

U.S. DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY

Site No. 1906 0000-
Busin Index 13CC

WATERPOWER OF THE UNITED STATES

State ALASKA Stream Anita Creek - ETOLIN Island Site ANITA LAKE

County First Judicial Division Owner _____
Mer. Copper River T. 64 S R. 84 E Sec. 5 Constructed _____
Lat. 56° 16' 30" N Long. 132° 26' 30" W Storage 12,100 of by raising lake m³
Miles above mouth 2.2 Installable capacity _____ mw
Drainage Area 2.3 sq. mi. _____ sq. km Annual generation _____ mwh
Secondary energy _____ mwh

FLOW			ELEVATIONS				HEAD		THEORETICAL POWER mw-100 % Eff.	ESTIMATED AVERAGE ANNUAL GENERATION mwh
Percent duration	cfs	m³/sec	Forebay		Tailrace		Gross			
			ft.	m	ft.	m	ft.	m		
95	4		1440		1380 1/2		70			Firm
50	25									
mean	28 1/2								0.167	

Remarks: Flows need to be Evaluated, Isohyetal map^{3/} indicates lower rainfall than used in 1947 report.
TOTAL USABLE STORAGE of 17,900 ac ft can be obtained by topping lake 50' below surface.
If powerhouse located at Kunk Lake, Head = 1440 - 315 = 1125 feet, power = 2.678, 1800' tunnel, 3500' penstock.
^{1/} See "Water Powers of SOUTHEAST ALASKA", FPC & USFS, 1947, pg 92
^{2/} see FPP 2189
^{3/} See "A Proposed Streamflow Data Program in ALASKA" USGS, 1970, pg 34

WATERPOWER OF THE UNITED STATES

State	Alaska	Stream	Anita Lake	Site	Anita Lake
County	First Judicial Division			Owner	
Mer.	<u>Copper R. T. 64 S</u>	R.	<u>84 E</u>	Constructed	
Lat.	<u>56 16.5</u>	Long.	<u>132 26.5</u>	Storage	<u>16,000</u> af <u>19,735,840</u> m ³
Miles above mouth				Installed capacity	
Drainage Area	<u>2.3</u> sq. mi.		<u>5.96</u> sq. km	Installable capacity	

FLOW			ELEVATIONS				HEAD		THEORETICAL POWER mw-100 % Eff.	ESTIMATED AVERAGE ANNUAL GENERATION mwh
Percent duration	cfs	m³/sec	Forebay		Tailrace		Gross			
			ft.	m	ft.	m	ft.	m		
95	4	0.1	1410	429.8	330	100.6	1080	329.2	0.37	
50	25	0.7							2.30	
mean	28	0.8							2.57	17,990

Remarks: **Etolin Island - Petersburg B-2**

FPP 2189 preliminary permit 1956
See "Kunk Lake" Card.

precip 80"

$$DA 2.3 \times 8.5 = 20$$

$$Ga = .245 \times 2.3 \cdot 91 \times 80 \cdot 81 = 18 \text{ cfs} + 2.3 = 7.8$$

$$\checkmark \quad \checkmark \quad 100 \quad 218 \quad + 2.3 \quad 9.5$$

Form 9-1503
(Feb. 1962)

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GEOLOGICAL SURVEY

Basin Index 94 69

13 CC

WATERPOWER OF THE UNITED STATES

State Alaska

Stream Anita Lake

Site Anita Lake

County First Judicial Division

Mer. T. R. Sec.

Lat. 56° 16.5' N " Long. 132° 26.5' W. "

Miles above mouth

Drainage Area 2.3 sq.mi. 5.96 sq. km

Owner

Constructed 19735840

Storage 16000 af 3,735.84 m³

Installed capacity mw

Installable capacity mw

FLOW			ELEVATIONS				HEAD		THEORETICAL POWER mw-100 % Eff.	ESTIMATED AVERAGE ANNUAL GENERATION mwh
Percent duration	cfs	m ³ /sec	Forebay		Tailrace		Gross			
			ft.	m	ft.	m	ft.	m		
95	4	.1	1410	429.8	330	100.6	1080	329.2	367.37	
50	25	.7							2295.30	
mean	28	.8							2570	17,990

Remarks:

Prepared by Date

Petersburg B-2