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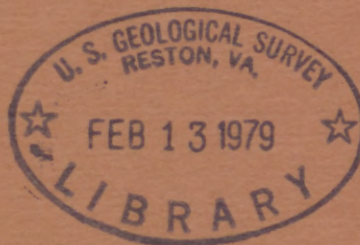
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

HYDROLOGIC DATA, 1974-77, STOVEPIPE WELLS HOTEL AREA,  
DEATH VALLEY NATIONAL MONUMENT, INYO COUNTY, CALIFORNIA

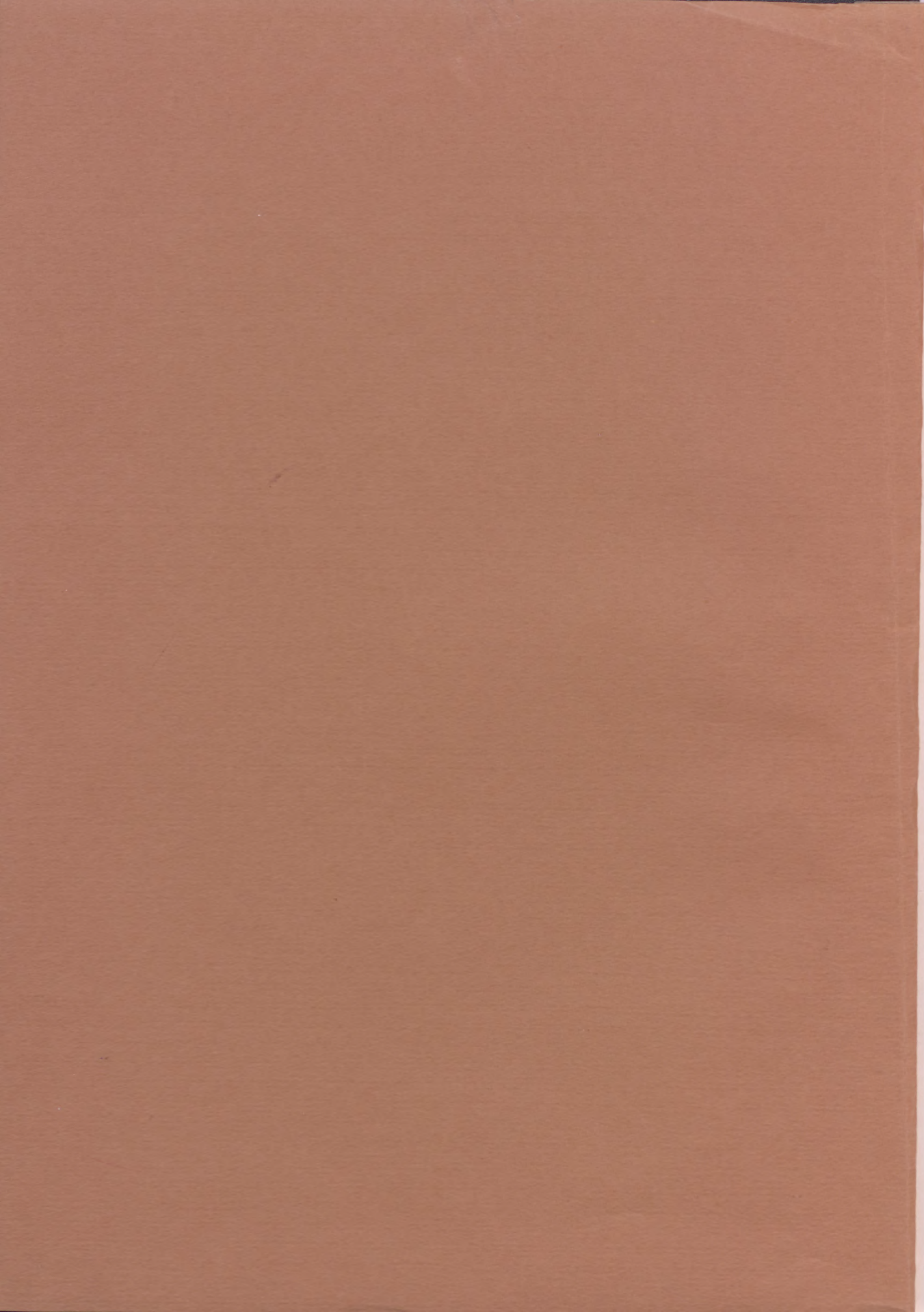
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Open-File Report 79-203

Prepared in cooperation with the  
National Park Service







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UNITED STATES,  
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[Report-Open file series]

HYDROLOGIC DATA, 1974-77, STOVEPIPE WELLS HOTEL AREA,  
DEATH VALLEY NATIONAL MONUMENT, INYO COUNTY, CALIFORNIA

By Charles E. Lamb and D. J. Downing

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Prepared in cooperation with the  
National Park Service

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Menlo Park, California  
January 1979

296805

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

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## CONVERSION FACTORS

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The inch-pound system of units is used in this report. For readers who prefer the International System of units (SI), the conversion factors for the terms used in this report are listed below:

<i>Multiply inch-pound unit</i>	<i>By</i>	<i>To obtain SI (metric) unit</i>
acre	$4.047 \times 10^{-1}$	ha (hectare)
acre-ft (acre-foot)	$1.233 \times 10^{-3}$	hm <sup>3</sup> (cubic hectometer)
ft (foot)	$3.048 \times 10^{-1}$	m (meter)
ft <sup>3</sup> /s (cubic foot per second)	$2.832 \times 10^{-2}$	m <sup>3</sup> /s (cubic meter per second)
mi (mile)	1.609	km (kilometer)



HYDROLOGIC DATA, 1974-77, STOVEPIPE WELLS HOTEL AREA,  
DEATH VALLEY NATIONAL MONUMENT, INYO COUNTY,  
CALIFORNIA

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By Charles E. Lamb and D. J. Downing

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ABSTRACT

Ground-water levels in most wells did not change significantly from 1974 to 1977 in the Stovepipe Wells Hotel area. The average water-level decline was less than 0.10 foot between August 1974 and August 1977 in 10 observation wells. Water-level contours show a depression centered on the two pumping wells, but this depression existed before the National Park Service started pumping its well.

The chemical quality of the ground water is poor. Dissolved-solids concentrations in water samples ranged from 2,730 to 6,490 milligrams per liter. Analyses of water samples from two wells showed large changes in some constituents from 1976 to 1977. Water-quality monitoring will continue at these sites to verify the changes.

Streamflow in Salt Creek has been monitored since February 1974. Base flow is seasonal, being 0.10 to 0.20 cubic foot per second during the summer and as much as three times that amount during the winter. Two chemical analyses of water from Salt Creek, representing summer and winter flow conditions, show large differences for many constituents.

