

SOUTH-CENTRAL ALASKA

15225996 SOLOMON GULCH TAILRACE NEAR VALDEZ

LOCATION.--Lat 61°05'01", long 146°18'10", in NE¹/₄ SE¹/₄ SW¹/₄ sec. 16, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, on left wingwall of tailrace pool of Copper Valley Electric Association powerhouse facility, 350 ft upstream from mouth at Solomon Gulch, and 3.8 mi southeast of Valdez.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1986 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharge, which is poor. Discharge shown herein is flow through the Solomon Gulch Power Plant turbines. Solomon Lake, 0.8 mi upstream, supplies water to the power-plant through two 48-in. diameter penstocks. Water for the fish hatchery, diverted upstream from the gage, is not included in these published daily values. Annual mean discharge for these diversions for 2004 water year was 11.6 ft³/s.

COOPERATION.--Records of daily discharge diverted to the fish hatchery are furnished by Valdez Fisheries Development Association. Copper Valley Electric Association provides tables of hourly power output through the turbines.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293 ft³/s, January 2 and 3, 1992, gage height, 3.04 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft³/s, July 6, and August 18, gage height, 2.98 ft, but may have been higher during period of missing record; no flow for period on May 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	e105	65	52	46	57	67	73	189	212	197	221
2	185	e105	52	59	64	51	67	87	201	182	209	220
3	183	e110	53	58	68	52	61	84	202	211	213	215
4	174	e110	51	60	68	58	64	83	202	207	208	208
5	179	e110	59	63	62	57	69	92	200	217	209	207
6	185	e85	56	57	58	60	71	103	195	218	212	206
7	185	e85	58	56	49	60	71	173	195	220	211	213
8	151	e105	75	48	43	75	65	210	205	218	205	217
9	182	e90	75	42	52	77	65	208	204	217	217	217
10	180	e95	56	52	54	71	57	216	202	204	217	124
11	171	e105	54	49	57	58	54	216	202	204	218	85
12	174	e95	55	50	55	59	64	214	199	216	215	84
13	185	e95	52	54	54	58	68	217	198	207	185	70
14	184	87	54	56	49	51	65	216	203	214	219	60
15	182	82	72	48	51	65	66	209	209	213	218	57
16	e180	88	75	52	69	66	71	211	208	211	209	64
17	e185	109	73	68	76	58	65	219	206	205	211	63
18	e185	106	70	65	74	73	60	217	208	204	224	56
19	e185	94	56	58	72	79	53	216	204	204	228	60
20	e190	76	50	54	58	76	52	117	202	206	179	58
21	e190	67	48	51	53	71	62	205	209	204	218	55
22	e190	62	46	68	49	62	78	193	206	202	214	61
23	e190	63	47	68	54	67	81	197	208	199	220	59
24	e190	68	47	55	57	70	83	213	207	198	223	54
25	e190	87	50	57	69	86	81	205	190	196	223	54
26	e180	92	63	53	65	88	91	186	209	201	222	67
27	e190	74	69	55	65	74	96	183	210	206	224	150
28	e190	74	52	53	58	73	92	182	173	207	213	210
29	e150	70	46	68	57	76	82	176	213	201	205	209
30	e200	61	42	68	---	82	76	173	212	208	210	205
31	e120	---	48	47	---	73	---	176	---	205	217	---
TOTAL	5587	2655	1769	1744	1706	2083	2097	5470	6071	6417	6593	3829
MEAN	180	88.5	57.1	56.3	58.8	67.2	69.9	176	202	207	213	128
MAX	200	110	75	68	76	88	96	219	213	220	228	221
MIN	120	61	42	42	43	51	52	73	173	182	179	54
AC-FT	11080	5270	3510	3460	3380	4130	4160	10850	12040	12730	13080	7590
CAL YR 2003	TOTAL	47422	MEAN	130	MAX	223	MIN	36	AC-FT	94060		
WTR YR 2004	TOTAL	46021	MEAN	126	MAX	228	MIN	42	AC-FT	91280		

e Estimated