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Surface Water Data at Los Alamos National Laboratory: 1999 Water Year

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Definition of Terms

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, 325,851 gallons, or 1233.49 cubic meters.

Cfs-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2445 cubic meters.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide, from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (GH) is the water-surface elevation referred to in some arbitrary gage data. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

GPS is an abbreviation for Global Positioning System.

Instantaneous discharge is the discharge at a particular instant of time.

LANL is the acronym for Los Alamos National Laboratory.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

National Geodetic Vertical Datum of 1929 (*NGVD*) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called *Sea Level Datum of 1929* or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific coasts, it does not necessarily represent the local mean sea level at any particular place.

NPDES is the abbreviation for National Pollution Discharge Elimination System.

SWSC is an abbreviation for sanitary wastewater systems consolidation.

USGS is the abbreviation for United States Geological Survey.

Water year in reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is an abbreviation for "Water-Data Report" in the "Revised Records" paragraph to refer to annual hydrologic-data reports.

WSP is an abbreviation for "Water-Supply Paper" in references to previously published reports.

Surface Water Data at Los Alamos National Laboratory: 1999 Water Year

by

D. A. Shaull, M. R. Alexander, R. P. Reynolds, C. T. McLean, and R. P. Romero

ABSTRACT

The principal investigators collected and computed surface water discharge data from 22 stream-gaging stations that cover most of Los Alamos National Laboratory with one at Bandelier National Monument. Also included are discharge data from three springs that flow into Cañon de Valle and nine partial-record storm water stations.

Introduction

This annual water data report from Los Alamos National Laboratory (LANL) contains flow data from 19 stream-gaging stations that cover most of the Laboratory's property. We focused data collection on the Laboratory's downstream boundary, approximated by New Mexico State Highway 4; the upstream boundary is approximated by New Mexico State Highway 501. Some of the gaging stations are within Laboratory boundaries and were originally installed to assist groups other than the Water Quality and Hydrology Group (ESH-18) that also conduct site-specific earth science research.

Water chemistry data from selected storm events occurring at some stations will be published in the 1999 "Los Alamos National Laboratory Surveillance Report."

Station Identification Numbers

The US Geological Survey (USGS), Water Resources Division, assigns a unique identification number to each stream-gaging station it establishes. All sites numbered since 1950 are part of the downstream order system. The downstream order system increases station numbers in the downstream direction along main streams, and, in the case of this report, their respective mouths to the Rio Grande.

This report adheres to the USGS convention of downstream order. Because of the close proximity of stations in this network, the first five digits of all station numbers are 08313. We have replaced this number string with the letter E in the station number partly to abbreviate and also to accommodate instrumentation.

Data Collection and Computation

A complete record-gaging station gathers records of stage and discharge measurements from streams or canals. In addition to gathering these stage and discharge measurements, we directly observe factors affecting the stage/discharge relation, consult weather records, and use other information that supplements base data in determining daily flow. Direct readings on a nonrecording gage or from the data logger provide continuous records of stage. We measure discharge with current meters, using methods adapted by the USGS as a result of experience accumulated since 1880. Standard textbooks describe these methods, as do *Water-Supply Paper 2175* and the *US Geological Survey Technique of Water Resources Investigations,* Book 3, Chapter A6.

We use stage/discharge relation curves to prepare rating tables that give the discharge for any stage measured at a stream-gaging station. When it is necessary to define discharge extremes outside the range of current meter measurements, we extend the curves using

- logarithmic plotting;
- velocity area studies;
- results of indirect measurements of peak discharge, such as slope area or contracted opening measurements and computations of flow over dams or weirs; or
- step backwater techniques.

Daily mean stages (gage heights) are applied to the stage-discharge curves or tables to compute daily mean discharges. If the stage/discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method. In the shifting-control method, correction factors based on individual discharge measurements and notes by personnel taking the measurements are applied to the gage heights before discharges are determined from the curves or tables.

The shifting-control method is also used if the stage/discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control. At some northern stream-gaging stations, the stage/discharge relation is affected by ice in the winter and it becomes impossible to compute discharge in the usual manner. Discharge for the period of ice effect is computed on the basis of gage height record and occasional winter discharge measurements. Consideration is given to the available information about temperature and precipitation, notes of observations, and comparable discharge records for other stations in the same or nearby basins for comparable periods of time.

For some gaging stations, periods occur when no gage height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, etc. For such periods, the daily discharges are estimated on the basis of recorded range-in-stage, prior and subsequent records, discharge measurements, weather records, and record comparison made against other stations in the same or nearby basins. Likewise, daily contents may be estimated from operator logs, prior and subsequent records, inflow-outflow studies, and other information.

Accuracy of Records

Two factors determine the accuracy of streamflow records:

- stability of the stage-discharge relation, or if the control is unstable, the frequency of discharge measurements; and
- accuracy of measurements or stage, accuracy of discharge measurements, and interpretations of records.

Accuracy attributed to records is noted under "Remarks."

- Excellent—95% of daily discharges are within 5% of true value;
- Good—95% of daily discharges are within 10% of true value;
- Fair—95% of daily discharges are within 15% of true value; and
- Poor—records do not meet the criteria mentioned.

Differences in accuracy may be attributed to different parts of a given record.

The number of significant figures used to report daily mean discharges is based solely on the magnitude of the discharge value:

If—the value (ft^3/s) is	**Then**—it is reported to
less than 1 ft^3/s	nearest hundredth
1–10 ft^3/s	nearest tenth
10–1000 ft^3/s	whole number
above 1000 ft^3/s	three significant figures

Data Presentation

The records published in this report are for each gaging station and comprise two parts:

- station manuscript description with photo and
- data table for the water year (October 1, 1998, to September 30, 1999).

The station manuscript provides data under various headings: station location, period of record, average discharge, historical extremes, record accuracy, and other points pertinent to station operation and regulation. Each continuous record of discharge includes the following categories of descriptions.

Location. The most accurate and available maps provide location information. The location of the gage with respect to the vicinity's cultural and physical features is given, as well as a name that refers to place. For a few stations, the US Army Corps of Engineers or the Water Resources Council (*River Mileage Measurement*, Bulletin 14, rev. October 1968) provided river mileage. We define left and right banks from the perspective of facing downstream.

Drainage area. The most accurate and available maps provide drainage area measurements. The accuracy of drainage area measurements varies, depending on the type of map available for this purpose.

Period of record. The period of record is the time during which published records exist for a station or its equivalent station. An equivalent station is one that was in operation at a time that the present station was not and was located so that records from it can reasonably be considered equivalent to records from the present station.

Gage. This section describes the type of gage in current use. The datum of the current gage referred to in the *National Geodetic Vertical Datum of 1929* (see glossary) and a condensed history of the types, locations, and data of previous gages are given under this heading.

Remarks. The date in the station description for water discharge records identifies all periods of estimated daily discharge records. The text also presents information relative to the accuracy of the records, special methods of computation, conditions that affect natural flow at the station, and other pertinent information.

Extremes for period of record. Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

Extremes outside period of record. This section contains information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may have been obtained from other agencies, old data files, newspapers, or local citizens.

Extremes for current year. Extremes given here are similar to those for the period of record. The time for occurrence of peaks is expressed in 24-hour local standard time. For example, 12:30 A.M. is 0030 and 1:30 P.M. is 1330. The minimum for the current water year appears in this section.

Data Table of Daily Mean Values

The daily table of discharge records for stream gaging stations gives the mean discharge for each day of the water year. In the monthly summary for the table, the line headed "Total" gives the sum of the daily figures for each month; the line headed "Mean" gives the average flow in cubic feet per second for the month; and the lines headed "Max" and "Min" give the maximum and minimum daily mean discharges for each month and in acre feet, respectively, in the line headed "AC-FT."

References

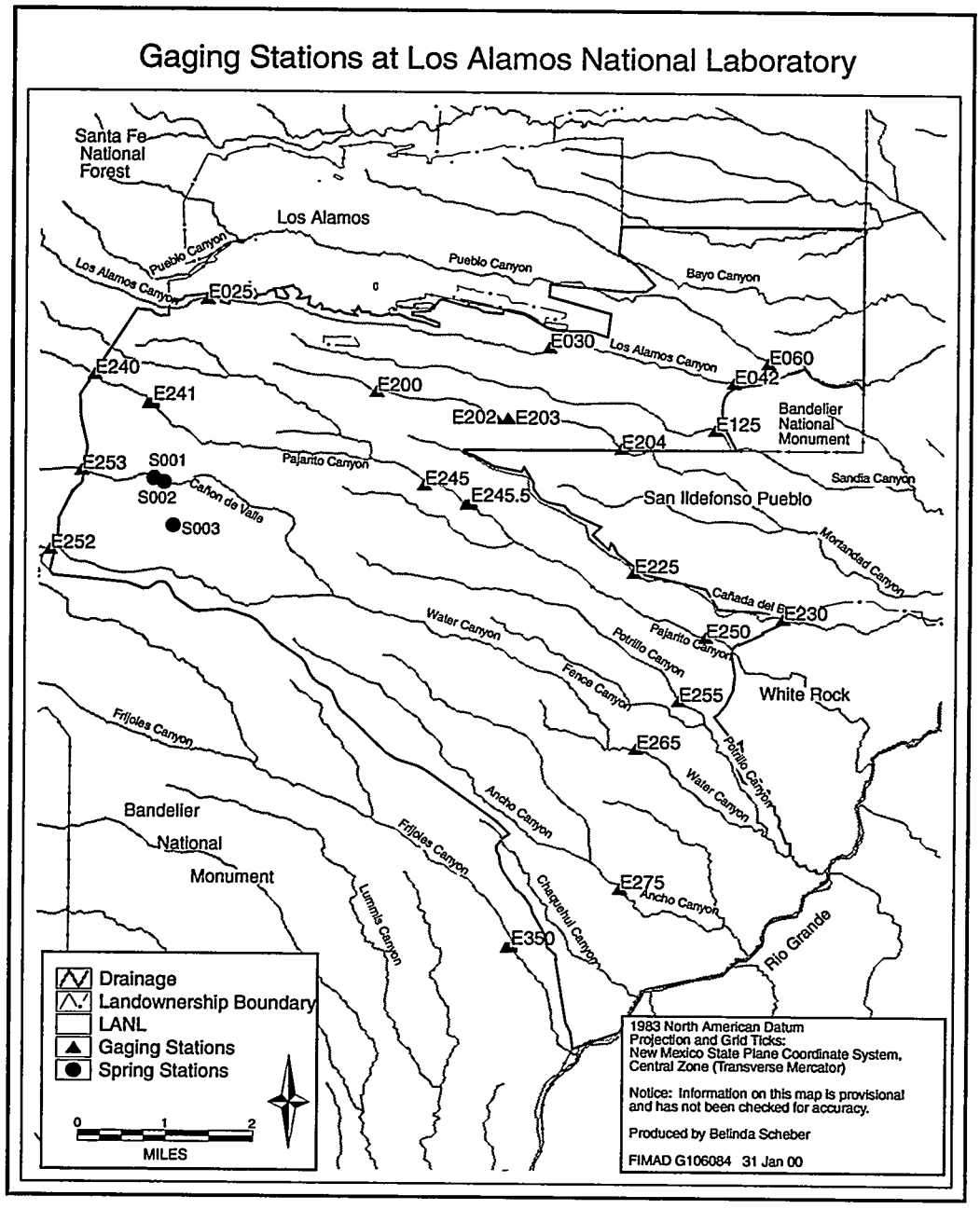
Water-Supply Paper 2175 and the US Geological Survey Technique of Water Resources Investigations, Book 3, Chapter A6.

US Army Corps of Engineers, *River Mileage Measurement*, Bulletin 14, rev. October 1968.

National Geodetic Vertical Datum of 1929.

Previous Los Alamos National Laboratory reports in this series—"Surface Water Date at Los Alamos National Laboratory" for water years 1995–1998
1995: LA–13177–PR (August 1996)
1996: LA–13234–PR (November 1996)
1997: LA–13403–PR (January 1996)
1998: LA–13551–PR (February 1999)

Gaging Stations


Gaging Stations at Los Alamos National Laboratory
Santa Fe National Forest
Los Alamos
Pueblo Canyon
Los Alamos Canyon
Pueblo Canyon
Bayo Canyon
E025
E030
Los Alamos Canyon
E060
E042
E240
E241
E200
E202
E203
E125
Bandelier National Monument
E204
E253
S001
S002
S003
Pajarito Canyon
E245
E245.5
Cañon de Valle
Sandia Canyon
San Ildefonso Pueblo
E252
E225
Mortandad Canyon
Cañada del E
E230
E250
Water Canyon
Pajarito Canyon
Potrillo Canyon
Fence Canyon
E255
White Rock
Frijoles Canyon
E265
Potrillo Canyon
Water Canyon
Ancho Canyon
Bandelier National Monument
Frijoles Canyon
Lummis Canyon
Chaquehui Canyon
E275
Ancho Canyon
E350
Rio Grande
Drainage
Landownership Boundary
LANL
Gaging Stations
Spring Stations
0 1 2
MILES
1983 North American Datum
Projection and Grid Ticks:
New Mexico State Plane Coordinate System,
Central Zone (Transverse Mercator)
Notice: Information on this map is provisional and has not been checked for accuracy.
Produced by Belinda Scheber
FIMAD G106084 31 Jan 00

Summary of Discharges from Stream-Monitoring Stations
at Los Alamos National Laboratory
Water Year 1999
October 1, 1998–September 30, 1999

Canyon Sites	Days with Flow	Total Volume of Water		Instantaneous Max	
		AC-FT	Gallons	ft^3/s	GPM
E025 Upper Los Alamos	142	102	33,240,000	3.5	1,570
E030 Middle Los Alamos	83	107	34,870,000	13	5,830
E042 Lower Los Alamos*	62	108	35,192,000	33	14,800
E060 Pueblo*	365	938	305,648,000	11	4,940
E125 Sandia*	0	0	0	0	0
E200 Middle Mortandad	263	38	0	8.1	3,635
E202 Mortandad, above Sediment Traps	0	0	0	0	0
E203 Mortandad, below Sediment Traps	0	0	0	0	0
E204 Lower Mortandad*	0	0	0	0	0
E225 Upper Cañada del Buey	0	0	0	0	0
E230 Lower Cañada del Buey*	18	22	7,169,000	210	94,200
E240 Upper Pajarito	241	61	19,877,000	1.0	449
E241 Pajarito at TA-22	193**	15	4,888,000	0.21	94
E245 Middle Pajarito	48	34	11,079,000	12	5,390
E24550 Pajarito above Three Mile	4**	2.6	847,200	9.6	4,310
E250 Lower Pararito*	4	3.4	1,108,000	20	8,980
E252 Upper Water	365	10	3,259,000	0.05	22
E253 Cañon de Valle	0	0	0	0	0
E265 Lower Water*	3	0.4	130,340	17	0
E267 Potrillo*	8	6.6	2,151,000	39	17,500
E275 Ancho*	18	11	3,584,000	140	62,800
E350 Frijoles at Bandelier	365	573	186,713,000	15	6,730

*Station at downstream Laboratory boundary.
**Based on partial year of record.

E025 Los Alamos Canyon at Los Alamos, NM

Location. Lat 35°52'50", long 106°19'45", in SE 1/4 SE 1/4 sec. 17, T. 19 N, R. 6 E, Los Alamos County, on right bank 1.5 mi downstream from Los Alamos Reservoir, and 0.4 mi upstream from "Rainbow" bridge on Diamond Drive over Los Alamos Canyon.

Drainage Area. 7.12 mi^2.

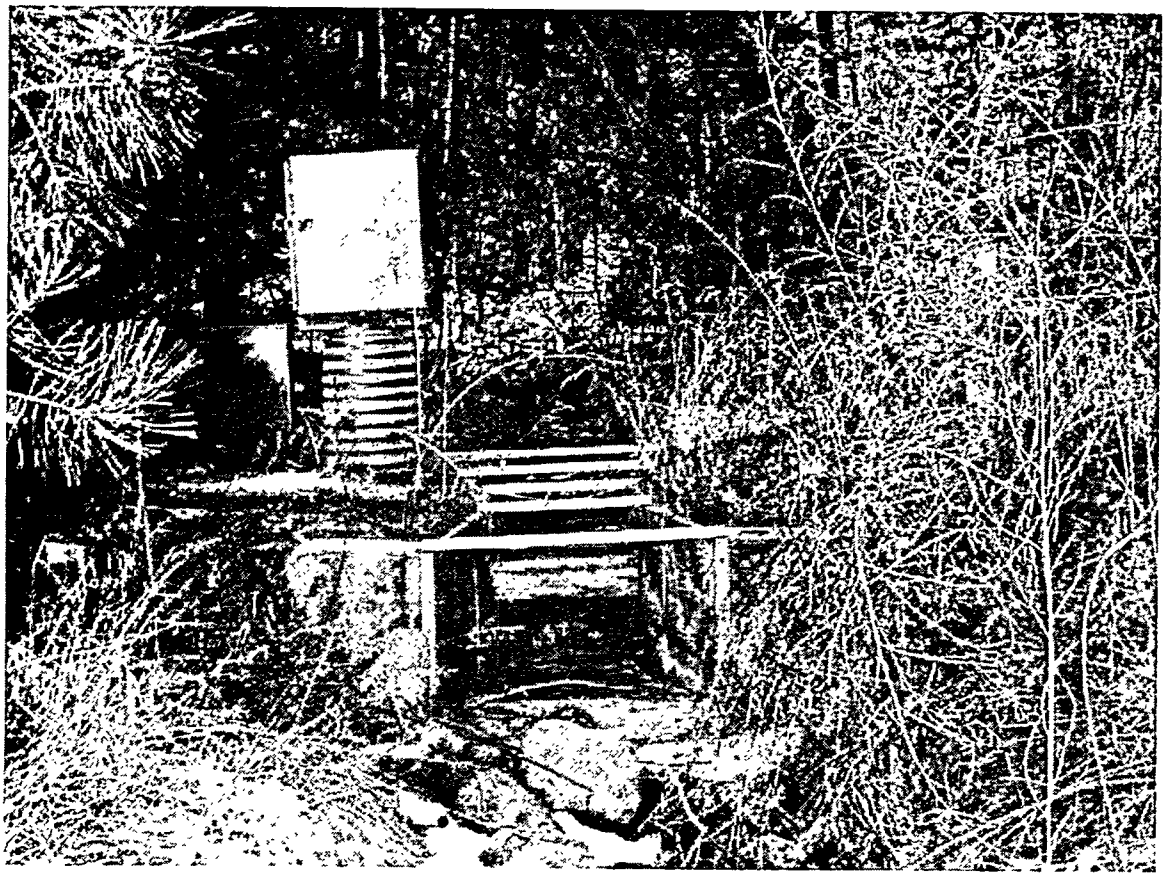
Period of Record. October 1, 1993, through September 30, 1999.

Gage. Data logger with cellular telemetry and 2-ft Parshall Flume. Elevation of gage is 7237 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records good. Flow partially controlled by Los Alamos Reservoir 1.5 mi upstream.

Extremes for Period of Record. Maximum discharge 10 ft^3/s, May 4, 1995, gage height 1.26 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 3.5 ft^3/s at 0005 hrs, May 2, gage height 0.59 ft. No flow at times.



E025 Los Alamos Canyon at Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0e	1.7	.15	0	0	0	0	3.1	.47	0	0	0
2	0e	1.8	.13	0	0	0	.07	3.0	.50	0	0	0
3	0e	1.6	.13	0	0	0	.05	2.8	.47	0	.03	0
4	0e	1.2	.13	0	0	0	0	2.3	.44	0	0	0
5	0e	1.0	.10	0	0	0	0	1.7	.46	0	0	0
6	0e	.81	.10	0	0	0	.01	1.0	.43	0	.05	0
7	0e	.67	.09	0	0	0	.03	.66	.32	0	.10	0
8	0e	.60	.13	0	0	0	.04	.54	.24	0	.02	0
9	0e	.66	.10e	0	0	0	.01	.50	.20	.05	0	0
10	0e	.53	.08e	0	0	0	0	.44	.17	.12	0	0
												0
11	0e	.49	.05e	0	0	0	.01	.34	.17	.07	0	0
12	0e	.44	.02e	0	0	0	.10	.24	.17	.04	0	0
13	0e	.39	.02e	0	0	0	.16	.17	.18	.10	0	0
14	0e	.35	.01e	0	0	0	.17	.10	.14	0	0	0
15	0e	.32	0	0	0	0	.17	.09	.15	0	0	0
16	0	.29	0	0	0	0	.17	.05	.19	0	0	0
17	0	.28	0	0	0	0	.15	.01	.27	0	0	0
18	0	.27	0	0	0	0	.12	0	.28	.01	0	0
19	0	.26	0	0	0	0	.09	0	.20	0	0	0
20	0	.26	0	0	0	0	.04	0	.17	0	0	0
21	0	.25	0	0	0	0	.03	0	.14	0	0	0
22	0	.24	0	0	0	0	.11	0	.08	0	0	0
23	0	.23	0	0	0	0	.11	0	.07	0	0	0
24	0	.23	0	0	0	0	.23	.12	.07	0	0	0
25	.02	.22	0	0	0	0	.32	.16	.07	0	0	0
26	.15	.20	0	0	0	0	.24	.15	.04	0	0	0
27	.41	.17	0	0	0	0	.22	.18	.03	0	0	0
28	.43	.17	0	0	0	0	.28	.39	.03	0	0	0
29	.37	.22	0	0	------	0	.32	.43	.03	0	0	0
30	.53	.17	0	0	------	0	1.4	.42	.01	0	0	0
31	1.5	------	0	0	------	0	------	.44	------	0	0	------
Total	3.41	16.02	1.24	0	0	0	4.65	19.33	6.19	.39	.20	0
Mean	.11	.53	.040	0	0	0	.16	.62	.21	.013	.006	0
Max	1.5	1.8	.15	0	0	0	1.4	3.1	.50	.12	.10	0
Min	0	.17	0	0	0	0	0	0	.01	0	0	0
AC-FT	6.8	32	2.5	0	0	0	9.2	38	12	.8	.4	0

Cal Year 1998 Total 87.27 Mean .24 Max 2.0 Min 0 AC-FT 173

Wtr Year 1999 Total 51.43 Mean .14 Max 3.1 Min 0 AC-FT 102

e–estimated.