## INTRODUCTION

### Purpose and Scope

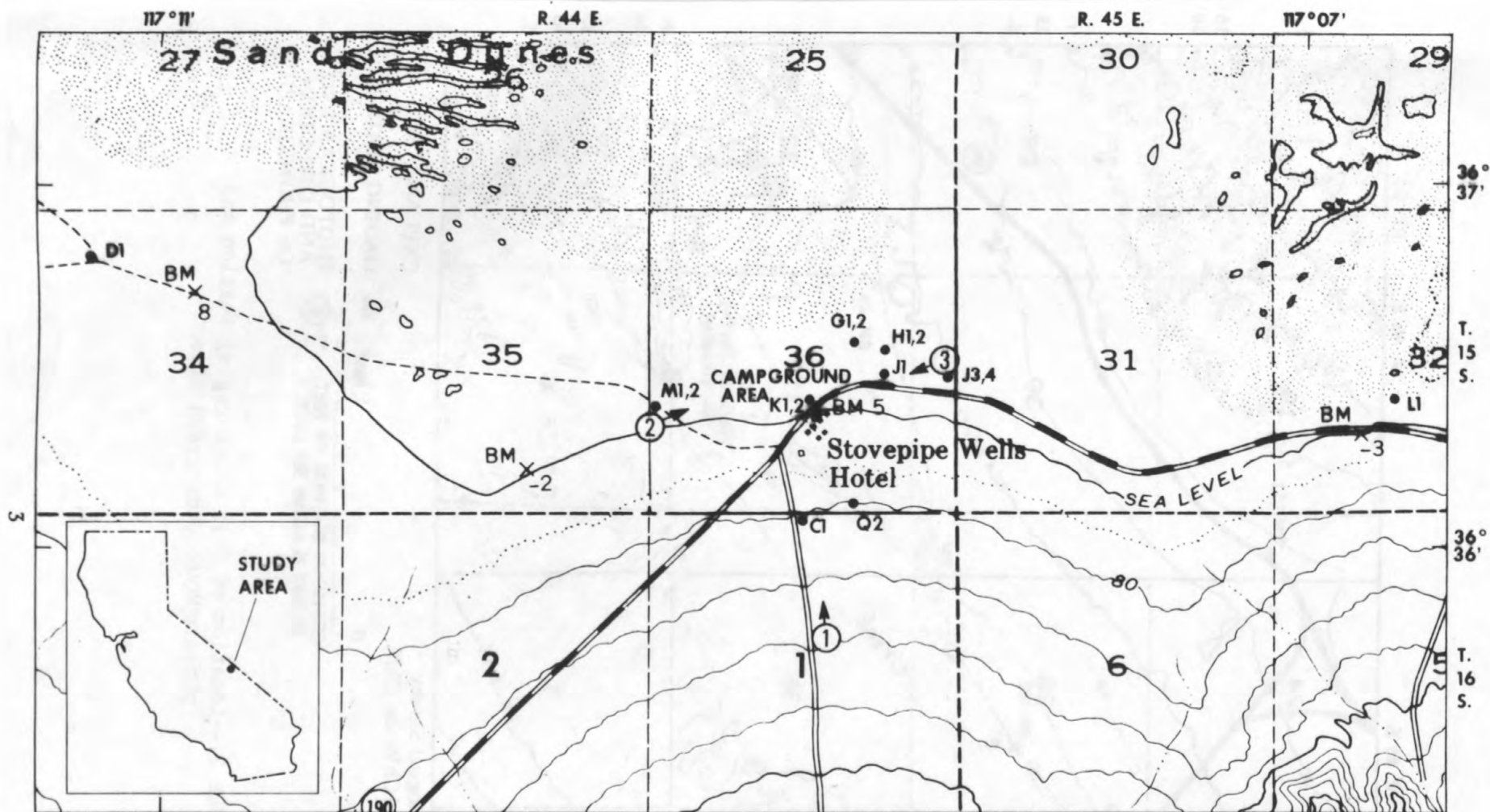
In 1973 the National Park Service requested the U.S. Geological Survey to monitor ground-water levels and quality in the Stovepipe Wells Hotel area and to gage surface-water discharge and quality in Salt Creek east of the hotel. Ground-water levels are shallow and rising in a large area north and east of the hotel (Miller, 1977). There is perennial surface-water flow east of Stovepipe Wells Hotel where Salt Creek is fed by ground water. The shallow ground water supports locally dense growths of phreatophytes. The National Park Service requested a long-term monitoring program to determine what effects additional ground-water pumping would have on local ground water, surface water, and phreatophyte growth.

The National Park Service in 1973 planned to pump water from well 16S/44E-1C1 (fig. 1) for a desalination facility. This facility, using the reverse osmosis process, was made operational in June 1975 and currently delivers potable water primarily to the campground area about one-half mile north of well 1C1.

The scope of the field work includes measuring water levels in observation wells, collecting water samples for chemical analysis, operating a continuous water-stage recorder at Salt Creek, and monitoring vegetation changes by annually photographing phreatophyte growth at four sites (figs. 1 and 2).

This report presents hydrologic data collected during the period 1974-77. Phreatophyte photographs are on file at the U.S. Geological Survey office, Laguna Niguel, Calif.





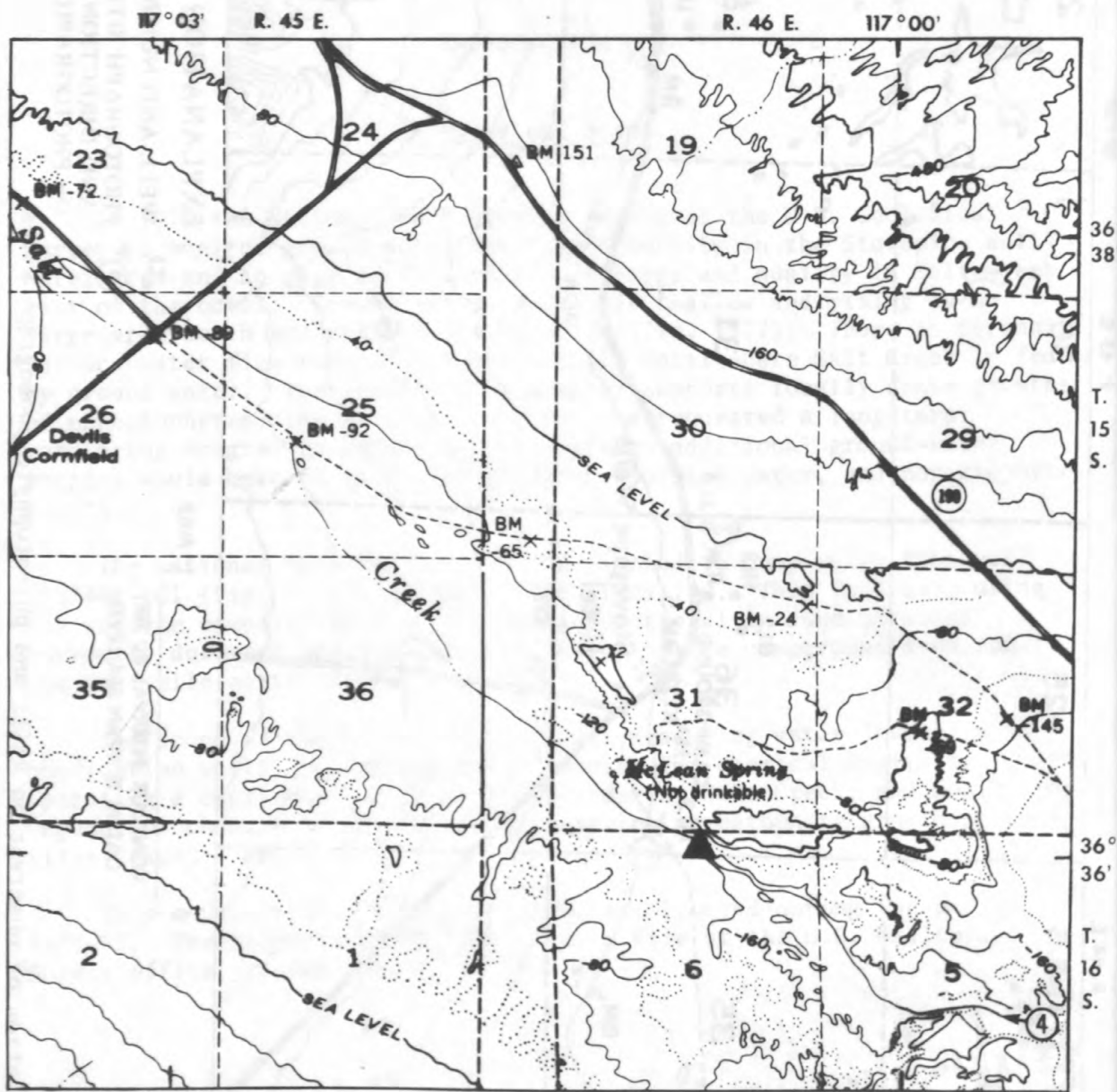
Base from U.S. Geological Survey  
Stovepipe Wells, 1:62,500, 1952

0 1 MILE  
CONTOUR INTERVAL 80 FEET  
DATUM IS MEAN SEA LEVEL

#### EXPLANATION

- C1 WELL AND NUMBER
- ② PHOTOGRAPH SITE AND DIRECTION OF PHOTOGRAPH

FIGURE 1.--Location of observation wells and phreatophyte photograph sites.



