.	5.5	0.0	150.	7.2	0.0
	83241	1344.	5.5	0.0	150.	7.2	0.0
	83242	1440.	5.5	0.0	150.	7.2	0.0
	83243	1320.	5.2	0.0	150.	7.2	0.0

LEGEND

- Date
(Year-Julian Day)
- East Fork & Glacier Fork
Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Minor Tributaries
Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

SEPTEMBER

83244	1200.	5.5	0.0	150.	7.0	0.0
83245	1200.	5.5	0.0	150.	6.4	0.0
83246	1100.	5.2	0.0	150.	6.5	0.0
83247	470.	5.2	0.0	150.	6.4	0.0
83248	850.	5.5	0.0	150.	6.2	0.0
83249	730.	5.5	0.0	150.	5.7	0.0
83250	580.	5.4	0.0	150.	5.5	0.0
83251	540.	5.5	0.0	150.	5.5	0.0
83252	567.	5.4	0.0	150.	5.5	0.0
83253	548.	5.4	0.0	150.	5.5	0.0
83254	518.	5.4	0.0	150.	5.5	0.0
83255	471.	5.5	0.0	150.	5.5	0.0
83256	424.	5.4	0.0	150.	5.5	0.0
83257	440.	5.5	0.0	150.	5.5	0.0
83258	375.	5.5	0.0	150.	5.5	0.0
83259	339.	5.0	0.0	150.	5.5	0.0
83260	318.	5.0	0.0	150.	5.5	0.0
83261	297.	5.2	0.0	150.	5.5	0.0
83262	310.	5.0	0.0	150.	5.5	0.0
83263	553.	5.0	0.0	150.	5.5	0.0
83264	737.	5.3	0.0	150.	5.5	0.0
83265	720.	5.4	0.0	150.	5.5	0.0
83266	563.	5.4	0.0	150.	5.5	0.0
83267	503.	5.5	0.0	140.	5.5	0.0
83268	451.	5.4	0.0	150.	5.5	0.0
83269	412.	5.4	0.0	120.	5.5	0.0
83270	385.	5.5	0.0	110.	5.5	0.0
83271	362.	5.0	0.0	100.	5.5	0.0
83272	580.	5.1	0.0	50.	5.5	0.0
83273	1213.	5.5	0.0	50.	5.5	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
OCTOBER	83274	704.	2.1	0.0	50.	5.1	0.0
	83275	610.	2.1	0.0	50.	4.7	0.0
	83276	518.	2.1	0.0	50.	4.3	0.0
	83277	441.	2.1	0.0	50.	3.8	0.0
	83278	400.	2.2	0.0	50.	3.4	0.0
	83279	372.	2.2	0.0	50.	3.0	0.0
	83280	370.	2.2	0.0	50.	2.5	0.0
	83281	360.	2.2	0.0	50.	2.5	0.0
	83282	360.	2.2	0.0	50.	2.4	0.0
	83283	300.	2.1	0.0	50.	2.3	0.0
	83284	550.	2.1	0.0	50.	2.2	0.0
	83285	520.	1.1	0.0	50.	2.1	0.0
	83286	480.	1.0	0.0	50.	2.0	0.0
	83287	440.	1.1	0.0	50.	1.5	0.0
	83288	410.	1.1	0.0	50.	1.0	0.0
	83289	360.	1.1	0.0	50.	0.5	0.0
	83290	340.	1.2	0.0	50.	0.5	0.0
	83291	330.	1.2	0.0	50.	0.5	0.0
	83292	330.	1.2	0.0	50.	0.5	0.0
	83293	320.	1.1	0.0	50.	0.5	0.0
	83294	320.	1.1	0.0	50.	0.5	0.0
	83295	300.	1.1	0.0	50.	0.5	0.0
	83296	300.	0.6	0.0	50.	0.5	0.0
	83297	290.	0.6	0.0	50.	0.5	0.0
	83298	240.	0.6	0.0	50.	0.5	0.0
	83299	240.	0.5	0.0	50.	0.5	0.0
	83300	280.	0.5	0.0	50.	0.5	0.0
	83301	270.	0.5	0.0	50.	0.5	0.0
	83302	270.	0.5	0.0	50.	0.5	0.0
	83303	260.	0.5	0.0	50.	0.5	0.0
	83304	260.	0.5	0.0	50.	0.5	0.0

LEGEND

- 1 Date
(Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow
(1000 cubic meters/day)
- 3 Inflow Temperature
(Degrees Celsius)
- 4 Inflow Salinity
(parts per thousand)
- Minor Tributaries
- 5 Inflow
(1000 cubic meters/day)
- 6 Inflow Temperature
(Degrees Celsius)
- 7 Inflow Salinity
(parts per thousand)

NOVEMBER	83305	250.	0.5	0.0	50.	0.5	0.0
	83306	250.	0.5	0.0	50.	0.5	0.0
	83307	250.	0.5	0.0	50.	0.5	0.0
	83308	250.	0.5	0.0	50.	0.5	0.0
	83309	250.	0.5	0.0	50.	0.5	0.0
	83310	250.	0.5	0.0	50.	0.5	0.0
	83311	250.	0.5	0.0	50.	0.5	0.0
	83312	230.	0.6	0.0	50.	0.5	0.0
	83313	230.	0.6	0.0	50.	0.5	0.0
	83314	230.	0.6	0.0	50.	0.5	0.0
	83315	230.	0.6	0.0	50.	0.5	0.0
	83316	230.	0.6	0.0	50.	0.5	0.0
	83317	230.	0.6	0.0	50.	0.5	0.0
	83318	230.	0.6	0.0	50.	0.5	0.0
	83319	190.	0.7	0.0	50.	0.5	0.0
	83320	180.	0.7	0.0	20.	0.5	0.0
	83321	180.	0.7	0.0	20.	0.5	0.0
	83322	180.	0.7	0.0	20.	0.5	0.0
	83323	180.	0.7	0.0	20.	0.5	0.0
	83324	180.	0.7	0.0	20.	0.5	0.0
	83325	150.	0.8	0.0	20.	0.5	0.0
	83326	150.	0.8	0.0	20.	0.5	0.0
	83327	150.	0.8	0.0	20.	0.5	0.0
	83328	150.	0.8	0.0	20.	0.5	0.0
	83329	150.	0.8	0.0	20.	0.5	0.0
	83330	150.	0.8	0.0	20.	0.5	0.0
	83331	150.	0.8	0.0	20.	0.5	0.0
	83332	150.	0.8	0.0	20.	0.5	0.0
	83333	140.	0.9	0.0	20.	0.5	0.0
	83334	140.	0.9	0.0	20.	0.5	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
DECEMBER	83335	140.	0.4	0.0	20.	0.5	0.0
	83336	140.	0.4	0.0	20.	0.5	0.0
	83337	140.	0.4	0.0	20.	0.5	0.0
	83338	140.	0.4	0.0	20.	0.5	0.0
	83339	140.	0.4	0.0	20.	0.5	0.0
	83340	140.	0.4	0.0	20.	0.5	0.0
	83341	140.	0.4	0.0	20.	0.5	0.0
	83342	140.	0.4	0.0	20.	0.5	0.0
	83343	125.	0.4	0.0	20.	0.5	0.0
	83344	125.	0.4	0.0	20.	0.5	0.0
	83345	125.	0.4	0.0	20.	0.5	0.0
	83346	125.	0.4	0.0	20.	0.5	0.0
	83347	125.	0.4	0.0	20.	0.5	0.0
	83348	125.	0.4	0.0	20.	0.5	0.0
	83349	125.	0.4	0.0	20.	0.5	0.0
	83350	125.	0.1	0.0	10.	0.1	0.0
	83351	125.	0.1	0.0	10.	0.1	0.0
	83352	120.	0.1	0.0	10.	0.1	0.0
	83353	120.	0.1	0.0	10.	0.1	0.0
	83354	120.	0.1	0.0	10.	0.1	0.0
	83355	120.	0.1	0.0	10.	0.1	0.0
	83356	120.	0.1	0.0	10.	0.1	0.0
	83357	120.	0.1	0.0	10.	0.1	0.0
	83358	100.	0.1	0.0	10.	0.1	0.0
	83359	100.	0.1	0.0	10.	0.1	0.0
	83360	95.	0.1	0.0	10.	0.1	0.0
	83361	95.	0.1	0.0	10.	0.1	0.0
	83362	95.	0.1	0.0	10.	0.1	0.0
	83363	95.	0.1	0.0	10.	0.1	0.0
	83364	95.	0.1	0.0	10.	0.1	0.0
	83365	95.	0.1	0.0	10.	0.1	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

JANUARY	84001	85.	0.1	0.0	0.	0.0	0.0
	84002	85.	0.1	0.0	0.	0.0	0.0
	84003	85.	0.1	0.0	0.	0.0	0.0
	84004	85.	0.1	0.0	0.	0.0	0.0
	84005	85.	0.1	0.0	0.	0.0	0.0
	84006	85.	0.1	0.0	0.	0.0	0.0
	84007	85.	0.1	0.0	0.	0.0	0.0
	84008	85.	0.1	0.0	0.	0.0	0.0
	84009	85.	0.1	0.0	0.	0.0	0.0
	84010	85.	0.1	0.0	0.	0.0	0.0
	84011	85.	0.1	0.0	0.	0.0	0.0
	84012	85.	0.1	0.0	0.	0.0	0.0
	84013	85.	0.1	0.0	0.	0.0	0.0
	84014	85.	0.1	0.0	0.	0.0	0.0
	84015	85.	0.1	0.0	0.	0.0	0.0
	84016	75.	0.1	0.0	0.	0.0	0.0
	84017	75.	0.1	0.0	0.	0.0	0.0
	84018	75.	0.1	0.0	0.	0.0	0.0
	84019	75.	0.1	0.0	0.	0.0	0.0
	84020	75.	0.1	0.0	0.	0.0	0.0
	84021	75.	0.1	0.0	0.	0.0	0.0
	84022	75.	0.1	0.0	0.	0.0	0.0
	84023	75.	0.1	0.0	0.	0.0	0.0
	84024	75.	0.1	0.0	0.	0.0	0.0
	84025	75.	0.1	0.0	0.	0.0	0.0
	84026	75.	0.1	0.0	0.	0.0	0.0
	84027	75.	0.1	0.0	0.	0.0	0.0
	84028	75.	0.1	0.0	0.	0.0	0.0
	84029	75.	0.1	0.0	0.	0.0	0.0
	84030	75.	0.1	0.0	0.	0.0	0.0
	84031	75.	0.1	0.0	0.	0.0	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
FEBRUARY	84032	75.	0.1	0.0	0.	0.0	0.0
	84033	75.	0.1	0.0	0.	0.0	0.0
	84034	75.	0.1	0.0	0.	0.0	0.0
	84035	75.	0.1	0.0	0.	0.0	0.0
	84036	75.	0.1	0.0	0.	0.0	0.0
	84037	75.	0.1	0.0	0.	0.0	0.0
	84038	75.	0.1	0.0	0.	0.0	0.0
	84039	75.	0.1	0.0	0.	0.0	0.0
	84040	75.	0.1	0.0	0.	0.0	0.0
	84041	75.	0.1	0.0	0.	0.0	0.0
	84042	75.	0.1	0.0	0.	0.0	0.0
	84043	75.	0.1	0.0	0.	0.0	0.0
	84044	75.	0.1	0.0	0.	0.0	0.0
	84045	75.	0.1	0.0	0.	0.0	0.0
	84046	75.	0.1	0.0	0.	0.0	0.0
	84047	75.	0.1	0.0	0.	0.0	0.0
	84048	75.	0.1	0.0	0.	0.0	0.0
	84049	75.	0.1	0.0	0.	0.0	0.0
	84050	75.	0.1	0.0	0.	0.0	0.0
	84051	75.	0.1	0.0	0.	0.0	0.0
	84052	75.	0.1	0.0	0.	0.0	0.0
	84053	75.	0.1	0.0	0.	0.0	0.0
	84054	75.	0.1	0.0	0.	0.0	0.0
	84055	75.	0.1	0.0	0.	0.0	0.0
	84056	75.	0.1	0.0	0.	0.0	0.0
	84057	75.	0.1	0.0	0.	0.0	0.0
	84058	75.	0.1	0.0	0.	0.0	0.0
	84059	75.	0.1	0.0	0.	0.0	0.0
	84060	75.	0.1	0.0	0.	0.0	0.0

MARCH

MARCH	84061	50.	0.1	0.0	0.	0.0	0.0
	84062	50.	0.1	0.0	0.	0.0	0.0
	84063	50.	0.1	0.0	0.	0.0	0.0
	84064	50.	0.1	0.0	0.	0.0	0.0
	84065	50.	0.1	0.0	0.	0.0	0.0
	84066	50.	0.1	0.0	0.	0.0	0.0
	84067	50.	0.1	0.0	0.	0.0	0.0
	84068	50.	0.1	0.0	0.	0.0	0.0
	84069	50.	0.1	0.0	0.	0.0	0.0
	84070	50.	0.1	0.0	0.	0.0	0.0
	84071	50.	0.1	0.0	0.	0.0	0.0
	84072	50.	0.1	0.0	0.	0.0	0.0
	84073	50.	0.1	0.0	0.	0.0	0.0
	84074	50.	0.1	0.0	0.	0.0	0.0
	84075	50.	0.1	0.0	0.	0.0	0.0
	84076	50.	0.1	0.0	0.	0.0	0.0
	84077	50.	0.1	0.0	0.	0.0	0.0
	84078	50.	0.1	0.0	0.	0.0	0.0
	84079	50.	0.1	0.0	0.	0.0	0.0
	84080	50.	0.1	0.0	0.	0.0	0.0
	84081	50.	0.1	0.0	0.	0.0	0.0
	84082	50.	0.1	0.0	0.	0.0	0.0
	84083	50.	0.1	0.0	0.	0.0	0.0
	84084	50.	0.1	0.0	0.	0.0	0.0
	84085	50.	0.1	0.0	0.	0.0	0.0
	84086	50.	0.1	0.0	0.	0.0	0.0
	84087	50.	0.1	0.0	0.	0.0	0.0
	84088	50.	0.1	0.0	0.	0.0	0.0
	84089	50.	0.1	0.0	0.	0.0	0.0
	84090	50.	0.1	0.0	0.	0.0	0.0
	84091	50.	0.1	0.0	0.	0.0	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

Minor Tributaries

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
APRIL	84092	50.	0.5	0.0	0.	0.0	0.0
	84093	50.	0.5	0.0	0.	0.0	0.0
	84094	50.	0.5	0.0	0.	0.0	0.0
	84095	50.	0.5	0.0	0.	0.0	0.0
	84096	50.	0.5	0.0	0.	0.0	0.0
	84097	50.	1.0	0.0	0.	0.0	0.0
	84098	50.	1.0	0.0	0.	0.0	0.0
	84099	50.	1.0	0.0	0.	0.0	0.0
	84100	50.	1.0	0.0	0.	0.0	0.0
	84101	50.	1.0	0.0	0.	0.0	0.0
	84102	50.	1.0	0.0	0.	0.0	0.0
	84103	50.	1.0	0.0	0.	0.0	0.0
	84104	50.	1.0	0.0	0.	0.0	0.0
	84105	50.	1.0	0.0	0.	0.0	0.0
	84106	50.	1.5	0.0	0.	0.0	0.0
	84107	70.	1.5	0.0	0.	0.0	0.0
	84108	70.	1.5	0.0	0.	0.0	0.0
	84109	70.	1.5	0.0	0.	0.0	0.0
	84110	70.	1.5	0.0	0.	0.0	0.0
	84111	70.	2.0	0.0	0.	0.0	0.0
	84112	70.	2.0	0.0	10.	1.0	0.0
	84113	70.	2.0	0.0	10.	1.0	0.0
	84114	70.	2.0	0.0	10.	1.0	0.0
	84115	70.	2.0	0.0	10.	1.0	0.0
	84116	70.	2.5	0.0	10.	1.0	0.0
	84117	70.	2.5	0.0	10.	1.0	0.0
	84118	70.	2.5	0.0	10.	1.0	0.0
	84119	70.	2.5	0.0	10.	1.0	0.0
	84120	70.	2.5	0.0	10.	1.0	0.0
	84121	70.	2.5	0.0	10.	1.0	0.0
MAY	84122	85.	2.9	0.0	20.	2.0	0.0
	84123	85.	2.9	0.0	20.	2.0	0.0
	84124	85.	2.9	0.0	20.	2.0	0.0
	84125	85.	2.9	0.0	20.	2.0	0.0
	84126	85.	3.4	0.0	20.	2.0	0.0
	84127	90.	3.3	0.0	20.	2.0	0.0
	84128	100.	3.4	0.0	20.	2.0	0.0
	84129	100.	3.4	0.0	20.	2.0	0.0
	84130	100.	3.4	0.0	20.	2.0	0.0
	84131	120.	3.9	0.0	20.	2.0	0.0
	84132	120.	3.9	0.0	30.	3.5	0.0
	84133	150.	3.8	0.0	30.	3.5	0.0
	84134	150.	3.8	0.0	30.	3.5	0.0
	84135	150.	4.3	0.0	30.	3.5	0.0
	84136	150.	4.3	0.0	30.	3.5	0.0
	84137	185.	4.2	0.0	30.	3.5	0.0
	84138	185.	4.2	0.0	30.	3.5	0.0
	84139	238.	4.5	0.0	30.	4.0	0.0
	84140	250.	4.7	0.0	30.	3.5	0.0
	84141	274.	4.6	0.0	30.	3.5	0.0
	84142	241.	4.4	0.0	30.	4.0	0.0
	84143	270.	4.5	0.0	30.	4.0	0.0
	84144	250.	4.7	0.0	30.	4.0	0.0
	84145	277.	5.2	0.0	30.	4.0	0.0
	84146	270.	4.5	0.0	30.	4.0	0.0
	84147	264.	4.7	0.0	30.	4.0	0.0
	84148	255.	5.3	0.0	30.	4.0	0.0
	84149	252.	5.4	0.0	30.	4.0	0.0
	84150	259.	5.0	0.0	30.	4.0	0.0
	84151	257.	4.7	0.0	30.	4.0	0.0
	84152	255.	5.1	0.0	30.	4.0	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

Minor Tributaries

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
JUNE	84153	255.	5.7	0.0	90.	4.5	0.0
	84154	308.	5.6	0.0	90.	4.5	0.0
	84155	388.	5.4	0.0	90.	4.5	0.0
	84156	458.	5.2	0.0	90.	4.5	0.0
	84157	538.	5.1	0.0	90.	4.5	0.0
	84158	618.	5.0	0.0	90.	4.5	0.0
	84159	698.	4.9	0.0	90.	4.5	0.0
	84160	778.	4.7	0.0	90.	4.5	0.0
	84161	858.	4.6	0.0	90.	4.5	0.0
	84162	938.	4.4	0.0	150.	5.0	0.0
	84163	1018.	4.4	0.0	150.	5.0	0.0
	84164	1098.	4.3	0.0	150.	5.0	0.0
	84165	1178.	4.1	0.0	150.	5.0	0.0
	84166	1258.	4.1	0.0	150.	5.0	0.0
	84167	1338.	4.2	0.0	150.	5.0	0.0
	84168	1418.	4.5	0.0	150.	5.0	0.0
	84169	1498.	4.8	0.0	150.	5.0	0.0
	84170	1578.	4.5	0.0	150.	5.0	0.0
	84171	1658.	4.6	0.0	150.	5.0	0.0
	84172	1738.	4.2	0.0	150.	5.0	0.0
	84173	1818.	4.3	0.0	200.	5.5	0.0
	84174	1898.	4.2	0.0	200.	5.5	0.0
	84175	1978.	4.6	0.0	200.	5.5	0.0
	84176	2058.	5.1	0.0	200.	5.5	0.0
	84177	2138.	5.2	0.0	200.	5.5	0.0
	84178	2218.	5.5	0.0	200.	5.5	0.0
	84179	2298.	5.9	0.0	200.	5.5	0.0
	84180	2378.	5.8	0.0	200.	5.5	0.0
	84181	2458.	6.1	0.0	200.	5.5	0.0
	84182	2538.	6.4	0.0	200.	5.5	0.0

LEGEND

- Date
(Year-Julian Day)
- East Fork & Glacier Fork
Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Minor Tributaries
Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

JULY	84183	1983.	5.4	0.0	220.	6.0	0.0
	84184	2063.	5.3	0.0	220.	6.0	0.0
	84185	2143.	5.2	0.0	220.	6.0	0.0
	84186	2223.	5.5	0.0	220.	6.0	0.0
	84187	2303.	5.9	0.0	220.	6.0	0.0
	84188	2383.	6.1	0.0	220.	6.5	0.0
	84189	2463.	6.0	0.0	220.	6.5	0.0
	84190	2543.	6.6	0.0	220.	6.5	0.0
	84191	2623.	6.3	0.0	220.	6.5	0.0
	84192	2703.	6.4	0.0	220.	6.5	0.0
	84193	2783.	6.8	0.0	200.	6.5	0.0
	84194	2863.	6.4	0.0	200.	6.5	0.0
	84195	2943.	6.6	0.0	200.	6.5	0.0
	84196	3023.	6.7	0.0	200.	6.5	0.0
	84197	3103.	6.7	0.0	200.	6.5	0.0
	84198	3183.	6.7	0.0	200.	7.0	0.0
	84199	3263.	6.7	0.0	200.	7.0	0.0
	84200	3343.	6.8	0.0	200.	7.0	0.0
	84201	3423.	6.8	0.0	200.	7.0	0.0
	84202	3503.	6.7	0.0	150.	7.0	0.0
	84203	3583.	6.9	0.0	150.	7.0	0.0
	84204	3663.	6.0	0.0	150.	7.0	0.0
	84205	3743.	6.7	0.0	150.	7.0	0.0
	84206	3823.	6.7	0.0	150.	7.5	0.0
	84207	3903.	6.7	0.0	150.	7.5	0.0
	84208	3983.	6.5	0.0	150.	7.5	0.0
	84209	4063.	6.5	0.0	150.	7.5	0.0
	84210	4143.	6.2	0.0	150.	7.5	0.0
	84211	4223.	6.2	0.0	150.	7.5	0.0
	84212	4303.	6.4	0.0	150.	7.5	0.0
	84213	4383.	6.4	0.0	150.	7.5	0.0

APPENDIX N.4. INFLOW DATA, cont.

1	2	3	4	5	6	7
AUGUST						
A0214	2274.	5.2	0.0	157.	5.0	0.0
A0215	2540.	5.2	0.0	207.	5.0	0.0
A0216	2410.	5.2	0.0	207.	5.0	0.0
A0217	3140.	5.3	0.0	207.	5.0	0.0
A0218	5040.	5.3	0.0	407.	4.0	0.0
A0219	5310.	5.4	0.0	307.	3.0	0.0
A0220	5070.	5.2	0.0	407.	3.0	0.0
A0221	5230.	5.2	0.0	307.	3.0	0.0
A0222	4310.	5.3	0.0	257.	4.0	0.0
A0223	2210.	5.2	0.0	257.	3.0	0.0
A0224	2440.	5.3	0.0	257.	4.0	0.0
A0225	2520.	5.2	0.0	227.	4.0	0.0
A0226	2410.	5.2	0.0	227.	3.0	0.0
A0227	2257.	5.2	0.0	227.	3.0	0.0
A0228	2424.	5.2	0.0	227.	3.0	0.0
A0229	2510.	5.2	0.0	227.	3.0	0.0
A0230	2520.	5.2	0.0	227.	3.0	0.0
A0231	2410.	5.2	0.0	227.	4.0	0.0
A0232	4140.	5.4	0.0	227.	7.0	0.0
A0233	5170.	5.3	0.0	227.	7.0	0.0
A0234	2410.	5.2	0.0	227.	5.0	0.0
A0235	2774.	5.1	0.0	227.	5.0	0.0
A0236	2147.	5.1	0.0	227.	5.0	0.0
A0237	5000.	5.3	0.0	257.	5.0	0.0
A0238	5450.	5.2	0.0	257.	5.0	0.0
A0239	2050.	5.2	0.0	257.	5.0	0.0
A0240	1757.	5.1	0.0	207.	5.0	0.0
A0241	1454.	5.1	0.0	207.	5.0	0.0
A0242	1245.	5.2	0.0	207.	5.0	0.0
A0243	1044.	5.2	0.0	207.	5.0	0.0
A0244	405.	5.2	0.0	207.	5.0	0.0

LEGEND

1	Date (Year-Julian Day)
2	East Fork & Glacier Fork Inflow (1000 cubic meters/day)
3	Inflow Temperature (Degrees Celsius)
4	Inflow Salinity (parts per thousand)
	Minor Tributaries

SEPTEMBER						
A0245	418.	2.5	0.0	207.	2.0	0.0
A0246	746.	2.6	0.0	207.	5.0	0.0
A0247	737.	2.6	0.0	207.	5.0	0.0
A0248	725.	2.6	0.0	207.	5.0	0.0
A0249	435.	2.7	0.0	207.	5.0	0.0
A0250	474.	2.7	0.0	207.	3.0	0.0
A0251	440.	2.7	0.0	207.	3.0	0.0
A0252	554.	2.7	0.0	207.	5.0	0.0
A0253	519.	2.7	0.0	207.	5.0	0.0
A0254	619.	2.7	0.0	207.	5.0	0.0
A0255	407.	2.4	0.0	207.	5.0	0.0
A0256	617.	2.7	0.0	207.	5.0	0.0
A0257	554.	2.7	0.0	207.	5.0	0.0
A0258	944.	2.7	0.0	207.	5.0	0.0
A0259	944.	2.7	0.0	207.	5.0	0.0
A0260	430.	2.7	0.0	207.	5.0	0.0
A0261	419.	2.4	0.0	207.	5.0	0.0
A0262	520.	2.7	0.0	207.	5.0	0.0
A0263	575.	2.5	0.0	207.	5.0	0.0
A0264	457.	2.7	0.0	207.	3.0	0.0
A0265	414.	2.6	0.0	157.	4.0	0.0
A0266	404.	2.6	0.0	157.	4.0	0.0
A0267	377.	2.3	0.0	157.	4.0	0.0
A0268	360.	2.	0.0	157.	4.0	0.0
A0269	372.	2.4	0.0	157.	4.0	0.0
A0270	347.	2.4	0.0	157.	4.0	0.0
A0271	340.	2.4	0.0	157.	4.0	0.0
A0272	355.	2.4	0.0	157.	4.0	0.0
A0273	2377.	5.1	0.0	407.	5.0	0.0
A0274	1414.	5.0	0.0	407.	5.0	0.0

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
OCTOBER	84275	1150.	2.1	0.0	200.	5.0	0.0
	84276	1100.	2.1	0.0	200.	5.0	0.0
	84277	1125.	2.1	0.0	200.	5.0	0.0
	84278	1145.	2.2	0.0	200.	5.0	0.0
	84279	1102.	2.2	0.0	150.	4.0	0.0
	84280	1145.	2.2	0.0	150.	4.0	0.0
	84281	1145.	2.2	0.0	150.	4.0	0.0
	84282	1142.	2.3	0.0	100.	3.0	0.0
	84283	1104.	2.3	0.0	100.	3.0	0.0
	84284	1140.	2.4	0.0	100.	3.0	0.0
	84285	1118.	1.4	0.0	100.	3.0	0.0
	84286	1101.	1.4	0.0	100.	3.0	0.0
	84287	1122.	1.4	0.0	100.	3.0	0.0
	84288	1104.	1.4	0.0	100.	3.0	0.0
	84289	1149.	1.4	0.0	100.	2.0	0.0
	84290	1145.	1.4	0.0	50.	2.0	0.0
	84291	1130.	1.4	0.0	50.	2.0	0.0
	84292	1125.	1.4	0.0	50.	2.0	0.0
	84293	1120.	1.5	0.0	50.	2.0	0.0
	84294	1116.	1.5	0.0	50.	2.0	0.0
	84295	1113.	0.7	0.0	50.	1.0	0.0
	84296	1117.	0.7	0.0	50.	1.0	0.0
	84297	1150.	0.7	0.0	50.	1.0	0.0
	84298	1122.	0.7	0.0	50.	0.0	0.0
	84299	1105.	0.7	0.0	50.	0.0	0.0
	84300	1146.	0.7	0.0	50.	0.0	0.0
	84301	1131.	0.7	0.0	50.	0.0	0.0
	84302	1116.	0.7	0.0	50.	0.0	0.0
	84303	1146.	0.7	0.0	50.	0.0	0.0
	84304	1153.	0.7	0.0	50.	0.0	0.0
	84305	1152.	0.7	0.0	50.	0.0	0.0

