Public-Data File 88-38

COMPILATION OF LIMNOLOGICAL DATA FOR SELECTED KENAI PENINSULA LAKES, SOUTHCENTRAL ALASKA

By
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INTRODUCTION

This report presents information and data compiled by the Alaska Division of Geological and Geophysical Surveys (DGGS) for the U.S. Environmental Protection Agency's (EPA) Kenai Lakes Investigation Project (KLIP). The objectives of the KLIP study are to: (1) document the chemical status of 59 northern Kenai Peninsula lakes; (2) establish a baseline for acid rain investigations; and (3) provide data for ecosystem classification and analysis of southcentral Alaskan lakes.

FINDINGS

Field Work

Lake profile data were collected by DGGS and EPA on five KLIP lakes during the week of August 15, 1988 (Appendix A). A Hydrolab digital 4041 was used to profile water temperature, pH, dissolved oxygen, and specific conductance in the water column. The percent saturation of dissolved oxygen in the water column wascalculated from the data.

Office Contacts

Alaska Department of Fish and Game (ADFG) personnel in Soldotna, Alaska, who were contacted during the week of August 15, 1988, had the following comments on Kenai Peninsula lake water chemistry:

1. Historical water chemistry data may be unreliable (Jeff Koenings, limnologist, ADFG-Division of Fisheries, Rehabilitation, Enhancement, and Development [FRED]). The findings of this report confirm the above

statement. Field and laboratory methods are rarely documented in data files or reports (see Appendix B), making it impossible to evaluate data quality.

2. The absence of sphagnum moss in southcentral Alaska may be the reason Kenai Peninsula lakes have a higher pH than Upper Midwest lakes (Jeff Koenings, ADFG-FRED).

3. No long-term water chemistry data exist for any of the KLIP lakes, nor for any Kenai Peninsula lake - except Hidden Lake (Jeff Koenings, ADFG-FRED). Hidden Lake is a deep (148 ft), clear-water lake with an anadromous fishery, and is not representative of lakes in the KLIP study.

4. KLIP lakes have not been fertilized or treated with rotenone by ADFG (Dave Athons, Fishery Biologist, ADFG-Division of Sport Fish).

Data Compilation

A listing of KLIP lakes and their latitude/longitude coordinates are shown in' Table 1. Limnological data, data sources, and bathymetric maps were found for 19 lakes (Appendix B). Morphometric data are the most common type of data and 12 lakes have limited water chemistry data. Site maps are not included because data sources do not indicate sampling location. Published data were located by using the limnological index of Maurer and Woods (1987). Unpublished data were found at the Soldotna offices of ADFG and the U.S. Fish and Wildlife Service.

Estimates of mean pH, alkalinity, and specific conductance values for lakes in KLIP, the northern Kenai Peninsula, Nancy Lake area, and Matanuska-Susitna Valley, using data referenced in Maurer and Woods (1987), are shown in Table 2. The actual data used to calculate mean values are listed in Appendix C. The mean values in Table 2 should be regarded as estimates because data quality (i.e., sampling and analytical method) was not evaluated.

In general, KLIP lakes in this report are representative of northern Kenai Peninsula lakes (Table 2). Nancy Lake area lakes have lower specific conductance than northern Kenai Peninsula or other Matanuska-Susitna Valley lakes (Appendix C-2, C-3, C-4). Generally, lakes in the Susitna Valley have significantly lower alkalinity and specific conductance than those in the Matanuska Valley (Appendix C-4).

CONCLUSIONS

This data compilation effort produced limited historical and current water chemistry data for KLIP lakes. Presently, there is no long-term water chemistry sampling program for Kenai Peninsula lakes.

LITERATURE CITED

Maurer, M.A., and Woods, P.F., 1987, Index to limnological data for southcentral Alaska lakes: U.S. Geological Survey Open-File Report 87-529, 146 p.

Table 1. Numerical listing of Kenai Peninsula lakes sampled in the U.S. EPA Kenai Lakes Investigation Project (KLIP), August 1988.

No.	Lake name	LATITUDE Decimal	LONGITUDE Degrees	Comments
1	Cook Lake	61.0020	150.3785	not sampled-swans
2	Unnamed	60.9966	150.4102	
3	Unnamed	60.9690	150.3911	
4	Unnamed	60.9407	150.3323	
5	Taiga (Taige) Lake	60.9115	150.4488	
6	Unnamed	60.9202	150.6690	
7	Unnamed	60.8935	150.5686	
8	Unnamed	60.8914	150.4397	
9	Two Island Lake	60.8834	150.2705	not sampled
10	Birch Tree Lake	60.8594	150.3983	
11	Tundra Lake	60.8627	150.6433	
12	Unnamed	60.8493	150.7183	
13	Unnamed	60.8047	150.9436	
14	Unnamed	60.7902	150.7629	
15	Hat Lake	60.7784	150.5627	
16	Unnamed	60.8046	150.4978	
17	Unnamed	60.7910	150.4123	
18	Moose Pasture Lake	60.7987	150.1312	
19	Vixon Lake	60.7316	150.4262	
20	Unnamed	60.7473	150.4988	
21	Pan Lake	60.7738	150.5623	
22	Unnamed	60.7411	150.6513	
23	Unnamed	60.7427	150.8970	
24	NONLAKE	60.7331	150.9998	not sampled
25	Unnamed	60.7455	151.0970	
26	Unnamed	60.7670	151.2300	
27	Unnamed	60.7161	151.2923	
28	Laura (Thetis) Lake	60.7215	151.2176	
29	Timberlost (Thompson) Lk	60.6979	151.1453	
30	NONLAKE	60.7125	151.0530	not sampled
31 :	Unnamed	60.6907	150.8850	
32	Anerta Lake	60.7168	150.7792	
33	Canoe Lake #3	60.7075	150.6830	
34	Arctic Loon Lake	60.7106	150.6529	
35	Porcupine Lake	60.7037	150.6208	
36	Unnamed	60.7243	150.5028	
37	Unnamed	60.7011	150.3794	
38	Long Lake	60.6733	150.5866	
39	Unnamed	60.6710	150.7093	
40	Duckbill Lake	60.6618	150.6856	
41	Unnamed	60.6648	150.8894	
42	Unnamed	60.6560	150.9285	
43	Little Heart Lake	60.6913	151.0360	
44	NONLAKE	60.6705	151.1734	nonlake
45	Mud Lake	60.6897	151.2380	
46	Unnamed	60.6960	151.3040	
47	Unnamed	60.6198	150.9717	
48	Unnamed	60.6168	150.8815	

Table 1. (continued)

No.	Lake name	LATITUDE Decimal	LONGITUDE Degrees	Comments
49	Yellowjacket Lake	60.6036	150.8024	
50	Beaver Pond Lake	60.6048	150.6855	
51	Unnamed	60.4574	151.1250	
52	Unnamed	60.5935	150.6927	
53	Unnamed	60.5949	150.9598	
54	Unnamed	60.5715	150.9414	
55	Unnamed	60.5325	151.0461	
56	Derks Lake	60.5293	150.9664	
57	NONLAKE	60.3944	151.0536	not sampled
58	Aqua-Linda Lake	60.3327	151.2289	
59	Seth Lake	60.2804	151.3406	
60	Unnamed	60.2583	151.3835	
61	NONLAKE	60.7627	151.0282	nonlake
62	Moon Lake	60.8798	150.3643	
63	Unnamed	61.0073	150.3669	
64	Millco Lake	60.7151	151.2786	
65	Unnamed	60.8355	150.6951	
66	NONLAKE	60.5560	151.1550	not sampled
67	Unnamed	60.7677	150.1974	

Table 2. An estimate of mean values of selected water chemistry data for lakes in southcentral Alaska. n = number of samples. Source: data referenced in Maurer and Woods (1987).

Location	pH	Total alkalinity*	Specific conductance (µmhos)
KLIP Lakes	6.9 (n=12)	34 (n=8)	89 (n=9)
Northern Kenai Peninsula	6.9 (n=69)	30 (n=70)	69 (n=58)
Nancy Lake area	6.9 (n=22)	23 (n=33)	47 (n=29)
Matanuska-Susitna Valley	7.3 (n=42)	66 (n=58)	127 (n=68)

* (mg/L as $CaCO_3$)

APPENDIX A

Lake Profiles

DGGS WATER RESOURCES INVESTIGATIONS

Hat Lake Lake # 15

Date: 8/18/88 Time: 1230 hrs. Collected by: Landers, Maurer

LAKE PROFILE

Time	Depth (~~M~~ ft)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
1230	0	17.1	8.0	160	153	9.3	96
	1	17.1	8.0	160	153	9.0	93
	2	17.1	8.0	160	153	8.8	91
	3	17.1	8.0	159	152	8.6	89
	4	17.1	8.0	159	152	8.6	89
	5	17.1	8.0	159	152	8.6	89
	6	17.1	8.0	159	152	8.5	88
	7	17.1	8.0	159	152	8.4	87
	8	17.1	8.0	159	152	8.4	87
	9	17.1	8.0	159	152	8.4	87
	10	17.1	8.0	159	152	8.4	87
	11	17.1	8.1	159	152	8.3	86
	12	17.1	8.0	159	152	7.9	82
	13	17.1	8.0	159	152	6.5	67
	14	16.7	7.8	160	153	5.2	54
	15	16.6	7.8	161	154	4.2	44
	16	16.4	7.7	164	157	3.2	33
Bottom	17	16.3					

Lake surface condition: rippled Lake color: Brown

Secchi disk: Disappears: 2.7 M; Appears: 2.5 M; Ave.: 2.6 M Turbidity: _____ NTU

Wind from SW @ 7 MPH; Cloud Cover: 100 %; Elevation: high; Ice thickness: _____ in.;

Snow Depth: _____ in.; Hydrolab Model: _____ Hydrolab Battery: 11.7 v

Weather: wind 5-10 mph, high overcast

Bottles Collected: Bottle volume (ml) / pts. of coll.	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified

ml. volume thru filter(s); chlorophyll _____

Comments: _____

DGGS WATER RESOURCES INVESTIGATIONS

Pan Lake Lake #21

Date: 8/18/88 Time: 1130 hrs. Collected by: Landers/Maurer

LAKE PROFILE

Time	Depth (FT)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
1135	surface	16.6	7.5	182	174	9.3	95
	1.0	16.6	7.6	181	173	9.0	92
	2.0	16.6	7.7	181	173	8.8	90
	3.0	16.6	7.7	181	173	8.7	89
	4.0	16.7	7.7	181	173	8.6	88
	5.0	16.7	7.7	181	173	8.6	88
	6.0	16.7	7.8	181	173	8.6	88
	7.0	16.7	7.8	181	173	8.6	88
	8.0	16.7	7.8	181	173	8.5	87
	9.0	16.7	7.8	181	173	8.5	87
	10.0	16.7	7.8	181	173	8.3	85
	11.0	16.6	7.8	181	173	7.0	72
	12.0	16.1	7.7	182	174	5.2	53
	13.0	15.8	7.5	185	177	1.6	16
	14.0	14.9	7.3	212	204	1.0	10
Bottom = 14.8 ft	15.0						

Lake surface condition: riffle Lake color: clear

Secchi disk: Disappears: 2.0 M; Appears: 2.1 M; Ave.: 2.15 M Turbidity: _____ NTU

Wind from 0-2 @ SE MPH; Cloud Cover: ____ %; Elevation: _____; Ice thickness: _____ in.;

Snow Depth: _____ in.; Hydrolab Model: _____ Hydrolab Battery: 11.7 v

Weather: high overcast

Bottles Collected:	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified
Bottle volume (ml)				
pts. of coll.				

ml. volume thru filter(s); chlorophyll _____

Comments: _____

DGGS WATER RESOURCES INVESTIGATIONS

Laura Lake Lake #28

Date: 8/16/88 Time: 1415 hrs. Collected by: Eilers, Maurer

LAKE PROFILE

Time	Depth(M)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
	1.0	19.0					
	3.2M	19.0					
	Maximum depth w/ fish rod = 10 feet						
	no hydrolab taken too far to row						

Lake surface condition: breezy Lake color: clear

Secchi disk: Disappears: 3.2 M; Appears: 3.2 M; Ave.: 3.2 M on 60 ft cm Turbidity: _____ NTU

Wind from _____ @ ___ MPH; Cloud Cover: ____ %; Elevation: _____; Ice thickness: _____ in.;

Snow Depth: _____ in.; Hydrolab Model: _____ Hydrolab Battery: _____

Weather: partly cloudy, breezy

Bottles Collected:	Bottle volume (ml)	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified
	pts. of coll.				

ml. volume thru filter(s); chlorophyll _____

Comments: ADFG calls it Thetis Lake.