Base from U.S. Geological Survey  
Stovepipe Wells and Chloride Cliff,  
1:62,500, 1952

0 1 MILE  
CONTOUR INTERVAL 80 FEET  
DATUM IS MEAN SEA LEVEL

#### EXPLANATION

- ▲ GAGING STATION
- ④ PHOTOGRAPH SITE AND DIRECTION OF PHOTOGRAPH

FIGURE 2.--Location of Salt Creek gaging station and phreatophyte photograph site.

### Well-Numbering System

Wells are numbered according to their location in the rectangular system for subdivision of public land. For example, the part of the number preceding the slash, as in 15S/44E-36Q2 M, indicates the township (T. 15 S.); the number following the slash indicates the range (R. 44 E.); the number following the hyphen indicates the section (sec. 36); the letter following the section number indicates the 40-acre subdivision according to the lettered diagram below. The final digit is a serial number for wells in each 40-acre subdivision. The final letter (M) indicates the Mount Diablo base line and meridian.

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

### GROUND-WATER LEVELS

Ground-water levels in most wells (table 1) in the Stovepipe Wells Hotel area did not change significantly during the period 1974-77. The average water-level decline was only 0.08 ft between August 1974 and August 1977 in 10 observation wells. Between June 1976 and August 1977 the average decline was 0.10 ft for the same wells. Water levels are fluctuating slightly in response to two pumping wells (15S/44E-36Q2 and 16S/44E-1C1) and recharge from precipitation over the mountains, but hydrographs (fig. 3) illustrate the generally stable condition of water levels in the area. Pumping water from well 1C1 for the desalination facility has not significantly affected water levels in the Stovepipe Wells Hotel area.

The water-level contour map (fig. 4) is based on measurements made in August 1977. A depression more than 20 ft deep is centered on the two pumping wells (15S/44E-36Q2 and 16S/44E-1C1). Water-level data indicate that this depression existed before water was pumped from the National Park Service well, 1C1.

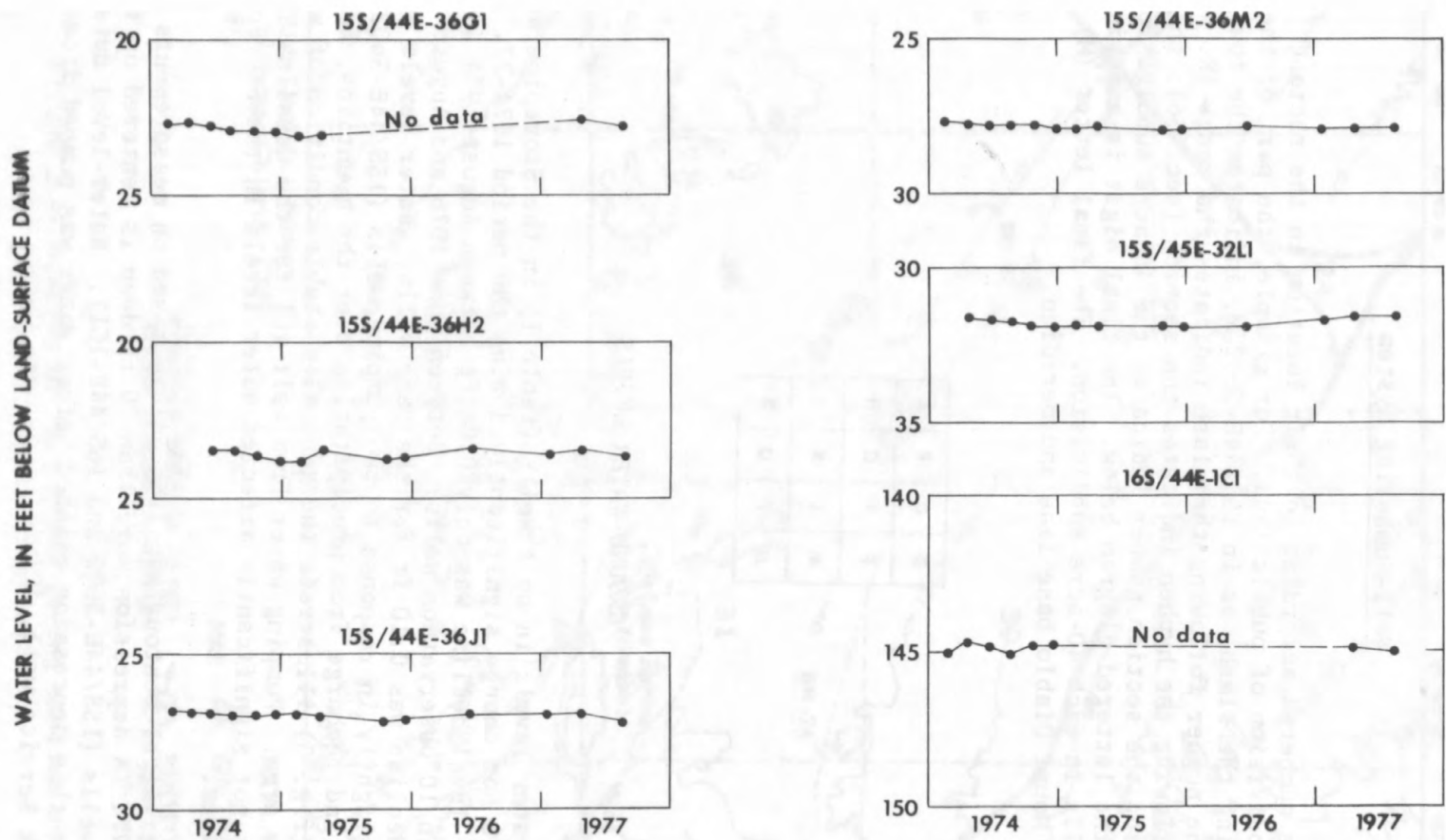
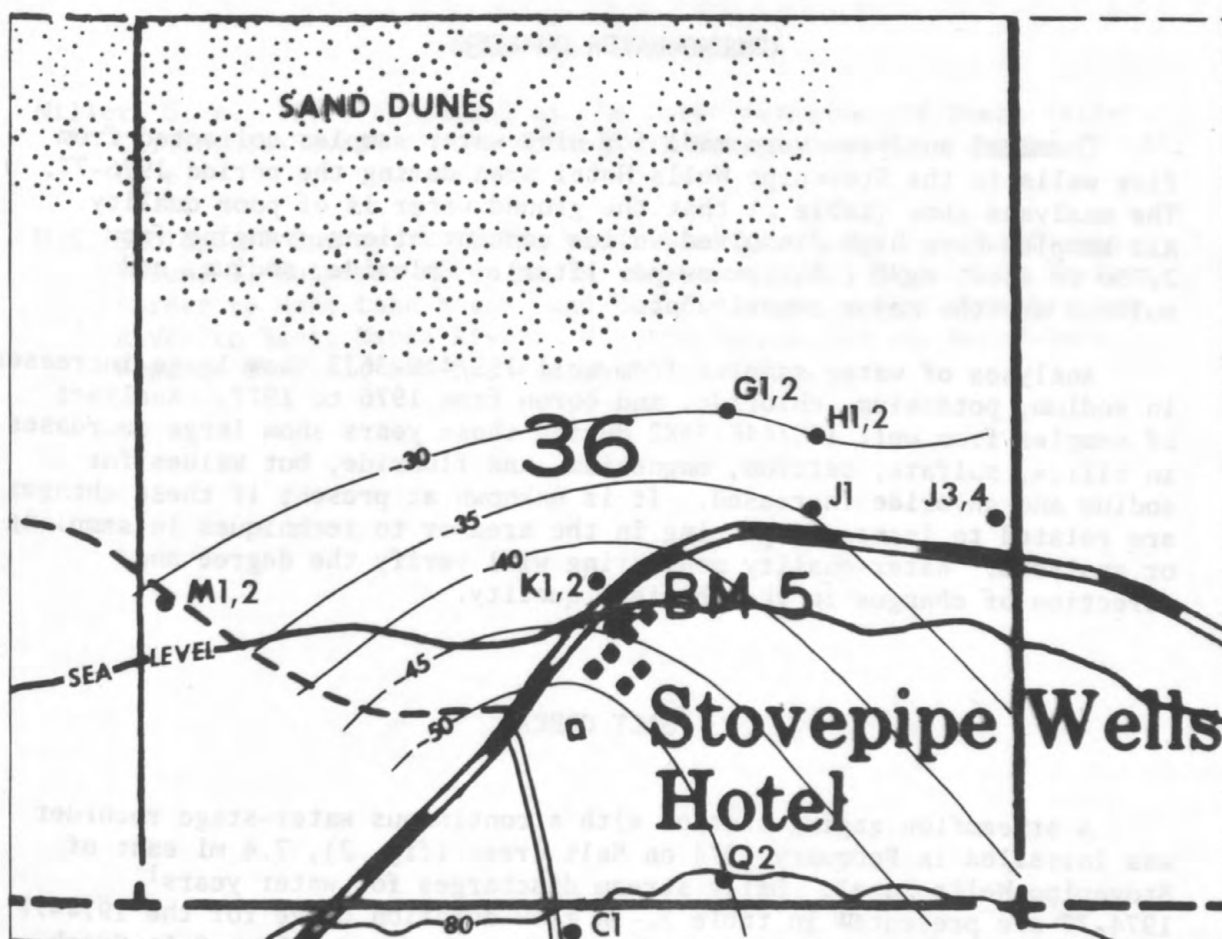
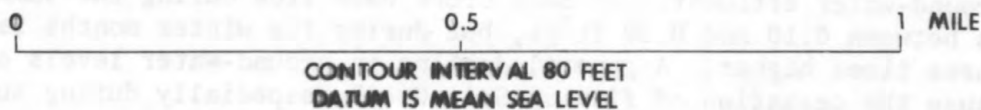