E030 Los Alamos Canyon below Laboratory Technical Area (TA) 2 near Los Alamos, NM

Location. Lat 35°52'21", long 106°15'36", SW 1/4, SE 1/4 sec. 14, T. 19 N, R. 6 E, Los Alamos County, 150 ft upstream from mouth of DP Canyon wash and 2.4 mi upstream from NM State Highway 4.

Drainage Area. 8.58 mi^2.

Period of Record. July 1994 to September 30, 1999.

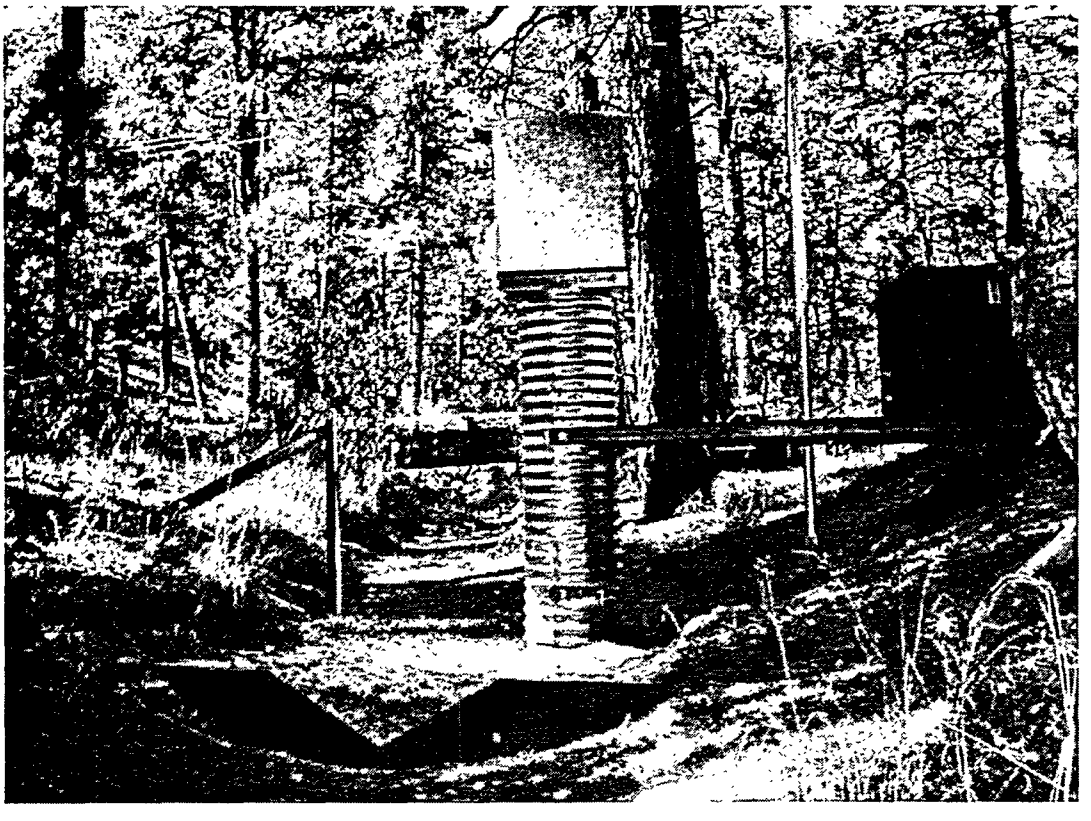
Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6627 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Remarks. Water discharge records fair. Flow partially regulated by Los Alamos Reservoir about 2.5 mi upstream.

Extremes Outside Period of Record. Flood of July 31, 1968, was 329 ft^3/s from slope area determination. Gage height was established later at 3.71 ft present datum.

Extremes for Period of Record. Maximum discharge 13 ft^3/s, July 9, 1999, gage height, 1.60 ft. No flow most of time.

Extremes for Current Water Year. Maximum discharge 13 ft^3/s at 1715 hrs July 9, gage height 1.60 ft. No flow most of time.



E030 Los Alamos Canyon below TA-2 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	2.0	0	0	0	0	0	2.9	0	0	0	0
2	0	1.4	0	0	0	0	0	2.7	0	0	0	0
3	0	1.1	0	0	0	0	0	2.1	0	0	0	0
4	0	.86	0	0	0	0	0	2.4	0	0	0	0
5	0	.66	0	0	0	0	0	2.0	0	0	0	0
6	0	.47	0	0	0	0	0	1.7	0	.29	.16	0
7	0	.37	0	0	0	0	0	1.6	0	0	.67	0
8	0	.31	0	0	0	0	0	1.3	0	.01e	.53	0
9	0	.51	0	0	0	0	0	1.2	0	.83	.49	0
10	0	.31	0	0	0	0	0	1.1	0	.38	.72	0
11	0	.19	0	0	0	0	0	1.1	0	.36	.41	0
12	0	0	0	0	0	0	0	.97	0	.15e	.21	0
13	0	0	0	0	0	0	0	.85	0	.05e	.05	0
14	0	0	0	0	0	0	0	.73	0	.02e	.23	.53
15	0	0	0	0	0	0	0	.76	0	0	.56	0
16	0	0	0	0	0	0	0	1.6	0	0	.29	.58
17	0	0	0	0	0	0	0	.49	0	0	.15	.90
18	0	0	0	0	0	0	0	.39	0	.06	.07	.18
19	0	0	0	0	0	0	0	.31	0	0	.02	0
20	0	0	0	0	0	0	0	.24	0	0	.01	0
21	0	0	0	0	0	0	0	.24	.43	0	0	0
22	0	0	0	0	0	0	0	.23	.24	0	0	0
23	0	0	0	0	0	0	0	.21	.24	0	0	0
24	0	0	0	0	0	0	0	.57	.20e	0	.01	0
25	.17	0	0	0	0	0	0	.52	.15e	0	0	0
26	.29	0	0	0	0	0	0	.37	.12e	0	0	0
27	.55	0	0	0	0	0	0	.37	0	0	0	0
28	.04	0	0	0	0	0	0	.20e	0	0	0	0
29	0	0	0	0	------	0	0	.10e	0	0	0	0
30	.29	0	0	0	------	0	.90	0	0	0	0	0
31	4.0	------	0	0	------	0	------	0	------	0	0	------
Total	5.54	8.18	0	0	0	0	.90	29.25	1.38	2.15	4.58	2.19
Mean	.18	.27	0	0	0	0	.030	.94	.046	.069	.15	.073
Max	4.0	2.0	0	0	0	0	.90	2.9	.43	.83	.72	.90
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	11	16	0	0	0	0	1.8	58	2.7	4.3	9.1	4.3

Cal Year 1998	Total	58.01	Mean	.16	Max	4.0	Min	0	AC-FT	115
Wtr Year 1999	Total	54.17	Mean	.15	Max	4.0	Min	0	AC-FT	107

e–estimated.

E042 Los Alamos Canyon near Los Alamos, NM

Location. Lat 35°52'01", long 106°13'25", in SW 1/4 sec. 20, T. 19 N R. 7 E, Santa Fe County, on right bank, 1/4 mi upstream from NM State Highway 4, 2.7 mi NW of White Rock, NM, 3.9 mi E of Los Alamos, and 13.5 mi SW of Española.

Drainage Area. 9.08 mi^2.

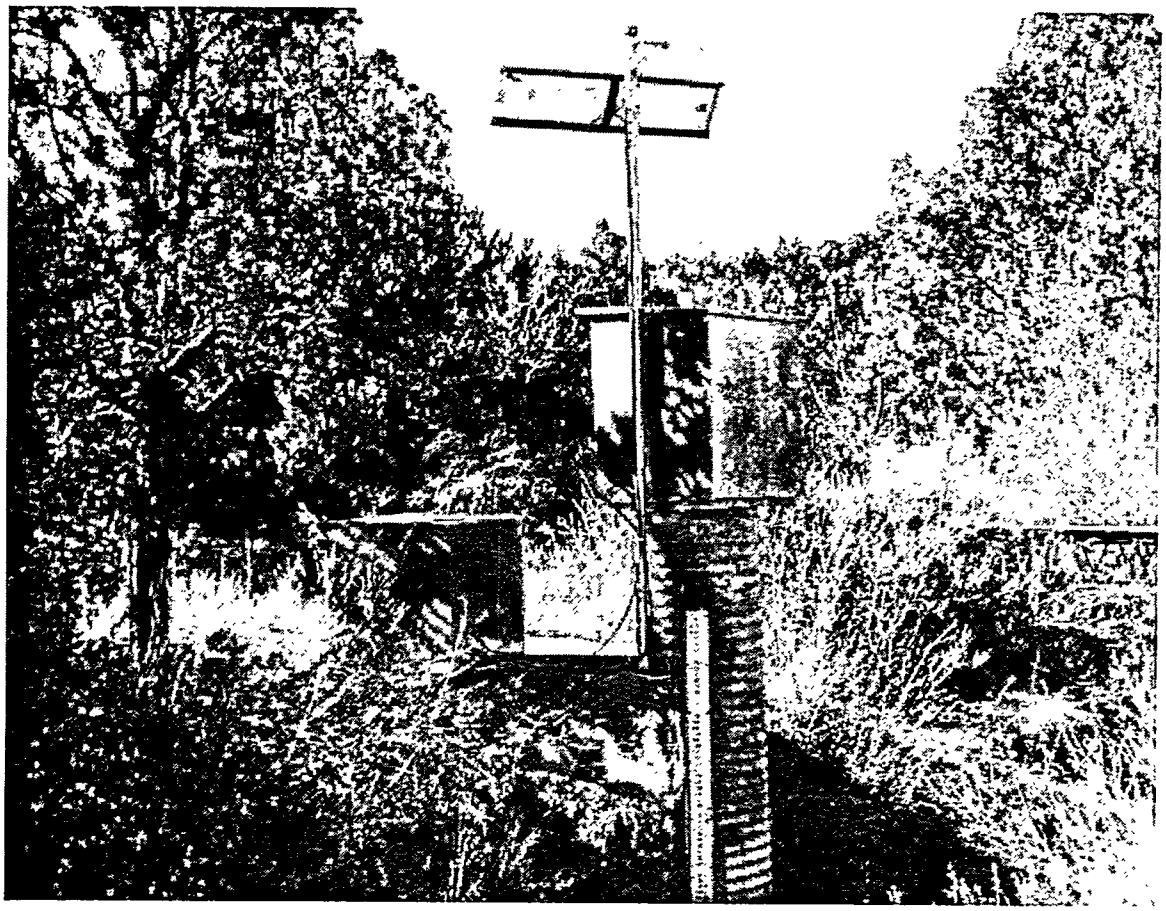
Period of Record. November 1970 to June 1971, October 1991 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6383 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Remarks. Water discharge records fair. Automatic sampler in separate shelter is activated by data logger.

Extremes for Period of Record. Maximum discharge 171 ft^3/s, August 22, 1997, gage height 2.95 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 33 ft^3/s, August 6, gage height 2.27 ft. No flow most of time.



E042 Los Alamos Canyon near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.87	0	0	0	0	0	2.8	0	0	.14e	0
2	0	.19	0	0	0	0	0	2.6	0	0	.28	0
3	0	.46	0	0	0	0	0	1.3	0	0	.03	0
4	0	.13	0	0	0	0	0	2.5	0	0	.02	0
5	0	0	0	0	0	0	0	2.0	0	0	0	0
6	0	0	0	0	0	0	0	1.8	0	0	2.3	0
7	0	0	0	0	0	0	0	1.5	0	0	.33	0
8	0	0	0	0	0	0	0	.47	0	0	.10	0
9	0	.07	0	0	0	0	0	.08	0	2.0e	.93	0
10	0	0	0	0	0	0	0	.02	0	0	3.4	0
11	0	0	0	0	0	0	0	0	0	0	1.1	0
12	0	0	0	0	0	0	0	0	0	0	.41	0
13	0	0	0	0	0	0	0	0	0	0	.33	0
14	0	0	0	0	0	0	0	0	0	.06	1.5	.25
15	0	0	0	0	0	0	0	0	0	.11	3.5	0
16	0	0	0	0	0	0	0	1.6	0	.02	.75	1.7
17	0	0	0	0	0	0	0	0	.21	.01	.69	.43
18	0	0	0	0	0	0	0	0	.10	.72	.20e	0
19	0	0	0	0	0	0	0	0	0	.08	0	0
20	0	0	0	0	0	0	0	0	0	.03	0	0
21	0	0	0	0	0	0	0	0	1.0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	.87	0	0	0	0
25	0	0	0	0	0	0	0	.55	0	0	0	0
26	.72	0	0	0	0	0	0	0	0	0	0	0
27	.72	0	0	0	0	0	0	.02	0	0	1.1	0
28	.02	0	0	0	0	0	0	.45	0	0	.97	0
29	0	0	0	0	------	0	0	.12	0	0	.87	0
30	.24	0	0	0	------	0	.40	0	0	0	.31	0
31	6.0	------	0	0	------	0	------	0	------	0	0	------
Total	7.70	1.72	0	0	0	0	.40	18.68	1.31	3.03	19.26	2.38
Mean	.25	.057	0	0	0	0	.013	.60	.044	.098	.62	.079
Max	6.0	.87	0	0	0	0	.40	2.8	1.0	2.0	3.5	1.7
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	15	3.4	0	0	0	0	.8	37	2.6	6.0	38	4.7

Cal Year 1998	Total	11.86	Mean	.032	Max	6.0	Min	0	AC-FT	24
Wtr Year 1999	Total	54.48	Mean	.15	Max	6.0	Min	0	AC-FT	108

e–estimated.

E060 Pueblo Canyon near Los Alamos, NM

Location. Lat 35°52'50", long 106°13'1", in NE 1/4 NE 1/4 sec. 20, T. 19 N, R. 7 E, Santa Fe County on right bank at state highway maintenance yard 200 ft. north of NM State Highway 502, and 4.2. mi east of Los Alamos.

Drainage Area. 6.94 mi^2.

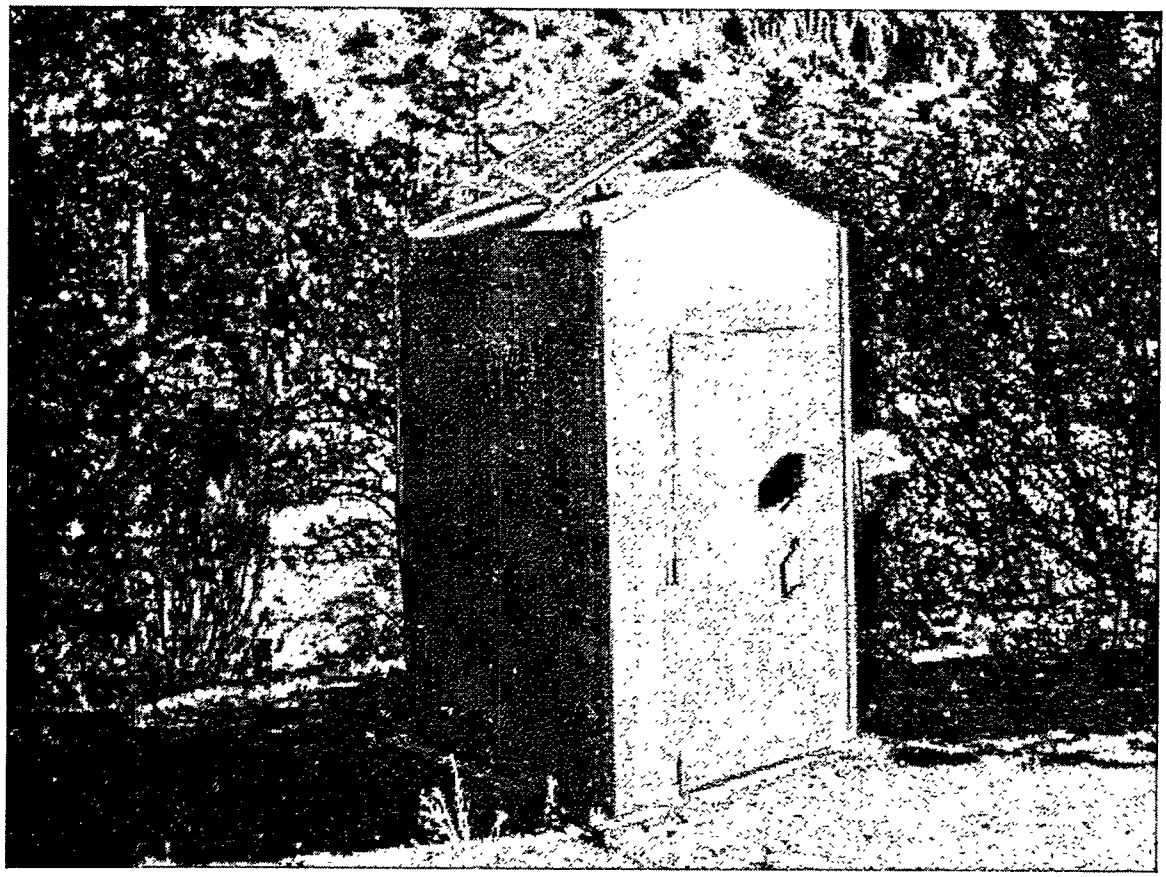
Period of Record. January 1992 to September 30, 1999.

Gage. Data logger with cellular telemetry. Elevation of gage is 6356 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Remarks. Records fair. No diversion above station. Perennial flow is primarily from effluent.

Extremes for Period of Record. Maximum discharge 11 ft^3/s, July 9, 1999, gage height 7.16 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 11 ft^3/s, gage height 7.16 ft at 0900 hrs July 9. No flow partial days at times.



