APPENDIX B

PUBLISHED GROUND-WATER QUALITY DATA

Table B-1. Dissolved-solids, chloride, and sulfate contents of water from selected wells which exceed EPA recommended limits for drinking water.
(Chemical data in milligrams per liter)

Well number (2)	Chloride	Sulfate	Dissolved solids
(B-1-1)5ddd-1	490	----	1,060
6cca-1	----	----	567
9aba-1	898	----	1,730
(B-1-2)11dca-4	----	----	612
(C-1-1)2abc-1	----	----	584
24cdc-2	----	482	1,240
24dab-18	----	----	664
24dac-10	----	----	578
24dac-11	----	----	525
24dac-12	----	280	738
24dad-22	----	264	684
24dbd-2	----	273	556
34cdc-2	----	----	798
(C-1-2)20cbc-1	498	278	1,510
22bcd-4	270	----	856
23cdd-8	312	----	1,170
23ddb-2	280	----	976
23ddc-1	270	----	1,020
27abc-1	325	338	1,430
28aaa[1]	412	484	1,730
28cdd-1	300	373	1,320
35ada-2	315	----	1,140
36abb-5	280	----	1,020
36abc-1	298	----	1,110
(C-2-1)3cdd-4	----	----	661
14caa-1	315	525	1,430
Near W139,W140 32dca-1	----	----	780
W149= (C-3-1)4ddd-1	368	579	1,640
6cac-1	328	----	928
(C-3-1)6dbc-2	260	441	1,240
W121= 13bab-1	----	----	908
24bcc-1	450	----	1,080
31aaa-1	----	----	691
32abb-1	----	----	559
32cdc-1	----	----	519
(C-3-2)5aac-1	----	----	636
5acb-1	----	----	719
34daa-1	----	----	553
(C-4-1)6dad-1	----	319	978
11ccc-1	----	----	825
22dbd-1	----	----	689
(D-1-1)4adc-1	----	----	548
4cac-2	----	----	527
7abd-6	----	----	644
19bac-4	----	----	609
19bac-24	----	286	653
19bdc-21	----	264	610
19cdb-17	----	----	622
19dbc-1	----	----	608
20cbc-1	----	262	634
20cca-2	----	----	562
20ddd-1	----	289	691
21ddd-1	----	----	625
25ccb-2	----	----	599
26bbc-1	----	387	794
(D-2-1)4bcc-1	----	284	642
17bcc-7	----	----	515
(D-4-1)6bdd-1	----	----	659

[1]Composite of wells (C-1-2)28aaa-4, 28aaa-5, 28aaa-6, and 28aaa-7.

(2) Well Numbering System: (C-2-1) 24adc-1 where C = location in county, 2 = township, 1 = range, 24 = section, a = "a" quadrant of section 24, d = "d" quadrant of quadrant a, c = "c" quadrant of quadrant d, 1 = first well numbered in the tract.

Ref: Hely and others (1971)

[Chemical analyses, in milligrams per liter]

	Mascotte Tunnel	Bingham Creek	K109 Well (C-3-2)14baa-1	K60 Well (C-3-2)14bcd-1
Silica (SiO_2)	17	42	20	23
Calcium (Ca)	204	90	66	214
Magnesium (Mg)	90	2,830	30	62
Sodium (Na)	58	152	22	67
Bicarbonate (HCO_3)	19	(1)	199	202
Sulfate (SO_4)	867	31,800	49	499
Chloride (Cl)	61	837	85	175
Nitrate (NO_3)	1.4	3.8	2.6	5.5
Dissolved solids	1,310	44,400	410	1,140
Specific conductance (micromhos/cm at 25° C)	1,560	19,600	689	1,600
pH	6.8	2.8	7.6	8.2

Water Quality Downgradient from Bingham Canyon

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

	Dissolved solids (milligrams per liter)
(C-3-2)4adb-1	1,120
5aac-1	636
5acb-1	719
17cac-1	1,070
20bdd-1	1,460
32baa-1	408
34daa-1	553
(C-4-2)6acc-1	870

Representative chemical quality of recharge waters from bedrock from the Oquirrh Mountains.

Surface Water Quality - West Jordan	Dissolved solids (milligrams per liter)
Utah Lake Distributing Co. and Utah and Salt Lake Canals[1]	1,120
Provo Reservoir Canal[2]	231
Rose Creek	426
Butterfield Creek	985
Keystone Gulch[3]	1,310
Bingham Creek	44,400

[1]These canals divert water from the Jordan River in the Jordan Narrows.

