LOCATION.--Lat $63^{\circ} 56^{\prime} 06^{\prime \prime}$, long $160^{\circ} 18^{\prime} 18^{\prime \prime}$, in $\mathrm{NW}^{1} / 4 \mathrm{NE}^{1} / 4 \mathrm{sec}$. 18 , T. $18 \mathrm{~S} ., \mathrm{R} .8 \mathrm{~W}$. (Unalakleet D-3 quad), Hydrologic Unit 19050102, on the right bank, 3.5 mi upstream from mouth of the Chiroskey River, 28 mi upstream from mouth, 15 mi east of Unalakleet.

DRAINAGE AREA. $--1,048 \mathrm{mi}^{2}$.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to September 1999 (no winter record), October 1999 to current year.
REVISED RECORDS.--WRD-AK-99-1: 1998.
GAGE.--Water-stage recorder. Elevation of gage is 40 ft above sea level from topographic map.
REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

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

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1530 | 1760 | e390 | e180 | e130 | e120 | e120 | e10000 | e5800 | 1610 | 1100 | 1690 |
| 2 | 2110 | 1830 | e370 | e170 | e130 | e120 | e120 | e11000 | e5600 | 1580 | 1070 | 1640 |
| 3 | 2790 | 1860 | e360 | e170 | e130 | e120 | e120 | e10600 | e5400 | 1550 | 1070 | 1580 |
| 4 | 3620 | 1870 | e340 | e170 | e130 | e120 | e120 | e10200 | e5100 | 1520 | 1070 | 1530 |
| 5 | 3760 | 1960 | e330 | e170 | e130 | e120 | e120 | e10000 | e4800 | 1490 | 1060 | 1540 |
| 6 | 3490 | 2100 | e320 | e160 | e130 | e120 | e130 | e9600 | 4310 | 1450 | 1040 | 1530 |
| 7 | 3200 | 2340 | e310 | e160 | e130 | e120 | e140 | e9400 | 3920 | 1400 | 1020 | 1480 |
| 8 | 2950 | 2380 | e300 | e160 | e130 | e120 | e150 | e9200 | 3570 | 1370 | 1030 | 1430 |
| 9 | 2790 | e2200 | e290 | e160 | e130 | e120 | e160 | e9000 | 3320 | 1370 | 1390 | 1390 |
| 10 | 2650 | e1900 | e280 | e150 | e130 | e120 | e170 | e8800 | 3080 | 1340 | 1580 | 1350 |
| 11 | 2640 | e1600 | e280 | e150 | e120 | e120 | e190 | e8600 | 2880 | 1290 | 1490 | 1320 |
| 12 | 2560 | e1300 | e270 | e150 | e120 | e120 | e210 | e8400 | 2720 | 1240 | 1790 | 1290 |
| 13 | 2350 | e1200 | e260 | e150 | e120 | e120 | e230 | e8200 | 2590 | 1200 | 6220 | 1270 |
| 14 | 2190 | e1100 | e250 | e150 | e120 | e120 | e250 | e7800 | 2490 | 1170 | 14100 | 1290 |
| 15 | 2110 | e1000 | e250 | e150 | e120 | e120 | e270 | e7400 | 2430 | 1150 | 15500 | 1290 |
| 16 | 2130 | e900 | e240 | e150 | e120 | e120 | e300 | e7000 | 2340 | 1140 | 10600 | 1270 |
| 17 | 2040 | e840 | e240 | e140 | e120 | e120 | e330 | e6600 | 2310 | 1150 | 6470 | 1230 |
| 18 | 1880 | e760 | e230 | e140 | e120 | e120 | e360 | e6200 | 2340 | 1130 | 4890 | 1190 |
| 19 | e1750 | e700 | e230 | e140 | e120 | e120 | e400 | e5800 | 2290 | 1130 | 3990 | 1160 |
| 20 | e1700 | e700 | e220 | e140 | e120 | e120 | e450 | e5600 | 2200 | 1140 | 3400 | 1160 |
| 21 | e1650 | e700 | e220 | e140 | e120 | e120 | e500 | e5600 | 2120 | 1130 | 3000 | 1160 |
| 22 | e1650 | e600 | e210 | e140 | e120 | e120 | e600 | e6200 | 2070 | 1090 | 2730 | 1260 |
| 23 | e1600 | e580 | e210 | e140 | e120 | e120 | e650 | e7200 | 2040 | 1080 | 2500 | 1430 |
| 24 | e1600 | e540 | e200 | e140 | e120 | e120 | e800 | e8000 | 2020 | 1060 | 2330 | 1430 |
| 25 | 1580 | e500 | e200 | e140 | e120 | e120 | e1000 | e7600 | 2000 | 1050 | 2170 | 1350 |
| 26 | 1460 | e480 | e190 | e130 | e120 | e120 | e1300 | e7000 | 1930 | 1050 | 2050 | 1280 |
| 27 | 1430 | e460 | e190 | e130 | e120 | e120 | e1800 | e6400 | 1840 | 1050 | 1960 | 1220 |
| 28 | 1370 | e440 | e190 | e130 | e120 | e120 | e2500 | e6000 | 1770 | 1080 | 1880 | 1170 |
| 29 | 1350 | e420 | e180 | e130 | e120 | e120 | e4000 | e5400 | 1700 | 1110 | 1810 | 1120 |
| 30 | 1310 | e400 | e180 | e130 | --- | e120 | e6000 | e5000 | 1650 | 1120 | 1760 | 1110 |
| 31 | 1460 | --- | e180 | e130 | --- | e120 | --- | e5200 | --- | 1140 | 1730 | --- |
| TOTAL | 66700 | 35420 | 7910 | 4590 | 3580 | 3720 | 23490 | 239000 | 88630 | 38380 | 103800 | 40160 |
| MEAN | 2152 | 1181 | 255 | 148 | 123 | 120 | 783 | 7710 | 2954 | 1238 | 3348 | 1339 |
| MAX | 3760 | 2380 | 390 | 180 | 130 | 120 | 6000 | 11000 | 5800 | 1610 | 15500 | 1690 |
| MIN | 1310 | 400 | 180 | 130 | 120 | 120 | 120 | 5000 | 1650 | 1050 | 1020 | 1110 |
| AC-FT | 132300 | 70260 | 15690 | 9100 | 7100 | 7380 | 46590 | 474100 | 175800 | 76130 | 205900 | 79660 |
| CFSM | 2.05 | 1.13 | 0.24 | 0.14 | 0.12 | 0.11 | 0.75 | 7.36 | 2.82 | 1.18 | 3.20 | 1.28 |
| IN. | 2.37 | 1.26 | 0.28 | 0.16 | 0.13 | 0.13 | 0.83 | 8.48 | 3.15 | 1.36 | 3.68 | 1.43 |
| STATIS | ICS OF | JTHLY M | DATA | WATER | RS 19 | - 2004 | BY WAT | YEAR (W |  |  |  |  |
| MEAN | 1602 | 709 | 265 | 161 | 127 | 114 | 270 | 3702 | 3548 | 1672 | 2940 | 2512 |
| MAX | 2190 | 1181 | 342 | 200 | 145 | 123 | 783 | 7710 | 8788 | 2571 | 5690 | 3890 |
| (WY) | 2003 | 2004 | 2003 | 2003 | 2003 | 2003 | 2004 | 2004 | 2001 | 2003 | 1998 | 1998 |
| MIN | 1037 | 394 | 198 | 147 | 116 | 98.2 | 105 | 1182 | 1216 | 562 | 809 | 1339 |
| (WY) | 2002 | 2002 | 2002 | 2002 | 2001 | 2001 | 2001 | 2001 | 1997 | 1997 | 2002 | 2004 |

\# See Period of Record
e Estimated

15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued


## 15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1998 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1998 to current year.
INSTRUMENTATION.--Electronic water-temperature recorder set for one-hour recording interval.
REMARKS.-- Records represent water temperature at the sensor within $0.5^{\circ} \mathrm{C}$. Temperature was compared with the stream average by cross section on June 5. No variation was found within the cross sections. The variation found between mean stream temperature and sensor temperature was less than $0.5^{\circ} \mathrm{C}$.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, $15.5^{\circ} \mathrm{C}$, July 14,2004 ; minimum, $0.0^{\circ} \mathrm{C}$, many days during winter and spring breakup periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, $15.5^{\circ} \mathrm{C}$, July $14 . ;$ minimum, $0.0^{\circ} \mathrm{C}$, many days during fall, winter and spring breakup periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004


TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | TOBE |  |  | MBER |  |  | MMBER |  |  | NUAR |  |
| 1 | 6.0 | 4.0 | 5.0 | 1.5 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 6.0 | 5.5 | 6.0 | 1.5 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 5.5 | 4.5 | 5.0 | 1.5 | 1.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 4.5 | 4.5 | 4.5 | 2.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 4.5 | 3.5 | 4.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 4.0 | 3.5 | 4.0 | 2.0 | 1.5 | 2.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- |
| 7 | 4.0 | 3.5 | 4.0 | 1.5 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 4.0 | 3.5 | 4.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 4.0 | 3.5 | 4.0 | 1.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 3.5 | 3.5 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 3.5 | 3.0 | 3.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 3.0 | 2.5 | 2.5 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 2.5 | 1.0 | 2.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 1.0 | 1.0 | 1.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 1.5 | 1.0 | 1.5 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 2.0 | 1.5 | 2.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 2.0 | 0.5 | 1.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.5 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | --- | --- | --- | --- | --- | --- | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | --- | --- | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 1.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 1.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 1.5 | 0.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 2.0 | 1.5 | 1.5 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| MONT | --- | --- | 2.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

## 15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FEBRUARY |  |  | MARCH |  |  | APRIL |  |  | MAY |  |  |
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 1.5 | 2.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.5 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.5 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 1.0 | 1.5 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 1.0 | 1.5 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 1.0 | 1.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.5 | 2.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.5 | 1.5 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 1.5 | 1.5 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 2.5 | 2.0 | 2.5 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 2.5 | 2.0 | 2.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 3.0 | 2.5 | 3.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 3.0 | 2.5 | 3.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 3.5 | 3.0 | 3.5 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 4.0 | 3.5 | 4.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 4.0 | 2.5 | 3.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 3.0 | 2.5 | 2.5 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 4.0 | 3.0 | 3.5 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 4.5 | 4.0 | 4.5 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 5.5 | 4.5 | 5.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 5.0 | 4.0 | 4.5 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | - | --- | 5.5 | 5.0 | 5.5 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.5 | 1.0 | 5.0 | 5.0 | 5.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.5 | 1.0 | 6.0 | 5.0 | 5.5 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.5 | 1.0 | 6.5 | 6.0 | 6.5 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.5 | 0.5 | 6.0 | 5.5 | 5.5 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.5 | 1.0 | 5.5 | 5.5 | 5.5 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.5 | 1.5 | 6.0 | 5.0 | 5.5 |
| 30 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 3.0 | 1.5 | 2.0 | 6.5 | 5.5 | 6.5 |
| 31 | --- | --- | --- | 0.0 | 0.0 | 0.0 | --- | --- | --- | 6.5 | 6.0 | 6.5 |
| MONTH | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | --- | 6.5 | 1.0 | 3.5 |