E060 Pueblo Canyon near Los Alamos, NM

Daily Mean Discharge in Cubic Feet Per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.8	.94e	1.2	2.0	1.3	1.3	.96	1.1	.43	1.3	.98
2	1.1	1.3	.86e	1.2	1.8	.87	1.9	1.6	.87	.43	2.1	1.7
3	.70	1.2	.90e	1.1	1.8	.85	1.8	1.3	.58	.43	4.2	1.3
4	.69	1.0	.87e	1.4	1.9	.92	2.0	1.7	.62	.42	4.2	1.1
5	.91	.68	.77e	1.1	1.9	.53	2.1	1.1	.68	.65	3.8	1.0
6	.90	.65	.71e	.97	1.7	.71	1.9	1.3	.51	.59	4.2	.58
7	.58	.58	.81e	.98	1.8	1.3	1.5	1.2	.59	1.1	2.9	1.8
8	.84	.54	.88e	1.1	1.9	1.6	.91	.86	.58	1.4	3.1	1.7
9	.57	.52	.92e	.85	1.8	1.3	1.1	1.0	.49	2.9	3.4.	.87
10	.65	.50e	.90e	.94	1.9	1.2	1.4	.97	.43	3.0	3.3	1.2
11	.50	.54e	.97	1.1	1.6	1.3	1.5	.83	.44	1.5	3.3	1.7
12	.82	.64e	1.0	.92	1.7	1.7	1.3	1.2	.47	1.4	3.1	1.1
13	.77	.68e	1.0	.89	1.8	1.8	1.0	.55	.93	.84	2.5	1.7
14	.91	.69e	1.1	.92	1.9	1.6	1.1	.96	.98	.72	1.8	2.0
15	.53	.76e	1.1	1.0	2.1	1.7	1.5	.77	.83	1.4	2.7	2.0
16	.73	.79e	1.1	.88	1.8	1.8	.88	.80	1.7	1.5	2.7	2.2
17	.54	.80e	1.1	.93	1.6	2.0	.70	1.1	2.3	1.0	2.2	3.4
18	.66	.82e	1.1	.94	1.9	2.1	.58	.43	1.7	1.7	1.5	3.5
19	.89	.84e	.99	1.0	2.1	2.3	1.0	.57	1.3	1.5	2.0	2.1
20	.86	.92e	1.0	.97	1.5	2.1	.72	1.3	1.1	1.5	1.8	2.2
21	.92	1.0 e	1.1	1.1	2.1	2.0	.55	.62	1.5	1.0	2.3	2.1
22	.91	.87e	1.2	1.1	2.1	2.1	.84	.44	1.6	1.1	2.1	1.8
23	.95	.93e	1.3	1.1	1.5	1.8	.77	.84	1.3	1.1	2.0	2.1
24	.66	.98e	1.5	1.2	1.5	1.5	.97	1.5	.65	1.0	1.5	2.1
25	.85	.98e	1.6	1.5	1.0	1.5	1.2	1.7	.63	.82	1.2	1.3
26	1.3	.84e	1.7	1.4	.89	1.5	1.0	1.8	.55	.67	.90	1.0
27	1.0	.75e	1.4	1.6	.95	1.4	.96	2.0	.52	.81	1.3	1.5
28	1.1	.69e	1.3	1.7	.96	1.4	.69	1.3	.46	.65	2.2	1.0
29	.92	.64e	1.1	1.9	------	1.6	1.2	1.4	.40	.60	1.8	.71
30	1.2	.94e	1.1	1.6	------	1.0	1.0	1.2	.41	.92	2.3	1.2
31	3.5	------	1.1	1.8	------	1.4	------	.92	------	1.3	2.0	------
Total	28.66	25.87	33.42	36.39	47.50	46.18	35.37	34.22	26.22	34.38	75.70	48.94
Mean	.92	.86	1.08	1.17	1.70	1.49	1.18	1.10	.87	1.11	2.44	1.63
Max	3.5	2.8	1.7	1.9	2.1	2.3	2.1	2.0	2.3	3.0	4.2	3.5
Min	.50	.50	.71	.85	.89	.53	.55	.43	.40	.42	.90	.58
AC-FT	57	51	66	72	94	92	70	68	52	68	150	97

Cal Year 1998	Total	240.47	Mean	.66	Max	3.5	Min	.02	AC-FT 477
Wtr Year 1999	Total	472.85	Mean	1.30	Max	4.2	Min	.40	AC-FT 938

e–estimated.

E125 Sandia Canyon above Highway 4 near White Rock, NM

Location. Lat 35°51'32", long 106°13'34", SE 1/4 SW 1/4 sec. 20, T. 19 N, R.7 E, Santa Fe County, 0.25 mi N of East Jemez Road and 0.5 mi upstream from NM State Highway 4.

Drainage Area. 2.52 mi^2.

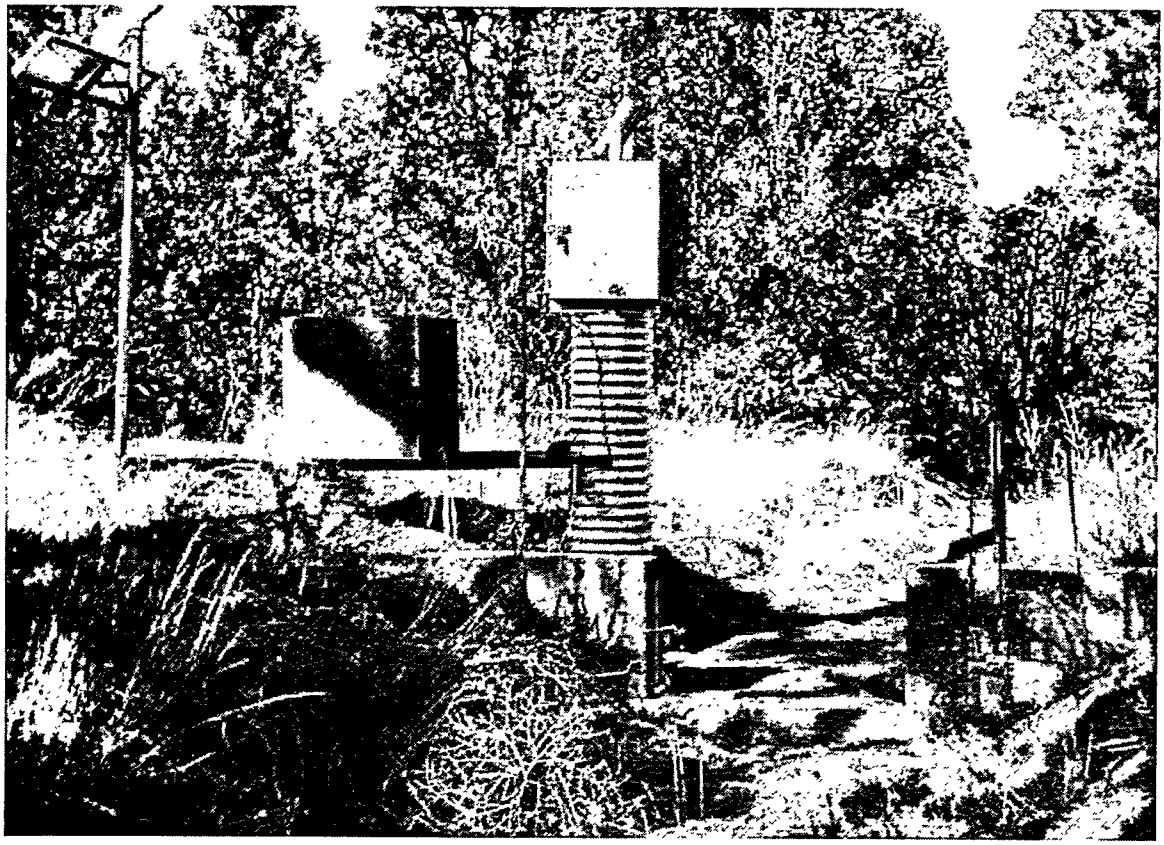
Period of Record. October 1993 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6498 ft. above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Remarks. Water discharge records fair. Automatic sampler in separate shelter is activated by data logger.

Extremes for Period of Record. Maximum discharge 13 ft^3/s, September 8, 1995, gage height 1.82 ft. No flow most of time.

Extremes for Current Water Year. No flow all year.



E125 Sandia Canyon above Highway 4 near White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E200 Mortandad Canyon at TA-50 near Los Alamos, NM

Location. Lat 35°51'55", long 106°17'46", SW 1/4 NE 1/2 sec. 22, T. 19 N, R. 6 E, Los Alamos County, 0.6 mi N of Pajarito Road and 0.25 mi N of LANL TA-50 and 1/4 mi below TA-50 outfall.

Drainage Area. 0.49 mi^2.

Period of Record. May 10, 1995, to September 30, 1999.

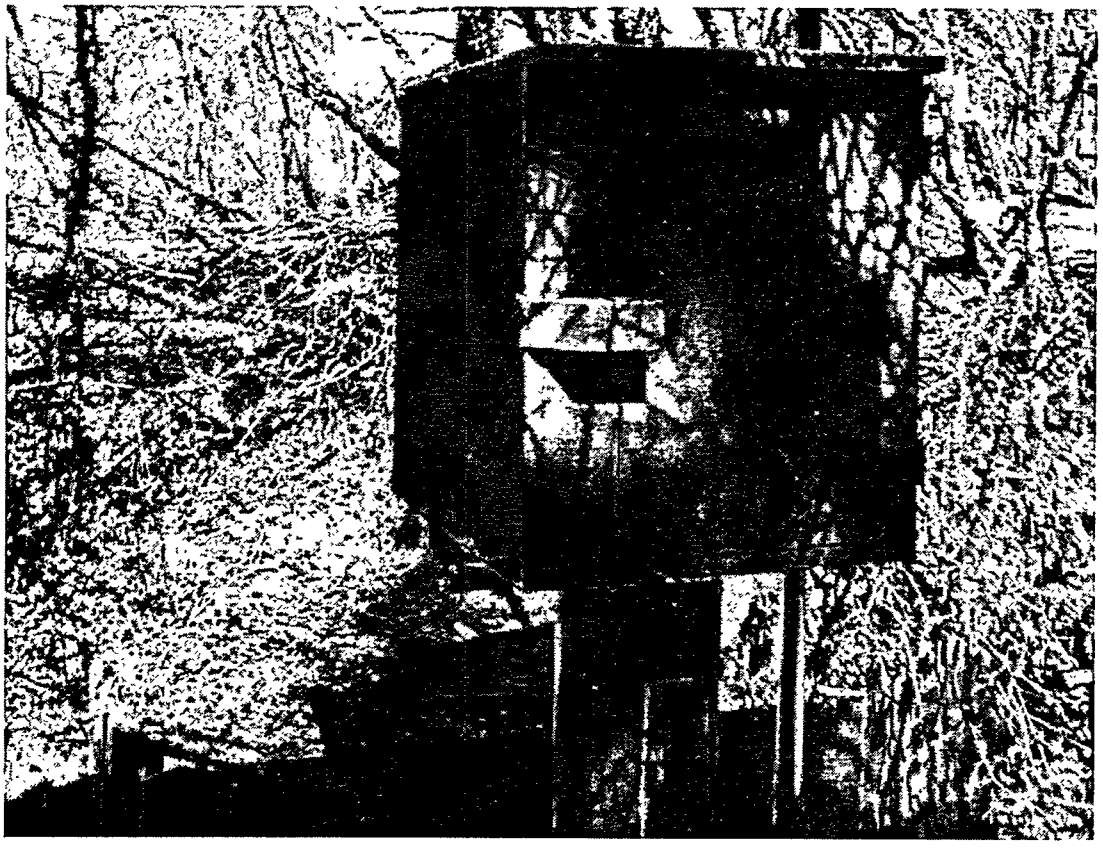
Gage. Data logger with cellular telemetry and steel "fabricated" Parshall Flume as low-water control. Elevation of gage is 7062.50 ft above *National Geodetic Vertical Datum of 1929*, from survey.

Remarks. Water discharge records poor. Flow is mostly effluent from LANL TA-50, liquid radiological waste plant.

Extremes Outside Period of Record. Flow of 34 cfs occurred Aug. 19, 1970, gage height 3.07 ft from old data files of USGS.

Extremes for Period of Record. Maximum discharge 38 ft^3/s, August 17, 1997, gage height 3.19 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 8.1 ft^3/s at 2125 hrs, September 16, gage height 1.82 ft. No flow at times.



E200 Mortandad Canyon at TA-50 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.14	.03	.03	.03	.03	.01	.01	.02	.03	.03	0
2	.03	.06	.06	0	.03	.03	.15	.01	.02	.03	.05	0
3	0	.02	.03	0	.05	.03	0	.03	.02	.01	.03	.03
4	0	.05	.03	.01	.06	.02	0	.03	.03	0	.02	0
5	.06	.06	0	.05	.03	.03	.08	.03	0	.01	.04	.02
6	.02	.03	0	.14	0	.01	.03	.03	0	.07	.06	.01
7	.01	0	.06	.06	0	.01	0	.01	.03	.03	0	.05
8	.03	0	.03	.03	.06	.04	0	.01	.03	.17	0	0
9	.03	.06	.03	0	.06	.05	0	.01	.03	.29	.03	.03
10	0	.03	.06	0	.05	.03	0	.03	.03	.02	.17	.03
11	.03	0	.03	.06	0	.03	0	.03	0	0	.02	0
12	0	.06	0	.06	.03	.06	0	.02	0	.03	.02	0
13	.03	.03	0	.05	0	.03	.03	.02	0	0	.02	.03
14	.03	0	.06	0	.03	.02	.01	.02	.06	.15	.36	.52
15	.06	0	.03	.06	0	.06	.03	0	.04	.03	.01	.06
16	.03	.05	.03	0	.06	.03	0	0	.12	0	.05	.61
17	0	.03	.03	.03	.03	.02	0	.03	.05	0	.03	.91
18	0	.05	.03	0	.03	.03	0	.04	.06	.09	.03	.09
19	.03	.05	0	.03	.06	.08	.03	.03	.01	0	.02	0
20	.03	.05	0	.03	.01	.01	.03	.03	.01	.04	.02	.02
21	.02	0	.03	.03	.01	.01	.02	.02	.39	0	0	.05
22	.02	0	0	.03	.06	.05	.06	0	.03	.02	.03	.03
23	.05	.02	.03	0	.03	.05	.03	0	0	.02	0	.03
24	0	.05	.03	.03	.06	.05	.09	.12	.06	.01	.05	.03
25	0	.02	0	.06	.04	.02	.02	.05	0	.03	.02	0
26	.35	0	.03	.03	.03	.02	.05	.05	0	0	.02	0
27	.89	.02	0	.06	0	0	0	.04	0	.03	.03	.05
28	.07	0	0	0	.01	0	.05	.12	0	.02	0	.02
29	.03	0	0	.03	------	.02	.01	.01	.02	.37	0	0
30	.07	.06	.03	0	------	.02	.25	0	.03	0	.05	.06
31	4.3	------	.03	0	------	.05	------	0	------	0	.05	------
Total	6.32	.94	.72	.91	.86	.94	.98	.83	1.09	1.50	1.26	2.68
Mean	.20	.031	.023	.029	.031	.030	.033	.027	.036	.048	.041	.089
Max	4.3	.14	.06	.14	.06	.08	.25	.12	.39	.37	.36	.91
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	13	1.9	1.4	1.8	1.7	1.9	1.9	1.6	2.2	3.0	2.5	5.3

Cal Year 1998	Total	20.35	Mean	.056	Max	4.3	Min	0	AC-FT	40
Wtr Year 1999	Total	19.03	Mean	.052	Max	4.3	Min	0	AC-FT	38

E202 Mortandad Canyon at Entrance to Sediment Traps

Location. Lat 35°51'39", long 106°16'15", NE 1/4 SW 1/4 sec. 23, T. 19 N, R. 6 E, Los Alamos County, 4.3 mi upstream from NM State Highway 4.

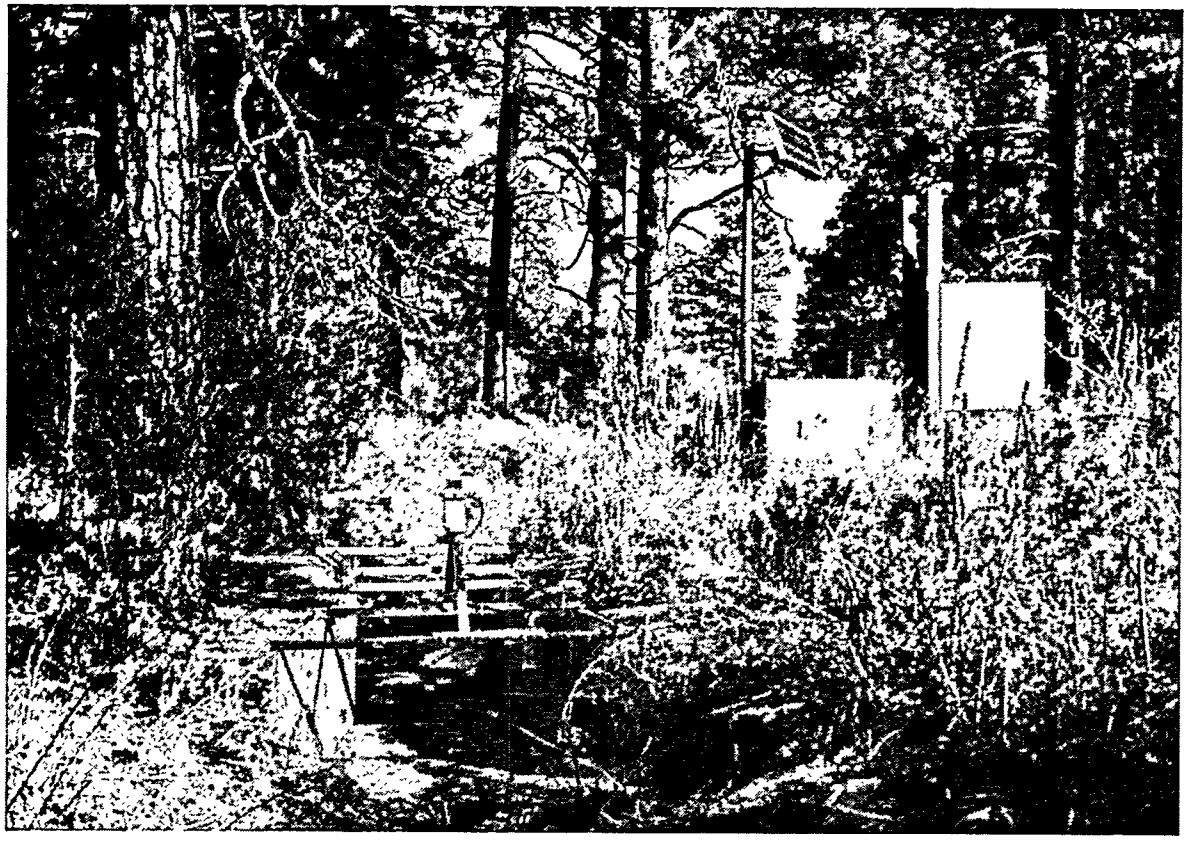
Drainage Area. 0.81 mi^2.

Period of Record. October 1, 1997, to September 30, 1999.

Gage. Data logger with cellular telemetry and 2 ft Parshall Flume. Elevation of gage is 6833.06 ft above *National Geodetic Vertical Datum of 1929*.

Extremes for Period of Record. Maxium discharge 6.4 ft^3/s, gage height 0.87 ft, August 17, 1997. No flow most of time.

Extremes for Current Water Year. No flow all year.



E202 Mortandad Canyon at Entrance to Sediment Traps

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E203 Mortandad Canyon below Sediment Traps

Location. Lat 35°51'39", long 106°16'6", NE 1/4 SW 1/4 sec. 23, T. 19 N, R. 6 E, Los Alamos County, at exit from sediment collection traps, 4.2 mi upstream from NM State Highway 4.

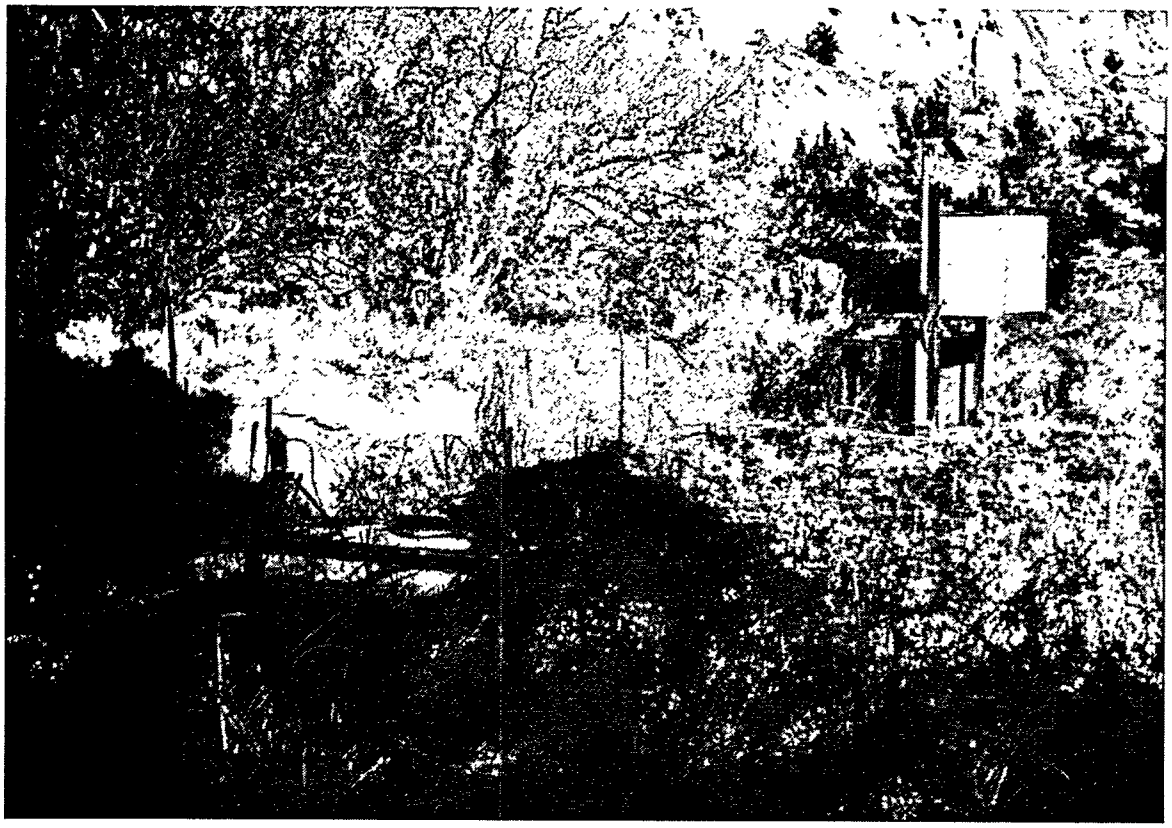
Drainage Area. 0.9 mi^2, approximately.

