

# 07358284 HOT SPRINGS CREEK DOWNSTREAM OF GRAND AVE AT HOT SPRINGS, AR

Upper Ouachita Basin Ouachita Headwaters Subbasin

LOCATION.--Lat 34°30'09.5", long 93°03'01.8" referenced to North American Datum of 1983, in SE ¼ NW ¼ sec.4, T.3 5., R.19 W., Garland County, AR, Hydrologic Unit 08040101, and on Hot Springs Creek downstream of Grand Avenue.

DRAINAGE AREA.--undetermined.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--Jul 2008 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Water-discharge records poor, including estimated daily discharges. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, undetermined, May 6, gage height 7.78 ft; minimum discharge, 2.4 ft<sup>3</sup>/s, Oct 1, 3, gage height, 0.42 ft.

### 07358284 HOT SPRINGS CREEK DOWNSTREAM OF GRAND AVE AT HOT SPRINGS, AR-Continued

#### DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009 DAILY MEAN VALUES

| [e, estimated] |       |       |       |       |       |       |       |         |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|
| Day            | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr   | Мау     | Jun   | Jul   | Aug   | Sep   |
| 1              | 3.3   | 3.7   | 4.8   | 5.3   | 7.1   | 5.4   | 9.7   | 5.7     | 8.5   | 7.4   | e8.9  | 3.6   |
| 2              | 3.3   | 3.9   | 4.7   | 4.5   | 5.5   | 5.0   | 58    | 32      | 8.0   | 7.4   | e8.7  | 3.6   |
| 3              | 3.2   | 3.9   | 8.6   | 4.0   | 5.2   | 4.8   | 31    | 96      | 8.1   | 7.4   | e8.6  | 3.7   |
| 4              | 4.4   | 3.8   | 5.6   | 3.7   | 5.0   | 4.7   | 15    | 40      | 8.0   | 7.5   | e6.3  | 3.6   |
| 5              | 3.5   | 3.9   | 5.2   | 13    | 5.0   | 4.6   | 12    | 29      | 7.0   | 22    | 9.3   | 3.7   |
| 6              | 30    | 9.4   | 5.0   | 6.0   | 4.8   | 4.5   | 9.4   | e181    | 6.9   | 11    | 5.5   | 4.6   |
| 7              | 32    | 4.1   | 5.1   | 5.2   | 4.8   | 4.4   | 7.9   | 52      | 6.8   | 9.7   | 4.9   | 3.7   |
| 8              | 7.4   | 4.1   | 5.0   | 4.7   | 4.7   | 4.4   | 7.0   | 33      | 6.7   | 9.5   | 4.6   | 3.7   |
| 9              | 5.7   | 4.2   | 6.0   | 4.2   | 11    | 4.3   | 6.9   | 75      | 6.7   | 9.2   | 4.4   | 4.1   |
| 10             | 4.9   | 4.2   | 5.0   | 3.9   | 18    | 4.3   | 6.0   | e165    | 6.6   | 9.1   | 4.2   | 3.8   |
| 11             | 4.6   | 12    | 4.7   | 3.8   | 78    | 15    | 5.4   | 78      | 7.3   | 8.8   | 4.1   | 3.7   |
| 12             | 4.3   | 6.7   | 4.7   | 3.6   | 22    | 21    | 61    | 63      | 6.6   | 9.1   | 4.0   | 5.1   |
| 13             | 4.1   | 4.8   | 4.5   | 3.6   | 13    | 15    | 27    | 49      | 6.5   | 9.2   | 4.0   | 16    |
| 14             | 4.0   | 4.5   | 4.7   | 3.5   | 10    | 13    | 15    | 64      | 7.2   | e8.9  | 3.9   | 4.6   |
| 15             | 8.9   | 4.3   | 8.8   | 3.5   | 8.2   | 10    | 11    | 26      | 6.5   | 8.5   | 3.9   | 22    |
| 16             | 7.0   | 4.3   | 5.6   | 3.5   | 7.1   | 8.7   | 9.0   | 27      | 6.4   | e20   | 3.9   | 71    |