FIGURE 3.--Hydrographs of six observation wells.





Base from U.S. Geological Survey  
Stovepipe Wells, 1:62,500, 1952



#### EXPLANATION

- 50 — WATER-LEVEL CONTOUR—Shows altitude  
of water level. Contour interval 5 feet.  
Datum is mean sea level
- C1 WELL AND NUMBER

FIGURE 4.--Water-level contours for August 1977.

## GROUND-WATER QUALITY

Chemical analyses were made for nine water samples collected from five wells in the Stovepipe Wells Hotel area during the period 1976-77. The analyses show (table 2) that the ground water is of poor quality. All samples have high dissolved-solids concentrations, ranging from 2,730 to 6,490 mg/L (milligrams per liter). Chloride, sodium, and sulfate are the major constituents.

Analyses of water samples from well 15S/44E-36J3 show large increases in sodium, potassium, chloride, and boron from 1976 to 1977. Analyses of samples from well 15S/44E-36K2 during these years show large decreases in silica, sulfate, calcium, magnesium, and fluoride, but values for sodium and chloride increased. It is unknown at present if these changes are related to increased pumping in the area or to techniques in sampling or analysis. Water-quality monitoring will verify the degree and direction of changes in the chemical quality.

## SALT CREEK

A streamflow gaging station with a continuous water-stage recorder was installed in February 1974 on Salt Creek (fig. 2), 7.4 mi east of Stovepipe Wells Hotel. Daily stream discharges for water years<sup>1</sup> 1974-77 are presented in table 3. A flow-duration curve for the 1974-77 water years indicates that base flow values are seasonal at Salt Creek. Base flow is sustained flow or fair weather runoff, usually produced by ground-water effluent. At Salt Creek base flow during the summer months is between 0.10 and 0.20 ft<sup>3</sup>/s, but during the winter months is about three times higher. A general decline in ground-water levels could cause the cessation of flow in Salt Creek, especially during summer base flow periods.

Two chemical analyses of water from Salt Creek are shown in table 4. The analysis of water for February 1976 shows large increases in values for many constituents when compared with the June 1975 analysis. The large increases in chemical constituents may be a result of rainfall runoff over the surrounding alkali soil prior to the February 1976 sample. Chemical analysis of water from Salt Creek will be made annually to detect long-term changes in constituents.

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<sup>1</sup>The water year is the 12-month period ending in September and is designated by the calendar year in which it ends.

# SELECTED REFERENCES

- Miller, G. A., 1977, Appraisal of the water resources of Death Valley, California-Nevada: U.S. Geological Survey Open-File Report 77-728, 68 p.
- U.S. Geological Survey, 1975-76, Water resources data for California--Volume 1, Colorado River basin, Southern Great Basin from Mexican border to Mono Lake basin, and Pacific slope basins from Tijuana River to Santa Maria River: U.S. Geological Survey Water-Data Reports CA-75-1, 548 p., and CA-76-1, 632 p.

TABLE 1.--Water levels in observation wells, 1974-77

[Water levels are in feet below land-surface datum, LSD]

## 15S/44E-34D1 M. SAND POINT 51-53 FT.

LSD 15.40 FT ABOVE MSL (MEAN SEA LEVEL)

HIGHEST WATER LEVEL 38.17 BELOW LSD, MAR. 26, 1968,

LOWEST WATER LEVEL 38.81 BELOW LSD, AUG. 30, 1977.

RECORDS AVAILABLE: 1968, 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	38.53	AUG. 8, 1974	38.72	APR. 15, 1975	38.60	JAN. 4, 1977	38.67
APR. 9	38.52	OCT. 9	38.72	OCT. 22,	38.80	APR. 5	38.66
MAY 15	38.59	DEC. 18	38.62	DEC. 17	38.70	AUG. 30	38.81
JUNE 19	38.62	FEB. 27, 1975	38.61	JUNE 23, 1976	38.70		

## 15S/44E-36G1 M. SAND POINT 44.86-46.86 FT.

LSD -8 FT ABOVE MSL.

HIGHEST WATER LEVEL 22.60 BELOW LSD, APR. 9, 1974, APR. 5, 1977,

LOWEST WATER LEVEL 23.22 BELOW LSD, FEB. 27, 1975.