Period of Record. October 1, 1996, to September 30, 1999.

Gage. Data logger and 6-in. Parshall flume. Elevation of gage is 6811.52 ft above *National Geodetic Vertical Datum of 1929.*

Extremes for Period of Record. No flow for period.

Extremes for Current Water Year. No flow all year.



E203 Mortandad Canyon below Sediment Traps

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E204 Mortandad Canyon at Laboratory Boundary

Location. Lat 35°51'21", long 106°14'43", NW 1/4 NW 1/4 sec. 30, T. 19, R. 7 E, Santa Fe County, 100 ft upstream from LANL/San Ildefonso Indian Reservation Boundary and 2.8 mi upstream from NM State Highway 4.

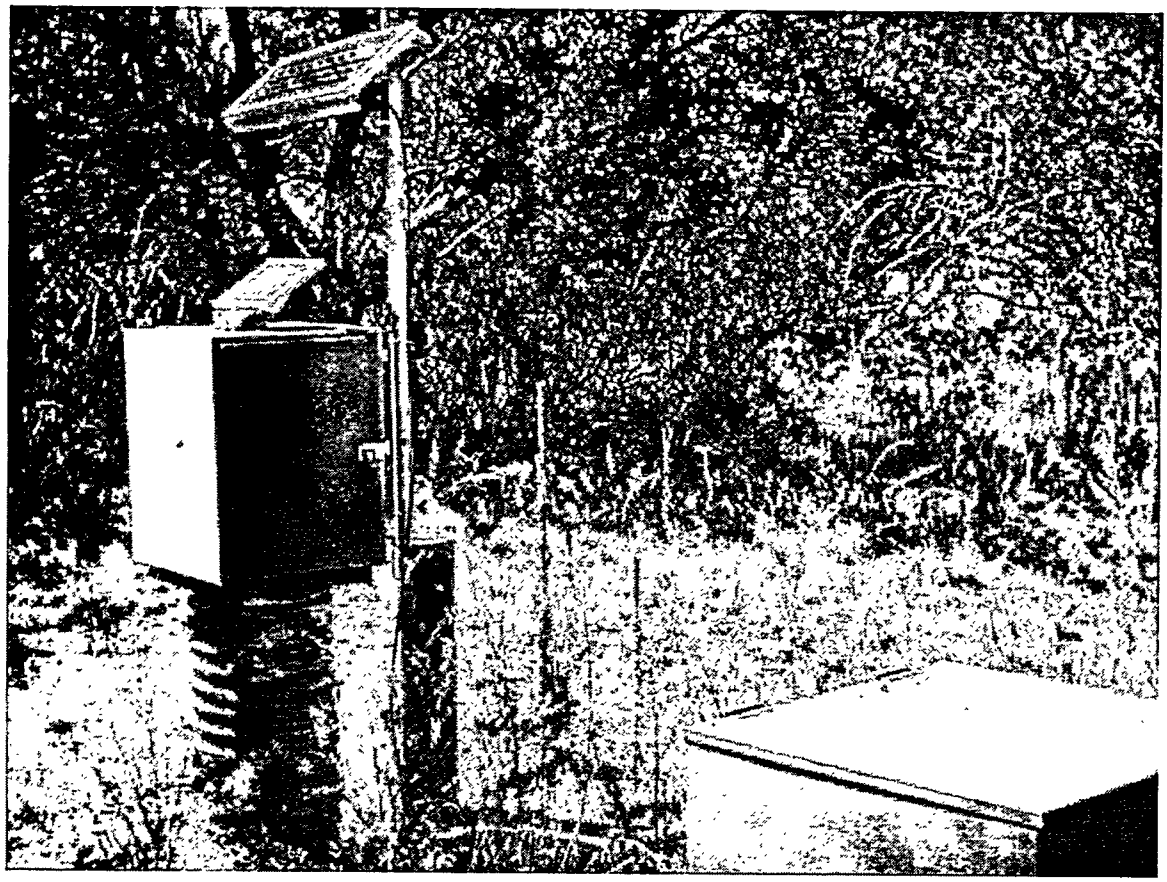
Drainage Area. 1.67 mi^2.

Period of Record. October 1, 1993, to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6657.66 ft. above *National Geodetic Vertical Datum of 1929*, from survey.

Extremes for Period of Record. No flow for period.

Extremes for Current Water Year. No flow for year.



E204 Mortandad Canyon at Laboratory Boundary

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E225 Cañada del Buey above White Rock, NM

Location. Lat 35°50'1.3", long 106°14'22.1", in Ramon Vigil Grant, Los Alamos County, 0.1 mi south of Santa Fe/Los Alamos County Line and 2.5 mi upstream from NM State Highway 4 in White Rock.

Drainage Area. 1.58 mi^2.

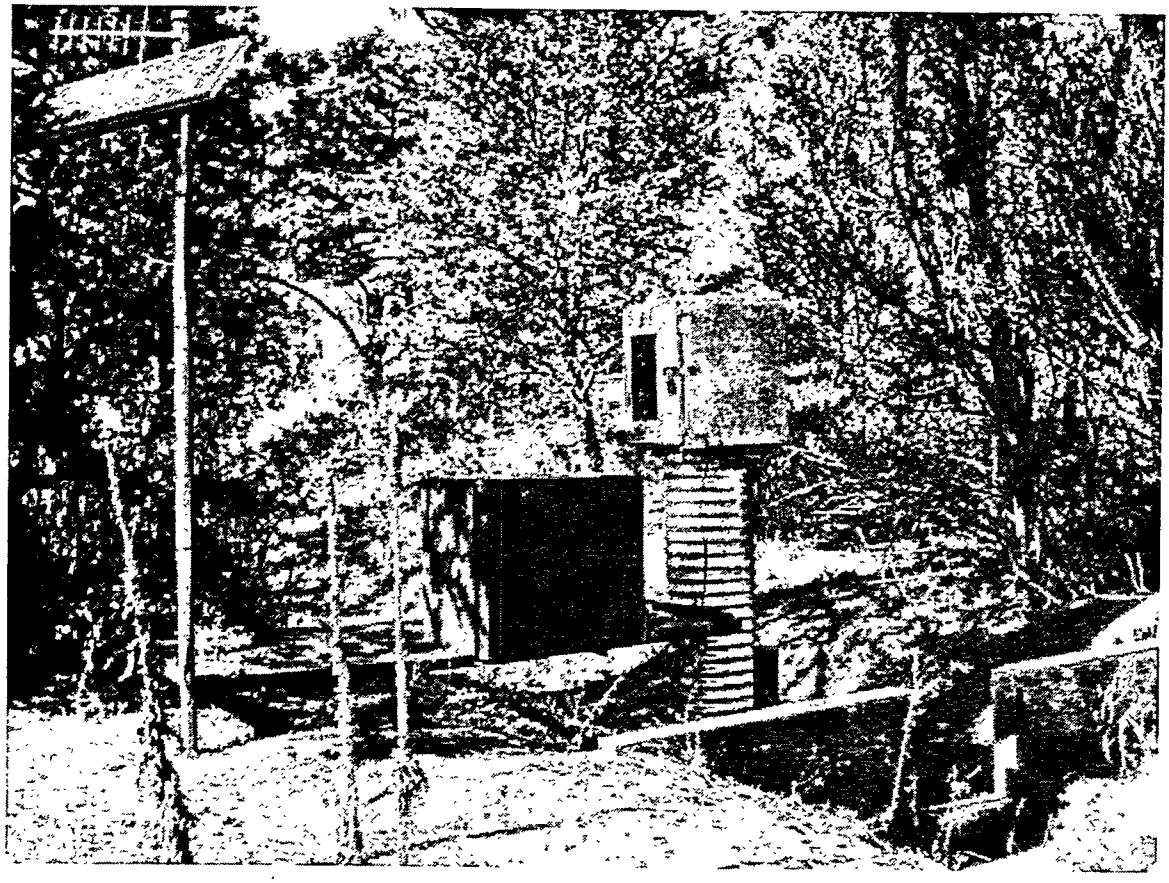
Period of Record. October 1993 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6602 ft above *National Geodetical Vertical Datum of 1929*, from GPS survey.

Remarks. Water discharge records fair.

Extremes for Period of Record. Maximum discharge 17 ft^3/s, September 8, 1995, gage height 2.71 ft. No flow most of time.

Extremes for Current Water Year. No flow for year.



E225 Cañada del Buey above White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E230 Cañada del Buey at White Rock, NM

Location. Lat 35°49'38", long 106°12'43", in Ramon Vigil Grant, Los Alamos County, 250 ft upstream from NM State Highway 4 in White Rock, NM.

Drainage Area. 2.14 mi^2.

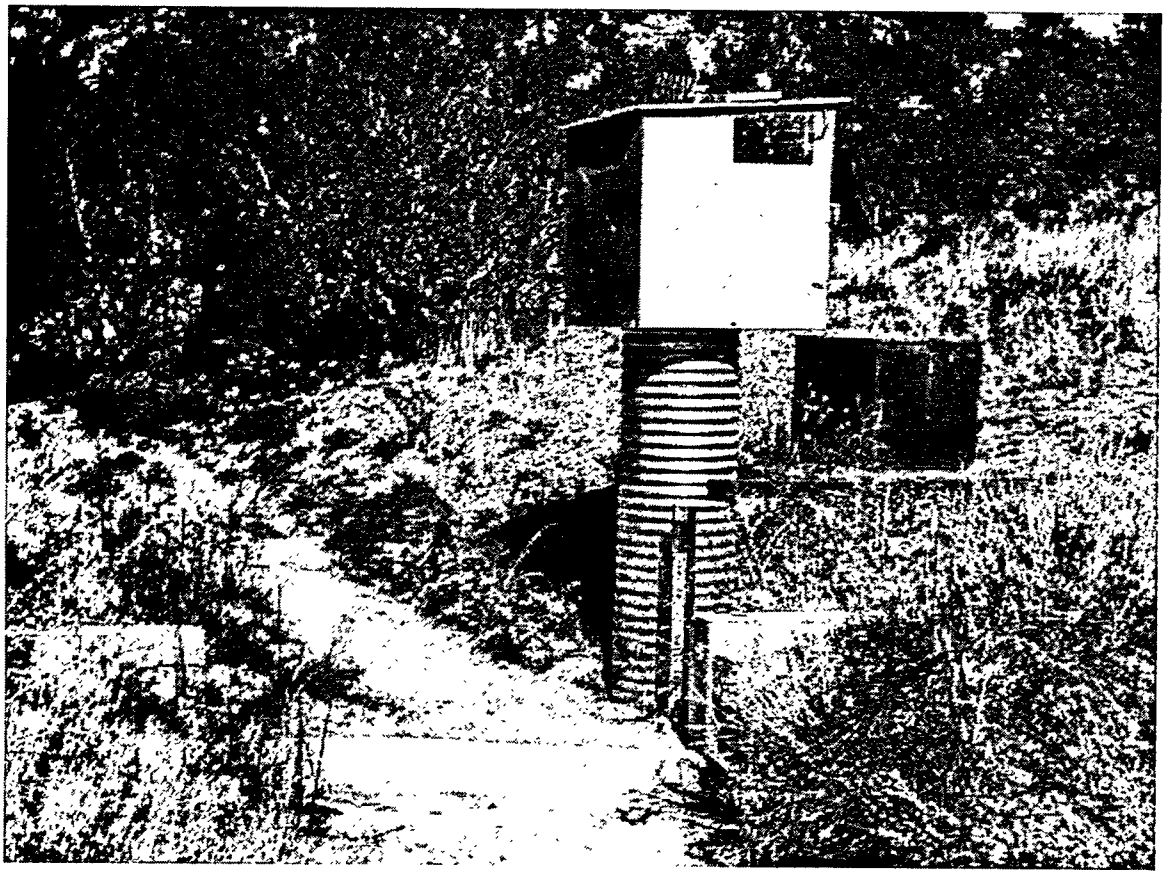
Period of Record. October 1991 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6401 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records fair. Automatic sampler in separate shelter is activated by data logger.

Extremes for Period of Record. Maximum discharge 210 ft^3/s, June 17, 1999, gage height 3.30 ft. No flow most of the time.

Extremes for Current Water Year. Maximum discharge 210 ft^3/s at 1530 hrs June 17, gage height 3.30 ft. No flow most of the time.



E230 Cañada del Buey at White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	.10	0
4	0	0	0	0	0	0	0	0	0	0	.08	0
5	0	0	0	0	0	0	0	0	0	0	.01	0
6	0	0	0	0	0	0	0	0	0	0	.11	.72
7	0	0	0	0	0	0	0	0	0	0	0	.43
8	0	0	0	0	0	0	0	0	0	.03	0	0
9	0	0	0	0	0	0	0	0	0	.03	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	.15	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	.51
17	0	0	0	0	0	0	0	0	5.9	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	.12	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	.20	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	.06	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	2.1	0
28	0	0	0	0	0	0	0	.32	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	.01	------	0	0	------	0	------	0	------	0	0	------
Total	.15	0	0	0	0	0	0	.52	6.17	.06	2.40	1.66
Mean	.005	0	0	0	0	0	0	.017	.21	.002	.077	.055
Max	.08	0	0	0	0	0	0	.32	5.9	.03	2.1	.72
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.3	0	0	0	0	0	0	1.0	12	.1	4.8	3.3

Cal Year 1998	Total	0.39	Mean	.001	Max	1.0	Min	0	AC-FT .8
Wtr Year 1999	Total	10.96	Mean	.030	Max	5.9	Min	0	AC-FT 22

E240 Pajarito Canyon above Highway 501 near Los Alamos, NM

Location. Lat 35°52'3.9", long 106°21'09", SE 1/4 NW 1/4, sec. 19, T. 19 N, R. 6 E, Los Alamos County, in Santa Fe National Forest, 200 ft upstream from NM State Highway 501.

Drainage Area. 1.90 mi^2.

Period of Record. October 1993 to September 30, 1999.

Gage. Data logger with cellular telemetry and Parshall Flume. Elevation of gage is 7740 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Revisions. Gage height "Extremes for Period of Record" WDR 1997 (gage height).

Remarks. Records good.

Extremes for Period of Record. Maximum discharge 2.4 ft^3/s, June 21, 1994, gage height 0.85 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 1.0 ft^3/s at 1400 hrs, July 6, gage height 0.48 ft. No flow at times.

E240 Pajarito Canyon above Highway 501 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.75	.09	0	0	0	0	.51	.17	.09	.15	.07
2	.09	.53	.09	0	0	0	0	.34	.17	.09	.15	.06
3	.08	.34	.09	0	0	0	0	.33	.18	.08	.14	.06e
4	.09	.23	.10	0	0	0	0	.29	.18	.08	.17	.06e
5	.08	.17	.10	0	0	0	0	.23	.17	.08	.19	.05e
6	.08	.16	.11	0	0	0	0	.16	.16	.18	.19	.05e
7	.08	.15	.15	0	0	0	0	.12	.16	.14	.17	.05e
8	.08	.14	.27	0	0	0	0	.10	.16	.10	.16	.04e
9	.08	.15	.20	0	0	0	0	.10	.16	.17	.16	.04e
10	.08	.13	.28	0	0	0	0	.09	.16	.13	.15	.04e
11	.06	.14	.15e	0	0	0	0	.09	.16	.11	.14	.03e
12	.06	.15	.15e	0	0	0	0	.10	.14	.10	.12	.04e
13	.06	.11	.10e	0	0	0	0	.10	.14	.12	.12	.03e
14	.06	.10	.10e	0	0	0	0	.10	.14	.14	.14	.03e
15	.08	.10	.06e	0	0	0	0	.10	.14	.14	.14	.03e
16	.12	.10	.05e	0	0	0	0	.10	.17	.14	.12	.03e
17	.14	.10	.03e	0	0	0	0	.10	.19	.14	.11	.02e
18	.12	.10	0	0	0	0	0	.10	.15	.16	.10	.02e
19	.11	.11	0	0	0	0	0	.10	.12	.13	.10	.02e
20	.12	.12	0	0	0	0	0	.10	.12	.12	.10	.01e
21	.13	.11	0	0	0	0	.12	.10	.12	.12	.10	.01e
22	.14	.12	0	0	0	0	.12	.11	.12	.12	.10	.01e
23	.14	.09	0	0	0	0	.12	.12	.10	.12	.10	.01e
24	.14	.11	0	0	0	0	.11	.17	.10	.12	.09	.01e
25	.16	.10	0	0	0	0	.12	.14	.10	.12	.09	.01e
26	.24	.09	0	0	0	0	.12	.15	.09	.12	.09	.01e
27	.38	.09	0	0	0	0	.11	.15	.09	.14	.08	.01e
28	.44	.09	0	0	0	0	.12	.18	.09	.17	.08	.01e
29	.25	.10	0	0	------	0	.11	.18	.09	.16	.09	.01e
30	.24	.10	0	0	------	0	.15	.18	.09	.17	.08	.01e
31	.62	------	0	0	------	0	------	.17	------	.17	.08	------
Total	4.73	4.88	2.12	0	0	0	1.20	4.91	4.13	3.97	3.80	.88
Mean	.15	.16	.068	0	0	0	.040	.16	.14	.13	.12	.029
Max	.62	.75	.28	0	0	0	.15	.51	.19	.18	.19	.07
Min	.06	.09	0	0	0	0	0	.09	.09	.08	.08	.01
AC-FT	9.4	9.7	4.2	0	0	0	2.4	9.7	8.2	7.9	7.5	1.7

Cal Year 1998	Total	43.43	Mean	.12	Max	.75	Min	0	AC-FT	86
Wtr Year 1999	Total	30.62	Mean	.084	Max	.75	Min	0	AC-FT	61

e–estimated.

E241 Pajarito Canyon at TA-22

Location. Lat 35°51'33.6", long 106°20'12.6", SW 1/4, SW 1/4 sec. 20, T. 19 N, R. 6 E, Los Alamos County, 100 ft upstream from mouth of Starmers Gulch (E242), 0.5 mi S of LANL TA-22 building 91.

Drainage Area. 3.97 mi^2.

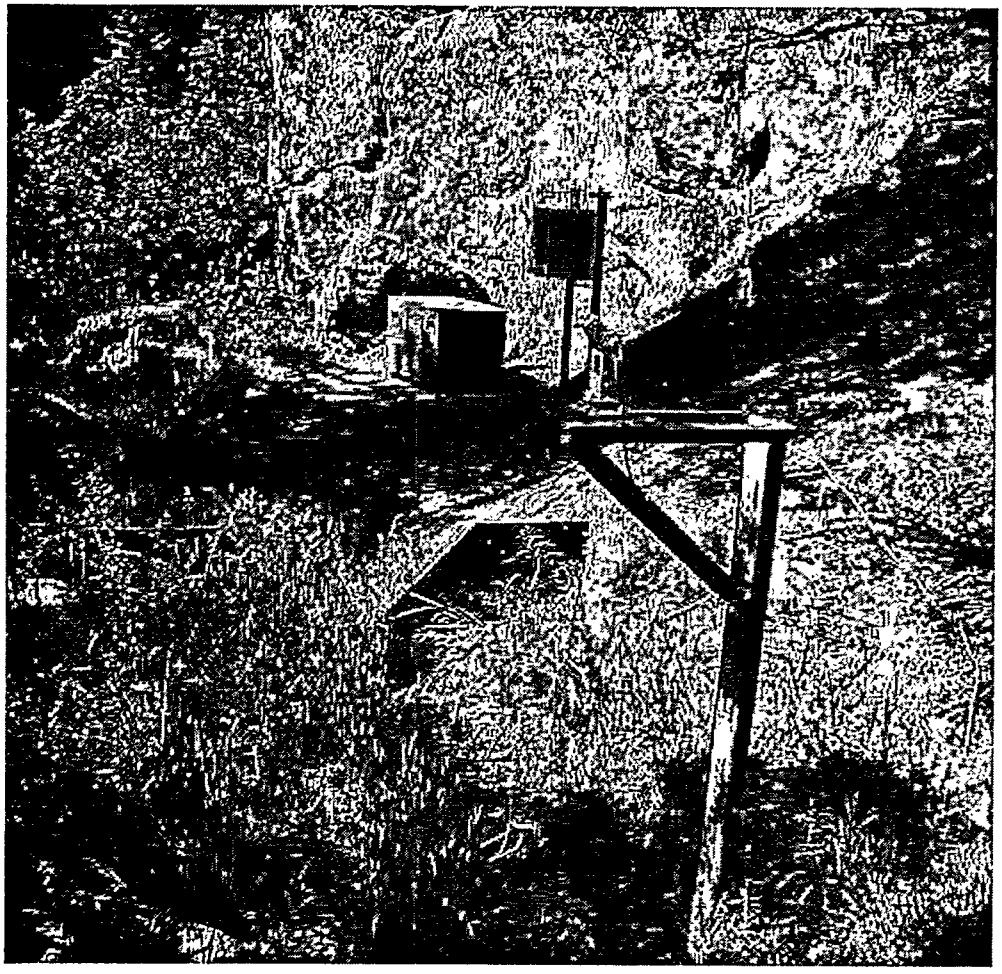
Period of Record. March 1999 to September 30, 1999.