[2]Diverts water from the Provo River in Utah County.

[3]Mascotte Tunnel is the source of this water.

Table B-2. Representative Water Quality Data Along And Downgradient From The Oquirrh Mountains.

Ref: Hely and others (1971)

–Dissolved-solids content of water from the shallow unconfined aquifer in Jordan Valley

Well, trench, or spring number	Sampling depth (feet)	Dissolved solids (mg/l)	Well, trench, or spring number	Sampling depth (feet)	Dissolved solids (mg/l)
(B-1-1)23bdd-1	30	12,000	(C-3-1)6cac-1	90	928
23bdd-2	30	8,960	18abc-S1	---	24,300
(C-1-1)32bbb [1]	13	1,700	27aaa-1	12	2,330
(C-1-2)21dad-10	60	1,410	(C-4-1)10bdd-1	50	1,320
22bdd-4	35	967	(C-2-1)6dbb-12	85	270
22dcc-3	99	1,340	8ccd-8	86	458
28aaa-3	60	1,610	9dbd [1]	8	658
32aab-1	52	1,330	14bcc-1	17	809
35ada-2	64	1,140	17bcc-7	99	515
(C-2-1)12ada-1	82	342	20add [1]	14	1,330
14caa-1	63	1,430	(D-3-1)7ccd-1	62	2,050
34acb [1]	12	1,510	12adc-1	71	140
Near W178 34dda-2	65	1,400	30dcb-1	10	2,030
Near W303 (C-3-1)2cab-1	10	1,680	(D-4-1)6bdd-1	28	659

[1]Open trench.

–Dissolved-solids content of water from deposits of Tertiary age in Jordan Valley

Well number	Sampling depth [1] (feet)	Dissolved solids (mg/l)	Well number	Sampling depth (feet)	Dissolved solids (mg/l)
(C-1-1)13bba-1	815	238	(C-3-1)32cdc-1	530-633	460
13dab-1	844-864	242	(C-4-1)14dcd-1	265-716	655
25acb-3	700-963	339	15bdc-1	198-425	1,210 [2]
36dab-5	535	298	15bdc-2	180-522	713 [2]
(C-1-2)21acc-5	368-412	2,820	(D-1-1)19dbc-1	574-840	608
21adb-1	380-416	2,070	20bab-1	468-475	681
25aad-1	300-968	1,620 [2]	30acc-7	487-890	454
(C-2-1)1dbb-3	615-738	392	30ccd-10	644	334 [3]
7ccc-1	258-895	578	30cda-10	611-850	359
12abc-3	356	293 [3]	31dcd-21	365-375	319
12bba-6	473-499	318	33caa-1	385	763
12bbb-4	450-700	334	(D-2-1)4bcc-1	632-645	642
12daa-2	399	212	6dbb-10	518-852	315
(C-2-2)8baa-2	173	488	7dcd-7	485	369
8baa-3	295	546	7dda-1	460	127
9bca-1	526	501	8aaa-1	390	279
9bdb-1	515	647	17bbb-2	637-726	419

[1]Where only one figure is given, well is open ended at that depth.

[2]Part of the water may be from deposits of Quaternary age.

[3]Odor of hydrogen sulfide reported.

Table B-3. Representative Dissolved Solids Contents of Waters From the Shallow Aquifer and Deep Tertiary Deposits, In the Jordan Valley

Ref: Hely and others (1971)

Table B-4 Records and Chemical Analyses of Selected Wells and Springs in the Jordan Valley

Records of selected wells and springs in the Jordan Valley

Well or spring number: see text for description of well-numbering system.
Type of well: D, dug; Dr, driven; J, jetted; P, percussion (cable tool); R, rotary; S, spring.
Depth of well: question mark (?) used when depth listed is uncertain.
Method of lift: C, centrifugal pump; Cy, cylinder pump; F, flowing well; J, jet pump; N, none; T, turbine; Ts, submersible turbine pump.
Use of water: Co, cooling; D, domestic; F, fish or fur-animal culture; In, industry; Ir, irrigation; M, municipal; N, none; O, observation; P, public supply other than municipal (schools, hospitals, churches, and public fountains); R, return well for water used for cooling purposes; S, stock.
Altitude of land-surface datum: surveyed altitudes (from Utah State Engineer records) are given in feet and tenths; altitudes interpolated from topographic map are given in feet.
Water level: measured distances to water level are given in feet and tenths; reported distances are given in feet. Plus sign (+) without number indicates water level was unmeasured distance above the land surface on given date.
Yield: Quantity in gpm (gallons per minute); f, yield by flow; p, yield by pumping. Drawdown; the distance between the static and pumping water levels for a given yield. Date of measurement; if month and year are given the yield is reported, if month, day, and year are given the yield is measured.
Remarks and other available data: B, water enters well from bottom or within 20 feet of bottom; C, chemical analysis in Table 3; L, driller's log in Table 2. Question mark (?) used in perforation information when extent of perforation is unknown.