RECORDS AVAILABLE: 1973-75, 1977.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	22.67	AUG. 8, 1974	23.0	FEB. 27, 1975	23.22	APR. 5, 1977	22.60
APR. 9	22.6	OCT. 9	23.0	APR. 15	23.07	AUG. 30	22.81
JUNE 20	22.8	DEC. 18	22.92				

## 15S/44E-36G2 M. SAND POINT 24.69-27.69 FT.

LSD -8 FT ABOVE MSL.

HIGHEST WATER LEVEL 21.05 BELOW LSD, NOV. 3, 1973,

LOWEST WATER LEVEL 22.81 BELOW LSD, AUG. 30, 1977.

RECORDS AVAILABLE: 1973-75, 1977.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	22.33	AUG. 8, 1974	22.7	FEB. 27, 1975	22.68	APR. 5, 1977	22.08
APR. 9	22.5	OCT. 9	22.8	APR. 15	22.22	AUG. 30	22.81
JUNE 20	22.5	DEC. 18	22.68				

## 15S/44E-36H1 M. SAND POINT 49.20-51.20 FT.

LSD -7 FT ABOVE MSL.

HIGHEST WATER LEVEL 22.25 BELOW LSD, NOV. 3, 1973,

LOWEST WATER LEVEL 23.45 BELOW LSD, AUG. 30, 1977.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	23.1	OCT. 9, 1974	23.4	OCT. 21, 1975	23.38	JAN. 4, 1977	23.21
APR. 9	23.1	DEC. 18	23.25	DEC. 17	23.32	APR. 5	23.14
JUNE 20	23.2	FEB. 27, 1975	23.23	JUNE 23, 1976	23.19	AUG. 30	23.45
AUG. 8	23.4	APR. 15	23.19				



TABLE 1.--Water levels in observation wells, 1974-77--Continued

15S/44E-36H2 M. SAND POINT 25.25-28.25 FT.

LSD -7 FT ABOVE MSL.

HIGHEST WATER LEVEL 18.04 BELOW LSD, NOV. 3, 1973,

LOWEST WATER LEVEL 23.73 BELOW LSD, DEC. 18, 1974.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	19.7	OCT. 8, 1974	23.55	OCT. 21, 1975	23.57	JAN. 4, 1977	23.46
APR. 9	21.8	DEC. 18	23.73	DEC. 17	23.52	APR. 5	23.33
JUNE 20	23.3	FEB. 27, 1975	23.63	JUNE 23, 1976	23.30	AUG. 30	23.54
AUG. 8	23.4	APR. 15	23.35				

15S/44E-36J1 M. SAND POINT 48.67-50.67 FT.

LSD -7 FT ABOVE MSL.

HIGHEST WATER LEVEL 24.90 BELOW LSD, NOV. 28, 1973,

LOWEST WATER LEVEL 29.00 BELOW LSD, NOV. 2, 1973.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	26.8	OCT. 9, 1974	27.05	OCT. 21, 1975	27.21	JAN. 4, 1977	26.93
APR. 9	26.8	DEC. 18	26.94	DEC. 12	27.04	APR. 5	26.83
JUNE 20	26.9	FEB. 27, 1975	26.95	JUNE 23, 1976	26.88	AUG. 30	27.14
AUG. 8	27.0	APR. 15	26.92				

15S/44E-36J3 M. SAND POINT 35.4-37.4 FT.

LSD -7 FT ABOVE MSL.

HIGHEST WATER LEVEL 26.90 BELOW LSD, NOV. 29, 1973,

LOWEST WATER LEVEL 27.57 BELOW LSD, FEB. 26, 1976.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	27.3	DEC. 18, 1974	27.39	DEC. 17, 1975	27.53	JAN. 4, 1977	27.33
JUNE 19	27.36	FEB. 27, 1975	27.38	FEB. 26, 1976	27.57	APR. 5	27.25
AUG. 8	27.4	APR. 15	27.37	JUNE 23	27.34	AUG. 30	27.43
OCT. 9	27.4	OCT. 21	27.54				

15S/44E-36J4 M. SAND POINT 28.3-30.3 FT.

LSD -7 FT ABOVE MSL.

HIGHEST WATER LEVEL 27.20 BELOW LSD, NOV. 29, 1973, FEB. 14, 1974,

LOWEST WATER LEVEL 27.56 BELOW LSD, JUNE 23, 1976.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	27.2	DEC. 18, 1974	27.38	DEC. 17, 1975	27.46	JAN. 4, 1977	27.24
JUNE 19	27.25	FEB. 27, 1975	27.37	FEB. 26, 1976	27.32	APR. 5	27.38
AUG. 8	27.3	APR. 15	27.55	JUNE 23	27.56	AUG. 30	27.27
OCT. 9	27.3	OCT. 21	27.47				

TABLE 1.--Water levels in observation wells, 1974-77--Continued

15S/44E-36K1 M. DEPTH 80 FT IN 1967.

LSD -5 FT ABOVE MSL.

HIGHEST WATER LEVEL 37.00 BELOW LSD, OCT. 9, 1974.

LOWEST WATER LEVEL 39.93 BELOW LSD, JAN. 10, 1967.

RECORDS AVAILABLE: 1967, 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	37.57	DEC. 18, 1974	37.65	OCT. 22, 1975	38.58	JAN. 4, 1977	37.70
APR. 9	37.8	FEB. 27, 1975	37.67	DEC. 17	37.79	APR. 5	37.61
AUG. 8	37.6	APR. 15	37.64	JUNE 23, 1976	37.66	AUG. 30	37.86
OCT. 9	37.0						

15S/44E-36K2 M. DEPTH 49.5 FT IN 1967, 45.6 FT IN 1973.

LSD -5 FT ABOVE MSL.

HIGHEST WATER LEVEL 36.29 BELOW LSD, SEP. 9, 1973.

LOWEST WATER LEVEL 42.80 BELOW LSD, JUNE 19, 1974.

RECORDS AVAILABLE: 1967, 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	37.37	DEC. 18, 1974	37.54	OCT. 22, 1975	38.96	JAN. 4, 1977	37.62
JUNE 19	42.8	FEB. 27, 1975	37.53	DEC. 17	37.69	APR. 5	37.51
AUG. 8	40.2	APR. 15	37.49	JUNE 23, 1976	37.49	AUG. 30	37.64
OCT. 9	38.3						

15S/44E-36M1 M. SAND POINT 43.27-45.27 FT.

LSD -3 FT ABOVE MSL.

HIGHEST WATER LEVEL 27.70 BELOW LSD, APR. 9, 1974.

LOWEST WATER LEVEL 28.10 BELOW LSD, NOV. 3, 1973.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	27.82	OCT. 9, 1974	27.9	OCT. 22, 1975	28.02	JAN. 3, 1977	27.90
APR. 9	27.7	DEC. 18	27.9	DEC. 17	27.99	APR. 5	27.88
JUNE 19	27.8	FEB. 27, 1975	27.88	JUNE 23, 1976	27.90	AUG. 30	28.03
AUG. 8	27.9	APR. 15	27.85				

15S/44E-36M2 M. SAND POINT 29.7-32.7 FT.

LSD -3 FT ABOVE MSL.

HIGHEST WATER LEVEL 18.46 BELOW LSD, NOV. 3, 1973.

LOWEST WATER LEVEL 27.89 BELOW LSD, OCT. 22, 1975.

RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	27.63	OCT. 9, 1974	27.6	OCT. 22, 1975	27.89	JAN. 3, 1977	27.81
APR. 9	27.6	DEC. 18	27.8	DEC. 17	27.88	APR. 5	27.76
JUNE 19	27.7	FEB. 27, 1975	27.79	JUNE 23, 1976	27.72	AUG. 30	27.84
AUG. 8	27.7	APR. 15	27.76				

TABLE 1.--Water levels in observation wells, 1974-77--Continued

15S/44E-3602 M.  
 LSD 80 FT ABOVE MSL.  
 HIGHEST WATER LEVEL 129.59 BELOW LSD, JAN. 4, 1977,  
 LOWEST WATER LEVEL 139.50 BELOW LSD, APR. 9, 1974.  
 RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	154.27A	JUNE 20, 1974	138.7	OCT. 22, 1975	M	APR. 5, 1977	129.98
APR. 9	139.50	DEC. 18	M	JAN. 4, 1977	129.59	AUG. 30	A

15S/45E-32L1 M. SAND POINT 35.75-37.75 FT.  
 LSD -15 FT ABOVE MSL.  
 HIGHEST WATER LEVEL 31.45 BELOW LSD, APR. 5, 1977,  
 LOWEST WATER LEVEL 35.89 BELOW LSD, NOV. 29, 1973.  
 RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	32.1	OCT. 8, 1974	31.7	OCT. 21, 1975	31.82	JAN. 4, 1977	31.52
APR. 9	31.52	DEC. 18	31.72	DEC. 17	31.84	APR. 5	31.45
JUNE 14	31.6	FEB. 27, 1975	31.70	JUNE 23, 1976	31.66	AUG. 30	31.53
AUG. 8	31.7	APR. 15	31.66				

16S/44E-1C1 M. SCREENED 264-294 FT.  
 LSD 90 FT ABOVE MSL.  
 HIGHEST WATER LEVEL 144.60 BELOW LSD, APR. 9, 1974,  
 LOWEST WATER LEVEL 145.40 BELOW LSD, SEP. 8, 1973.  
 RECORDS AVAILABLE: 1973-77.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 14, 1974	145.05	JUNE 19, 1974	144.78	OCT. 9, 1974	144.7	APR. 6, 1977	144.84
APR. 9	144.6	AUG. 8	145.05	DEC. 18	144.75	AUG. 30	144.99

A Well being pumped

M Obstruction above water level in well

TABLE 2.--Chemical analyses of ground water

[Values for alkalinity as calcium carbonate, percent sodium, and sodium adsorption ratio (SAR) were calculated by computer program. Code for agency--1028 U.S. Geological Survey, 9999 State of California, Department of Water Resources laboratory at Bryte, Calif.]

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)
015S044E36J03M	76-02-26	1000	25	300	94	82	830	59	302	0	248
	77-04-06	0930	16	--	87	100	1600	110	296	0	243
015S044E36K02M	76-02-26	1040	57	80	130	85	700	63	381	0	313
	77-04-06	1150	3.7	--	39	59	1100	85	239	0	196
015S044E36M01M	76-02-26	1110	37	220	90	120	2000	180	392	0	322
	77-04-06	0900	41	--	81	120	2000	160	359	0	294
015S044E36Q02M	76-02-26	1130	53	1600	130	91	710	62	367	0	301
	77-04-06	1120	60	--	140	88	730	60	378	0	310
016S044E01C01M	77-04-06	1030	58	--	150	88	680	55	373	0	306

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	PERCENT SODIUM
015S044E36J03M	76-02-26	420	1300	1.4	--	--	5.0	2990	570	320	74
	77-04-06	930	2200	1.3	4.1	18	--	5220	630	390	82
015S044E36K02M	76-02-26	490	1400	1.7	--	--	.13	3120	670	360	67
	77-04-06	4.9	1800	.3	.09	.40	--	3220	340	140	84
015S044E36M01M	76-02-26	950	2900	1.1	--	--	.26	6490	720	400	82
	77-04-06	960	2900	1.0	.50	2.2	--	6460	700	400	83
015S044E36Q02M	76-02-26	400	1200	1.7	--	--	.13	2840	700	400	67
	77-04-06	420	1130	2.0	.00	.00	--	2820	710	400	67
016S044E01C01M	77-04-06	410	1100	2.0	.00	.00	--	2730	740	430	65

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE
015S044E36J03M	76-02-26	15	5100	7.8	25.0				
	77-04-06	28	9965	7.7	27.5	7.7	6800	1028	1028
015S044E36K02M	76-02-26	12	4740	7.2	20.0	--	14000	1028	9999
	77-04-06	26	5810	8.0	27.0	38	6800	1028	1028
015S044E36M01M	76-02-26	32	10920	7.7	28.0	--	6300	1028	9999
						13	17000	1028	1028
015S044E36Q02M	77-04-06	33	10630	7.9	26.5				
	76-02-26	12	6020	7.7	27.0	--	17000	1028	9999
016S044E01C01M	77-04-06	12	4610	6.9	29.0	12	6100	1028	1028
		11	4540	6.8	25.0	--	5500	1028	9999
						--	5800	1028	9999



TABLE 3.--Daily discharge for Salt Creek

## 1974 Water Year

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CALIF.

LOCATION.--Lat 36°35'58", long 117°00'46", in NE¼ sec.6, T.16 S., R.46 E., Inyo County, Death Valley National Monument, on left bank 3.0 mi (4.8 km) southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi (11.9 km) east of Stovepipe Wells Hotel.

PERIOD OF RECORD.--February to September 1974.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is -180 ft (-55 m), from topographic map.

EXTREMES.--Maximum discharge during period, 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s) July 30, field estimate of peak flow (gage height, 3.27 ft or 0.997 m); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 16, 24, 25.

REMARKS.--Records good below 6.0 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) and poor above. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					--	.63	.53	.33	.12	.07	.14	.09
2					--	.56	.50	.30	.12	.07	.13	.09
3					--	.57	.46	.29	.12	.08	.12	.09
4					--	.58	.48	.28	.11	.08	.11	.08
5					--	.61	.50	.31	.10	.08	.10	.08
6					--	.63	.50	.30	.10	.08	.09	.09
7					--	.60	.46	.29	.09	.08	.09	.09
8					--	1.1	.46	.27	.09	.09	.08	.08
9					--	.87	.41	.24	.10	.10	.08	.08
10					--	.75	.40	.22	.10	.11	.08	.08
11					--	.71	.41	.22	.09	.13	.08	.08
12					--	.69	.42	.20	.09	.13	.08	.09
13					.59	.68	.37	.18	.08	.13	.08	.09
14					.62	.67	.41	.20	.08	.14	.08	.10
15					.64	.65	.42	.19	.07	.14	.08	.10
16					.65	.66	.42	.18	.06	.13	.08	.10
17					.59	.66	.41	.18	.07	.13	.09	.11
18					.59	.64	.34	.18	.07	.13	.08	.10
19					.63	.58	.36	.22	.08	.16	.08	.11
20					.56	.60	.37	.22	.08	.14	.09	.11
21					.57	.59	.35	.22	.08	.14	.09	.10
22					.61	.59	.36	.22	.08	.13	.09	.10
23					.59	.58	.33	.22	.07	.16	.09	.10
24					.59	.57	.30	.20	.06	.16	.09	.10
25					.62	.56	.35	.19	.06	.14	.09	.10
26					.63	.56	.35	.18	.07	.14	.08	.10
27					.63	.56	.35	.16	.07	.14	.09	.10
28					.62	.53	.35	.14	.07	.14	.09	.10
29					-----	.55	.33	.14	.07	.14	.09	.11
30					-----	.53	.33	.14	.07	3.5	.09	.12
31		-----			-----	.50	-----	.13	-----	.15	.09	-----
TOTAL					--	19.56	12.03	6.74	2.52	7.14	2.82	2.87
MEAN					--	.63	.40	.22	.084	.23	.091	.096
MAX					--	1.1	.53	.33	.12	3.5	.14	.12
MIN					--	.50	.30	.13	.06	.07	.08	.08
AC-FT					--	39	24	13	5.0	14	5.5	5.7

PEAK DISCHARGE (BASE, 5.0 FT<sup>3</sup>/S).--July 30 (2215) 80 ft<sup>3</sup>/s, field estimate (3.27 ft).