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JUNE |  |  | JULY |  |  | JGUST |  |  | PTEMB |  |
| 1 | 6.0 | 5.0 | 5.5 | 12.0 | 11.0 | 11.5 | 12.0 | 11.0 | 11.5 | 8.5 | 8.0 | 8.5 |
| 2 | 6.5 | 5.0 | 6.0 | 12.0 | 11.0 | 11.0 | 11.5 | 10.5 | 11.0 | 8.5 | 7.5 | 8.0 |
| 3 | 7.0 | 6.5 | 7.0 | 11.0 | 10.0 | 10.5 | 11.0 | 10.0 | 10.5 | 7.5 | 6.5 | 7.0 |
| 4 | 7.0 | 6.5 | 6.5 | 10.5 | 9.5 | 10.0 | 11.0 | 10.0 | 10.5 | 7.0 | 6.5 | 6.5 |
| 5 | 8.5 | 7.0 | 8.0 | 12.0 | 10.0 | 10.5 | 11.5 | 10.0 | 10.5 | 7.5 | 6.5 | 7.0 |
| 6 | 10.0 | 8.5 | 9.0 | 11.5 | 11.0 | 11.0 | 12.5 | 10.5 | 11.5 | 8.0 | 7.0 | 7.5 |
| 7 | 10.5 | 9.5 | 10.0 | 11.5 | 10.5 | 11.0 | 12.0 | 11.5 | 11.5 | 7.5 | 6.5 | 7.0 |
| 8 | 10.5 | 8.5 | 10.0 | 10.5 | 9.5 | 10.0 | 11.5 | 10.5 | 10.5 | 7.5 | 6.5 | 7.0 |
| 9 | 8.5 | 7.0 | 7.5 | 11.0 | 9.0 | 10.0 | 11.0 | 10.0 | 10.5 | 7.0 | 6.0 | 6.5 |
| 10 | 9.5 | 7.0 | 8.0 | 12.5 | 10.5 | 11.0 | 12.0 | 11.0 | 11.0 | 7.0 | 6.0 | 6.5 |
| 11 | 10.0 | 9.0 | 9.5 | 14.0 | 12.0 | 13.0 | 12.5 | 11.0 | 11.5 | 7.0 | 6.0 | 6.5 |
| 12 | 10.5 | 9.5 | 10.0 | 14.5 | 12.0 | 13.5 | 12.0 | 11.5 | 11.5 | 7.0 | 6.0 | 6.5 |
| 13 | 10.5 | 9.5 | 10.0 | 15.0 | 12.5 | 14.0 | 11.5 | 11.0 | 11.0 | 6.5 | 5.5 | 6.0 |
| 14 | 10.0 | 9.5 | 9.5 | 15.5 | 13.5 | 14.5 | 11.0 | 10.5 | 10.5 | 6.0 | 5.0 | 5.5 |
| 15 | 10.5 | 9.0 | 9.5 | 15.0 | 13.5 | 14.0 | 11.0 | 10.5 | 10.5 | 6.0 | 5.0 | 5.5 |
| 16 | 10.5 | 10.0 | 10.0 | 14.0 | 13.0 | 13.5 | 11.5 | 11.0 | 11.5 | 6.0 | 5.0 | 5.5 |
| 17 | 10.0 | 9.5 | 9.5 | 13.5 | 12.5 | 13.0 | 11.5 | 11.5 | 11.5 | 5.5 | 4.0 | 4.5 |
| 18 | 9.5 | 9.0 | 9.0 | 13.0 | 12.0 | 12.5 | 12.0 | 11.5 | 11.5 | --- | --- | 3.5 |
| 19 | 10.5 | 8.5 | 9.0 | 14.0 | 12.0 | 13.0 | 12.0 | 11.0 | 11.5 | -- | --- | 3.5 |
| 20 | 11.0 | 9.5 | 10.5 | 14.5 | 12.0 | 13.5 | 11.5 | 11.0 | 11.5 | 4.5 | --- | 4.0 |
| 21 | 11.5 | 10.5 | 11.0 | 15.0 | 13.5 | 14.0 | 11.0 | 10.5 | 10.5 | 4.0 | 3.5 | 4.0 |
| 22 | 11.0 | 10.5 | 11.0 | 15.0 | 13.0 | 14.0 | 11.0 | 10.0 | 10.5 | --- | 3.5 | 4.0 |
| 23 | 10.5 | 10.0 | 10.5 | 14.0 | 13.0 | 13.5 | 11.0 | 10.0 | 10.5 | --- | 3.5 | 4.0 |
| 24 | 10.0 | 9.5 | 9.5 | 14.0 | 12.0 | 13.0 | 11.0 | 10.0 | 10.5 | 3.5 | 2.5 | 3.0 |
| 25 | 10.5 | 9.0 | 9.5 | 14.5 | 13.0 | 13.5 | 10.5 | 10.0 | 10.0 | --- | --- | 3.0 |
| 26 | 12.0 | 10.0 | 10.5 | 13.5 | 12.0 | 12.5 | 10.0 | 8.0 | 9.0 | --- | -- | 3.0 |
| 27 | 13.5 | 11.0 | 12.0 | 12.0 | 11.5 | 11.5 | 8.5 | 7.5 | 8.0 | 2.5 | 2.0 | 2.5 |
| 28 | 14.0 | 12.0 | 13.0 | 12.0 | 11.0 | 11.5 | 8.0 | 7.0 | 7.5 | 2.0 | 1.5 | 2.0 |
| 29 | 14.0 | 12.5 | 13.5 | 13.5 | 11.5 | 12.5 | 8.5 | 7.0 | 7.5 | 2.0 | 1.0 | 1.5 |
| 30 | 13.5 | 12.0 | 12.5 | 14.5 | 12.0 | 13.0 | 8.5 | 8.0 | 8.0 | 1.5 | 1.0 | 1.5 |
| 31 | - | --- | --- | 13.5 | 12.0 | 13.0 | 8.5 | 8.0 | 8.0 | --- | --- | --- |
| MONTH | 14.0 | 5.0 | 9.6 | 15.5 | 9.0 | 12.4 | 12.5 | 7.0 | 10.4 | --- | --- | 5.0 |

## 15583500 ETTA CREEK NEAR COUNCIL

LOCATION.--Lat $64^{\circ} 41^{\prime} 56^{\prime \prime}$, long $164^{\circ} 09^{\prime} 57^{\prime \prime}$, in $\mathrm{SE}^{1} / 4 \mathrm{NE}^{1} / 4 \mathrm{NE}^{1} / 4 \mathrm{sec} .24, \mathrm{~T} .9 \mathrm{~S} ., \mathrm{R} .28 \mathrm{~W}$. (Solomon C-5 quad), Seward Peninsula, Hydrologic Unit 19050104, on the left bank, 2 mi upstream from mouth at the East Fork of Solomon River, 25 miles southwest of Council, Alaska.

DRAINAGE AREA. $--1.33 \mathrm{mi}^{2}$.
PERIOD OF RECORD.--July 2001 to current year (no winter record).
GAGE.--Water-stage recorder. Elevation of gage is 330 ft above sea level from topographic map.
REMARKS.--Records fair, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.
EXTREMES FOR CURRENT PERIOD.-- July to September 2001: Maximum discharge during period, $9.3 \mathrm{ft}^{3} / \mathrm{s}$, August 13 , gage height 50.22 ft . Minimum discharge not determined, occurs during winter.

October 2001 to September 2002: Maximum discharge observed during period, $9.3 \mathrm{ft}^{3} / \mathrm{s}$, September 28 , gage height 50.22 ft. Minimum discharge not determined, occurs during winter.

October 2002 to September 2003: Maximum daily discharge during period, $15 \mathrm{ft}^{3} / \mathrm{s}$ (estimated), June 1. Minimum discharge not determined, occurs during winter.

October 2003 to September 2004: Maximum daily discharge during period, $15 \mathrm{ft}^{3} / \mathrm{s}$ (estimated), June 4. Minimum discharge not determined, occurs during winter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

| DAY | ОСт | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e5.8 | 3.4 | 2.8 |
| 2 | -- | -- | --- | --- | --- | --- | --- | --- | --- | e5.4 | 3.2 | 2.7 |
| 3 | -- | - | --- | --- | - | --- | --- | --- | --- | e5.0 | 3.0 | 2.7 |
| 4 | -- | - | --- | --- | --- | --- | --- | --- | --- | e5.1 | 2.9 | 3.3 |
| 5 | - | - | --- | --- | --- | --- | --- | --- | --- | e5.2 | 2.8 | 2.8 |
| 6 | --- | --- | --- | --- | - | --- | --- | --- | - | e4.8 | 2.7 | 2.8 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e4. 6 | 2.7 | 2.8 |
| 8 | --- | --- | --- | --- | - | --- | - | --- | --- | e4.5 | 3.3 | 2.8 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e4.5 | 3.2 | 2.9 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e4.6 | 2.9 | 2.8 |
| 11 | - | --- | --- | --- | --- | --- | --- | --- | --- | e4.7 | 3.0 | 2.8 |
| 12 | - | -- | --- | --- | --- | --- | --- | --- | --- | e4.8 | 3.4 | 2.7 |
| 13 | --- | - | --- | --- | --- | --- | --- | --- | --- | e5.0 | 5.1 | 2.6 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e4.9 | 7.2 | 2.5 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e5.2 | 7.0 | 2.4 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e5.5 | 6.5 | 2.3 |
| 17 | -- | --- | -- | --- | --- | --- | --- | --- | --- | 5.7 | 6.2 | 2.2 |
| 18 | --- | --- | - | --- | --- | --- | -- | --- | --- | 5.2 | 5.9 | 2.2 |
| 19 | --- | --- | --- | --- | - | --- | --- | --- | -- | 6.1 | 5.7 | 2.1 |
| 20 | --- | - | --- | --- | --- | --- | --- | --- | --- | 5.7 | 5.4 | 2.1 |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.5 | 5.0 | 2.1 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.3 | 4.8 | 2.0 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.1 | 4.6 | 2.0 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.7 | 4.4 | 1.9 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.5 | 4.1 | 1.9 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.3 | 4.0 | 1.8 |
| 27 | --- | - | --- | --- | --- | --- | --- | --- | --- | 4.2 | 3.8 | 1.8 |
| 28 | - | -- | --- | --- | --- | --- | --- | --- | --- | 4.0 | 3.7 | 1.7 |
| 29 | - | - | --- | --- | --- | --- | --- | --- | --- | 3.9 | 3.3 | 1.6 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.7 | 3.2 | e1.5 |
| 31 | -- | - | --- | --- | --- | --- | --- | --- | --- | 3.6 | 3.1 | , |
| TOTAL | --- | --- | --- | - | - | --- | --- | --- | - | 151.1 | 129.5 | 70.6 |
| MEAN | --- | --- | - | --- | -- | --- | --- | --- | - | 4.87 | 4.18 | 2.35 |
| MAX | --- | --- | --- | --- | --- | -- | --- | -- | -- | 6.1 | 7.2 | 3.3 |
| MIN | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.6 | 2.7 | 1.5 |
| MED | - | - | --- | --- | --- | --- | --- | --- | --- | 4.9 | 3.7 | 2.4 |
| AC-FT | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | 257 | 140 |
| CFSM | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.66 | 3.14 | 1.77 |
| IN. | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.23 | 3.62 | 1.97 |