DGGS WATER RESOURCES INVESTIGATIONS

Canoe Lake NO. 3 Lake #33

Date: 8/18/88 Time: 1800 hrs. Collected by: Landers, Maurer

LAKE PROFILE

Time	Depth(M)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
1747	0	17.2	7.8	131	124	9.6	100
	1	17.2	7.9	131	124	9.4	98
	2	17.2	7.9	131	124	9.3	97
	3	17.2	7.9	131	124	9.2	96
	4	17.2	8.0	131	124	9.1	95
	5	17.2	8.0	131	124	9.1	95
	6	17.2	8.1	131	124	9.2	96
	7	17.2	8.1	131	124	9.0	94
	8	17.2	8.1	131	124	9.1	95
	9	17.2	8.1	131	124	8.9	93
	10	17.2	8.1	131	124	8.8	92
	11	17.1	8.1	131	124	8.4	87
	12	17.0	8.0	132	125	8.1	84
	13	16.8	7.9	133	126	7.2	75
	14	16.7	7.8	133	126	6.6	69
Bottom →	15	16.3	7.7	139	132	3.6	37

Lake surface condition: rippled Lake color: —

Secchi disk: Disappears: 2.8 M; Appears: 2.5 M; Ave.: 2.65 M Turbidity: _____ NTU

Wind from _____ @ 3 MPH; Cloud Cover: 100 %; Elevation: _____; Ice thickness: _____ in.;

Snow Depth: _____ in.; Hydrolab Model: _____ Hydrolab Battery: 11.7 V.

Weather: overcast

Bottles Collected:	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified
Bottle volume (ml)				
pts. of coll.				

ml. volume thru filter(s); chlorophyll _____

Comments: _____

DGGS WATER RESOURCES INVESTIGATIONS

Derks Lake — Lake #56

Date: 8/17/88 Time: 1130 hrs. Collected by: Landers, Maurer

LAKE PROFILE

Time	Depth(M)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
11 17	surface	17.2	6.9	37	31	9.2	96
	0.5	17.2	7.0	37	31	9.2	96
	1.0	17.2	7.0	37	31	9.2	96
	1.5	17.2	7.0	37	31	9.0	94
	2.0	17.2	7.1	37	31	8.8	92
	2.5	17.2	7.0	37	31	8.7	91
	3.0	17.1	7.0	37	31	8.6	89
	3.5	15.5	6.9	38	32	6.7	70
	4.0	14.4	6.7	42	36	2.1	22
	4.5	12.6	6.6	52	46	1.1	11
	4.8	weight	hits				
	5.0	10.1	6.7	65	59	1.1	
1130	5.5	9.1	6.9	123	117	1.2	in weeds on bottom

Lake surface condition: slight ripple Lake color: clear

Secchi disk: Disappears: 3.5 M; Appears: 3.2 M; Ave.: 3.35 M Turbidity: _____ NTU

Wind from N @ 0-3 MPH; Cloud Cover: ____ %; Elevation: _____; Ice thickness: _____ in.;

Snow Depth: _____ in.; Hydrolab Model: B Hydrolab Battery: 11.9 v. w/ shroud

Weather: high overcast

Bottles Collected:	Bottle volume (ml)	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified
	pts. of coll.				

ml. volume thru filter(s); chlorophyll _____

Comments: _____

DGGS WATER RESOURCES INVESTIGATIONS

Agua - Linda Lake Lake # 58

Date: 8/16/88 Time: 1100 hrs. Collected by: Eikers, Hurley, Maurer

LAKE PROFILE

Time	Depth(M) (ft)	Temp (°C)	pH	K unc.	K cor.	D.O.	% sat.
1053	0.5	18.7	7.0	16	11	10.3	100
	1.0	18.7	6.9	15	10	9.8	100
	2.0	18.7	6.9	15	10	9.7	100
	3.0	18.6	6.9	15	10	9.6	100
	4.0	18.5	6.9	15	10	9.6	100
	5.0	18.5	6.8	15	10	9.6	100
	6.0	18.5	6.9	15	10	9.5	100
	7.0	18.5	6.9	15	10	9.7	100
6.4 from	8.0	18.5	6.8	15	10	8.1	87
1102	9.0	18.5	6.3	14	9	5.2	56

Lake surface condition: calm, slight ripple Lake color: slightly turbid, brown cast

Secchi disk: Disappears: 2.0 M; Appears: 1.9 M; Ave.: 1.95 M Turbidity: _____ NTU

Wind from N @ 0-2 MPH; Cloud Cover: 0 %; Elevation: ✓; Ice thickness: ✓ in.;

Snow Depth: ✓ in.; Hydrolab Model: B Hydrolab Battery: 12.1 volts w/o stirrer, 11.7 volts w/stirrer

Weather: sunny, bright, very light breeze, 59 °F Barometric pressure: 29.97"

Bottles Collected: Bottle volume (ml) / pts. of coll.	field-filtered, untreated	field-filtered, acidified	Unfiltered, Well-mixed	Unfiltered, acidified

ml. volume thru filter(s); chlorophyll _____

Comments: hatch of Leptoceridae caddisflies

fish jumping 50' off shore

old beaver lodge

100 ft of shoreline disturbance (bulldozed vegetation) on west side of lake

APPENDIX B

Data Compilation

STATE OF ALASKA
Department of Natural Resources
Division of Geological & Geophysical Surveys

KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Taiga Lake LAKE NUMBER: 5

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game, 1972 Federal aid in fish restoration -- Annual report of progress, 1971-1972: ADFG Sport Fish Div, Project F-9-4, v. 13, p. 46	surface area	118 acres		1971	acreage determined by map grids from USGS maps, (1:63,360)
	maximum observed depth	50 ft		1971	P-100 Ross depth finder
AK Dept. Fish and Game, Soldotna office, unpublished data file	secchi disk	15 ft		6/9/71	
	water temperature	48°F	surface	6/13/71	NS
	pH	6.2	"	"	"
	total alkalinity	7 mg/L	"	"	"
US Fish and Wildlife Service, Fisheries Office, Soldotna, unpublished data file (data collected by ADFG)	water temperature	13°C	surface	6/2/77	NS
	conductivity	17 µmohs	"	"	"
	total alkalinity	10 mg/L	"	"	"
	total hardness	10 mg/L $CaCO_3$	"	"	"
	pH	6.5	"	"	"

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

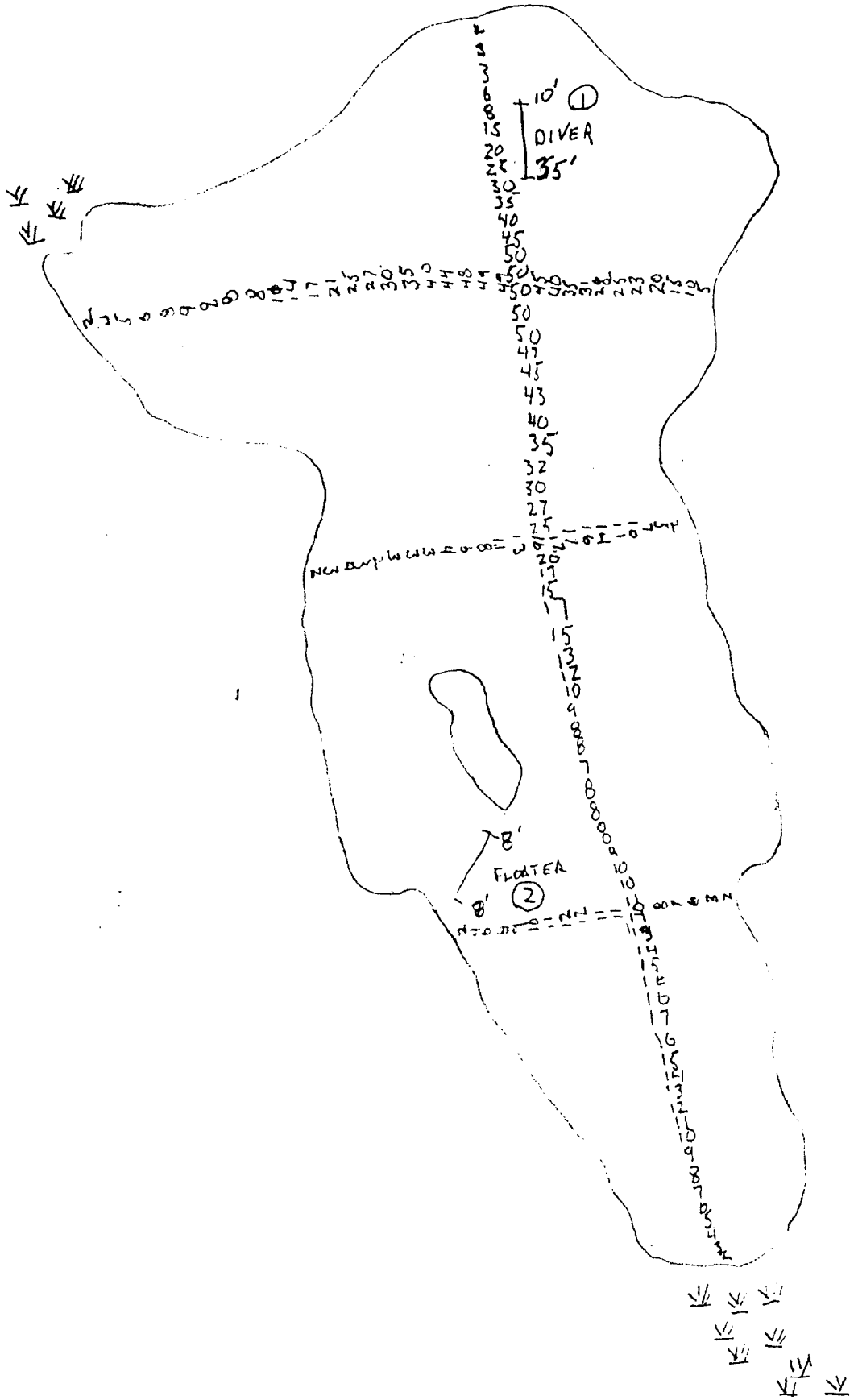
COMMENTS: Referred to as Tioga Lake in ADFG (1972)
no inlets or outlets
1971 ADFG fish survey: stickleback
bathymetric map attached

unpublished data at ADFG office, Soldotna

Taiga Lake

Lake number : 5

Measurement in feet



STATE OF ALASKA
Department of Natural Resources
Division of Geological & Geophysical Surveys

KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Unnamed Lake. LAKE NUMBER: 8

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M) FT	DATE C.	DATE A.	METHOD F.	METHOD L.
US Fish and Wildlife Service, Fisheries office, Soldotna, unpublished data file	pH	4.0	5	4/14/76		NS	
	dissolved oxygen	4.0 mg/L	"	"		"	
	water temperature	1 °C	"	"		"	
	dissolved solids	155 mg/L	"	"		"	
	surface area	51 acres				NS	

C. = Collection Date

A. = Analysis Date

F. = Field Method

L. = Lab Method

NS = not stated

COMMENTS: _____

STATE OF ALASKA
Department of Natural Resources
Division of Geological & Geophysical Surveys

KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Two Island Lake LAKE NUMBER: 9

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game Soldotna office unpublished data	surface area	142 acres		1972	NS
	maximum depth	22 ft		1972	NS
US Fish and Wildlife Service, Kenai National Wildlife Refuge, Kenai Fishery Resources Field Station 1983 Remote and roadside lake study, unpublished report	volume	1500 acre-feet		NS	NS
	mean depth	13.3 ft		"	Ross Sportsman 100 Depth finder
	water transparency	10 ft		7/20/83	secchi disk
	conductivity	177 umhos at 25°C	surface	"	YSI S-C-T$_{33}$ Meter
	pH	7.5	"	"	Markson 88 Meter
	alkalinity	89 mg/L	3	"	Hach AL-DT kit
	hardness	93 mg/L	"	"	Hach HA-DT kit
	phosphorus, total	22 ug/L	surface	"	NS
	Kjeldahl nitrogen	0.41 mg/L	"	"	"
	MEI	43.7			"
	Water temperature / dissolved oxygen	°C / mg/L 19.4 / 9.6	0	"	YSI 57 meter
		19.2 / 9.6	1		
		19.0 / 9.7	2		
		18.1 / 9.4	3		
		15.0 / 1.6	4		
		10.2 / 0.7	5		
		7.0 / 0.7	6		
	Water Color	XII	surface	"	Forel-Ule Scale
	Water transparency	2.9 Meters		8/10/83	Secchi Disk
		continued	on	next page	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: 1972 ADF&G fish survey: rainbow trout } unpublished data, ADF&G office, Soldotna
Bathymetric map attached
Outlet: Pincher Creek, ~5 cfs.
Inlets: south end and west end, little flow. } USFWS Remote and roadside lake study report.
1983 USFWS fish survey: rainbow trout, coho salmon, Dolly varden char, stickleback.
Vegetation map attached