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.

Well or spring number	Owner or user	Year drilled	Type of well	Depth of well (feet)	Diameter of well (inches)	Method of lift	Use of water	Altitude of land-surface datum (feet)	Water level: Above (+) or below (-) land-surface datum (feet)	Water level: Date of measurement	Temperature (°F)	Yield: Quantity (gpm)	Yield: Drawdown (feet)	Yield: Date of measurement	Remarks and other available data
								West Slope district							
(C-1-1)															
30ddc-1	S. W. Bawden	1923	J	55	2	F	D	4,265.0	+ 2.3	3-10-58	54	13f	-	9-16-31	Hydrogen sulfide odor. B, C.
31abb-3	J. M. Grant	1946	J	55	2	-	D	4,277	- 5	10- 58	-	-	-	-	B.
32bbb	Hunter sewer trench	1958	D	13	-	C	N	4,273	- 12	10- 58	-	250p	-	10- 58	Excavation for sewer line. C.
(C-1-2)															
19dcc-3	Webster School	1941	P	240	6, 4	N	N	4,275	- 36	8- 41	-	30p	-	8- 41	Casing: 4-inch from 228 to 240 ft, perforated at 230 ft.
28cdd-1	Charles Kraus	1920	J	127	2½	Cy	D	4,368.2	-	-	-	-	-	-	B, C.
29bc	Pasternak	-	D	-	-	-	-	4,300	-	-	-	-	-	-	C.
29bcm-3	Cyprus School	1941	P	127	6, 4	N	N	4,300	- 56	8- 41	60	32p	-	8- 41	Casing: 4-inch from 94 to 127 ft, perforated 94-127 ft. Well plugged 1941.
30abb-1	Pleasant Green Water Co.	1914	D	120	48	-	-	4,280	-110	3- 33	-	-	-	-	B, C.
30ddd-1	Theodore Ek	1910	P	214	6	N	N	4,445	-198.2	8-18-58	-	-	-	-	Well depth measured in 1958, 202.1 ft. B.
35ada-2	J. Ferro	1929	D	64	2	J	D	4 330.2	-	-	-	-	-	-	B, C.
36abb-5	Sarah Day	1949	J	265	2	F	D	4,290	+ 18.6	8-20-57	60	-	-	-	Hydrogen sulfide odor. B, C.
36abc-1	Martin Perry	1929	J	153	2	F	D	4,303.5	+ 30.2	3-10-58	60	-	-	-	B, C.
36abc-6	W. Smith	1956	J	125	2	F	D	4,315	+ 24.5	10-29-58	60	-	-	-	B.
36acd-1	Ezra Day	1930	J	150	2	F	D	4,331.5	+ 23.9	10-29-58	65	-	-	-	B.
36add-1	O. P. Mathews	1929	J	160	2	F	D	4,317.7	-	-	-	-	-	-	Wells (C-1-2)36add-1 and 2 are on common discharge line. Water level 10-30-58, +21.5 ft. B.
36add-2	do	-	J	410	1¼	F	D	4,318.0	-	-	-	-	-	-	
36baa-5	J. W. Nielson	1953	J	148	2	F	D	4,296	+ 31.8	10- 8-57	59	-	-	-	B.