e Estimated

15583500 ETTA CREEK NEAR COUNCIL—Continued

|  |  | DISC | , CU | EET | $\begin{array}{r} \text { SECON } \\ \text { DA } \end{array}$ |  | $\begin{aligned} & \mathrm{OCT} \\ & \mathrm{ESS} \end{aligned}$ |  | SEPTE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| 1 | 1.6 | --- | --- | --- | --- | --- | --- | -- | e5.4 | e0. 54 | e0. 68 | 0.36 |
| 2 | 1.5 | --- | --- | --- | - | --- | - | --- | e4.2 | e0. 54 | e0. 66 | 0.36 |
| 3 | 1.7 | --- | - | --- | --- | --- | --- | --- | e3. 6 | e0. 57 | e0. 63 | 0.38 |
| 4 | 2.0 | --- | --- | --- | --- | --- | --- | - | e3.7 | e0.60 | e0. 60 | 0.59 |
| 5 | 1.7 | --- | --- | --- | --- | --- | --- | - | e3.8 | e0. 65 | e0. 58 | 1.3 |
| 6 | 1.6 | --- | --- | --- | --- | --- | --- | --- | e3.5 | e0. 69 | e0.54 | 2.1 |
| 7 | 1.5 | --- | --- | --- | --- | --- | --- | --- | e3.0 | e0. 69 | e0. 50 | 1.9 |
| 8 | e1.4 | --- | --- | --- | --- | --- | --- | --- | e2. 8 | e0. 66 | e0. 48 | 1.7 |
| 9 | e1.4 | --- | --- | --- | --- | --- | --- | --- | e2. 6 | e0. 63 | e0.47 | 1.6 |
| 10 | e1.3 | --- | --- | --- | --- | --- | --- | --- | e2.2 | e0. 62 | e0. 44 | 1.4 |
| 11 | e1.3 | --- | --- | -- | --- | - | --- | --- | e2.0 | e0. 62 | e0. 42 | 1.3 |
| 12 | e1.2 | --- | - | --- | --- | --- | --- | -- | e1.9 | e0.61 | e0.40 | 1.5 |
| 13 | e1.2 | --- | --- | --- | --- | --- | --- | --- | e1.8 | e0. 60 | e0. 39 | 1.5 |
| 14 | e1.1 | --- | --- | --- | --- | --- | --- | -- | e1.7 | e0. 60 | e0.38 | 1.3 |
| 15 | e1.1 | --- | --- | --- | --- | --- | --- | - | e1.6 | e0.60 | e0.37 | 1.2 |
| 16 | e1.0 | --- | --- | --- | --- | --- | --- | --- | e1. 5 | e0. 59 | e0.36 | 1.2 |
| 17 | e1.0 | --- | --- | --- | --- | --- | --- | --- | e1.4 | e0. 59 | e0. 36 | 1.2 |
| 18 | e0. 90 | --- | --- | --- | --- | --- | --- | --- | e1.3 | e0. 58 | e0. 35 | 1.4 |
| 19 | e0. 90 | --- | --- | --- | --- | --- | --- | --- | e1.2 | e0. 57 | e0.35 | 1.4 |
| 20 | e0. 80 | --- | --- | --- | --- | --- | --- | -- | e1.1 | e0. 55 | e0. 35 | 1.3 |
| 21 | e0. 80 | - | --- | --- | --- | --- | --- | --- | e1.0 | e0. 54 | e0.36 | 1.3 |
| 22 | e0. 80 | --- | --- | --- | --- | - | --- | --- | e0.90 | e0. 53 | 0.36 | 1.2 |
| 23 | e0. 80 | --- | --- | --- | --- | --- | --- | --- | e0. 85 | e0. 53 | 0.36 | 1.2 |
| 24 | e0.7 | --- | --- | --- | --- | --- | --- | --- | e0. 80 | e0. 55 | 0.36 | 1.6 |
| 25 | e0. 70 | --- | --- | --- | --- | --- | --- | --- | e0.75 | e0. 57 | 0.36 | 1.4 |
| 26 | e0. 70 | - | --- | --- | --- | --- | --- | --- | e0. 72 | e0. 59 | 0.36 | 2.5 |
| 27 | e0.70 | --- | --- | --- | --- | --- | --- | --- | e0.68 | e0. 60 | 0.40 | 5.5 |
| 28 | e0. 60 | --- | --- | --- | --- | --- | --- | --- | e0. 63 | e0. 66 | 0.43 | 7.1 |
| 29 | e0.60 | --- | --- | --- | --- | --- | --- | --- | e0. 59 | e0. 70 | 0.38 | 5.7 |
| 30 | e0.60 | --- | --- | --- | --- | --- | --- | --- | e0. 56 | e0.70 | 0.36 | 5.3 |
| 31 | e0. 60 | --- | --- | --- | --- | --- | --- | --- | --- | e0. 69 | 0.36 | --- |
| total | 33.80 | - | --- | --- | --- | - | --- | --- | 57.78 | 18.76 | 13.40 | 57.79 |
| MEAN | 1.09 | --- | - | --- | --- | --- | - | -- | 1.93 | 0.61 | 0.43 | 1.93 |
| MAX | 2.0 | --- | --- | -- | --- | --- | -- | -- | 5.4 | 0.70 | 0.68 | 7.1 |
| MIN | 0.60 | - | --- | --- | --- | - | - | -- | 0.56 | 0.53 | 0.35 | 0.36 |
| MED | 1.0 | --- | --- | --- | --- | --- | --- | --- | 1.6 | 0.60 | 0.38 | 1.4 |
| AC-FT | 67 | --- | --- | --- | --- | --- | --- | --- | 115 | 37 | 27 | 115 |
| CFSM | 0.82 | --- | --- | --- | --- | --- | --- | --- | 1.45 | 0.46 | 0.33 | 1.45 |
| IN. | 0.95 | --- | --- | --- | --- | --- | --- | --- | 1.62 | 0.52 | 0.37 | 1.62 |

e Estimated

## 15583500 ETTA CREEK NEAR COUNCIL—Continued


e Estimated

15583500 ETTA CREEK NEAR COUNCIL—Continued

e Estimated

## 15625850 STEWART RIVER 0.1 MILE BELOW BOULDER CREEK MOUTH NEAR NOME

LOCATION.--Lat $64^{\circ} 48^{\prime} 28^{\prime \prime}$, long $165^{\circ} 25^{\prime} 46^{\prime \prime}$, in $\mathrm{SE}^{1} / 4 \mathrm{NW}^{1} / 4 \mathrm{SE} / \mathrm{S}^{1} \mathrm{sec} .7, \mathrm{~T} .8 \mathrm{~S} ., \mathrm{R} .33 \mathrm{~W} .(\mathrm{Nome} \mathrm{D}-1 \mathrm{quad}$, Hydrologic Unit 19050104, on the right bank, 0.1 mi downstream from Boulder Creek, 8.8 mi upstream from mouth, and 21 mi north of Nome.

DRAINAGE AREA. -- $22.28 \mathrm{mi}^{2}$.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- May 2004 to September 2004 (discontinued).
GAGE.--Water-stage recorder. Elevation of gage is 475 ft above sea level, from topographic map.
EXTREMES FOR CURRENT PERIOD.--Maximum discharge during period May to September 2004 , $463 \mathrm{ft} 3 / \mathrm{s}, \mathrm{Aug} 12$ and 13 , gage height, 38.81 ft . minimum daily discharge $14 \mathrm{ft}^{3} / \mathrm{s}$, July 25 and 26 .

REMARKS.--Records are poor. Rain gage at station.

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 | --- | --- | --- | --- | -- | - | - | -- | 272 | e40 | e22 | e52 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | 254 | e34 | e20 | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | 178 | e32 | 33 | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | 149 | e30 | 25 | --- |
| 5 | --- | -- | --- | --- | --- | --- | --- | --- | 234 | e29 | 23 | -- |
| 6 | --- | --- | --- | --- | --- | --- | --- | -- | 229 | e27 | 22 | --- |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | 199 | e26 | 41 | --- |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | 124 | e26 | 139 | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | 81 | e25 | e90 | --- |
| 10 | -- | --- | --- | --- | --- | - | --- | --- | 70 | e24 | e60 | --- |
| 11 | --- | --- | --- | --- | --- | --- | --- | -- | 83 | e22 | e50 | --- |
| 12 | -- | - | --- | --- | --- | --- | --- | --- | 80 | e20 | 219 | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | 67 | e20 | 237 | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | - | 56 | e20 | 172 | --- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 50 | e19 | 132 | - |
| 16 | --- | --- | --- | --- | --- | --- | --- | -- | 61 | e19 | 90 | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | 76 | e22 | 76 | --- |
| 18 | --- | --- | --- | --- | -- | --- | --- | -- | 56 | e23 | 66 | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | 73 | e19 | 61 | --- |
| 20 | - | --- | --- | --- | --- | --- | --- | --- | 60 | e17 | 60 | --- |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | 57 | e16 | 60 | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | 76 | e16 | e60 | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | 108 | e15 | e60 | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | 84 | e15 | e60 | --- |
| 25 | -- | - | --- | --- | - | --- | --- | - | e78 | e14 | e60 | -- |
| 26 | --- | --- | --- | --- | --- | --- | --- | -- | e72 | e14 | e60 | --- |
| 27 | - | - | --- | --- | - | --- | --- | e220 | e65 | e23 | 59 | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | 177 | e60 | 43 | 58 | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | 177 | e53 | e30 | 57 | --- |
| 30 | - | - | --- | --- | - | --- | --- | 215 | e47 | e30 | 57 | --- |
| 31 | -- | - | --- | --- | -- | --- | --- | 318 | --- | e24 | 56 | --- |
| TOTAL | --- | --- | --- | --- | -- | --- | --- | - | 3152 | 734 | 2285 | --- |
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | 105 | 23.7 | 73.7 | --- |
| MAX | - | - | --- | --- | --- | --- | --- |  | 272 | 43 | 237 |  |
| MIN | --- | --- | --- | --- | --- | --- | --- |  | 47 | 14 | 20 |  |
| AC-FT | --- | --- | -- | --- | --- | -- | -- | --- | 6250 | 1460 | 4530 | - |

[^0]
## 15625850 STEWART RIVER 0.1 MILE BELOW BOULDER CREEK MOUTH NEAR NOME—Continued

WATER-QUALITY RECORDS
PERIOD OF RECORD.--May to September 2004 (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May to September2004 (discontinued).
INSTRUMENTATION.--Water-temperature recorder. Electronic water temperature recorder set for $15-m i n u t e ~ r e c o r d i n g ~$ interval.