LEGEND

- Date
(Year-Julian Day)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)
- Inflow
(1000 cubic meters/day)
- Inflow Temperature
(Degrees Celsius)
- Inflow Salinity
(parts per thousand)

Minor Tributaries

APPENDIX N.5. OUTFLOW DATA

DATE	OUTFLOW 1000 m ³ /day	TEMP ° C	LAKE LEVEL	
			meters	
DECEMBER	82335	898.80	4.20	61.900
	82336	961.80	4.00	61.900
	82337	1020.10	4.00	61.800
	82338	985.00	3.00	61.800
	82339	828.80	3.00	61.800
	82340	836.10	3.30	61.700
	82341	841.30	3.30	61.700
	82342	841.20	3.00	61.700
	82343	350.80	3.00	61.600
	82344	828.80	3.00	61.600
	82345	324.20	3.00	61.500
	82346	342.50	3.00	61.500
	82347	1004.80	3.40	61.500
	82348	473.40	3.40	61.400
	82349	812.80	3.00	61.400
	82350	452.30	3.00	61.300
	82351	407.20	3.30	61.300
	82352	479.80	3.30	61.300
	82353	495.70	3.30	61.200
	82354	510.80	3.70	61.200
	82355	520.70	4.00	61.100
	82356	762.60	3.30	61.000
	82357	956.80	3.00	61.000
	82358	890.10	3.80	60.900
	82359	879.80	3.80	60.900
	82360	589.70	4.00	60.800
	82361	832.00	4.00	60.800
	82362	545.80	3.70	60.800
	82363	423.10	4.00	60.700
	82364	633.20	3.70	60.700
	82365	807.90	3.70	60.700

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

JANUARY	83001	968.80	3.30	60.800
	83002	1100.80	3.30	60.700
	83003	1159.00	3.30	60.600
	83004	1184.00	3.50	60.500
	83005	1184.00	3.50	60.500
	83006	1184.00	3.20	60.400
	83007	1184.00	3.00	60.300
	83008	1184.00	3.00	60.200
	83009	1152.00	3.00	60.100
	83010	1079.00	3.00	60.000
	83011	1115.00	3.00	59.900
	83012	1079.00	3.00	59.800
	83013	1079.00	3.00	59.800
	83014	1128.00	3.00	59.700
	83015	1127.00	3.00	59.600
	83016	933.00	3.00	59.500
	83017	820.00	3.30	59.400
	83018	537.30	3.00	59.300
	83019	568.10	2.30	59.200
	83020	594.40	3.00	59.200
	83021	506.00	3.00	59.100
	83022	488.30	3.00	59.000
	83023	560.70	3.00	58.900
	83024	647.30	3.30	58.800
	83025	565.20	3.00	58.800
	83026	571.10	3.30	58.700
	83027	564.00	3.30	58.600
	83028	578.30	3.30	58.600
	83029	594.40	3.40	58.600
	83030	594.40	3.00	58.600
	83031	594.40	3.00	58.600

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
FEBRUARY	83032	653.00	3.00
	83033	578.30	3.30
	83034	573.90	3.00
	83035	562.20	3.00
	83036	554.90	3.30
	83037	550.90	3.30
	83038	566.70	3.00
	83039	566.70	3.00
	83040	800.50	3.70
	83041	776.80	3.30
	83042	1071.40	3.00
	83043	1188.80	3.20
	83044	1188.80	3.00
	83045	1011.20	3.00
	83046	836.30	3.00
	83047	836.30	3.00
	83048	836.30	3.00
	83049	836.30	3.00
	83050	1036.10	3.00
	83051	1150.70	3.00
	83052	1137.30	3.00
	83053	1003.80	3.00
	83054	1004.40	3.00
	83055	881.80	3.00
	83056	887.70	3.00
	83057	887.70	3.00
	83058	1047.80	3.00
	83059	1015.50	3.00
	83060	995.30	3.00

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

MARCH	83060	1094.80	3.00
	83061	1067.50	3.20
	83062	1081.70	3.20
	83063	879.80	3.00
	83064	959.70	3.20
	83065	900.10	3.00
	83066	1063.40	3.00
	83067	1085.90	3.00
	83068	1093.50	3.00
	83069	1093.50	3.00
	83070	1125.40	3.00
	83071	940.40	3.00
	83072	864.10	3.00
	83073	918.90	3.00
	83074	1090.40	3.00
	83075	1162.30	3.00
	83076	1198.40	3.20
	83077	1198.40	3.00
	83078	1198.40	3.00
	83079	1198.40	3.00
	83080	1198.40	3.00
	83081	1163.60	3.00
	83082	1163.30	3.00
	83083	1174.20	3.00
	83084	1165.20	3.00
	83085	1037.20	3.00
	83086	1022.50	3.00
	83087	1158.40	3.00
	83088	1158.40	3.00
	83089	1164.40	3.00
	83090	1156.90	3.00

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL
			meters
83091	1156.00	3.00	54.913
83092	1145.00	3.00	54.826
83093	1068.00	3.00	54.746
83094	1112.00	3.00	54.662
83095	1151.00	3.00	54.575
83096	1148.00	3.00	54.488
83097	1159.00	3.50	54.401
83098	1134.00	3.50	54.317
83099	1145.00	3.50	54.232
83100	1144.00	3.80	54.147
83101	1171.00	4.00	54.061
83102	1174.00	4.00	53.974
83103	1164.00	4.00	53.889
83104	1171.00	4.00	53.803
83105	1172.00	4.00	53.718
83106	1162.00	4.00	53.634
83107	1208.00	4.00	53.546
83108	1162.00	4.00	53.462
83109	1168.00	4.00	53.378
83110	1162.00	4.00	53.294
83111	1171.00	4.00	53.209
83112	1163.00	4.00	53.125
83113	1154.00	4.00	53.042
83114	1090.00	4.20	52.955
83115	879.00	4.60	52.868
83116	604.00	4.00	52.870
83117	604.00	4.60	52.834
83118	604.00	4.60	52.798
83119	810.00	4.60	52.746
83120	1208.00	4.60	52.660

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
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MAY	83121	1208.00	5.00	52.575
	83122	745.00	5.00	52.526
	83123	604.00	4.50	52.493
	83124	604.00	4.00	52.461
	83125	607.00	4.50	52.429
	83126	873.00	5.00	52.375
	83127	1081.00	5.00	52.305
	83128	861.00	5.00	52.253
	83129	1031.00	5.10	52.183
	83130	1116.00	5.30	52.111
	83131	1111.00	5.40	52.040
	83132	1107.00	5.00	51.969
	83133	1132.00	5.00	51.898
	83134	1108.00	5.00	51.829
	83135	916.00	5.20	51.776
	83136	1097.00	5.80	51.709
	83137	1086.00	5.20	51.644
	83138	1088.00	5.20	51.584
	83139	1077.00	5.80	51.526
	83140	1091.00	5.60	51.469
	83141	1058.00	5.80	51.420
	83142	1055.00	5.60	51.373
	83143	1109.00	5.00	51.318
	83144	1113.00	5.60	51.274
	83145	1123.00	5.60	51.225
	83146	1117.00	5.70	51.180
	83147	1109.00	6.50	51.165
	83148	1081.00	6.60	51.151
	83149	1023.00	6.60	51.155
	83150	1066.00	7.00	51.185
	83151	1114.00	7.50	51.222

APPENDIX N.5. OUTFLOW DATA, cont.

	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
JUNE	83152	1100.00	7.50	51.222
	83153	1106.00	6.80	51.215
	83154	1094.00	5.80	51.201
	83155	1028.00	5.70	51.182
	83156	1068.00	6.00	51.157
	83157	1106.00	6.20	51.136
	83158	1102.00	6.40	51.118
	83159	1108.00	6.80	51.103
	83160	1111.00	7.20	51.086
	83161	1109.00	7.20	51.066
	83162	1055.00	8.20	51.053
	83163	1082.00	8.40	51.036
	83164	1097.00	9.50	51.019
	83165	1082.00	9.80	51.008
	83166	1090.00	9.80	50.988
	83167	1085.00	8.80	50.990
	83168	1119.00	8.00	50.983
	83169	1149.00	8.70	50.989
	83170	1117.00	10.60	51.016
	83171	1176.00	9.70	51.059
	83172	1117.00	9.50	51.103
	83173	1113.00	9.50	51.153
	83174	975.00	11.00	51.236
	83175	1093.00	12.50	51.310
	83176	1137.00	11.70	51.382
	83177	1123.00	11.20	51.457
	83178	1148.00	10.80	51.539
	83179	1166.00	11.70	51.620
	83180	1155.00	12.50	51.688
	83181	1149.00	10.20	51.757

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

JULY	83182	1135.00	11.00	51.847
	83183	1128.00	10.80	51.936
	83184	1121.00	11.20	52.033
	83185	1117.00	11.30	52.152
	83186	1139.00	11.80	52.277
	83187	1124.00	11.80	52.398
	83188	1116.00	12.20	52.509
	83189	1153.00	11.50	52.616
	83190	1043.00	12.80	52.711
	83191	1105.00	12.80	52.786
	83192	1118.00	11.20	52.874
	83193	1115.00	10.80	52.910
	83194	1139.00	11.50	52.977
	83195	1096.00	11.80	53.064
	83196	859.00	12.00	53.176
	83197	807.00	10.70	53.323
	83198	807.00	10.70	53.468
	83199	723.00	10.80	53.588
	83200	807.00	11.30	53.705
	83201	731.00	11.70	53.832
	83202	709.00	11.30	53.958
	83203	833.00	10.80	54.082
	83204	798.00	10.70	54.260
	83205	791.00	11.20	54.416
	83206	709.00	10.30	54.553
	83207	709.00	10.20	54.674
	83208	741.00	11.00	54.791
	83209	709.00	10.70	54.927
	83210	709.00	11.00	55.072
	83211	755.00	10.80	55.195
	83212	704.00	10.30	55.314

APPENDIX N.5. OUTFLOW DATA, cont.

AUGUST	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	83213	704.00	11.00	55.450
	83214	542.00	11.00	55.609
	83215	438.00	11.00	55.706
	83216	485.00	11.00	55.908
	83217	407.00	10.00	56.225
	83218	283.00	10.00	56.404
	83219	312.00	13.00	56.662
	83220	819.00	14.00	57.042
	83221	442.00	10.00	57.304
	83222	190.00	10.00	57.611
	83223	134.00	10.00	57.829
	83224	173.00	10.00	58.017
	83225	132.00	10.00	58.147
	83226	132.00	10.00	58.323
	83227	371.00	10.00	58.418
	83228	286.00	10.00	58.505
	83229	182.00	10.00	58.593
	83230	169.00	10.00	58.690
	83231	222.00	10.00	58.783
	83232	132.00	10.00	58.886
	83233	132.00	12.00	58.999
	83234	132.00	9.00	59.106
	83235	173.00	10.00	59.218
	83236	284.00	10.00	59.315
	83237	132.00	10.00	59.422
	83238	311.00	10.00	59.505
	83239	243.00	10.00	59.598
	83240	240.00	10.00	59.605
	83241	338.00	10.00	59.789
	83242	132.00	9.00	59.903
	83243	285.00	10.00	59.906

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

SEPTEMBER	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	83244	132.00	9.00	60.001
	83245	132.00	10.00	60.106
	83246	132.00	10.00	60.274
	83247	132.00	9.00	60.351
	83248	132.00	10.00	60.419
	83249	146.00	9.00	60.477
	83250	130.00	9.00	60.524
	83251	211.00	10.00	60.565
	83252	130.00	9.00	60.611
	83253	130.00	9.00	60.656
	83254	130.00	9.00	60.698
	83255	130.00	9.00	60.736
	83256	130.00	9.00	60.776
	83257	130.00	10.00	60.812
	83258	130.00	8.00	60.843
	83259	130.00	9.00	60.871
	83260	130.00	9.00	60.898
	83261	130.00	9.00	60.923
	83262	134.00	9.00	60.948
	83263	130.00	9.00	60.993
	83264	130.00	9.00	61.050
	83265	130.00	8.00	61.105
	83266	48.00	9.00	61.154
	83267	0.00	0.00	61.202
	83268	0.00	0.00	61.245
	83269	0.00	0.00	61.285
	83270	0.00	0.00	61.321
	83271	0.00	0.00	61.356
	83272	0.00	0.00	61.402
	83273	0.00	0.00	61.500

APPENDIX N.5. OUTFLOW DATA, cont.

OCTOBER	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	83274	274.00	8.00	61.536
	83275	274.00	8.00	61.545
	83276	274.00	8.00	61.547
	83277	274.00	8.00	61.603
	83278	274.00	7.00	61.616
	83279	274.00	7.00	61.627
	83280	274.00	7.00	61.638
	83281	353.00	7.00	61.642
	83282	274.00	7.00	61.652
	83283	274.00	7.00	61.702
	83284	274.00	7.00	61.726
	83285	274.00	8.00	61.748
	83286	274.00	7.00	61.767
	83287	274.00	7.00	61.783
	83288	274.00	7.00	61.797
	83289	274.00	7.00	61.807
	83290	274.00	7.00	61.816
	83291	340.00	7.00	61.819
	83292	274.00	6.00	61.826
	83293	274.00	6.00	61.834
	83294	274.00	6.00	61.841
	83295	274.00	7.00	61.846
	83296	274.00	7.00	61.852
	83297	274.00	7.00	61.857
	83298	274.00	7.00	61.862
	83299	370.00	7.00	61.859
	83300	366.00	6.00	61.856
	83301	308.00	6.00	61.857
	83302	308.00	6.00	61.858
	83303	308.00	6.00	61.858
	83304	308.00	6.00	61.858

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

NOVEMBER	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	83305	308.00	5.00	61.800
	83306	308.00	6.00	61.800
	83307	308.00	6.00	61.800
	83308	308.00	6.00	61.800
	83309	337.00	6.00	61.800
	83310	308.00	6.00	61.800
	83311	308.00	6.00	61.800
	83312	207.00	6.00	61.800
	83311	308.00	6.00	61.800
	83312	207.00	6.00	61.800
	83313	286.00	6.00	61.800
	83314	274.00	6.00	61.800
	83315	274.00	6.00	61.800
	83316	274.00	5.00	61.800
	83317	274.00	5.00	61.800
	83318	274.00	5.00	61.900
	83319	274.00	5.00	61.900
	83320	356.00	5.00	61.900
	83321	410.00	5.00	61.900
	83322	412.00	5.00	61.900
	83323	303.00	5.00	61.900
	83324	422.00	5.00	61.900
	83325	432.00	5.00	61.800
	83326	413.00	4.00	61.800
	83327	413.00	5.00	61.800
	83328	403.00	5.00	61.800
	83329	409.00	4.00	61.800
	83330	415.00	4.00	61.800
	83331	417.00	4.00	61.800
	83332	416.00	4.00	61.800
	83333	403.00	4.00	61.800
	83334	494.00	4.00	61.800

APPENDIX N.5. OUTFLOW DATA, cont.

DECEMBER

DATE	OUTFLOW 1000 m ³ /day	TEMP C	LAKE LEVEL meters
83335	549.00	4.00	61.600
83336	343.00	4.00	61.600
83337	413.00	4.00	61.600
83338	337.00	4.00	61.600
83339	308.00	4.00	61.500
83340	350.00	4.00	61.600
83341	345.00	4.00	61.500
83342	423.00	4.00	61.500
83343	393.00	4.00	61.500
83344	326.00	4.00	61.500
83345	440.00	4.00	61.500
83346	412.00	4.00	61.500
83347	417.00	4.00	61.400
83348	650.00	4.00	61.400
83349	727.00	4.00	61.400
83350	308.00	4.00	61.300
83351	308.00	4.00	61.300
83352	308.00	4.00	61.300
83353	591.00	4.00	61.300
83354	774.00	4.00	61.300
83355	816.00	4.00	61.200
83356	796.00	4.00	61.200
83357	813.00	4.00	61.100
83358	796.00	4.00	61.100
83359	621.00	4.00	61.000
83360	621.00	4.00	61.000
83361	803.00	4.00	61.000
83362	806.00	4.00	61.000
83363	881.00	4.00	61.000
83364	848.00	4.00	60.900
83365	677.00	4.00	60.900

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

JANUARY

84001	657.00	4.00	60.900
84002	448.00	4.00	60.900
84003	553.00	4.00	60.700
84004	799.00	4.00	60.600
84005	750.00	4.00	60.600
84006	879.00	4.00	60.500
84007	971.00	4.00	60.500
84008	938.00	4.00	60.400
84009	1010.00	4.00	60.300
84010	1008.00	4.00	60.300
84011	986.00	4.00	60.200
84012	938.00	4.00	60.200
84013	848.00	4.00	60.100
84014	836.00	4.00	60.100
84015	833.00	4.00	60.000
84016	897.00	4.00	60.000
84017	920.00	4.00	59.900
84018	914.00	4.00	59.800
84019	947.00	4.00	59.800
84020	1070.00	4.00	59.700
84021	1050.00	4.00	59.600
84022	1061.00	4.00	59.600
84023	1097.00	4.00	59.500
84024	1139.00	4.00	59.300
84025	1152.00	4.00	59.300
84026	1111.00	4.00	59.200
84027	1096.00	4.00	59.100
84028	1065.00	4.00	59.100
84029	1029.00	4.00	59.000
84030	1078.00	4.00	58.900
84031	1074.00	4.00	58.900

APPENDIX N.5. OUTFLOW DATA, cont.

FEBRUARY

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
84032	1124.00	4.00	58.800
84033	1161.00	4.00	58.700
84034	1161.00	4.00	58.600
84035	1136.00	4.00	58.500
84036	1074.00	4.00	58.500
84037	1101.00	4.00	58.400
84038	1152.00	4.00	58.300
84039	1189.00	4.00	58.200
84040	1189.00	4.00	58.100
84041	1189.00	4.00	58.000
84042	1120.00	4.00	58.000
84043	1086.00	4.00	57.900
84044	1095.00	4.00	57.800
84045	1098.00	4.00	57.700
84046	1096.00	4.00	57.600
84047	1068.00	4.00	57.600
84048	1077.00	4.00	57.500
84049	1074.00	4.00	57.400
84050	1071.00	4.00	57.300
84051	1108.00	4.00	57.300
84052	1095.00	4.00	57.200
84053	1085.00	4.00	57.100
84054	839.00	4.00	57.000
84055	839.00	4.00	57.000
84056	843.00	4.00	56.900
84057	830.00	4.00	56.900
84058	994.00	4.00	56.800
84059	799.00	4.00	56.700
84060	1026.00	4.00	56.700

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

MARCH

84061	1026.00	4.00	56.600
84062	1074.00	4.00	56.500
84063	839.00	4.00	56.400
84064	839.00	4.00	56.300
84065	1062.00	4.00	56.300
84066	1038.00	4.00	56.200
84067	1057.00	4.00	56.100
84068	1068.00	4.00	56.000
84069	1077.00	4.00	56.000
84070	1043.00	4.00	55.900
84071	1061.00	4.00	55.800
84072	1075.00	4.00	55.700
84073	1085.00	4.00	55.700
84074	1103.00	4.00	55.600
84075	1112.00	4.00	55.500
84076	1124.00	4.00	55.400
84077	1130.00	4.00	55.300
84078	1111.00	4.00	55.200
84079	1134.00	4.00	55.100
84080	1153.00	4.00	55.100
84081	1165.00	4.00	55.100
84082	1163.00	4.00	55.100
84083	1272.00	4.00	54.800
84084	1282.00	4.00	54.800
84085	1282.00	4.00	54.800
84086	1282.00	4.00	54.800
84087	1282.00	4.00	54.800
84088	1282.00	4.00	54.800
84089	1282.00	4.00	54.800
84090	1282.00	4.00	54.100
84091	1282.00	4.00	54.100

APPENDIX N.5. OUTFLOW DATA, cont.

APRIL	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	84092	1282.00	4.00	54.100
	84093	1282.00	4.00	54.100
	84094	1282.00	4.00	54.100
	84095	1282.00	4.00	54.100
	84096	1282.00	4.00	54.100
	84097	1282.00	4.00	53.400
	84098	1287.00	4.00	53.400
	84099	1287.00	4.00	53.400
	84100	1287.00	4.00	53.400
	84101	1281.00	4.00	53.400
	84102	1109.00	4.00	53.400
	84103	1124.00	4.00	53.400
	84104	1111.00	4.00	52.700
	84105	1093.00	4.00	52.700
	84106	1089.00	4.00	52.700
	84107	1125.00	4.50	52.700
	84108	1105.00	4.50	52.700
	84109	1131.00	4.50	52.700
	84110	1197.00	4.50	52.700
	84111	1162.00	4.50	52.100
	84112	1100.00	4.00	52.100
	84113	1148.00	4.00	52.100
	84114	1118.00	4.50	52.100
	84115	1114.00	4.50	52.100
	84116	997.00	4.50	52.100
	84117	851.00	4.50	52.100
	84118	851.00	5.00	52.100
	84119	851.00	5.00	52.100
	84120	816.00	5.00	52.100
	84121	708.00	5.00	52.100

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

MAY	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	84122	643.00	5.50	52.100
	84123	643.00	5.50	52.100
	84124	628.00	5.50	52.100
	84125	733.00	5.50	52.100
	84126	851.00	5.50	52.100
	84127	851.00	5.50	52.100
	84128	708.00	5.50	52.100
	84129	643.00	6.00	52.100
	84130	643.00	6.00	52.100
	84131	643.00	6.00	52.100
	84132	643.00	5.00	52.100
	84133	830.00	5.00	52.100
	84134	854.00	5.00	52.100
	84135	1107.00	5.00	52.100
	84136	1113.00	6.00	50.600
	84137	1108.00	7.00	50.600
	84138	1111.00	7.00	50.600
	84139	981.00	8.00	50.600
	84140	992.00	8.00	50.600
	84141	865.00	8.00	50.600
	84142	901.00	7.00	50.600
	84143	992.00	7.00	50.600
	84144	891.00	7.00	50.600
	84145	820.00	7.00	50.600
	84146	758.00	6.50	50.200
	84147	844.00	6.00	50.200
	84148	565.00	6.50	50.200
	84149	603.00	7.00	50.200
	84150	1006.00	7.00	50.200
	84151	1192.00	7.50	50.200
	84152	926.00	8.00	50.200

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
84153	925.00	7.00	50.100
84154	710.00	8.00	50.100
84155	860.00	8.50	50.100
84156	927.00	8.50	50.100
84157	852.00	10.00	50.100
84158	945.00	8.50	50.100
84159	896.00	8.50	50.100
84160	967.00	8.50	49.600
84161	954.00	9.00	49.600
84162	947.00	9.00	49.600
84163	1009.00	9.50	49.600
84164	998.00	10.50	49.600
84165	1231.00	12.00	49.600
84166	1228.00	11.50	49.600
84167	1185.00	12.00	49.700
84168	1131.00	10.00	49.700
84169	1106.00	10.50	49.700
84170	1146.00	10.50	49.700
84171	1135.00	11.00	49.700
84172	1122.00	11.00	49.700
84173	1084.00	11.00	49.700
84174	1061.00	12.00	49.700
84175	1021.00	12.50	49.700
84176	1027.00	13.50	49.700
84177	381.00	13.50	49.700
84178	400.00	13.50	49.700
84179	410.00	13.50	49.700
84180	420.00	13.50	49.700
84181	454.00	14.00	50.700
84182	937.00	13.00	50.700

JUNE

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

84183	1044.00	11.00	50.700
84184	1097.00	12.00	50.700
84185	1070.00	12.00	50.700
84186	941.00	12.00	50.700
84187	1084.00	11.00	50.700
84188	875.00	12.00	51.200
84189	348.00	12.00	51.200
84190	354.00	12.50	51.200
84191	348.00	13.00	51.200
84192	384.00	12.50	51.200
84193	380.00	13.00	51.200
84194	386.00	12.00	51.200
84195	395.00	12.50	51.200
84196	381.00	12.50	51.200
84197	384.00	13.00	51.200
84198	367.00	11.50	51.200
84199	386.00	11.50	53.000
84200	362.00	12.00	53.000
84201	410.00	11.50	53.000
84202	389.00	11.50	53.400
84203	356.00	12.00	53.400
84204	354.00	12.00	53.400
84205	356.00	12.00	53.400
84206	406.00	11.50	53.400
84207	353.00	11.50	53.400
84208	265.00	11.50	53.400
84209	354.00	11.00	54.400
84210	355.00	10.50	54.400
84211	352.00	10.50	54.400
84212	363.00	10.50	54.400
84213	363.00	10.50	55.000

JULY

APPENDIX N.5. OUTFLOW DATA, cont.

AUGUST	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	84214	355.00	11.00	55.000
	84215	355.00	10.50	55.000
	84216	332.00	11.00	55.000
	84217	440.00	11.00	55.000
	84218	363.00	10.50	55.000
	84219	370.00	10.50	55.000
	84220	361.00	10.00	56.400
	84221	368.00	10.00	56.400
	84222	343.00	10.00	56.400
	84223	353.00	9.00	56.400
	84224	365.00	9.50	56.400
	84225	372.00	9.00	56.400
	84226	350.00	9.00	56.400
	84227	351.00	9.50	56.400
	84228	360.00	10.00	56.400
	84229	343.00	9.50	56.400
	84230	253.00	9.50	57.800
	84231	349.00	10.00	57.800
	84232	350.00	9.50	57.800
	84233	350.00	9.50	57.800
	84234	352.00	10.50	57.800
	84235	385.00	11.50	57.800
	84236	362.00	9.50	57.800
	84237	348.00	10.50	57.800
	84238	368.00	10.50	57.800
	84239	373.00	9.50	57.800
	84240	353.00	9.50	57.800
	84241	359.00	10.00	57.800
	84242	348.00	10.00	57.800
	84243	364.00	9.50	57.800
	84244	379.00	9.50	60.300

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

SEPTEMBER	DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
	84245	362.00	9.00	60.300
	84246	341.00	10.00	60.300
	84247	353.00	9.00	60.300
	84248	368.00	9.50	60.300
	84249	384.00	10.00	60.300
	84250	347.00	9.50	60.300
	84251	346.00	10.00	60.600
	84252	347.00	10.00	60.600
	84253	349.00	9.50	60.600
	84254	349.00	9.00	60.600
	84255	396.00	9.00	60.600
	84256	346.00	9.00	60.600
	84257	349.00	9.50	60.600
	84258	347.00	9.50	60.800
	84259	393.00	9.00	60.800
	84260	363.00	9.00	60.800
	84261	393.00	9.00	60.800
	84262	391.00	9.00	60.800
	84263	406.00	9.00	60.800
	84264	413.00	9.00	60.800
	84265	416.00	9.50	61.100
	84266	349.00	10.00	61.100
	84267	344.00	9.50	61.100
	84268	377.00	9.00	61.100
	84269	413.00	9.00	61.100
	84270	378.00	9.50	61.100
	84271	430.00	9.50	61.100
	84272	369.00	9.00	61.200
	84273	384.00	9.00	61.200
	84274	341.00	9.00	61.200

APPENDIX N.5. OUTFLOW DATA, cont.