| 17             | 4.6   | 4.2   | 5.4   | 3.5   | 6.8   | 7.6   | 7.7   | 16      | 6.4   | 9.8   | 3.9   | 13    |
| 18             | 4.3   | 4.2   | 5.3   | 3.5   | 6.2   | 6.9   | 20    | 13      | 6.3   | 7.7   | 3.9   | 8.1   |
| 19             | 4.1   | 4.2   | 5.6   | 3.5   | 5.6   | 6.3   | 13    | 11      | 6.2   | 7.2   | 4.0   | 6.0   |
| 20             | 4.0   | 4.2   | 5.3   | 3.6   | 5.2   | 5.7   | 9.4   | 10      | 6.4   | 7.0   | 7.7   | 5.3   |
| 21             | 4.0   | 4.2   | 4.9   | 3.5   | 5.7   | 5.4   | 8.1   | 9.4     | 6.4   | 30    | 4.0   | 4.8   |
| 22             | 4.1   | 4.2   | 4.8   | 3.7   | 5.0   | 5.2   | 7.3   | 8.7     | 8.2   | 7.5   | 3.8   | 13    |
| 23             | 4.7   | 4.2   | 6.5   | 3.6   | 4.7   | 5.0   | 6.7   | 8.7     | 18    | 6.3   | 3.8   | 5.5   |
| 24             | 4.0   | 25    | 6.3   | 3.7   | 4.6   | 24    | 6.0   | 69      | 8.4   | 6.0   | 3.7   | 5.3   |
| 25             | 3.9   | 6.8   | 5.2   | 3.7   | 4.6   | 19    | 5.6   | 49      | 7.8   | 5.7   | 3.8   | 4.8   |
| 26             | 3.8   | 5.9   | 5.1   | 3.8   | 4.4   | 17    | 5.4   | 21      | 7.0   | 11    | 3.7   | 4.5   |
| 27             | 3.9   | 5.5   | 21    | 9.9   | 10    | 81    | 6.0   | 20      | 6.7   | 6.7   | 3.7   | 4.4   |
| 28             | 3.8   | 5.0   | 12    | 9.0   | 7.1   | 35    | 5.5   | 14      | 6.9   | 70    | 3.6   | 4.2   |
| 29             | 3.9   | 4.8   | 8.8   | 5.4   |       | 17    | 19    | e12     | 6.9   | 15    | 3.6   | 4.1   |
| 30             | 3.9   | 4.9   | 6.6   | 5.0   |       | 12    | 7.6   | e10     | 7.6   | 32    | 3.7   | 4.1   |
| 31             | 3.8   |       | 5.7   | 5.0   |       | 16    |       | 9.3     |       | 14    | 3.6   |       |
| Total          | 191.4 | 169.1 | 196.5 | 146.4 | 279.3 | 392.2 | 418.6 | 1,296.8 | 223.0 | 400.6 | 149.7 | 247.6 |
| Mean           | 6.17  | 5.64  | 6.34  | 4.72  | 9.97  | 12.7  | 14.0  | 41.8    | 7.43  | 12.9  | 4.83  | 8.25  |
| Max            | 32    | 25    | 21    | 13    | 78    | 81    | 61    | 181     | 18    | 70    | 9.3   | 71    |
| Min            | 3.2   | 3.7   | 4.5   | 3.5   | 4.4   | 4.3   | 5.4   | 5.7     | 6.2   | 5.7   | 3.6   | 3.6   |
| Ac-ft          | 380   | 335   | 390   | 290   | 554   | 778   | 830   | 2,570   | 442   | 795   | 297   | 491   |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2009, BY WATER YEAR (WY)

|      | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 6.17   | 5.64   | 6.34   | 4.72   | 9.97   | 12.7   | 14.0   | 41.8   | 7.43   | 12.9   | 6.18   | 17.2   |
| Max  | 6.17   | 5.64   | 6.34   | 4.72   | 9.97   | 12.7   | 14.0   | 41.8   | 7.43   | 12.9   | 7.54   | 26.1   |
| (WY) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2008) | (2008) |
| Min  | 6.17   | 5.64   | 6.34   | 4.72   | 9.97   | 12.7   | 14.0   | 41.8   | 7.43   | 12.9   | 4.83   | 8.25   |
| (WY) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) |