REMARKS. -- Water temperature sensor installed May 27, 2004. Records represent water temperature at sensor within $0.5^{\circ} \mathrm{C}$. Temperature at the sensor was compared with the average for the river by cross section on May 27 , July 28, and September 1. No variation was found within the cross section. A $0.5^{\circ} \mathrm{C}$ variation was found between mean stream temperature and sensor temperature on May 27. Beaver dam construction isolated the sensor from the main channel June 7 to September 1, 2004. Recorded stream temperatures at the sensor are not representative of mean stream temperatures during periods affected by the beaver dam and were not reported.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, $10.0^{\circ} \mathrm{C}$, June 6 ; minimum recorded, $0.5^{\circ} \mathrm{C}$, May 28.
EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, $10.5^{\circ} \mathrm{C}$, June 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date | Time | Location in X-sect. looking dwnstrm ft from 1 bank (00009) | Specif. conductance, wat unf uS/cm 25 degC (00095) | $\begin{gathered} \mathrm{pH}, \\ \text { water, } \\ \text { unfltrd } \\ \text { field, } \\ \text { std } \\ \text { units } \\ (00400) \end{gathered}$ | $\begin{aligned} & \text { Temper- } \\ & \text { ature, } \\ & \text { water, } \\ & \text { deg C } \\ & (00010) \end{aligned}$ | Barometric pressure, mm Hg (00025) | $\begin{gathered} \text { Dis- } \\ \text { solved } \\ \text { oxygen, } \\ \mathrm{mg} / \mathrm{L} \\ (00300) \end{gathered}$ | Dissolved oxygen, percent of saturation (00301) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAY |  |  |  |  |  |  |  |  |
| 27 | 1334 | 7.0 | 89 | 7.5 | 1.5 | 735 | 12.7 | 94 |
| 27. | 1335 | 22.0 | 89 | 7.5 | 1.5 | 735 | 12.6 | 93 |
| 27. | 1336 | 39.0 | 89 | 7.4 | 1.5 | 735 | 12.6 | 93 |
| 27. | 1337 | 54.0 | 89 | 7.4 | 1.5 | 735 | 12.5 | 92 |
| 27. | 1338 | 69.0 | 88 | 7.4 | 1.5 | 735 | 12.5 | 92 |
| 27. | 1339 | 84.0 | 88 | 7.4 | 1.5 | 735 | 12.5 | 92 |
| 27. | 1340 | 99.0 | 100 | 7.4 | 1.5 | 735 | 12.5 | 92 |
| JUL |  |  |  |  |  |  |  |  |
| 28. | 1304 | 3.0 | 216 | 7.4 | 11.5 | 743 | 10.4 | 98 |
| 28. | 1305 | 5.0 | 216 | 7.4 | 11.5 | 743 | 10.3 | 97 |
| 28. | 1306 | 7.0 | 216 | 7.4 | 11.5 | 743 | 10.3 | 97 |
| 28 | 1307 | 9.00 | 217 | 7.5 | 11.5 | 743 | 10.3 | 97 |
| 28. | 1308 | 11.0 | 221 | 7.4 | 11.5 | 743 | 10.2 | 96 |
| SEP |  |  |  |  |  |  |  |  |
| 01. | 1137 | 2.0 | 224 | 7.9 | 7.5 | 744 | 11.9 | 102 |
| 01. | 1139 | 10.0 | 224 | 7.9 | 7.5 | 744 | 11.9 | 102 |
| 01. | 1140 | 18.0 | 223 | 7.9 | 7.5 | 744 | 11.8 | 101 |
| 01. | 1141 | 26.0 | 223 | 7.9 | 7.5 | 744 | 11.8 | 101 |
| 01. | 1142 | 34.0 | 223 | 7.9 | 7.5 | 744 | 11.8 | 101 |


| Date | Time | Medium code | Sample type | $\begin{gathered} \text { Stream } \\ \text { width, } \\ \text { feet } \\ (00004) \end{gathered}$ | ```Gage height, feet (00065)``` | Instantaneous discharge, cfs (00061) | Sampling method, code (82398) | ```Sampler type, code (84164)``` | Specif. conductance, wat unf uS/cm 25 degC (00095) | $p H$, water, unfltrd field, std units $(00400)$ | ```Temper- ature, air, deg C (00020)``` | $\begin{aligned} & \text { Temper- } \\ & \text { ature, } \\ & \text { water, } \\ & \text { deg C } \\ & (00010) \end{aligned}$ | ```Turbid- ity, wat unf lab, Hach 2100AN NTU (99872)``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAY 27. | 1430 | 9 | 9 | 104 | 38.06 | 218 | 10 | 3044 | 90 | 7.6 | 9.8 | 1.5 | <2.0 |
| JUN 23 | 1520 | H | 9 | - - | 37.66 | 98 | -- | - - | - - | -- | 8.9 | -- | -_ |
| JUL 28 | 1240 | 9 | 7 | 12.0 | 37.83 | 34 | 10 | 3044 | 216 | 7.4 | 15.8 | 11.5 | $<2.0$ |
| SEP $01 .$ | 1120 | 9 | 9 | 40.0 | 37.62 | 55 | 10 | 3044 | 223 | 7.9 | 8.2 | 7.5 | $<2.0$ |
| Date | $\begin{aligned} & \text { Baro- } \\ & \text { metric } \\ & \text { pres- } \\ & \text { sure, } \\ & \text { mm Hg } \\ & (00025) \end{aligned}$ | $\begin{gathered} \text { Dis- } \\ \text { solved } \\ \text { oxygen, } \\ \mathrm{mg} / \mathrm{L} \\ (00300) \end{gathered}$ | Dissolved oxygen, percent of saturation (00301) | $\begin{gathered} \text { E coli, } \\ \text { m-TEC } \\ \text { MF, } \\ \text { water, } \\ \text { col/ } \\ 100 \mathrm{~mL} \\ (31633) \end{gathered}$ | Hardness, water, mg/L as CaCO3 (00900) | $\begin{gathered} \text { Calcium } \\ \text { water, } \\ \text { fltrd, } \\ \mathrm{mg} / \mathrm{L} \\ (00915) \end{gathered}$ | $\begin{gathered} \text { Magnes- } \\ \text { ium, } \\ \text { water, } \\ \text { fltrd, } \\ \text { mg/L } \\ (00925) \end{gathered}$ | Sodium, water, fltrd, mg/L (00930) | $\begin{aligned} & \text { Potas- } \\ & \text { sium, } \\ & \text { water, } \\ & \text { fltrd, } \\ & \text { mg/L } \\ & (00935) \end{aligned}$ | Bicarbonate, wat flt incrm. titr., field, mg/L (00453) | $\begin{gathered} \text { Carbon- } \\ \text { ate, } \\ \text { wat flt } \\ \text { incrm. } \\ \text { titr. } \\ \text { field, } \\ \mathrm{mg} / \mathrm{L} \\ (00452) \end{gathered}$ | ```Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)``` | Alkalinity, wat flt fxd end field, mg/L as CaCO3 (39036) |
| MAY 27. | 735 | 12.5 | 92 | E1 | 44 | 14.5 | 1.92 | 1.08 | . 49 | 35 | . 0 | 28 | 30 |
| JUN 23. | - | -- | -- | -- | -- | -- | - - | -- | -- | -- | -- | -- | -- |
| JUL $28 .$ | 743 | 10.3 | 97 | 64 | 110 | 36.2 | 5.24 | 2.21 | . 95 | 97 | . 0 | 80 | 82 |
| SEP $01 .$ | 744 | 11.8 | 101 | E5 | 110 | 34.1 | 5.48 | 2.02 | . 84 | 103 | . 0 | 84 | 85 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date | ```Sulfate water, fltrd, mg/L (00945)``` | $\begin{gathered} \text { Chlor- } \\ \text { ide, } \\ \text { water, } \\ \text { fltrd, } \\ \mathrm{mg} / \mathrm{L} \\ (00940) \end{gathered}$ | ```Fluor- ide, water, fltrd, mg/L (00950)``` | Silica, water, fltrd, mg/L (00955) | ```Residue on evap. at 180degC wat flt mg/L (70300)``` | Residue water, fltrd, sum of constituents $\mathrm{mg} / \mathrm{L}$ (70301) | Aluminum, water, fltrd, ug/L (01106) | $\begin{gathered} \text { Anti- } \\ \text { mony, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ \text { (01095) } \end{gathered}$ | Arsenic water, fltrd, ug/L (01000) | ```Barium, water, fltrd, ug/L (01005)``` | ```Beryll- ium, water, fltrd, ug/L (01010)``` | Cadmium water, fltrd, ug/L (01025) | ```Chrom- ium, water, fltrd, ug/L (01030)``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { MAY } \\ 27 . \end{gathered}$ | 8.0 | 1.46 | <. 2 | 2.86 | 57 | 48 | 7 | 1.09 | 2.0 | 5 | <. 06 | <. 04 | <. 8 |
| JUN 23. | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |  |
| $\begin{aligned} & \text { JUL } \\ & 28 \text {. . } \end{aligned}$ | 29.1 | 1.51 | <. 2 | 7.49 | 149 | 130 | 2 | 1.20 | 3.1 | 14 | <. 06 | <. 04 | <. 8 |
| SEP ${ }_{\text {S }} \times 1$. | 27.8 | 1.53 | <. 2 | 6.93 | 136 | 129 | 2 | 1.32 | 2.9 | 12 | <. 06 | <. 04 | $<.8$ |
| Date | Cobalt water, fltrd, ug/L (01035) | ```Copper, water, fltrd, ug/L (01040)``` | Iron, water, fltrd, ug/L (01046) | $\begin{gathered} \text { Lead, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ \text { (01049) } \end{gathered}$ | $\begin{gathered} \text { Mangan- } \\ \text { ese, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ (01056) \end{gathered}$ | $\begin{gathered} \text { Mercury } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ \text { (71890) } \end{gathered}$ | $\begin{gathered} \text { Molyb- } \\ \text { denum, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ (01060) \end{gathered}$ | Nickel, water, fltrd, ug/L (01065) | $\begin{gathered} \text { Silver, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ (01075) \end{gathered}$ | $\begin{gathered} \text { Zinc, } \\ \text { water, } \\ \text { fltrd, } \\ \text { ug/L } \\ (01090) \end{gathered}$ | Uranium natural water, fltrd, ug/L (22703) | Cyanide water, fltrd, mg/L (00723) | Suspended sediment concentration mg/L (80154) |
| $\begin{aligned} & \text { MAY } \\ & 27 . \end{aligned}$ | . 077 | . 5 | 60 | <. 08 | 9.2 | <. 02 | <. 4 | . 47 | $<.2$ | 1.2 | . 09 | <. 01 | 3 |
| JUN $23 .$ |  | -- | -- | -- | -_ | -_ | -_ | -- | -- | - - | -- | -_ | -- |
| $\begin{gathered} \text { JUL } \\ 28 . \end{gathered}$ | . 111 | . 5 | <6 | <. 08 | 1.5 | <. 02 | E. 3 | . 70 | <. 2 | E. 4 | . 38 | <. 01 | 5 |
|  | . 114 | . 5 | E5 | <. 08 | 2.3 | <. 02 | E. 2 | 1.17 | <. 2 | . 9 | . 43 | <. 01 | . 4 |
| Date | Suspended sediment discharge, tons/d (80155) | Suspnd. sediment, sieve diametr percent <.063mm (70331) | Aluminum, bed sed <62.5um wet svd fld, tot percent (34790) | ```Anti- mony, bed sed <62.5um wet svd fld,tot ug/g (34795)``` | Arsenic bed sed <62. 5um wet svd field, <br> total, ug/g <br> (34800) | ```Barium, bed sed <62.5um wet svd field, total, ug/g (34805)``` | ```Beryll- ium, bed sed <62.5um wet svd fld,tot ug/g (34810)``` | ```Bismuth bed sed <177um wet svd field, total, ug/g (34816)``` | Cadmium bed sed <62. 5um wet svd field, total, ug/g (34825) | ```Chrom- ium, bed sed <62. 5um wet svd fld, tot ug/g (34840)``` | Copper, bed sed <62. 5um wet svd field, total, ug/g (34850) | Calcium bed sed <62. 5um wet svd field, total, percent (34830) | $\begin{gathered} \text { Cobalt, } \\ \text { bed sed } \\ <62.5 u m \\ \text { wet svd } \\ \text { field, } \\ \text { total, } \\ \text { ug/g } \\ (34845) \end{gathered}$ |
| $\begin{aligned} & \text { MAY } \\ & 27 \ldots \end{aligned}$ | 1.8 | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| $\begin{aligned} & \text { JUN } \\ & 23 \ldots \end{aligned}$ | -- | -- | 8.1 | 22 | 300 | 1100 | 3.2 | <1 | 1.6 | 120 | 49 | 1.0 | 26 |
| $\begin{gathered} \text { JUL } \\ 28 . \end{gathered}$ | . 45 | -- | -_ | -- | -- | -_ | - - | -- | -- | -- | -- | -- | -- |
| $\begin{aligned} & \text { SEP } \\ & 01 \ldots \end{aligned}$ | . 06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Date | ```Cerium, bed sed <62.5um wet svd field, total, ug/g (34835)``` | ```Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)``` | Gold, bed sed <62. 5um wet svd field, total, ug/g (34870) | ```Gallium bed sed <62. 5um wet svd field, total, ug/g (34860)``` | Holmium bed sed <62. 5um wet svd field, total, ug/g (34875) | Iron, bed sed <62. 5um wet svd field, total, percent (34880) | ```Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)``` | Lead, bed sed <62. 5um wet svd field, total, ug/g (34890) | ```Lithium bed sed <62.5um wet svd field, total, ug/g (34895)``` | Magnesium, bed sed <62. 5um wet svd fld, tot percent (34900) | ```Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)``` | Mercury bed sed <62. 5um wet svd field, total, ug/g (34910) | Molybdenum, bed sed <62. 5um wet svd fld, tot ug/g (34915) |
| $\begin{aligned} & \text { MAY } \\ & 27 \ldots \end{aligned}$ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN $23 .$ | 93 | 2 | <1 | 20 | 1 | 6.0 | 49 | 25 | 46 | 1.7 | 1800 | . 04 | 3.0 |
| $\begin{aligned} & \text { JUL } \\ & 28 . . \end{aligned}$ | 9 | 2 | <1 | 20 | 1 | 6.0 | 4 | 25 | 46 | 1.7 | 180 | . 04 | 3.0 |
| $\begin{aligned} & \mathrm{SEP} \\ & 01 \ldots \end{aligned}$ | -- | -- | -- | -- | - | -- | -- | -- | -- | -- | -- | -- | -- |
| Date | ```Neodym- ium, bed sed <62.5um wet svd fld,tot ug/g (34920)``` | ```Nickel, bed sed <62.5um wet svd field, total, ug/g (34925)``` | Niobium bed sed <62.5um wet svd field, total, ug/g (34930) | Phosphorus, bed sed <62. 5um wet svd fld, tot percent (34935) | ```Scand- ium, bed sed <62. 5um wet svd fld,tot ug/g (34945)``` | ```Selen- ium, bed sed <62.5um wet svd fld,tot ug/g (34950)``` | Silver, bed sed <62. 5um wet svd field, total, ug/g (34955) | Sodium, bed sed <62. 5um wet svd field, total, percent (34960) | ```Stront- ium, bed sed <62. 5um wet svd fld,tot ug/g (34965)``` | Sulfur, bed sed <62. 5um wet svd field, total, percent (34970) | Tantalum, bed sed <62. 5um wet svd fld, tot ug/g (34975) | Thorium bed sed <62.5um wet svd field, total, ug/g (34980) | ```Tin, bed sed <62.5um wet svd field, total, ug/g (34985)``` |
| $\begin{aligned} & \text { MAY } \\ & 27 \ldots . \end{aligned}$ | -- | -- | -- | -- | -- | -- | -- | -- | -- | - | -- | - | -- |
| $\begin{aligned} & \text { JUN } \\ & 23 \ldots \end{aligned}$ | 48 | 62 | 10 | . 120 | 22 | 1.0 | . 5 | . 730 | 120 | . 07 | <1 | 17 | 5 |
| $\begin{aligned} & \text { JUL } \\ & 28 . \ldots \end{aligned}$ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | - |
| $\begin{aligned} & \text { SEP } \\ & 01 \ldots \end{aligned}$ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