STATE OF ALASKA
Department of Natural Resources
Division of Geological & Geophysical Surveys

KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Two Island Lake LAKE NUMBER: 9

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
US Fish and Wildlife Service, Kenai National Wildlife Refuge, Kenai Fishery Resources Field Station, 1983 Remote and roadside lake study, unpublished report	water temperature / dissolved oxygen	°C / mg/L 18.0 / 10.6 17.9 / 10.4 17.8 / 10.2 17.8 / 10.2 17.2 / 5.4 12.0 / 0.4 7.5 / 0.3	0 1 2 3 4 5 6	8/10/83		YSI 57 Meter	

C. = Collection Date COMMENTS: _____

A. = Analysis Date _____

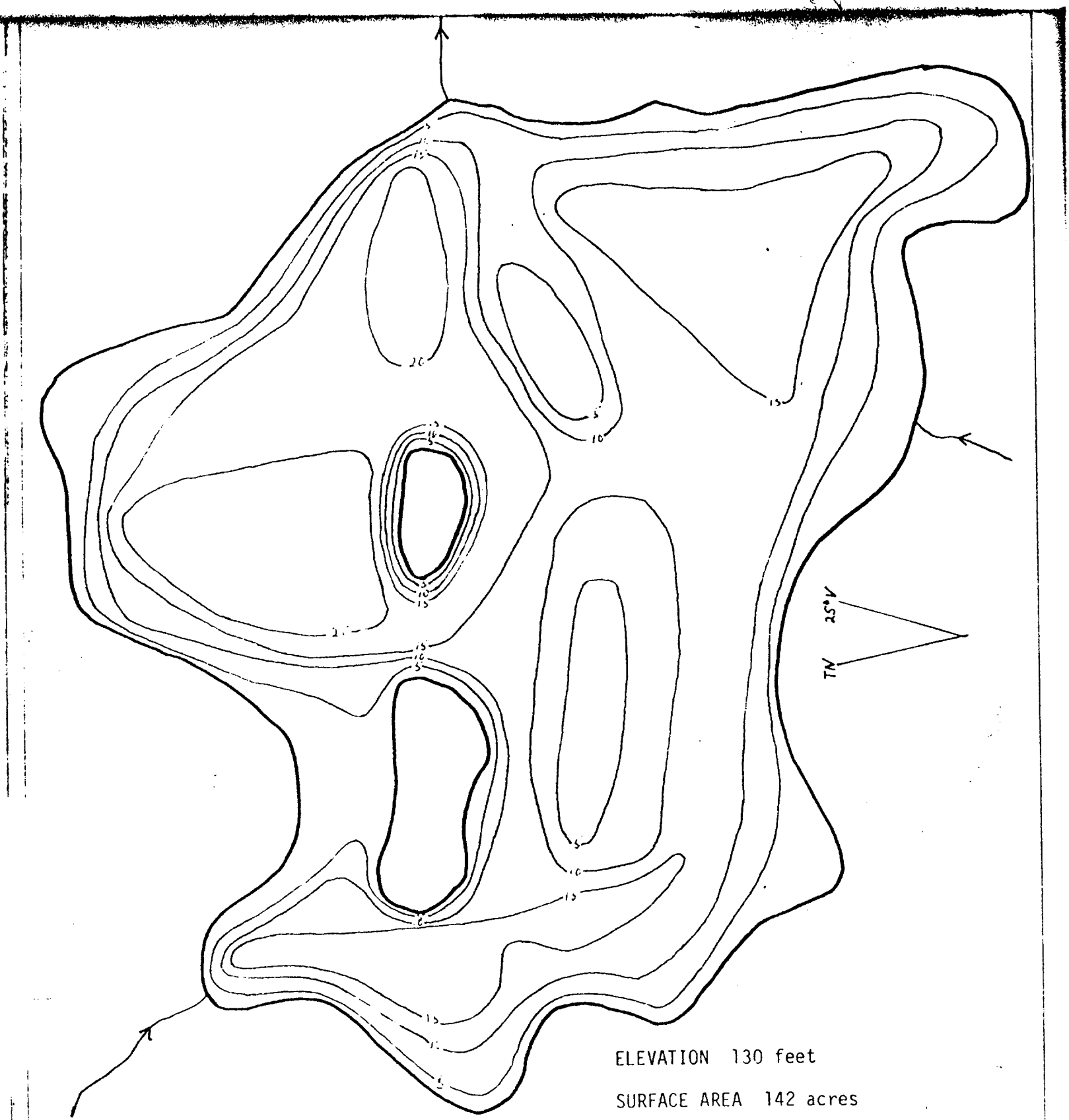
F. = Field Method _____

L. = Lab Method _____

Two Island Lake

Lake number : 9

Measurement in feet



ELEVATION 130 feet

SURFACE AREA 142 acres

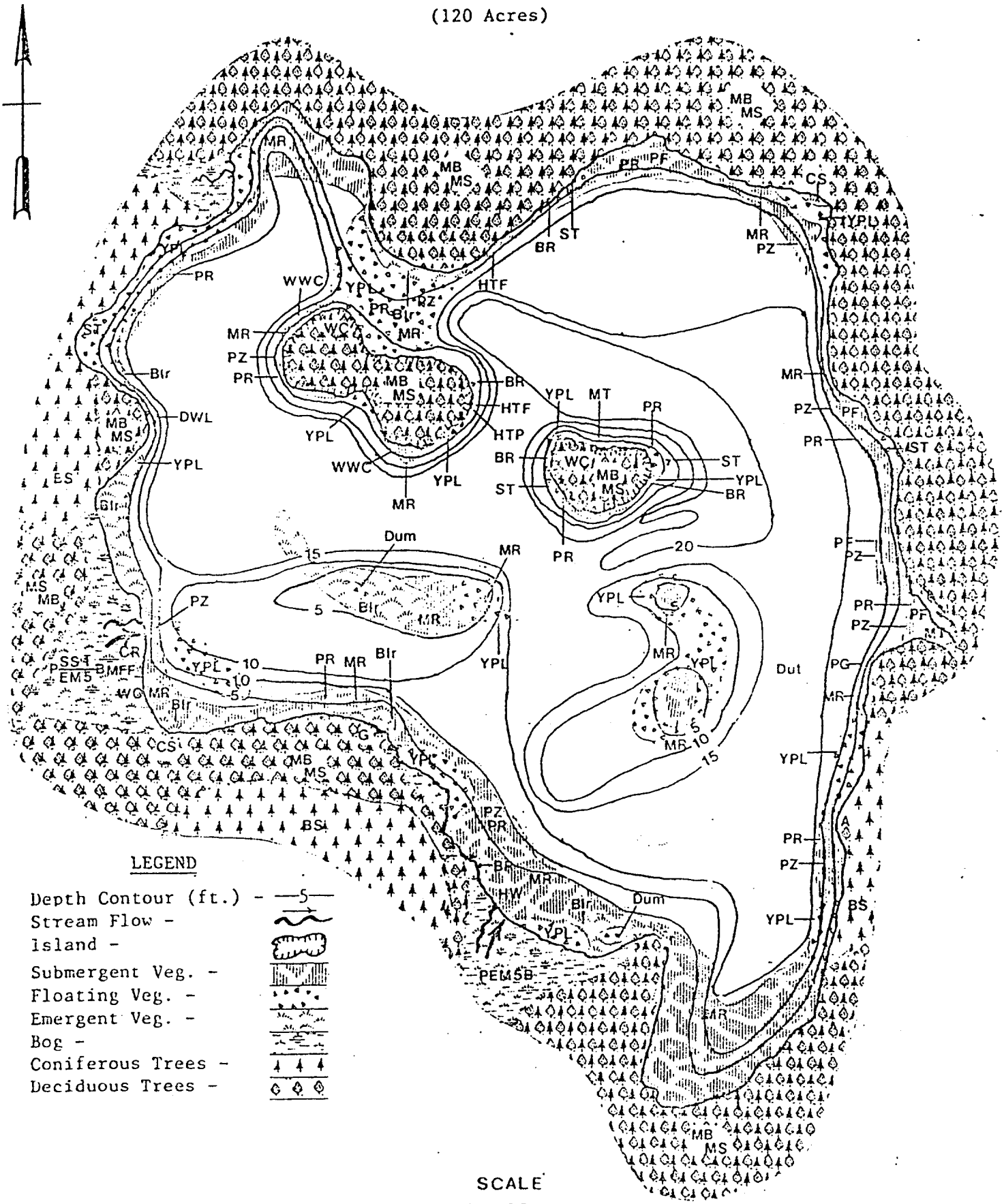
MAXIMUM DEPTH 22 feet

FISH SPECIES PRESENT
Rainbow trout

Figure 1.

TWO ISLAND LAKE

(120 Acres)



STATE OF ALASKA
Department of Natural Resources
Division of Geological & Geophysical Surveys

KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Birch Tree Lake LAKE NUMBER: 10

DATA SOURCE	VARIABLE	READING	Samp. DEPTH ~~(M)~~ FT	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game, 1971, Federal aid in fish restoration -- Annual report of progress, 1970-1971: ADFG Sport Fish Div. Project F-9-3, v. 12, p. 55.	surface area	112 acres		1970	acreage determined by map grids from USGS maps, (1:63,360)
	maximum observed depth	23 ft		1970	P-100 Ross depth finder
AK Dept. Fish and Game, Soldotna office unpublished data file	secchi reading	13 (ft?)		1970	
	water temperature	66°F	surface	7/8/70	NS
	dissolved oxygen	8.0 mg/L	"	"	"
	pH	7.0	"	"	"
	total alkalinity	14 mg/L	"	"	"
	dissolved oxygen	9 mg/L	5 30" ice 6" snow	4/8/76	"
	pH	6.3	"	"	"
	dissolved solids	25 mg/L	"	"	"

