## 15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET

 $\texttt{LOCATION.--Lat~63°56'06'',~long~160°18'18'',~in~NW}^{1}/_{4}~\text{NE}^{1}/_{4}~\text{sec.~18,~T.18~S.,~R.8~W.}} \text{ (Unalakleet~D-3~quad),~Hydrologic~locally approximate the property of the prop$ 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 mi<sup>2</sup>.

## 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.

		DISCH	ARGE, CUBI	C FEET P		WATER Y MEAN		BER 2003	TO SEPTEM	BER 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 27 28 29 30 31	1460 1430 1370 1350 1310 1460	e480 e460 e440 e420 e400	e190 e190 e190 e180 e180 e180	e130 e130 e130 e130 e130 e130	e120 e120 e120 e120 	e120 e120 e120 e120 e120 e120	e1300 e1800 e2500 e4000 e6000	e7000 e6400 e6000 e5400 e5000	1930 1840 1770 1700 1650	1050 1050 1080 1110 1120 1140	2050 1960 1880 1810 1760 1730	1280 1220 1170 1120 1110
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	TICS OF	MONTHLY ME	EAN DATA FO	R WATER	YEARS 1997	- 2004	1, BY WATER	R YEAR (W	Y)#			
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 Estimated

# 15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

SUMMARY STATISTICS	FOR 2003 CALENI	DAR YEAR	FOR 2004 WAT	ER YEAR	WATER YEARS	1997 - 2	2004#
ANNUAL TOTAL	592330		655380				
ANNUAL MEAN	1623		1791		1470		
HIGHEST ANNUAL MEAN					1791	2	2004
LOWEST ANNUAL MEAN					1005	2	2002
HIGHEST DAILY MEAN	7590	May 10	15500	Aug 15	19600	Jun 8 2	2001
LOWEST DAILY MEAN	a120	Mar 11	b120	Feb 11	c95	Mar 21 2	2001
ANNUAL SEVEN-DAY MINIMUM	120	Mar 11	120	Feb 11	95	Mar 21 2	2001
MAXIMUM PEAK FLOW			15900	Aug 15	d19700	Jun 8 2	2001
MAXIMUM PEAK STAGE			96.94	Aug 15	98.41	Jun 8 2	2001
MAXIMUM PEAK STAGE					f99.58	May 23 2	2002
ANNUAL RUNOFF (AC-FT)	1175000		1300000		1065000		
ANNUAL RUNOFF (CFSM)	1.55		1.71		1.40		
ANNUAL RUNOFF (INCHES)	21.03		23.26		19.05		
10 PERCENT EXCEEDS	3980		5460		3610		
50 PERCENT EXCEEDS	1420		1120		750		
90 PERCENT EXCEEDS	120		120		120		

<sup>#</sup> See Period of Record
a From Mar. 11 to Apr. 16
b From Feb. 11 to Apr. 5
c From Mar. 21 to Apr. 10
d From rating curve extended above 8800 ft<sup>3</sup>/s
f Backwater from ice

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

#### WATER-OUALITY 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°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  $0.5^{\circ}\text{C}$ .

EXTREMES FOR PERIOD OF RECORD.-WATER TEMPERATURE: Maximum, 15.5°C, July 14, 2004; minimum, 0.0°C, many days during winter and spring breakup

EXTREMES FOR CURRENT YEAR .--

WATER TEMPERATURE: Maximum, 15.5°C, July 14.; minimum, 0.0°C, many days during fall, winter and spring breakup periods.

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

			SAMPLE		DIS-		
			LOC-		CHARGE,		
			ATION,		INST.		
			CROSS		CUBIC	TEMPER-	TEMPER-
		STREAM	SECTION	GAGE	FEET	ATURE	ATURE
Date	Time	WIDTH	(FT FM	HEIGHT	PER	WATER	AIR
		(FT)	R BK)	(FEET)	SECOND	(DEG C)	(DEG C)
		(00004)	(72103)	(00065)	(00061)	(00010)	(00020)
JUN							
05	1321	255	20.0	90.94	4860	8.0	20.0
05	1322	255	50.0	90.94	4860	8.0	20.0
05	1323	255	90.0	90.94	4860	8.0	20.0
05	1324	255	160.0	90.94	4860	8.0	20.0
05	1325	255	240.0	90.94	4860	8.0	20.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER		NC	VEMBER		DE	CEMBER			JANUARY	
1 2 3 4 5	6.0 6.0 5.5 4.5	4.0 5.5 4.5 4.5 3.5	5.0 6.0 5.0 4.5 4.0	1.5 1.5 1.5 2.0 2.0	1.0 1.5 1.0 1.5 2.0	1.0 1.5 1.5 1.5 2.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
6 7 8 9 10	4.0 4.0 4.0 4.0 3.5	3.5 3.5 3.5 3.5 3.5	4.0 4.0 4.0 4.0 3.5	2.0 1.5 1.0 1.0	1.5 1.0 1.0 0.0	2.0 1.0 1.0 0.5 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
11 12 13 14 15	3.5 3.0 2.5 1.0	3.0 2.5 1.0 1.0	3.0 2.5 2.0 1.0	  	  	  	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
16 17 18 19 20	2.0 2.0 0.5 0.0	1.5 0.5 0.0 0.0	2.0 1.0 0.0 0.0	  	  	  	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
21 22 23 24 25	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	  	  	  	0.0 0.0 0.0 	0.0 0.0 0.0  0.0	0.0 0.0 0.0  0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
26 27 28 29 30 31	0.5  1.0 1.0 1.5 2.0	0.0  0.5 0.5 0.5	0.0 0.5 0.5 0.5 1.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0						
MONTH			2.0									

# 15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

		TEMPER	ATURE,	WATER (DEG	REES CELS	SIUS), W.	ATER YEAR	OCTOBER	2003 TO	SEPTEMBER	2004	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1 2 3 4 5	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	2.5 2.0 2.0 2.5 2.5	1.5 1.0 1.0 1.0	2.0 1.5 1.5 1.5
6 7 8 9 10	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	1.0 1.5 2.0 2.0 2.5	1.0 1.0 1.5 1.5	1.0 1.0 2.0 1.5
11 12 13 14 15	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	  	  	  	2.5 2.5 3.0 3.0	2.0 2.0 2.5 2.5 3.0	2.5 2.0 3.0 3.0 3.5
16 17 18 19 20	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	  	  	  	4.0 4.0 3.0 4.0	3.5 2.5 2.5 3.0 4.0	4.0 3.0 2.5 3.5 4.5
21 22 23 24 25	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	1.5 1.5	  0.5 0.5	  1.0 1.0	5.5 5.0 5.5 5.0 6.0	4.5 4.0 5.0 5.0	5.0 4.5 5.5 5.0 5.5
26 27 28 29 30 31	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	1.5 1.0 2.0 2.0 3.0	0.5 0.5 0.5 1.5	1.0 0.5 1.0 1.5 2.0	6.5 6.0 5.5 6.0 6.5	6.0 5.5 5.5 5.0 5.5 6.0	6.5 5.5 5.5 6.5 6.5
MONTH	0.0	0.0	0.0	0.0	0.0	0.0				6.5	1.0	3.5
		TEMPER	ATURE,	WATER (DEG	REES CELS	SIUS), W.	ATER YEAR	OCTOBER	2003 TO	SEPTEMBER	2004	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBE	R
1 2 3 4 5	6.0 6.5 7.0 7.0 8.5	5.0 5.0 6.5 6.5	5.5 6.0 7.0 6.5 8.0	12.0 12.0 11.0 10.5 12.0	11.0 11.0 10.0 9.5 10.0	11.5 11.0 10.5 10.0 10.5	12.0 11.5 11.0 11.0	11.0 10.5 10.0 10.0	11.5 11.0 10.5 10.5	8.5 8.5 7.5 7.0 7.5	8.0 7.5 6.5 6.5	8.5 8.0 7.0 6.5 7.0
6 7 8 9 10	10.0 10.5 10.5 8.5 9.5	8.5 9.5 8.5 7.0 7.0	9.0 10.0 10.0 7.5 8.0	11.5 11.5 10.5 11.0 12.5	11.0 10.5 9.5 9.0 10.5	11.0 11.0 10.0 10.0	12.5 12.0 11.5 11.0 12.0	10.5 11.5 10.5 10.0 11.0	11.5 11.5 10.5 10.5 11.0	8.0 7.5 7.5 7.0 7.0	7.0 6.5 6.5 6.0	7.5 7.0 7.0 6.5 6.5
11 12 13 14 15	10.0 10.5 10.5 10.0 10.5	9.0 9.5 9.5 9.5 9.0	9.5 10.0 10.0 9.5 9.5	14.0 14.5 15.0 15.5 15.0	12.0 12.0 12.5 13.5 13.5	13.0 13.5 14.0 14.5 14.0	12.5 12.0 11.5 11.0	11.0 11.5 11.0 10.5 10.5	11.5 11.5 11.0 10.5 10.5	7.0 7.0 6.5 6.0	6.0 6.0 5.5 5.0	6.5 6.0 5.5 5.5
16 17 18 19 20	10.5 10.0 9.5 10.5 11.0	10.0 9.5 9.0 8.5 9.5	10.0 9.5 9.0 9.0 10.5	14.0 13.5 13.0 14.0 14.5	13.0 12.5 12.0 12.0 12.0	13.5 13.0 12.5 13.0 13.5	11.5 11.5 12.0 12.0 11.5	11.0 11.5 11.5 11.0 11.0	11.5 11.5 11.5 11.5 11.5	6.0 5.5  4.5	5.0 4.0 	5.5 4.5 3.5 3.5 4.0
21 22 23 24 25	11.5 11.0 10.5 10.0 10.5	10.5 10.5 10.0 9.5 9.0	11.0 11.0 10.5 9.5 9.5	15.0 15.0 14.0 14.0 14.5	13.5 13.0 13.0 12.0 13.0	14.0 14.0 13.5 13.0 13.5	11.0 11.0 11.0 11.0 10.5	10.5 10.0 10.0 10.0	10.5 10.5 10.5 10.5	4.0  3.5 	3.5 3.5 3.5 2.5	4.0 4.0 4.0 3.0
26 27 28 29 30 31	12.0 13.5 14.0 14.0 13.5	10.0 11.0 12.0 12.5 12.0	10.5 12.0 13.0 13.5 12.5	13.5 12.0 12.0 13.5 14.5	12.0 11.5 11.0 11.5 12.0	12.5 11.5 11.5 12.5 13.0	10.0 8.5 8.0 8.5 8.5 8.5	8.0 7.5 7.0 7.0 8.0	9.0 8.0 7.5 7.5 8.0	2.5 2.0 2.0 1.5	2.0 1.5 1.0	3.0 2.5 2.0 1.5 1.5
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  $64^{\circ}41'56''$ , long  $164^{\circ}09'57''$ , in  $SE^{1}/_{4}$   $NE^{1}/_{4}$   $NE^{1}/_{4}$  sec. 24, T.9 S., R.28 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 mi<sup>2</sup>.

