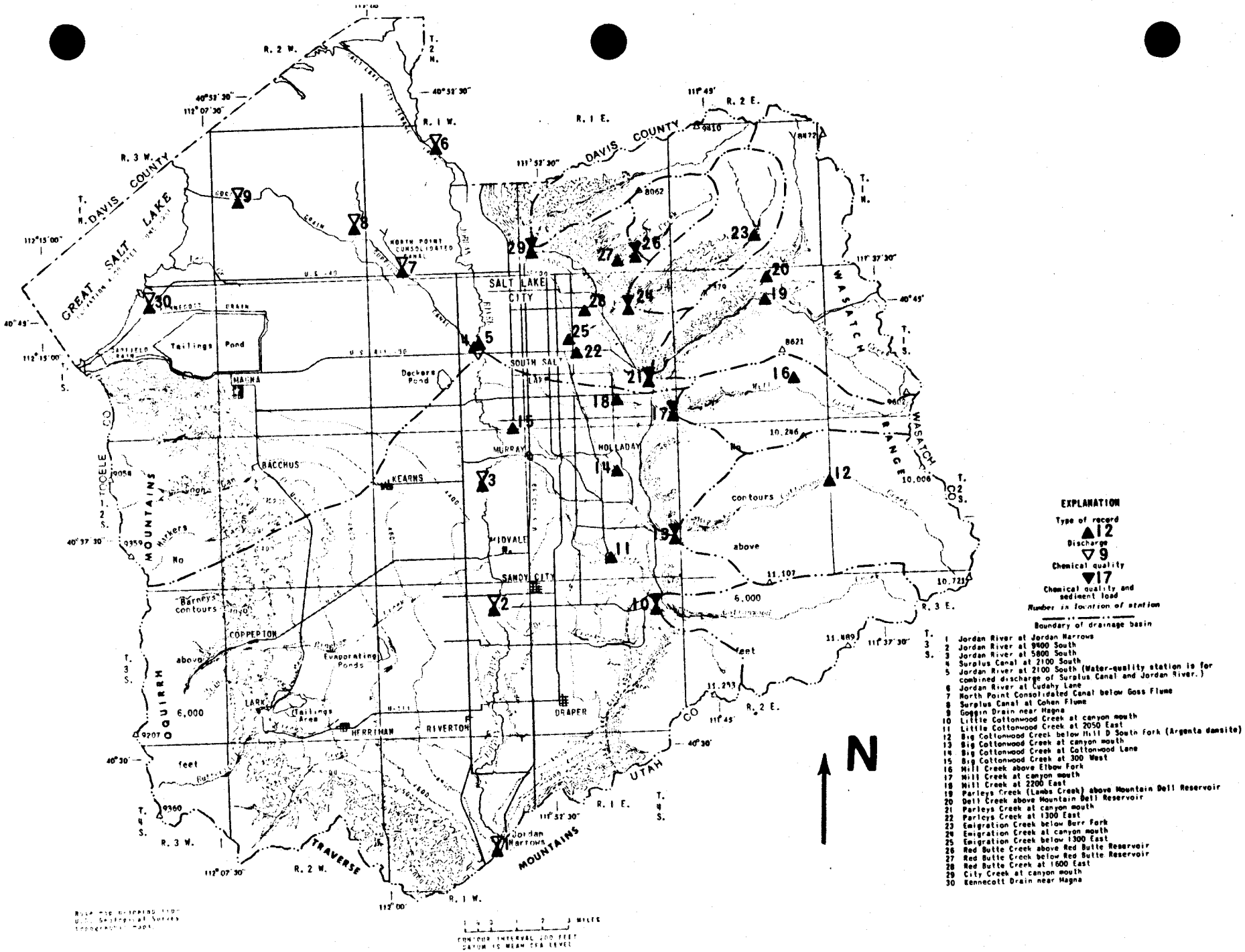

Figure E-1. –Locations of stations for measurement of stream discharge and water quality. Measurements and water samples were obtained occasionally at numerous other sites.