Gage. Data logger with cellular telemetry and 90° sharp crested weir. Elevation of gage is 7382 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Records fair.

Extremes for Period of Record. Maximum discharge, 0.21 ft^3/s, September 16, 1999, gage height 1.06 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge, 0.21 ft^3/s at 2240 hrs, September 16, gage height 1.06 ft. No flow at times.



E241 Pajarito Canyon at TA-22

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.06	.07	.05	.02	.02	.02
2							.07	.07	.05	.02	.02	.02
3							.07	.10	.04	.02	.03	.02
4							.07	.10	.04	.02	.03	.02
5							.06	.10	.04	.02	.02	.02
6							.08	.10	.04	.04	.02	.02
7							.09	.09	.04	.03	.02	.02
8							.08	.09	.04	.03	.02	.02
9							.10	.09	.04	.04	.02	.02
10							.08	.08	.04	.04	.02	.02
11							.07	.08	.04	.03	.02	.02
12							.07	.07	.04	.03	.02	.01
13							.06	.07	.04	.03	.03	.02
14							.06	.07	.04	.03	.02	.03
15							.05	.06	.04	.03	.02	.02
16							.05	.06	.05	.02	.02	.03
17							.05	.05	.05	.02	.02	.04
18							.05	.05	.04	.02	.02	.03
19							.05	.05	.04	.02	.02	.03
20							.05	.04	.04	.03	.02	.03
21							.05	.04	.05	.02	.02	.03
22						.03	.05	.05	.04	.02	.02	.02
23						.06	.05	.04	.03	.02	.02	.02
24						.06	.07	.06	.02	.02	.02	.02
25						.06	.06	.05	.03	.02	.02	.02
26						.06	.06	.05	.02	.02	.02	.02
27						.06	.06	.05	.02	.02	.02	.02
28						.06	.06	.06	.02	.02	.02	.02
29					------	.06	.06	.05	.02	.02	.02	.02
30					------	.06	.07	.05	.02	.02	.02	.02
31		------			------	.05	------	.05	------	.02	.02	------
Total						.56	1.91	2.04	1.11	.76	.65	.67
Mean						.056	.064	.066	.037	.025	.021	.022
Max						.06	.10	.10	.05	.04	.03	.04
Min						.03	.05	.04	.02	.02	.02	.01
AC-FT						1.1	3.8	4.0	2.2	1.5	1.3	1.3

Cal Year 1998	Total*											
Wtr Year 1999	Total*	7.70	Mean	.040	Max	.10	Min	.01	AC-FT	15		

*Incomplete record.

E245 Pajarito Canyon above TA-18 near Los Alamos, NM

Location. Lat 35°51'4.2", long 106°17'11.4", Ramon Vigil Grant, Los Alamos County, 1.5 mi upstream from LANL TA-18 and Three-Mile Canyon and 0.15 mi SE of Pajarito Road.

Drainage Area. 7.84 mi^2.

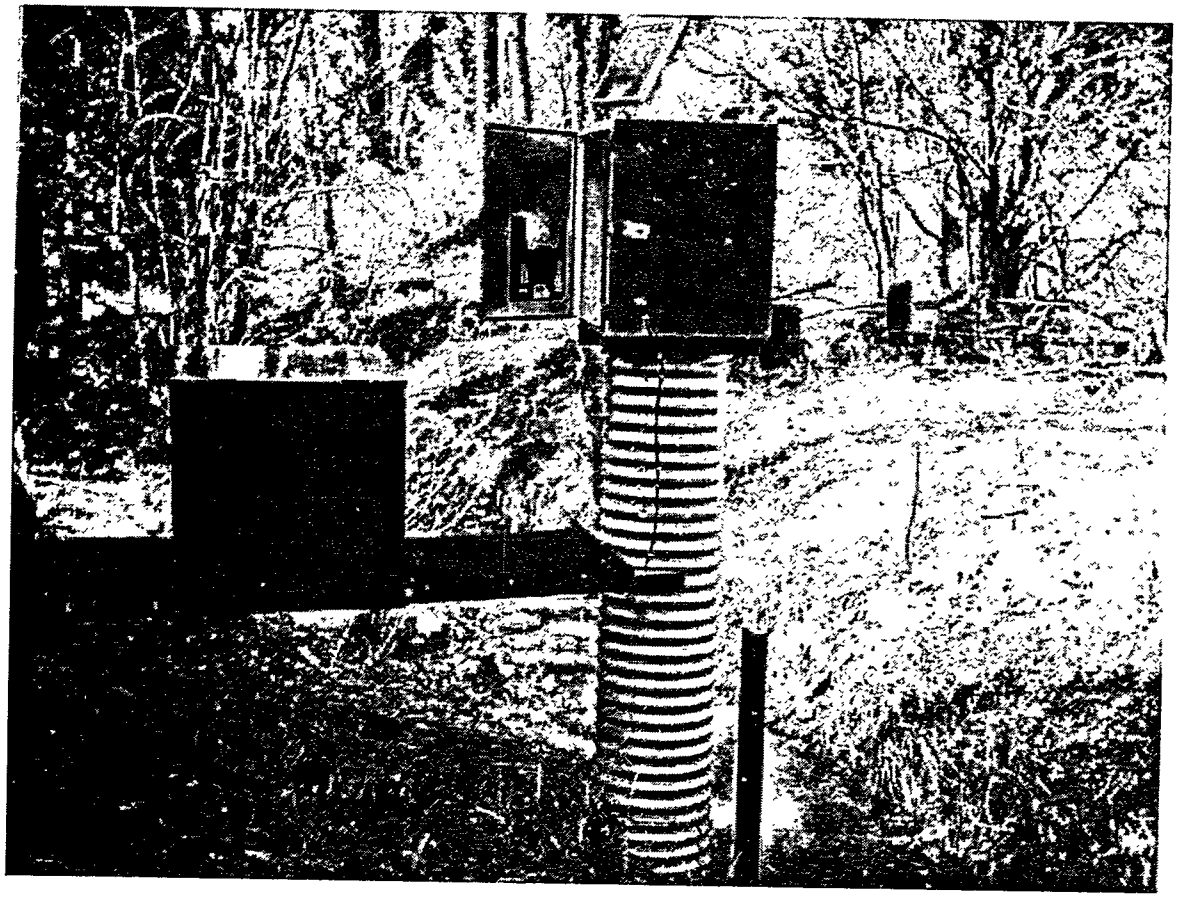
Period of Record. November 1993 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6880 ft. above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records fair.

Extremes for Period of Record. Maximum discharge 30 ft^3/s, August 17, 1997, gage height 2.52 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 12 ft^3/s, 1705 hrs, October 31, gage height 1.65 ft. No flow at times.



E245 Pajarito Canyon above TA-18 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.5	0	0	0	0	0	.21	.01	0	0	0
2	0	.43	0	0	0	0	0	.29	0	0	0	0
3	0	.13	0	0	0	0	0	.51	0	0	0	0
4	0	0	0	0	0	0	0	.62	0	0	0	0
5	0	0	0	0	0	0	0	.61	0	0	0	0
6	0	0	.02	0	0	0	0	.56	0	0	0	0
7	0	0	0	0	0	0	0	.50	0	0	0	0
8	0	0	0	0	0	0	0	.37	0	0	0	0
9	0	0	0	0	0	0	0	.30	0	.07	0	0
10	0	0	0	0	0	0	0	.23	0	0	.09	0
11	0	.18	0	0	0	0	0	.18	0	0	0	0
12	0	0	0	0	0	0	0	.12	0	0	0	0
13	0	0	0	0	0	0	0	.07	0	0	0	0
14	0	0	0	0	0	0	0	.02	0	0	.01	.55
15	0	0	0	0	0	0	0	0	0	0	.01	0
16	0	0	0	0	0	0	0	0	0	0	0	.44
17	0	0	0	0	0	0	0	0	0	0	0	.60
18	0	0	0	0	0	0	0	0	0	0	0	.03
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	.05	0	0	0	0	0	0	0	0	0	0
21	0	.38	0	0	0	0	0	0	.12	0	0	0
22	0	.27	0	0	0	0	0	0	.01	0	0	0
23	0	.06	0	0	0	0	0	0	0	0	0	0
24	0	.01	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	.01	0	0	0	0	0
26	.20	0	0	0	0	0	0	0	0	0	0	0
27	.42	0	0	0	0	0	0	0	0	0	0	0
28	.32	0	0	0	0	0	0	.34	0	0	0	0
29	.18	0	0	0	------	0	0	.10	0	0	0	0
30	.28	0	0	0	------	0	.23	.03	0	0	0	0
31	5.4	------	0	0	------	0	------	.02	------	0	0	------
Total	6.90	3.01	.02	0	0	0	.24	5.08	.14	.07	.11	1.62
Mean	.22	.10	.001	0	0	0	.008	.16	.005	.002	.004	.054
Max	5.4	1.5	.02	0	0	0	.23	.62	.12	.07	.09	.60
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	14	6.0	.04	0	0	0	.5	10	.3	.1	.2	3.2

Cal Year 1998		Total	12.36		Mean	.034		Max	5.4		Min	0		Ac-Ft	25
Wtr Year 1999		Total	17.19		Mean	.047		Max	5.4		Min	0		AC-FT	34

E24550 Pajarito Canyon above Three-Mile Canyon

Location. Lat 35°50'45.5", long 106°16'28.9", Ramon Vigil Grant, Los Alamos County, 0.5 mi upstream from LANL TA-18 and Three-Mile Canyon and 0.15 mi SE of Pajarito Road.

Drainage Area. 7.44 mi^2.

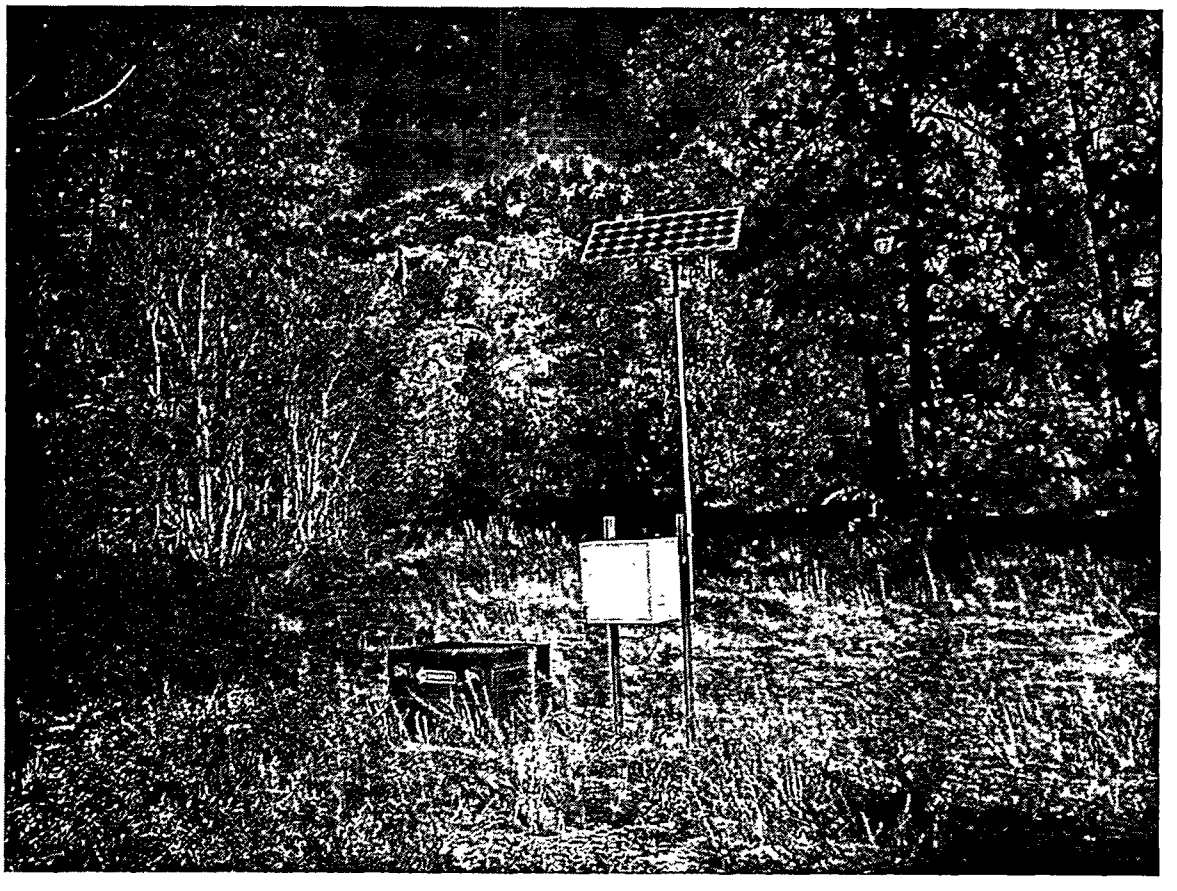
Period of Record. March 1999 to September 30, 1999.

Gage. Data logger with cellular telemetry and 90° sharp crested weir. Elevation of gage is 6798 ft above *National Geodetic Vertical Datum of 1929,* from GPS Survey.

Remarks. Records fair.

Extremes for Period of Record. Maximum discharge 9.6 ft^3/s, September 16, 1999, gage height 2.83 ft. No flow most of time.

Extremes for Current Water Year. Maximum discharge 9.6 ft^3/s at 2345 hrs, September 16, gage height 2.83 ft. No flow most of time.



E24550 Pajarito Canyon above Three-Mile Canyon

Daily Mean Discharge in Cubic Feet Per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0	0	0	0	0
2							0	0	0	0	0	0
3							0	0	0	0	0	0
4							0	0	0	0	0	0
5							0	0	0	0	0	0
6							0	0	0	0	0	0
7							0	0	0	0	0	0
8							0	0	0	0	0	0
9							0	0	0	0	0	0
10							0	0	0	0	0	0
11							0	0	0	0	0	0
12							0	0	0	0	0	0
13							0	0	0	0	0	0
14							0	0	0	0	0	.30
15							0	0	0	0	0	0
16							0	0	0	0	0	.26
17							0	0	0	0	0	.64
18							0	0	0	0	0	0
19							0	0	0	0	0	0
20							0	0	0	0	0	0
21							0	0	0	0	0	0
22							0	0	0	0	0	0
23							0	0	0	0	0	0
24							0	0	0	0	0	0
25						0	0	0	0	0	0	0
26						0	0	0	0	0	0	0
27						0	0	0	0	0	0	0
28						0	0	.09	0	0	0	0
29					------	0	0	0	0	0	0	0
30					------	0	0	0	0	0	0	0
31		------			------	0	------	0	------	0	0	------
Total						0	0	.09	0	0	0	1.20
Mean						0	0	.003	0	0	0	.040
Max						0	0	.09	0	0	0	.64
Min						0	0	0	0	0	0	0
AC-FT						0	0	.2	0	0	0	2.4

Cal Year 1998 Total* .00

Wtr Year 1999 Total* 1.29 Mean .007 Max .64 Min 0 AC-FT 2.6

*Incomplete record.

E250 Pajarito Canyon above Highway 4 near White Rock, NM

Location. Lat 35°49'26.7", long 106°13'40.5", in Ramon Vigil Grant, Los Alamos County, 0.25 mi upstream from NM State Highway 4 and White Rock, NM.

Drainage Area. 10.9 mi^2.

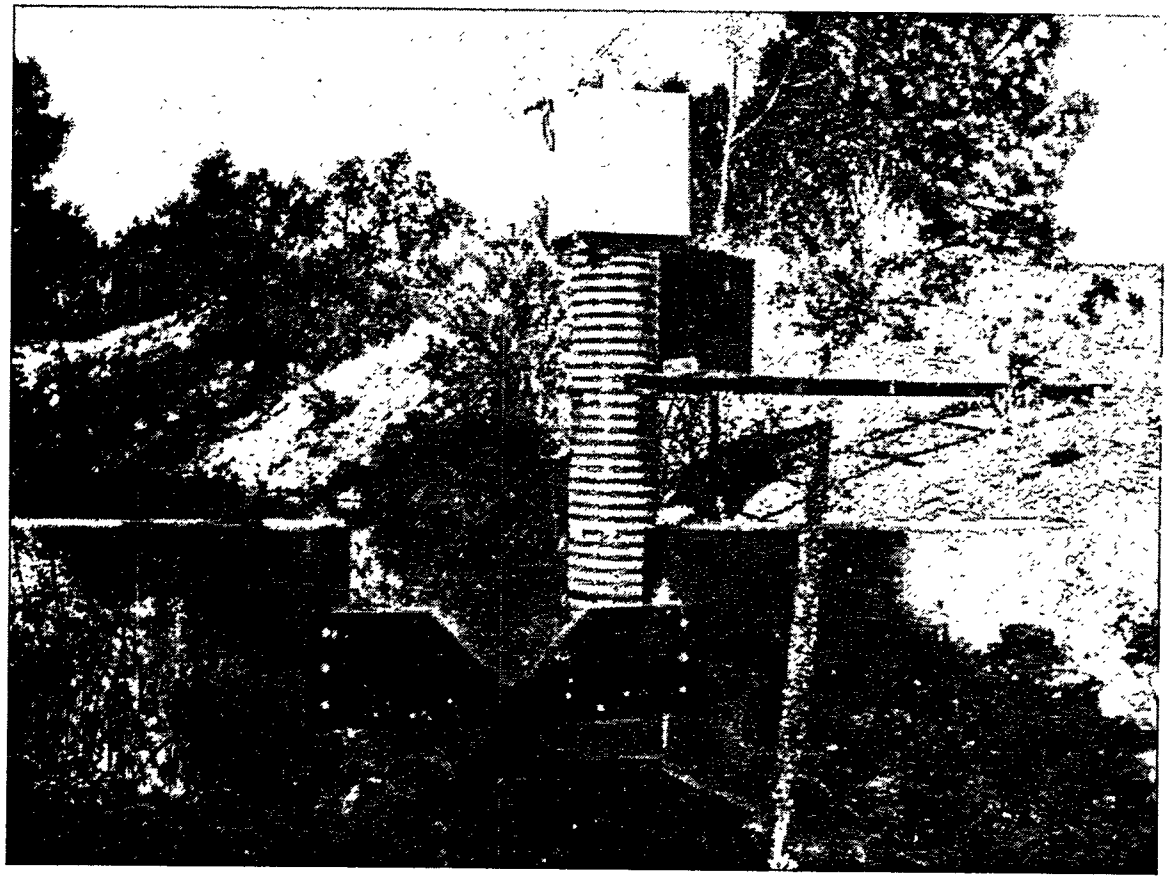
Period of Record. November 1993 to September 30, 1999.

Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6535 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records good. Automatic sampler in separate shelter is activated by data logger.

Extremes for Period of Record. Maximum discharge 20 ft^3/s, June 17, 1999, gage height 3.71 ft. No flow most of the time.

Extremes for Current Water Year. Maximum discharge 20 ft^3/s at 1540 hrs June 17, gage height 3.71 ft. No flow most of time.



E250 Pajarito Canyon above Highway 4 near White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	1.5	0	0	0
18	0	0	0	0	0	0	0	0	.15	0	0	0
19	0	0	0	0	0	0	0	0	.04	0	0	0
20	0	0	0	0	0	0	0	0	.01	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	1.70	0	0	0
Mean	0	0	0	0	0	0	0	0	.057	0	0	0
Max	0	0	0	0	0	0	0	0	1.5	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	3.4	0	0	0

Cal Year 1998	Total	3.86	Mean	.011	Max	.06	Min	0	AC-FT	7.7
Wtr Year 1999	Total	1.70	Mean	.005	Max	1.5	Min	0	AC-FT	3.4

E252 Water Canyon above Highway 501
near Los Alamos, NM

Location. Lat 35°50'18", long 106°21'42.6", T. 19 N, R. 5 E., Los Alamos County in Santa Fe National Forest, 0.3 mi upstream from NM State Highway 501 and 0.3 mi NW of junction of State Highways 501 and 4.

Drainage Area. 3.39 mi^2.