36bbc-1	T. J. Evans	1908	-	50	3	F	S	4,316.4	+ 16.0	10-29-58	58	5f	-	10- 57	
(C-2-1)															
4bbc-2	Valley School	1948	P	922	6, 4	T	P	4,325	- 43.5	5-21-58	-	500p	-	8- 58	Casing: 4-inch from 150 to 922 ft, perforated 138-142(?) ft. Plugged 150 to 922 ft. Water level measured by air line. L.
4dbc	Gravel pit	-	S	-	-	-	N	4,315	-	-	68	60f	-	8- 58	C.
6abc-4	Winder Dairy	1947	P	440	8	T	In	4,390	- 85	4- 47	-	65p	200	4- 47	Casing perforated 290-307, 388-405 ft. C, L.
* 7ccc-1	Kearns Improvement District	1942	P	919	12	T	N	4,630	-157.1	3-19-46	62	375p	208	3-22-48	Casing perforated 256-895 ft. C, L.
* 10cbb	Gravel pit	-	S	-	-	-	N	4,310	-	-	-	-	-	-	C.
* 15dda-1	H. Wight	1907	J	150	2	F	N	4,285.4	+ 15.1	10- 8-55	-	30f	-	10- 55	B.
Near W16 * 27cac-1	West Jordan School	1957	P	310	10	T	P	4,380	- 14	11- 57	-	175p	136	11- 57	Casing perforated 150-165, 190-195, 253-269, 273-275 ft.
W4 * 27ddc-1	D. R. Bateman	1911	J	235	2	-	-	4,349.8	+ 5.1	3- 6-33	57	-	-	-	B, C.
Near * 30cda-1	H. Cooley	1934	D	40	48	N	N	4,625	- 30.6	12-23-57	-	-	-	-	B, C.
* 32dca-1	R. H. Goff	1933	D	163	48	Cy	D	4,520.5	-	-	-	-	-	-	B, C.
W139, 140 * 32dda-1	U.S. Army	1943	-	244	8	N	N	4,490	-130	7- 43	-	320p	-	7- 43	L.
* 34acb	West Jordan sewer trench	1958	D	12	-	Cy	N	4,368	- 11	8- 58	60	30p	-	8- 58	Excavation for sewer line. C.
Near W178 * 34bcd-1	Utah-Idaho Sugar Co.	1933	P	1,397	12, 10	T	In	4,397.6	- 27	9- 33	-	234p	133	9- 33	Casing: 10-inch from 346 to 1,397 ft.
* 34dda-1	H. C. Gardner	1922	J	380	3	Cy	D	4,348.3	- 20.3	3-10-58	56	-	-	-	B, C.
W178 * 34dda-2	do	1920	J	65	3	F	S	4,348.2	+ 10.8	3-10-58	51	5f	-	8- 58	B, C.
(C-2-2)															
1aaa-1	M. Rasmussen	1908	-	220	4½	J	D	4,405.8	+ .3	10-30-58	56	-	-	-	
5aac	Bacchus gravel pit spring		S	-	-	-	N	4,600	-	-	68	30f	-	8- 58	One of several springs. C.
* 8adb-1	Hercules Powder Co.	1934	P	500	16	N	N	4,870.0	-109.2	6- 6-36	-	66p	115	10- 34	
* 8baa-2	do	-	-	173	6	N	N	4,856	-	-	-	-	-	-	C.
* 8baa-3	do	-	-	895	6	N	N	-	- 66.1	6- 6-36	-	-	-	-	C.
* 9bcm-1	do	1936	P	526	10	T	N	4,850	-105.6	6- 6-36	-	430p	160	5- 36	C.
									-126.6	4-24-58		100p		11- 58	