Ref: Hely and others (1971)

Table E-1. —Estimated average chemical quality of surface water from the Oquirrh Mountains, 1964-68 water years

[All chemical data are estimates based on analyses of occasional samples.]

Sodium and potassium: Calculated and reported as sodium.
Dissolved-solids: Values greater than 1,000 mg/l are calculated from determined constituents; those less than 1,000 mg/l are residue on evaporation at 180° C.

		Rose Creek near Herriman	Butterfield Creek near Herriman	Keystone Gulch at Lark	Bingham Creek near Copperton	Dry Fork near Copperton	Coon Creek near Bacchus
Number of samples		2	9	7	7	3	2
Silica (SiO_2)	mg/l	39	7.1	17	42	9.3	10
Calcium (Ca)	mg/l	70	164	204	90	48	74
Magnesium (Mg)	mg/l	20	35	90	2,830	21	16
Sodium (Na)	mg/l	39	113	58	152	19	13
Bicarbonate (HCO_3)	mg/l	219	183	19	(1)	209	273
Sulfate (SO_4)	mg/l	70	581	867	31,800	35	27
Chloride (Cl)	mg/l	62	31	61	837	28	17
Nitrate (NO_3)	mg/l	1.9	1.1	1.4	3.8	.8	2.4
Dissolved solids	mg/l	426	985	1,310	44,400	280	293
Tons per acre-foot		.58	1.34	1.78	60.4	.38	.40
Hardness as $CaCO_3$							
Calcium, magnesium	mg/l	257	554	880	12,000	206	251
Noncarbonate	mg/l	78	403	864	12,000	35	27
Sodium adsorption ratio		1.1	2.1	.9	.6	.6	.4
Specific conductance, in micromhos per centimeter at 25° C		660	1,280	1,560	19,600	479	512

[1] Acidity as H_2SO_4, 50 mg/l.

Ref: Hely and others (1971)

Table E-2. —Chemical quality of water from several sites on the Jordan River system, 1964-68 water years

[All chemical data are discharge-weighted averages computed from relations described in the text.]

Sodium and potassium: Calculated and reported as sodium.
Dissolved solids: Calculated from determined constituents.
Data: Sites above 9400 South, at 9000 South, and at 5800 South are for the 1966-68 water years.

		Jordan River						Surplus Canal at Cohen Flume	Goggin Drain near Magna
		Jordan Narrows	Above 9400 South	9000 South	5800 South	2100 South	Cudahy Lane		
Mean discharge, in cubic feet per second		285[1]	79.9[2]	46.7[3]	156	328[4]	154	127	44.9
Silica (SiO_2)	mg/l	18	27	22	20	17	17	17	13
Calcium (Ca)	mg/l	85	176	122	145	127	111	122	117
Magnesium (Mg)	mg/l	71	85	71	73	65	60	66	76
Sodium (Na)	mg/l	203	261	268	241	186	178	195	402
Bicarbonate (HCO_3)	mg/l	270	319	260	281	264	259	277	279
Sulfate (SO_4)	mg/l	351	518	361	440	368	323	359	423
Chloride (Cl)	mg/l	254	392	323	324	271	251	279	572
Nitrate (NO_3)	mg/l	1.3	4.5	6.2	5.1	10	11	7.3	3.6
Dissolved solids	mg/l	1,120	1,620	1,330	1,370	1,180	1,080	1,180	1,740
Tons per acre-foot		1.52	2.20	1.81	1.86	1.60	1.47	1.60	2.37
Tons per day		859	349	168	576	1,040	449	403	211
Hardness as $CaCO_3$									
Calcium, magnesium	mg/l	505	789	597	663	585	524	576	605
Noncarbonate	mg/l	283	528	384	432	368	312	349	376
Sodium adsorption ratio		3.9	4.0	4.8	4.0	3.3	3.4	3.5	7.1
Specific conductance, in micromhos per centimeter at 25° C		1,740	2,480	1,950	2,150	1,850	1,710	1,850	3,260
pH		7.7	7.8	8.0	7.7	7.3	7.7	7.5	7.6