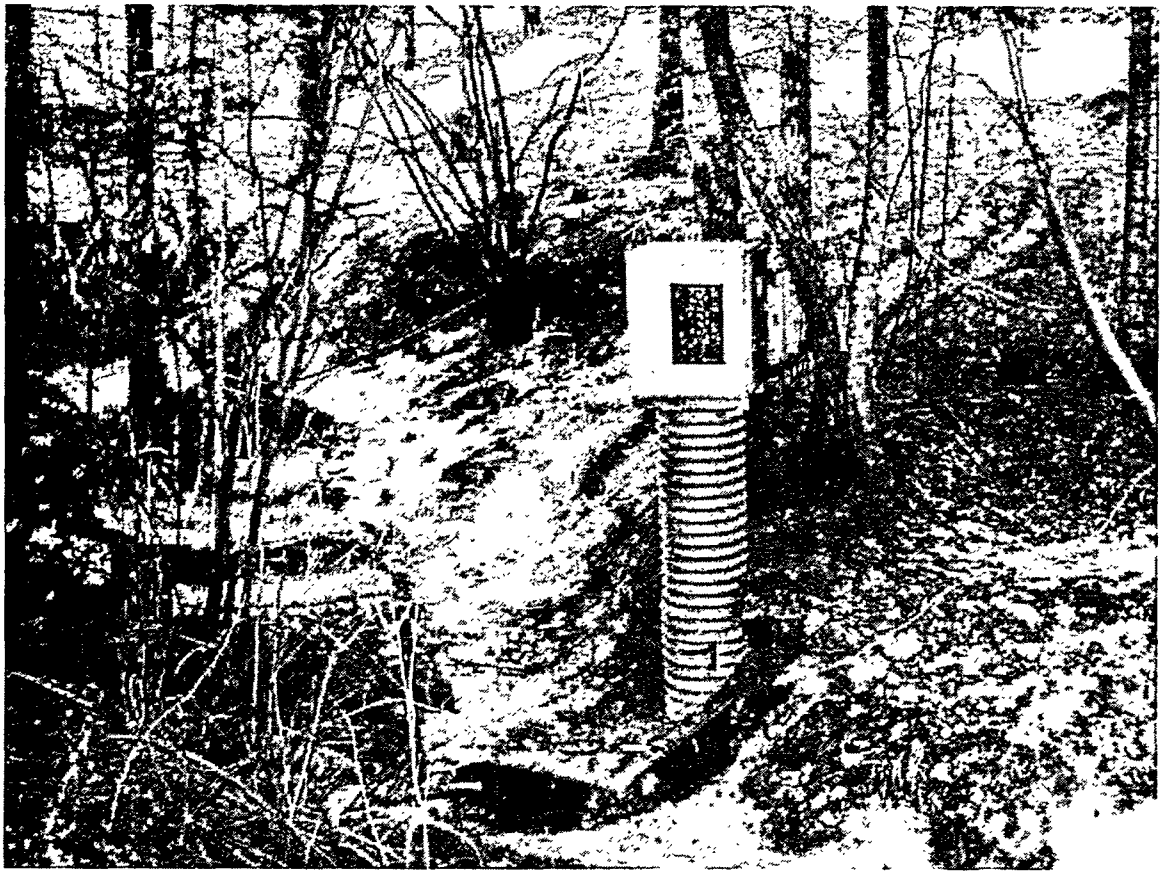
Period of Record. October 1994 to September 30, 1999.

Gage. Data logger with cellular telemetry and 120° weir plate. Elevation of gage is 7558 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Records good.

Extremes for Period of Record. Maximum discharge 0.29 ft^3/s at 1505 hrs, March 23, 1997, gage height 1.54 ft. No flow at times.

Extremes for Current Water Year. Maximum discharge 0.05 ft^3/s at 1020 hrs, May 12, gage height 1.22 ft. No flow at times.



E252 Water Canyon above Highway 501 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.01	.01	.01	.01	.01e	.02	.03	.02	.01	.02
2	.01	.02	.01	.01	.01	.01	.01e	.02	.03	.01	.01	.01
3	.01	.02	.01	.01	.01	.01	.01e	.02	.03	.01	.01	.01
4	.01	.03	.01	.01	.01	.01	.01	.02	.03	.01	.01	.01
5	.01	.03	.01	.01	.01	.01	.01	.02	.03	.01	.01	.01
6	.01	.02	.01	.01	.01	.01	.01	.02	.03	.01	.01	.01
7	.01	.01	.01	.01	.01	.01	.01	.02	.03	.01	.01	.01
8	.01	.01	.01	.01	.01	.01	.01	.02	.03	.01	.01	.01
9	.01	.01	.01	.01	.01	.01	.01	.03	.03	.01	.01	.01
10	.01	.01	.01	.01	.01	.01e	.01	.04	.03	.01	.01	.01
11	.01	.01	.01	.01	.01	.01e	.01	.04	.03	.01	.01	.01
12	.02	.01	.01	.01	.01	.01e	.01	.05	.02	.01	.01	.01
13	.01	.01	.01	.01	.01	.01e	.01	.05	.02	.01	.01	.01
14	.01	.01	.01	.01	.01	.01e	.01	.05	.02	.01	.01	.01
15	.01	.01	.01	.01	.01	.01e	.01	.05	.02	.01	.01	.01
16	.01	.01	.01	.01	.01	.01e	.01	.05	.02	.01	.01	.01
17	.01	.01	.01	.01	.01	.01e	.01	.04	.02	.01	.01	.01
18	.01	.01	.01	.01	.01	.01e	.01	.04	.02	.01	.02	.01
19	.01	.01	.01	.01	.01	.01e	.01	.04	.02	.01	.02	.01
20	.01	.01	.01	.01	.01	.01e	.01	.04	.02	.01	.02	.01
21	.01	.01	.01	.01	.01	.01e	.01	.04	.02	.01	.02	.01
22	.01	.01	.01	.01	.01	.01e	.01	.04	.01	.01	.02	.01
23	.01	.01	.01	.01	.01	.01e	.01	.03	.01	.01	.02	.01
24	.01	.01	.01	.01	.01	.01e	.01	.03	.01	.01	.02	.01
25	.02	.01	.01	.01	.01	.01e	.01	.03	.02	.01	.02	.01
26	.01	.01	.01	.01	.01	.01e	.01	.03	.02	.01	.02	.01
27	.01	.01	.01	.01	.01	.01e	.01	.03	.01	.01	.02	.01
28	.01	.01	.01	.01	.01	.01e	.01	.03	.01	.01	.02	.01
29	.01	.01	.01	.01	------	.01e	.02	.03	.02	.01	.02	.01
30	.02	.01	.01	.01	------	.01e	.02	.03	.02	.01	.02	.01
31	.02	------	.01	.01	------	.01e	------	.03	------	.01	.02	------
Total	.35	.38	.31	.31	.28	.31	.32	1.03	.66	.32	.45	.31
Mean	.011	.013	.010	.010	.010	.010	.011	.033	.022	.010	.015	.010
Max	.02	.03	.01	.01	.01	.01	.02	.05	.03	.02	.02	.02
Min	.01	.01	.01	.01	.01	.01	.01	.02	.01	.01	.01	.01
AC-FT	.7	.8	.6	.6	.6	.6	.6	2.0	1.3	.6	.9	.6

Cal Year 1998	Total	5.23	Mean	.014	Max	.15	Min	.01	AC-FT	10
Wtr Year 1999	Total	5.03	Mean	.014	Max	.05	Min	.01	AC-FT	10

e–estimated.

E253 Cañon del Valle above Highway 501
near Los Alamos, NM

Location. Lat 35°51'6.6", long 106°21'17", NE 1/4, NE 1/4, sec. 25, T. 19 N, R. 5 E, Los Alamos County in Santa Fe National Forest, 0.25 mi upstream from NM State Highway 501, 4.7 mi above mouth and 1.5 mi N of junction of State Highways 501 and 4.

Drainage Area. 2.46 mi^2.

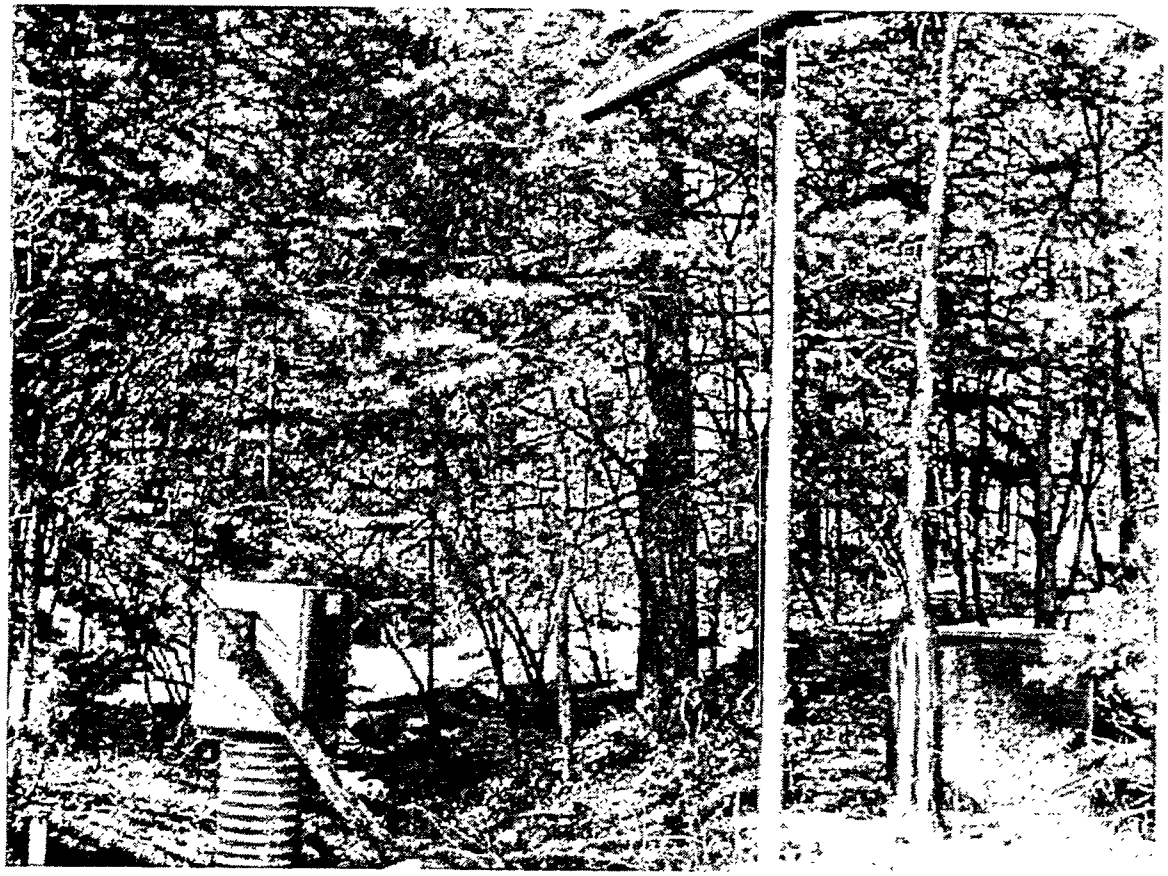
Period of Record. October 1994 to September 30, 1999.

Gage. Data logger with cellular telemetry and 120° weir plate. Elevation of gage is 7707 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Records good.

Extremes for Period of Record. No flow for period.

Extremes for Current Water Year. No flow all year.



E253 Cañon del Valle above Highway 501 near Los Alamos, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	0	Mean	0	Max	0	Min	0	AC-FT	0

E265 Water Canyon below Highway 4 near White Rock, NM

Location. Lat 35°48'17.7", long 106°14'31.6" in Ramon Vigil Grant, Los Alamos County, 4.0 mi SW of White Rock and 0.4 mi downstream from NM State Highway 4.

Drainage Area. 6.83 mi^2.

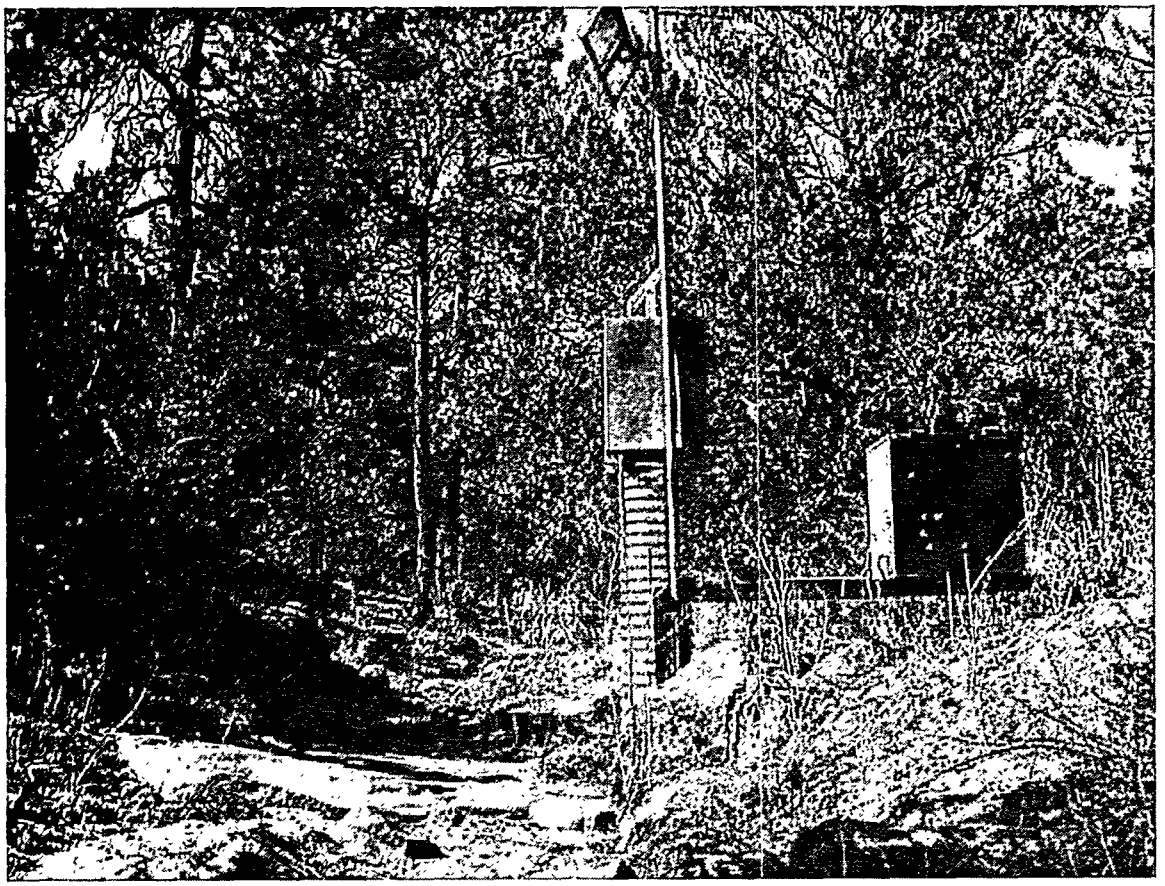
Period of Record. October 1993 through September 1998.

Gage. Data logger with cellular telemetry and stabilized natural rock control. Elevation of gage is 6314 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records fair. Automatic sampler in separate shelter is actuated by data logger.

Extremes for Period of Record. Maximum discharge, 21 ft^3/s, gage height 0.99 ft, August 29, 1995. No flow most of time.

Extremes for Current Year. Maximum discharge 17 ft^3/s at 1600 hrs, June 17, gage height 0.93 ft. No flow most of time.



E265 Water Canyon below Highway 4 near White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	.07	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	.14	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	.01	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
TOTAL	0	0	0	0	0	0	0	0	.14	.07	.01	0
MEAN	0	0	0	0	0	0	0	0	.005	.002	0	0
MAX	0	0	0	0	0	0	0	0	.14	.07	.01	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	.3	.1	.02	0

Cal Year 1998	Total	0	Mean	0	Max	0	Min	0	AC-FT	0
Wtr Year 1999	Total	.22	Mean	.001	Max	.14	Min	0	AC-FT	.4

E267 Potrillo Canyon near White Rock, NM

Location. Lat 35°48'48", long 106°14'00", in Ramon Vigil Grant, Los Alamos County, 2.0 mi SW of White Rock and 0.25 mi upstream from NM State Highway 4.

Drainage Area. 2.25 mi^2.

Period of Record. October 1993 to September 30, 1999.

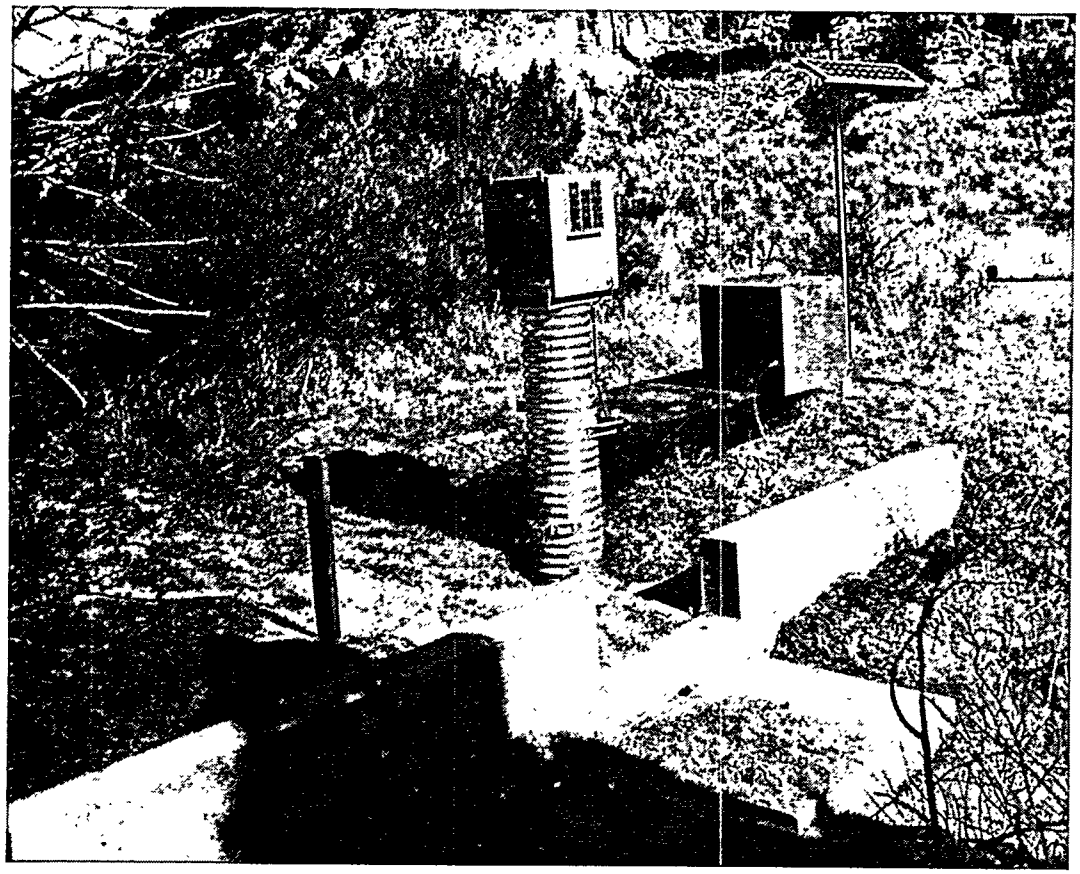
Gage. Data logger with cellular telemetry and concrete control. Elevation of gage is 6458 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records good. Automatic sampler in separate shelter is activated by data logger.

Revisions. Station number; LA-13551-PR (1998).

Extremes for Period of Record. Maximum discharge 63 ft^3/s, August 29, 1995, gage height 2.70 ft (from slope-area determination). No flow most of time.

Extremes for Current Water Year. Maximum discharge 39 ft^3/s at 1950 hrs, August 27, gage height 2.38 ft. No flow most of time.



E267 Potrillo Canyon near White Rock, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	.05	0
5	0	0	0	0	0	0	0	0	0	0	.02	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	.02	0	0
9	0	0	0	0	0	0	0	0	0	.16	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	.25
17	0	0	0	0	0	0	0	0	.66	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	.39	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	1.8	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	—
Total	0	0	0	0	0	0	0	0	1.05	.18	1.87	.25
Mean	0	0	0	0	0	0	0	0	.035	.006	.060	.008
Max	0	0	0	0	0	0	0	0	.66	.16	1.8	.25
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	2.1	.4	3.7	.5

Cal Year 1998	Total	.04	Mean	0	Max	.04	Min	0	AC-FT	.08
Wtr Year 1999	Total	3.35	Mean	.009	Max	1.8	Min	0	AC-FT	6.6

E275 Ancho Canyon near Bandelier National Park, NM

Location. Lat 35°46'54.2", long 106°14'41.9", in Ramon Vigil Grant, Los Alamos County, 5.5 mi SW of White Rock at 0.3 mi downstream from NM State Highway 4.