15625850 STEWART RIVER 0.1 MILE BELOW BOULDER CREEK MOUTH NEAR NOME—Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

|  | Titanium, | Uranium bed sed | Vanadium, | Yttrium bed sed | $\begin{gathered} \text { Ytterb- } \\ \text { ium, } \end{gathered}$ | $\begin{aligned} & \text { Zinc, } \\ & \text { bed sed } \end{aligned}$ | Organic carbon, | Inorg. carbon, | Total carbon, | Total carbon, | Inorg. carbon, | Organic carbon, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | bed sed | <62.5um | bed sed | <62.5um | bed sed | <62.5um | bed sed | bed sed | sedimnt | bed sed | bed sed | bed sed |
|  | <62.5um | wet svd | <62.5um | wet svd | <62.5um | wet svd | <62.5um | <62.5um | <62.5um | $<2 \mathrm{~mm}$, | $<2 \mathrm{~mm}$, | <2 mm, |
|  | wsv nat | field, | wet svd | field, | wet svd | field, | wsv nat | wsv nat | wsv nat | wsv nat | wsv nat | wsv nat |
| Date | rec, | total, | fld, tot | total, | fld, tot | total, | field | field | field | field | field | field |
|  | $\begin{aligned} & \text { percent } \\ & (49274) \end{aligned}$ | $\begin{gathered} \mathrm{ug} / \mathrm{g} \\ (35000) \end{gathered}$ | $\begin{gathered} \mathrm{ug} / \mathrm{g} \\ (35005) \end{gathered}$ | $\begin{gathered} \mathrm{ug} / \mathrm{g} \\ (35010) \end{gathered}$ | $\begin{gathered} \mathrm{ug} / \mathrm{g} \\ (35015) \end{gathered}$ | $\begin{gathered} \mathrm{ug} / \mathrm{g} \\ (35020) \end{gathered}$ | $\begin{aligned} & \text { percent } \\ & (49266) \end{aligned}$ | $\begin{aligned} & \text { percent } \\ & (49269) \end{aligned}$ | $\begin{aligned} & \text { percent } \\ & (49267) \end{aligned}$ | $\begin{gathered} \mathrm{g} / \mathrm{kg} \\ (49272) \end{gathered}$ | $\begin{gathered} \mathrm{g} / \mathrm{kg} \\ (49270) \end{gathered}$ | $\begin{gathered} \mathrm{g} / \mathrm{kg} \\ (49271) \end{gathered}$ |

MAY
$27 \ldots$
JUN
$23 \ldots$
JUL
$28 \ldots$
SEP
$01 \ldots$

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MARCH |  |  | APRIL |  |  | MAY |  |  | JUNE |  |
| 1 | - | --- | -- | --- | --- | - | --- | -- | --- | 6.5 | 1.0 | 3.5 |
| 2 | --- | --- | --- | --- | - | --- | - | --- | -- | 6.0 | 1.5 | 3.5 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.5 | 2.0 | 4.0 |
| 4 | - | --- | --- | --- | --- | --- | --- | --- | --- | 6.5 | 2.0 | 4.0 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | -- | 9.0 | 2.5 | 5.0 |
| 6 | -- | --- | --- | --- | --- | - | -- | - | -- | 10.0 | 3.0 | 6.0 |
| 7 | - | --- | --- | --- | --- | --- | --- | --- | --- | --- | , | , |
| 8 | -- | --- | --- | --- | - | --- | --- | --- | --- | --- | -- | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | -- | -- | --- | -- | --- | --- |
| 11 | --- | - | - | --- | --- | - | --- | -- | --- | --- | --- | --- |
| 12 | - | --- | --- | --- | --- | --- | --- | --- | --- | --- | -- | --- |
| 13 | --- | -- | -- | -- | --- | -- | -- | - | -- | - | --- | --- |
| 14 | - | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | - | - | --- | - | --- | --- | --- | --- | --- | --- | -- |
| 16 | - | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | -- | - | -- | --- | --- | -- |
| 18 | - | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | - |
| 19 | --- | --- | - | --- | --- | --- | -- | - | - | --- | --- | --- |
| 20 | --- | --- | --- | - | --- | --- | -- | - | - | --- | --- | -- |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | - | --- | -- | --- |
| 22 | --- | - | - | --- | - | --- | - | - | - | - | -- | - |
| 23 | --- | - | --- | --- | --- | --- | -- | --- | -- | -- | -- | --- |
| 24 | -- | --- | --- | - | --- | --- | --- | - | -- | --- | -- | - |
| 25 | --- | --- | --- | - | --- | - | --- | --- | - | --- | -- | - |
| 26 | --- | --- | --- | --- | --- | --- | -- | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | - | --- | 4.0 | --- | --- | --- | --- | - |
| 28 | --- | --- | --- | --- | --- | --- | 5.5 | 0.5 | 2.5 | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | 4.0 | 1.5 | 2.5 | --- | --- | --- |
| 30 | --- | -- | --- | - | - | --- | 5.5 | 1.0 | 3.0 | --- | --- | --- |
| 31 | --- | --- | --- | --- | --- | --- | 4.0 | 1.5 | 2.5 | --- | --- | --- |
| MONTH | --- | --- | - | --- | --- | --- | --- | --- | --- | --- | --- | --- |

## 15625900 STEWART RIVER 0.2 MILE BELOW DURRANT CREEK MOUTH NEAR NOME

LOCATION.--Lat $64^{\circ} 47^{\prime} 18^{\prime \prime}$, long $165^{\circ} 37^{\prime} 54^{\prime \prime}$, in $\mathrm{NW}^{1} / 4 \mathrm{NW}^{1} / 4 \mathrm{NE} \mathrm{N}^{1} / 4 \mathrm{sec} .19, \mathrm{~T} .8 \mathrm{~S} ., \mathrm{R} .34 \mathrm{~W} .(\mathrm{Nome} \mathrm{D}-2$ quad), Hydrologic Unit 19050104, on the left bank, 0.2 mi downstream from Durrant Creek, 2.6 mi upstream from mouth, and 22 mi northwest of Nome.

DRAINAGE AREA.-- $53.18 \mathrm{mi}^{2}$.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- May 2004 to September 2004 (discontinued).
GAGE.--Water-stage recorder. Elevation of gage is 375 ft above sea level, from topographic map.
EXTREMES FOR CURRENT PERIOD.--Maximum discharge during period May to September 2004 , $760 \mathrm{ft} / \mathrm{s}$, May 26 and 27 , gage height, 15.73 ft . minimum discharge $35 \mathrm{ft}^{3} / \mathrm{s}$, July 25 and 26.

REMARKS.--Records are fair, except for estimated discharges, which are poor. Rain gage at station.

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 | --- | --- | --- | --- | --- | --- | --- | --- | 494 | 89 | 56 | 110 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | 445 | 86 | 51 | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | -- | 383 | 81 | 80 | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | 338 | 76 | 90 | --- |
| 5 | --- | --- | - | --- | --- | - | --- | --- | 410 | 73 | 71 | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | 399 | 67 | 63 | - |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | 418 | 65 | 70 | - |
| 8 | --- | --- | - | --- | --- | - | --- | --- | 310 | 66 | 232 | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | 268 | 63 | 231 | - |
| 10 | --- | --- | --- | --- | --- | - | --- | --- | 241 | 59 | 156 | -- |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | 235 | 54 | 130 | -- |
| 12 | --- | --- | --- | - | --- | --- | --- | --- | 230 | 51 | 387 | --- |
| 13 | --- | --- | --- | --- | --- | -- | --- | --- | 203 | 50 | 537 |  |
| 14 | --- | --- | - | --- | --- | --- | --- | --- | 180 | 50 | 446 | -- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 157 | 48 | 397 | --- |
| 16 | --- | -- | --- | --- | --- | --- | -- | --- | 156 | 48 | 313 | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | 193 | 54 | 270 | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | 149 | 58 | 235 | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | 169 | 47 | 214 | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 142 | 43 | 195 | - |
|  | --- | --- | --- | --- | --- | - | --- | --- | 130 | 41 | 179 | - |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | 160 | 40 | 171 | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | - | 224 | 38 | 160 | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | 174 | 37 | 149 | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | 165 | 36 | 137 | -- |
| 26 | --- | --- | -- | --- | --- | --- | --- | e660 | 149 | 36 | 126 | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | 626 | 131 | 58 | 123 | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | 434 | 116 | 109 | 117 | -- |
| 29 | --- | --- | --- | --- | --- | --- | --- | 469 | 103 | 76 | 112 | - |
| 30 | --- | --- | --- | --- | --- | --- | --- | 462 | 94 | 75 | 113 | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | e640 | --- | 61 | 110 | --- |
| TOTAL | --- | --- | --- | --- | --- | - | --- | --- | 6966 | 1835 | 5721 | --- |
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | 232 | 59.2 | 185 | --- |
| MAX | --- | --- | --- | --- | --- | --- | --- |  | 494 | 109 | 537 |  |
| MIN | --- | --- | --- | -- | - | --- | --- |  | 94 | 36 | 51 |  |
| AC-FT | --- | --- | --- | --- | --- | --- | --- | --- | 13820 | 3640 | 11350 | - |

PERIOD OF RECORD.--May to September 2004 (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May to September 2004 (discontinued).
INSTRUMENTATION.--Water-temperature recorder. Electronic water temperature recorder set for $15-m i n u t e$ recording interval.

