SOUTH-CENTRAL ALASKA

15236900 WOLVERINE CREEK NEAR LAWING

LOCATION.--Lat $60^{\circ}22'14''$, long $148^{\circ}53'48''$, in $NE^{1}/_{4}$ $NE^{1}/_{4}$ sec. 10, T.3 N., R.3 E. (Seward B-6 quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on the left bank, approximately 0.1 mi downstream from terminus of Wolverine Glacier, 2.0 mi upstream from mouth, 16 mi east of Lawing, Alaska.

DRAINAGE AREA. -- 9.51 mi².

PERIOD OF RECORD.--October 1966 to September 1978, October 1980 to September 1981, May 1997 to September 1997, October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above sea level, from topographic map.

REMARKS.--Records are poor due to large fluctuations from ice melt and alternate damming and storage releases during the melt season. Stream flow is modified by runoff from the melting of Wolverine Glacier, which covers 6.8 mi2, more than 70% of the drainage basin. Precipitation gage and air temperature recorded at station is available from computer files at the Alaska Science Center, Water Resources Office. GOES satellite telemetry at station transmits every 4 hours. At 3,250 feet of elevation, there is a weather station recording air temperature, wind speed, and precipitation. In addition to the weather station, there are also three snow and ice balance measurement sites located in the basin. Combined snow, ice, and water balance data of the basin are published in other reports of the Geological Survey.

		DISCHAR	GE, CUBI	C FEET PE		WATER Y MEAN	YEAR OCTOBE VALUES	CR 2004	TO SEPTEMBE	R 2005		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	136 608 461 333 225	e5.0 e4.0 e4.0 e3.5 e3.0	1.8 1.6 e1.5 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.5	41 36 35 32 30	121 108 113 177 186	326 321 307 292 350	266 305 749 755 573	233 194 201 343 325
6 7 8 9 10	140 108 93 76 62	e2.5 e2.5 e2.0 e2.0 e2.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.5 e1.5 e1.5 e1.5 e1.5	30 32 42 70 70	178 192 241 367 363	396 340 356 365 299	466 491 464 445 538	374 305 292 312 357
11 12 13 14 15	53 116 77 85 47	e2.0 e2.0 e2.0 e2.0 e2.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.5 e1.5 e1.5 e2.0 e2.0	70 190 341 413 247	309 296 294 300 318	288 289 446 544 540	578 552 469 460 354	247 286 257 231 179
16 17 18 19 20	33 22 15 13	e2.0 e2.0 e2.0 e2.0 e2.0	e1.0 e2.0 e5.0 e2.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e2.0 e2.0 e2.0 e2.0 e2.0	151 131 129 124 116	351 420 366 348 302	413 438 399 441 422	336 407 462 511 366	511 529 422 354 295
21 22 23 24 25	9.4 8.4 7.6 7.2 6.7	e2.0 2.0 1.9 1.9	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0	e2.0 e2.0 e4.0 e8.0 e12	121 154 160 137 129	289 243 246 280 280	392 346 325 342 589	293 276 430 324 272	209 243 306 356 211
26 27 28 29 30 31	6.5 6.3 6.7 6.0 5.2 e5.0	1.7 1.7 7.4 2.4 1.8	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	e1.0 e1.0 e1.0	e1.0 e1.0 e1.0 e1.0 e1.0	23 153 87 80 48	220 336 361 295 193 147	311 319 373 379 358	439 575 372 278 240 317	268 317 242 225 219 246	167 397 258 230 168
TOTAL MEAN MAX MIN AC-FT CFSM IN.	2789.0 90.0 608 5.0 5530 9.46 10.91	75.2 2.51 7.4 1.7 149 0.26 0.29	38.9 1.25 5.0 1.0 77 0.13 0.15	31.0 1.00 1.0 1.0 61 0.11 0.12	28.0 1.00 1.0 1.0 56 0.11 0.11	31.0 1.00 1.0 1.0 61 0.11 0.12	450.5 15.0 153 1.0 894 1.58 1.76	4583 148 413 30 9090 15.5 17.93	281 420 108 16720 29.5	11787 380 589 240 23380 40.0 46.11	12659 408 755 219 25110 42.9 49.52	8792 293 529 167 17440 30.8 34.39
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)#												
MEAN MAX (WY) MIN (WY)	61.1 330 2004 13.1 1975	12.0 100 2003 2.01 2002	3.43 20.2 2003 0.51 2001	1.52 2.71 1970 0.39 2001	1.19 2.00 1970 0.00 2001	1.04 2.45 2003 0.00 2001	2.34 15.0 2005 0.00 2001	33.9 148 2005 0.61 1971	156 281 2005 31.1 1971	309 438 2004 146 1997	355 494 1981 176 1997	198 351 1974 80.0 1970

[#] See Period of Record; partial year was used in monthly statistics and breaks in record

e Estimated

SOUTH-CENTRAL ALASKA

15236900 WOLVERINE CREEK NEAR LAWING—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1967 - 2005#
ANNUAL TOTAL	45938.1	49692.6	
ANNUAL MEAN	126	136	96.8
HIGHEST ANNUAL MEAN			146 2004
LOWEST ANNUAL MEAN			66.6 1970
HIGHEST DAILY MEAN	986 Jul 22	755 Aug 4	1930 Aug 28 2001
LOWEST DAILY MEAN	a1.0 Dec 4	b1.0 Dec 4	c0.00 Dec 2 2000
ANNUAL SEVEN-DAY MINIMUM	1.0 Dec 4	1.0 Dec 4	0.00 Dec 2 2000
MAXIMUM PEAK FLOW		1630 Oct 2	d4160 Aug 28 2001
MAXIMUM PEAK STAGE		3.90 Oct 2	f6.28 Aug 21 1981
MAXIMUM PEAK STAGE		g5.61 Apr 24	
ANNUAL RUNOFF (AC-FT)	91120	98570	70120
ANNUAL RUNOFF (CFSM)	13.2	14.3	10.2
ANNUAL RUNOFF (INCHES)	179.69	194.38	138.28
10 PERCENT EXCEEDS	407	394	326
50 PERCENT EXCEEDS	5.1	7.6	6.0
90 PERCENT EXCEEDS	1.8	1.0	1.0

See Period of Record; partial year was used in monthly statistics and breaks in record Dec. 4 to Dec. 16 and Dec. 20 to Dec. 31
Dec. 4 to Dec. 16 and Dec. 20 to Apr. 4
No flow most days during winter
From rating curve extended above 1,290 ft³/s
From floodmarks, date approximate; flow over dense snow
Caused by ice-jam, no corresponding discharge