Drainage Area. 4.55 mi^2.

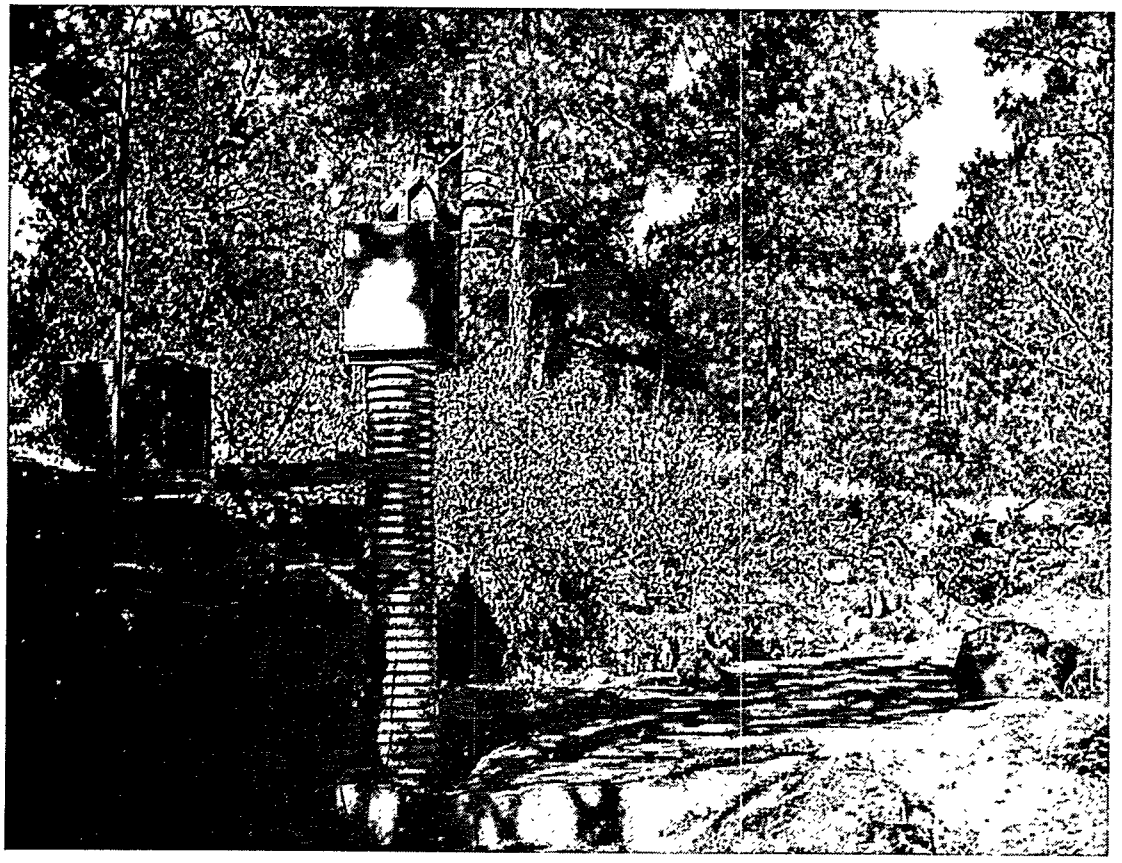
Period of Record. December 1993 to September 1999.

Gage. Data logger with cellular telemetry and concrete stabilized natural control. Elevation of gage is 6198 ft above *National Geodetic Vertical Datum of 1929,* from GPS survey.

Remarks. Water discharge records fair. Automatic sampler in separate shelter is activated by data logger.

Extremes for Period of Record. Maximum discharge 520 ft^3/s, gage height 2.71 ft, June 29, 1995. No flow most of time.

Extremes for Current Year. Maximum discharge 140 ft^3/s, gage height 1.91 ft at 1605 hrs, June 17. No flow most of time.



E275 Ancho Canyon near Bandelier National Park, NM

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02	0	0	0	0	0	0	0	0	.02	0
2	0	0	0	0	0	0	0	0	0	0	.07	0
3	0	0	0	0	0	0	0	0	0	0	.42	0
4	0	0	0	0	0	0	0	0	0	0	.34	0
5	0	0	0	0	0	0	0	0	0	0	.30	0
6	0	0	0	0	0	0	0	0	0	0	.23	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	.69	0	0
9	0	0	0	0	0	0	0	0	0	.27	0	0
10	0	0	0	0	0	0	0	0	0	0	.13	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	.02
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	.33
17	0	0	0	0	0	0	0	0	2.0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	.16	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	.06	0	0	0	0	0	0	0	0	.23	0	0
27	0	0	0	0	0	0	0	0	0	0	.05	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	.26	------	0	0	------	0	------	0	------	0	0	------
Total	.32	.02	0	0	0	0	0	0	2.16	1.19	1.56	.35
Mean	.010	.001	0	0	0	0	0	0	.072	.038	.050	.012
Max	.26	.02	0	0	0	0	0	0	2.0	.69	.42	.33
Min	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.6	.04	0	0	0	0	0	0	4.3	2.4	3.1	.7

Cal Year 1998		Total	.34	Mean	.001	Max	.26	Min	0	AC-FT	.7	
Wtr Year 1999		Total	5.60	Mean	.015	Max	2.0	Min	0	AC-FT	11	

E350 Rio de los Frijoles at Bandelier

Location. Lat 35°46'37.0", long 106°16'9.6", Ramon Vigil Grant, Sandoval County, in Bandelier National Monument, on right bank 800 ft downstream from Monument Headquarters, 6.5 mi S of Los Alamos, 18.5 mi NW of Santa Fe, and at mile 2.0.

Drainage Area. 18.16 mi^2.

Period of Record. July 1963 to September 1969, July 1977 to September 1982, May 1993 to September 1996, and October 1998 to September 30, 1999.

Gage. Data logger and concrete control. Elevation of gage is 6046 ft above *National Geodetic Vertical Datum of 1929,* from GPS Survey.

Remarks. Water discharge records fair except those for winter period, which are poor. One small diversion from left bank about 1.0 mi upstream for irrigation of small orchard. The La Mesa fire which occurred during mid June 1977 burned about 40% of the forest cover of this watershed.

Extremes for Period of Record. Maximum discharge 3030 ft^3/s, July 21, 1978, gage height 6.34 ft, site and datum then in use. Minimum daily discharge 0.15 ft^3/s July 9, 1989.

Extremes for Current Water Year. Maximum discharge 35 ft^3/s, August 10, gage height 2.77 ft. from floodmark. Minimum daily 0.26 ft^3/s.

E350 Rio de los Frijoles at Bandelier

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

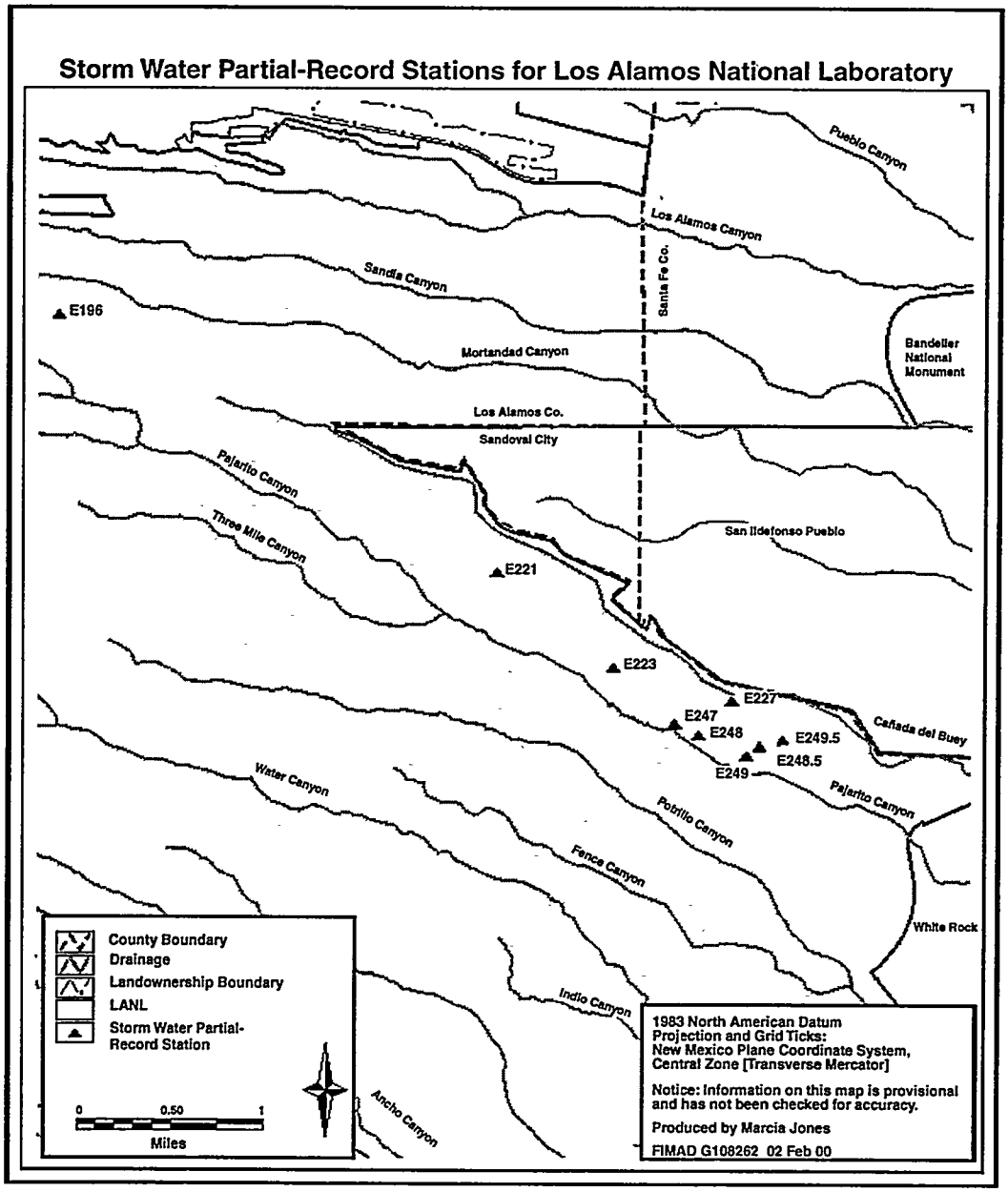
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	1.0e	.64e	.32e	.34e	.48e	.88	1.9	1.1	.50	.62	.66
2	.67	.90e	.64e	.32e	.32e	.50e	1.3	2.0	1.0	.48	.66	.71
3	.54	.84e	.66e	.30e	.30e	.52e	1.1	2.2	.99	.48	.92	.76
4	.52	.77e	.67e	.26e	.28e	.54e	1.0	2.4	.93	.56	1.3	.76
5	.51	.76e	.65e	.26e	.29e	.58e	1.0	2.4	.91	.60	1.2	.66
6	.54	.74e	.62e	.26e	.34e	.62e	1.0	2.3	.91	.71	1.5	.66
7	.54	.75e	.61e	.28e	.40e	.62e	1.1	2.2	.86	.65	1.2	.66
8	.54	.76e	.54e	.36e	.40e	.66e	1.0	2.1	.82	.81	1.0	.62
9	.53	.86e	.49e	.36e	.40e	.74e	1.0	2.0	.79	1.2	1.0	.66
10	.52	.70e	.49e	.26e	.38e	.77e	.99	1.9	.75	.94	4.0	.62
11	.50	.62e	.42e	.30e	.36e	.87	.99	1.8	.72	.70	1.2	.58
12	.50	.67e	.45e	.36e	.33e	.99	.99	1.7	.72	.63	1.0	.54
13	.49	.69e	.48e	.33e	.30e	.98	.99	1.6	.82	.58	.92	.58
14	.48	.70e	.50e	.30e	.28e	.98	1.0	1.5	.80	.61	.98	1.8
15	.47	.70e	.52e	.28e	.28e	.96	1.0	1.4	.77	.72	1.2	.98
16	.48	.69e	.52e	.30e	.28e	.92	1.1	1.3	1.1	.60	1.0	1.2
17	.52	.68e	.52e	.31e	.30e	.92	1.1	1.3	1.4	.61	.92	1.7
18	.57	.66e	.52e	.32e	.32e	.99	1.1	1.3	1.2	.86	.86	1.4
19	.57	.61e	.52e	.34e	.33e	1.0	1.0	1.2	.97	.70	.81	.92
20	.65	.57e	.50e	.36e	.36e	1.0	1.0	1.1	.87	.75	.81	.92
21	.71	.53e	.48e	.36e	.37e	.98	1.0	1.1	.98	.75	.86	.86
22	.71	.54e	.46e	.37e	.38e	.96	1.1	1.1	.95	.75	.92	.86
23	.70	.54e	.46e	.38e	.38e	.92	1.0	1.1	.79	.62	.81	.86
24	.68e	.56e	.42e	.38e	.39e	.90	1.2	1.4	.72	.70e	.76	.86
25	.76e	.56e	.40e	.38e	.40e	.88	1.5	1.4	.69	.85e	.76	.81
26	1.3e	.57e	.40e	.39e	.41e	.93	1.3	1.5	.66	.70e	.71	.76
27	1.5e	.58e	.40e	.40e	.43e	1.0	1.2	1.5	.64	.70e	.71	.76
28	1.0e	.58e	.38e	.36e	.46e	.90	1.1	1.6	.59	.70e	.66	.71
29	.93e	.58e	.36e	.32e	------	.88	1.2	1.5	.56	.70e	.66	.76
30	1.1e	.60e	.35e	.40e	------	.88	1.8	1.3	.52	.66	.92	.76
31	1.7e	------	.32e	.37e	------	.88	------	1.2	------	.59	.71	------
Total	22.03	20.31	15.39	10.29	9.81	25.75	33.04	50.3	25.53	21.41	31.58	25.39
Mean	.71	.68	.50	.33	.35	.83	1.10	1.62	.85	.69	1.02	.85
Max	1.7	1.0	.67	.40	.46	1.0	1.8	2.4	1.4	1.2	4.0	1.8
Min	.47	.53	.32	.26	.28	.48	.88	1.1	.52	.48	.62	.54
AC-FT	44	40	31	20	19	51	66	100	51	42	63	50

Cal Year 1998	Total*	57.73	Mean	.63	Max	1.7	Min	.32	AC-FT	115
Wtr Year 1999	Total	290.83	Mean	.80	Max	4.0	Min	.26	AC-FT	577

e–estimated.

*Incomplete record.

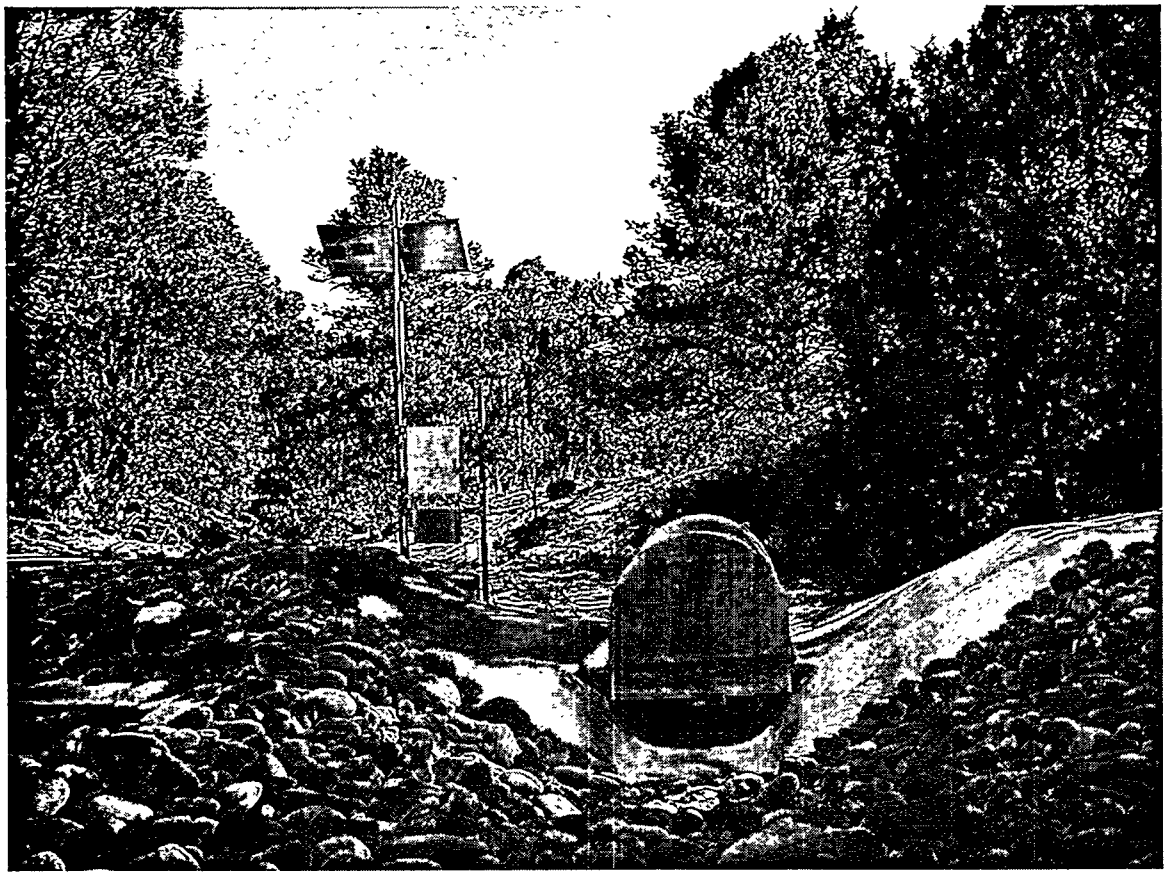
Storm Water Partial-Record Stations


Storm Water Partial-Record Stations for Los Alamos National Laboratory
Pueblo Canyon
Los Alamos Canyon
Santa Fe Co.
Sanda Canyon
E196
Mortandad Canyon
Bandelier National Monument
Los Alamos Co.
Sandoval City
Pajarito Canyon
Three Mile Canyon
San Ildefonso Pueblo
E221
E223
E227
E247
E248
E249.5
E248.5
E249
Cañada del Buey
Pajarito Canyon
Water Canyon
Pobrillo Canyon
Fence Canyon
White Rock
Indio Canyon
Ancho Canyon
County Boundary
Drainage
Landownership Boundary
LANL
Storm Water Partial-Record Station
0
0.50
1
Miles
1983 North American Datum
Projection and Grid Ticks:
New Mexico Plane Coordinate System,
Central Zone [Transverse Mercator]
Notice: Information on this map is provisional and has not been checked for accuracy.
Produced by Marcia Jones
FIMAD G108262 02 Feb 00

The storm water partial-record stations are all Parshall flumes installed in very small drainages. All are tributaries to either Pajarito Canyon or Cañada del Buey. They record and sample only events from precipitation. The scope of this network is to collect runoff samples for the Los Alamos National Laboratory's NPDES storm water discharge permit. Note from the data that events are few and of very short duration.

Chemical data from these stations are published in the Los Alamos National Laboratory's discharge monitoring reports, which are provided annually to the U.S. Environmental Protection Agency and New Mexico Environment Department.

A typical station from this network appears below.