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,  $9.3~{\rm ft}^3/{\rm s}$ , August 13, gage height  $50.22~{\rm ft}$ . Minimum discharge not determined, occurs during winter.

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

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

October 2003 to September 2004: Maximum daily discharge during period, 15 ft<sup>3</sup>/s (estimated), June 4. Minimum discharge not determined, occurs during winter.

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

					DAII	Y MEAN V	ALUES					
DAY	OCT	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
3										03.2	2.0	2.0
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
4.5												0 0
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												
23										5.1 4.7	4.6	2.0
25											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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

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
3	±•/								65.0	00.05	60.50	1.5
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
0.1	. 0 . 0 0								. 1 0	. 0 . 5 4	0.26	1 2
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								e0.72	e0.59	0.40	5.5
28	e0.70								e0.63	e0.66	0.43	7.1
29	e0.60								e0.59	e0.00	0.43	5.7
30	e0.60								e0.56	e0.70	0.36	5.3
31	e0.60									e0.70	0.36	
31	e0.00									e0.03	0.30	
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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES

					DAIL	Y MEAN VA	ALUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2								e15	3.7	2.1	3.5
2	5.0								e14	3.2	2.1	3.4
3	4.3								e13	2.8	2.1	3.4
4	4.2								e12	2.9	2.0	3.1
5	4.1								e11	2.7	1.9	3.0
6	4.1								10	2.7	1.9	3.1
7	3.8								8.4	2.6	1.9	3.0
8	e3.5								8.1	2.4	1.9	2.9
9	e3.2								7.6	2.3	1.8	2.8
10	3.3								6.7	2.4	1.8	2.8
11	3.7								7.1	2.1	2.5	2.7
12	3.5								7.2	2.1	2.1	2.6
13	3.4								6.1	2.1	2.4	2.5
14	3.5								4.5	2.0	2.4	2.5
15	3.5								3.6	1.9	2.4	2.4
16	e3.2								3.1	1.8	2.3	2.3
17	e3.1								3.2	1.7	2.3	2.3
18	e3.0								3.1	1.6	2.3	2.3
19	e3.0								2.9	1.5	2.3	2.3
20	e2.9								2.8	1.5	2.2	2.1
21	e2.8								2.7	1.5	2.1	2.1
22	e2.8								2.6	1.7	2.2	2.1
23	e2.7								2.3	2.1	2.4	2.0
24	e2.6								2.9	1.8	2.3	2.0
25	2.7								2.3	2.0	3.1	1.9
26	2.5								2.1	2.1	3.3	e1.8
27	2.4								1.8	2.1	3.6	1.8
28	2.4								1.8	2.2	3.7	1.8
29	2.5								3.8	2.3	3.7	2.0
30	e2.6								2.5	2.3	3.7	1.9
31	2.7									2.1	3.7	
TOTAL	102.2								174.2	68.2	76.5	74.4
MEAN	3.30								5.81	2.20	2.47	2.48
MAX	5.2								15	3.7	3.7	3.5
MIN	2.4								1.8	1.5	1.8	1.8
MED	3.2								3.7	2.1	2.3	2.4
AC-FT	203								346	135	152	148
CFSM	2.48								4.37	1.65	1.86	1.86
IN.	2.86								4.87	1.91	2.14	2.08
	2.00								2.07	1.71	2.14	2.00

e Estimated

# 15583500 ETTA CREEK NEAR COUNCIL—Continued

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

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
e2 0							e5 0	5 5	1 9	0 91	2.8
											2.7
											2.6
											2.5
											2.6
2.5							014	3.7	±•/	0.55	2.0
2.3							e14	5.7	1.6	0.99	2.6
											2.5
											2.4
											2.2
2.1							e12	4.0	1.4	3.2	2.2
2.1							e11	4.0	1.3	3.0	2.2
2.0							e10	4.1	1.3	3.8	2.2
2.0							e10	3.9	1.2	6.1	2.1
1.9							e9.5	3.4	1.2	5.7	2.0
1.9							e9.0	3.3	1.2	5.5	2.0
-1 0							-0.0	2 1	1 0	F 0	2.0
											1.9
											1.9
											1.9
											1.8
e1./							e5.0	2.0	1.2	4.2	1.0
e1.7							e6.0	2.6	1.2	4.1	1.8
e1.7							e6.4	2.7	1.1	3.9	1.8
e1.6							e6.2	3.2	1.0	3.5	1.8
e1.6							e6.0	2.5	1.0	3.5	1.7
e1.5							5.5	2.4	1.0	3.4	1.7
e1 5							5 3	2 3	1 0	3 4	1.5
											e1.5
											e1.4
											1.4
											1.4
57.3							259.0	108.5	40.02	102.34	61.1
											2.04
											2.8
											1.4
1.9							7.0			3.4	2.0
											121
											1.53
1.60							7.24	3.03	1.12	2.86	1.71
	e2.0 2.1 2.2 2.3 2.3 2.3 2.3 2.1 2.1 2.1 2.1 2.0 2.0 1.9 1.9 e1.8 e1.8 e1.7 e1.7 e1.6 e1.5 e1.6 e1.5 e1.4 e1.4 e1.3 e1.4 e1.3 e1.4	e2.0 2.1 2.2 2.3 2.3 2.3 2.3 2.1 2.1 2.1 2.1 2.0 1.9 1.8 1.8 1.8 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.7 1.8 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.3 1.3 1.4 1.5 -	e2.0 2.1 2.2 2.3 2.3 2.3 2.1 2.1 2.1 2.1 2.0 1.9 1.9 1.9 1.9 1.9 1.9 2.0 2.1	e2.0	e2.0	e2.0	e2.0	e2.0            e10           2.1            e10           2.2            e12           2.3           e14           2.3           e14           2.3           e14           2.3           e14           2.3           e14           2.3           e14           2.3           e12           2.1           e10           2.0           e10           1.	e2.0            e10         5.7           2.1            e12         5.0           2.2            e15         4.7           2.3            e14         5.7           2.3            e14         5.7           2.3            e13         5.6           2.3            e12         4.7           2.1            e12         4.7           2.1            e12         4.0           2.0            e12         4.0           2.0            e12         4.0           2.0            e12         4.0           2.0             e12         4.0           2.0	e2.0            e1.0         5.5         1.9           2.1           e12         5.0         1.8           2.2           e15         4.7         1.7           2.3           e15         4.7         1.7           2.3           e14         5.7         1.6           2.3           e13         5.6         1.5           2.3           e13         5.6         1.5           2.3           e12         4.7         1.5           2.1           e12         4.7         1.5           2.1           e12         4.0         1.4           2.1           e12         4.0         1.4           2.1           e10         4.1         1.3           2.0           e10         4.1         1.3           2.0            e10         4.1	e2.0            e10         5.7         1.8         0.95           2.1            e10         5.7         1.8         0.95           2.2            e15         4.7         1.7         1.1           2.3            e15         4.7         1.7         0.99           2.3            e14         5.7         1.7         0.99           2.3            e13         5.6         1.5         1.3           2.3            e12         4.7         1.5         2.9           2.1            e12         4.7         1.5         2

e Estimated

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

LOCATION.--Lat  $64^{\circ}48'28"$ , long  $165^{\circ}25'46"$ , in  $SE^{1}/_{4}$   $NW^{1}/_{4}$   $SE^{1}/_{4}$  sec. 7, T. 8 S., R. 33 W. (Nome D-1 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 mi<sup>2</sup>.