REMARKS.--Probe installed on May 26. Recorder malfunctioned from May 28 to June 9, and 11 . Records represent water temperature at sensor within $0.5^{\circ} \mathrm{C}$. Temperature at the sensor was compared with the average for the river by cross section on May 26, and July 28 , and September 1. A $0.5^{\circ} \mathrm{C}$ variation was found May 26 and July 28 . No variation was found September 1. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURE: Maximum, $18.5^{\circ} \mathrm{C}$, July 22 and 24 ; minimum recorded, $0.5^{\circ} \mathrm{C}, \mathrm{May} 27$.
WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date | Time | Location in X-sect. looking dwnstrm ft from 1 bank (00009) | Specif. conductance, wat unf uS/cm 25 degC (00095) | $\begin{gathered} \text { pH, } \\ \text { water, } \\ \text { unfltrd } \\ \text { field, } \\ \text { std } \\ \text { units } \\ (00400) \end{gathered}$ | $\begin{aligned} & \text { Temper- } \\ & \text { ature, } \\ & \text { water, } \\ & \text { deg C } \\ & (00010) \end{aligned}$ | Baro- <br> metric <br> pres- <br> sure, <br> mm Hg <br> (00025) | $\begin{gathered} \text { Dis- } \\ \text { solved } \\ \text { oxygen, } \\ \text { mg/L } \\ (00300) \end{gathered}$ | Dissolved oxygen, percent of saturation (00301) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAY |  |  |  |  |  |  |  |  |
| 26. | 1831 | 16.0 | 83 | 7.2 | 4.5 | 751 | 11.9 | 93 |
| 26. | 1833 | 36.0 | 83 | 7.2 | 4.5 | 751 | 11.8 | 93 |
| 26. | 1834 | 76.0 | 83 | 7.2 | 4.5 | 751 | 11.8 | 93 |
| 26. | 1835 | 96.0 | 83 | 7.2 | 4.5 | 751 | 11.8 | 93 |
| 26. | 1836 | 116 | 84 | 7.2 | 4.5 | 751 | 11.7 | 92 |
| 26. | 1837 | 136 | 84 | 7.2 | 5.0 | 751 | 11.7 | 93 |
| JUL |  |  |  |  |  |  |  |  |
| 28. | 1505 | 64.0 | 201 | 7.6 | 13.5 | 743 | 10.3 | 101 |
| 28. | 1506 | 49.0 | 202 | 7.6 | 13.0 | 743 | 9.9 | 96 |
| 28. | 1507 | 34.0 | 203 | 7.6 | 13.0 | 743 | 9.8 | 95 |
| 28. | 1508 | 19.0 | 203 | 7.5 | 13.0 | 743 | 9.8 | 95 |
| 28. | 1509 | 4.00 | 204 | 7.5 | 13.0 | 743 | 9.8 | 95 |
| SEP |  |  |  |  |  |  |  |  |
| 01. | 1330 | 8.00 | 221 | 7.7 | 8.5 | -- | 11.0 | -- |
| 01. | 1331 | 24.0 | 219 | 7.7 | 8.5 | -- | 11.0 | -- |
| 01. | 1332 | 40.0 | 218 | 7.7 | 8.5 | -- | 11.0 | -- |
| 01. | 1333 | 56.0 | 216 | 7.7 | 9.0 | -- | 11.0 | -- |
| 01. | 1334 | 72.0 | 215 | 7.7 | 9.0 | -- | 11.0 | -- |
| SEP |  |  |  |  |  |  |  |  |
| 01. | 1330 | 8.00 | 221 | 7.7 | 8.5 | -- | 11.0 | -- |
| 01.. | 1331 | 24.0 | 219 | 7.7 | 8.5 | -- | 11.0 | -- |


| Date | Time | Medium code | Sample type | $\begin{gathered} \text { Stream } \\ \text { width, } \\ \text { feet } \\ (00004) \end{gathered}$ | Gage height, feet (00065) | Instantaneous discharge, cfs (00061) | $\begin{gathered} \text { Sam- } \\ \text { pling } \\ \text { method, } \\ \text { code } \\ (82398) \end{gathered}$ | ```Sampler type, code (84164)``` | Specif. conductance, wat unf uS/cm 25 degC (00095) |  | ```Temper- ature, air, deg C (00020)``` | ```Temper- ature, water, deg C (00010)``` | ```Turbid- ity, wat unf lab, Hach 2100AN NTU (99872)``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAY 26. | 1810 | 9 | 9 | 146 | 15.55 | 680 | 10 | 3044 | 83 | 7.2 | 10.5 | 4.5 | 3.3 |
| JUN 23. | 1410 | H | 9 | -- | 14.88 | 265 | 70 | -- | -- | -- | -- | -- | -- |
| JUL 28. | 1440 | 9 | 9 | 74.0 | 14.50 | 89 | 20 | 3044 | 203 | 7.5 | 18.1 | 13.0 | $<2.0$ |
| $\begin{aligned} & \text { SEP } \\ & 01 . \end{aligned}$ | 1310 | 9 | 9 | 97.0 | 14.62 | 109 | 10 | 3044 | 220 | 7.8 | 13.5 | 8.8 | $<2.0$ |
| Date | Barometric pressure, mm Hg (00025) | $\begin{gathered} \text { Dis- } \\ \text { solved } \\ \text { oxygen, } \\ \mathrm{mg} / \mathrm{L} \\ (00300) \end{gathered}$ | Dissolved oxygen, percent of saturation (00301) | $\begin{gathered} \text { E coli, } \\ \text { m-TEC } \\ \text { MF, } \\ \text { water, } \\ \text { col/ } \\ 100 \mathrm{~mL} \\ (31633) \end{gathered}$ | Hardness, water, mg/L as CaCO3 (00900) | $\begin{gathered} \text { Calcium } \\ \text { water, } \\ \text { fltrd, } \\ \mathrm{mg} / \mathrm{L} \\ (00915) \end{gathered}$ | $\begin{gathered} \text { Magnes- } \\ \text { ium, } \\ \text { water, } \\ \text { fltrd, } \\ \mathrm{mg} / \mathrm{L} \\ (00925) \end{gathered}$ | $\begin{gathered} \text { Sodium, } \\ \text { water, } \\ \text { fltrd, } \\ \mathrm{mg} / \mathrm{L} \\ (00930) \end{gathered}$ | Potassium, water, fltrd, mg/L (00935) | ```Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)``` | ```Carbon- ate, wat flt incrm. titr., field, mg/L (00452)``` | Alkalinity, wat flt inc tit field, $\mathrm{mg} / \mathrm{L}$ as CaCO3 (39086) | Alkalinity, wat flt fxd end field, $\mathrm{mg} / \mathrm{L}$ as CaCO3 (39036) |
| $\begin{aligned} & \text { MAY } \\ & 26 . \end{aligned}$ | 741 | 11.8 | 94 | E4 | 38 | 12.3 | 1.88 | 1.03 | . 38 | 31 | . 0 | 25 | 26 |
| JUN 23. | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | - | -- | -- |
| JUL 28. | 743 | 9.8 | 95 | 40 | 100 | 33.1 | 5.14 | 2.29 | . 71 | 95 | . 0 | 77 | 78 |
| $\begin{gathered} \text { SEP } \\ 01 . \end{gathered}$ | 744 | 11.0 | 97 | E8 | 120 | 37.3 | 5.68 | 2.20 | . 62 | 101 | . 0 | 83 | 83 |



TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004


## 15743850 DAHL CREEK NEAR KOBUK

LOCATION.--Lat $66^{\circ} 56^{\prime} 46^{\prime \prime}$, long $156^{\circ} 54^{\prime} 32^{\prime \prime}$, in $\mathrm{NW}^{1} / 4 \mathrm{SE}^{1} / 4$ sec. $21, \mathrm{~T} .18 \mathrm{~N} ., \mathrm{R} .9$ E. (Shungnak D-2 quad), Hydrologic Unit 19050302, on right bank 25 ft downstream from bridge on road to Bornite at west end of Dahl Creek landing strip, 3.5 mi upstream from mouth, 3 mi north of Kobuk, and 7.3 miles northeast of Shungnak.

DRAINAGE AREA. --11.0 mi2.
PERIOD OF RECORD.--Annual maximum, water years 1986-87, April 1988 to current year. (No winter record in water years 1989, 1991-92, 1994, and 1996.)

REVISED RECORDS.--WDR AK-88-1: 1986 (M).
GAGE.--Water-stage recorder. Elevation of gage is 225 ft above sea level, from topographic map. July 16 , 1986 , to April 28, 1988, the water-stage recorder was operated to obtain annual maximums. Prior to August 17 , 1994 at site 50 ft upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