E196 TA-55 Location: Lat 35°51'52.86226", Long 106°18'13.51862"			
Date	Total Gal	Max in GPM	Duration in Min
30-Apr	870	91	13
24-May	450	71	9
28-May	560	68	10
15-Jun	720	73	13
16-Jun	420	76	7
17-Jun	990	501	2
21-Jun	1080	117	14
6-Jul	1080	80	19
8-Jul	2810	194	33
9-Jul	1200	74	19
14-Jul	2280	194	20
18-Jul	1720	92	28
27-Jul	540	53	12
29-Jul	2700	119	38
10-Aug	1190	114	17
14-Aug	2180	84	43
22-Aug	650	128	9
14-Sep	4800	139	69
16-Sep	3230	157	36
17-Sep	560	80	9

E221 TA-54 Area J Location: Lat 35°50'36.94194", Long 106°15'42.88045"			
Date	Total Gal	Max in GPM	Duration in Min
30-Apr	2160	284	18
24-May	520	57	11
27-May	2510	425	13
15-Jun	350	57	7
17-Jun	2700	271	24
18-Jun	1500	231	11
21-Jun	1710	165	21
8-Jul	4180	508	24
20-Jul	4100	669	14
29-Jul	4580	242	34
4-Aug	690	104	10
5-Aug	2620	262	20
6-Aug	5470	541	27
10-Aug	390	110	5
27-Aug	7980	535	32
16-Sep	7090	462	32

E221 TA-54 Area L Location: Lat 30°50'8.67342", Long 106°15'2.91923"			
Date	Total Gal	Max in GPM	Duration in Min
30-Apr	1580	176	24
22-May	230	63	4
23-May	5450	272	80
24-May	1380	71	34
26-May	550	35	18
27-May	500	79	10
13-Jun	1690	245	14
15-Jun	1920	93	41
16-Jun	8150	56	237
17-Jun	11160	413	178
18-Jun	1710	222	17
21-Jun	3830	227	66
4-Jul	470	43	14
6-Jul	140	45	4
8-Jul	11460	1294	73
9-Jul	3590	72	105
10-Jul	90	29	3
18-Jul	2650	147	50
20-Jul	4050	1092	20
23-Jul	320	89	6
24-Jul	440	43	13
29-Jul	3120	280	35
2-Aug	220	36	7
3-Aug	5940	76	164
4-Aug	3490	158	87
5-Aug	4550	256	84
6-Aug	4650	256	88
10-Aug	580	40	18
11-Aug	270	60	6
14-Aug	7310	86	189
20-Aug	1080	153	18
27-Aug	20900	1659	77
6-Sep	740	210	6
14-Sep	2720	105	68
15-Sep	1190	153	24
16-Sep	5220	511	46
17-Sep	3970	48	118

E227 TA-54 G-6 Location: Lat 35°49'58.78542", Long 106°14'22.21512"			
Date	Total Gal	Max in GPM	Duration in Min
30-Apr	4690	129	56
24-May	36980	1077	92
13-Jun	4360	500	20
17-Jun	69080	2218	125
21-Jun	4320	561	28
20-Jul	1410	176	15
29-Jul	5860	593	24
3-Aug	400	61	8
5-Aug	1480	114	19
6-Aug	3570	288	29
14-Aug	1220	52	27
20-Aug	1240	119	15
27-Aug	38640	1428	71

E247 TA-54 G-1 Location: Lat 35°49'51.91579", Long 106°14'41.79317"			
Date	Total Gal	Max in GPM	Duration in Min
17-Jun	68390	1885	262
27-Aug	60230	2033	89
16-Sep	18290	1148	41

E248 TA-54 G-2 Location: Lat 35°49'48.53359", Long 106°14'33.61064"			
Date	Total Gal	Max in GPM	Duration in Min
23-May	3320	897	16
17-Jun	118970	1934	278
21-Jun	17750	903	93
22-Jun	1930	127	24
6-Jul	30950	1488	105
7-Jul	3190	112	46
14-Jul	220	70	4
29-Jul	2370	118	33
3-Aug	1520	156	24
4-Aug	3640	179	68
6-Aug	6120	191	58
27-Aug	90590	1919	129
16-Sep	31840	1937	71

E248.5 TA-54 G-3 Location: Lat 35°49'45.16022", Long 106°14'12.50142"			
Date	**Total Gal**	**Max in GPM**	**Duration in Min**
24-May	88790	2402	114
27-May	2280	225	21
13-Jun	7380	559	27
15-Jun	1880	113	24
16-Jun	3530	71	87
17-Jun	*	*	*
*Flood of June 17 washed out gage structure. Peak flow not determined.			

E249 TA-54 G-5 Location: Lat 35°49'47.07284", Long 106°14'4.73640"			
Date	**Total Gal**	**Max in GPM**	**Duration in Min**
24-May	2060	147	23
17-Jun	38990	1253	97
21-Jun	900	150	12
8-Jul	1560	122	21
6-Aug	250	55	6
27-Aug	7470	468	42
16-Sep	1700	202	15

E249.5 TA-54 G-4 Location: Lat 35°49'47.072284", Long 106°14'4.73640"			
Date	Total Gal	Max in GPM	Duration in Min
22-May	2200	140	8
16-Jun	4720	70	6
17-Jun	129710	1536	7
18-Jun	7490	183	8
21-Jun	60010	1284	34
8-Jul	26240	509	16
9-Jul	7180	260	29
15-Jul	4300	348	7
18-Jul	7210	371	12
20-Jul	1460	98	5
23-Jul	1290	139	3
29-Jul	3740	304	6
3-Aug	11450	202	49
4-Aug	5320	174	38
5-Aug	12600	328	46
6-Aug	18890	371	56
8-Aug	390	25	4
10-Aug	1470	50	8
11-Aug	3280	211	9
14-Aug	16840	164	56
20-Aug	20360	535	21
27-Aug	75440	1017	34
6-Sep	4300	154	13
14-Sep	5570	169	24
15-Sep	1720	74	7
16-Sep	24720	599	28
17-Sep	9020	148	56

Spring Stations

S001 SWSC Line Spring at TA-16

Location. Lat 35°51'1", long 106°20'23", 30 ft upstream from the sanitary wastewater system consolidation (SWSC) line crossing of Cañon del Valle in Laboratory TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7437.0 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Period of Record. October 1, 1996, to September 30, 1999.

Remarks. Water discharge records good.

S001 SWSC Line Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.005	.008	.005	.004	.005	.005	.005	.008	.006	.004	.004	.005
2	.005	.009	.005	.004	.004	.005	.005	.008	.006	.004	.004	.005
3	.004	.008	.005	.004	.004	.005	.005	.010	.005	.004	.004	.005
4	.004	.009	.005	.004	.005	.005	.005	.010	.005	.004	.004	.004
5	.004	.010	.004	.004	.005	.004	.005	.012	.005	.004	.004	.004
6	.004	.009	.004	.004	.005	.008	.005	.020	.005	.005	.004	.005
7	.004	.008	.004	.004	.005	.011	.007	.012	.005	.004	.005	.005
8	.004	.008	.004	.004	.005	.007	.007	.009	.005	.004	.004	.005
9	.004	.009	.004	.004	.004	.005	.008	.012	.004	.003	.005	.005
10	.004	.008	.004	.004	.004	.005	.010	.012	.005	.005	.006	.005
11	.003	.008	.005	.004	.005	.005	.009	.011	.005	.005	.005	.005
12	.003	.008	.005	.004	.005	.006	.009	.009	.005	.003	.005	.005
13	.004	.008	.005	.004	.005	.005	.008	.011	.005	.004	.005	.004
14	.004	.007	.005	.004	.005	.005	.009	.012	.005	.005	.005	.004
15	.004	.007	.005	.004	.006	.005	.009	.012	.005	.005	.005	.004
16	.004	.008	.005	.004	.006	.005	.009	.014	.005	.005	.005	.005
17	.005	.009	.005	.004	.006	.005	.009	.014	.005	.005	.005	.005
18	.005	.008	.005	.004	.006	.005	.009	.014	.005	.005	.005	.005
19	.004	.008	.005	.004	.005	.005	.009	.014	.005	.005	.005	.005
20	.004	.010	.005	.004	.004	.005	.007	.015	.005	.005	.005	.007
21	.004	.007	.004	.004	.005	.005	.007	.013	.005	.005	.006	.006
22	.004	.006	.005	.004	.006	.005	.008	.013	.005	.005	.006	.005
23	.004	.006	.005	.004	.010	.005	.007	.013	.005	.004	.005	.006
24	.003	.006	.004	.004	.012	.005	.008	.010	.005	.004	.005	.006
25	.004	.005	.005	.004	.011	.005	.007	.007	.005	.004	.005	.006
26	.005	.006	.005	.004	.008	.005	.008	.007	.005	.004	.005	.007
27	.006	.005	.004	.004	.005	.005	.007	.007	.005	.004	.005	.007
28	.005	.005	.004	.004	.005	.005	.008	.007	.005	.004	.005	.008
29	.005	.005	.004	.004	------	.005	.007	.007	.004	.004	.005	.008
30	.005	.005	.004	.005	------	.005	.007	.007	.004	.004	.005	.009
31	.007	------	.004	.005	------	.005	------	.007	------	.004	.005	------
Total	.134	.223	.142	.126	.161	.166	.223	.337	.149	.134	.151	.165
Mean	.004	.007	.005	.004	.006	.005	.007	.011	.005	.004	.005	.006
Max	.007	.010	.005	.005	.012	.011	.010	.020	.006	.005	.006	.009
Min	.003	.005	.004	.004	.004	.004	.005	.007	.004	.003	.004	.004
AC-FT	.266	.442	.282	.250	.319	.329	.442	.668	.296	.266	.300	.327

Cal Year 1998	Total	3.049	Mean	.008	Max	.040	Min	0	AC-FT	6.05
Wtr Year 1999	Total	2.111	Mean	.006	Max	.020	Min	.003	AC-FT	4.19

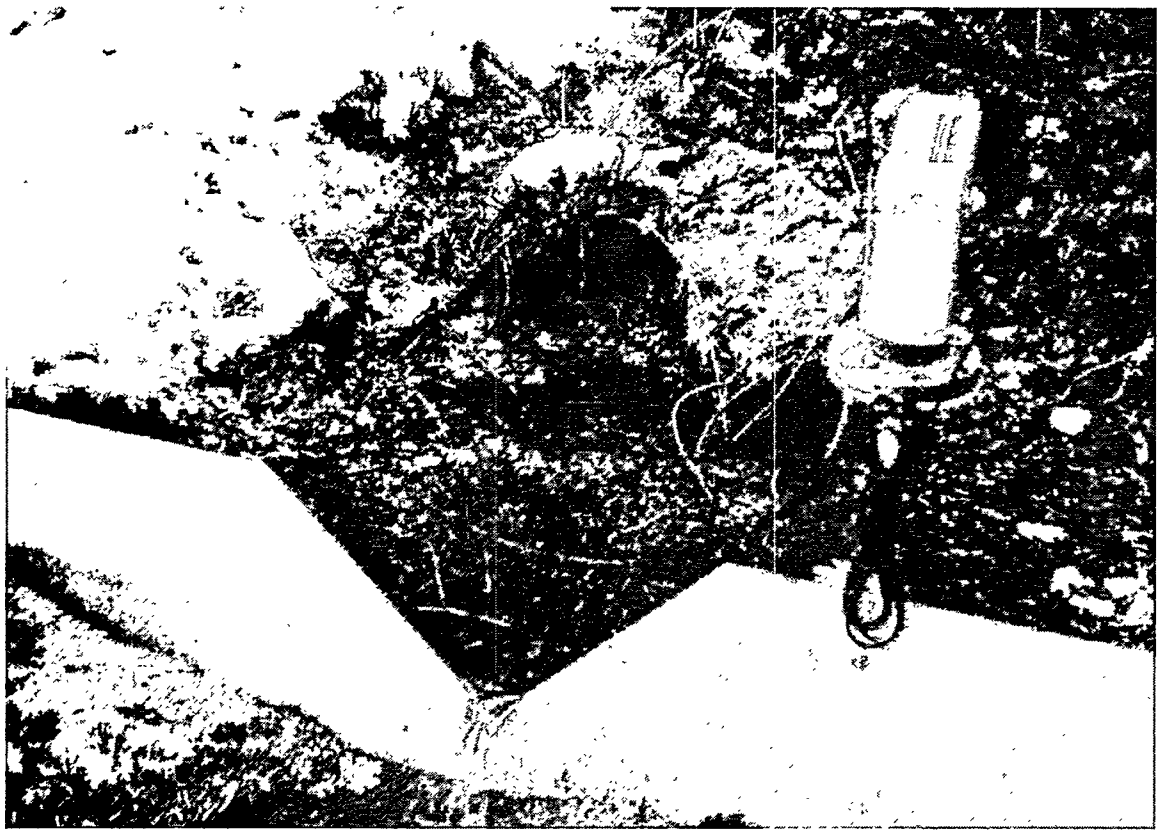
S002 Burning Ground Spring at TA-16

Location. Lat 35°50'58", long 106°20'17", 150 yds downstream from the SWSC line crossing of Cañon del Valle in Laboratory TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7420.8 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Period of Record. October 1, 1996, to September 30, 1999.

Remarks. Water discharge records fair. Data logger failure October 19,1998–January 28,1999, and August 2, 1999–August 17,1999.



S002 Burning Ground Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.019				.017	.031	.016	.021	.031	.018	.017	.016
2	.019				.017	.024	.016	.021	.032	.017		.015
3	.020				.016	.025	.018	.022	.036	.017		.016
4	.019				.017	.024	.020	.021	.033	.017		.015
5	.018				.017	.020	.020	.020	.034	.017		.015
6	.017				.018	.017	.022	.021	.034	.017		.015
7	.018				.017	.019	.025	.022	.033	.017		.015
8	.018				.017	.015	.018	.023	.032	.017		.014
9	.017				.016	.016	.019	.024	.030	.018		.014
10	.017				.016	.017	.021	.025	.034	.019		.014
11	.017				.014	.015	.019	.028	.035	.018		.014
12	.018				.016	.015	.019	.030	.032	.018		.014
13	.022				.016	.015	.019	.032	.031	.018		.014
14	.026				.016	.015	.019	.031	.030	.018		.015
15	.035				.018	.015	.022	.036	.032	.019		.014
16	.036				.017	.016	.024	.035	.032	.019		.016
17	.032				.018	.016	.021	.037	.035	.018		.018
18	.034				.019	.016	.022	.040	.035	.018	.019	.019
19					.017	.016	.022	.041	.033	.018	.020	.018
20					.015	.016	.024	.040	.035	.018	.019	.018
21					.015	.016	.024	.037	.036	.018	.019	.018
22					.015	.016	.023	.032	.036	.017	.019	.018
23					.015	.016	.019	.033	.036	.017	.019	.018
24					.015	.016	.017	.034	.023	.017	.016	.018
25					.018	.015	.016	.032	.019	.017	.016	.018
26					.020	.015	.017	.031	.019	.017	.016	.018
27					.028	.015	.017	.029	.019	.017	.016	.017
28					.034	.015	.018	.027	.018	.017	.016	.017
29				.017	------	.016	.018	.029	.018	.017	.016	.017
30				.017	------	.017	.017	.032	.018	.018	.016	.017
31		-----		.018	------	.017	------	.032	------	.017	.016	------
Total	.402			.052	.494	.537	.592	.918	.901	.545	.260	.485
Mean	.022			.017	.018	.017	.020	.030	.030	.018	.017	.016
Max	.036			.018	.034	.031	.025	.041	.036	.019	.020	.019
Min	.017			.017	.014	.015	.016	.020	.018	.017	.016	.014
AC-FT	.797			.103	.980	1.07	1.17	1.82	1.79	1.08	.516	.962

Cal Year 1998	Total*	5.342	Mean	.018	Max	.050	Min	.010	AC-FT	10.6
Wtr Year 1999	Total*	5.186	Mean	.021	Max	.041	Min	.014	AC-FT	10.3

*Incomplete record.

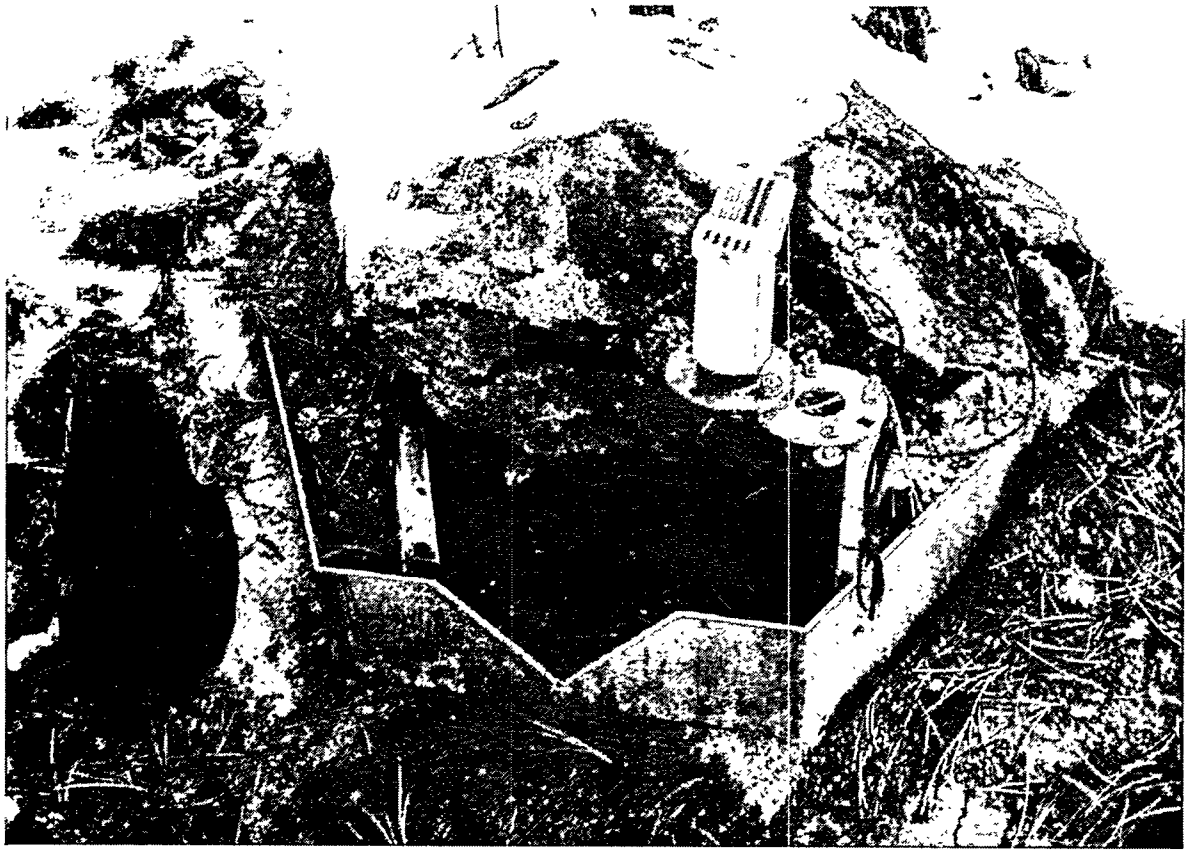
S003 Martin Spring at TA-16

Location. Lat 35°50'32", long 106°20'11", 1/4 mi south of building 344 in Laboratory TA-16.

Gage. Data logger with 90° weir. Elevation of gage is 7429.5 ft above *National Geodetic Vertical Datum of 1929*, from GPS survey.

Period of Record. October 1, 1996, to September 30, 1999.

Remarks. Water discharge records fair. Data loggger failure October 1, 1998–January 28, 1999.



S003 Martin Spring at TA-16

Daily Mean Discharge in Cubic Feet per Second

Water Year October 1998 to September 1999

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					.001	.002	.002	.004	.003	.001	.002	.001
2					.001	.002	.002	.004	.003	.001	.002	.001
3					.001	.001	.002	.005	.003	.001	.002	.001
4					.001	.002	.002	.005	.003	.001	.002	.001
5					.001	.002	.002	.005	.002	.001	.002	.001
6					.001	.003	.002	.005	.002	.001	.002	.001
7					.001	.003	.002	.003	.002	.001	.002	.001
8					.001	.003	.002	.002	.002	.002	.002	.001
9					.001	.003	.002	.002	.002	.002	.002	.001
10					.001	.003	.002	.002	.002	.001	.002	.001
11					.001	.002	.002	.003	.002	.002	.002	.001
12					.001	.002	.002	.002	.002	.002	.002	.001
13					.001	.002	.002	.002	.002	.002	.002	.001
14					.001	.002	.003	.002	.001	.002	.002	.001
15					.001	.002	.002	.002	.001	.002	.002	.001
16					.001	.002	.002	.002	.002	.002	.002	.001
17					.001	.002	.002	.002	.002	.002	.002	.001
18					.001	.002	.002	.002	.002	.002	.002	.002
19					.001	.002	.002	.002	.002	.002	.002	.002
20					.001	.002	.002	.002	.002	.002	.002	.002
21					.001	.002	.002	.002	.002	.002	.002	.002
22					.001	.002	.002	.002	.002	.002	.001	.002
23					.001	.002	.002	.002	.002	.002	.001	.002
24					.001	.002	.002	.002	.002	.002	.001	.002
25					.002	.002	.002	.002	.002	.002	.001	.002
26					.002	.002	.002	.002	.002	.002	.001	.002
27					.002	.002	.002	.002	.002	.002	.001	.002
28					.002	.002	.002	.002	.002	.002	.001	.002
29				.020	-----	.002	.003	.002	.002	.002	.001	.002
30				.001	-----	.002	.004	.003	.002	.002	.001	.002
31		------		.001	-----	.002	-----	.003	-----	.002	.001	-----
Total				.022	.032	.066	0.064	.082	.062	0.054	.052	.043
Mean				.007	.001	.002	.002	.003	.002	.002	.002	.001
Max				.020	.002	.003	.004	.005	.003	.002	.002	.002
Min				.001	.001	.001	.002	.002	.001	.001	.001	.001
AC-FT				.044	.063	.131	.127	.163	.123	.107	.103	.085

Wtr Year 1999 Total* 0.477 Mean .002 Max .020 Min .001 AC-FT .946

*Incomplete record.