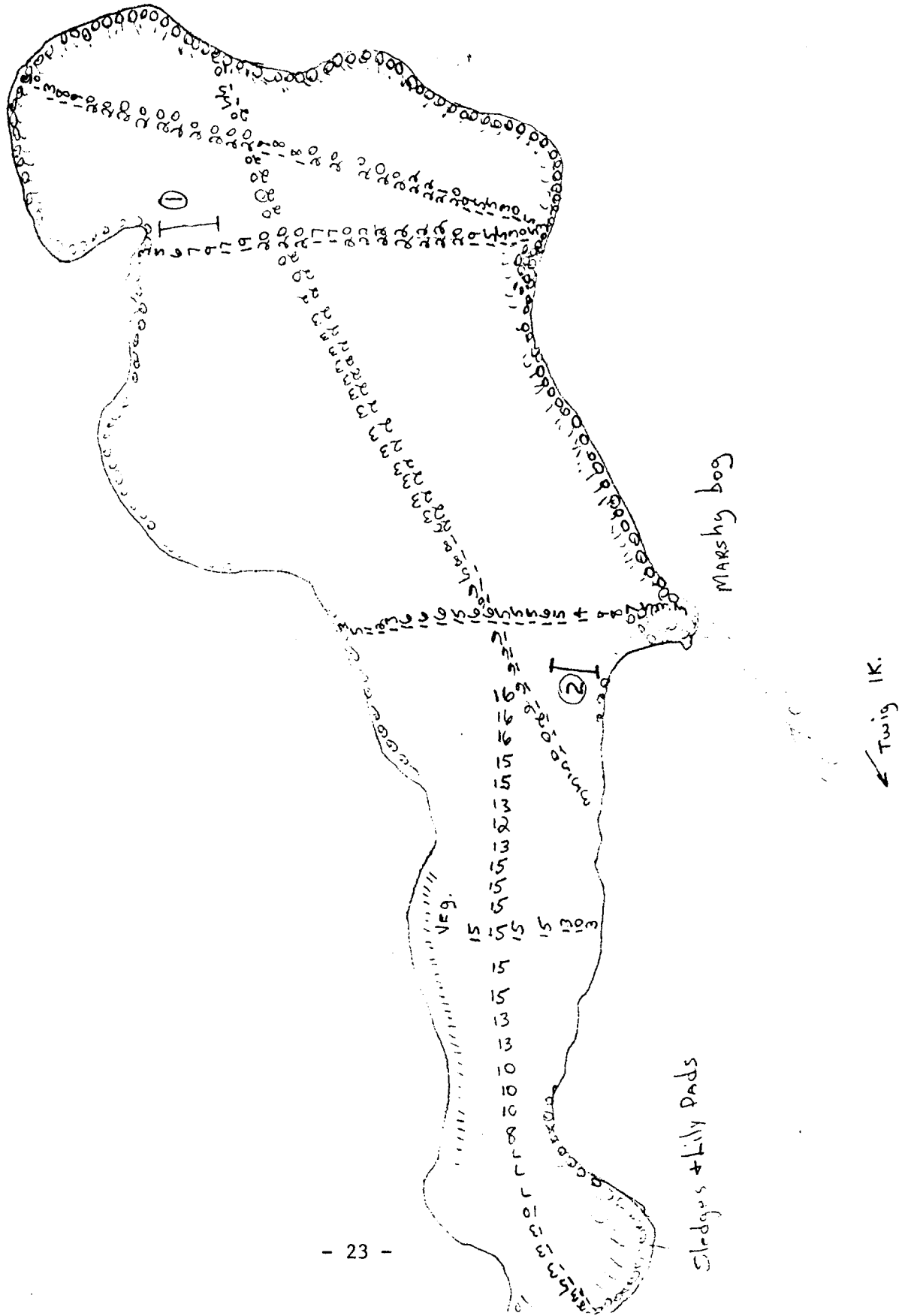
C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS: not stated

COMMENTS: ADFG 7/8/70 fish survey results: stickleback
no inlets or outlets
1970 survey: water level 3 ft. below normal as indicated by old level on large rock
Bathymetric map attached

unpublished data at ADFG office Soldotna

Birch Tree Lake Lake number: 10

measurement in feet



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Hat Lake LAKE NUMBER: 15

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game, 1966, Federal aid in fish restoration project--Annual report of progress 1965-1966: ADFG Sport Fish Div. Project F-5-R-7, v. 7, p. 64.	surface area	28 acres		1965	acreage determined by map grids from USGS maps, (1:63,360)
	maximum observed depth	18 ft		1965	P-100 Ross depth finder

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method

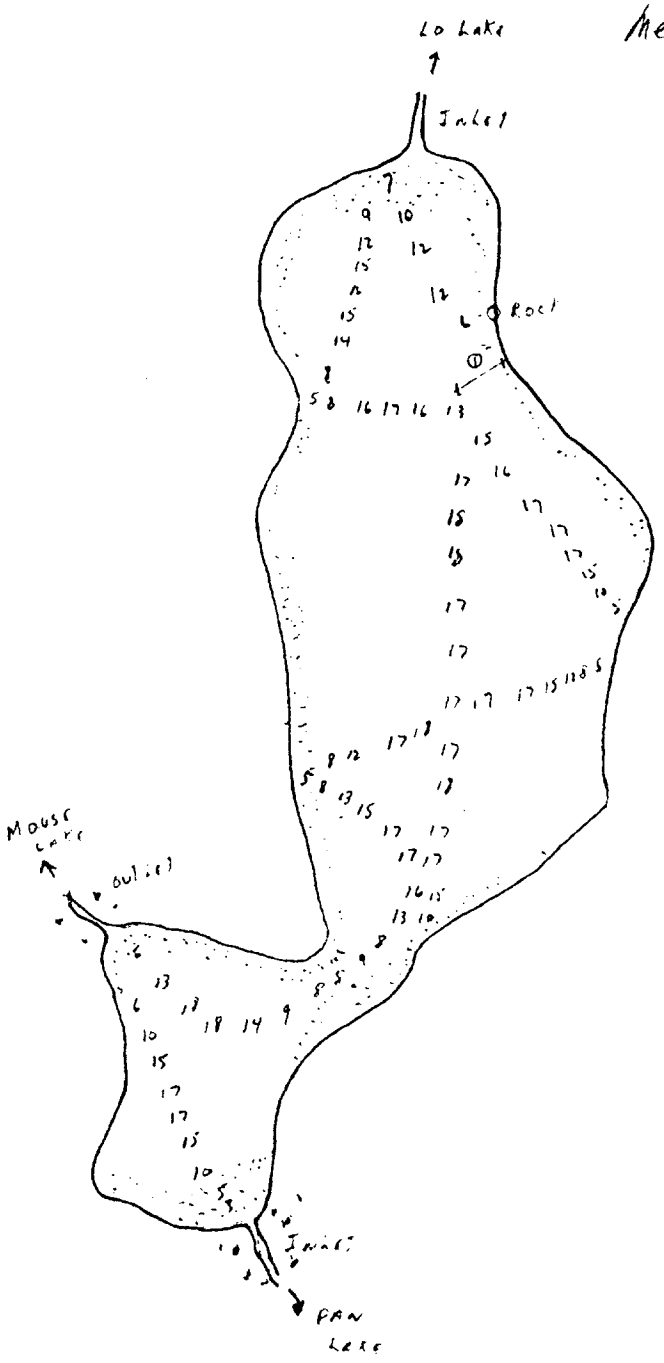
COMMENTS: 1965 ADFG fish survey results: rainbow trout, stickleback, longnose sucker
Inlets: two unnamed tributaries originating in Pan Lk and Lo Lk. Discharge: 1-5 cfs
Outlets: small stream drains to Mouse Lk. Discharge: 1-5 cfs.
bathymetric map attached.

unpublished data at ADFG office, Soldotna.

Hat Lake

Lake number : 15

Measurement in feet



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Moose Pasture Lake LAKE NUMBER: 18

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
US Fish and Wildlife Service, Fisheries office, Soldotna, unpublished data file	surface area	66 acres		9/4/85		NS	
	pH	8.0	NS	"		"	
	water temperature	14.5 °C	NS	"		"	
	conductivity	124.2 units at 11 °C	NS	"		"	
	alkalinity	57 mg/L	"	"		"	
	hardness	60 mg/L	"	"		"	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: USFWS 1985 fish survey: stickleback, rainbow trout, longnose sucker

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Vixon Lake LAKE NUMBER: 19

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
US Fish and Wildlife Service, Fisheries office, Soldotna, unpublished data file	pH	4.9	surface	7/2/80	NS
		4.9	3	"	"
		5.6	6	"	"
	alkalinity	5.0 mg/L	surface	"	"
		5.0 mg/L	3	"	"
		15.0 mg/L	6	"	"
	conductivity	11.0 umhos	surface	"	"
		10.4 umhos	3	"	"
		10.2 umhos	6	"	"
	color	.058 units (?)	surface	"	"
		.044 (?)	3	"	"
		.044 (?)	6	"	"
	water temperature	60°F	surface	"	"
		60°F	3	"	"
		59°F	6	"	"

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: _____

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Pan Lake LAKE NUMBER: 21

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. of Fish and Game, 1966, Federal aid in fish restoration project -- Annual report of progress, 1965-1966: ADFG Sport Fish Div., Project F-5-R-7, V. 7, p. 65.	surface area	10 acres		1965		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	17 ft		1965		P-100 Ross depth finder	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method

COMMENTS: 1965 ADFG fish survey: rainbow trout, stickleback, longnose sucker
Inlets small unnamed stream from Rodent Lake. Discharge = <1 cfs
Outlets: unnamed stream drains to Hat Lake Discharge: <1 cfs.
Bathymetric map attached

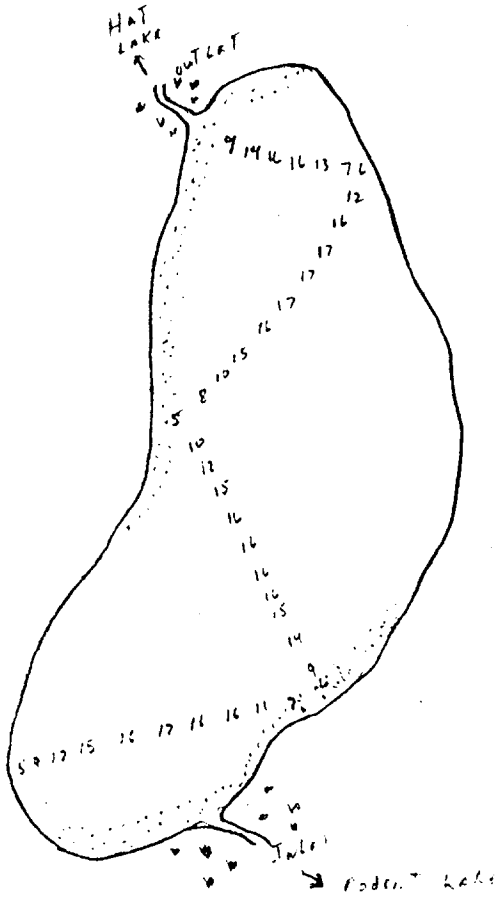
unpublished data at ADFG office, Soldotna

NORTH

Pan Lake

Lake number: 21

measurement in feet



Lily Pads

Water lilies

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Laura Lake LAKE NUMBER: 28

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
AK Dept. Fish and Game, 1965, Federal aid in fish restoration project--Annual report of progress, 1964-1965; ADFG Sport Fish Div. Project F-5-R-6, V. 6, p. 116.	surface area	21 acres		1964	acreage determined by map grids from USGS maps, (1:63,360)
	maximum observed depth	25 ft		1964	NS

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: lake stocked w/rainbow trout in 1984 and 1986 — unpublished data ADFG office Soldotna
ADFG 1964 fish survey results: rainbow trout and silver salmon

AK Dept. of Fish and Game lake name is Thetis Lake

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Timberlost Lake LAKE NUMBER: 29

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M) Ft	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1965, Federal aid in fish restoration project--Annual report of progress, 1964-1965: ADFG Sport Fish Div. Project F-5-R-6, v. 6, p. 116.	surface area	79 acres		1964		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	12 ft		1964		NS	
AK Dept Fish and Game, Soldotna office, unpublished data file	water temperature	64 °F	surface	7/12/64		NS	
	"	64 °F	3	"		NS	
	"	64 °F	6	"		NS	
	"	64 °F	9	"		NS	
	"	64 °F	12	"		NS	
	surface area	120 acres		1964		NS	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