## 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  ${\rm ft}^3/{\rm s}$ , Aug 12 and 13, gage height, 38.81 ft. minimum daily discharge 14  ${\rm ft}^3/{\rm s}$ , 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									222	. 0.77	22	
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	
13									50	613	132	
16									61	e19	90	
17									76	e22	76	
18									56	e23	66	
19									73	e19	61	
20									60	e17	60	
20									00	617	00	
21									57	e16	60	
22									76	e16	e60	
23									108	e15	e60	
24									84	e15	e60	
25									e78	e14	e60	
23									676	CIT	200	
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	
31								310		CZI	30	
TOTAL									3152	734	2285	
MEAN									105	23.7	73.7	
MAX									272	43	237	
MIN									47	14	20	
AC-FT									6250	1460	4530	
110 11									0230	T-400	-200	

e Estimated

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

#### WATER-OUALITY 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-minute recording

REMARKS.-- Water temperature sensor installed May 27, 2004. Records represent water temperature at sensor within 0.5°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°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°C, June 6; minimum recorded, 0.5°C, May 28.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD. --

WATER TEMPERATURE: Maximum recorded, 10.5°C, June 21.

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

Date		Time	looking dwnstrm ft from	conduc- tance,	pH, water, unfltrd field, std units (00400)	Temper- ature, water, deg C (00010)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)				
MAY 27. 27. 27. 27. 27. 27. 27.		1334 1335 1336 1337 1338 1339 1340	7.0 22.0 39.0 54.0 69.0 84.0 99.0	89 89 89 89 88 88	7.5 7.5 7.4 7.4 7.4 7.4 7.4	1.5 1.5 1.5 1.5 1.5 1.5	735 735 735 735 735 735 735 735	12.7 12.6 12.6 12.5 12.5 12.5	94 93 93 92 92 92 92				
28. 28. 28. 28. 28. SEP		1304 1305 1306 1307 1308	3.0 5.0 7.0 9.00 11.0	216 216 216 217 221	7.4 7.4 7.4 7.5 7.4	11.5 11.5 11.5 11.5 11.5	743 743 743 743 743	10.4 10.3 10.3 10.3	98 97 97 97 96				
01. 01. 01. 01.		1137 1139 1140 1141 1142	2.0 10.0 18.0 26.0 34.0	224 224 223 223 223	7.9 7.9 7.9 7.9 7.9	7.5 7.5 7.5 7.5 7.5	744 744 744 744 744	11.9 11.9 11.8 11.8	102 102 101 101 101				
Date	Time	Medium code	Sample type		Gage height, feet (00065)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Sampler type, code (84164)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	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	. 1520	Н	9		37.66	98					8.9		
	. 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	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	MF, water, col/ 100 mL	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00930)	Potas- sium, water, fltrd, mg/L (00935)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	ate, wat flt incrm. titr.,	inc tit	Alka- linity, wat flt fxd end field, mg/L as CaCO3 (39036)
MAY	. 735	12.5	92	E1	44	14.5	1.92	1.08	.49	35	.0	28	30
JUN 23													
JUL 28													
40		10.3	97	64	110	36.2	5.24	2.21	.95	97	.0	80	82