## 07358284 HOT SPRINGS CREEK DOWNSTREAM OF GRAND AVE AT HOT SPRINGS, AR—Continued

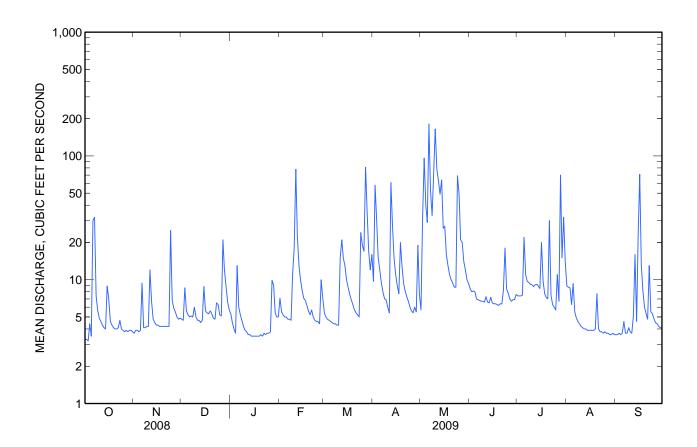
| SUMMART STATISTICS       |                        |                           |  |  |  |  |  |  |  |  |
|--------------------------|------------------------|---------------------------|--|--|--|--|--|--|--|--|
|                          | Water Year 2009        | Water Years 2008 - 2009   |  |  |  |  |  |  |  |  |
| Annual total             | 4,111.2                |                           |  |  |  |  |  |  |  |  |
| Annual mean              | 11.3                   | 11.3                      |  |  |  |  |  |  |  |  |
| Highest daily mean       | <sup>a</sup> 181 May 6 | 345 Sep 3, 2008           |  |  |  |  |  |  |  |  |
| Lowest daily mean        | 3.2 Oct 3              | 2.8 Jul 18, 2008          |  |  |  |  |  |  |  |  |
| Annual seven-day minimum | 3.5 Jan 13             | 2.9 Jul 29, 2008          |  |  |  |  |  |  |  |  |
| Maximum peak stage       | 7.78 May 6             | 7.78 May 6, 2009          |  |  |  |  |  |  |  |  |
| Instantaneous low flow   | 2.4 Oct 1 <sup>b</sup> | 2.4 Oct 1, $2008^{\circ}$ |  |  |  |  |  |  |  |  |
| Annual runoff (ac-ft)    | 8,150                  | 8,160                     |  |  |  |  |  |  |  |  |
| 10 percent exceeds       | 21                     | 21                        |  |  |  |  |  |  |  |  |
| 50 percent exceeds       | 5.9                    | 5.9                       |  |  |  |  |  |  |  |  |
| 90 percent exceeds       | 3.8                    | 3.8                       |  |  |  |  |  |  |  |  |