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 | 47 | 28 | e14 | e5.0 | e1. 8 | e1.4 | e1.4 | 13 | 58 | 20 | 29 | 33 |
| 2 | 47 | 27 | e14 | e4.8 | e1. 7 | e1.4 | e1.4 | 14 | 56 | 20 | 24 | 30 |
| 3 | 45 | 27 | e13 | e4.6 | e1.7 | e1.4 | e1.4 | 15 | 50 | 19 | 23 | 29 |
| 4 | 43 | 26 | e13 | e4.4 | e1.7 | e1.4 | e1.4 | 17 | 47 | 20 | 23 | 27 |
| 5 | 43 | 26 | e13 | e4.2 | e1.7 | e1.4 | e1.4 | 18 | 46 | 20 | 22 | 26 |
| 6 | 44 | e25 | e12 | e3. 8 | e1.7 | e1.4 | e1.4 | 107 | 44 | 20 | 22 | 26 |
| 7 | 44 | e25 | e12 | e3. 6 | e1.6 | e1.4 | e1.5 | 59 | 42 | 20 | 22 | 25 |
| 8 | 44 | e25 | e12 | e3. 6 | e1.6 | e1.4 | e1.6 | 28 | 39 | 19 | 24 | 24 |
| 9 | 43 | e24 | e11 | e3.4 | e1. 6 | e1.4 | e1. 6 | 21 | 38 | 19 | 33 | 24 |
| 10 | 43 | e24 | e11 | e3. 2 | e1.6 | e1.4 | e1.6 | 24 | 36 | 19 | 32 | 23 |
| 11 | 42 | e23 | e11 | e3. 0 | e1. 6 | e1.4 | e1.7 | 27 | 34 | 18 | 30 | 23 |
| 12 | 41 | e23 | e10 | e3.0 | e1.6 | e1.4 | e1.8 | 27 | 33 | 18 | 32 | 25 |
| 13 | 40 | e22 | e10 | e2. 8 | e1. 5 | e1.4 | e1.9 | 29 | 32 | 18 | 335 | 24 |
| 14 | 39 | e22 | e10 | e2. 8 | e1.5 | e1.4 | e1.9 | 52 | 31 | 17 | 159 | 23 |
| 15 | 38 | e21 | e9.2 | e2. 6 | e1.5 | e1.4 | e1.9 | 64 | 29 | 17 | 128 | 22 |
| 16 | 38 | e21 | e9.0 | e2. 6 | e1. 5 | e1.4 | e1. 8 | 85 | 28 | 17 | 112 | 21 |
| 17 | 37 | e20 | e8. 8 | e2.4 | e1. 5 | e1.4 | e1.8 | 97 | 28 | 17 | 98 | 21 |
| 18 | 36 | e20 | e8. 6 | e2. 4 | e1. 5 | e1.4 | e1.8 | 113 | 26 | 17 | 86 | 21 |
| 19 | e35 | e19 | e8.2 | e2.4 | e1. 5 | e1.4 | e1.9 | 85 | 25 | 17 | 76 | 20 |
| 20 | 34 | e19 | e8.0 | e2. 2 | e1. 5 | e1.4 | e1.9 | 78 | 24 | 16 | 68 | 20 |
| 21 | 33 | e18 | e7. 8 | e2. 2 | e1. 5 | e1.4 | e2.0 | 76 | 23 | 16 | 62 | 20 |
| 22 | e33 | e18 | e7. 6 | e2. 2 | e1. 5 | e1.4 | e2. 2 | 80 | 23 | 16 | 56 | 20 |
| 23 | e32 | e17 | e7. 2 | e2.0 | e1. 5 | e1.4 | e2.4 | 104 | 23 | 15 | 51 | 20 |
| 24 | e31 | e17 | e7.0 | e2.0 | e1. 5 | e1.4 | e2. 8 | 155 | 25 | 15 | 46 | 20 |
| 25 | 31 | e17 | e6. 8 | e2.0 | e1. 5 | e1.4 | e3. 4 | 103 | 24 | 15 | 43 | 19 |
| 26 | e30 | e16 | e6. 6 | e1.9 | e1. 5 | e1.4 | e4.0 | 76 | 22 | 15 | 40 | 19 |
| 27 | e29 | e16 | e6. 4 | e1.9 | e1.4 | e1.4 | e5.0 | 63 | 22 | 15 | 38 | 18 |
| 28 | e29 | e15 | e6.0 | e1.9 | e1.4 | e1.4 | e7. 6 | 59 | 21 | 15 | 35 | 18 |
| 29 | 28 | e15 | e5. 8 | e1.9 | e1.4 | e1.4 | e9.0 | 59 | 21 | 17 | 34 | e19 |
| 30 | 28 | e14 | e5.6 | e1. 8 | --- | e1.4 | e11 | 60 | 20 | 16 | 33 | 19 |
| 31 | 29 | --- | e5.4 | e1. 8 | --- | e1.4 | --- | 58 | --- | 30 | 33 | --- |
| TOTAL | 1156 | 630 | 290.0 | 88.4 | 45.1 | 43.4 | 82.5 | 1866 | 970 | 553 | 1849 | 679 |
| MEAN | 37.3 | 21.0 | 9.35 | 2.85 | 1.56 | 1.40 | 2.75 | 60.2 | 32.3 | 17.8 | 59.6 | 22.6 |
| MAX | 47 | 28 | 14 | 5.0 | 1.8 | 1.4 | 11 | 155 | 58 | 30 | 335 | 33 |
| MIN | 28 | 14 | 5.4 | 1.8 | 1.4 | 1.4 | 1.4 | 13 | 20 | 15 | 22 | 18 |
| AC-FT | 2290 | 1250 | 575 | 175 | 89 | 86 | 164 | 3700 | 1920 | 1100 | 3670 | 1350 |
| CFSM | 3.39 | 1.91 | 0.85 | 0.26 | 0.14 | 0.13 | 0.25 | 5.47 | 2.94 | 1.62 | 5.42 | 2.06 |
| IN. | 3.91 | 2.13 | 0.98 | 0.30 | 0.15 | 0.15 | 0.28 | 6.31 | 3.28 | 1.87 | 6.25 | 2.30 |
| STATISTICS OF |  | HLY M | DATA | WATER YEARS 1986-2004, BY WATER YEAR (WY)\# |  |  |  |  |  |  |  |  |
| MEAN | 29.5 | 11.1 | 6.52 | 4.64 | 3.97 | 3.62 | 4.07 | 51.7 | 62.5 | 36.5 | 69.0 | 48.6 |
| MAX | 67.2 | 21.0 | 9.46 | 6.88 | 6.15 | 5.63 | 7.39 | 93.1 | 116 | 73.2 | 223 | 104 |
| (WY) | 1994 | 2004 | 2003 | 1998 | 1998 | 1998 | 1997 | 1996 | 1992 | 1989 | 1994 | 1993 |
| MIN | 9.65 | 3.70 | 2.55 | 2.00 | 1.56 | 1.40 | 1.50 | 6.21 | 13.1 | 10.6 | 17.3 | 19.8 |
| (WY) | 1993 | 1993 | 1993 | 1993 | 2004 | 2004 | 1993 | 2001 | 1997 | 1997 | 1990 | 1991 |

\# See Period of Record; partial years used in monthly statistics e Estimated

15743850 DAHL CREEK NEAR KOBUK-Continued

| SUMMARY STATISTICS | FOR 2003 CALENDAR YEAR | FOR 2004 WATER YEAR | WATER YEARS | 1986 - | 2004\# |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ANNUAL TOTAL | 13479.6 | 8252.4 |  |  |  |
| ANNUAL MEAN | 36.9 | 22.5 | 25.6 |  |  |
| HIGHEST ANNUAL MEAN |  |  | 36.7 |  | 1993 |
| LOWEST ANNUAL MEAN |  |  | 18.8 |  | 1999 |
| HIGHEST DAILY MEAN | 186 Aug 16 | 335 Aug 13 | 1400 | Aug 17 | 1994 |
| LOWEST DAILY MEAN | a4.2 Mar 25 | b1.4 Feb 27 | b1. 4 | Feb 27 | 2004 |
| ANNUAL SEVEN-DAY MINIMUM | 4.2 Mar 25 | 1.4 Feb 27 | 1.4 | Feb 27 | 2004 |
| MAXIMUM PEAK FLOW |  | 791 Aug 13 | d1840 | Aug 17 | 1994 |
| MAXIMUM PEAK STAGE |  | 6.18 Aug 13 | 6.73 | Aug 17 | 1994 |
| MAXIMUM PEAK STAGE |  |  | f7. 03 | May 10 | 2002 |
| ANNUAL RUNOFF (AC-FT) | 26740 | 16370 | 18550 |  |  |
| ANNUAL RUNOFF (CFSM) | 3.36 | 2.05 | 2.33 |  |  |
| ANNUAL RUNOFF (INCHES) | 45.59 | 27.91 | 31.63 |  |  |
| 10 PERCENT EXCEEDS | 92 | 47 | 65 |  |  |
| 50 PERCENT EXCEEDS | 19 | 18 | 11 |  |  |
| 90 PERCENT EXCEEDS | 4.4 | 1.4 | 3.0 |  |  |

[^1]
## 15746991 IKALUKROK CREEK BELOW RED DOG CREEK NEAR KIVALINA

LOCATION.--Lat $68^{\circ} 02^{\prime} 51^{\prime \prime}$, long $163^{\circ} 01^{\prime} 34^{\prime \prime}$, in $\mathrm{NE}^{1 / 4} \mathrm{NW}^{1} / 4$ sec. 33 , T. $31 \mathrm{~N} ., \mathrm{R} .19$ W. (Delong Mountains A-2 quad) Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank about 3.5 mi downstream from the mouth of Red Dog Creek, 2.5 mi upstream from the mouth of Dudd Creek, and 45 mi northeast of Kivalina.

DRAINAGE AREA. $--98.6 \mathrm{mi}^{2}$.
PERIOD OF RECORD.--June 1995 to current year (no winter record).
GAGE.--Water-stage recorder. Elevation of gage is 650 ft above sea level, from topographic map. Prior to June 1, 1998 at site 1 mi upstream at different datum

REMARKS.--Records fair except for estimated daily discharges, which are poor. Runoff from 3.6 mi ${ }^{2}$ is impounded in tailings ponds and released intermittently at a maximum rate of $25 \mathrm{ft}^{3} / \mathrm{s}$. Meteor-burst telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, undetermined, July 25, 1996; gage height, 12.22 ft, at site and datum then in use.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, $4950 \mathrm{ft}^{3} / \mathrm{s}$, August 9 , gage height, 12.18 ft ; minimum not determined, occurs during the winter.

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 | 278 | --- | --- | - | -- | -- | --- | -- | e520 | 211 | 231 | 230 |
| 2 | 532 | --- | --- | --- | - | --- | -- | - | e560 | 199 | 208 | 214 |
| 3 | 419 | --- | --- | --- | --- | --- | -- | --- | 518 | 189 | 197 | 190 |
| 4 | e310 | --- | --- | --- | --- | --- | --- | --- | 426 | 174 | 196 | 177 |
| 5 | --- | --- | --- | --- | --- | --- | - | --- | 483 | 213 | 187 | 169 |
| 6 | --- | --- | --- | - | -- | --- | -- | -- | 429 | 308 | 187 | 158 |
| 7 | --- | --- | --- | --- | --- | --- | - | --- | 400 | 266 | 192 | 147 |
| 8 | - | --- | --- | --- | --- | --- | --- | --- | 362 | 259 | 1140 | 140 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | 336 | 243 | 2460 | 139 |
| 10 | - | --- | --- | --- | - | --- | -- | --- | 321 | 226 | 1140 | e130 |
| 11 | - | --- | --- | --- | --- | --- | - | --- | 281 | 209 | 704 | e120 |
| 12 | -- | --- | --- | --- | --- | --- | -- | --- | 260 | 194 | 654 | e110 |
| 13 | -- | --- | --- | --- | --- | --- | --- | --- | 247 | 188 | 1130 | e105 |
| 14 | - | --- | --- | - | --- | --- | -- | --- | 289 | 180 | 763 | e100 |
| 15 | -- | --- | --- | --- | --- | --- | --- | --- | 252 | 172 | 630 | e95 |
| 16 | -- | --- | --- | - | --- | --- | -- | --- | 237 | 162 | 523 | e85 |
| 17 | - | --- | --- | --- | --- | --- | --- | --- | 394 | 167 | 425 | e80 |
| 18 | --- | --- | --- | --- | --- | --- | -- | --- | 333 | 188 | 363 | e75 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | 392 | 175 | 303 | e70 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 459 | 167 | 263 | e65 |
| 21 | -- | --- | --- | --- | --- | --- | - | --- | 322 | 160 | 244 | e63 |
| 22 | --- | --- | --- | -- | --- | --- | -- | --- | 296 | 153 | 216 | e61 |
| 23 | --- | --- | -- | -- | --- | -- | -- | --- | 351 | 149 | 208 | e60 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | 446 | 143 | 201 | e58 |
| 25 | --- | --- | --- | -- | --- | --- | - | --- | 399 | 136 | 180 | e54 |
| 26 | - | --- | - | --- | --- | - | - | --- | 373 | 136 | 174 | e50 |
| 27 | --- | - | -- | - | - | -- | -- | --- | 316 | 139 | 167 | e50 |
| 28 | - | --- | - | --- | --- | --- | - | --- | 270 | 137 | 161 | e50 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | 246 | 137 | 153 | e50 |
| 30 | -- | --- | --- | --- | --- | --- | --- | --- | 227 | 137 | 147 | e50 |
| 31 | --- | --- | -- | --- | --- | --- | --- | - | --- | 237 | 175 | --- |
| TOTAL | --- | --- | --- | --- | --- | -- | -- | --- | 10745 | 5754 | 13922 | 3145 |
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | 358 | 186 | 449 | 105 |
| MAX |  | --- | --- | -- | - | --- | -- | - | 560 | 308 | 2460 | 230 |
| MIN |  | - | -- | -- | --- | -- | -- | --- | 227 | 136 | 147 | 50 |
| AC-FT | --- | --- | --- | --- | --- | --- | --- | --- | 21310 | 11410 | 27610 | 6240 |
| CFSM | -- | --- | --- | --- | --- | --- | --- | - | 3.75 | 1.95 | 4.71 | 1.10 |
| IN. | - | --- | --- | --- | --- | --- | --- | --- | 4.19 | 2.24 | 5.43 | 1.23 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

| MEAN | 59.9 | 12.5 | --- | - | - | - | - | 112 | 451 | 210 | 403 | 252 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAX | 88.0 | 21.5 | --- | --- | --- | --- | --- | 200 | 872 | 328 | 687 | 515 |
| (WY) | 2003 | 1999 | --- | --- | --- | --- | --- | 1999 | 2003 | 2003 | 1998 | 2002 |
| MIN | 39.8 | 2.56 | --- | --- | --- | --- | --- | 23.7 | 259 | 91.6 | 125 | 84.7 |
| (WY) | 2001 | 2000 | -- | --- | --- | --- | --- | 2001 | 1999 | 1999 | 1995 | 1996 |