OCTOBER

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
84275	462.00	9.00	61.200
84276	436.00	9.00	61.600
84277	479.00	9.00	61.600
84278	562.00	9.50	61.600
84279	468.00	8.50	61.600
84280	356.00	9.00	61.600
84281	345.00	8.00	61.600
84282	440.00	8.00	61.600
84283	381.00	8.00	61.600
84284	384.00	8.00	61.600
84285	386.00	8.00	61.600
84286	382.00	8.00	61.800
84287	351.00	8.00	61.800
84288	355.00	8.00	61.800
84289	404.00	8.00	61.800
84290	393.00	8.00	61.800
84291	423.00	8.00	61.800
84292	440.00	7.00	61.800
84293	516.00	8.00	61.800
84294	420.00	7.50	61.800
84295	405.00	7.00	61.800
84296	401.00	7.00	61.800
84297	763.00	7.50	61.800
84298	747.00	6.50	61.800
84299	807.00	6.00	61.800
84300	862.00	6.00	61.700
84301	856.00	6.00	61.700
84302	853.00	6.00	61.700
84303	918.00	6.00	61.700
84304	877.00	6.00	61.700
84305	900.00	6.00	61.700

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

NOVEMBER

84306	893.00	6.00	61.700
84307	875.00	6.00	61.400
84308	817.00	6.00	61.400
84309	794.00	6.00	61.400
84310	845.00	6.00	61.400
84311	818.00	6.00	61.400
84312	854.00	6.00	61.400
84313	862.00	5.50	61.400
84314	845.00	5.50	61.000
84315	819.00	5.00	61.000
84316	815.00	5.00	61.000
84317	876.00	4.50	61.000
84318	876.00	4.50	61.000
84319	649.00	4.50	61.000
84320	1086.00	4.00	61.000
84321	892.00	4.00	60.600
84322	866.00	4.00	60.600
84323	939.00	4.00	60.600
84324	871.00	4.00	60.600
84325	783.00	4.00	60.600
84326	743.00	4.00	60.600
84327	678.00	4.00	60.600
84328	720.00	4.00	60.600
84329	664.00	4.00	60.600
84330	681.00	4.00	60.600
84331	790.00	4.00	60.600
84332	884.00	4.00	60.600
84333	843.00	4.00	60.600
84334	881.00	4.00	60.600
84335	862.00	4.00	60.600

APPENDIX N.6

INFLOW SEDIMENT DATA

APPENDIX N.6

PREDICTION OF TSS FROM MEAN DAILY DISCHARGE

- NOTE: 1) Values of TSS for Glacier Fork are calculated using the equation:

$$TSS_{GF} = 1.1424Q_{GF}^{0.8947}$$

$$R^2 = 0.90$$

where TSS_{GF} = Total Suspended Solids (mg/l) at Glacier Fork,
and Q_{GF} = Mean Daily Discharge (cfs) at Glacier Fork.

This equation was developed using data from 5/18/84 through 9/28/84. Data points from 5/18, 6/8, and 6/19 were excluded since they differed significantly from the values used in the analysis.

- 2) Values of TSS for East Fork are calculated using the equation:

$$TSS_{EF} = 3.2932E^{-5}Q_{EF}^{2.4753}$$

$$R^2 = 0.89$$

where TSS_{EF} = Total Suspended Solids (mg/l) at East Fork,
and Q_{EF} = Mean Daily Discharge (cfs) at East Fork.

This equation was developed using data from 5/18/84 through 10/30/84. Data points from 6/26 and 10/30 were excluded from the analysis.

- 3) Data from the following dates were included in the analysis for East Fork, but not for Glacier Fork:

10/2, 10/5 10/9, 10/12, 10/16, 10/19, 10/23,
10/26, 10/30.

TSS PREDICTION FROM MEAN DAILY Q EKLUTNA RIVER

TABLE N.6

MAY '84

CK
WSP 12/7/84

10/17/84
REVISED
12/6/84 185

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/L)	Q_{GF} (cfs)	TSS_{GF} (mg/L)	Q_T (cfs)	TSS_T (mg/L)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18	83	1.9				
19	87 ✓	2.1 ✓	15 ✓	12.9 ✓	102 ✓	4 ✓
20	92	2.4	20	16.7	112	5
21	94	2.5	25	20.4	119	6
22	94	2.5	20	16.7	114	5
23	87	2.1	15	12.9	102	4
24	94	2.5	19	15.9	113	5
25	96	2.7	15	12.9	111	4
26	92	2.4	16	13.7	108	4
27	89	2.2	15	12.9	104	4
28	89 ✓	2.2 ✓	14 ✓	12.1 ✓	103 ✓	4 ✓
29	92	2.4	14	12.1	106	4
30	89	2.2	16	13.7	105	4
31	81	1.7	15	12.9	96	4

PRELIMINARY

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " GLACIER FORK

Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " GLACIER FORK

TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF}(TSS_{EF}) + (Q_{GF}(TSS_{GF}))}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

EKLUTNA RIVER

TABLE N.6, cont.

JUNE

184
CK W/12/1/84

10/19/84
REVISED 12/6/84

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/l)	Q_{GF} (cfs)	TSS_{GF} (mg/l)	Q_T (cfs)	TSS_T (mg/l) ^T
1	87	2.1	17	14.4	104	4
2	103	3.2	23	18.9	126	6
3	125	5.1	32	25.4	157	9
4	143	7.1	44	33.7	187	13
5	162	9.7	58	43.2	220	18
6	191	14.6	93	65.9	284	31
7	172	11.2	93	65.9	265	30
8	165	10.2	102	71.6	267	34
9	183	13.1	97	68.5	280	32
10	187	13.8	97	68.5	284	32
11	183	13.1	103	72.2	286	34
12	187	13.8	118	81.6	305	40
13	203	17.0	134	91.4	337	47
14	195	15.4	118	81.6	313	40
15	179	12.4	111	77.2	290	37
16	183	13.1	106	74.1	289	36
17	195	15.4	116	80.3	311	40
18	228	22.6	140	95.1	368	50
19	261	31.6	194	127.3	455	72
20	310	48.4	272	172.2	582	106
21	327	55.2	259	164.8	586	104
22	304	46.1	256	163.1	560	100
23	310	48.4	272	172.2	582	106
24	321	52.7	303	189.7	624	119
25	365	72.5	314	195.8	679	130
26	346	63.5	252	160.8	598	104
27	282	38.3	310	193.6	592	120
28	251	28.7	306	191.3	557	118
29	310	48.4	356	219.1	666	140
30	293	42.1	348	220.2	641	140
31						

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " GLACIER FORK

Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " GLACIER FORK

TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF}(TSS_{EF}) + Q_{GF}(TSS_{GF})}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

TABLE N.6, cont.

EKLUTNA RIVER
LAKE

JULY '84

10/19/84
REVISED
12/16/84

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/l)	Q_{GF} (cfs)	TSS_{GF} (mg/l)	Q_T (cfs)	TSS_T (mg/l) ^T
1	277	36.6	329	204.2	606	128
2	247	27.4	329	204.2	576	128
3	228	22.6	356	219.1	584	142
4	266	33.1	465	278.2	731	189
5	414	99.0	545	320.7	959	225
6	519	173.2	597	347.9	1116	267
7	583	230.9	597	347.9	1180	290
8	527	179.9	573	325.4	1100	271
9	510	165.8	579	338.5	1089	258
10	460	128.5	603	351.0	1063	255
11	414	99.0	579	338.5	993	239
12	379	79.5	495	294.2	874	201
13	359	69.5	480	286.2	839	194
14	340	60.8	450	270.2	790	180
15	327	55.2	436	262.6	763	174
16	340	60.8	436	262.6	776	174
17	321	52.7	417	252.4	738	166
18	316	50.7	399	242.6	715	158
19	310	48.4	408	247.5	718	162
20	304	46.1	431	259.9	735	172
21	372	75.9	511	302.7	883	207
22	429	108.1	556	326.5	985	231
23	441	117.7	585	341.7	1029	245
24	444	117.7	591	344.8	1035	247
25	414	99.0	573	335.4	987	236
26	379	79.5	533	314.4	912	217
27	379	79.5	533	314.4	912	217
28	386	83.2	533	314.4	919	217
29	386	83.2	539	317.5	925	220
30	386	83.2	556	326.5	942	227
31	400	90.9	550	323.3	950	225

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " GLACIER FORK

Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " GLACIER FORK

TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF}(TSS_{EF}) + Q_{GF}(TSS_{GF})}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

RIVER TABLE N.6, cont.

EKLUTNA LAKE

AUG '84

OK WSP 17/84

10/19/84
REVISED
12/16/84 SS

DATE	Q_{EF} (cfs)	TSS _{EF} (mg/l)	Q_{GF} (cfs)	TSS _{GF} (mg/l)	Q_T (cfs)	TSS (mg/l) ^T
1	386	83.2	545	320.7	931	222
2	429	108.1	609	354.2	1038	252
3	476	139.8	687	394.5	1163	290
4	546	196.3	736	419.6	1282	324
5	603	251.0	818	461.2	1421	372
6	623	272.2	757	430.3	1380	359
7	1483	144.9	772	437.9	1255	325
8	546	196.3	772	437.9	1318	338
9	593	240.9	802	453.4	1395	363
10	493	152.5	694	398.1	1187	296
11	460	128.5	634	367.2	1094	267
12	414	99	616	357.8	1030	254
13	372	75.9	573	335.4	945	233
14	365	72.5	562	329.6	927	228
15	392	86.5	562	329.6	954	230
16	492	151.7	622	360.9	1114	268
17	421	103.2	609	354.2	1030	252
18	452	123.0	694	398.1	1146	290
19	818	534.0	873	488.8	1691	511
20	564	212.7	722	412.4	1286	325
21	392	86.5	597	347.9	989	244
22	400	90.9	736	419.6	1136	304
23	379	79.5	641	370.8	1020	263
24	519	173.2	707	404.8	1226	307
25	623	272.2	873	488.8	1496	399
26	400	90.9	622	360.9	1022	255
27	271	34.7	450	270.2	721	182
28	219	20.5	381	232.8	600	155
29	195	15.4	310	193.6	505	125
30	165	10.2	259	164.8	424	105
31	152	8.3	217	140.7	369	86

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " GLACIER FORK

Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " GLACIER FORK

TSS = WEIGHTED TOTAL TSS ($TSS = \frac{Q_{EF}(TSS_{EF}) + (Q_{GF}(TSS_{GF}))}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q AS
 EKLUTNA RIVER LAKE SEPT. '84^{ck} 10/19/8
 TABLE N.6, CONT. REVIS^{ed} 12/16/84 AS

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/l)	Q_{GF} (cfs)	TSS_{GF} (mg/l)	Q_T (cfs)	TSS_T (mg/l) ^T
1	140	6.8	194	127.3	334	77
2	134	6.1	179	118.4	313	70
3	131	5.7	174	115.5	305	68
4	134	6.1	161	107.7	295	62
5	134	6.1	150	101.1	284	56
6	131	5.7	146	92.6	277	54
7	128	5.4	150	92.6	278	57
8	131	5.7	150	101.1	281	57
9	125	5.1	136	92.6	261	51
10	125 ✓	5.1 ✓	128 ✓	87.7 ✓	253 ✓	47 ✓
11	125	5.1	123	84.7	248	45
12	123	4.9	129	88.3	252	48
13	131	5.7	136	92.6	267	50
14	187	13.8	199	130.2	386	74
15	191	14.6	204	133.1	395	76
16	140	6.8	142	96.3	282	52
17	128	5.4	125	85.9	253	45
18	112	3.9	129	88.3	241	49
19	107	3.5	128	87.7	235	49
20	94	2.5	97	68.5	191	36
21	92	2.4	79	57.0	171	28
22	89	2.2	76	55.0	165	26
23	83	1.9	71	51.8	154	25
24	80	1.7	67	49.2	147	23
25	83	1.9	69	50.5	152	24
26	81 ✓	1.7 ✓	61 ✓	45.2 ✓	142 ✓	20 ✓
27	73	1.6	57	42.5	135	19
28	63	1.9	62	45.9	145	20
29	87	2.1	342	211.4	429	169
30	340	60.8	238	152.8	578	99
31						

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK
 Q_{GF} = " " " " GLACIER FORK
 Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)
 TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK
 TSS_{GF} = " " " " GLACIER FORK
 TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF}(TSS_{EF}) + (Q_{GF}(TSS_{GF}))}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

TABLE N.6, cont.

12/6/84

EKLUTNA RIVER

OCTOBER '84

CH
WFA 12/7/84

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/l)	Q_{GF} (cfs)	TSS_{GF} (mg/l)	Q_T (cfs)	TSS_T (mg/l) ^T
1	266	33.1	204	133.1	470	76
2	183	13.1	144	97.5	327	50
3	146	7.5	110	70.0	256	37
4	128	5.4	94	66.6	222	31
5	120	4.6	85	60.8	205	28
6	117	4.3	83	59.5	200	27
7	112	3.9	71	51.8	183	22
8	115	4.2	66	48.5	181	20
9	103	3.2	54	40.5	157	16
10	94	2.5	45	34.4	139	13
11	89	2.2	41	31.7	130	12
12	85	2.0	38	29.6	123	10
13	80	1.7	34	26.8	114	9
14	76	1.5	32	25.4	108	9
15	72	1.3	30 e	24.0	102	8
16	71	1.3	28 e	22.5	99	7
17	67	1.1	27 e	21.8	94	7
18	66	1.1	26 e	21.1	92	7
19	66	1.1	24 e	19.6	90	6
20	64	1.0	24 e	19.6	88	6
21	64	1.0	23 e	18.9	87	6
22	80	1.7	33 e	26.1	113	9
23	74	1.4	28 e	22.5	102	7
24	66	1.1	25 e	20.4	91	6
25	59	0.8	25 e	20.4	84	7
26	55	0.7	25 e	20.4	80	7
27	54	0.6	24 e	19.6	78	6
28	50	0.5	22 e	18.2	72	6
29	47	0.4	21 e	17.4	68	6
30	45	0.4	20 e	16.7	65	5
31	42	0.3	20 e	16.7	62	6

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " GLACIER FORK

e = ESTIMATED Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " GLACIER FORK

TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF} \times TSS_{EF}}{Q_T} + \frac{Q_{GF} \times TSS_{GF}}{Q_T}$)

TABLE N.6, cont.

EKLUTNA SEDIMENT INFLOW1/24/85
JRE

NOVEMBER 1984

DATE	ISEQ	FLOWINF (1000 m ³ /day)	TSS (mg/l)	"SEDINF" (1000 kg/day)
1	84306	149 E	5 E	0.745 E
2	84307	146	5	0.730
3	84308	143	5	0.715
4	84309	140	5	0.700
5	84310	137	5	0.685
6	84311	134	5	0.670
7	84312	131	5	0.655
8	84313	128	5	0.640
9	84314	125	5	0.625
10	84315	122	5	0.610
11	84316	119	5	0.595
12	84317	116	5	0.580
13	84318	114	5	0.570
14	84319	112	5	0.560
15	84320	110	5	0.550
16	84321	108	3	0.324
17	84322	107	3	0.321
18	84323	106	3	0.318
19	84324	105	3	0.315
20	84325	104	3	0.312
21	84326	103	3	0.309
22	84327	102	3	0.306
23	84328	101	3	0.303
24	84329	100	3	0.300
25	84330	100	3	0.300
26	84331	100	3	0.300
27	84332	99	3	0.297
28	84333	99	3	0.297
29	84334	99	3	0.297
30	84335	98	3	0.204
31				

NOTES: (1) All values are estimates.

(2) FLOWINF = Q_{EF} + Q_G.

PRELIMINARY

APPENDIX O

SEDIMENT ANALYSES BY PARTICLE DATA LABORATORIES, LTD.

APPENDIX O

Sediment Analyses by Particle Data Laboratories, Inc.

Following are results of analyses by Particle Data Laboratories, Ltd. (PDL), of suspended-sediment samples collected in Eklutna Lake, the lake inflow streams, and the lake outflow. The samples and included analyses are described in the following table.

The data are arranged in this appendix in the order in which they are listed in the table, generally in chronological order. The PDL correspondence is included for reference and for discussion of the mineralogic characteristics of the sediment that were identified. R&M letters of August 14, 1984 and October 26, 1984, which transmitted the 1984 samples and requested the analyses, are also enclosed.

TABLE O.1

PDL ANALYSES ON EKLUTNA LAKE SUSPENDED-
SEDIMENT SAMPLES (1983-1984)

Sampling		Analysis(1)					
Date	Location	PSD	SEM	OM	MC	MS	TSS
1/13/83	Sta. 5, 32m	X		X	X	X	X
1/13/83	Sta. 5, 48m	X				X	X
1/13/83	Sta. 9, 32m	X		X	X	X	X
1/13/83	Sta. 9, 48m	X				X	X
1/11/83	Sta. 11, 16m	X				X	X
1/11/83	Sta. 11, 28m	X		X	X	X	X
7/20/84	East Fork	X	X		X		
7/20/84	Glacier Fork	X	X		X		
7/21/84	Tailrace	X	X		X		
8/28/84	East Fork	X					
8/28/84	Glacier Fork	X					
8/28/84	Tailrace	X					
10/23/84	East Fork	X					
10/23/84	Glacier Fork	X					
10/23/84	Tailrace	X					

(1) Abbreviations for analyses:

PSD: particle-size distribution, by volume and by count

SEM: scanning electron micrograph(s) of particles, various magnifications

OM: optical microphotograph(s) of particles, various magnifications

MC: mineral characterization of particles

MS: median particle size, by volume (mass) and by count

TSS: total suspended-solids concentration

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

March 10, 1983

R & M Consultants, Inc.
Box 6087
Anchorage, AK 99502

Attention Mr. Brett Jokela

Subject: Particle Size and Gravimetric Suspended Solids
Concentration Analysis of Six Lake Samples

PDL Project: I-7137

Dear Mr. Jokela:

The six Eklutna Lake water samples submitted for particle size and gravimetric suspended solids concentration analysis has been completed. The results are summarized in the following table. The Elzone particle size analysis and the photographs as requested are enclosed.

CONCENTRATION AND PARTICLE SIZE SUMMARY

<u>Sample I.D.</u>	<u>Total Suspended Solids (mg/l)</u>	<u>Mass Median Size (Microns)</u>	<u>Count Median Size (Microns)</u>
Eklutna Lake St. 5, 32M 01/15/83 13	4.9	6.61	1.45
Eklutna Lake St. 5, 48M 01/13/83	1.3	18.00	1.45
Eklutna Lake St. 9, 32M 01/13/83	5.6	12.83	1.81
Eklutna Lake St. 9, 48M 01/13/83	5.2	19.44	1.38
Eklutna Lake St. 11, 16M 01/11/83	3.8	7.42	1.72
Eklutna Lake St. 11, 28M	17.0	5.39	1.72

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.

PDL Project: I-7137

March 7, 1983

Page 2

A small quantity of each sample is still on hand. We will hold this for two additional weeks and then discard the contents and return the containers to you by UPS.

If there are any questions, please call us. Thank you for referring to us, and we hope we can be of further help to you in the future.

Sincerely yours,

PARTICLE DATA LABORATORIES, LTD.


Olga Kist
Technical Staff

jc

Enclosures

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 3 MAR 83 : DATE

SAMPLE: EKLUTNA LAKE ST5 32M ~~15~~-1-83

7137 : JOB NUMBER

13

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 6.61 MEDIAN = 6.61 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 8.71 +/- 17.39 (199.56%) SKEWNESS = .12

ARITHMETIC VOLUME MEAN = 15.78 +/- 17.59 (111.48%) SKEWNESS = .52

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF VOLUME IS AT	87.30 MICRONS AND LARGER
PERCENTILE:	01.0%	OF VOLUME IS AT	72.01 MICRONS AND LARGER
PERCENTILE:	06.0%	OF VOLUME IS AT	50.92 MICRONS AND LARGER
PERCENTILE:	22.0%	OF VOLUME IS AT	28.58 MICRONS AND LARGER
PERCENTILE:	50.0%	OF VOLUME IS AT	6.61 MICRONS AND LARGER
PERCENTILE:	78.0%	OF VOLUME IS AT	3.44 MICRONS AND LARGER
PERCENTILE:	94.0%	OF VOLUME IS AT	1.93 MICRONS AND LARGER
PERCENTILE:	99.0%	OF VOLUME IS AT	1.26 MICRONS AND LARGER
PERCENTILE:	99.9%	OF VOLUME IS AT	1.00 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNT MODE = 1.36 MEDIAN = 1.45 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.49 +/- 1.07 (72.31%) SKEWNESS = .11

ARITHMETIC COUNT MEAN = 1.74 +/- 1.22 (70.15%) SKEWNESS = .31

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF COUNT IS AT	9.72 MICRONS AND LARGER
PERCENTILE:	01.0%	OF COUNT IS AT	6.49 MICRONS AND LARGER
PERCENTILE:	06.0%	OF COUNT IS AT	3.64 MICRONS AND LARGER
PERCENTILE:	22.0%	OF COUNT IS AT	2.17 MICRONS AND LARGER
PERCENTILE:	50.0%	OF COUNT IS AT	1.45 MICRONS AND LARGER
PERCENTILE:	78.0%	OF COUNT IS AT	.96 MICRONS AND LARGER
PERCENTILE:	94.0%	OF COUNT IS AT	.68 MICRONS AND LARGER
PERCENTILE:	99.0%	OF COUNT IS AT	.48 MICRONS AND LARGER
PERCENTILE:	99.9%	OF COUNT IS AT	.34 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 4 MAR 83 :DATE

SAMPLE: EKLUTNA LAKE STS 48M 13-1-83

7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 27.50 MEDIAN = 18.00 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 12.89 +/- 27.49 (213.22%) SKEWNESS = -.53

ARITHMETIC VOLUME MEAN = 21.42 +/- 18.45 (86.13%) SKEWNESS = -.33

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF VOLUME IS AT	90.73 MICRONS AND LARGER
PERCENTILE:	01.0%	OF VOLUME IS AT	74.84 MICRONS AND LARGER
PERCENTILE:	06.0%	OF VOLUME IS AT	55.00 MICRONS AND LARGER
PERCENTILE:	22.0%	OF VOLUME IS AT	34.65 MICRONS AND LARGER
PERCENTILE:	50.0%	OF VOLUME IS AT	18.00 MICRONS AND LARGER
PERCENTILE:	78.0%	OF VOLUME IS AT	3.86 MICRONS AND LARGER
PERCENTILE:	94.0%	OF VOLUME IS AT	1.86 MICRONS AND LARGER
PERCENTILE:	99.0%	OF VOLUME IS AT	1.26 MICRONS AND LARGER
PERCENTILE:	99.9%	OF VOLUME IS AT	1.04 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNT MODE = 1.36 MEDIAN = 1.45 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.45 +/- .87 (60.41%) SKEWNESS = .09

ARITHMETIC COUNT MEAN = 1.64 +/- 1.13 (69.09%) SKEWNESS = .24

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF COUNT IS AT	14.57 MICRONS AND LARGER
PERCENTILE:	01.0%	OF COUNT IS AT	4.86 MICRONS AND LARGER
PERCENTILE:	06.0%	OF COUNT IS AT	3.06 MICRONS AND LARGER
PERCENTILE:	22.0%	OF COUNT IS AT	2.04 MICRONS AND LARGER
PERCENTILE:	50.0%	OF COUNT IS AT	1.45 MICRONS AND LARGER
PERCENTILE:	78.0%	OF COUNT IS AT	1.02 MICRONS AND LARGER
PERCENTILE:	94.0%	OF COUNT IS AT	.72 MICRONS AND LARGER
PERCENTILE:	99.0%	OF COUNT IS AT	.54 MICRONS AND LARGER
PERCENTILE:	99.9%	OF COUNT IS AT	.39 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS - 4 MAR 83 : DATE

SAMPLE: EKLUTNA LAKE ST9 32M 13-1-83

7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 21.57 MEDIAN = 12.83 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 10.39 +/- 16.06 (154.61%) SKEWNESS = -.70

ARITHMETIC VOLUME MEAN = 15.04 +/- 11.58 (77.03%) SKEWNESS = -.56

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF VOLUME IS AT	61.02 MICRONS AND LARGER
PERCENTILE:	01.0%	OF VOLUME IS AT	46.25 MICRONS AND LARGER
PERCENTILE:	06.0%	OF VOLUME IS AT	35.05 MICRONS AND LARGER
PERCENTILE:	22.0%	OF VOLUME IS AT	23.94 MICRONS AND LARGER
PERCENTILE:	50.0%	OF VOLUME IS AT	12.83 MICRONS AND LARGER
PERCENTILE:	78.0%	OF VOLUME IS AT	4.09 MICRONS AND LARGER
PERCENTILE:	94.0%	OF VOLUME IS AT	2.27 MICRONS AND LARGER
PERCENTILE:	99.0%	OF VOLUME IS AT	1.45 MICRONS AND LARGER
PERCENTILE:	99.9%	OF VOLUME IS AT	1.06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNT MODE = 1.72 MEDIAN = 1.81 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.86 +/- 1.24 (66.71%) SKEWNESS = .11

ARITHMETIC COUNT MEAN = 2.14 +/- 1.50 (69.82%) SKEWNESS = .28

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF COUNT IS AT	18.50 MICRONS AND LARGER
PERCENTILE:	01.0%	OF COUNT IS AT	6.87 MICRONS AND LARGER
PERCENTILE:	06.0%	OF COUNT IS AT	3.99 MICRONS AND LARGER
PERCENTILE:	22.0%	OF COUNT IS AT	2.68 MICRONS AND LARGER
PERCENTILE:	50.0%	OF COUNT IS AT	1.81 MICRONS AND LARGER
PERCENTILE:	78.0%	OF COUNT IS AT	1.28 MICRONS AND LARGER
PERCENTILE:	94.0%	OF COUNT IS AT	.86 MICRONS AND LARGER
PERCENTILE:	99.0%	OF COUNT IS AT	.61 MICRONS AND LARGER
PERCENTILE:	99.9%	OF COUNT IS AT	.45 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5458

CLIENT: R & M CONSULTANTS 4 MAR 83 : DATE

SAMPLE: ERLUTNA LAKE ST9 42W 12-1-83

7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

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INDICES

VOLUME MODE = 32.08 MEDIAN = 19.44 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 14.66 +/- 24.17 (164.87%) SKEWNESS = -.72

ARITHMETIC VOLUME MEAN = 21.21 +/- 15.65 (73.77%) SKEWNESS = -.69

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF VOLUME IS AT	94.29 MICRONS AND LARGER
PERCENTILE:	01.0%	OF VOLUME IS AT	69.29 MICRONS AND LARGER
PERCENTILE:	04.0%	OF VOLUME IS AT	47.15 MICRONS AND LARGER
PERCENTILE:	22.0%	OF VOLUME IS AT	33.34 MICRONS AND LARGER
PERCENTILE:	50.0%	OF VOLUME IS AT	19.44 MICRONS AND LARGER
PERCENTILE:	78.0%	OF VOLUME IS AT	5.67 MICRONS AND LARGER
PERCENTILE:	94.0%	OF VOLUME IS AT	2.53 MICRONS AND LARGER
PERCENTILE:	99.0%	OF VOLUME IS AT	1.47 MICRONS AND LARGER
PERCENTILE:	99.9%	OF VOLUME IS AT	1.12 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

=====

INDICES

COUNT MODE = 1.38 MEDIAN = 1.38 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.34 +/- 1.27 (95.01%) SKEWNESS = -.03

ARITHMETIC COUNT MEAN = 1.69 +/- 1.52 (90.20%) SKEWNESS = .20

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF COUNT IS AT	19.44 MICRONS AND LARGER
PERCENTILE:	01.0%	OF COUNT IS AT	6.25 MICRONS AND LARGER
PERCENTILE:	04.0%	OF COUNT IS AT	3.55 MICRONS AND LARGER
PERCENTILE:	22.0%	OF COUNT IS AT	2.29 MICRONS AND LARGER
PERCENTILE:	50.0%	OF COUNT IS AT	1.38 MICRONS AND LARGER
PERCENTILE:	78.0%	OF COUNT IS AT	.78 MICRONS AND LARGER
PERCENTILE:	94.0%	OF COUNT IS AT	.47 MICRONS AND LARGER
PERCENTILE:	99.0%	OF COUNT IS AT	.29 MICRONS AND LARGER
PERCENTILE:	99.9%	OF COUNT IS AT	.20 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LDT.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 4 MAR 83 : DATE
SAMPLE: EKLUTNA LAKE ST11 16M 11-1-83

7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

=====

INDICES

VOLUME MODE = 7.42 MEDIAN = 7.42 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 7.82 +/- 9.51 (121.70%) SKEWNESS = .04

ARITHMETIC VOLUME MEAN = 11.01 +/- 11.33 (102.91%) SKEWNESS = .32

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF VOLUME IS AT	87.30	MICRONS AND LARGER
PERCENTILE:	01.0%	OF VOLUME IS AT	61.73	MICRONS AND LARGER
PERCENTILE:	06.0%	OF VOLUME IS AT	29.70	MICRONS AND LARGER
PERCENTILE:	22.0%	OF VOLUME IS AT	13.75	MICRONS AND LARGER
PERCENTILE:	50.0%	OF VOLUME IS AT	7.42	MICRONS AND LARGER
PERCENTILE:	78.0%	OF VOLUME IS AT	4.33	MICRONS AND LARGER
PERCENTILE:	94.0%	OF VOLUME IS AT	2.34	MICRONS AND LARGER
PERCENTILE:	99.0%	OF VOLUME IS AT	1.47	MICRONS AND LARGER
PERCENTILE:	99.9%	OF VOLUME IS AT	1.13	MICRONS AND LARGER

.