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

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

						Residue							
Date	Sulfate water, fltrd, mg/L (00945)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L	on evap. at 180degC wat flt mg/L (70300)		Alum- inum, water, fltrd, ug/L (01106)	Anti- mony, water, fltrd, ug/L (01095)		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)
MAY 27	8.0	1.46	<.2	2.86	57	48	7	1.09	2.0	5	<.06	< .04	<.8
JUN 23													
JUL 28	29.1	1.51	<.2	7.49	149	130	2	1.20	3.1	14	<.06	<.04	<.8
SEP													
01	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)	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)		water, fltrd, ug/L	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)	Cyanide water, fltrd, mg/L (00723)	Sus- pended sedi- ment concen- tration mg/L (80154)
MAY 27 JUN	.077	.5	60	<.08	9.2	<.02	<.4	.47	<.2	1.2	.09	<.01	3
23 JUL													
28	.111	.5	<6	<.08	1.5	<.02	E.3	.70	<.2	E.4	.38	<.01	5
SEP 01	.114	.5	E5	<.08	2.3	<.02	E.2	1.17	<.2	.9	.43	<.01	. 4
Date	sedi- ment dis- charge, tons/d	percent	bed sed <62.5um wet svd fld,tot percent	mony, bed sed <62.5um wet svd fld,tot ug/g	bed sed <62.5um wet svd field, total, ug/g	total,	ium, bed sed <62.5um wet svd fld,tot ug/g	bed sed <177um wet svd field,	bed sed <62.5um wet svd field,	ium, bed sed	<62.5um wet svd field, total, ug/g	bed sed <62.5um wet svd field, total,	Cobalt, bed sed <62.5um wet svd field, total, ug/g (34845)
MAY 27	1.8	74											
	1.8	74	 8.1	 22	 300	 1100	 3.2	 <1	 1.6	 120	 49	1.0	 26
27 JUN 23 JUL		74 	8.1	 22 	300	1100	3.2	 <1 	1.6	 120 	 49 	1.0	
27 JUN 23 JUL 28 SEP	 .45	74  	8.1	 22 	300	1100	3.2	 <1 	1.6	 120 	 49 	1.0	
27 JUN 23 JUL 28		74  	8.1 	 22 	300	 1100 	3.2 	<1 	1.6 	 120 	 49 	1.0 	
27 JUN 23 JUL 28 SEP	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g	Gold, bed sed <62.5um wet svd field, total, ug/g	Gallium bed sed <62.5um wet svd field, total, ug/g	Holmium bed sed <62.5um wet svd field, total, ug/g	Iron, bed sed <62.5um wet svd field,	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g	Lithium bed sed <62.5um wet svd field, total, ug/g	Magnes- ium, bed sed <62.5um wet svd fld,tot percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g	Mercury bed sed <62.5um wet svd field,	26  Molyb- denum, bed sed <62.5um
27 JUN 23 JUL 28 SEP 01	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g	Gold, bed sed <62.5um wet svd field, total, ug/g	Gallium bed sed <62.5um wet svd field, total, ug/g	Holmium bed sed <62.5um wet svd field, total, ug/g	Iron, bed sed <62.5um wet svd field, total, percent	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g	Lithium bed sed <62.5um wet svd field, total, ug/g	Magnes- ium, bed sed <62.5um wet svd fld,tot percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g	Mercury bed sed <62.5um wet svd field, total, ug/g	26 Molyb- denum, bed sed <62.5um wet svd fld,tot ug/g
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN	.45 .06 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)	Magnes- ium, 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)	26  Molybdenum, bed sed <62.5um wet svd fld,tot ug/g (34915)
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN 23 JUL 28	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g	Gold, bed sed <62.5um wet svd field, total, ug/g	Gallium bed sed <62.5um wet svd field, total, ug/g	Holmium bed sed <62.5um wet svd field, total, ug/g	Iron, bed sed <62.5um wet svd field, total, percent	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g	Lithium bed sed <62.5um wet svd field, total, ug/g	Magnes- ium, bed sed <62.5um wet svd fld,tot percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g	Mercury bed sed <62.5um wet svd field, total, ug/g	26 Molyb- denum, bed sed <62.5um wet svd fld,tot ug/g
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN 23 JUL 28 SEP	.45 .06 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)	Magnes- ium, 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)	26  Molybdenum, bed sed <62.5um wet svd fld,tot ug/g (34915)
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN 23 JUN 23 JUL 28	.45 .06 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)	Magnes- ium, 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)	26  Molybdenum, bed sed <62.5um wet svd fld,tot ug/g (34915)
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN 23 JUL 28 SEP	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g (34835)  93 Neodym- ium, bed sed <62.5um wet svd fild,total	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)  2  Nickel, bed sed <62.5um wet svd field, total,	Gold, bed sed <62.5um wet svd field, ug/g (34870)   Niobium bed sed <62.5um wet svd field, total, ug/g (34870)	Gallium bed sed <62.5um wet svd field, total, ug/g (34860)  Phosphorus, bed sed <62.5um wet svd fld, tot percent	Holmium bed sed <62.5um wet svd field, total, ug/g (34875)  1 Scandium, bed sed <62.5um wet svd fid, total	Iron, bed sed <62.5um wet svd field, total, percent (34880)	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)  49  Silver, bed sed <62.5um wet svd field, total, ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g (34890)  25 Sodium, bed sed <62.5um wet svd field, total, total, bed sed total, total, bed sed sed total, total, percent	Lithium bed sed <62.5um wet svd field, total, ug/g (34895)  46 Stront-ium, bed sed <62.5um wet svd fild, total	Magnes- ium, bed sed <62.5um wet svd fld,tot percent (34900)  1.7  Sulfur, bed sed <62.5um wet svd field, total, percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)  Tant- alum, bed sed <62.5um wet svd fld,tot	Mercury bed sed <62.5um wet svd field, total, ug/g (34910)	26 Molyb- denum, bed sed <62.5um wet svd fld,tot ug/g (34915) 3.0 Tin, bed sed <62.5um
27 JUN 23 SEP 01  Date  MAY 27 JUN 23 JUL 28 SEP 01	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g (34835)  93 Neodym- ium, bed sed <62.5um wet svd fild,total	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)  2  Nickel, bed sed <62.5um wet svd field, total,	Gold, bed sed <62.5um wet svd field, ug/g (34870)   Niobium bed sed <62.5um wet svd field, total, ug/g (34870)	Gallium bed sed <62.5um wet svd field, total, ug/g (34860)  Phosphorus, bed sed <62.5um wet svd fld, tot percent	Holmium bed sed <62.5um wet svd field, total, ug/g (34875)  1 Scandium, bed sed <62.5um wet svd fid, total	Iron, bed sed <62.5um wet svd field, total, percent (34880)  6.0  Selen- ium, bed sed <62.5um wet svd fild, total	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)  49  Silver, bed sed <62.5um wet svd field, total, ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g (34890)  25 Sodium, bed sed <62.5um wet svd field, total, total, bed sed total, total, bed sed sed total, total, percent	Lithium bed sed <62.5um wet svd field, total, ug/g (34895)  46 Stront- ium, bed sed <62.5um wet svd fld,tot ug/g	Magnes- ium, bed sed <62.5um wet svd fld,tot percent (34900)  1.7  Sulfur, bed sed <62.5um wet svd field, total, percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)  Tant- alum, bed sed <62.5um wet svd fld,tot	Mercury bed sed c62.5um wet svd field, total, ug/g (34910)  Thorium bed sed c62.5um wet svd field, total, ug/g total, ug/g	Molybdenum, bed sed <62.5um wet svd fld, tot ug/g (34915)  Tin, bed sed < Tin, bed sed wet svd field, totucal, total, ug/g
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUN 23 JUN 23 JUL 28 SEP 01  Date	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g (34835)  93 Neodym- ium, bed sed <62.5um wet svd fild,total	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)  2  Nickel, bed sed <62.5um wet svd field, total,	Gold, bed sed <62.5um wet svd field, ug/g (34870)   Niobium bed sed <62.5um wet svd field, total, ug/g (34870)	Gallium bed sed <62.5um wet svd field, total, ug/g (34860)  Phosphorus, bed sed <62.5um wet svd fld, tot percent	Holmium bed sed <62.5um wet svd field, total, ug/g (34875)  1 Scandium, bed sed <62.5um wet svd fid, total	Iron, bed sed <62.5um wet svd field, total, percent (34880)  6.0  Selen- ium, bed sed <62.5um wet svd fild, total	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)  49  Silver, bed sed <62.5um wet svd field, total, ug/g	Lead, bed sed <62.5um wet svd field, total, ug/g (34890)  25 Sodium, bed sed <62.5um wet svd field, total, total, bed sed total, total, bed sed sed total, total, percent	Lithium bed sed <62.5um wet svd field, total, ug/g (34895)  46 Stront- ium, bed sed <62.5um wet svd fld,tot ug/g	Magnes- ium, bed sed <62.5um wet svd fld,tot percent (34900)  1.7  Sulfur, bed sed <62.5um wet svd field, total, percent	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)  Tant- alum, bed sed <62.5um wet svd fld,tot	Mercury bed sed c62.5um wet svd field, total, ug/g (34910)  Thorium bed sed c62.5um wet svd field, total, ug/g total, ug/g	Molybdenum, bed sed <62.5um wet svd fld, tot ug/g (34915)  Tin, bed sed < Tin, bed sed wet svd field, totucal, total, ug/g
27 JUN 23 JUL 28 SEP 01  Date  MAY 27 JUL 28 SEP 01  Date	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g (34835) 93 Neodym-ium, bed sed <62.5um wet svd fid,total, total, ug/g (34920)	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)  2  Nickel, bed sed <62.5um wet svd field, ug/g (34925)	Gold, bed sed <62.5um wet svd field, ug/g (34870)   Niobium bed sed <62.5um wet svd field, ug/g (34930)	Gallium bed sed <62.5um wet svd field, total, ug/g (34860)  Phos-phorus, bed sed <62.5um wet svd fld,tot percent (34935)	Holmium bed sed <62.5um wet svd field, total, ug/g (34875)  1  Scand-ium, bed sed <62.5um wet svd fid, total ug/g (34945)	Iron, bed sed <62.5um wet svd field, total, percent (34880)  Selen-ium, bed sed <62.5um wet svd fid, total (34950)	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)  49 Silver, bed sed <62.5um wet svd field, total, ug/g (34955)	Lead, bed sed <62.5um wet svd field, total, ug/g (34890)  25 Sodium, bed sed <62.5um wet svd field, total, percent (34960)	Lithium bed sed <62.5um wet svd field, total, ug/g (34895)  46 Stront-ium, bed sed <62.5um wet svd fild, total, ug/g (34965)	Magnes- ium, bed sed <62.5um wet svd fld,tot percent (34900)  1.7  Sulfur, bed sed <62.5um wet svd field, total, percent (34970)	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)  1800  Tant- alum, bed sed <62.5um wet svd fld,tot ug/g (34975)	Mercury bed sed <62.5um wet svd field, total, ug/g (34910)	26 Molyb- denum, bed sed <62.5um wet svd fld,tot ug/g (34915)  3.0  Tin, bed sed <62.5um wet svd field, total, ug/g (34985)
27 JUN 23 Date  MAY 27 JUN 28 SEP 01  Date	.45 .06 Cerium, bed sed <62.5um wet svd field, total, ug/g (34835) 93 Neodym-ium, bed sed <62.5um wet svd fid,total, total, ug/g (34920)	Europ- ium, bed sed <62.5um wet svd fld,tot ug/g (34855)  2  Nickel, bed sed <62.5um wet svd field, ug/g (34925)	Gold, bed sed <62.5um wet svd field, ug/g (34870)   Niobium bed sed <62.5um wet svd field, ug/g (34930)	Gallium bed sed <62.5um wet svd field, total, ug/g (34860)  Phosphorus, bed sed <62.5um wet svd fid, total, ug/g (34860)	Holmium bed sed <62.5um wet svd field, total, ug/g (34875)  1   Scand-ium, bed sed <62.5um wet svd fild, tot ug/g (34945)	Iron, bed sed <62.5um wet svd field, total, percent (34880)  Selenium, bed sed <62.5um wet svd fid, total, 104 sed sed <62.5um set svd fid, totug/g (34950)	Lantha- num, bed sed <62.5um wet svd fld,tot ug/g (34885)  49 Silver, bed sed <62.5um wet svd field, total, ug/g (34955)	Lead, bed sed <62.5um wet svd field, total, ug/g (34890)  Sodium, bed sed <62.5um wet svd field, total, percent (34960)	Lithium bed sed <62.5um wet svd field, total, ug/g (34895)  46 Stront-ium, bed sed <62.5um wet svd fild, total, ug/g (34965)	Magnes- ium, bed sed <62.5um wet svd fld,tot percent (34900)  1.7  Sulfur, bed sed <62.5um wet svd field, total, percent (34970)	Mangan- ese, bed sed <62.5um wet svd fld,tot ug/g (34905)  1800  Tant- alum, bed sed <62.5um wet svd fld,tot ug/g (34975)	Mercury bed sed <62.5um wet svd field, total, ug/g (34910)	26 Molyb- denum, bed sed <62.5um wet svd fld,tot ug/g (34915)  3.0  Tin, bed sed <62.5um wet svd field, total, ug/g (34985)