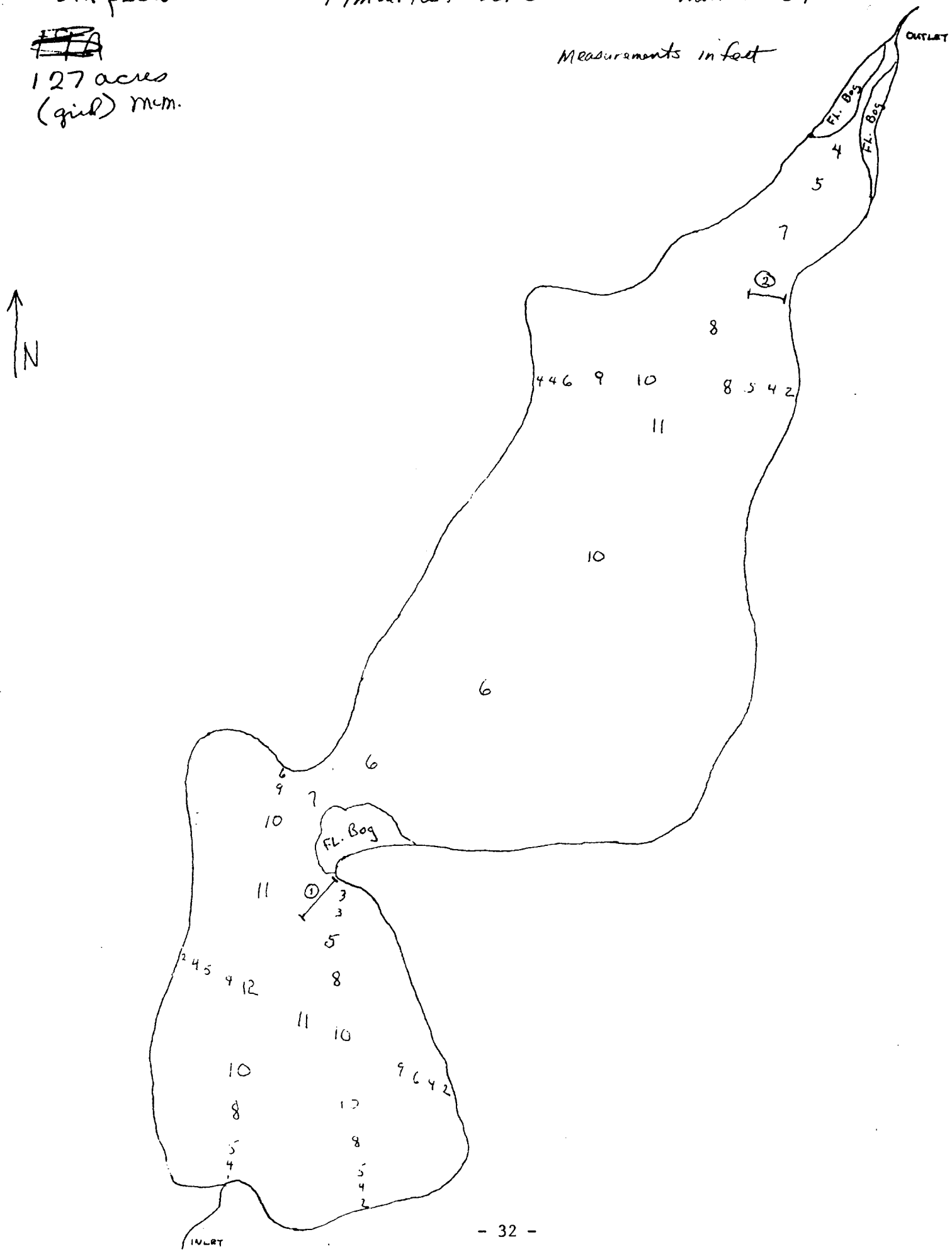
COMMENTS: Referred to as Thompson Lake, in ADFG (1965)
ADFG 1965 fish survey results: stickleback, 1964 survey: rainbow trout longnose suckers stickleback
inlets: east side of lake
outlets: NE end of lake drains into Bishop Creek. Discharge = 3 cfs
bathymetric map attached

unpublished data at ADFG office, Soldotna

Timberlost Lake Lake number: 29

Measurements in feet

127 acres
(gild) mcm.



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Anerta Lake LAKE NUMBER: 32

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
Ak Dept. Fish and Game, 1966, Federal aid in fish restoration project--Annual report of progress 1965-1966 ADFG Sport Fish Div. Project F-5-R-7, v. 7, p. 6's.	surface area	33 acres		1965		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	26 ft		1965		NS	

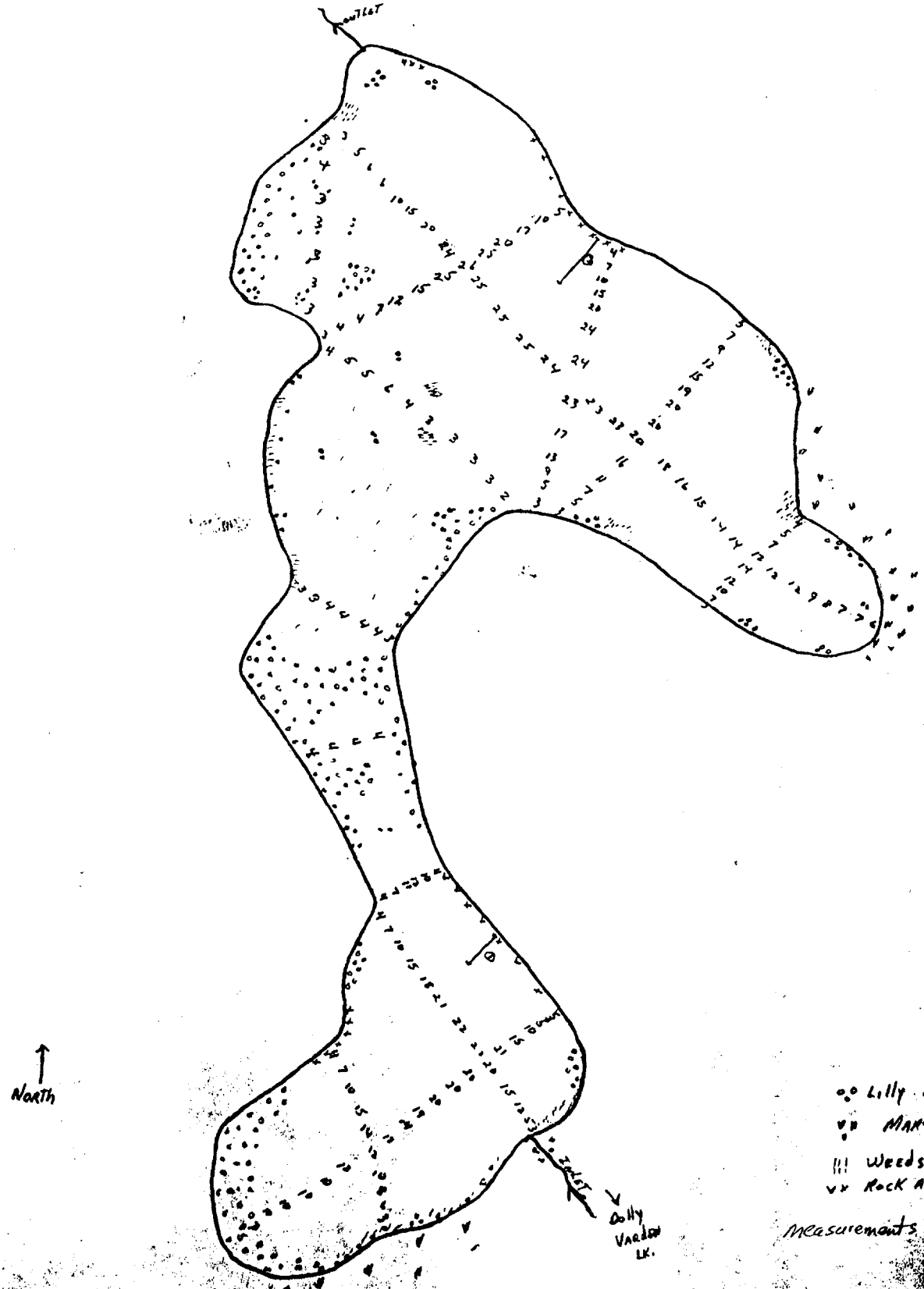
C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: Inlet: unnamed stream from Dolly Varden Lake Discharge = < 3cfs
Outlet: drains into pond to NW; main drainage is Swanson River Discharge = < 3 cfs
Arctic char and rainbow trout present
Bathymetric map attached
AK Dept. of Fish and Game's lake name is Anertz Lake

unpublished data of AK Dept. Fish and Game office, Soldotna

(Anertz)
Anerta Lake

Lake number: 32



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Canoe Lake #3 LAKE NUMBER: 33

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1965, Federal aid in fish restoration project -- Annual report of progress 1964-1965: ADFG Sport Fish Div. Project F-5-R-6, V. 6, p. 123.	surface area	28 acres		NS		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	19 ft		NS		NS	
US Fish and Wildlife Service data forms in AK Dept. Fish and Game unpublished data file, Soldotna office	dissolved oxygen	11.4 mg/L	surface	7/16/74	NS	NS	
	carbon dioxide	5.0 mg/L	"	"	"	"	
	pH	8.2	"	"	"	"	
	total alkalinity	100 mg/L	"	"	"	"	
	conductivity	100 µmhos	"	"	"	"	
	turbidity	1 JTU	"	"	"	"	
	Cl	4.0 mg/L	"	"	"	"	
	ortho P	0.3 mg/L	"	"	"	"	
	NO_2 + NO_3	0.05 mg/L	"	"	"	"	
	total hardness	70 mg/L	"	"	"	"	
	pH	7.72	surface	6/19/80	"	"	
		7.68	NS	"	"	"	
		7.48	5	"	"	"	
	alkalinity	48 mg/L	surface	"	"	"	
		49	NS	"	"	"	
		49	5	"	"	"	
	conductivity	100 µmhos	surface	"	"	"	
		98	NS	"	"	"	
		91	5	"	"	"	
	color	.151 units ?	surface	"	"	"	
		.150	NS	"	"	"	
		.170	5	"	"	"	
	water temperature	60 °F	surface	"	"	"	
		58	NS	"	"	"	
		54	5	"	"	"	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: 1964 fish survey results: rainbow trout, silver salmon, arctic char, longnose sucker, sculpin, stickleback

inlets: unnamed creek enters on SE shore (originates in Canoe L. #4) Discharge = 2-10 cfs

outlets: unnamed creek at NW end drains to Canoe L. #2 Discharge = 2-10 cfs

Bathymetric map attached

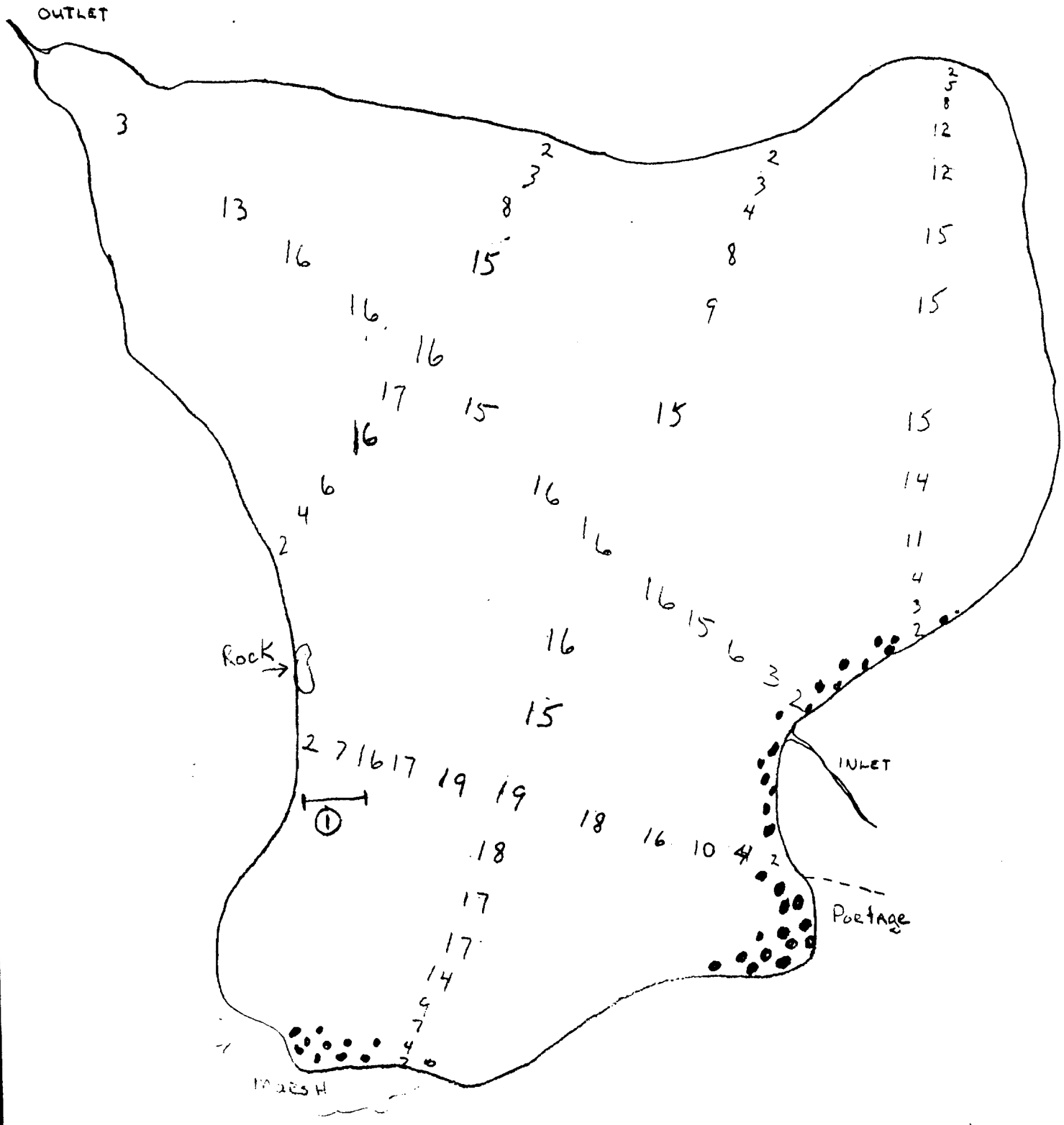
unpublished data at ADFG office, Soldotna