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

=====

INDICES

COUNT MODE = 1.62 MEDIAN = 1.72 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.73 +/- 1.46 (84.08%) SKEWNESS = .07

ARITHMETIC COUNT MEAN = 2.11 +/- 1.60 (75.64%) SKEWNESS = .31

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE:	00.1%	OF COUNT IS AT	14.57	MICRONS AND LARGER
PERCENTILE:	01.0%	OF COUNT IS AT	8.18	MICRONS AND LARGER
PERCENTILE:	06.0%	OF COUNT IS AT	4.86	MICRONS AND LARGER
PERCENTILE:	22.0%	OF COUNT IS AT	2.73	MICRONS AND LARGER
PERCENTILE:	50.0%	OF COUNT IS AT	1.72	MICRONS AND LARGER
PERCENTILE:	78.0%	OF COUNT IS AT	1.08	MICRONS AND LARGER
PERCENTILE:	94.0%	OF COUNT IS AT	.68	MICRONS AND LARGER
PERCENTILE:	99.0%	OF COUNT IS AT	.46	MICRONS AND LARGER
PERCENTILE:	99.9%	OF COUNT IS AT	.32	MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LDT.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 3 MAR 83 : DATE
SAMPLE: EKLUTNA LAKE ST11 28M 11-1-83 7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 5.58 MEDIAN = 5.39 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 5.46 +/- 4.35 (79.73%) SKEWNESS = -.03
ARITHMETIC VOLUME MEAN = 6.63 +/- 5.37 (81.00%) SKEWNESS = .19

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 49.57 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 31.59 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 14.23 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 7.90 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 5.39 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 3.56 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.27 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.50 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNT MODE = 1.72 MEDIAN = 1.72 MICRONS AND LARGER
GEOMETRIC COUNT MEAN = 1.68 +/- 1.66 (98.71%) SKEWNESS = -.02
ARITHMETIC COUNT MEAN = 2.11 +/- 1.30 (71.11%) SKEWNESS = .26

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 10.91 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 7.28 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNT IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.89 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT .96 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .57 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .32 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .21 MICRONS AND LARGER

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

March 10, 1983

R & M Consultants, Inc.
Box 6087
Anchorage, AK 99502

Attention Mr. Brett Jokela

PDL Project: I-7137

Gentlemen:

This report covers the optical microscopy performed on the three lake water samples labeled 9-32, 5-32, and 11-28. The specific item of interest was the presence and characterization of calcium carbonate concretions. Some of this material was present in all three samples, with 9-32 having the most, 11-28 less and 5-32 having very little material of any sort. Both calcite and aragonite were present though aragonite was the predominant type.

Particles are present as single crystals, loose agglomerates of such crystals, intergrown agglomerates of large crystals, coarse sphereulites or rosetts of large crystals, and hollow sphereulites of very small crystals. (Small crystals are less than 3 μ m, large from 3 μ m to about 25 μ m.)

The following table shows the approximate abundance of the various types:

	(C=Calcite, A=Aragonite)			
	9-32		11-28	
Single Crystals	C Trace	A 2-3%	C 3-5%	A 3-5%
Intergrown Agglomerates	C 2-3%	A 30%	C 10%	A 15%
Large Agglomerates	C 1-2%	A 15%	C 5%	A 10%
Rosetts	C Trace	A 10%	C 3%	A 5%
Isolated Spheres	C 1%	A Trace	C 3%	A 5%
Agglomerated Spheres	C 10%	A 10%	C 10%	A 20%
Combination Agglomerates	C + A 20%		C + A 10%	
(Spheres and large crystals)				

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.
PDL Project: I-7137
March 10, 1983
Page 2

Samples 5-32 was different with a few small agglomerates and isolated small single crystals. The crystals were either too small or poorly formed to allow adequate characterization by optical crystallography. In sample 9-32, about 40% of the particles by mass are calcium carbonate, while in sample 11-28, about 5% of the mass is calcium carbonate. Sample 5-32 has a low loading with 5-15% of the material being CaCO_3 . The single crystals in sample 11-28 average about $3\text{ }\mu\text{m}$, while those in 9-32 are about $8\text{ }\mu\text{m}$.

The origin of these rather unusual entities may be somewhat difficult to explain. That they form from solution is definite based on their well formed crystals and crystal association. Changes in temperature or CO_2 tension could cause this material to precipitate. The single crystals, large crystal agglomerates, and rosetts are readily explained by some modification of this normal mode of crystal growth.

The rosetts are macrosphereulites which have grown from a central nucleus, while agglomerate formation is expected during crystalization once nucleation has occurred. The hollow spheres of many (200-500) small interlocked crystals is harder to explain. Bubbles could provide a surface for such growth though this would be difficult to prove.

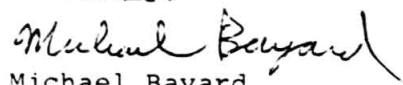
It is possible that these grew on a core of some material which later dissolved or leaked out. Oil would be a possibility, though not a likely one. Biological origin cannot be completely ruled out. They could be poorly preserved foraminifera (salt water single-celled creatures with calcite or aragomite shells), or they could result from a fresh-water amoeba such as difflugia, which is known to cement together particles, usually of one type, into a hollow shell.

It is unlikely that a crystal assemblage this fragile could exist for very long without some form of binder.

The attached micrographs show the material as it can be visualized in the optical unit. Unfortunately, both contrast and depth of field are problems which limit what can be seen by this method. If more definitive views are desired, scanning electron microscopy would be in order.

Thank you for consulting Particle Data Laboratory on this project. It is possible that a study of these concretions would be worth a publication some time in the future.

Sincerely,



Michael Bayard
Research Microscopist

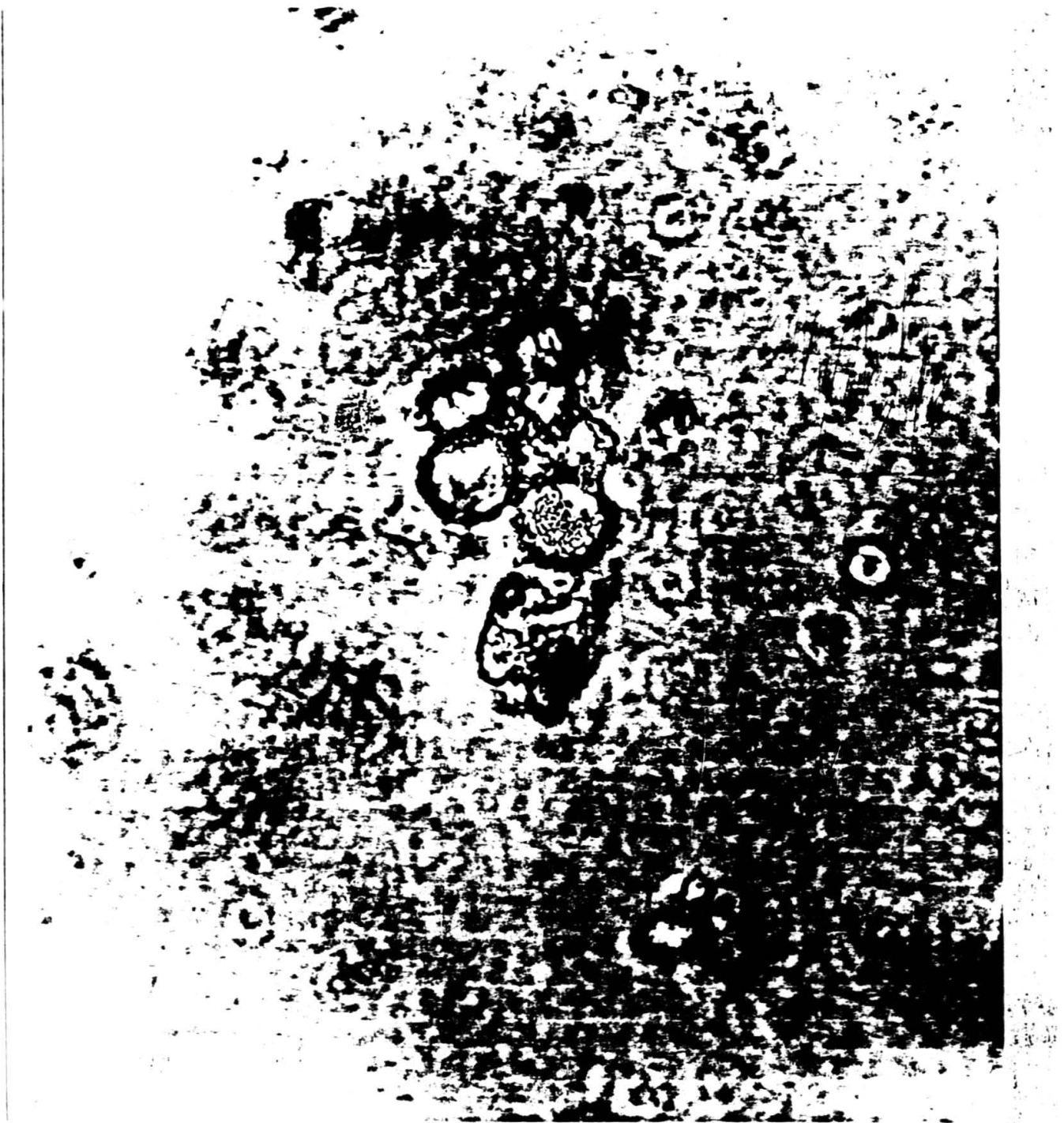


Figure 1. 9-32 Material, 1000X. This clearly shows a group of hollow spheres composed of many small interlocking crystal plates. The magnification is at the reasonable limit for the optical microscope.



Figure 2. 9-32 Material, 1000X. This is a loosely bound agglomerate which has a hierarchy of single crystals and tightly bound groups of several crystals loosely associated.



Figure 3. 9-32 Material, 1000X. This is a macro-agglomerate of rosetts.



Figure 4. 11-28 Material 1000X. As in sample 9-32, hollow spheres are present.



Figure 5. 11-28 Material, 1000X. At the left are spheres; at the right, an intergrown agglomerate.

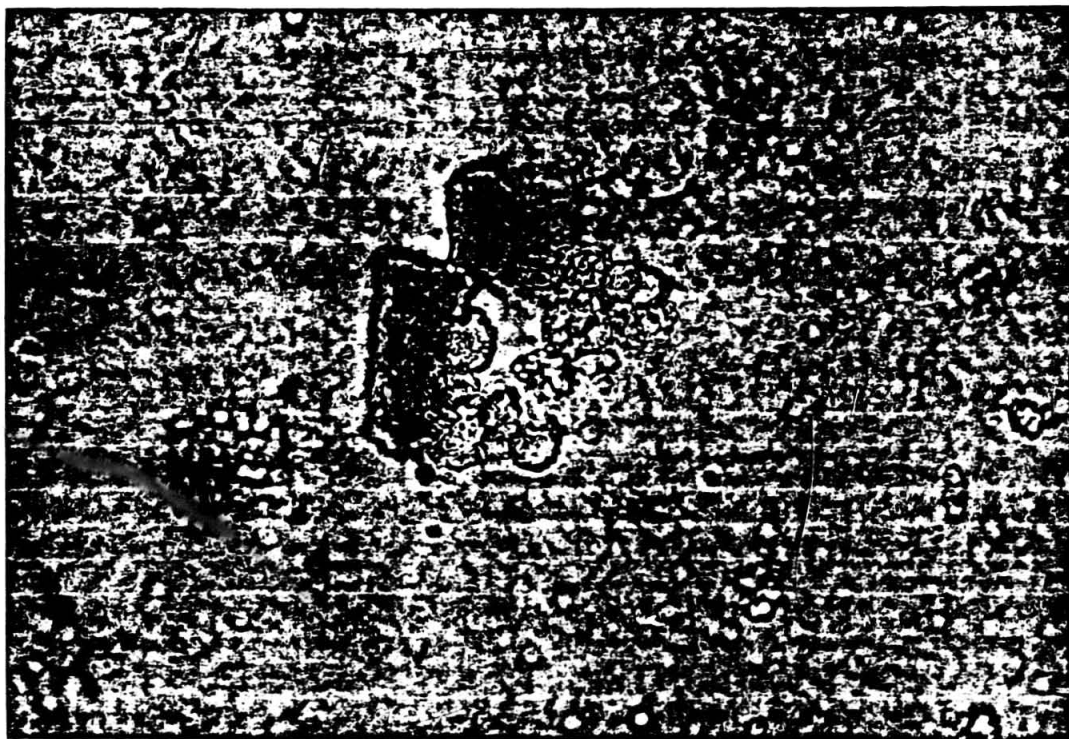


Figure 6. 9-32 Material, 500X. While the true colors can be shown in this type of presentation, color photomicrography usually does not yield the high contrast of black and white. The sample is a multiple agglomerate of the hollow shperes.

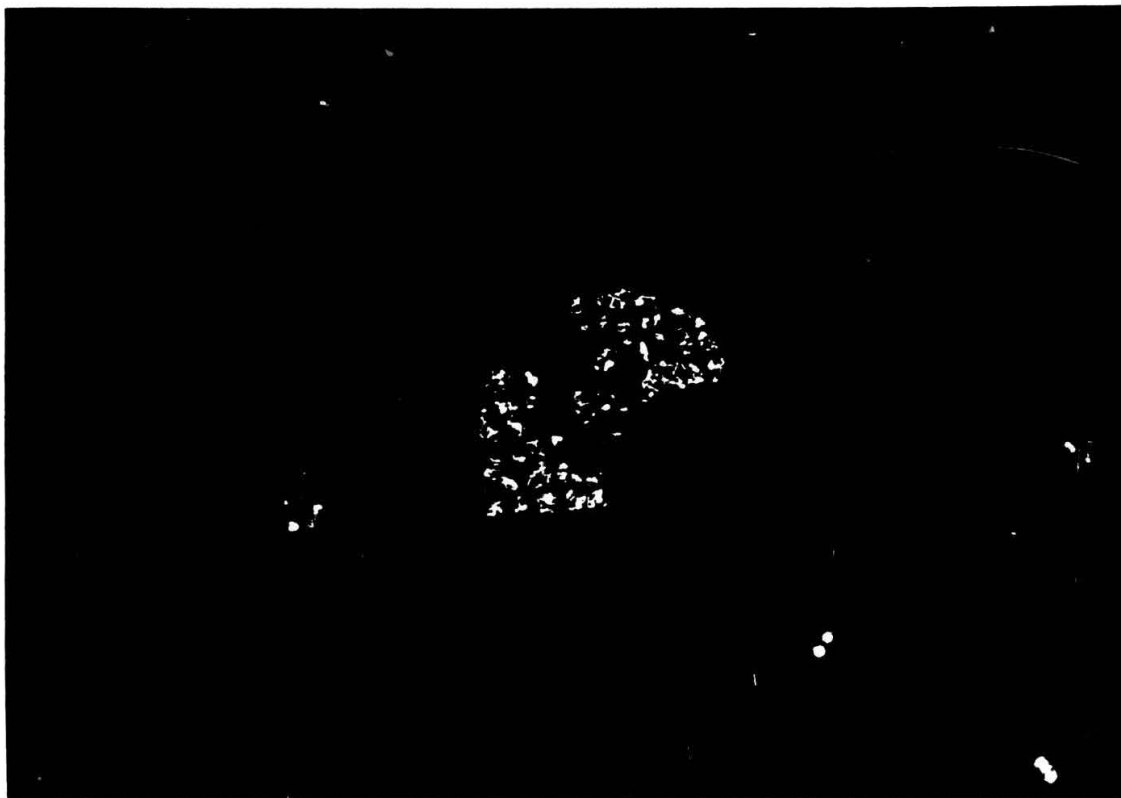


Figure 7. 9-32 Material, 500X. This is the same area as in Figure 6 in crossed polars. The preferred orientation of the individual crystals comprising the spheres is shown by the black crosses which correspond to the vibration direction of the polars in the microscope. This type of pattern is associated with crystals which display a radial orientation.

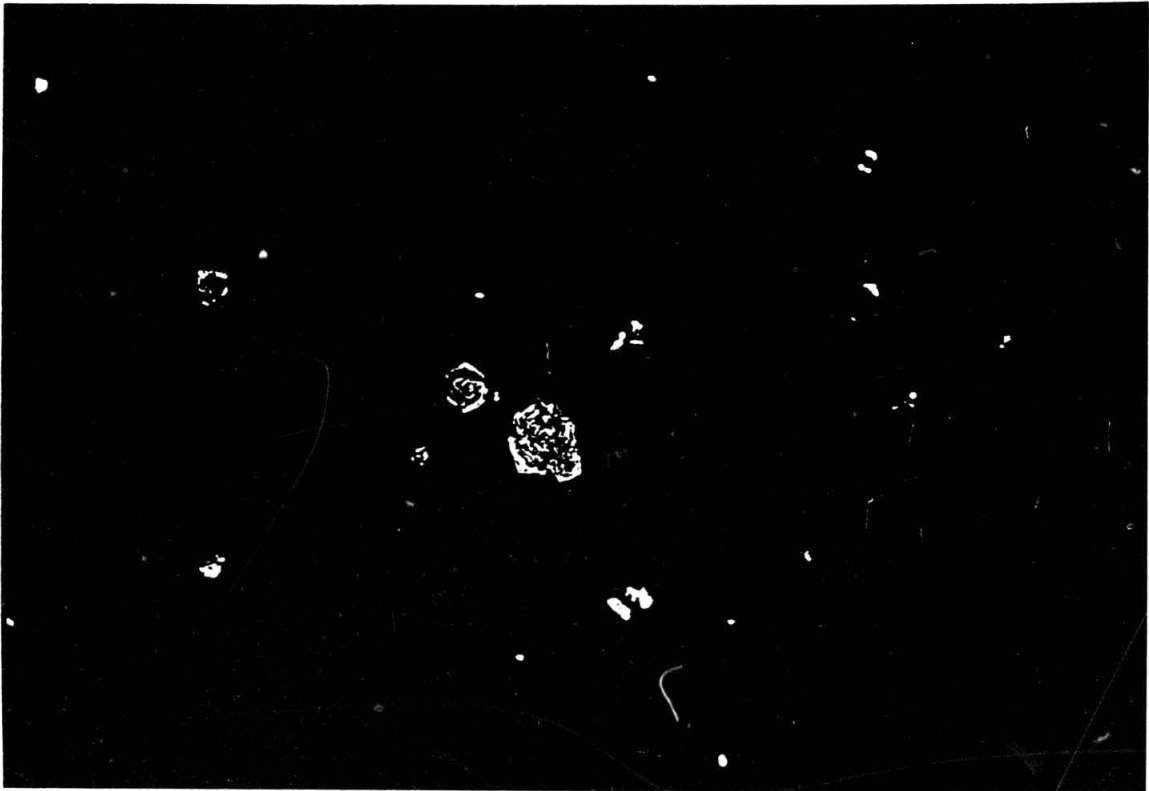


Figure 8. 9-32 Material, 500X. This view shows intergrown crystals.

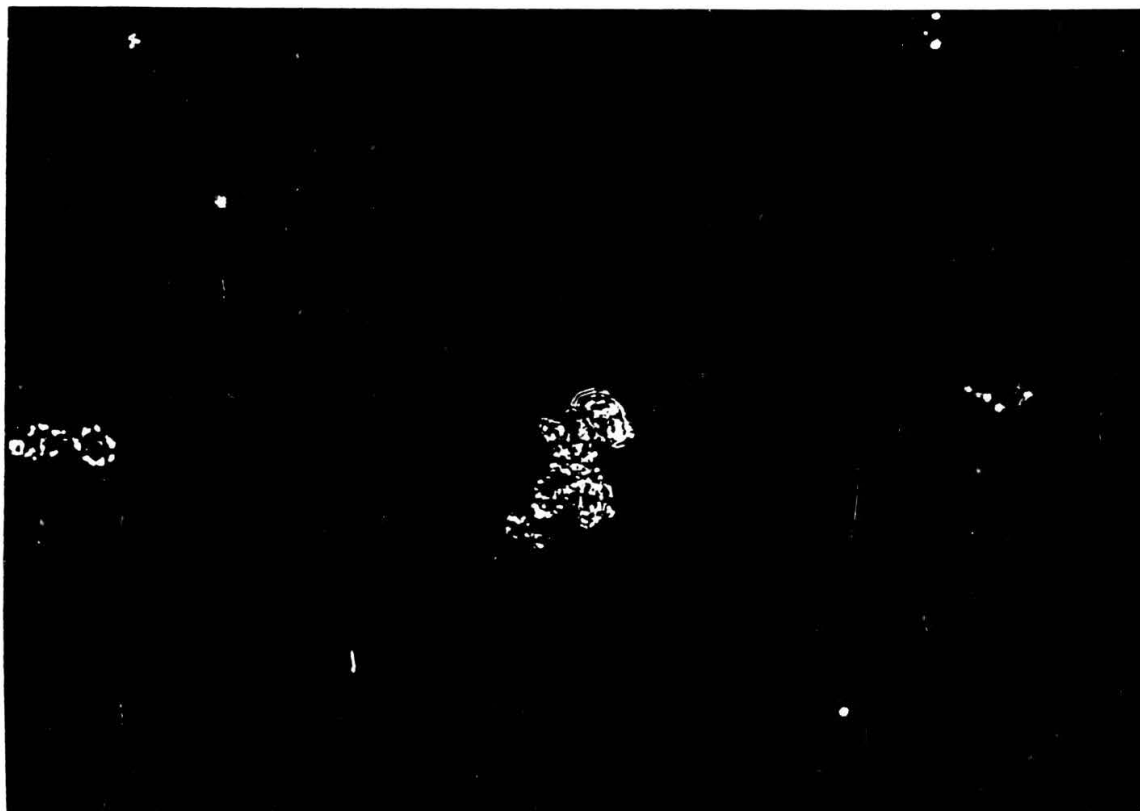


Figure 9. 9-32 Material, 500X. A large single crystal is seen attached to an agglomerate of smaller ones. There is some radial (rosett) orientation at the bottom of the agglomerate.



Figure 10. 11-28 Material, 500X. Loose and well bound large crystals.

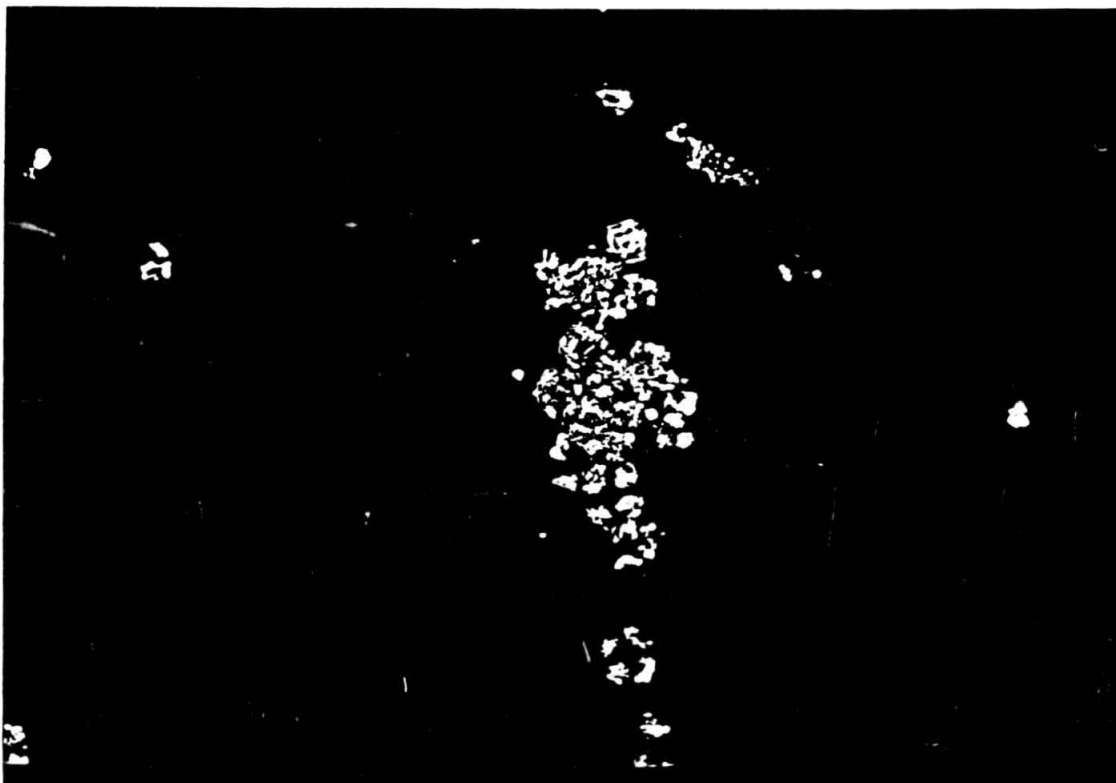


Figure 11. 11-28 Material, 500X. This is a complex agglomerate with a large sphereulite at the bottom and some more or less well bound individual crystals.



R&M CONSULTANTS, INC. 1014 COPLEY ST. SUITE 201 ANCHORAGE, ALASKA 99501
 ENGINEERS
 GEOLOGISTS
 PLANNERS
 SURVEYORS

August 14, 1984

R&M No.: 452418

Particle Data Laboratories
 115 Hahn Street
 Elmhurst, Illinois 60126

Attention: Mr. H. Batchu

RE: Sediment Analyses for Eklutna Lake and Susitna River

Dear Mr. Batchu:

Enclosed are nine one-liter water samples. Per our discussion of July 18th and August 7th, please analyze the samples according to the following table.

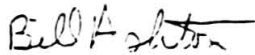
Sample Location and Date	Particle Size Distribution	Microphotos/Petrograph Analysis	Total Suspended Solids
✓ East Fork 7/20/84 2000	x	x	
✓ Glacier Fork 7/20/84 1640	x	x	
✓ Tailrace 7/21/84 2000	x	x	
✓ Susitna River 7/31/84	x		x
✓ Settling Column 8/01/84 0 hrs	x	x	
✓ Settling Column 8/05/84 96 hrs	x	x	
✓ Susitna River 8/06/84	x		x
✓ Settling Column 8/07/84 0 hrs	x	x	
✓ Settling Column 8/11/84 96 hrs	x	x	

Please send us the particle size distribution results in your standard reporting format of tabular and graphic results for the distribution on the basis of both particle count and total particle volume. For the petrographic analysis we expect to receive a density distribution and mineralogic description of the sediment. For the microphotos please split each sample into two subsamples prior to taking scanning electron photomicrographs at 100 power and 400 power magnification. For the photomicrographs use color film to show the typical particle shapes and crystallographic details. Please provide metal shadowed black and white photographs if the level of detail is improved over the color photography.

LT/10
Particle Data Laboratories
August 14, 1984
Page 2

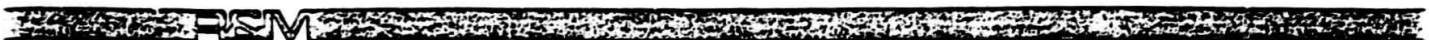
Please use purchase order number 17965 when billing us. Should you have any questions please call me or Jeff Coffin at (907) 561-1733. We look forward to receiving the results as soon as they are available.

Sincerely,
R&M CONSULTANTS, INC.



Bill Ashton
Hydrologist

BA;bje



452418

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

September 18, 1984

rec. 9/24

from sample - 9/14/84

R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

Attention: Mr. Bill Ashton

Subject: Electrozone Analysis - 9 Water Samples - P. O. #17965

PDL Project: I-8213

Gentlemen:

Enclosed please find a copy of the computerized data printout of your sample as generated by the Electrozone Analyzer. If you have any questions, please do not hesitate to call us at Particle Data Laboratories.

It has been a pleasure serving your company, and we look forward to serving you again in the near future.

Respectfully submitted,

PARTICLE DATA LABORATORIES, LTD.

Olga Kist
Technical Staff

OK:cnl
Enc.