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

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

	Titan-	Uranium	Vanad-	Yttrium	Ytterb-	Zinc,	Organic	Inorg.	Total	Total	Inorg.	Organic	
	ium,	bed sed	ium,	bed sed	ium,	bed sed	carbon,	carbon,	carbon,	carbon,	carbon,	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 mm,	<2 mm,	<2 mm,	
	wsv nat	field,	wet svd	field,	wet svd	field,	wsv nat						
Date	rec,	total,	fld,tot	total,	fld,tot	total,	field	field	field	field	field	field	
	percent	ug/g	ug/g	ug/g	ug/g	ug/g	percent	percent	percent	g/kg	g/kg	g/kg	
	(49274)	(35000)	(35005)	(35010)	(35015)	(35020)	(49266)	(49269)	(49267)	(49272)	(49270)	(49271)	
MAY													
27													
JUN													
23	.380	6.0	170	30	3	200	2.9	.05	2.9	6.6	<.2	6.6	
JUL													
28													
SEP													
0.1													

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	I	MARCH		AF	RIL			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												
1.0												
16 17												
18												
19												
20												
20												
21												
22												
23												
24												
25												
26												
27							4.0					
28							5.5	0.5	2.5			
20 29							4.0	1.5	2.5			
30							5.5	1.0	3.0			
31							4.0	1.5	2.5			
31							4.0	1.5	2.5			
MONTELL												

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

LOCATION.--Lat  $64^{\circ}47'18''$ , long  $165^{\circ}37'54''$ , in  $NW^{1}/_{4}$   $NW^{1}/_{4}$   $NE^{1}/_{4}$  sec. 19, T. 8 S., R. 34 W. (Nome 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 mi<sup>2</sup>.

## 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  ${\rm ft}^3/{\rm s}$ , May 26 and 27, gage height, 15.73 ft. minimum discharge 35  ${\rm ft}^3/{\rm s}$ , 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	
21									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	

e Estimated

# 15625900 STEWART RIVER 0.2 MILE BELOW DURRANT CREEK MOUTH NEAR NOME—Continued WATER-QUALITY RECORDS

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-minute 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°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°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°C, July 22 and 24; minimum recorded, 0.5°C, May 27.

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

Date		Time	Loca- tion in X-sect. looking dwnstrm ft from 1 bank (00009)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temper- ature, water, deg C (00010)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)				
MAY 26 26 26 26 26		1831 1833 1834 1835 1836 1837	16.0 36.0 76.0 96.0 116	83 83 83 83 84	7.2 7.2 7.2 7.2 7.2 7.2	4.5 4.5 4.5 4.5 4.5	751 751 751 751 751 751	11.9 11.8 11.8 11.8 11.7	93 93 93 93 92 93				
28 28 28 28 28 SEP		1505 1506 1507 1508 1509	64.0 49.0 34.0 19.0 4.00	201 202 203 203 204	7.6 7.6 7.6 7.5 7.5	13.5 13.0 13.0 13.0	743 743 743 743 743	10.3 9.9 9.8 9.8 9.8	101 96 95 95 95				
01 01 01 01		1330 1331 1332 1333 1334	8.00 24.0 40.0 56.0 72.0	221 219 218 216 215	7.7 7.7 7.7 7.7 7.7	8.5 8.5 8.5 9.0 9.0	  	11.0 11.0 11.0 11.0 11.0	  				
SEP 01 01		1330 1331	8.00 24.0	221 219	7.7 7.7	8.5 8.5		11.0 11.0	 				
Date	Time	Medium code	n Sample type	e Stream width, feet (00004)	height, feet	cfs	Sam- pling method, code (82398)	Sampler type, code (84164)	uS/cm 25 degC	pH, water, unfltrd field, std units (00400)	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	Н	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
SEP 01	1310	9	9	97.0	14.62	109	10	3044	220	7.8	13.5	8.8	<2.0
Date	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	of sat- uration	MF, water, col/ 100 mI		fltrd, mg/L	Magnes- ium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L	water, fltrd, mg/L	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Alka- linity, wat flt fxd end field, mg/L as CaCO3 (39036)
MAY 26	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
SEP 01	744	11.0	97	E8	120	37.3	5.68	2.20	.62	101	.0	83	83

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

	13023700	SIL WILL	CI ICI V LI	0.2 1111	LL DLL	ow Don	11/11/1	JILLIE IV	1001111	ILI III III	MIL CO	minucu	
Date	Sulfate water, fltrd, mg/L	Chlor- ide, water, fltrd, mg/L	Fluor- ide, water, fltrd, mg/L		Residue on evap. at 180degC wat flt mg/L	Residue water, fltrd, sum of consti- tuents mg/L			Arsenic water,	Barium, water, fltrd, ug/L	Beryll- ium, water, fltrd, ug/L	Cadmium water, fltrd, ug/L	Chrom- ium, water, fltrd, ug/L
MAY	(00945)	(00940)		(00955)	(70300)	(70301)	(01106)	(01095)		(01005)	(01010)	(01025)	(01030)
26 JUN	7.7	1.52	<.2	2.66	53	43	8	.52	1.6	5	<.06	< .04	<.8
23 JUL													
28 SEP	26.4	2.12	<.2	6.73	149	123	3	.90	2.7	13	<.06	< .04	<.8
01	26.5	1.88	<.2	6.96	130	131	3	.94	2.3	12	<.06	<.04	E.5
Date MAY	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Molyb denum, water, fltrd ug/L (01060)	Nickel, water, fltrd, ug/L	water, fltrd, ug/L	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)	Cyanide water,	Sus- pended sedi- ment concen- tration mg/L (80154)
26 JUN	.082	.7	137	<.08	13.5	<.02	<.4	.49	<.2	2.1	.11	<.01	13
23 JUL 28 SEP	.114	.5	12	<.08	3.5	<.02	E.2	.73	<.2	<.6	.31	<.01	1
01	.136	. 4	13	<.08	6.8	<.02	E.2	1.25	<.2	E.4	.39	<.01	.3
Date	tons/d	sieve diametr percent <.063mm	wet svd fld,tot	mony, bed sed <62.5um wet svd fld,tot ug/g		bed sed <62.5um	bed sed	bed sed <177um wet svd field,	total,	ium, bed sed <62.5um wet svd	<62.5um wet svd field,		bed sed <62.5um
MAY 26 JUN	24	87											
23 JUL			8.4	11	220	1100	3.2	<1	.9	120	53	.780	25
28 SEP	.24												
01	.09												
Date	Cerium, bed sed <62.5um wet svd field, total, ug/g (34835)		bed sed <62.5um wet svd field, total, ug/g	bed sed <62.5um	<62.5um	<62.5um wet svd field,	bed sec	bed sed 1 <62.5um wet svd 1 field,	d bed sed 1 <62.5um wet svd field, total, ug/g	ium, bed sed <62.5um wet svd	<62.5um wet svd fld,tot	bed sed <62.5um wet svd field,	
MAY 26 JUN													
23 JUL	97	2	<1	20	1	5.9	51	29	48	1.4	1200	.04	3.2
28 SEP													
01													
Date MAY	ium, bed sed	bed sed <62.5um	total, ug/g	phorus, bed sed <62.5um wet svd	bed sed <62.5um wet svd	ium, bed sed	bed sed <62.5um wet svo field,	bed sed <62.5um wet svd field, total, percent	bed sed <62.5um wet svd fld,tot ug/g	bed sed <62.5um wet svd field,	alum, bed sed <62.5um wet svd fld,tot ug/g	<62.5um wet svd field,	bed sed <62.5um
26 JUN													
23 JUL	50	62	10	.120	22	1.0	.5	.730	120	.07	1	20	5
28 SEP													
01													
Date MAY	Titan ium, bed se <62.5u wsv na rec, percen (49274	bed sed <62.5um wet svt field total	d ium, m bed se d <62.5u , wet sv , fld,to ug/g	bed s d <62.5 m wet s d fiel t tota ug/	ed ium um bed s vd <62.5 d, wet s 1, fld,t g ug,	m, bed sed <62. Sum wet svd fie tot tot/g ug	sed car 5um bed svd <62 ld, wsv al, fi /g per	bon, car sed bed .5um <62 nat wsv eld fi	rbon, car d sed sed 2.5um <62 7 nat wsw leld fi rcent per	rbon, car dimnt bed 2.5um <2 7 nat ws ield fr ccent 9	rbon, ca d sed be 2 mm, < v nat ws ield f g/kg	rbon, ca d sed be 2 mm, < v nat ws ield f g/kg	2 mm,
26 JUN							-						
23 JUL	.310		160	29	3	17		.1			8.9	<.2	8.8
28 SEP							_						
01							_						