[1] *Combined discharge of Jordan River, Utah and Salt Lake Canal, and East Jordan Canal.*

[2] *Combined discharge of Jordan River and North Jordan Canal.*

[3] *Calculated by adding prorated gain between 9400 South and 5800 South to river discharge below diversion dam at 9400 South.*

[4] *Combined discharge of the Jordan River and the Surplus Canal.*

Ref: Hely and others (1971)

Table E-3. Chemical Analyses of Surface Water In The Jordan Valley

Table 4.--Chemical analyses of surface water in the Jordan Valley

Stream or canal	Location of collection point	Date of collection	Temperature (°F)	Parts per million: Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Na + K: Sodium (Na)	Na + K: Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids 1/	Hardness as $CaCO_3$	Noncarbonate hardness as $CaCO_3$	Percent sodium	Sodium adsorption ratio (SAR)	Specific conductance (micromhos/cm at 25°C)	pH	Analysis by 2/
*Unnamed creek at Bluffdale	At Redwood Road (C-4-1)10bda	9-11-58	74	23	-	58	65	229		212	338	270	-	2.4	1,090	410	236	55	4.9	1,730	7.4	GS
*Rose Creek	At Redwood Road (C-4-1)3dcb	9-11-58	78	27	-	70	66	246		250	361	282	-	2.0	1,180	446	241	54	5.1	1,870	7.5	GS
*Unnamed creek	13500 South 13th West (C-4-1)3aad	9-11-58	66	37	-	139	82	287		452	420	350	-	7.7	1,540	684	313	48	4.8	2,380	7.8	GS
		1- 7-59	46	35	-	128	90	262		427	410	335	-	11	1,480	690	340	45	4.3	2,330	7.8	GS
*Midas Creek	At 27th West (C-3-1)21cda	9-11-58	71	17	-	55	50	178		176	268	215	-	1.2	871	340	196	53	4.2	1,440	7.9	GS
	At 13th West (C-3-1)22dda	1- 7-59	45	30	-	333	95	325		420	863	478	-	11	2,340	1,220	876	37	4.0	3,350	7.7	GS
*Provo Reservoir Canal	At Redwood Road (C-4-1)27aba	8-18-58	61	8.9	0.01	41	7.5	14		11/150	30	6.0	-	1.6	183	134	11	18	.5	296	8.4	GS
	*At Riverton (C-3-1)31aba	6- 3-49	-	-	-	55	10	11	4.7	188	52	9.9	-	-	-	178	24	12	-	430	-	SU
	*At 114th South (C-3-1)19add	9-11-58	69	12	-	63	17	13		176	69	28	-	1.4	290	228	84	11	.4	491	7.8	GS
	*At 78th South (C-2-1)30cdc	8-18-58	-	6.0	-	44	12	17		121	60	24	-	1.2	224	159	60	19	.6	377	7.8	GS
*Utah Lake Distributing Canal	At Jordan Narrows (C-4-1)26bca	8-15-58	76	18	.02	51	50	162		197	236	195	-	2.2	811	332	170	51	3.9	1,360	8.0	GS
	*At Riverton (C-3-1)29ddd	6- 3-49	-	-	-	61	26	82	15	221	140	101	-	.9	-	259	78	39	-	930	-	SU
	*At 54th South (C-2-1)17bab	8-18-58	-	16	-	62	48	166		198	259	198	-	2.1	848	352	190	51	3.9	1,400	8.0	GS
*Utah and Salt Lake Canal	At Jordan Narrows (C-4-1)26bdb	8-18-58	78	21	.01	54	63	196		212	272	255	-	2.7	968	392	218	52	4.3	1,660	8.0	GS
	At Riverton (C-3-1)28ddd	6- 3-49	-	-	-	64	51	186	28	262	272	232	-	.9	-	369	154	50	-	1,550	-	SU