TABLE 3.--Daily discharge for Salt Creek--Continued

## 1975 Water Year

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CALIF.

LOCATION.--Lat 36°35'58", long 117°00'46", in NE¼ sec.6, T.16 S., R.46 E., Inyo County, Death Valley National Monument, on left bank 3.0 mi (4.8 km) southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi (11.9 km) east of Stovepipe Wells Hotel.

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is -180 ft (-55 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Sept. 10 (gage height, 3.09 ft or 0.942 m); minimum daily, 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 16, 17.  
Period of record: Maximum discharge, 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s) July 30, 1974, field estimate of peak flow (gage height, 3.27 ft or 0.997 m); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 16, 24, 25, 1974.

REMARKS.--Records good below 6.0 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) and poor above. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.19	.30	.48	.58	.62	.55	.43	.16	.08	.13	.11
2	.13	.20	.30	.47	.59	.60	.55	.42	.14	.08	.13	.12
3	.12	.19	.31	.48	.62	.61	.58	.41	.14	.08	.13	.12
4	.11	.19	.37	.50	.61	.64	.52	.37	.13	.08	.11	.12
5	.10	.19	.33	.50	.58	.72	.49	.37	.12	.08	.10	.12
6	.10	.18	.33	.53	.59	.66	.55	.38	.10	.09	.08	.13
7	.15	.19	.34	.52	.61	.63	.57	.39	.09	.09	.09	.12
8	.16	.18	.34	.55	.60	.64	.57	.39	.09	.09	.09	.12
9	.15	.18	.35	.53	.62	.66	.58	.37	.09	.09	.10	.14
10	.15	.19	.36	.51	.60	.66	.59	.36	.08	.09	.10	3.2
11	.15	.19	.36	.51	.59	.67	1.1	.35	.09	.09	.09	.42
12	.14	.19	.37	.51	.61	.65	.94	.33	.09	.08	.10	.17
13	.14	.20	.37	.53	.62	.63	.67	.31	.09	.08	.10	.17
14	.15	.20	.38	.54	.62	.62	.59	.30	.08	.08	.10	.17
15	.15	.20	.38	.55	.57	.62	.53	.27	.08	.08	.11	.18
16	.15	.21	.39	.56	.58	.60	.55	.25	.07	.08	.10	.19
17	.16	.22	.40	.54	.53	.58	.57	.26	.07	.08	.11	.19
18	.16	.22	.41	.55	.57	.62	.56	.26	.08	.09	.10	.20
19	.16	.23	.41	.55	.59	.63	.55	.23	.09	.09	.10	.19
20	.16	.24	.42	.57	.62	.64	.54	.26	.10	.09	.12	.19
21	.15	.26	.43	.56	.56	.60	.53	.28	.10	.10	.12	.18
22	.15	.25	.43	.53	.56	.57	.49	.28	.09	.10	.12	.19
23	.16	.24	.41	.55	.60	.55	.49	.28	.08	.10	.11	.19
24	.16	.26	.42	.57	.62	.59	.48	.26	.08	.11	.11	.19
25	.17	.27	.45	.57	.63	.61	.45	.23	.08	.11	.11	.20
26	.18	.27	.45	.59	.62	.52	.43	.23	.09	.11	.11	.20
27	.17	.28	.46	.55	.62	.53	.44	.21	.09	.09	.11	.20
28	.17	.28	.51	.53	.62	.55	.44	.19	.08	.12	.12	.20
29	.22	.29	.65	.56	---	.56	.41	.17	.08	.11	.12	.20
30	.20	.29	.52	.57	---	.59	.45	.18	.08	.10	.13	.20
31	.20	---	.51	.57	---	.60	---	.17	---	.12	.12	---
TOTAL	4.73	6.67	12.46	16.63	16.73	18.97	16.76	9.19	2.83	2.86	3.37	8.32
MEAN	.15	.22	.40	.54	.60	.61	.56	.30	.094	.092	.11	.28
MAX	.22	.29	.65	.59	.63	.72	1.1	.43	.16	.12	.13	3.2
MIN	.10	.18	.30	.47	.53	.52	.41	.17	.07	.08	.08	.11
AC-FT	9.4	13	25	33	33	38	33	18	5.6	5.7	6.7	17

CAL YR 1974 TOTAL --- MEAN --- MAX --- MIN --- AC-FT ---  
WTR YR 1975 TOTAL 119.52 MEAN .33 MAX 3.2 MIN .07 AC-FT 237

Peak discharge (5.0 ft<sup>3</sup>/s).--Sept. 10 (1345) 10 ft<sup>3</sup>/s (3.09 ft).

TABLE 3.--Daily discharge for Salt Creek--Continued

## 1976 Water Year

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CALIF.

LOCATION.--Lat 36°35'58", long 117°00'46", in NE¼ sec.6, T.16 S., R.46 E., Inyo County, Death Valley National Monument, on left bank 3.0 mi (4.8 km) southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi (11.9 km) east of Stovepipe Wells Hotel.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is -180 ft (-55 m), from topographic map.

REMARKS.--Records fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363 ft<sup>3</sup>/s (10.3 m<sup>3</sup>/s) Feb. 9, 1976, gage height, 4.81 ft (1.466 m) based on slope-conveyance measurement of peak flow, minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 16, 24, 25, 1974, Sept. 15, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) and maximum (\*), based on slope-conveyance measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 7	1315	255 7.22	4.61 1.405	Sept. 10	1930	269 7.62	4.64 1.414
Feb. 9	1245	*363 10.3	4.81 1.466				