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY	7		MARCH			APRIL			MAY	
1 2												
3												
4												
5												
6												
7 8												
9												
10												
11												
12												
13 14												
15												
1.0												
16 17												
18												
19 20												
21 22												
23												
24												
25												
26												
27 28										5.0 6.5	0.5	2.0
29												
30										7.0		
31												
MONTH												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAY	MAX		MEAN	MAX		MEAN			MEAN		MIN SEPTEMBE	
		JUNE			JULY			AUGUST			SEPTEMBE	IR.
1	9.0		MEAN	13.5	JULY 9.5	11.5	13.5	AUGUST	12.5			
1 2 3	9.0 7.5 9.5	JUNE  		13.5 12.5 16.0	JULY 9.5 9.0 9.0	11.5 10.5 12.0	13.5 12.5 13.0	AUGUST 11.5 11.0 11.0	12.5 12.0 12.0		SEPTEMBE 8.0 	ER
1 2 3 4	9.0 7.5 9.5 9.0	JUNE  	  	13.5 12.5 16.0 14.0	JULY 9.5 9.0 9.0 10.0	11.5 10.5 12.0 11.5	13.5 12.5 13.0 12.5	AUGUST 11.5 11.0 11.0	12.5 12.0 12.0 11.5	  	8.0  	ER
1 2 3 4 5	9.0 7.5 9.5 9.0 10.5	JUNE  		13.5 12.5 16.0 14.0 16.0	JULY  9.5  9.0  9.0  10.0  9.0	11.5 10.5 12.0	13.5 12.5 13.0 12.5 13.5	11.5 11.0 11.0 11.0	12.5 12.0 12.0		SEPTEMBE 8.0 	ER
1 2 3 4 5	9.0 7.5 9.5 9.0 10.5	JUNE		13.5 12.5 16.0 14.0 16.0	JULY 9.5 9.0 9.0 10.0 9.0	11.5 10.5 12.0 11.5 12.5	13.5 12.5 13.0 12.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0	12.5 12.0 12.0 11.5 12.0	  	8.0   	ER
1 2 3 4 5	9.0 7.5 9.5 9.0 10.5	JUNE	  	13.5 12.5 16.0 14.0 16.0	JULY  9.5  9.0  9.0  10.0  9.0	11.5 10.5 12.0 11.5 12.5	13.5 12.5 13.0 12.5 13.5	11.5 11.0 11.0 11.0	12.5 12.0 12.0 11.5 12.0	  	8.0   	ER
1 2 3 4 5 6 7 8 9	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5	JUNE		13.5 12.5 16.0 14.0 16.0	JULY  9.5 9.0 9.0 10.0 9.0  10.0 9.5 9.5 9.5	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5	AUGUST  11.5 11.0 11.0 11.0 11.0 10.0  9.0 11.0 11.0	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5	   	8.0    	ER
1 2 3 4 5	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5	JUNE		13.5 12.5 16.0 14.0 16.0	JULY  9.5 9.0 9.0 10.0 9.0 10.0 9.5 9.5	11.5 10.5 12.0 11.5 12.5 12.5	13.5 12.5 13.0 12.5 13.5 13.5	AUGUST  11.5 11.0 11.0 11.0 11.0 11.0 10.0	12.5 12.0 12.0 11.5 12.0	  	8.0   	ER
1 2 3 4 5 6 7 8 9 10	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 13.5	JUNE 5.0	    8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 16.0	JULY  9.5 9.0 9.0 10.0 9.0 10.0 9.5 9.5 9.5 9.5	11.5 10.5 12.0 11.5 12.5 11.0 10.5 12.0 12.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0  9.0 11.0 11.0 10.0 9.5	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5	   	8.0    	ER
1 2 3 4 5 6 7 8 9 10	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 13.5	JUNE 5.0	    8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5	JULY  9.5 9.0 9.0 10.0 9.0  10.0 9.5 9.5 9.5 9.5 9.5	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0  9.0 11.0 11.0 10.0 9.5	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5		8.0    	CR
1 2 3 4 5 6 7 8 9 10	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 13.5	JUNE 5.0	    8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 16.0	JULY  9.5 9.0 9.0 10.0 9.0 10.0 9.5 9.5 9.5 9.5	11.5 10.5 12.0 11.5 12.5 11.0 10.5 12.0 12.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0  9.0 11.0 11.0 10.0 9.5	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5		8.0    	ER
1 2 3 4 5 6 7 8 9 10 11 12 13	9.0 7.5 9.5 9.0 10.5 11.5 13.5 13.5 13.5 14.0	JUNE 5.0	    8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5	JULY  9.5 9.0 9.0 10.0 9.0  10.0 9.5 9.5 9.5 9.5 11.5	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5	13.5 12.5 13.0 12.5 13.5 13.5 13.5 12.0 12.5 11.5 13.5	AUGUST  11.5 11.0 11.0 11.0 11.0 10.0  9.0 11.0 10.0 9.5 10.0 11.0 10.5	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5		8.0    	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	9.0 7.5 9.5 9.0 10.5 11.5 13.5 13.5 14.0 15.0	JUNE 5.0 6.5 6.5 7.0 7.5	   8.5  10.5 10.0 10.5 11.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.1 1.5 10.5	11.5 10.5 12.0 11.5 12.5 12.5 12.0 12.5 12.0 12.5 13.0 12.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0 9.0 11.0 11.0 10.0 9.5 10.0 11.0 10.5 11.0	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5		8.0      	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 13.5 14.0 14.5 14.0 15.0	JUNE 5.0 6.5 6.5 7.0 7.5	   8.5  10.5 10.0 10.5 11.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 10.5 11.5 12.0	11.5 10.5 12.0 11.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.5 13.0 12.0 12.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0  9.0 11.0 10.0  10.0 10.0	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0   	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	9.0 7.5 9.5 9.0 10.5 11.5 13.5 10.5 13.5 14.0 15.0 12.5	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.0 6.5	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 11.5 12.0 11.5	11.5 10.5 12.0 11.5 12.5 12.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 12.0 12.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0 9.0 11.0 10.0 9.5 10.0 10.5 10.5 10.5 9.5 10.9 9.0	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0      	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 13.5 14.0 14.5 14.0 15.0	JUNE 5.0 6.5 6.5 7.0 7.5	   8.5  10.5 10.0 10.5 11.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 10.5 11.5 12.0	11.5 10.5 12.0 11.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.5 13.0 12.0 12.5 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0  9.0 11.0 10.0  10.0 10.0	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0   	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	9.0 7.5 9.5 9.0 10.5 11.5 13.5 14.0 15.0 12.5 9.5 11.5	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.0 6.5 8.0 7.0	8.5 	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 11.5 12.0 11.5 11.0	11.5 10.5 12.0 11.5 12.5 12.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 12.0 13.5	AUGUST  11.5 11.0 11.0 11.0 10.0 9.0 11.0 10.0 9.5 10.0 10.5 10.5 11.0 10.5 11.0 10.5	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0      	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 13.5 14.0 14.5 14.0 15.0	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.8	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 16.0	JULY  9.5 9.0 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 10.5 11.5 12.0 11.5 10.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 12.0 12.5 13.5 13.0 12.0 12.5 12.0 14.0 16.0 16.0	AUGUST  11.5 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11.0	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0      	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 13.5 14.0 14.5 14.0 15.0 12.5 9.5 11.5	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.0 6.5 8.0 7.0	8.5 	13.5 12.5 16.0 14.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 16.0 17.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 11.5 11.0 11.0 10.5 11.1 11.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 13.5 13.5 13.0 12.0 12.5 12.0 13.5	AUGUST  11.5 11.0 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 12.0 11.5 12.0 12.5 13.0		8.0        	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	9.0 7.5 9.5 9.0 10.5 13.5 13.5 13.5 14.0 14.5 14.0 15.0 12.5 9.0 11.5 11.5	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.5 7.0 8.0 8.0 8.0 8.0 8.0 8.0	   8.5  10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 8.5 8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 11.5 11.0 11.0 10.5 11.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 12.0 12.5 12.5 12.0 12.5 12.5 12.5 12.6 12.5 12.5 12.6 12.5 12.5 12.5 12.5 12.5 12.5 12.6 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	AUGUST  11.5 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11.0	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0         	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 13.5 14.0 14.0 15.0 12.5 9.0 11.5 11.5	JUNE 5.0 5.0 6.5 6.5 7.0 7.5 7.5 7.0 8.0 8.0 8.0 8.0 6.5 6.5	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 9.0 8.5 8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.0 16.0 17.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 12.0 11.0 10.5 11.0 10.5 11.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 13.5 13.0 12.0 12.5 13.5 13.0 12.0 12.5 12.0 14.0 16.0 16.0 16.5 16.5	AUGUST  11.5 11.0 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11	12.5 12.0 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0          -	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 26 27 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	9.0 7.5 9.5 9.0 10.5 13.5 13.5 13.5 14.0 14.5 14.0 15.0 12.5 9.0 11.5 11.5 12.0 10.0 9.5 11.5	JUNE 5.0 6.5 6.5 7.0 6.5 7.0 6.5 8.0 7.0 8.0 8.0 8.0 8.0 6.5 6.5	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 8.5 8.0 8.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.5 16.0 17.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 10.5 11.5 12.0 11.0 11.0 11.5 12.0 12.0 12.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 14.0 16.0 15.5 16.5 14.5 14.5 14.5 14.5	AUGUST  11.5 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11.0	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0          -	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 13.5 14.0 14.5 14.0 15.0 12.5 9.0 11.5 11.5 12.0 10.0 9.5 11.5	JUNE 5.0 5.0 6.5 6.5 7.0 7.5 7.5 7.0 8.0 8.0 8.0 8.0 6.5 6.5	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 9.0 8.5 8.5	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.0 16.0 17.0 16.0	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 10.5 11.5 12.0 11.0 10.5 11.0 10.5 11.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 12.0 12.5 13.0 12.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 13.5 13.0 12.0 12.5 13.5 13.0 12.0 12.5 12.0 14.0 16.0 16.0 16.5 16.5	AUGUST  11.5 11.0 11.0 11.0 11.0 11.0 10.0 9.0 11.0 11	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0          -	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 26 27 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 10.5 14.0 14.5 14.0 15.0 11.5 9.0 11.5 11.5 11.5 11.5 11.5	JUNE 5.0 6.5 6.5 7.0 6.5 7.0 6.5 8.0 7.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8	   8.5  10.5 10.0 10.5 11.0 9.0 9.0 9.0 9.0 9.0 9.0 8.5 8.0 8.0 8.0 8.0 10.0 12.0 12.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.5 16.0 17.5 18.5 17.0 18.5 17.0 18.5	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 10.5 11.5 12.0 11.5 12.0 11.5 12.0 11.5 12.0 11.5 12.5 12.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 14.0 16.0 15.5 14.0 14.0 16.0 16.0 17.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18	AUGUST  11.5 11.0 11.0 11.0 10.0 9.0 11.0 11.0 10.0 10	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0          -	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 13.5 14.0 14.5 14.0 15.0 12.5 9.0 11.5 11.5 12.0 10.0 9.5 11.5	JUNE 5.0 5.0 5.0 7.5 7.5 7.5 7.0 6.5 8.0 7.0 8.0 8.0 8.0 6.5 6.5 6.0 8.0 8.0	   8.5  10.5 10.0 10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 8.5 8.0 8.0 8.0	13.5 12.5 16.0 14.0 15.0 12.5 13.0 16.0 14.5 16.0 16.0 14.5 16.0 17.0 16.0 17.5 18.5 17.0 18.5 17.0 18.5 17.0 18.5	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 11.5 11.0 11.0 11.5 12.0 12.0 11.5 12.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 13.0 12.5 13.0 14.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13	13.5 12.5 13.0 12.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 12.0 13.5 12.0 14.0 14.0 14.0 14.5 14.0 14.5 14.0 14.5 14.0	AUGUST  11.5 11.0 11.0 11.0 11.0 11.0 11.0 11.	12.5 12.0 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0 	ER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	9.0 7.5 9.5 9.0 10.5 11.5 13.0 9.5 14.0 14.5 14.0 15.0 12.5 9.0 11.5 9.5 11.5 9.5 11.5	JUNE 5.0 6.5 6.5 7.0 7.5 7.5 7.0 6.5 8.0 7.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 9.0 10.5	   8.5 10.0 10.5 11.0 9.5 8.0 9.0 9.0 9.0 9.0 9.0 9.0 8.5 8.0 8.0	13.5 12.5 16.0 14.0 16.0 15.0 12.5 13.0 16.0 14.5 16.0 14.5 16.0 17.5 16.0 17.5 18.5 17.0 18.5 17.0 18.5	JULY  9.5 9.0 10.0 9.0 10.0 9.5 9.5 9.5 11.5 10.5 11.5 12.0 11.5 12.0 11.5 12.0 11.5 12.0 11.5 12.5 12.0	11.5 10.5 12.0 11.5 12.5 12.5 11.0 10.5 12.0 12.5 13.0 12.5 13.0 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	13.5 12.5 13.0 12.5 13.5 13.5 12.0 12.5 11.5 13.5 13.0 12.0 12.5 14.0 16.0 15.5 14.0 14.0 16.0 16.0 17.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18	AUGUST  11.5 11.0 11.0 11.0 10.0 9.0 11.0 11.0 10.0 10	12.5 12.0 11.5 12.0 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11		8.0          -	ER