N

28H

Canoe Lake no. 3 Lake number: 33

Measurement in feet



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Arctic Loon Lake LAKE NUMBER: 34

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1966, Federal aid in fish restoration project--Annual report of progress, 1965-1966: ADF&G Sport Fish Div, Project F-5-R-7, v. 7, p. 64	surface area	30 acres		1965		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	23 ft		1965		NS	

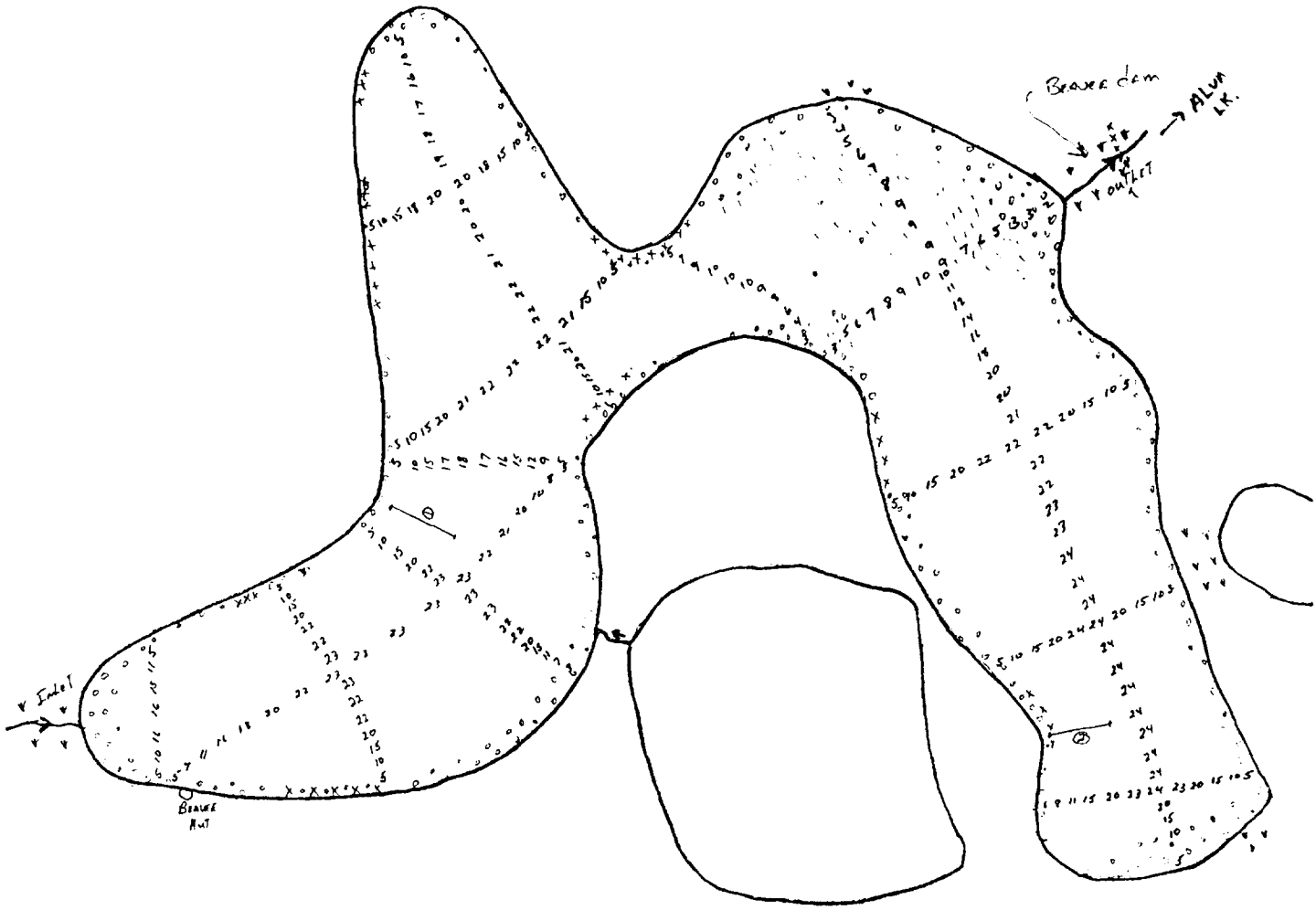
C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: 1965 fish survey results: rainbow trout, silver salmon, stickleback
inlets: unnamed trib. on westside, and unnamed tributary on southend originating in a 5 acre pond. Discharge = < 3 cfs
outlets: unnamed creek drains into Alva Lake, main drainage is Swanson River. Discharge = < 3 cfs. Bathymetric map attached.

unpublished data at ADF&G office, Soldotna

Arctic Loon Lake Lake number: 34

measurement in feet



NORTH

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Little Heart Lake LAKE NUMBER: 43

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1968, Federal aid in fish restoration project=-Annual report of progress, 1967-1968: ADFG Sport Fish Div., Project F-5-R-9, v. 9	surface area	35 acres		1967		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum observed depth	15 ft		1967		NS	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: 1967 fish survey results: stickle back
no inlets or outlets observed
Bathymetric map attached
} unpublished data at AK Dept. Fish and Game, Soldotna

Little Heart Lake

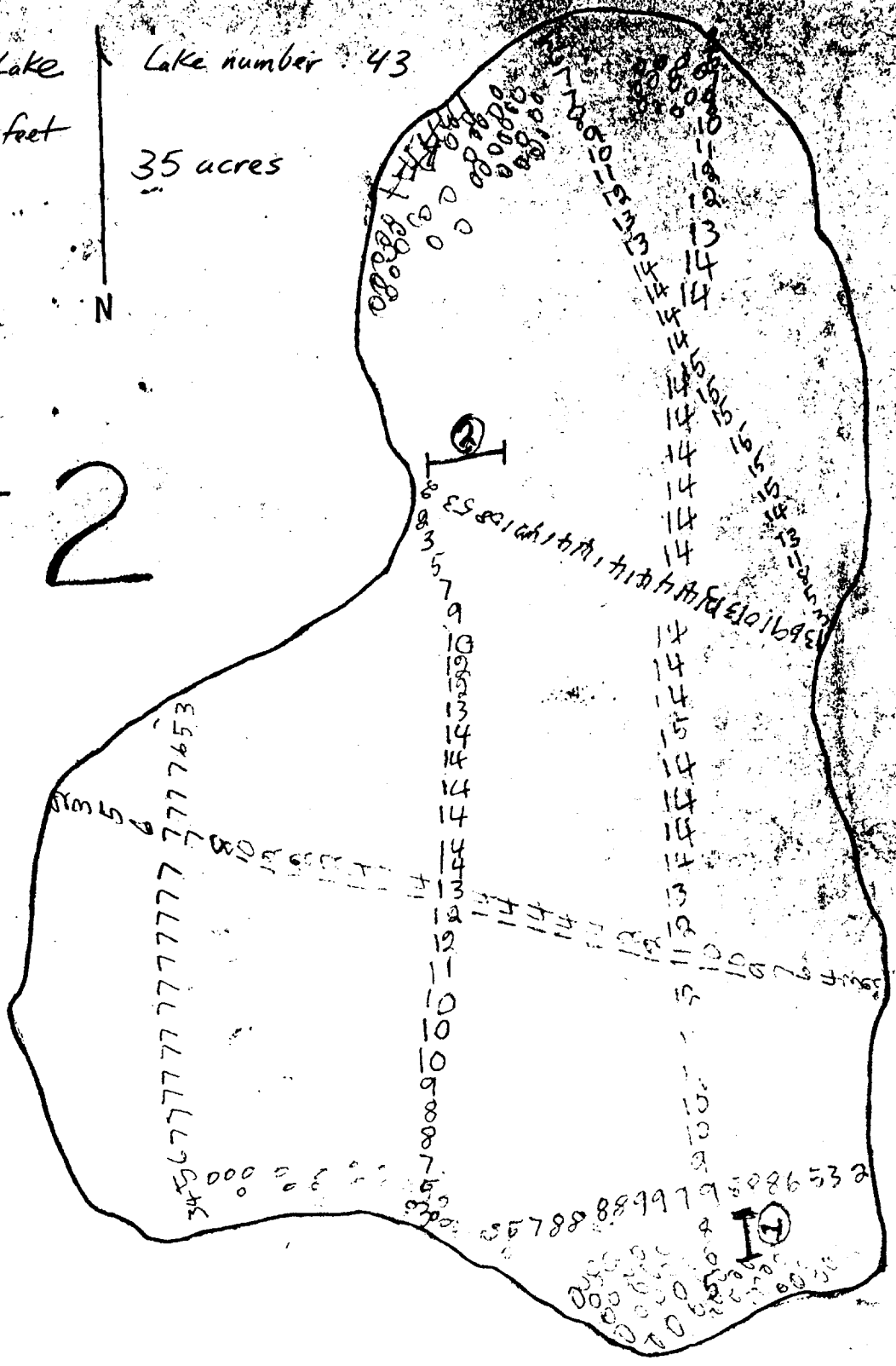
Lake number : 43

measurement in feet

35 acres

N

2



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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Yellowjacket Lake LAKE NUMBER: 49

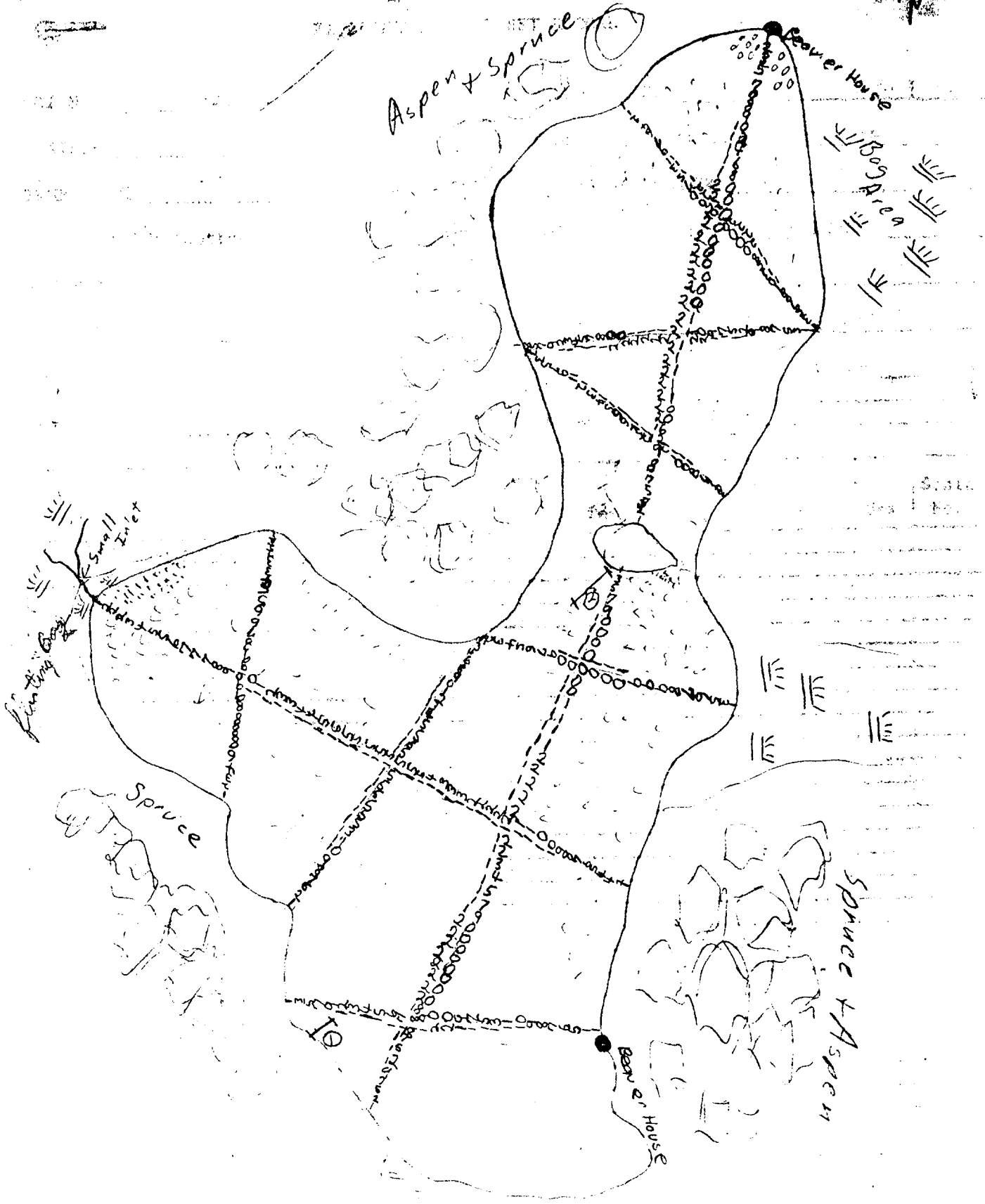
DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1969, Federal aid in fish restoration project--Annual report of progress 1968-1969: ADFG Sport Fish Div., Project F-9-1, v. 10, p. 121.	maximum observed depth	21 ft		NS		NS	
	surface area	38 acres		NS		acreage determined by map grids from USGS maps, (1:63,360)	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: ADFG 1968 fish survey results: stickleback
inlets: Small inlet on west side of lake
Bathymetric map attached.