P.S. The results of the microscopic evaluation will be mailed by the end of this week.

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS
SAMPLE: EAST FORK 7/20/84

2000

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 4.86 MEDIAN = 4.86 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 5.18 +/- 20.35 (393.15%) SKEWNESS = .02

ARITHMETIC VOLUME MEAN = 16.64 +/- 30.44 (182.91%) SKEWNESS = .39

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 239.90 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 71.32 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 17.83 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .43 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .14 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .10 +/- .07 (74.81%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .12 +/- .13 (112.77%) SKEWNESS = .49

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.58 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .28 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS, INC.
SAMPLE: GLACIER FORK 7/20/84 1640

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 6.87 MEDIAN = 9.72 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.15 +/- 42.78 (467.69%) SKEWNESS = .05

ARITHMETIC VOLUME MEAN = 28.85 +/- 42.15 (146.09%) SKEWNESS = .52

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 285.28 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 201.73 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 109.99 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 46.25 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 9.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.23 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .15 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .09 +/- .06 (70.47%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .11 +/- .12 (111.11%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .56 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .26 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .13 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

3

CLIENT: R & M CONSULTANTS

6 SEP 84 :DATE

SAMPLE: TAILRACE 7/21/84 2000

8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

=====

INDICES

VOLUME MODE = .71 MEDIAN = 1.15 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 1.58 +/- 3.37 (212.46%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 4.39 +/- 12.08 (275.15%) SKEWNESS = .30

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 119.15 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 73.74 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 13.39 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 3.17 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 1.15 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .64 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .47 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .36 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .29 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

=====

INDICES

COUNTS MODE = .51 MEDIAN = .51 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .53 +/- .23 (43.80%) SKEWNESS = .07

ARITHMETIC COUNTS MEAN = .57 +/- .26 (46.35%) SKEWNESS = .21

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.06 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 1.53 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .91 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .68 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .41 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .24 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .20 MICRONS AND LARGER

#452418

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

September 19, 1984

(samples sent 3/14/84)

Mr. Bill Ashton
R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

PDL Project: I-8213

Dear Mr. Ashton:

This report covers the mineral grain characterization performed on the seven samples you requested. Techniques of scanning electron microscopy electron microprobe and petrographic microscopy were used. Mineral identification was taken through general groups such as pyroxenes or feldspars.

Many mineral groups have a range of composition with one species blending into another as the concentration of one or more element changes. Also, comminuted minerals in water show various states of hydration and oxidation (corrosion) which also modify the mineral. As an example, in the pyroxene group there are augite, diopside, hypersthene and augite changing to pigeonite. However, the general form (more or less equant particles) and density range of the pyroxenes are similar.

The attached table shows the approximate volume abundances of the minerals present. Quartz is usually the most abundant species, followed by pyroxenes, feldspars, mica and magnetite. It may be very significant from the point of view of sediment consolidation that samples 3, 6, and 8 contain colloidal silica detectable by SEM-XRF methods. This could in time act to cement other grains together. There is some evidence for this in the optical views.

The appended micrographs show the types of grains seen. Optically there are two views of each area, one in plane polarized light and one with crossed polars and a first order red plate, which results in a pink background and anisotropic minerals in bright interference colors. Many of the individual grains have inclusions, usually magnetite in quartz or feldspars or pyroxenes. Xerox copies of the

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.
September 19, 1984
PDL Project: I-8213
Page 2

micrographs are annotated with abbreviations for the major minerals found as follows:

Q - Quartz	L - Limonite
P - Pyroxenes	B - Biotite
F - Feldspars	C - Calcite
M - Magnetite	A - Apatite
	CS - Colloidal Silica

Where a combined grain is present, the first letter is the matrix, the second the included species. The densities of the more important components are: Quartz 2.63 - 2.66, Colloidal Silica 2.17 - 2.20, Magnetite 5.18, Limonite 2.44-3.60, Pyroxenes 2.5 - 3.3 and Feldspars 2.6 - 3.5. These ranges correspond to variable composition and states of hydration. Also, inclusions (liquid or gas) will lighten a grain, while magnetite inclusions will make it heavier.

Thank you for consulting Particle Data Laboratories in this matter.

Sincerely,

PARTICLE DATA LABORATORIES, LTD.



Michael Bayard
Research Microscopist

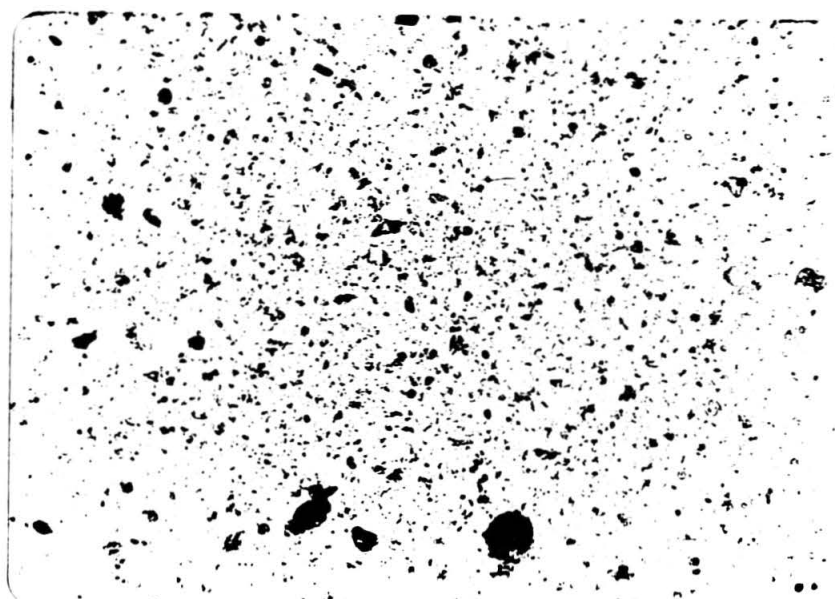
MB/kb

Encs.

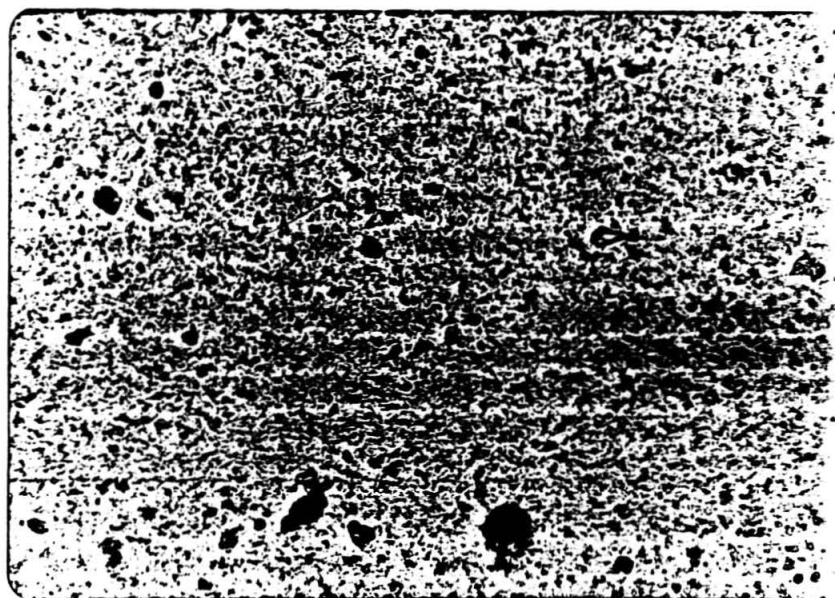
MINERAL	SAMPLE NUMBER						percent composition	
	EF 7/20/84 1	GF 7/20/84 2	TR 7/21/84 3	R#1 0 Hrs 5	Run #1 96 Hrs 6	Run #2 96 Hrs 8	Run #2 0 Hrs 9	Run #2 0 Hrs 8
Quartz	35	45	10	40	15	15	30	Com. w/ in beyond 10/15/84
Feldspars	25	25	10	20	10	10	15	
Pyroxenes	15	15	5	10	5	10	15	
Biotite	Tr	Tr	-	5	-	-	5	
Muscovite	Tr	Tr	-	Tr	-	-	10	
Hematite	1	Tr	-	Tr	-	-	Tr	
Limonite	5	5	2-3	5	5	5	10	
Magnetite	10	5	20	15	25	25	15	
Ilmenite	Tr	-	-	Tr	Tr	-	Tr	
Calcite	Tr	Tr	20	Tr	2-3	-	Tr	
Aragonite	-	-	1-2	-	-	-	Tr	
Clays	1-2	1-2	2-3	1-2	2-3	1-2	1-2	
Rutile	Tr	-	-	Tr	-	-	Tr	
Zircon	Tr	-	-	Tr	-	-	Tr	
Apatite	Tr	Tr	-	Tr	-	-	Tr	
Colloidal Silica	2-3	1-2	30	1-2	30	35	1-2	

Approx. % by volume.

Tr $\Rightarrow$ trace.



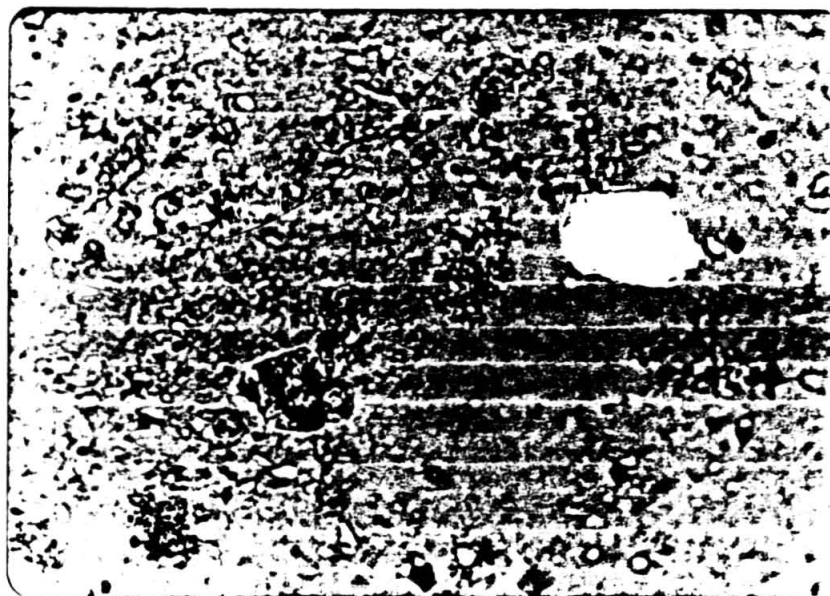
Sample 1, 100X



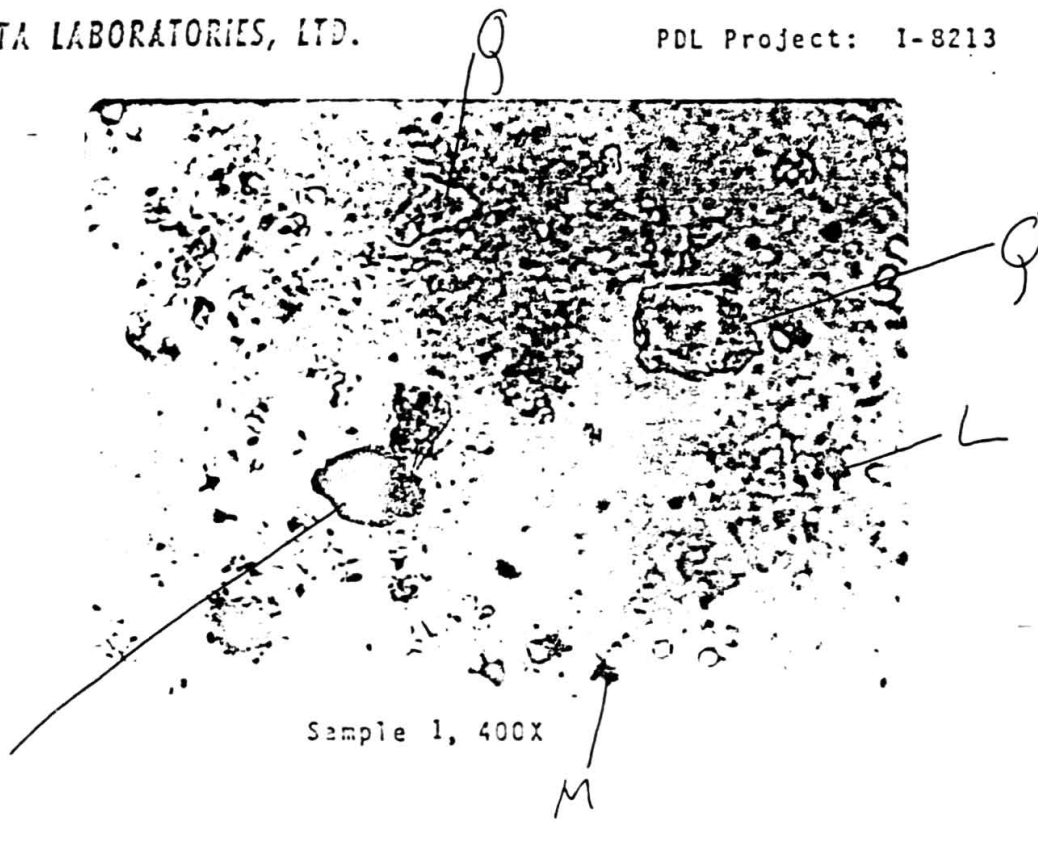
Sample 1, 100X, Crossed Polars



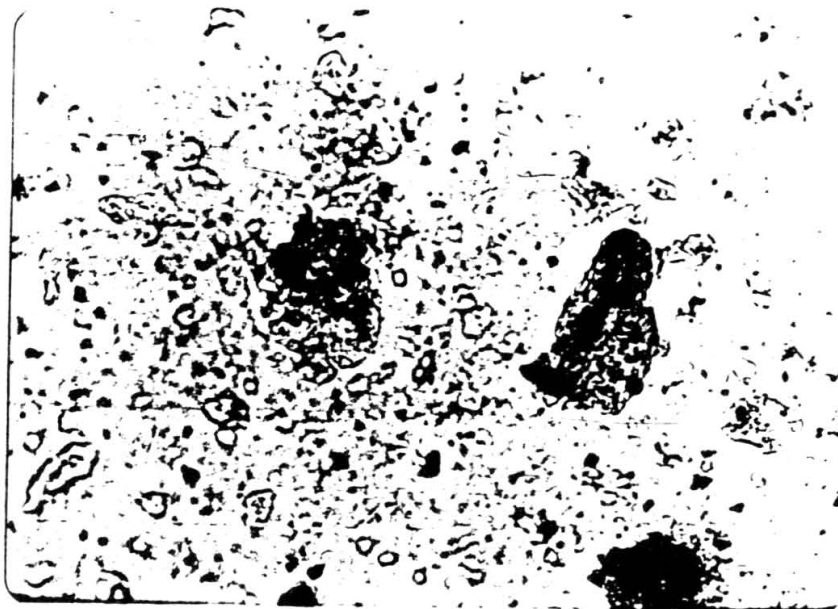
Sample 1, 400X



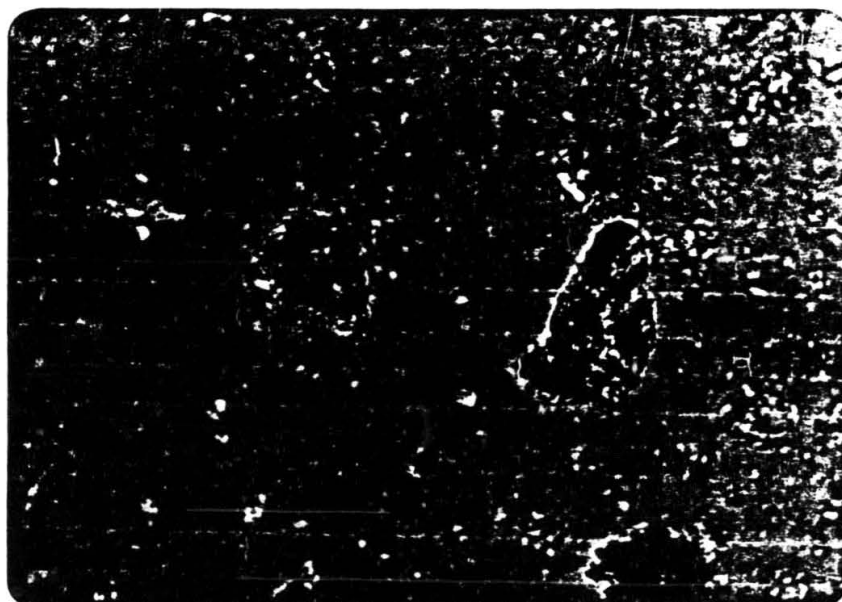
Sample 1, 400X, Crossed Polars



Sample 1, 400X, Crossed Polars

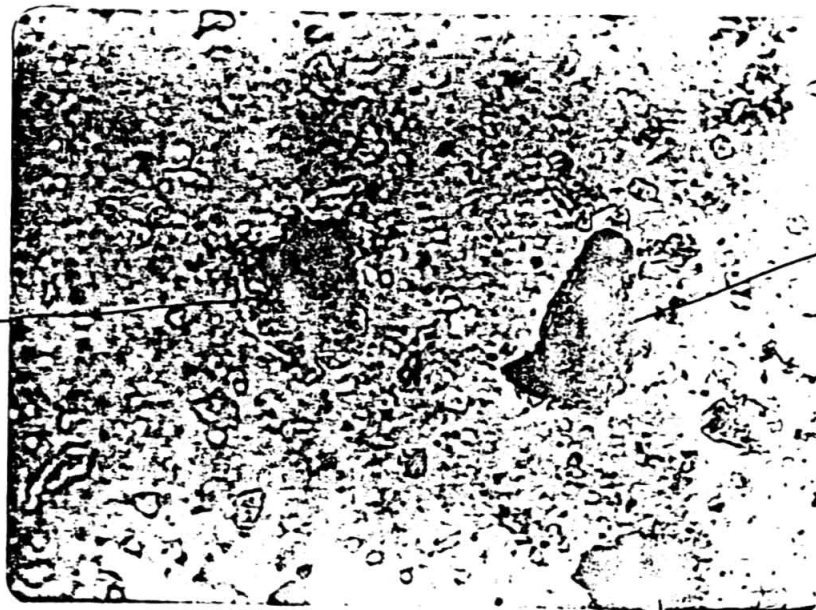


Sample 1, 400X



Sample 1, 400X, Crossed Polars

F/L

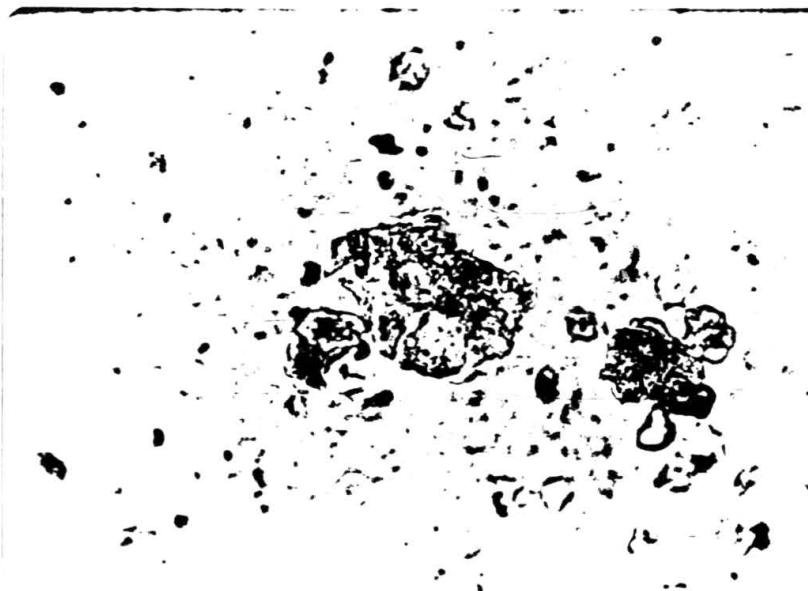


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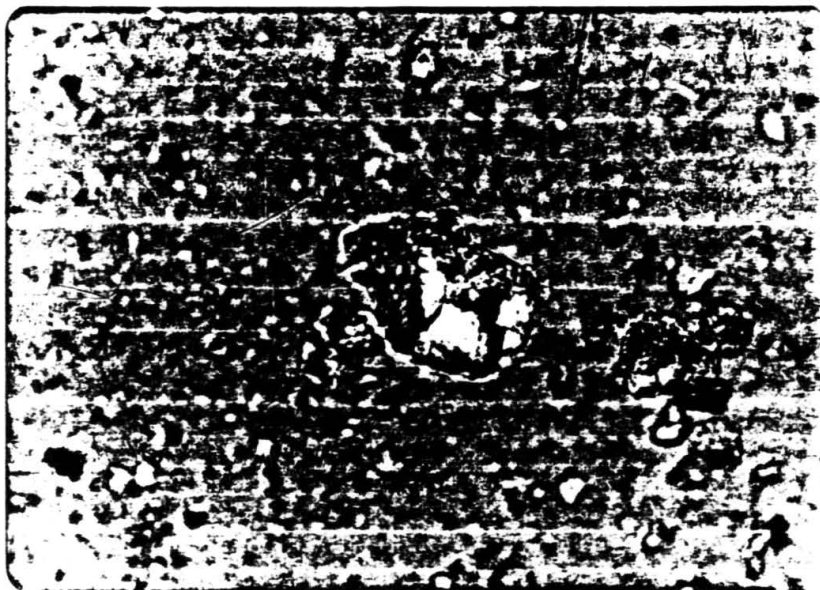
Q/M



Sample 1, 400X, Crossed Polars



Sample 1, 400X



Sample 1, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: 1-8213

P/M



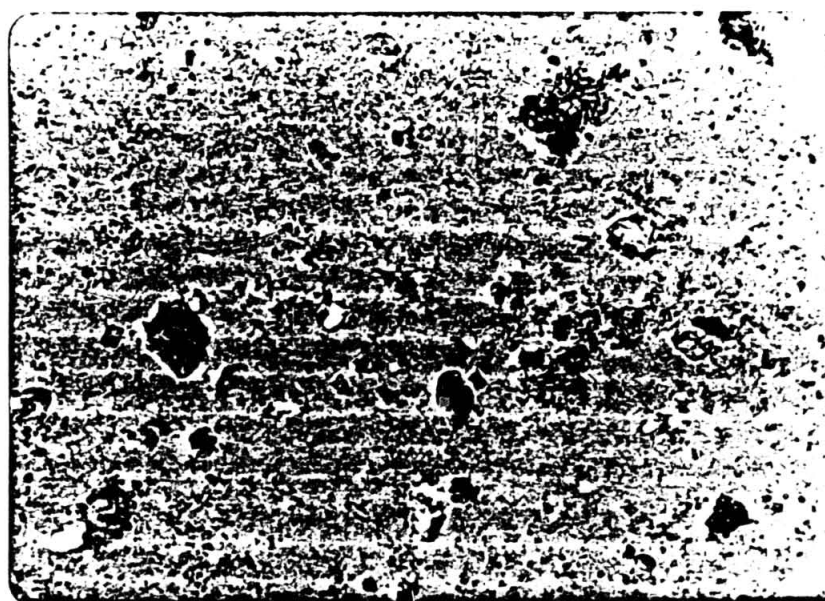
Sample 1, 400X



Sample 1, 400X, Crossed Polars



Sample 1, 400X



Sample 1, 400X, Crossed Polars

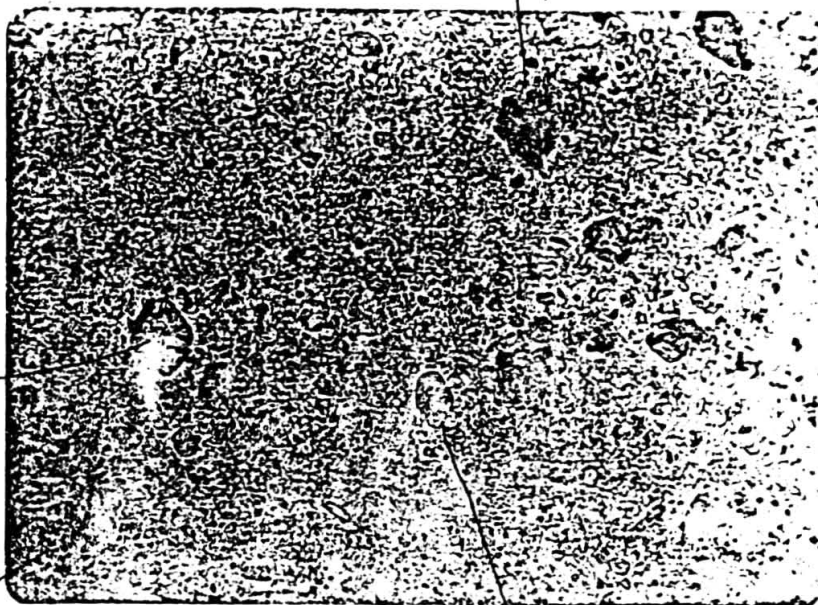
PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213

Q/M

Q/M

L

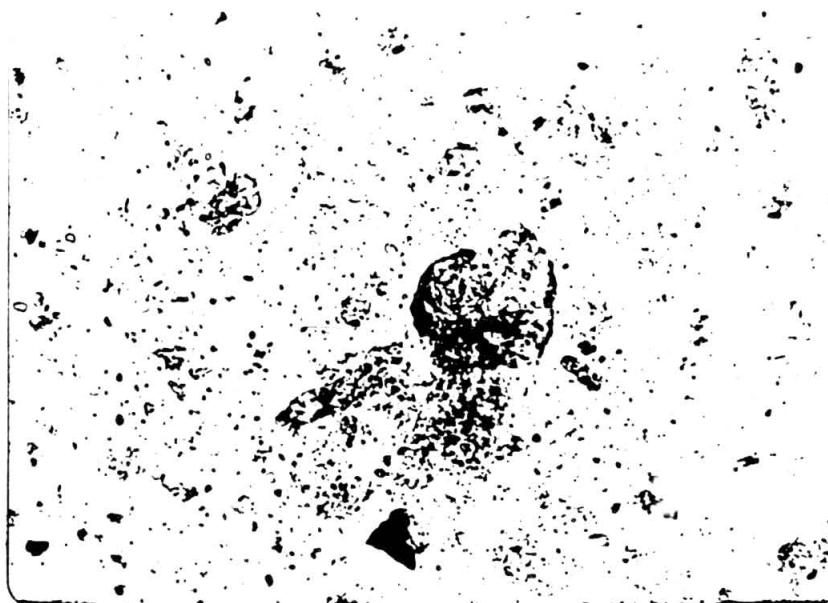


Sample 1, 400X

P



Sample 1, 400X, Crossed Polars



Sample 1, 400X



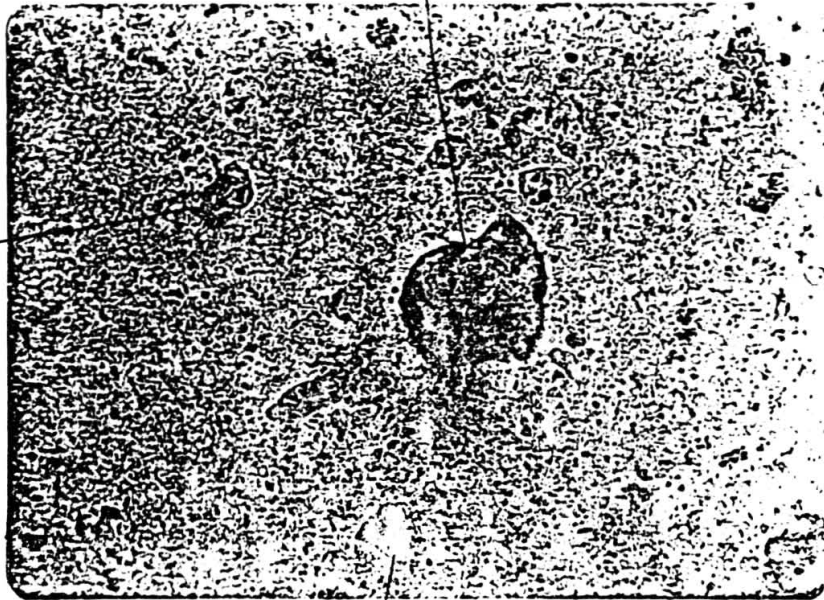
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PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213.