## 15743850 DAHL CREEK NEAR KOBUK

LOCATION.--Lat  $66^{\circ}56'46''$ , long  $156^{\circ}54'32''$ , in  $NW^{1}/_{4}$   $SE^{1}/_{4}$  sec. 21, T. 18 N., 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.

		DISCHA	ARGE, CUBI	IC FEET PE		WATER Y Y MEAN V	EAR OCTOB	ER 2003 T	O SEPTEMB	SER 2004		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	47 47 45 43 43	28 27 27 26 26	e14 e14 e13 e13 e13	e5.0 e4.8 e4.6 e4.4 e4.2	e1.8 e1.7 e1.7 e1.7	e1.4 e1.4 e1.4 e1.4	e1.4 e1.4 e1.4 e1.4	13 14 15 17 18	58 56 50 47 46	20 20 19 20 20	29 24 23 23 22	33 30 29 27 26
6 7 8 9 10	44 44 43 43	e25 e25 e25 e24 e24	e12 e12 e12 e11 e11	e3.8 e3.6 e3.6 e3.4 e3.2	e1.7 e1.6 e1.6 e1.6 e1.6	e1.4 e1.4 e1.4 e1.4	e1.4 e1.5 e1.6 e1.6 e1.6	107 59 28 21 24	44 42 39 38 36	20 20 19 19	22 22 24 33 32	26 25 24 24 23
11 12 13 14 15	42 41 40 39 38	e23 e23 e22 e22 e21	e11 e10 e10 e10 e9.2	e3.0 e3.0 e2.8 e2.8 e2.6	e1.6 e1.5 e1.5 e1.5	e1.4 e1.4 e1.4 e1.4	e1.7 e1.8 e1.9 e1.9	27 27 29 52 64	34 33 32 31 29	18 18 18 17 17	30 32 335 159 128	23 25 24 23 22
16 17 18 19 20	38 37 36 e35 34	e21 e20 e20 e19 e19	e9.0 e8.8 e8.6 e8.2 e8.0	e2.6 e2.4 e2.4 e2.4 e2.2	e1.5 e1.5 e1.5 e1.5 e1.5	e1.4 e1.4 e1.4 e1.4	e1.8 e1.8 e1.8 e1.9	85 97 113 85 78	28 28 26 25 24	17 17 17 17 16	112 98 86 76 68	21 21 21 20 20
21 22 23 24 25	33 e33 e32 e31 31	e18 e18 e17 e17 e17	e7.8 e7.6 e7.2 e7.0 e6.8	e2.2 e2.2 e2.0 e2.0 e2.0	e1.5 e1.5 e1.5 e1.5	e1.4 e1.4 e1.4 e1.4	e2.0 e2.2 e2.4 e2.8 e3.4	76 80 104 155 103	23 23 23 25 24	16 16 15 15 15	62 56 51 46 43	20 20 20 20 20 19
26 27 28 29 30 31	e30 e29 e29 28 28 29	e16 e15 e15 e14	e6.6 e6.4 e6.0 e5.8 e5.6 e5.4	e1.9 e1.9 e1.9 e1.9 e1.8 e1.8	e1.5 e1.4 e1.4 e1.4	e1.4 e1.4 e1.4 e1.4 e1.4	e4.0 e5.0 e7.6 e9.0 e11	76 63 59 59 60 58	22 22 21 21 20	15 15 15 17 16 30	40 38 35 34 33 33	19 18 18 e19 19
TOTAL MEAN MAX MIN AC-FT CFSM IN.	1156 37.3 47 28 2290 3.39 3.91	630 21.0 28 14 1250 1.91 2.13	290.0 9.35 14 5.4 575 0.85 0.98	88.4 2.85 5.0 1.8 175 0.26 0.30	45.1 1.56 1.8 1.4 89 0.14	43.4 1.40 1.4 1.4 86 0.13 0.15	82.5 2.75 11 1.4 164 0.25 0.28	1866 60.2 155 13 3700 5.47 6.31	970 32.3 58 20 1920 2.94 3.28	553 17.8 30 15 1100 1.62 1.87	1849 59.6 335 22 3670 5.42 6.25	679 22.6 33 18 1350 2.06 2.30
STATIST MEAN MAX (WY) MIN (WY)	29.5 67.2 1994 9.65 1993	11.1 21.0 2004 3.70 1993	6.52 9.46 2003 2.55 1993	4.64 6.88 1998 2.00 1993	3.97 6.15 1998 1.56 2004	3.62 5.63 1998 1.40 2004	4.07 7.39 1997 1.50 1993	YEAR (WY) 51.7 93.1 1996 6.21 2001	62.5 116 1992 13.1 1997	36.5 73.2 1989 10.6 1997	69.0 223 1994 17.3 1990	48.6 104 1993 19.8 1991