unpublished data at ADFG office, Soldotna

Yellowjacket Lake
38 acres
Lake number : 49
Measurement in feet



Burn Area

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Derks Lake LAKE NUMBER: 56

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M)	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game, Federal aid in fish restoration -- Annual performance report, 1976-1977: ADFG Sport Fish Div., Project F-9-9, V. 18, p. 35.	surface area	33 acres		NS	NS
	volume	379 acre-feet		NS	Raytheon Recording Fathometer
	maximum depth	17 ft		NS	Ross P-100 depth finder
	average depth	11.4 ft		NS	"

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: ADFG 1976 fish survey results: northern pike, rainbow trout, and stickleback. } unpublished data at ADFG office Soldotna

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Agua-Linda Lake LAKE NUMBER: 58

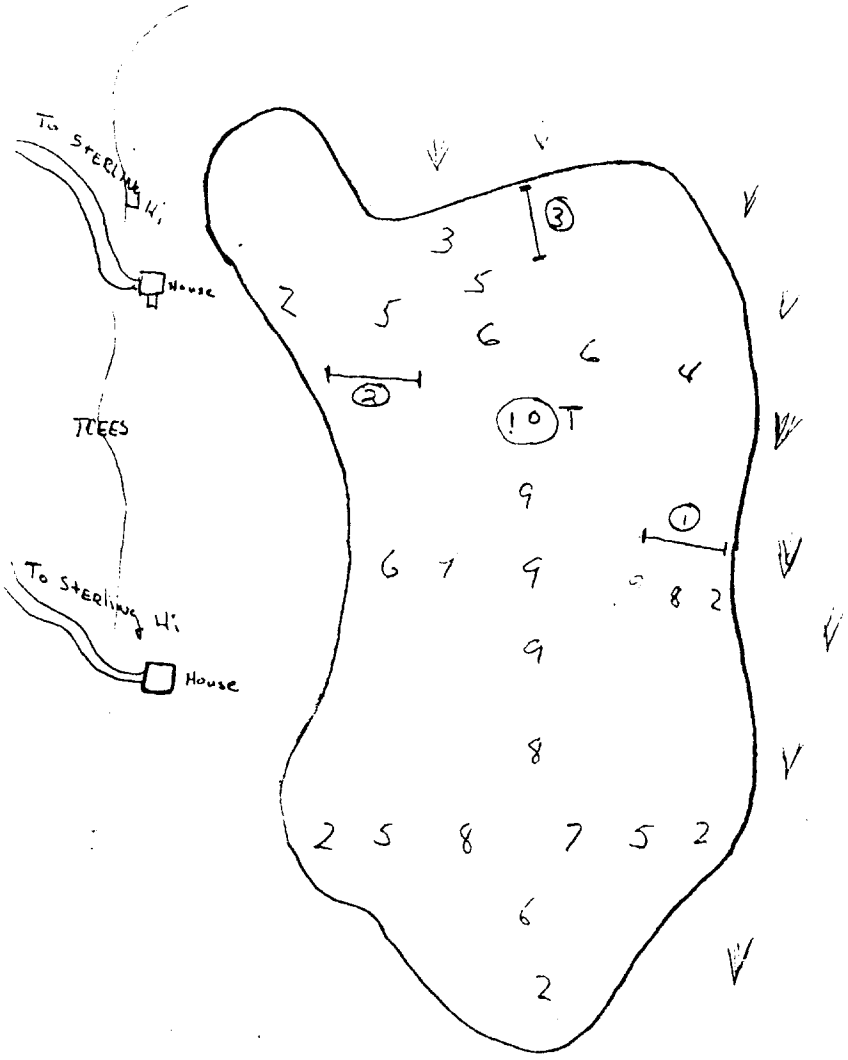
DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M) FT	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. Fish and Game, 1961, Federal aid in fish restoration project.. Annual report of progress, 1960-1961: ADFG, Sport Fish Div., Project F-5-R-2, V. 2, p. 17	maximum lake depth	10 ft		8/21/60		hand line	
	pH	7.2	8	"	NS	NS	
	total alkalinity	40 ppm	8	"	NS	NS	
	surface area	30 acres		NS		NS	
AK Dept. of Fish and Game, Soldotna office, unpublished data file	water temperature	63°F	surface	8/21/60		NS	
	dissolved oxygen	7.6 mg/L	surface and 8ft	"		"	
	pH	7.5	surface	"		"	
	total alkalinity	40 ppm	surface	"		"	

C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: ADFG 1960 fish survey results: stickleback
no inlets or outlets
Bathymetric map attached

unpublished data at ADFG office, Soldotna

Aqua-Linda T. 3N R 11W Sec 20 Lake number: 58
30 Acres (est) measurement in feet



TEMP PROFILE (11-1-61)

Depth	Temp °F
0	63°
3	63°
6	63°
9	63°

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Moon Lake LAKE NUMBER: 62

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M) FT	DATE C. A.	METHOD F. L.
AK Dept. of Fish and Game, Soldotna office, unpublished data file	surface area	111 acres		6/24/71	NS
	maximum depth	28 ft		"	NS
	Secchi disk	25 (ft?)		"	
	water temperature	68°F		"	NS
	dissolved oxygen	8 mg/L		"	"
	pH	7.0		"	"
	total alkalinity	7 mg/L		"	"
US Fish and Wildlife Service, Fisheries Office, Soldotna, unpublished data file	dissolved oxygen	10 mg/L	surface	3/8/78	"
		6 mg/L	12	"	"
		5.5 mg/L	25	"	"
	water temperature	3°C	surface	"	"
	pH	6.5	"	"	"
	total alkalinity	<10 mg/L	"	"	"
	total hardness	<10 mg/L	"	"	"
	conductivity	10 umhos	"	"	"

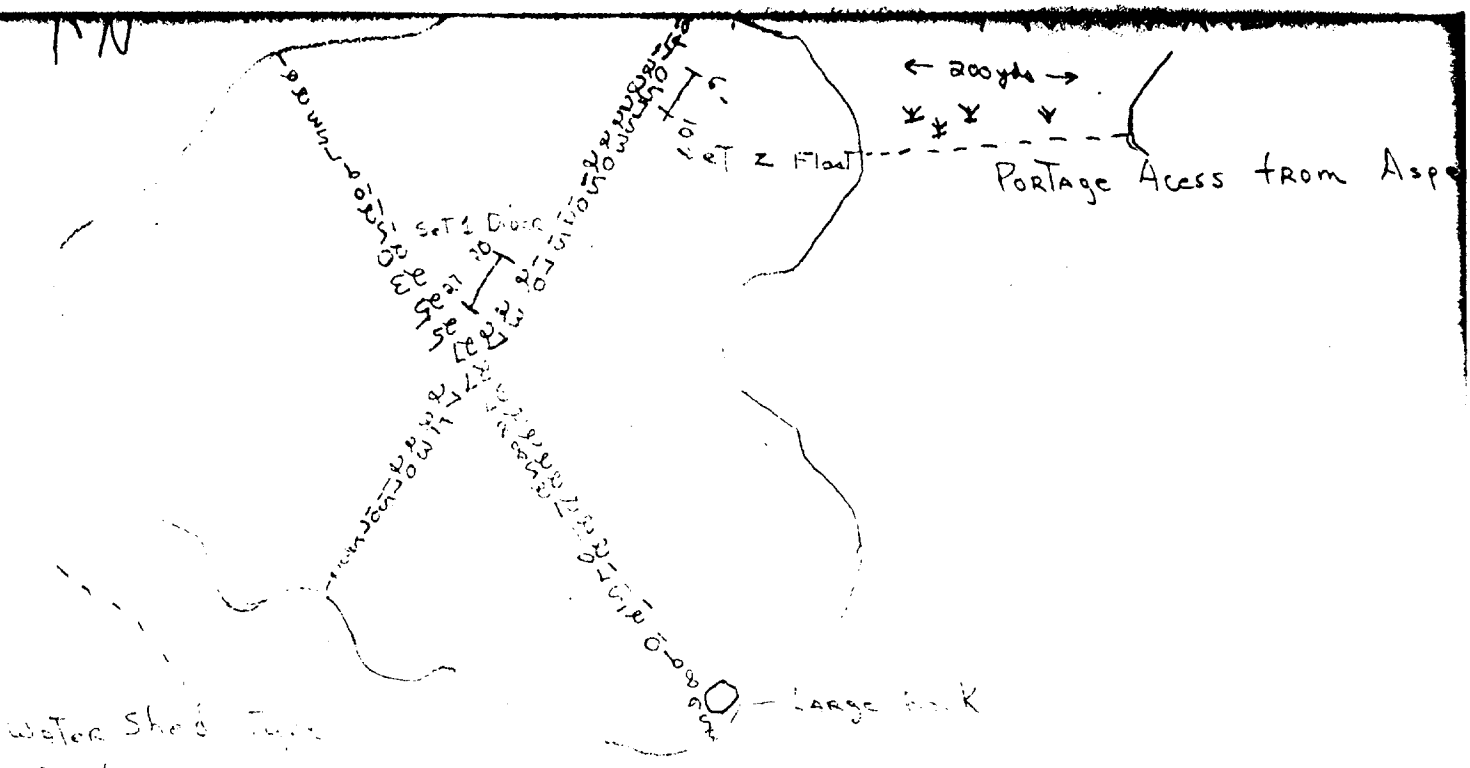
C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

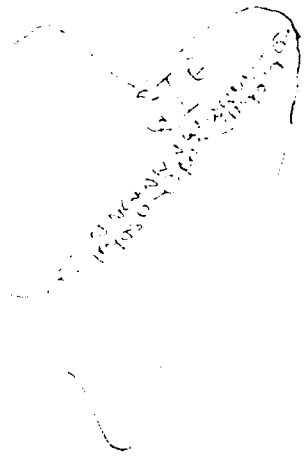
COMMENTS: no inlets or outlets
1971 ADFG fish survey results: no fish taken
bathymetric map attached

unpublished data at ADFG office, Soldotna

Moon Lake Lake number : 62

measurement in feet





MALINDA LAKE

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KENAI LAKES INVESTIGATION PROJECT

LAKE NAME: Millco Lake LAKE NUMBER: 64

DATA SOURCE	VARIABLE	READING	Samp. DEPTH (M) FT	DATE C.	DATE A.	METHOD F.	METHOD L.
AK Dept. of Fish and Game, Soldotna office, unpublished data file	Water temperature	64.5 °F	0	7/19/68		NS	
	"	64.5 °F	3	"		"	
	"	64.5 °F	6	"		"	
	"	64.5 °F	9	"		"	
	"	64 °F	12	"		"	
	"	64 °F	15	"		"	
	"	63 °F	18	"		"	
	"	58 °F	21	"		"	
	"	56.5 °F	24	"		"	
	"	55.5 °F	25	"		"	
AK Dept. Fish and Game, 1969, Federal aid in fish restoration project -- Annual report of progress, 1968-1969: ADFG, Sport Fish Div., Project F-9-1, v. 10, p. 121	surface area	20 acres		NS		acreage determined by map grids from USGS maps, (1:63,360)	
	maximum lake depth	26 ft		NS		NS	