[^2]
## 15747000 WULIK RIVER BELOW TUTAK CREEK NEAR KIVALINA

LOCATION.--Lat $67^{\circ} 52^{\prime} 34^{\prime \prime}$, long $163^{\circ} 40^{\prime} 28^{\prime \prime}$, in $\mathrm{NW}^{1} / 4$ sec. $34, \mathrm{~T} .29 \mathrm{~N} ., \mathrm{R} .22 \mathrm{~W}$. (Noatak D-4 quad), Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank 0.1 mi downstream from Tutak Creek and 25 mi northeast of Kivalina.

DRAINAGE AREA. - $-705 \mathrm{mi}^{2}$.
PERIOD OF RECORD.--September 1984 to current year.
GAGE.--Water-stage recorder. Elevation of gage is 175 ft above sea level, from topographic map.
REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station. Flow from 2.8 square miles of the drainage basin is regulated by a tailings dam at the Red Dog Mine site. Up to $25 \mathrm{ft}^{3} / \mathrm{s}$ of the flow at the gage may be discharge from Red Dog Mine during the summer period.

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

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 777 | e210 | e110 | e64 | e38 | e27 | e23 | e290 | 5670 | 1010 | 1570 | 1140 |
| 2 | 3850 | e210 | e110 | e62 | e38 | e27 | e23 | e360 | 6200 | 893 | 1320 | 1400 |
| 3 | 3220 | e220 | e110 | e62 | e37 | e27 | e22 | e540 | 4260 | 809 | 1130 | 1320 |
| 4 | 2330 | e220 | e110 | e60 | e36 | e27 | e22 | e700 | 3280 | 753 | 1060 | 1230 |
| 5 | 1830 | e220 | e100 | e59 | e36 | e26 | e22 | e900 | 3490 | 803 | 995 | 1150 |
| 6 | 1490 | e220 | e100 | e58 | e35 | e26 | e22 | e650 | 3570 | 1590 | 917 | 1060 |
| 7 | 1250 | e210 | e100 | e57 | e35 | e26 | e22 | e550 | 3050 | 1580 | 879 | 993 |
| 8 | 1170 | e210 | e98 | e56 | e34 | e26 | e22 | e650 | 2910 | 1450 | 1640 | 916 |
| 9 | 1100 | e210 | e96 | e55 | e34 | e26 | e22 | e800 | 2530 | 1250 | 13600 | 862 |
| 10 | 1100 | e200 | e94 | e54 | e33 | e26 | e22 | e900 | 2430 | 1050 | 11100 | 818 |
| 11 | 1200 | e200 | e92 | e53 | e33 | e25 | e22 | e1300 | 1990 | 908 | 6330 | 769 |
| 12 | 1290 | e190 | e90 | e52 | e32 | e25 | e22 | e1900 | 1850 | 794 | 4310 | 733 |
| 13 | 1070 | e180 | e88 | e51 | e32 | e25 | e22 | e2700 | 1720 | 718 | 8450 | 705 |
| 14 | 736 | e180 | e86 | e50 | e32 | e25 | e22 | e3600 | 1690 | 671 | 6650 | 665 |
| 15 | e560 | e170 | e86 | e50 | e31 | e25 | e22 | e5000 | 1500 | 626 | 4880 | 628 |
| 16 | e500 | e170 | e84 | e49 | e31 | e25 | e22 | e6500 | 1630 | 579 | 3950 | 589 |
| 17 | e420 | e160 | e82 | e48 | e31 | e24 | e22 | e9500 | 2030 | 650 | 3250 | 567 |
| 18 | e360 | e160 | e80 | e47 | e30 | e24 | e22 | 6790 | 3100 | 936 | 2730 | 550 |
| 19 | e320 | e150 | e80 | e46 | e30 | e24 | e22 | 4370 | 2480 | 995 | 2300 | 535 |
| 20 | e290 | e150 | e78 | e46 | e30 | e24 | e22 | 3390 | 4370 | 871 | 1970 | 514 |
| 21 | e260 | e140 | e76 | e45 | e29 | e24 | e22 | 2690 | 2480 | 752 | 1740 | 492 |
| 22 | e240 | e140 | e76 | e44 | e29 | e24 | e22 | 3410 | 1870 | 671 | 1570 | 457 |
| 23 | e230 | e140 | e74 | e44 | e29 | e24 | e22 | 7560 | 1900 | 612 | 1430 | 435 |
| 24 | e215 | e130 | e74 | e43 | e29 | e24 | e22 | 12300 | 3250 | 565 | 1290 | e400 |
| 25 | e200 | e130 | e72 | e42 | e28 | e23 | e22 | 12500 | 2860 | 533 | 1170 | e370 |
| 26 | e190 | e130 | e72 | e42 | e28 | e23 | e32 | 7930 | 2660 | 511 | 1070 | e350 |
| 27 | e180 | e120 | e70 | e41 | e28 | e23 | e50 | 4940 | 2150 | 528 | 1010 | e330 |
| 28 | e180 | e120 | e68 | e41 | e28 | e23 | e70 | 2750 | 1690 | 536 | 951 | e300 |
| 29 | e180 | e120 | e68 | e40 | e27 | e23 | e100 | 3960 | 1360 | 530 | 910 | e280 |
| 30 | e190 | e120 | e66 | e39 | --- | e23 | e190 | 5640 | 1160 | 522 | 865 | e260 |
| 31 | e200 |  | e64 | e39 | --- | e23 | --- | 5690 |  | 891 | 897 | --- |
| TOTAL | 27128 | 5130 | 2654 | 1539 | 923 | 767 | 994 | 120760 | 81130 | 25587 | 91934 | 20818 |
| MEAN | 875 | 171 | 85.6 | 49.6 | 31.8 | 24.7 | 33.1 | 3895 | 2704 | 825 | 2966 | 694 |
| MAX | 3850 | 220 | 110 | 64 | 38 | 27 | 190 | 12500 | 6200 | 1590 | 13600 | 1400 |
| MIN | 180 | 120 | 64 | 39 | 27 | 23 | 22 | 290 | 1160 | 511 | 865 | 260 |
| AC-FT | 53810 | 10180 | 5260 | 3050 | 1830 | 1520 | 1970 | 239500 | 160900 | 50750 | 182400 | 41290 |
| CFSM | 1.24 | 0.24 | 0.12 | 0.07 | 0.05 | 0.04 | 0.05 | 5.53 | 3.84 | 1.17 | 4.21 | 0.98 |
| IN. | 1.43 | 0.27 | 0.14 | 0.08 | 0.05 | 0.04 | 0.05 | 6.37 | 4.28 | 1.35 | 4.85 | 1.10 |
| STATISTICS OF MONTHLY MEAN |  |  | DATA | WATER YEARS 1985-2004, BY WATER YEAR (WY) \# |  |  |  |  |  |  |  |  |
| MEAN | 552 | 138 | 65.7 | 37.7 | 25.3 | 19.5 | 17.5 | 1888 | 3225 | 1644 | 2793 | 1648 |
| MAX | 1542 | 290 | 111 | 70.0 | 49.3 | 39.5 | 38.8 | 4856 | 6669 | 6144 | 8458 | 3076 |
| (WY) | 1994 | 1994 | 1986 | 1986 | 1986 | 1991 | 1991 | 1993 | 1989 | 1989 | 1994 | 2002 |
| MIN | 207 | 63.1 | 34.2 | 21.5 | 12.0 | 9.10 | 9.00 | 20.6 | 1372 | 424 | 496 | 386 |
| (WY) | 1997 | 2002 | 1988 | 1992 | 1992 | 1992 | 1992 | 1989 | 1988 | 1999 | 1991 | 1991 |

SUMMARY STATISTICS
FOR 2003 CALENDAR YEAR
FOR 2004 WATER YEAR
WATER YEARS 1985 - 2004\#

| ANNUAL TOTAL | 320195 |  |  |
| :---: | :---: | :---: | :---: |
| ANNUAL MEAN | 877 |  |  |
| HIGHEST ANNUAL MEAN |  |  |  |
| LOWEST ANNUAL MEAN |  |  |  |
| HIGHEST DAILY MEAN | 12600 | Jun |  |
| LOWEST DAILY MEAN | a24 | Apr |  |
| ANNUAL SEVEN-DAY MINIMUM | 24 | Apr |  |
| MAXIMUM PEAK FLOW |  |  |  |
| MAXIMUM PEAK STAGE |  |  |  |
| ANNUAL PEAK STAGE |  |  |  |
| ANNUAL RUNOFF (AC-FT) | 635100 |  |  |
| ANNUAL RUNOFF (CFSM) | 1.24 |  |  |
| ANNUAL RUNOFF (INCHES) | 16.90 |  |  |
| 10 PERCENT EXCEEDS | 2140 |  |  |
| 50 PERCENT EXCEEDS | 140 |  |  |
| 90 PERCENT EXCEEDS | 26 |  |  |
| \# See Period of Record |  |  |  |
| From Apr. 17-29 |  |  |  |
| From Apr. 3-25 |  |  |  |
| From Apr. 30 to May 10, 1985, and Mar. 4 to May 17, 1992 |  |  |  |
| From floodmarks, backwater from snow and ice |  |  |  |
| e Estimated |  |  |  |


| 379364 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1037 | 1009 |  |  |  |  |
|  | 18431994 |  |  |  |  |
|  |  |  | 530 |  | 1987 |
| 13600 | Aug | 9 | 29400 | Aug 17 | 1994 |
| b22 | Apr | 3 | c9.0 | Apr 30 | 1985 |
| 22 | Apr | 3 | 9.0 | Apr 30 | 1985 |
| 18100 | Aug | 9 | 38500 | Aug 17 | 1994 |
| 9.80 | Aug | 9 | 12.21 | Aug 17 | 1994 |
|  |  |  | d13.5 | May 16 | 1999 |
| 752500 |  |  | 731100 |  |  |
| 1.47 |  |  | 1.43 |  |  |
| 20.02 |  |  | 19.45 |  |  |
| 3060 |  |  | 2830 |  |  |
| 210 |  |  | 130 |  |  |
| 24 |  |  | 15 |  |  |


[^0]:    e Estimated

[^1]:    \# See Period of Record; partial years used in monthly statistics
    a From Mar. 25 to Apr. 15
    b From Feb. 27 to Apr. 6
    d From rating curve extended above $170 \mathrm{ft}^{3} / \mathrm{s}$ on basis of slope-area measurement of peak flow
    f Backwater from ice

[^2]:    e Estimated