<sup>#</sup> 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

See Period of Record; partial years used in monthly statistics From Mar. 25 to Apr. 15 From Feb. 27 to Apr. 6 From rating curve extended above 170  $\rm ft^3/s$  on basis of slope-area measurement of peak flow Backwater from ice

## 15746991 IKALUKROK CREEK BELOW RED DOG CREEK NEAR KIVALINA

LOCATION.--Lat  $68^{\circ}02'51''$ , long  $163^{\circ}01'34''$ , in  $NE^{1}_{/4}$   $NW^{1}_{/4}$  sec.33, T.31 N., 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 mi<sup>2</sup>.

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  $3.6~\text{mi}^2$  is impounded in tailings ponds and released intermittently at a maximum rate of  $25~\text{ft}^3/\text{s}$ . 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,  $4950~{\rm ft}^3/{\rm s}$ , August 9, gage height,  $12.18~{\rm ft}$ ; minimum not determined, occurs during the winter.

		DISCHA	RGE, CUBIO	C FEET PE		WATER YE Y MEAN V		ER 2003 T	O SEPTEME	BER 2004		
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
												4=0
6 7									429 400	308	187	158
8									362	266 259	192 1140	147 140
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	
23										149		e61
									351		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	
31										237	1/3	
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
TN.									4.19	2.24	5.43	1.23
TIM.									4.19	2.24	3.43	1.23
STATIST	CICS OF MC	ONTHLY MEA	N DATA FO	R WATER Y	EARS 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
MTN	39.8	2.56						23.7	259	91.6	125	84.7
(WY)	2001	2000						2001	1999	1999	1995	1996
( ** ± /	2001	2000						2001	1000	1000	1000	1000

e Estimated

## 15747000 WULIK RIVER BELOW TUTAK CREEK NEAR KIVALINA

 $\label{eq:location.-Lat 67°52'34'', long 163°40'28'', in NW} 1/4 \quad \text{sec. 34, T. 29 N., R. 22 W. (Noatak D-4 quad), Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank 0.1 mi downstream from Tutak Creek and 25 mi$ northeast of Kivalina.

DRAINAGE AREA.--705 mi<sup>2</sup>.

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  ${\rm ft}^3/{\rm s}$  of the flow at the gage may be discharge from Red Dog Mine during the summer

		DISCHAF	RGE, CUB	IC FEET	PER SECOND,		YEAR OCTO	OBER 2003	TO SEPTE	MBER 2004		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	777 3850 3220 2330 1830	e210 e210 e220 e220 e220	e110 e110 e110 e110 e100	e64 e62 e62 e60 e59	e38 e38 e37 e36 e36	e27 e27 e27 e27 e26	e23 e23 e22 e22 e22	e290 e360 e540 e700 e900	5670 6200 4260 3280 3490	1010 893 809 753 803	1570 1320 1130 1060 995	1140 1400 1320 1230 1150
6 7 8 9 10	1490 1250 1170 1100	e210 e210 e200	e100 e100 e98 e96 e94	e58 e57 e56 e55 e54	e35 e35 e34 e34 e33	e26 e26 e26 e26 e26	e22 e22 e22 e22 e22	e650 e550 e650 e800 e900	3570 3050 2910 2530 2430	1590 1580 1450 1250 1050	917 879 1640 13600 11100	1060 993 916 862 818
11 12 13 14 15	1200 1290 1070 736 e560	e200 e190 e180 e180 e170	e92 e90 e88 e86 e86	e53 e52 e51 e50 e50	e33 e32 e32 e32 e31	e25 e25 e25 e25 e25	e22 e22 e22 e22 e22	e2700	1990 1850 1720 1690 1500	908 794 718 671 626	6330 4310 8450 6650 4880	769 733 705 665 628
16 17 18 19 20	e500 e420 e360 e320 e290	e170 e160 e160 e150 e150	e84 e82 e80 e80 e78	e49 e48 e47 e46 e46	e31 e31 e30 e30 e30	e25 e24 e24 e24 e24	e22 e22 e22 e22 e22	e6500 e9500 6790 4370 3390	1630 2030 3100 2480 4370	579 650 936 995 871	3950 3250 2730 2300 1970	589 567 550 535 514
21 22 23 24 25	e230 e215 e200	e140 e140 e140 e130 e130	e76 e76 e74 e74 e72	e45 e44 e44 e43 e42	e29 e29 e29 e29 e28	e24 e24 e24 e24 e23	e22 e22 e22 e22 e22	2690 3410 7560 12300 12500	2480 1870 1900 3250 2860	752 671 612 565 533	1740 1570 1430 1290 1170	492 457 435 e400 e370
26 27 28 29 30 31	e190 e180 e180 e180 e190 e200	e130 e120 e120 e120 e120	e72 e70 e68 e68 e66 e64	e42 e41 e41 e40 e39 e39	e28 e28 e28 e27 	e23 e23 e23 e23 e23 e23	e32 e50 e70 e100 e190	7930 4940 2750 3960 5640 5690	2660 2150 1690 1360 1160	511 528 536 530 522 891	1070 1010 951 910 865 897	e350 e330 e300 e280 e260
TOTAL MEAN MAX MIN AC-FT CFSM IN.	27128 875 3850 180 53810 1.24 1.43	5130 171 220 120 10180 0.24 0.27	2654 85.6 110 64 5260 0.12 0.14	1539 49.6 64 39 3050 0.07 0.08	923 31.8 38 27 1830 0.05 0.05	767 24.7 27 23 1520 0.04 0.04	994 33.1 190 22 1970 0.05 0.05	120760 3895 12500 290 239500 5.53 6.37	81130 2704 6200 1160 160900 3.84 4.28	25587 825 1590 511 50750 1.17 1.35	91934 2966 13600 865 182400 4.21 4.85	20818 694 1400 260 41290 0.98 1.10
STATIST	TICS OF M	ONTHLY MEA	N DATA F	OR WATER	YEARS 1985	- 2004	, BY WATE	ER YEAR (W	7)#			
MEAN MAX (WY) MIN (WY)	552 1542 1994 207 1997	138 290 1994 63.1 2002	65.7 111 1986 34.2 1988	37.7 70.0 1986 21.5 1992	25.3 49.3 1986 12.0 1992	19.5 39.5 1991 9.10 1992	17.5 38.8 1991 9.00 1992	1888 4856 1993 20.6 1989	3225 6669 1989 1372 1988	1644 6144 1989 424 1999	2793 8458 1994 496 1991	1648 3076 2002 386 1991
SUMMARY	STATIST	ICS	FOR	2003 CAL	ENDAR YEAR		FOR 2004	WATER YEAR	ર	WATER YEAR	RS 1985 -	2004#
LOWEST HIGHEST LOWEST ANNUAL MAXIMUM	MEAN ANNUAL ANNUAL DAILY ME SEVEN-DA PEAK FL	EAN EAN AN Y MINIMUM OW AGE GE AC-FT) CFSM) INCHES) EDS EDS			Jun 6 Apr 17 Apr 17 24		379364 1037 13600 b22 22 18100 9. 752500 1. 20. 3060 210 24	. 47	9 3 3 3 9	1009 1843 530 29400 c9.0 38500 12.22 d13.5 731100 1.43 19.45 2830 130	3	1985 1985 1994 1994

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

Estimated