Q/M

P

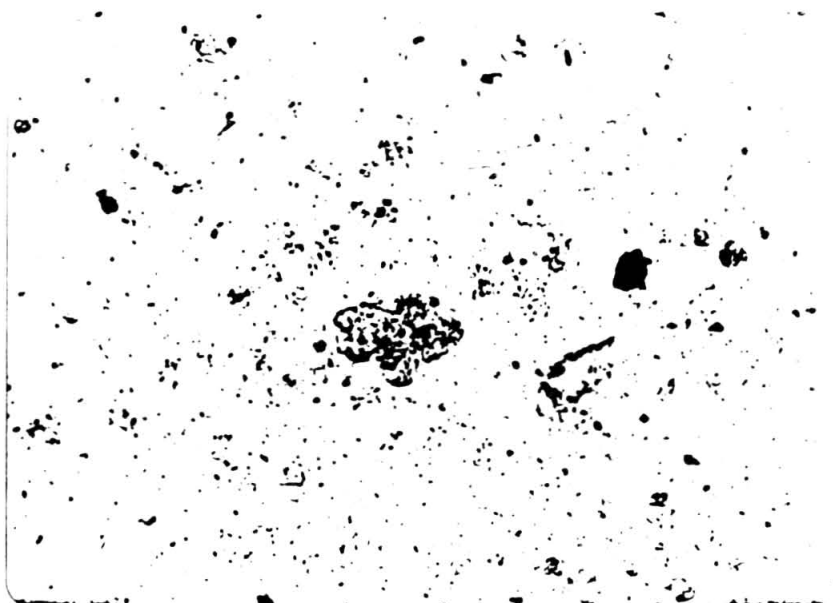


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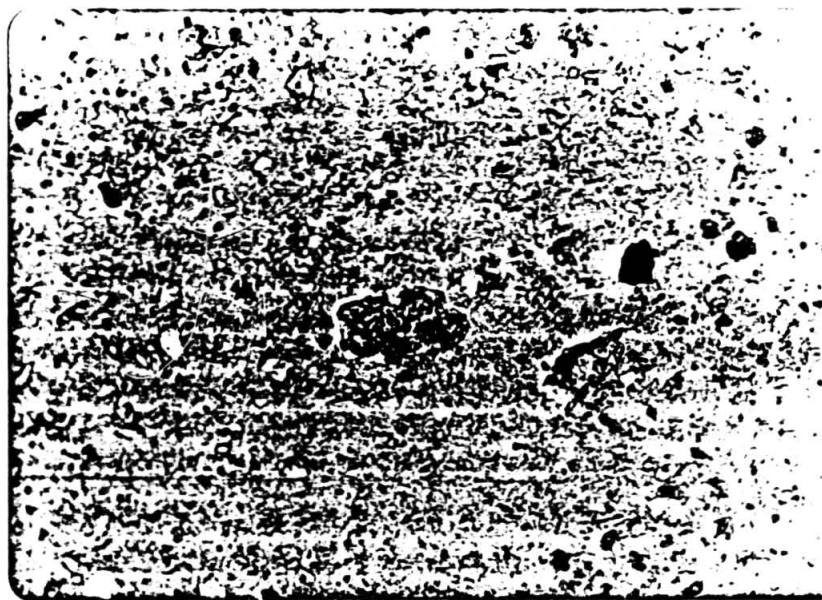
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Sample 1, 400X, Crossed Polars



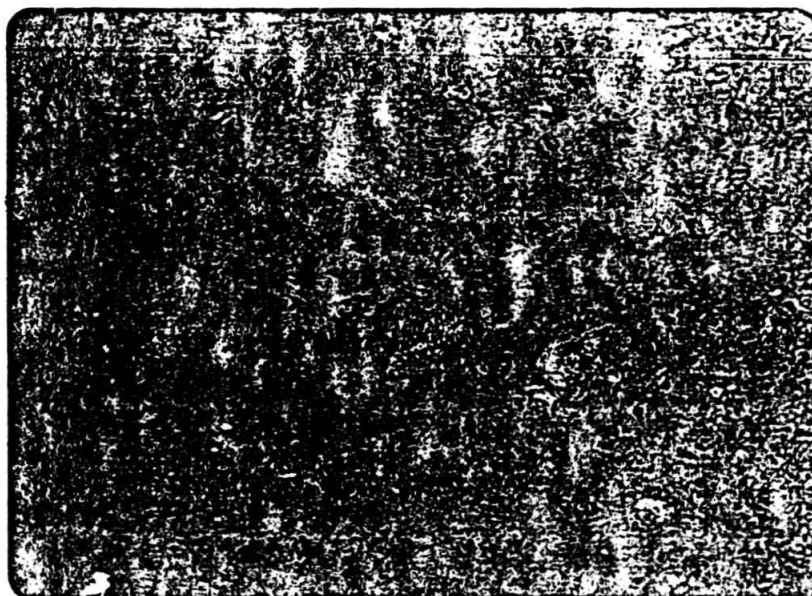
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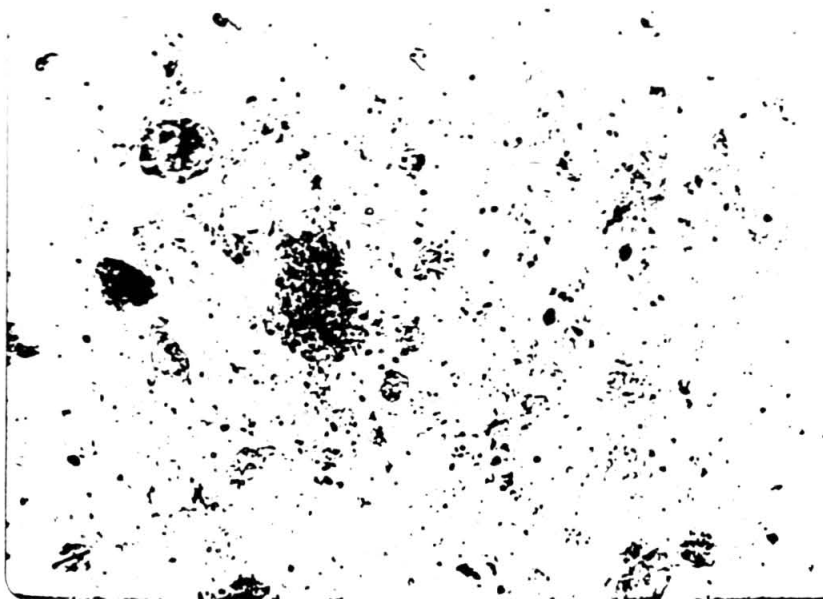
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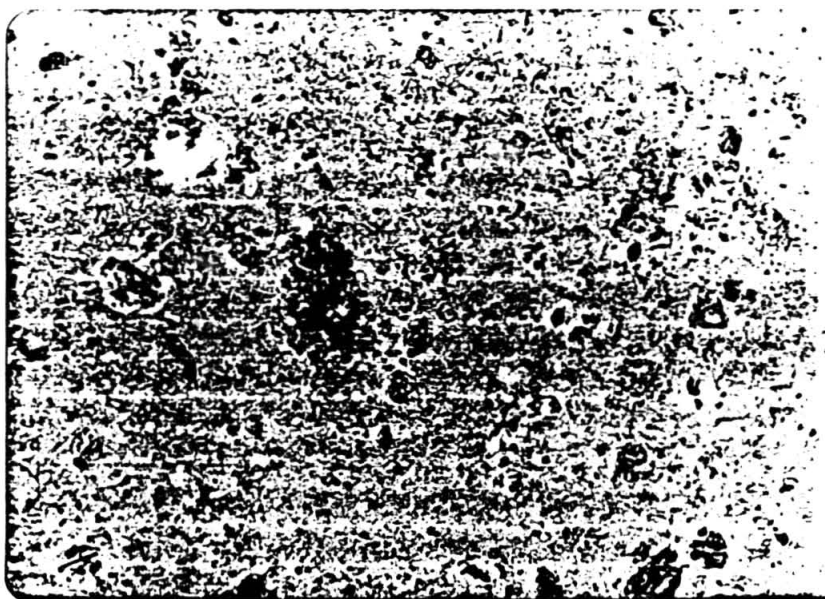
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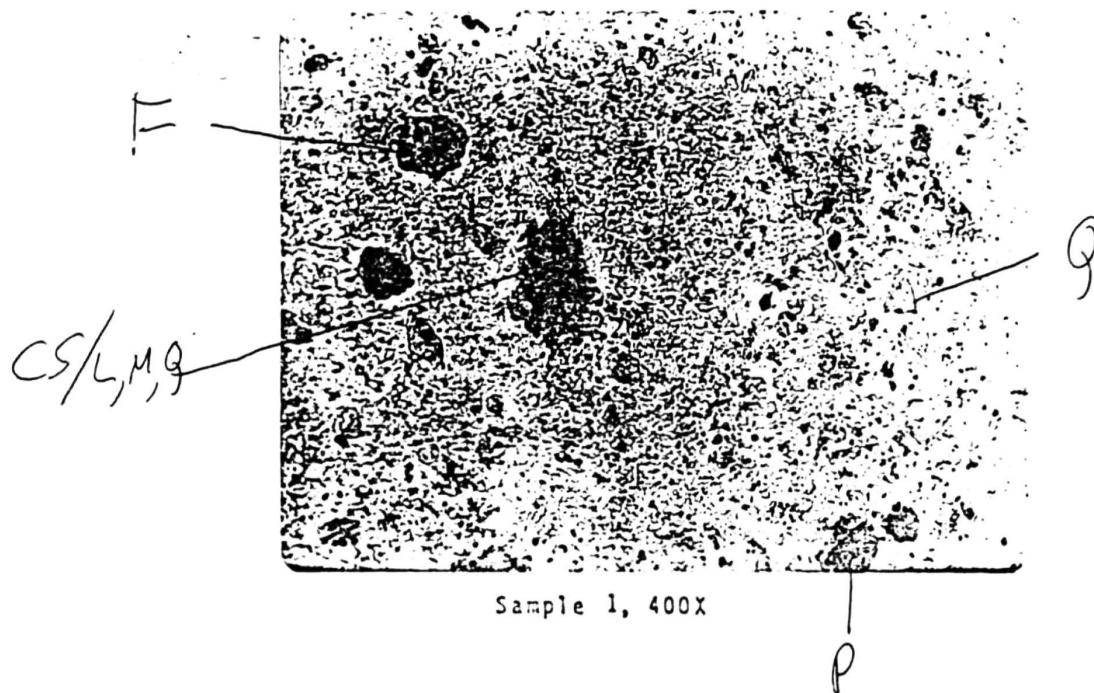
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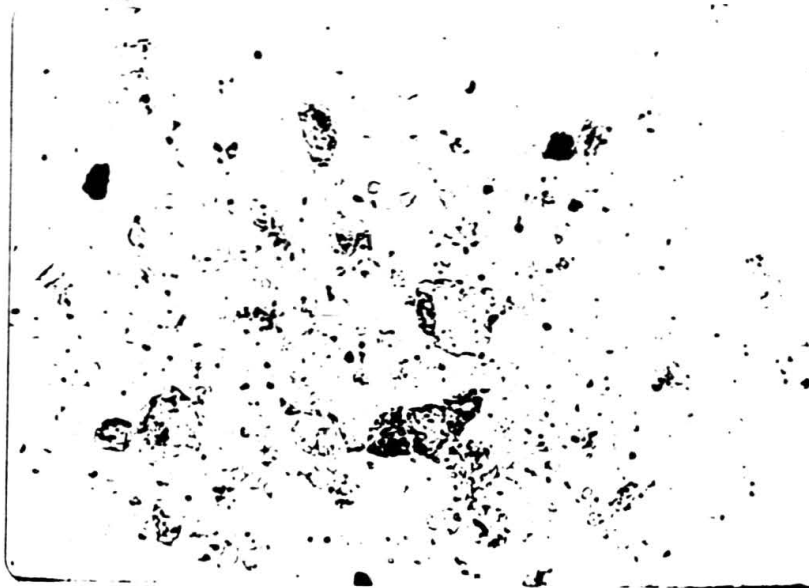
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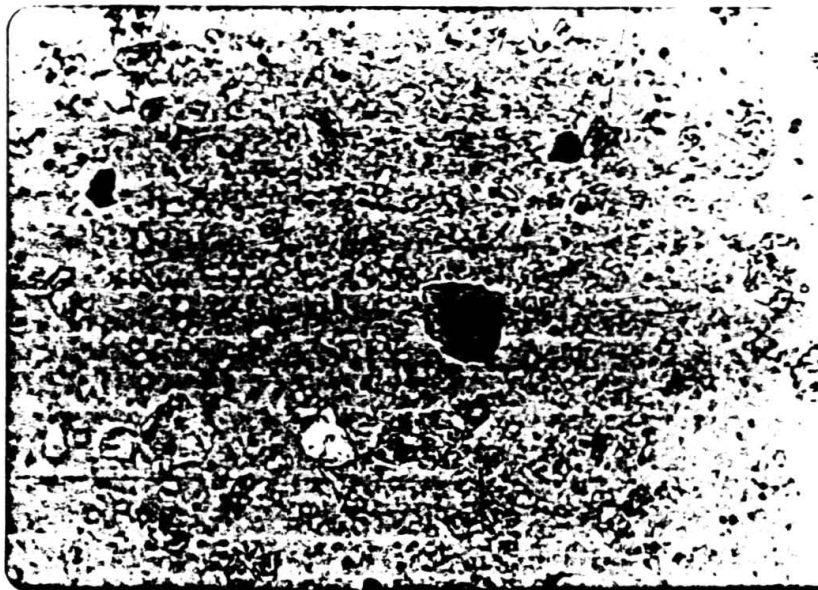
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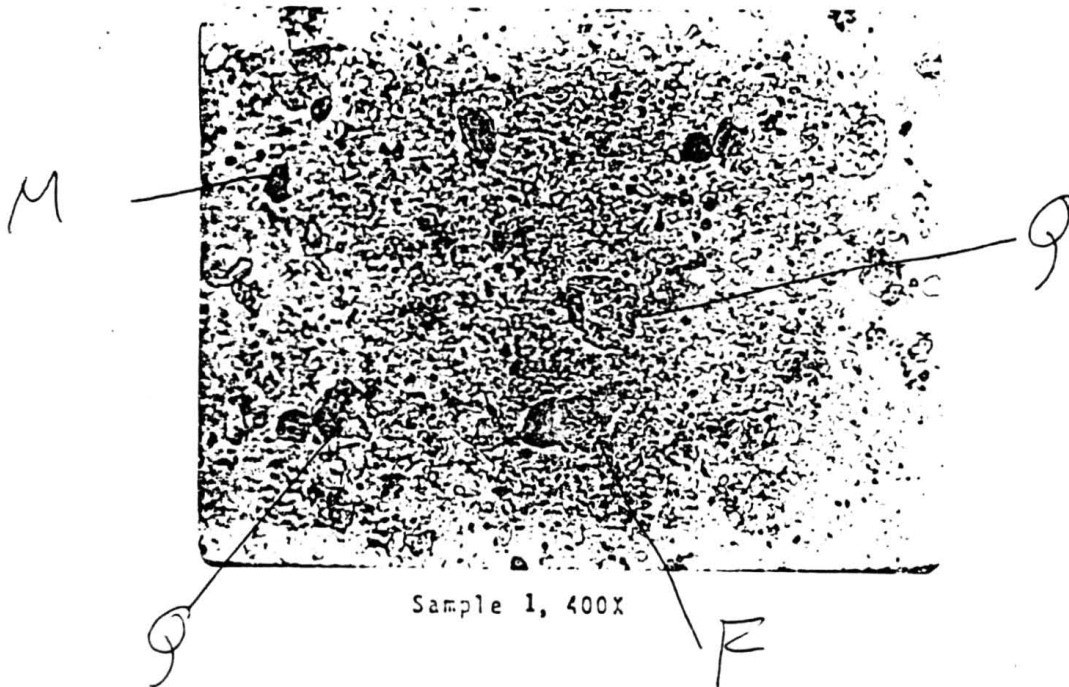
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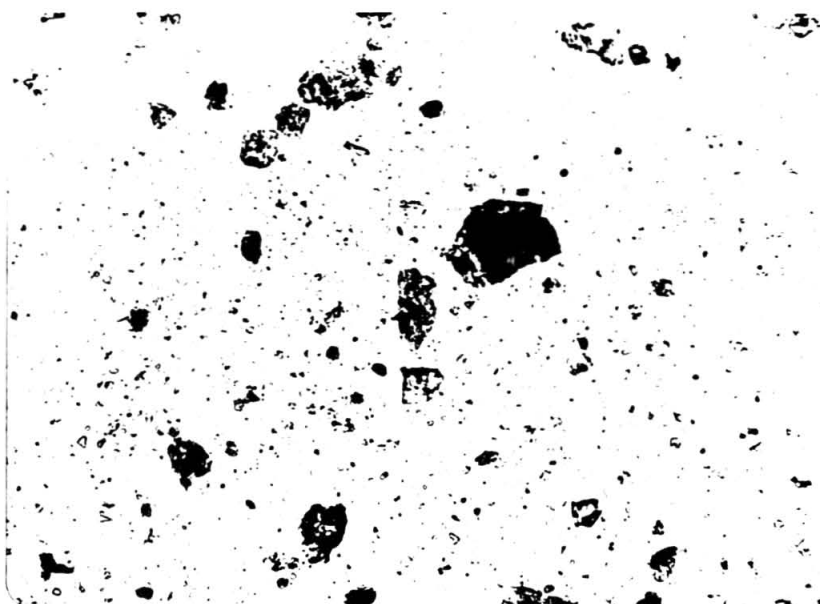
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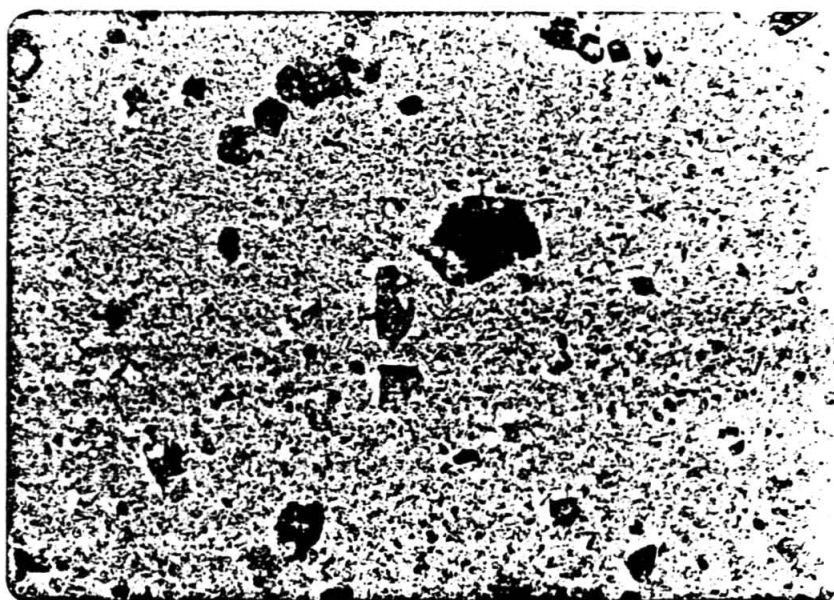
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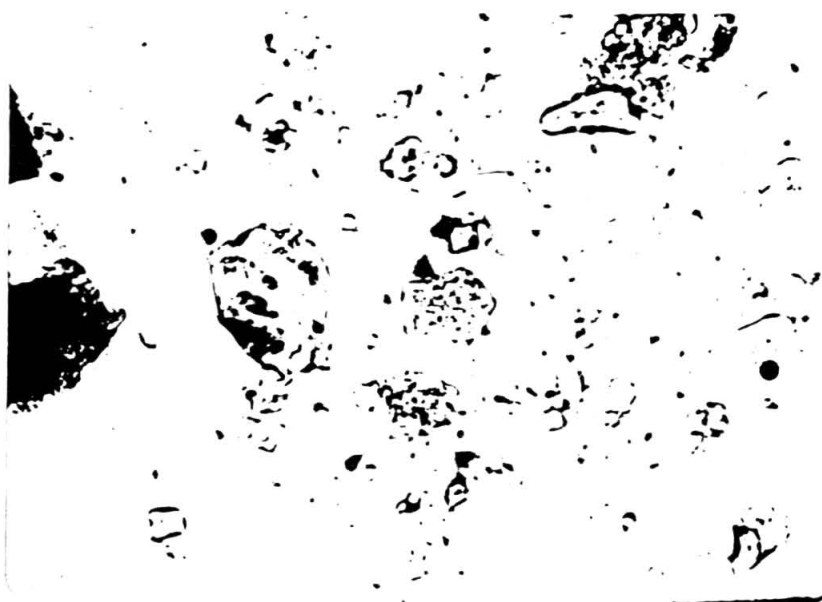
Sample 1, 400X, Crossed Polars



Sample 2, 100X



Sample 2, 100X, Crossed Polars



Sample 2, 400X



Sample 2, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

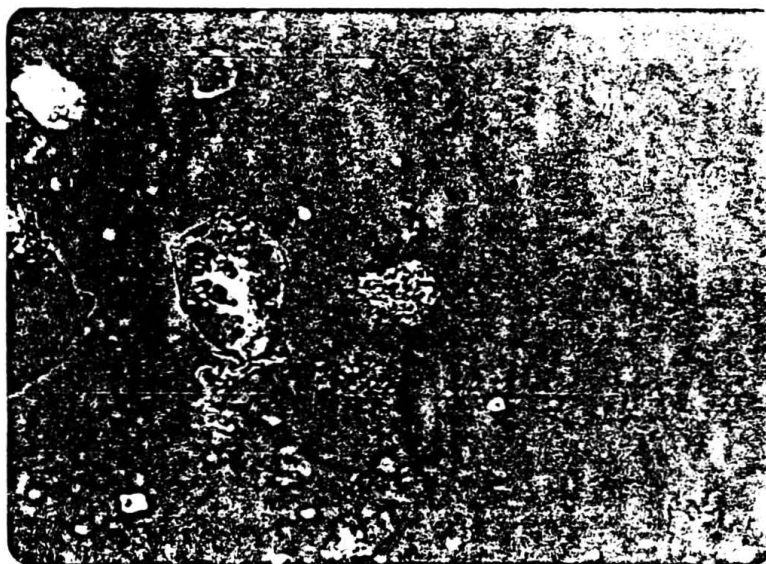
PDL Project: 1-8213

F/M

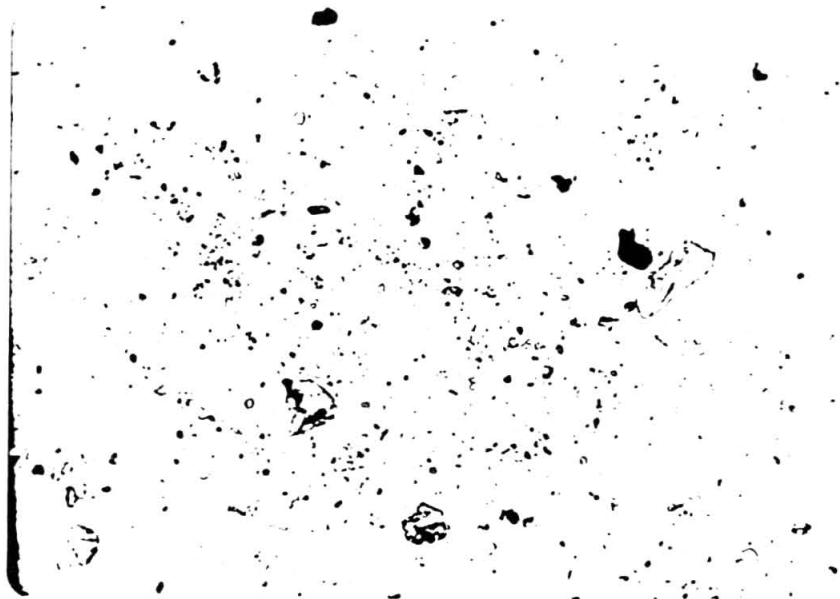
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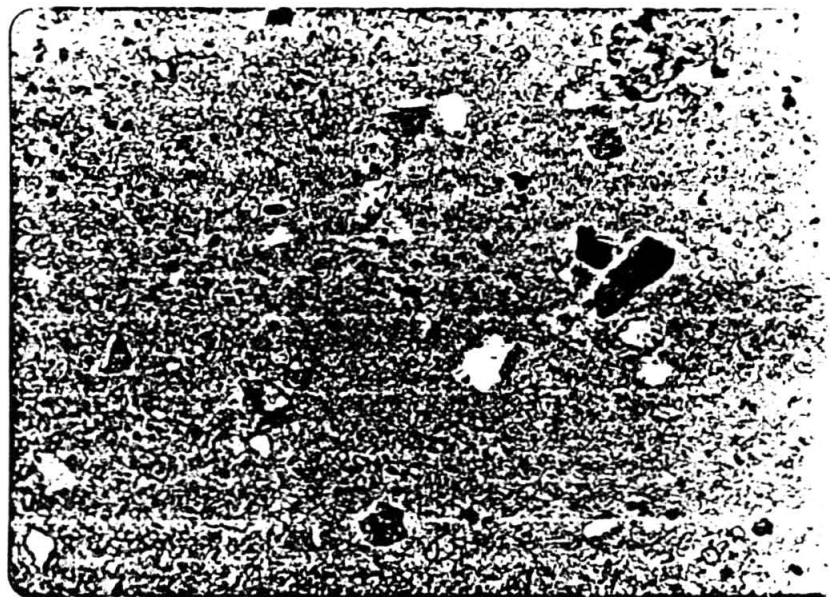
Sample 2, 400X