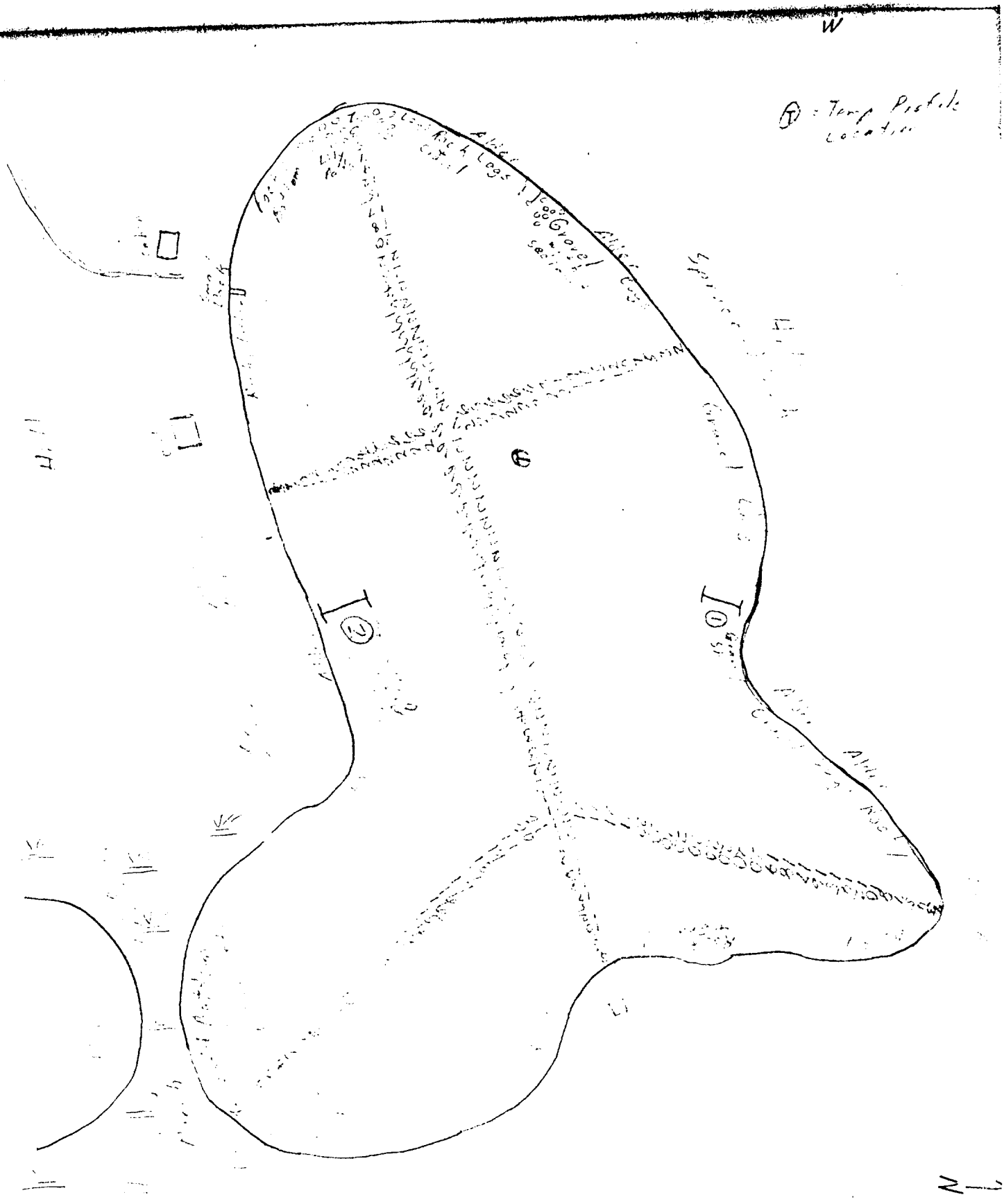
C. = Collection Date
A. = Analysis Date
F. = Field Method
L. = Lab Method
NS = not stated

COMMENTS: 1968 ADFG fish survey results: stickleback
Inlets: None (springs probably present)
Outlets: limited seepage
bathymetric map attached

unpublished data at ADFG office, Soldotna

Millco Lake

Lake number : 64



APPENDIX C-1

Selected water chemistry data for KLIP Lakes[1]

Lake	pH	Total alkalinity*	Specific conductance (µmhos)
Taiga	6.5	10	17
Unnamed #8	4.0	-	-
Two Island	7.5	89	177
Birch Tree	7.0	14	-
Moose Pasture	8.0	57	124.2
Vixon	4.9	5	11
Pan	7.5	-	174
Canoe L. #3	7.72	48	100
Derks	6.9	-	31
Aqua-Linda	7.5	40	11
Moon	7.0	7	-
Hat	8.0	-	153
$\overline{X}$ =	6.9	33.7	88.7
n =	12	8	9

* (mg/L as $CaCO_3$)

[1] Data source: Appendices A & B in this report and data referenced in Maurer and Woods (1987).

APPENDIX C-2

Selected water chemistry data for northern Kenai Peninsula Lakes[1]

Lake	pH	Total alkalinity*	Specific conductance (umhos)
Aqua-Linda	7.2	40	-
Arc	6.1	20	-
Beaver	7.6	49	109
Bedlam	7.7	59	129
Bernice	6.3	84	-
Big Merganser	6.9	14	50
Bird	7.4	39	99
Bishop	6.6	37	90
Bottenintnin	6.9	7	24
Cabin	6.6	7	45
Canoe	7.5	57	138
Centennial	-	8	26
Daniels	6.7	36	90
Dogbone	5.4	0.5	21
Dolly Varden	7.1	17	34
Douglas	6.4	5	20
East Finger	7.1	15	37
Encelewski	-	10	-
Engineer	7.6	25	61
Fish	7.2	16	36
Forbaugh	6.2	10	-
Forest	7.2	24	58
Georgine	5.6	2	15
Gruskka	7.0	50	115
Island	6.6	16	50
Emma	6.2	34	88
Johnson	-	25	50
Kelly	7.8	59	122
Kidney	6.8	10	33
King	7.8	63	133
Konovalof	6.1	6	18
Longmare	-	3	19
Lower Ohmer	7.7	48	105
Lower Salamatof	6.6	24	70
Martins	7.0	10	-
McLane	7.2	90	-
McLain	7.4	46	87
Middle Finger	7.0	13	26
Moose	7.2	45	96
Mosquito	7.1	16	35
Mull	7.5	61	127
Neckshortka	7.3	31	66
Nordic	7.3	20	-

* (mg/L as $CaCO_3$)

[1] Data source: data referenced in Maurer and Woods (1987).

Appendix C-2 (continued)

Lake	pH	Total alkalinity*	Specific conductance (μmhos)
N. Joseph	6.2	40	-
Ophar	-	10	-
Paddle	7.6	41	96
Petersen	7.7	67	139
Pennoyer	7.2	70	-
Portage	6.7	3	24
Rainbow	7.2	18	42
Reeder	6.5	10	-
Rock	7.6	44	98
Salamatof	7.0	-	-
Sandpiper	7.2	38	104
Scenic	7.4	74	124
Scout	-	13	31
Shadura	5.5	2	12
Short Pine	6.4	12	45
Silver	7.3	29	70
Snag	7.2	29	68
South Joseph	-	-	10
Sportsfish	7.0	47	105
Sports	-	10	25
Sunken Island	7.0	23	45
Tangerra	7.4	32	81
Trapper Joe	7.7	48	104
Two Island	7.5	89	177
Unnamed (1.0 mi (NE Island)	6.4	-	-
Unnamed (0.5 mi (E Bernice)	6.8	-	-
Unnamed (SE Bernice)	6.5	-	-
Unnamed (NE Cabin)	4.9	-	-
Puddle ("unnamed" SE Cabin)	6.1	2	-
Upper Cohoe	7.5	-	-
Watson	7.2	68	157
Weed	6.7	4	26
Wik	5.4	2	14
Wilderness	7.3	50	106
$\overline{X}$ =	6.9	30.4	69.4
n =	69	70	58

* (mg/L as $CaCO_3$)

APPENDIX C-3

Selected water chemistry data for Nancy Lake State Recreation Area and vicinity[1]

Lake	pH	Total alkalinity*	Specific conductance (μmhos)
Willow	6.5	29	65
Florence	7.6	69	137
Kelley L.	6.75	-	-
Crystal	6.3	4	13
Honeybee	7.0	20	41
Lynne	7.5	36	77
Denaina	-	7	19
Nancy	7.0	60	88
South Rolly	7.0	14	31
Little NoLuck	-	-	20
Big NoLuck	-	6	19
Chicken	-	6	14
Owl	-	5	-
James	-	9	-
Lynx	-	38.5	-
Houston	7.1	12	28
Gunmetal	6.8	22	43
Red Shirt	-	42	-
Heart	7.0	13	28
Buckley	6.6	10	24
Butterfly	7.1	13	34
Skeetna	7.0	16	39
Delyndia	-	19	50
Muleshoe	-	11	28
Horseshoe III	7.1	19	40
#155	5.6	6	17
Colt	-	12	27
Hourglass	-	29	55
Lake 13	7.4	31	66
Windy	6.8	23	51
Lilly	6.7	44	90
Hock	7.6	32	98
Crooked	-	29	57
#16	6.9	26	54
Jean	6.5	-	-
Lynx	-	38.5	-
$\bar{X}$ =	6.9	22.7	46.6
n =	22	33	29

* (mg/L as $CaCO_3$)

[1] Data source: data referenced in Maurer and Woods (1987).

APPENDIX C-4

Selected water chemistry data for Matanuska-Susitna Valley lakes[1]

Lake	pH	Total alkalinity*	Specific conductance (µmhos)
Anderson	8.3	45	89
Bairds	-	89	184
Barley	-	-	123
Bear Paw	-	-	9
Bench	7.3	68	50
Big	7.4	64	112
Bradley	-	-	365
Canoe	7.3	112	277
Christiansen	7.6	20	40
Cornelius	8.0	137	170
Cottonwood	8.5	120	150
Dairy	5.8	51	83
Dawn	-	-	27
N. Dry	6.8	74	145
S. Dry	7.1	60	122
Echo	7.7	128	307
Falk	-	105	234
Farmer	5.3	26	26
Carpenter	-	12	29
Finger (W Big Lake)	7.7	29	57
Finger (E Big Lake)	-	107	206
Gen	-	108	219
Harriet	-	126	265
High Ridge	-	85	193
Horseshoe (Big L)	7.4	28	54
Horseshoe I	7.2	20	42
Horseshoe II	7.4	29	55
Horseshoe IV	6.9	11	28
Horseshoe	7.9	78	157
Irene	7.5	99	221
Jacobson	6.5	-	-
Jim	7.2	115	250
Johnson	-	71	148
Junction	-	111	234
Kalmback	7.3	36	68
Kepler	-	139	344
Kings	8.6	49	93
Knik	7.4	86	174
Long (Big L)	7.9	66	129
Long (Palmer)	-	126	246
Loon	6.0	4	12
Lorraine	7.4	25	65

* (mg/L as $CaCO_3$)

[1] Data source: data referenced in Maurer and Woods (1987).

Appendix C-4 (continued)

Lake	pH	Total alkalinity*	Specific conductance (µmhos)
Lost	6.8	51	87
Lucille	-	66	134
Lucy	8.5	120	90
Marion	-	4	9
Matanuska	-	131	286
Morvro	6.25	-	-
McLeod	-	50	122
Memory	7.2	21	41
Mud	8.5	120	150
My	7.9	44	99
Nicklason	8.0	120	195
Prator	-	4	11
Rocky	7.3	20	40
Seymour	-	48	102
Sliver	-	-	213
Talkeetna	-	-	32
Tigger	-	19	34
Twelvemile	-	4	10
Twin Island	6.8	68	108
Victor	7.6	99	228
Walby	-	-	186
Wasilla	8.3	93	170
Wolf	-	-	138
Y	-	-	32
Yohn	7.0	18	72
Zero	6.6	13	30
Twin	6.5	-	-
Reed	-	-	85
Rock (nr Jim L)	7.0	66	115
$\bar{X}$ =	7.3	66.2	126.8
n =	42	58	68
includes Nancy Lake area			
$\bar{X}$ =	7.2	50.4	102.8
n =	64	91	97

* (mg/L as $CaCO_3$)