		9-20-49	-	-	-	47	73	230	40	221	335	296	-	.4	-	417	236	52	-	1,820	-	SU
	At 84th West (C-1-2)32acb	8-18-58	-	20	-	63	58	221		214	315	264	-	2.3	1,050	396	221	55	4.8	1,700	7.8	GS
*South Jordan Canal	At Riverton (C-3-1)27dcd	6- 6-49	-	-	-	63	76	154	24	271	235	192	-	.8	-	470	247	40	-	1,430	-	SU
	At 47th South (C-2-1)8aab	8-18-58	-	20	-	58	63	212		223	305	258	-	3.3	1,030	405	222	53	4.6	1,690	7.6	GS
*North Jordan Canal	At 90th South (C-3-1)2dbb	8-18-58	-	33	-	213	80	281		336	560	430	-	7.2	1,770	860	584	42	4.2	2,650	7.7	GS
	At Taylorsville (C-2-1)10aac	6-29-49	-	-	-	142	81	260	34	329	539	395	-	1.4	-	687	414	44	-	2,500	-	SU
	At 35th South (C-1-2)36aaa	8-18-58	-	31	-	176	78	262		324	501	380	-	9.0	1,600	760	494	43	4.1	2,460	7.8	GS
Riter Canal	At 56th West (C-1-2)23dad	8- 5-58	-	21	-	114	97	315		249	533	428	-	8.1	1,640	684	480	50	5.2	2,600	7.8	GS
*Jordan River	At Jordan Narrows (C-4-1)26bdc	3- 6-56	-	27	.01	112	73	184		278	349	274	0.4	1.2	1,160	580	352	41	3.3	1,880	7.7	GS
		4- 2-56	-	32	-	145	79	245		231	497	362	-	1.9	1,480	688	499	44	4.1	2,250	7.4	GS
		6- 5-56	-	16	.03	65	74	217		252	329	275	-	3.3	1,100	468	261	50	3.0	1,820	7.5	GS
		8- 3-56	-	21	.00	74	77	248	25	230	380	338	.9	3.1	1,280	502	313	50	4.8	2,110	7.4	GS
		10- 1-56	-	22	.01	75	88	312	27	242	466	390	.9	1.7	1,500	548	350	54	5.8	2,350	7.9	GS
		11-29-56	-	48	-	129	66	177		306	317	280	-	1.0	1,170	592	341	39	3.2	1,870	7.4	GS
		2- 7-57	-	48	-	109	46	121		284	237	172	-	1.9	875	460	227	36	2.5	1,340	7.7	GS
	At 33rd South (C-1-1)26cca	3- 6-56	-	22	.04	152	69	187		301	395	287	.4	7.9	1,250	662	416	38	3.2	1,980	7.6	GS
		4- 2-56	-	21	-	150	60	170		279	365	264	-	12	1,180	620	391	37	3.0	1,830	7.3	GS
		6- 5-56	-	11	.03	65	28	75		155	148	110	-	3.8	517	276	149	37	2.0	874	7.2	GS

FOOTNOTES

Ref: U.S. Geological Survey Basic Data Report No. 4, Selected Hydrologic Data Jordan Valley, Salt Lake County, Utah, 1963, by Marine, I. W. and Price, D

1/ Dissolved solids are calculated from determined constituents except as noted.
2/ Analysis by: GS, U.S. Geological Survey.
SL, City Chemist, Salt Lake City.
SU, Utah State University, Logan, Utah.
3/ Analysis of 4-11-51 includes .10 ppm boron (B).
4/ Residue on evaporation.
5/ Includes equivalent of 14 ppm carbonate (CO_3).
6/ Includes equivalent of 9 ppm carbonate (CO_3).
7/ Includes equivalent of 5 ppm carbonate (CO_3).
8/ Includes equivalent of 20 ppm carbonate (CO_3).
9/ Includes equivalent of 16 ppm carbonate (CO_3).
10/ Includes equivalent of 12 ppm carbonate (CO_3).
11/ Includes equivalent of 4 ppm carbonate (CO_3).

* Sites with * to the left are within the study area.