Sample 2, 400X, Crossed Polars



Sample 2, 400X



Sample 2, 400X, Crossed Polars

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F PDL Project: 1-8213



Sample 2, 400X, Crossed Polars



Sample 2, 400X



Sample 2, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

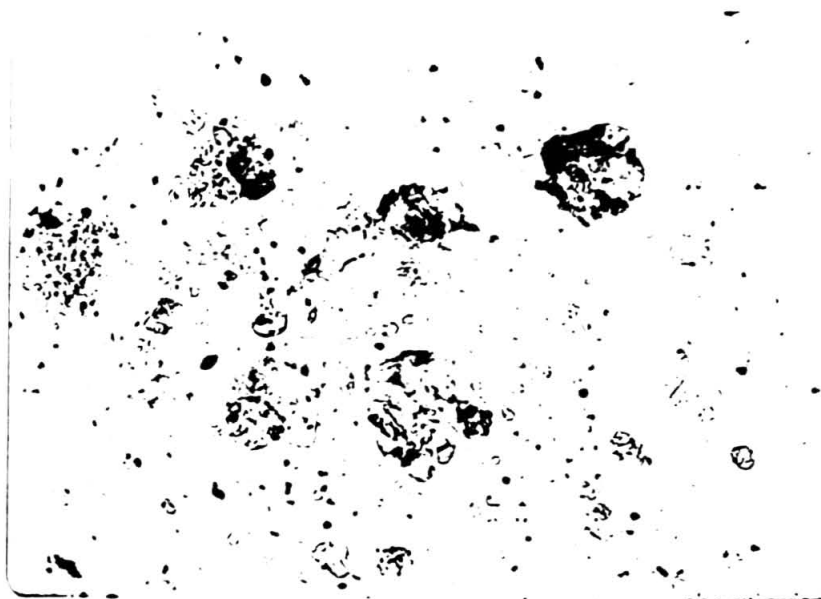
PDL Project: I-8213



Sample 2, 400X



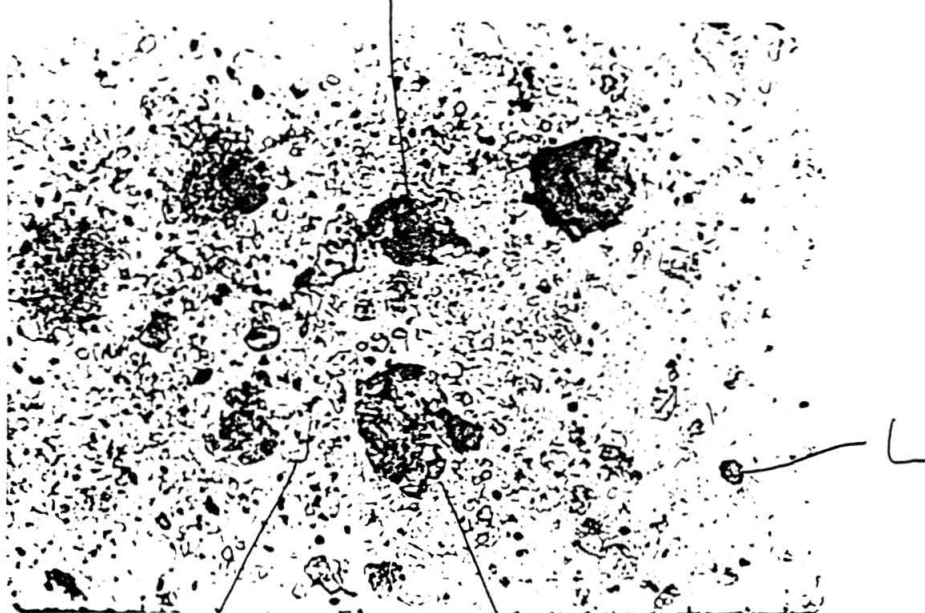
Sample 2, 400X, Crossed Polars



Sample 2, 400X



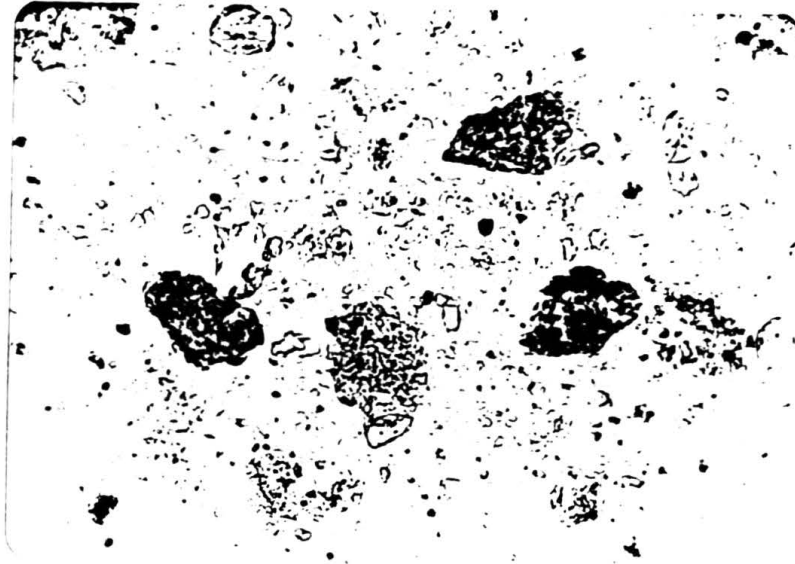
Sample 2, 400X, Crossed Polars



Sample 2, 400X



Sample 2, 400X, Crossed Polars



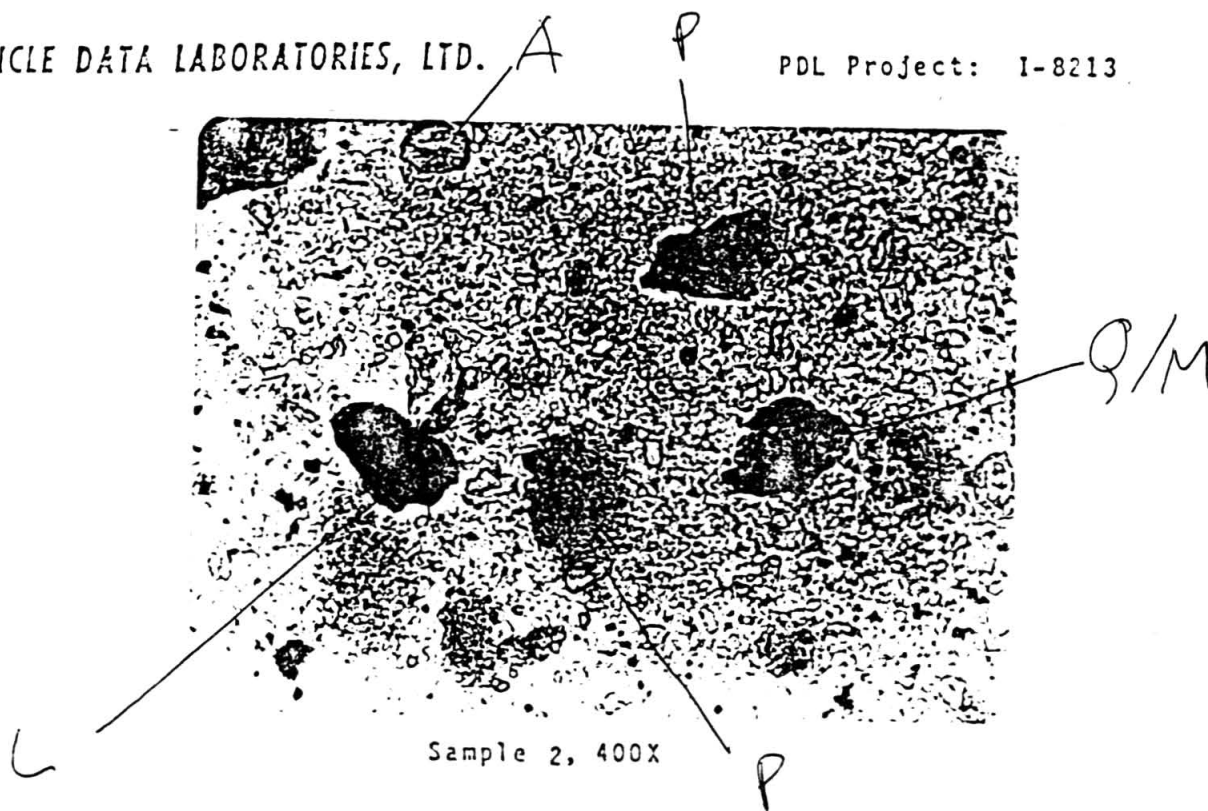
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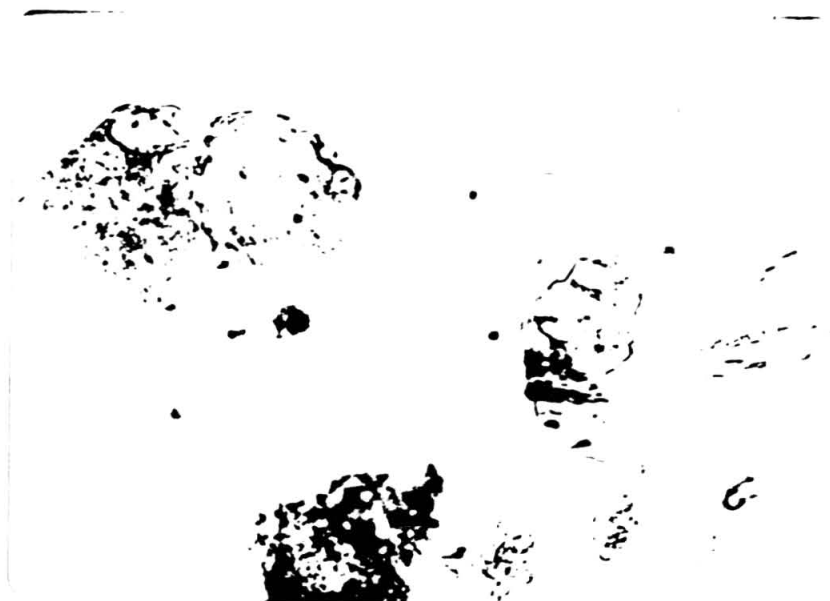
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PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213



Sample 2, 400X, Crossed Polars



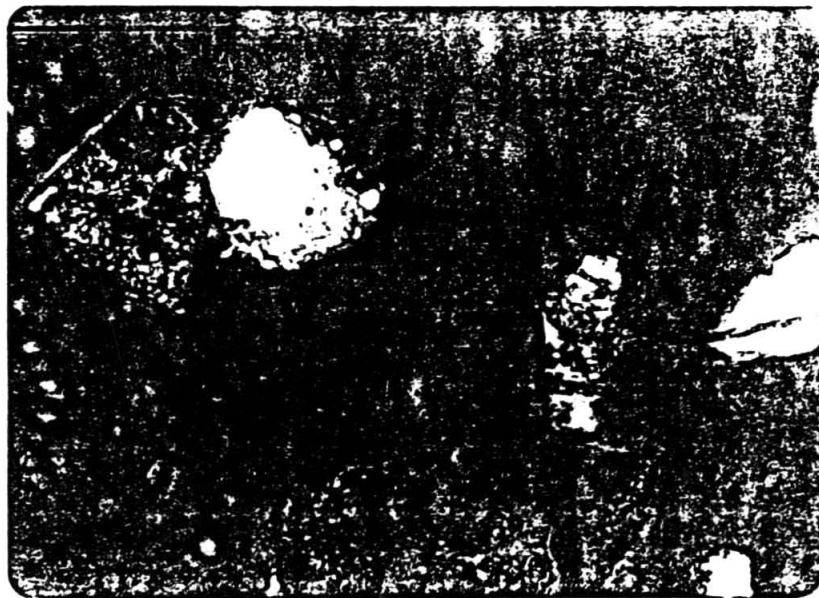
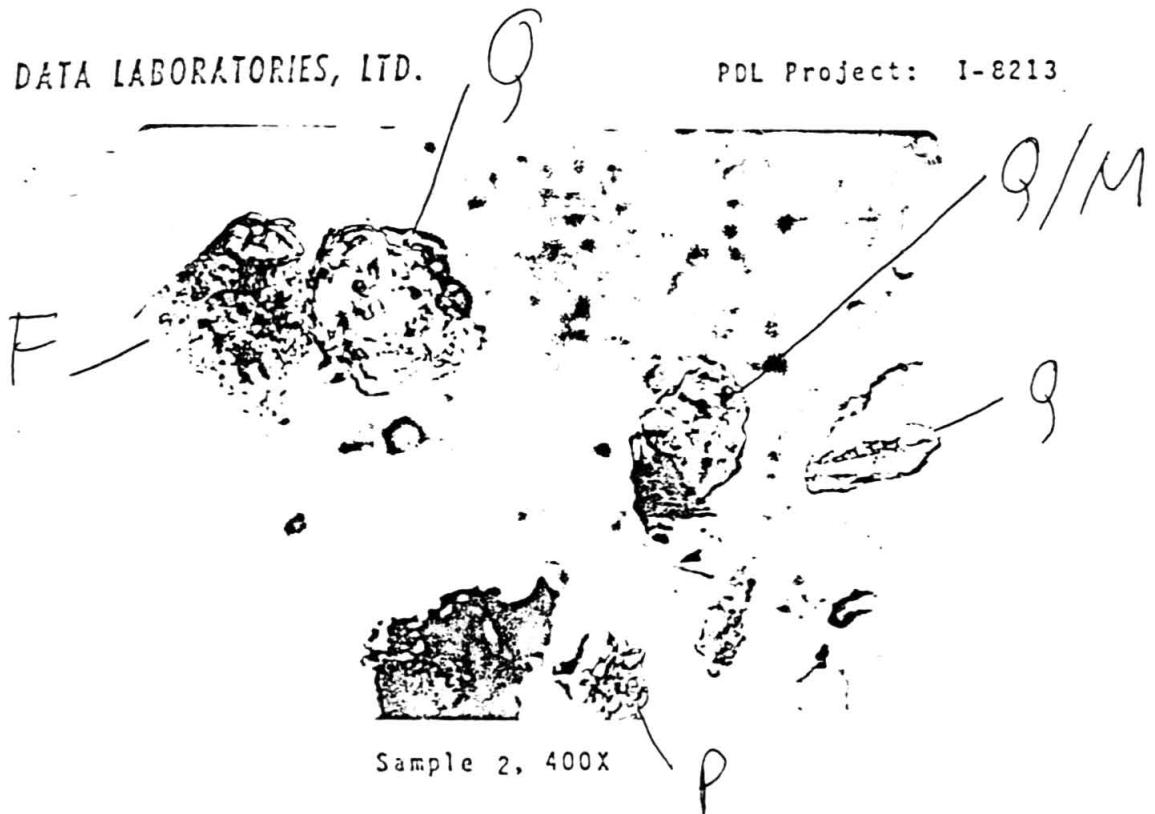
Sample 2, 400X



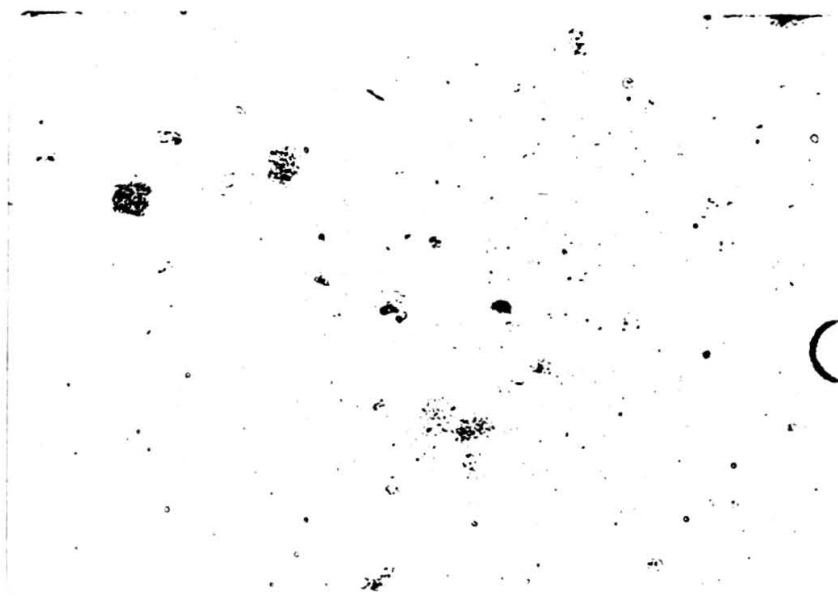
Sample 2, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

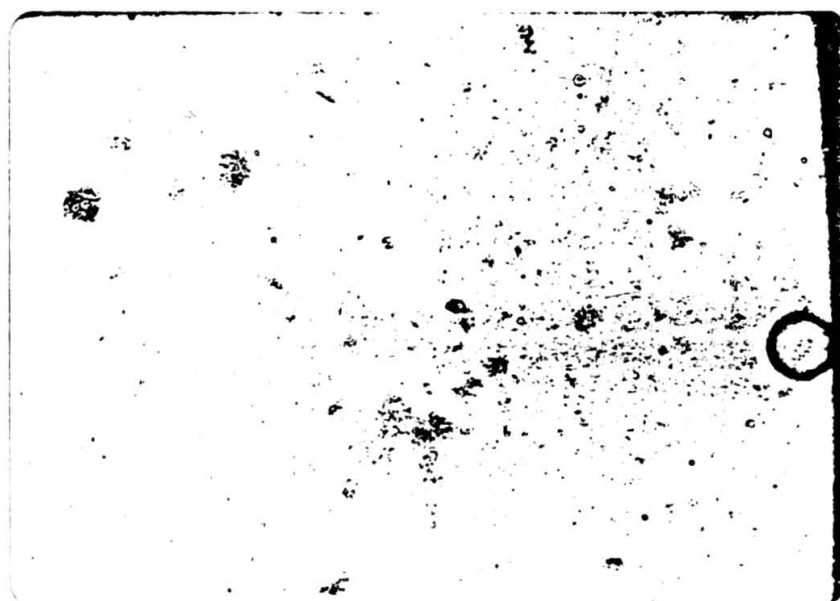
PDL Project: I-8213



Sample 2, 400X, Crossed Polars



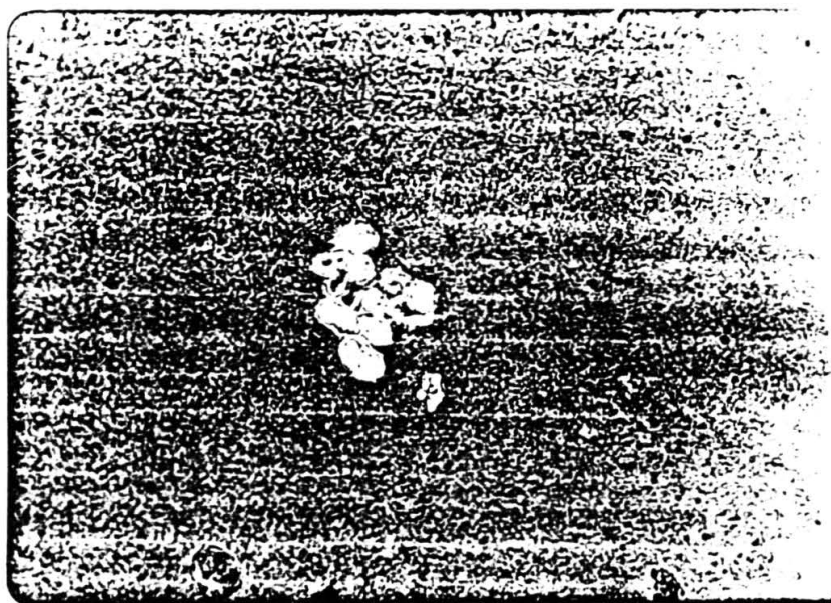
Sample 3, 100X



Sample 3, 100X, Crossed Polars



Sample 3, 400X



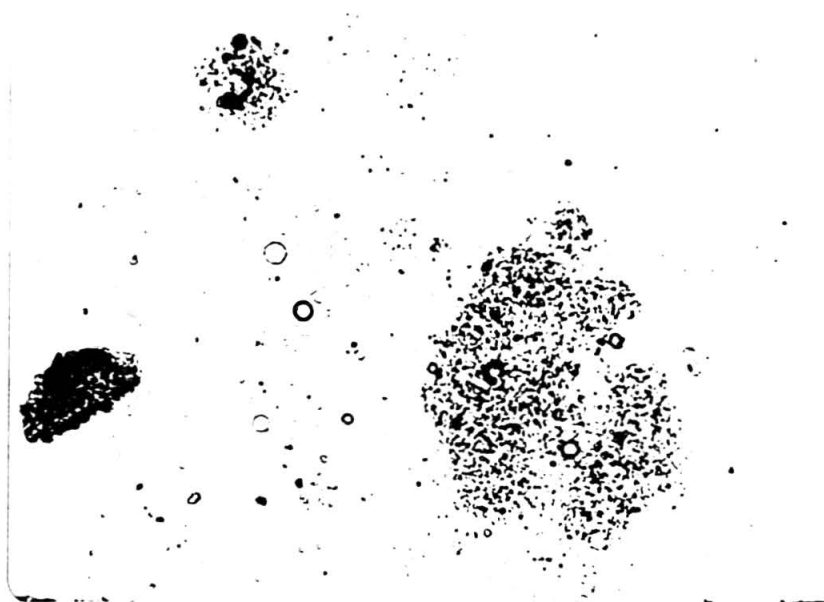
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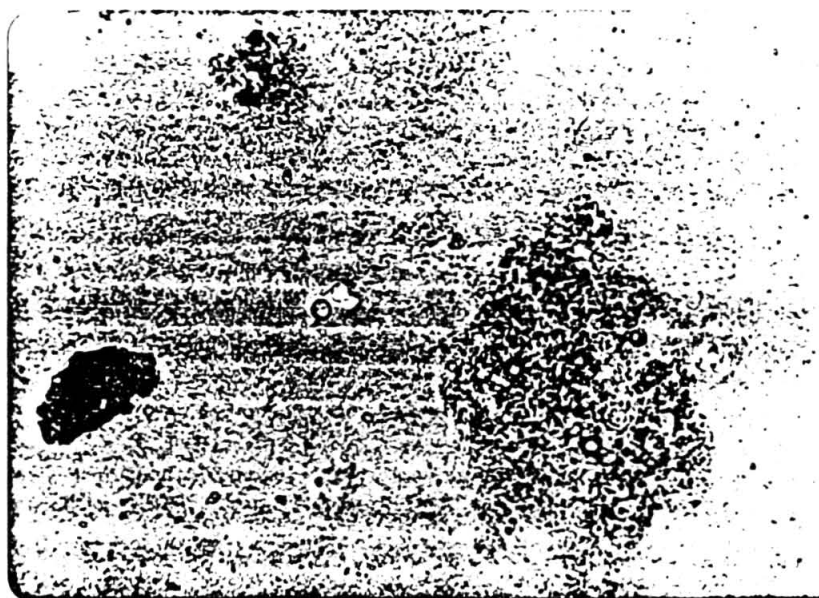
Sample 3, 400X



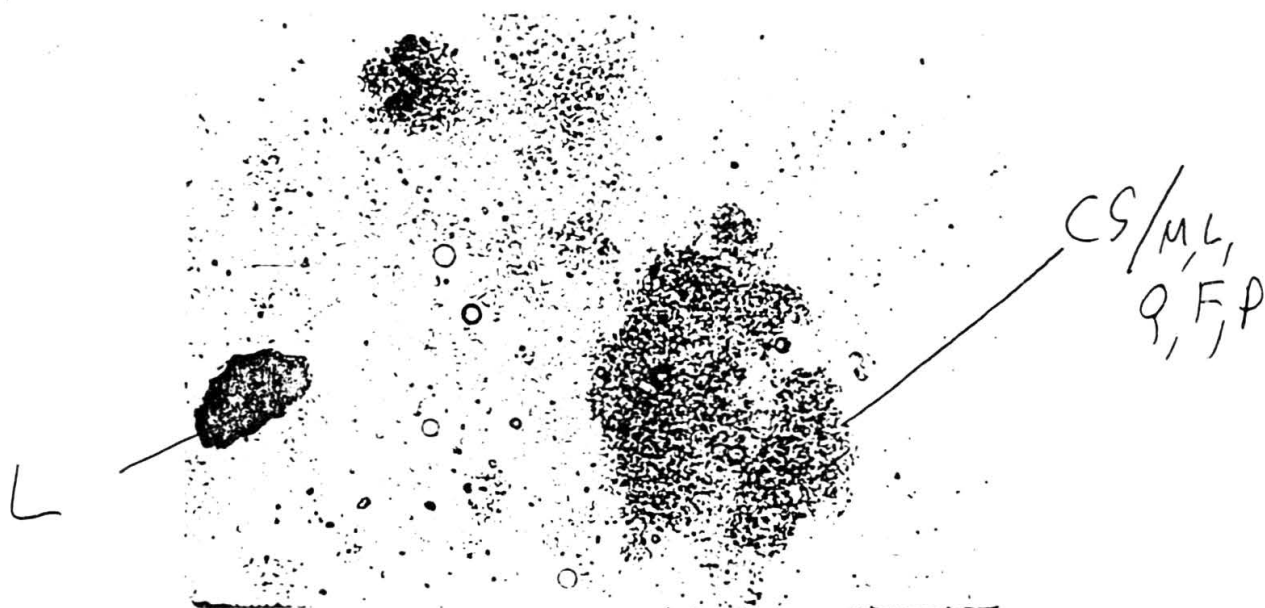
Sample 3, 400X, Crossed Polars



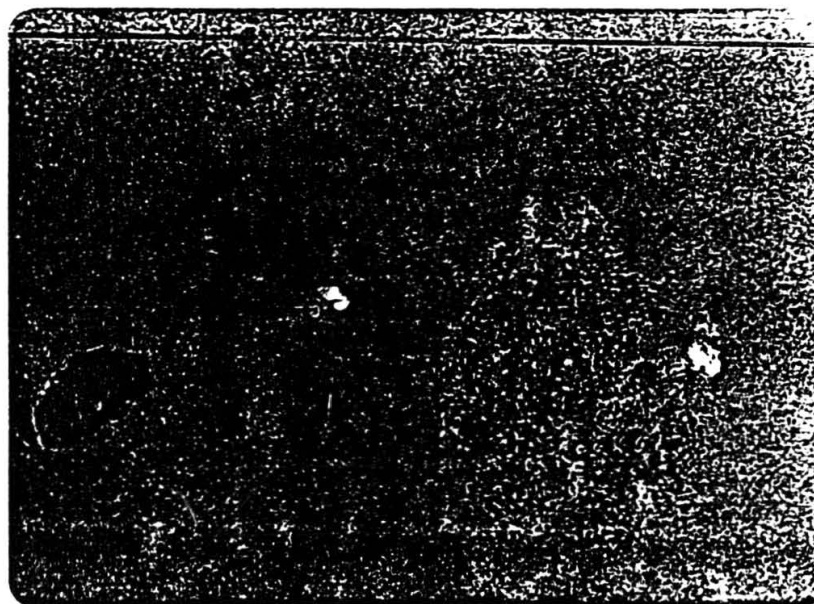
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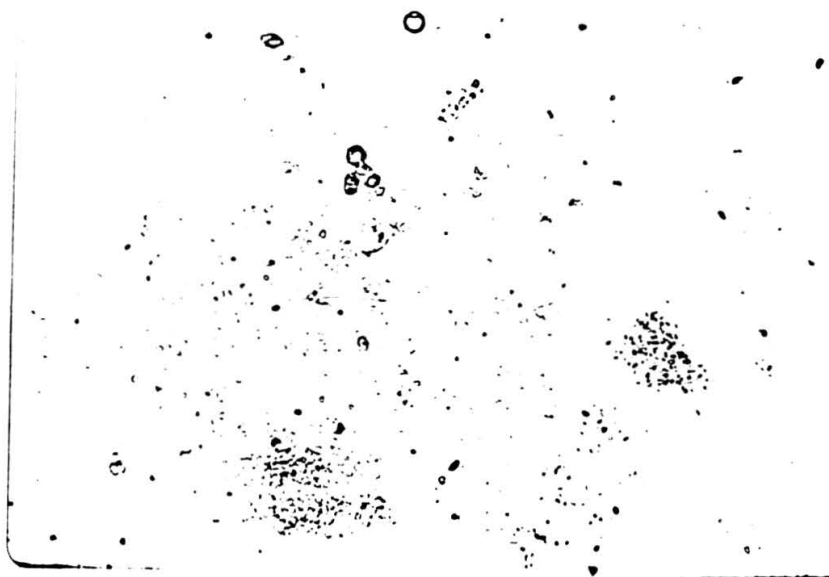
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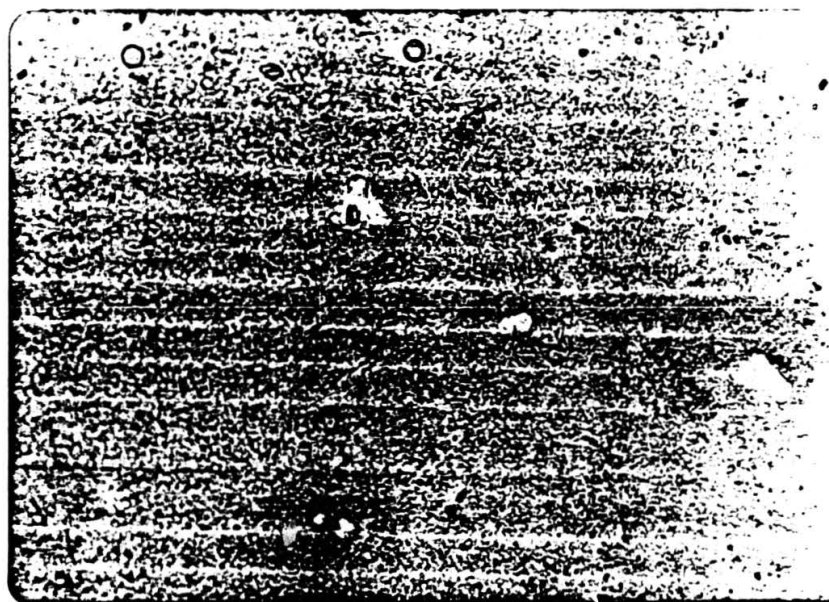
Sample 3, 400X