## SUMMARY STATISTICS

<sup>a</sup> Estimated

<sup>b</sup> Also Oct 3

<sup>c</sup> Occurred on several days



## 07358284 HOT SPRINGS CREEK DOWNSTREAM OF GRAND AVE AT HOT SPRINGS, AR—Continued

|       | 0.4 |     |     |     |     |     |     |     |     |            |          |       |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|----------|-------|
| Day   | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul        | Aug      | Sep   |
| 1     |     |     |     |     |     |     |     |     |     |            | 2.9      | 3.6   |
| 2     |     |     |     |     |     |     |     |     |     |            | 2.8      | 76    |
| 3     |     |     |     |     |     |     |     |     |     |            | 2.9      | 345   |
| 4     |     |     |     |     |     |     |     |     |     |            | 2.8      | 96    |
| 5     |     |     |     |     |     |     |     |     |     |            | 3.1      | 31    |
| 6     |     |     |     |     |     |     |     |     |     |            | 3.0      | 22    |
| 7     |     |     |     |     |     |     |     |     |     |            | 2.9      | 18    |
| 8     |     |     |     |     |     |     |     |     |     |            | 2.9      | 15    |
| 9     |     |     |     |     |     |     |     |     |     | 6.8        | 3.1      | 14    |
| 10    |     |     |     |     |     |     |     |     |     | 3.4        | 19       | 12    |
| 11    |     |     |     |     |     |     |     |     |     | 3.3        | 48       | 12    |
| 12    |     |     |     |     |     |     |     |     |     | 3.3<br>3.2 | 48<br>30 | 12    |
| 12    |     |     |     |     |     |     |     |     |     |            |          |       |
| 13    |     |     |     |     |     |     |     |     |     | 3.1        | 6.3      | 25    |
|       |     |     |     |     |     |     |     |     |     | 3.1        | 4.8      | 31    |
| 15    |     |     |     |     |     |     |     |     |     | 3.0        | 4.6      | 9.0   |
| 16    |     |     |     |     |     |     |     |     |     | 3.0        | 4.1      | 6.4   |
| 17    |     |     |     |     |     |     |     |     |     | 2.9        | 3.9      | 5.4   |
| 18    |     |     |     |     |     |     |     |     |     | 2.8        | 3.7      | 4.8   |
| 19    |     |     |     |     |     |     |     |     |     | 2.9        | 4.3      | 4.4   |
| 20    |     |     |     |     |     |     |     |     |     | 2.8        | 4.6      | 4.0   |
| 21    |     |     |     |     |     |     |     |     |     | 2.8        | 30       | 3.9   |
| 22    |     |     |     |     |     |     |     |     |     | 7.0        | 6.5      | 3.6   |
| 23    |     |     |     |     |     |     |     |     |     | 3.3        | 5.3      | 3.6   |
| 24    |     |     |     |     |     |     |     |     |     | 3.2        | 5.0      | 3.4   |
| 25    |     |     |     |     |     |     |     |     |     | 4.1        | 4.3      | 3.5   |
| 26    |     |     |     |     |     |     |     |     |     | 3.2        | 4.1      | 3.4   |
| 27    |     |     |     |     |     |     |     |     |     | 3.0        | 3.9      | 3.5   |
| 28    |     |     |     |     |     |     |     |     |     | 3.0        | 3.8      | 3.4   |
| 29    |     |     |     |     |     |     |     |     |     | 2.8        | 4.0      | 3.3   |
| 30    |     |     |     |     |     |     |     |     |     | 2.9        | 3.6      | 3.4   |
| 31    |     |     |     |     |     |     |     |     |     | 3.0        | 3.5      |       |
| Total |     |     |     |     |     |     |     |     |     |            | 233.7    | 781.6 |
| Mean  |     |     |     |     |     |     |     |     |     |            | 7.54     | 26.1  |
| Max   |     |     |     |     |     |     |     |     |     |            | 48       | 345   |
| Min   |     |     |     |     |     |     |     |     |     |            | 2.8      | 3.3   |
| Ac-ft |     |     |     |     |     |     |     |     |     |            | 464      | 1,550 |
|       |     |     |     |     |     |     |     |     |     |            |          | -,000 |

#### DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008 DAILY MEAN VALUES

### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2008, BY WATER YEAR (WY)

|      | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug    | Sep    |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| Mean |     |     |     |     |     |     |     |     |     |     | 7.54   | 26.1   |
| Max  |     |     |     |     |     |     |     |     |     |     | 7.54   | 26.1   |
| (WY) | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | (2008) | (2008) |
| Min  |     |     |     |     |     |     |     |     |     |     | 7.54   | 26.1   |
| (WY) | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | ()  | (2008) | (2008) |

## 07358284 HOT SPRINGS CREEK DOWNSTREAM OF GRAND AVE AT HOT SPRINGS, AR—Continued