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.15	.19	.34	.47	.31	.23	.33	.16	.10	.11	.13
2	.13	.15	.19	.35	.47	.28	.25	.29	.15	.10	.11	.12
3	.13	.16	.20	.37	.47	.36	.25	.29	.13	.10	.11	.12
4	.13	.16	.21	.38	.47	.33	.23	.28	.13	.10	.12	.13
5	.15	.16	.21	.39	.45	.31	.26	.28	.13	.11	.12	.16
6	.13	.16	.22	.39	1.4	.31	.28	.34	.13	.10	.11	.16
7	.13	.16	.23	.39	25	.33	.28	.48	.12	.09	.13	.16
8	.15	.16	.23	.40	2.6	.34	.26	.39	.12	.09	.13	.16
9	.15	.16	.24	.41	42	.34	.25	.36	.12	.09	.13	.16
10	.13	.16	.25	.40	3.4	.34	.26	.33	.16	.09	.13	11
11	.13	.16	.26	.41	1.4	.34	.23	.31	.16	.08	.13	1.7
12	.13	.16	.27	.42	.87	.29	.25	.26	.16	.09	.13	.16
13	.15	.17	.29	.42	.73	.33	.31	.26	.15	.09	.12	.09
14	.15	.17	.26	.43	.67	.34	.33	.26	.13	.09	.12	.08
15	.15	.17	.27	.43	.60	.33	.33	.23	.15	.09	.12	.06
16	.15	.17	.28	.43	.56	.29	.28	.23	.13	.08	.13	.08
17	.15	.17	.29	.44	.54	.29	.28	.22	.13	.10	.12	.20
18	.15	.17	.28	.45	.52	.28	.31	.22	.12	.10	.15	.20
19	.13	.17	.29	.43	.50	.23	.31	.20	.12	.10	.15	.19
20	.13	.18	.29	.43	.41	.22	.31	.22	.11	.10	.13	.22
21	.15	.18	.30	.43	.41	.26	.31	.22	.11	.10	.12	.19
22	.14	.18	.30	.44	.43	.28	.26	.22	.11	.10	.11	.17
23	.13	.18	.31	.45	.44	.29	.25	.20	.11	.11	.13	.17
24	.14	.18	.31	.45	.43	.28	.28	.20	.10	.10	.15	.17
25	.15	.18	.32	.44	.41	.25	.26	.20	.11	.10	.13	.16
26	.15	.18	.33	.44	.40	.22	.23	.19	.10	.10	.13	.16
27	.14	.18	.33	.45	.37	.28	.26	.17	.10	.10	.13	.16
28	.15	.18	.34	.46	.37	.25	.29	.16	.10	.11	.15	.15
29	.15	.18	.35	.46	.37	.23	.33	.16	.09	.11	.15	.16
30	.16	.19	.36	.47	---	.23	.34	.16	.09	.11	.15	.13
31	.14	---	.34	.46	---	.26	---	.16	---	.13	.15	---
TOTAL	4.38	5.08	8.54	13.06	87.16	9.02	8.30	7.82	3.73	3.06	4.00	16.90
MEAN	.14	.17	.28	.42	3.01	.29	.28	.25	.12	.099	.13	.56
MAX	.16	.19	.36	.47	.42	.36	.34	.48	.16	.13	.15	.11
MIN	.13	.15	.19	.34	.37	.22	.23	.16	.09	.08	.11	.06
AC-FT	8.7	10	17	26	173	18	16	16	7.4	6.1	7.9	34
CAL YR 1975	TOTAL 113.66	MEAN .31	MAX 3.2	MIN .07	AC-FT 225							
WTR YR 1976	TOTAL 171.05	MEAN .47	MAX 42	MIN .06	AC-FT 339							

TABLE 3.--Daily discharge for Salt Creek--Continued

1977 Water Year

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CALIF.

LOCATION.--Lat 36°35'58", long 117°00'46", in NE¼ sec.6, T.16 S., R.46 E., Inyo County, Death Valley National Monument, on left bank 3.0 mi (4.8 km) southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi (11.9 km) east of Stovepipe Wells Hotel.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is -180 ft (-55 m), from topographic map.

REMARKS.--Records fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363 ft<sup>3</sup>/s (10.3 m<sup>3</sup>/s) Feb. 9, 1976, gage height, 4.81 ft (1.466 m) based on slope-conveyance measurement of peak flow, minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 16, 24, 25, 1974, Sept. 15, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) May 9, gage height, 1.94 ft (0.591 m), no peaks above base of 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) July 18-20, Aug. 2-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.24	.44	.58	.66	.65	.64	.35	.29	.13	.11	.15
2	.40	.25	.46	.58	.65	.62	.60	.36	.26	.12	.10	.15
3	.11	.25	.46	.69	.66	.65	.58	.36	.25	.11	.10	.15
4	.11	.27	.48	.60	.67	.63	.61	.35	.25	.11	.10	.15
5	.12	.27	.48	.60	.67	.63	.62	.34	.24	.12	.10	.15
6	.13	.28	.46	.60	.68	.66	.60	.31	.24	.12	.10	.15
7	.12	.28	.48	.58	.68	.68	.58	.37	.23	.13	.10	.13
8	.13	.28	.48	.58	.69	.67	.50	.58	.22	.12	.11	.13
9	.13	.29	.50	.56	.69	.67	.50	1.3	.21	.12	.12	.12
10	.13	.30	.48	.58	.68	.56	.52	.66	.21	.13	.12	.12
11	.13	.30	.50	.58	.68	.60	.50	.56	.21	.13	.12	.13
12	.12	.32	.50	.60	.67	.66	.48	.71	.20	.12	.12	.13
13	.13	.32	.50	.60	.68	.64	.52	.82	.18	.12	.12	.13
14	.14	.33	.52	.60	.68	.62	.48	.64	.18	.12	.12	.13
15	.15	.32	.52	.60	.68	.63	.48	.55	.19	.12	.12	.13
16	.15	.33	.52	.60	.68	.66	.48	.48	.18	.12	.20	.12
17	.15	.33	.52	.60	.69	.66	.48	.47	.17	.12	.30	.13
18	.15	.34	.52	.60	.69	.63	.44	.47	.17	.10	.20	.14
19	.16	.35	.52	.62	.68	.66	.41	.45	.18	.10	.16	.13
20	.17	.36	.52	.62	.69	.66	.43	.45	.18	.10	.15	.13
21	.18	.37	.54	.67	.70	.65	.44	.44	.17	.11	.15	.14
22	.18	.37	.54	.67	.62	.66	.46	.40	.15	.11	.15	.14
23	.19	.37	.54	.65	.65	.63	.45	.38	.14	.11	.15	.12
24	.20	.37	.54	.62	.65	.60	.44	.42	.15	.12	.15	.14
25	.20	.39	.54	.65	.66	.67	.41	.44	.14	.12	.15	.14
26	.20	.38	.56	.68	.65	.67	.39	.41	.14	.12	.15	.13
27	.20	.38	.56	.67	.67	.64	.40	.38	.13	.12	.15	.14
28	.22	.39	.56	.67	.68	.60	.38	.36	.13	.12	.15	.13
29	.23	.41	.58	.67	---	.60	.38	.35	.14	.11	.15	.14
30	.23	.43	.58	.65	---	.64	.38	.33	.14	.11	.15	.13
31	.24	---	.60	.66	---	.63	---	.31	---	.12	.15	---
TOTAL	5.28	9.87	16.00	19.23	18.83	19.83	14.58	14.80	5.67	3.63	4.32	4.05
MEAN	.17	.33	.52	.62	.67	.64	.49	.48	.19	.12	.14	.14
MAX	.40	.43	.60	.69	.70	.68	.64	1.3	.29	.13	.30	.15
MIN	.11	.24	.44	.56	.62	.56	.38	.31	.13	.10	.10	.12
AC-FT	10	20	32	38	37	39	29	29	11	7.2	8.6	8.0
CAL YR 1976 TOTAL	184.20											
WTR YR 1977 TOTAL	136.09											
MEAN	.50											
MAX	.42											
MIN	.06											
AC-FT	365											
WTR	270											



TABLE 4.--Chemical analyses of Salt Creek

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	ALKA- LITY AS CACO3 (MG/L)	BICAR- BONATE (HCO3) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
JUN 19...	1530	25.0	.10	16500	550	670	.08	1100	560	98	210	3700
DATE	TIME	PERCENT SODIUM	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)
JUN 19...	48	84	300	4600	2000	1.4	5.8	22000	150	11300	3.05	15.4

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	CARBON DIOXIDE (CO2) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
FEB 26...	0930	11.0	.40	31300	7.8	17	544	663	0
DATE	TIME	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	PERCENT SODIUM	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)
FEB 26...	.27	2100	1500	140	420	6700	64	84	520
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)
FEB 26...	9100	4100	1.0	50	35000	100	21400	29.1	







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