Sample 3, 400X, Crossed Polars



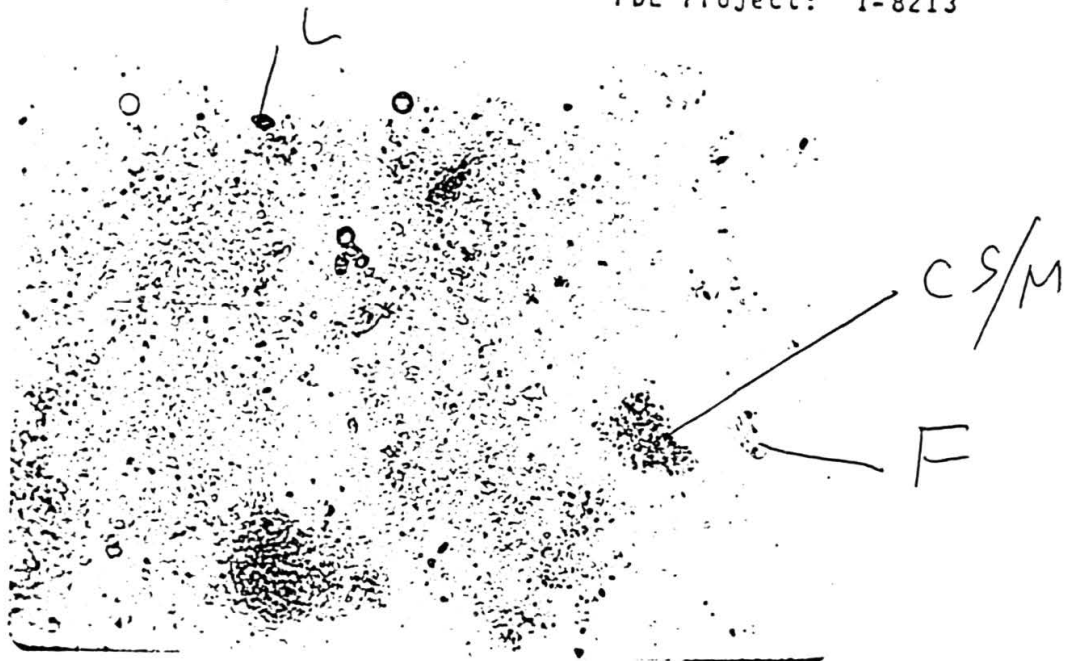
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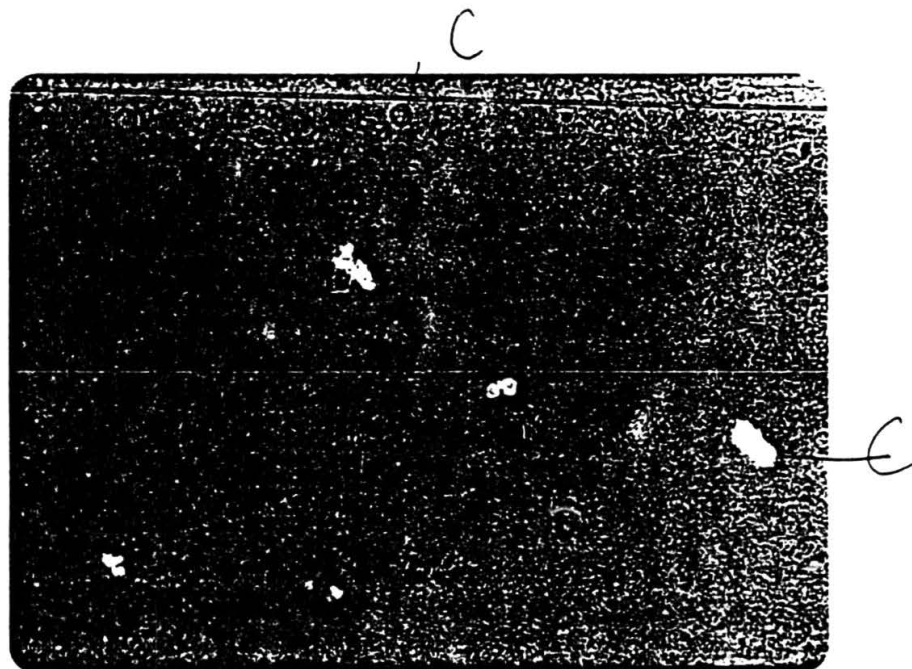
Sample 3, 400X, Crossed Polars

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PDL Project: I-8213



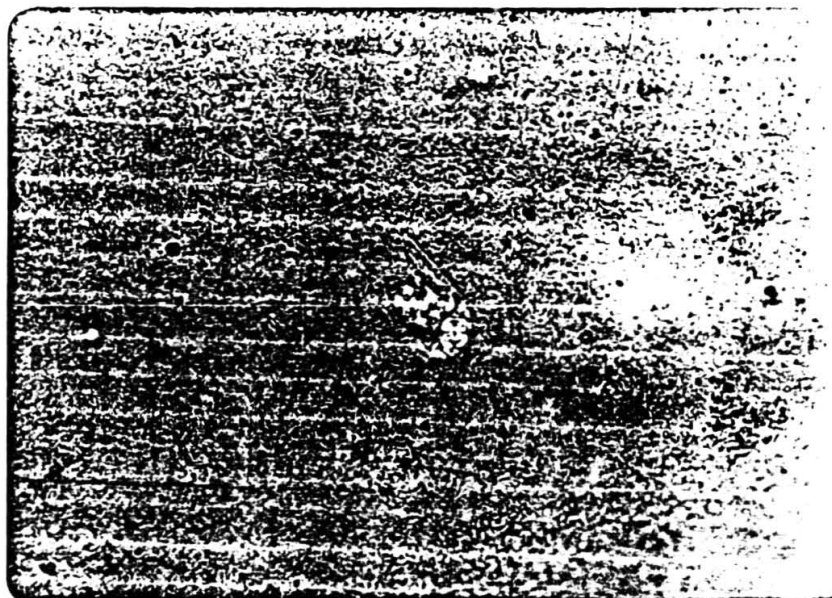
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Sample 3, 400X, Crossed Polars



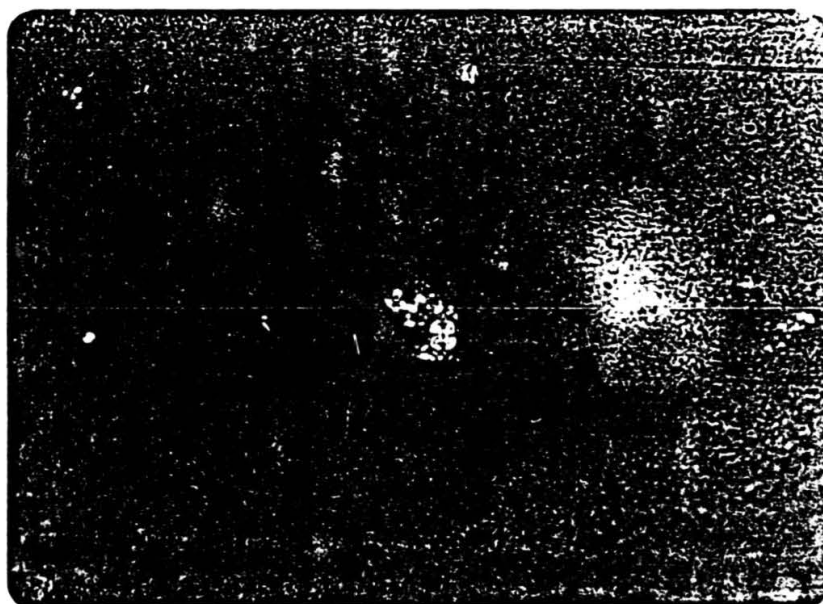
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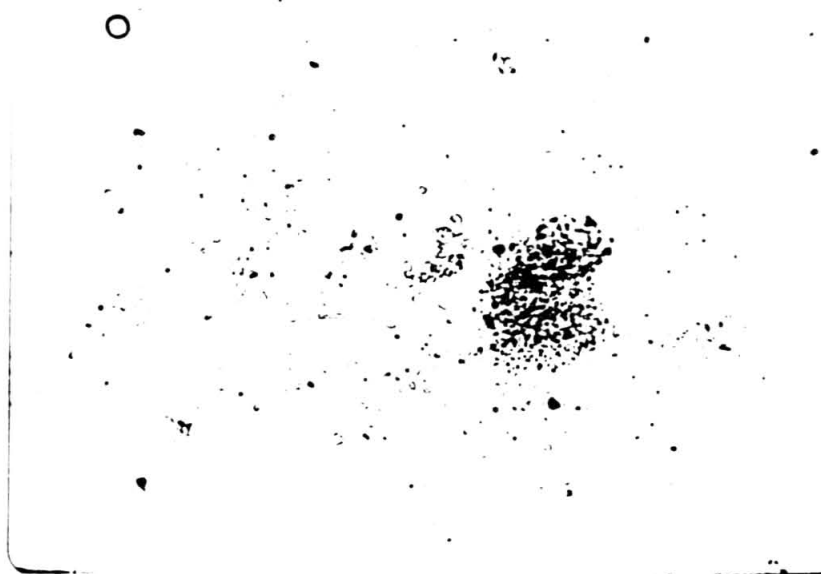
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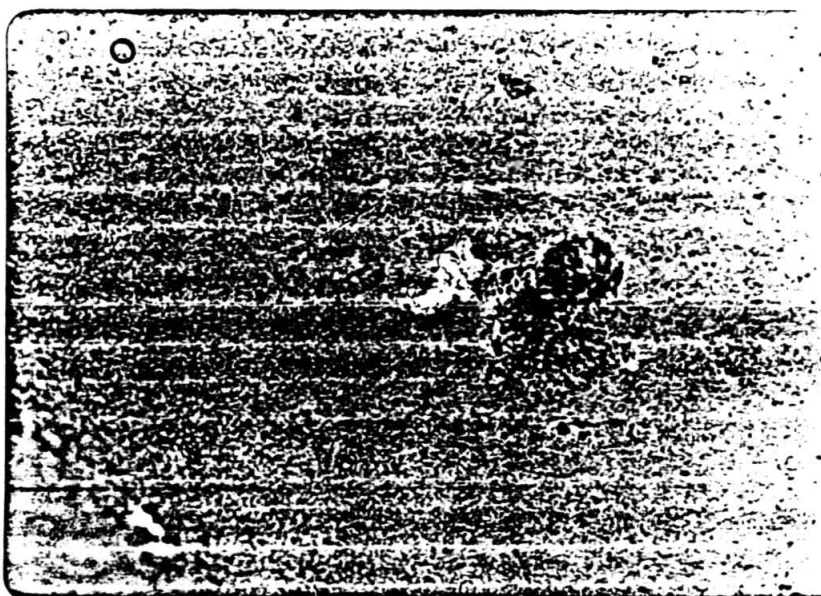
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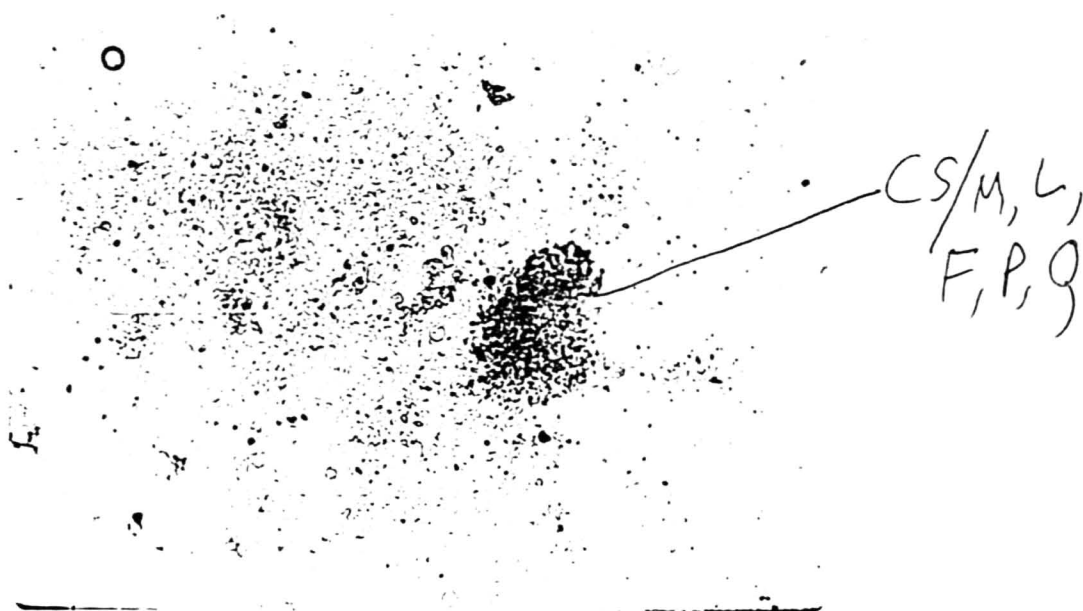
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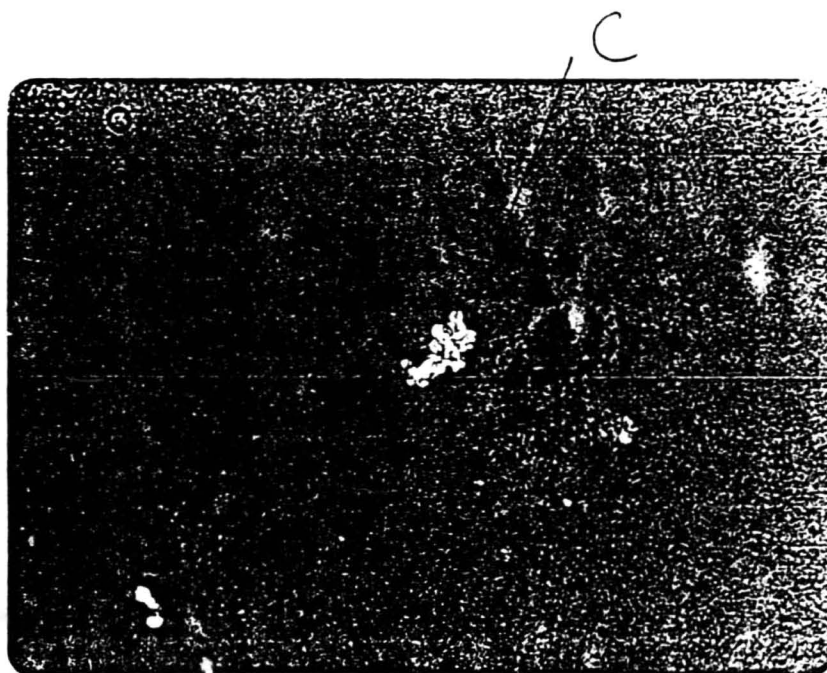
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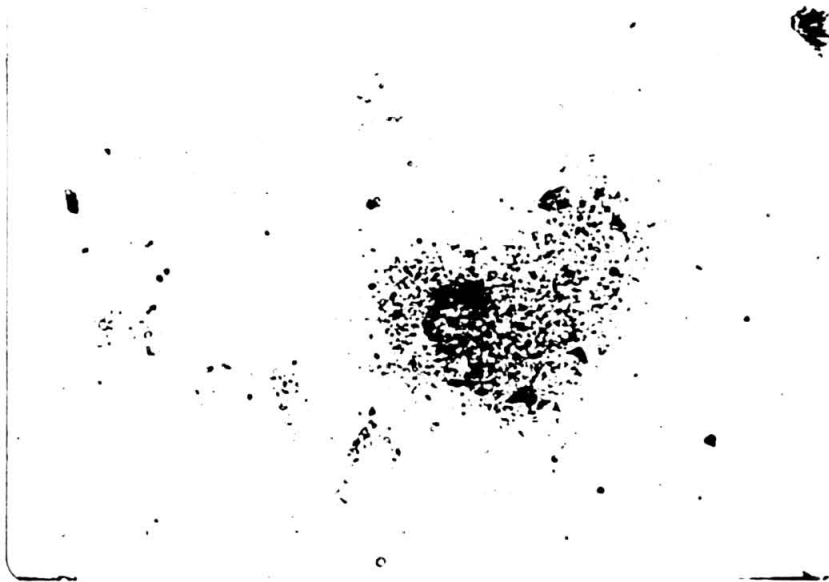
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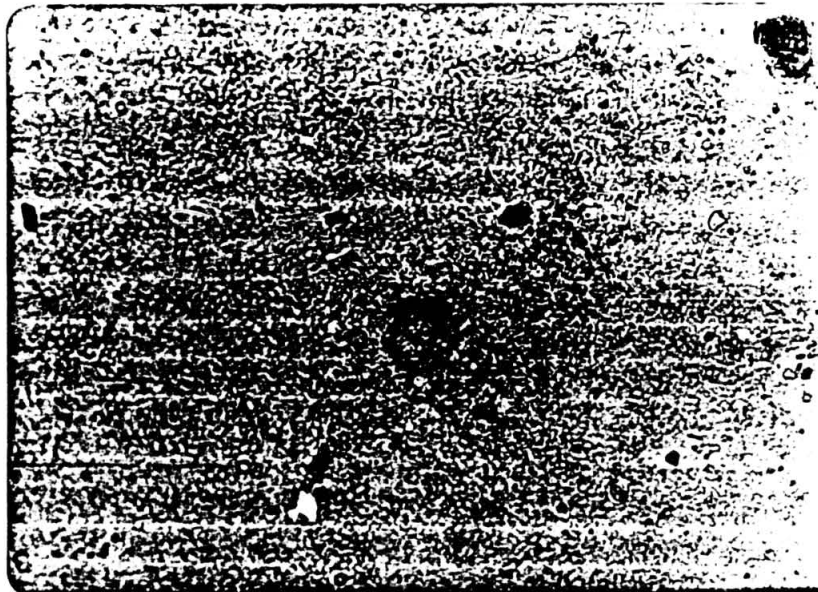
Sample 3, 400X



Sample 3, 400X, Crossed Polars



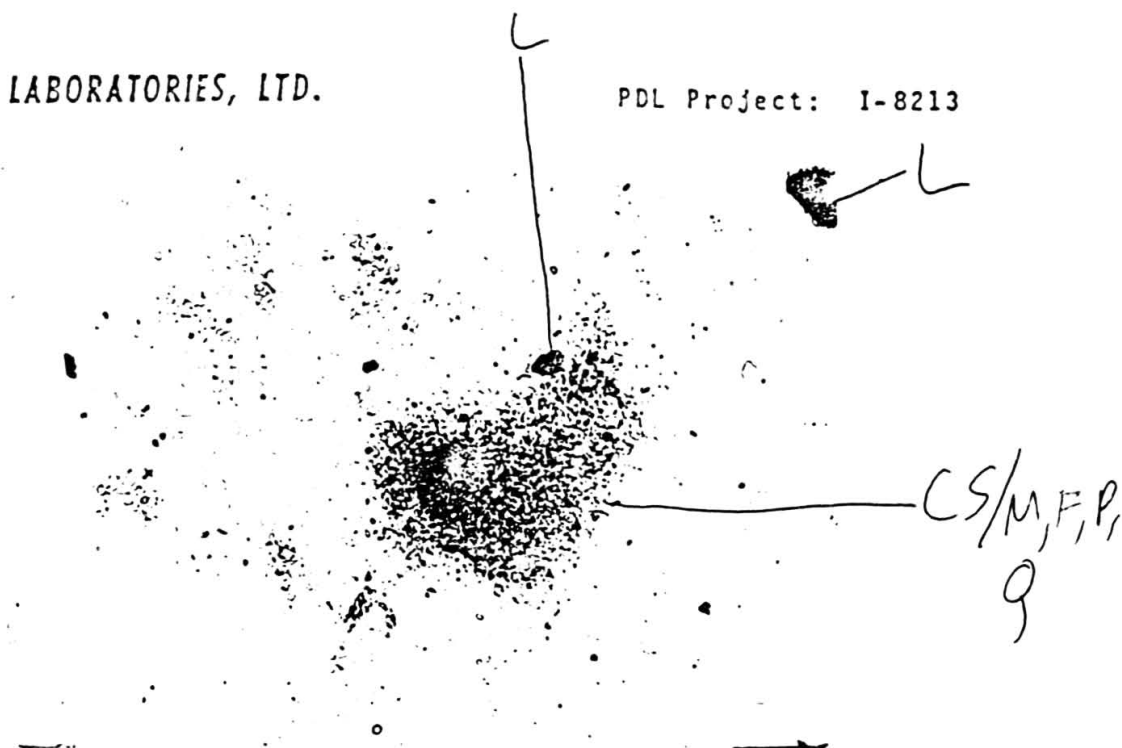
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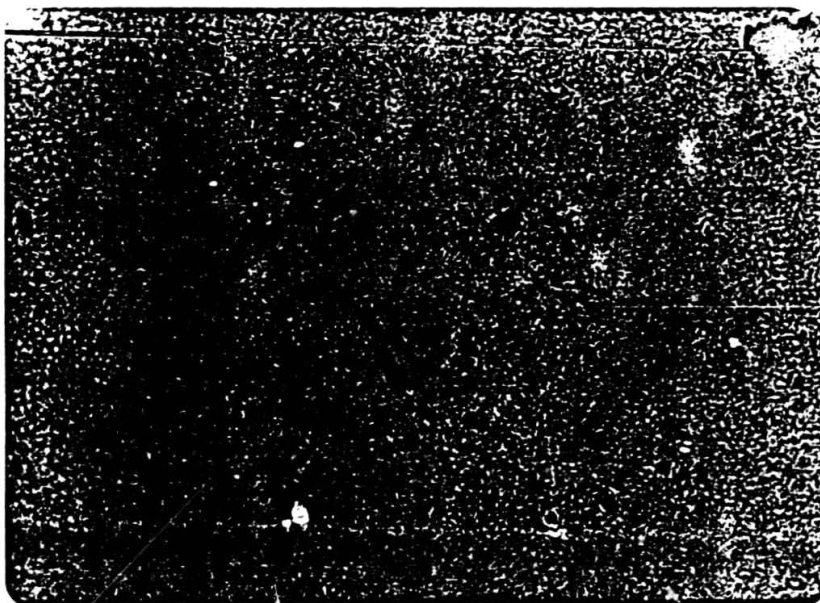
Sample 3, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213



Sample 3, 400X



Sample 3, 400X, Crossed Polars



R&M CONSULTANTS, INC. 5024 CORDOVA • BOX 6097 • ANCHORAGE, ALASKA 99502 • PH: (907) 561-1733

ENGINEERS
GEOLOGISTS
PLANNERS
SURVEYORS

October 26, 1984

R&M No. 452418

Particle Data Laboratories
115 Hahn Street
Elmhurst, Illinois 60126

Attention: Mr. H. Bachu

Re: Sediment Analysis for Eklutna Creek

Dear Mr. Bachu:

Enclosed are six one-liter water samples. Please analyze all the samples for particle size distribution. Please send us the results in your standard reporting format of tabular and graphic results for the distribution on the basis of both particle count and total particle volume. The samples are:

Sample Location	Time (AST)	Date Sampled
E. Fork Eklutna Creek	1030	8/28/84 ✓
Glacier Fork Eklutna Creek	1300	8/28/84 ✓
Eklutna Power Plant Tailrace	1930	8/28/84 ✓
E. Fork Eklutna Cr	1130	10/23/84 ✓
Glacier Fork Eklutna Cr	1420	10/23/84 ✓
Eklutna Power Plant Tailrace	0900	10/23/84 ✓

Please use purchase order number 18233 when billing us. Should you have any questions please call me or Chip Green at (907) 561-1733. We look forward to receiving the results as soon as they are available.

Sincerely,

R&M CONSULTANTS, INC.

Bill Ashton
Hydrologist

WSA;bje

PARTICLE DATA LABORATORIES, LTD.

115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

November 19, 1984

Rec. 1136194

10/26/84

R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

Attention: Mr. Bill Ashton

Subject: Electrozone Analysis - 6 Samples - P. O. # 18233

PDL Project: I-8426

Gentlemen:

Enclosed please find a copy of the computerized data printout of your sample as generated by the Electrozone Analyzer. If you have any questions, please do not hesitate to call us at Particle Data Laboratories.

It has been a pleasure serving your company, and we look forward to serving you again in the near future.

Respectfully submitted,

PARTICLE DATA LABORATORIES, LTD.

Olga Kist
Microscopist

OK:cnl
Enc.

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

①

CLIENT: R & M CONSULTANTS 1300 8 18 NOV 84 :DATE
SAMPLE: GLACIER FORK EKLUTNA CREEK 1930 10/28/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 13.32 MEDIAN = 17.14 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 18.01 +/- 50.63 (281.07%) SKEWNESS = .09

ARITHMETIC VOLUME MEAN = 40.89 +/- 58.60 (143.29%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 400.29 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 292.11 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 53.29 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 17.14 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 6.25 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .89 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .44 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .37 MEDIAN = .65 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .75 +/- .60 (79.96%) SKEWNESS = .64

ARITHMETIC COUNTS MEAN = .94 +/- .98 (104.54%) SKEWNESS = .58

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 11.03 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT 1.14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .65 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .47 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .39 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .37 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .37 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 18 NOV 84 :DATE
SAMPLE: E. FORK EKLUTNA CREEK 1030 8/28/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 32.19 MEDIAN = 16.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 15.34 +/- 47.73 (311.60%) SKEWNESS = -.35

ARITHMETIC VOLUME MEAN = 36.12 +/- 47.40 (131.25%) SKEWNESS = .08

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 292.11 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 213.16 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 128.76 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 56.76 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 16.09 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 4.29 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 1.67 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .73 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .37 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
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INDICES

COUNTS MODE = .29 MEDIAN = .57 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .63 +/- .55 (86.73%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .80 +/- .82 (101.33%) SKEWNESS = .64

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 8.05 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 3.78 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.89 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT 1.01 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .57 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .37 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .29 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .29 MICRONS AND LARGER

3

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 8 18 NOV 84 :DATE
SAMPLE: EKLUTNA POWER PLANT TAILRACE 1930 10728 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 6.41 MEDIAN = 4.54 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.95 +/- 30.72 (620.02%) SKEWNESS = -.05

ARITHMETIC VOLUME MEAN = 26.89 +/- 46.86 (174.24%) SKEWNESS = .44

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 252.70 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 191.51 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 126.35 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 33.85 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.54 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .75 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .33 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .19 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .17 MEDIAN = .17 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .17 +/- .15 (88.70%) SKEWNESS = .01

ARITHMETIC COUNTS MEAN = .21 +/- .17 (81.30%) SKEWNESS = .24

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.04 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .74 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .45 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .28 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .17 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .10 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .04 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .03 MICRONS AND LARGER

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PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 18 NOV 84 :DATE
SAMPLE: GLACIER FORK EKLUTNA CR 1420 10/23/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
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INDICES

VOLUME MODE = 4.65 MEDIAN = 4.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.23 +/- 10.01 (236.70%) SKEWNESS = -.04

ARITHMETIC VOLUME MEAN = 8.73 +/- 11.84 (135.62%) SKEWNESS = .34

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 77.78 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 55.00 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 34.15 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 11.07 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.09 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
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INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .69 +/- .29 (42.34%) SKEWNESS = .62

ARITHMETIC COUNTS MEAN = .75 +/- .45 (60.45%) SKEWNESS = .53

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 5.30 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 2.54 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.33 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .82 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CR 1130 10/23/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

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INDICES

VOLUME MODE = 27.50 MEDIAN = 14.99 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.14 +/- 27.22 (297.72%) SKEWNESS = -.67

ARITHMETIC VOLUME MEAN = 17.45 +/- 15.15 (86.79%) SKEWNESS = -.66

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 65.40 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 57.43 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 44.29 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 29.99 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 14.99 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.43 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .53 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

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INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .66 +/- .23 (35.25%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .70 +/- .41 (59.04%) SKEWNESS = .46

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 4.65 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 2.04 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.16 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

(6)

PARTICLE SIZE ANALYSIS BY ELZOME METHOD--PARTICLE DATA LABORATORIES, LTD.
115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 18 NOV 84 :DATE
SAMPLE: EKLUTNA POWER PLANT TAILRACE 900 10/23 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = .51 MEDIAN = 3.75 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.03 +/- 13.82 (342.42%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 10.58 +/- 13.89 (131.30%) SKEWNESS = .72

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 71.32 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 59.97 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 38.89 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 17.07 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 3.75 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .86 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .58 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .64 +/- .20 (31.02%) SKEWNESS = .66

ARITHMETIC COUNTS MEAN = .67 +/- .30 (44.60%) SKEWNESS = .54

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.59 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 1.65 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.07 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .58 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER