09504000 VERDE RIVER NEAR CLARKDALE, AZ

LOCATION.--Lat 34°51'08", long 112°03'55", in SE1/4NW1/4SE1/4 sec. 17, T.17 N., R.3 E., Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on left bank 1.7 mi downstream from Sycamore Creek and 5.6 mi north of Clarkdale.

DRAINAGE AREA.--3,503 mi^2, of which 364 mi^2 is noncontributing including 357 mi^2 in Aubrey Valley Playa, a closed basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to Oct. 1916, May 1917 to July 1921, Apr. 1965 to current year.

REVISED RECORDS.--WSP 1213: 1917, 1920. WDR AZ–89–1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above sea level, from topographic map. June 1915 to June 1921, at site 2.5 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,200 ft^3/s Feb. 20, 1993, gage height, 26.39 ft, from rating curve extended above 20,000 ft^3/s on basis of slope-area measurement at 53,200 ft^3/s; minimum daily, 55 ft^3/s Aug. 31 and Sept. 1, 1920.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 23	0700	2,150	5.17	Jan. 27	1115	4,520	7.71
Nov. 8	1600	7,440	9.60	Feb. 12	0445	*27,000	*17.94
Nov. 22	1245	2,300	5.34	Feb. 16	0700	3,750	7.13
Dec. 29	1830	22,400	16.39	Feb. 19	1415	8,470	10.23
Jan. 4	2245	2,910	6.02	Feb. 23	0845	2,910	6.43
Jan. 11	2130	22,500	16.43				

Minimum daily discharge, 67 ft^3/s on Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	259	89	1070	569	285	103	88	77	73	95	91
2	70	170	85	643	414	228	93	87	77	72	90	e85
3	69	126	e81	441	265	186	89	85	77	72	80	e75
4	69	101	e81	1930	198	158	87	84	77	72	78	e74
5	68	89	e80	2090	e148	154	86	84	77	72	90	e74
6	68	82	e80	1200	e133	e177	86	83	77	72	84	e75
7	67	79	e80	762	e128	e225	86	84	76	72	79	e73
8	100	1980	82	529	e126	178	85	84	76	72	96	74
9	88	1480	80	629	e125	147	86	83	76	72	83	76
10	76	1060	80	3110	123	137	86	83	77	72	85	75
11	71	489	79	14300	2450	132	85	83	77	72	110	73
12	70	e260	79	13400	17600	122	85	83	77	72	109	73
13	68	e168	78	5560	e6020	e110	85	83	76	72	94	73
14	68	e129	78	2170	e3270	e106	84	83	76	72	87	73
15	68	e108	78	1160	e2160	e104	84	83	75	72	79	73
16	68	e98	77	770	2910	e102	84	82	74	72	78	73
17	68	91	77	684	1680	98	84	82	74	72	78	73
18	68	87	78	722	3010	94	84	82	74	72	78	73
19	68	85	77	712	7390	95	84	82	74	108	76	73
20	68	84	78	775	5590	941	84	81	74	79	75	73
21	72	85	78	763	3180	596	84	81	74	75	75	73
22	90	1340	78	887	2240	249	85	80	75	76	75	74
23	1070	1830	78	713	2580	161	85	80	111	76	84	73
24	530	1240	77	520	1920	212	90	79	83	77	78	73
25	251	539	77	361	1040	202	88	79	78	78	81	73
26	164	267	78	310	604	323	86	78	75	82	78	73
27	120	180	78	3160	459	356	85	79	74	89	76	74
28	117	134	78	1620	366	264	86	79	73	78	75	74
29	1020	104	6720	804	---	198	86	78	73	76	75	74
30	971	95	5830	654	---	148	87	78	73	78	74	73
31	486	---	2400	739	---	124	---	77	---	77	75	---
TOTAL	6321	12839	17169	63188	66698	6612	2592	2537	2307	2346	2570	2236
MEAN	204	428	554	2038	2382	213	86.4	81.8	76.9	75.7	82.9	74.5
MAX	1070	1980	6720	14300	17600	941	103	88	111	108	110	91
MIN	67	79	77	310	123	94	84	77	73	72	74	73
AC-FT	12540	25470	34050	125300	132300	13110	5140	5030	4580	4650	5100	4440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2005, BY WATER YEAR (WY)

MEAN	116	127	188	235	470	441	173	86.2	75.9	99.3	100	109
MAX	1080	736	1032	2800	3485	2763	1520	355	90.5	670	201	670
(WY)	1973	1920	1966	1993	1980	1978	1973	1973	1987	1919	1919	1983
MIN	67.9	68.1	71.7	73.4	73.8	73.2	68.6	62.7	59.5	63.7	67.4	66.3
(WY)	1979	2004	2004	1967	1972	1972	1968	2004	2004	2004	2002	1920

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1915 - 2005	
ANNUAL TOTAL	65975		187415			
ANNUAL MEAN	180		513		185	
HIGHEST ANNUAL MEAN					645	1993
LOWEST ANNUAL MEAN					76.2	2002
HIGHEST DAILY MEAN	7080	Sep 20	17600	Feb 12	30000	Feb 20 1993
LOWEST DAILY MEAN	58	Jun 19	67	Oct 7	55	Aug 31 1920
ANNUAL SEVEN-DAY MINIMUM	59	Jun 15	68	Oct 13	59	Jun 15 2004
MAXIMUM PEAK FLOW					50600	Feb 21 1920
MAXIMUM PEAK STAGE					19.10	Feb 21 1920
ANNUAL RUNOFF (AC-FT)	130900		371700		134400	
10 PERCENT EXCEEDS	160		1050		193	
50 PERCENT EXCEEDS	76		84		82	
90 PERCENT EXCEEDS	60		73		71	

e Estimated

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Mar. 1976 to Oct. 1979, Jan. 1980 to Aug. 1983 and Oct. 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)
DEC													
08...	1230	84	<2.0	675	9.2	97	7.9	526	11.5	12.4	240	56.5	57.9
MAR													
03...	0915	189	20	672	9.5	98	8.1	362	12.8	11.4	170	41.7	44.4
JUN													
09...	1030	78	<2.0	667	8.7	107	8.2	518	27.5	19.0	230	51.2	58.9
AUG													
31...	0910	75	14	673	7.6	95	8.1	520	18.3	19.8	240	54.2	54.9

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)
DEC													
08...	23.1	21.6	2.10	22.2	264	319	1	12.1	.2	8.2	284	.41	304
MAR													
03...	15.3	15.1	2.26	15.7	169	204	1	8.98	.2	7.8	195	.28	207
JUN													
09...	25.4	26.2	2.23	22.1	257	308	2	12.2	.2	7.8	275	.39	285
AUG													
31...	25.4	23.8	2.07	22.7	257	314	.0	12.2	.2	7.4	279	.41	303

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recoverable, ug/L (01007)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recoverable, ug/L (01012)
DEC													
08...	<10	E.05n	<.04	.32r	.03	E3k	<.20	<.2	16.0	17	181	<.06	<.06
MAR													
03...	14	.21	<.04	.31	.08r	E4k	E.10n	<.2	8.9	10	94	<.06	E.04n
JUN													
09...	<10	.10	<.04	<.06	E.01*n	E5k	<.20	<.2	15.9	19	183	<.06	<.06
AUG													
31...	19	.10	<.04	E.03n	.04	E10k	<.20	<.2	15.7	16.6oc	172	<.06	<.06

Date	Boron, water, unfltrd recoverable, ug/L (01022)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recoverable, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, unfltrd recoverable, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recoverable, ug/L (71900)	Selenium, water, unfltrd ug/L (01147)	Zinc, water, fltrd, ug/L (01090)
DEC													
08...	137	E.02n	<.04	1.5	2.9r	1.3r	.50r	.15r	15	<.01	<.01	.7	43.2r
MAR													
03...	91	<.04	E.02n	2.1	2.0	2.2	E.04n	.64	24	E.01n	E.01n	.7	1.6
JUN													
09...	171	<.04	<.04	1.1	.7	1.4	.12	.32	9	<.01	E.01n	.7	1.0
AUG													
31...	179	<.04	.07	1.1oc	1.0	2.4	E.07n	1.26	27	<.01	E.01n	.28oc	1.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Zinc, water, unfltrd recover -able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
DEC			
08...	E2n	16	3.6
MAR			
03...	2	43	22
JUN			
09...	E2n	22	4.6
AUG			
31...	3	51	10

Remark codes used in this table:
  < -- Less than.
  E -- Estimated.
Value qualifier codes used in this table:
  * -- Sample was warm when received
  c -- See laboratory comment
  k -- Counts outside acceptable range
  n -- Below the LRL and above the LT-MDL
  o -- Result determined by alternate method
  r -- Value verified by rerun, same method