FOOTNOTES

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

* Wells that have been sampled by Kennecott are designated by "W" and the site number. Those near a Kennecott sampled well are designated as such.

Table B-4. Records of selected wells and springs in the Jordan Valley - Continued

Well or spring number	Owner or user	Year drilled	Type of well	Depth of well (feet)	Diameter of well (inches)	Method of lift	Use of water	Altitude of land-surface datum (feet)	Water level: Above (+) or below (-) land-surface datum (feet)	Water level: Date of measurement	Temperature (°F)	Yield: Quantity (gpm)	Yield: Drawdown (feet)	Yield: Date of measurement	Remarks and other available data
	West Slope district - Continued														
(C-2-2) *9bdb-1	Hercules Powder Co.	1939	P	515	10	T	N	4,850	- -131.2	- 4-24-58	56	158p 145p	225	1939 11- 58	C.
*24aaa-1	O. Peterson	-	D	113	36	-	-	4,643.6	- 92.4	10-25-35	-	-	-	-	B, C.
*25bcc	F. M. Wood	-	D	149	48	N	N	4,800	-144.0	12-23-57	-	-	-	-	B.
(C-3-1) Near W303 2adb-1	Utah Power and Light Co.	1957	P	221	8	J	D	4,293	(+)	4- 57	-	80r	-	4- 57	Casing perforated 156-181, 187-196 ft. Also used for fire protection.
W149 4ddd-1	E. Iff	-	-	-	2	-	D	4,468.1	-	-	-	-	-	-	B, C.
W15 6dbc-2	Denver and Rio Grande Western RR. Co.	1909	P	120	10	J	D	4,670	- 52.4 - 48.6	4-23-32 4-21-58	-	-	-	-	C.
W11 9ccc-1	M. and J. Tateoka	1955	P	472	12	T	Ir	4,593	-	-	57	1,350p 1,008p	12 -	4- 55 8-13-58	Casing perforated 190-471 ft. C, L.
Near W152 *15bdm-1	South Jordan Pipeline Co.	1913	-	358	6	N	N	4,478.3	-	-	-	-	-	-	C.
W304 *15bdm-2	do	-	P	360	8	T	N	4,475	-	-	-	-	-	-	Drilled about 1936. C.
W300 *15cad-1	L. M. Dodd	1901	-	238	3	N	N	4,450.0	- 39.4	3-31-56	-	-	-	-	Debris in well at 37 ft. B.
*15dda-1	J. Jensen	-	J	-	3	F	D,O	4,394.0	+ 14.9 + 19.3	3-10-58 12- 8-58	55 54	-	-	-	B, C.
*15ddd-1	B. E. Beckstead	1900	J	185	3	F	S	4,391.2	+ 22.5	12- 8-58	51	-	-	-	B.
Kennecott *16abc	Evaporating ponds	-	B	-	-	-	N	4,750	-	-	-	-	-	-	Seepage from evaporating ponds. C.
Near W153 *21abb-1	B. L. Magers	1933	J	216	3	Cy	D	4,515.9	- 93.8	8-18-55	-	-	-	-	B.
Near W176 *26cad-1	F. Bagley	-	J	-	3	-	-	4,333.2	+ 24.2	12- 1-46	57	5f	-	8-24-31	B, C.
*26cdb-1	E. Nielsen	-	-	180r	3	-	-	4,335.3	+ 13.9	12- 7-32	57	3f	-	8-24-31	B, C.
Prior W155 *27cdd-1	J. R. Dansie	1921	J	220	3	N	O	4,434.2	- 11.8	3-11-58	54	-	-	-	B.
W15 *30aba-1	Provo Reservoir Water Users Co. No. 1	1956	P	700	16	T	Ir, O	4,683	- 76.6	3-10-58	54 57 58	900p 726p 505p	112	8- 56 10- 7-57 8-14-58	Casing perforated 73-496 ft. C, L.
W16 *30acd-1	Provo Reservoir Water Users Co. No. 2	1957	P	420	16	T	Ir, O	4,687	- 28.6	3-10-58	- 55	380p 297p	- 80	5- 57 8-13-58	C.
W173 *31dcd-3	E. W. Hamilton	1954	P	625	16	T	Ir	4,692	-130	3-11-58	-	1,300p 578p	118	2- 54 8-12-58	Casing perforated 138-200, 231-615 ft. Water level measured by air line. C.
Near W144 *32abb-1	M. P. Jensen	1930	-	144	3	C, F	D	4,600.5	- 8.8 - .9	8-10-32 8-18-55	-	-	-	-	Formerly F. E. Peterson well. B, C.
W144 *32abc-1	E. M. Seal	1949	-	154	4	-	-	4,600	- 80	7- 49	-	-	-	-	B.
Near W43 *32cad-2	D. Seal	1921	-	218	4	N	N	4,599.9	-136.9	3-11-58	54	-	-	-	B.
Near W43 *32cdc-1	Town of Riverton	1954	P	670	12	T	M	4,612	-	-	-	-	-	-	Casing perforated 530-633 ft. C, L.
W43 *32dcc-1	E. L. Maynard	1954	P	447	12	T	Ir	4,598	-144.5	3-26-57	55 55	840p 725p	- 24	10-10-57 8-12-58	Casing perforated 155-171, 176-447 ft. C.
(C-3-2) W32A *5aac-1	Kennecott Copper Corp. No. 2	1947	-	1,200	20	-	M	5,302	- 87	5- 47	52	422p	235	5- 47	Began drilling well in 1944, completed 1947. Open hole from 922 to 1,200 ft. C, L.
W32C *5acb-1	Kennecott Copper Corp. No. 3	1945	-	1,274	20, 12, 10	-	M	5,367	-139	7- 45	46	520p	173	7- 47	Casing: 12-inch from 600 to 948 ft, 10-inch from 948 to 1,219 ft. Open hole from 1,219 to 1,275 ft. C.
W32B *6adb-1	Kennecott Copper Corp. No. 1	1945	-	1,200	20	N	N	5,320	-147.6	10-29-58	-	-	-	-	C.
Near W27 *8ccd-1	L. A. Christensen	1937	-	270	6	-	D	5,460	-175	5- 37	-	5p	-	5- 37	
W27 *8cdc-2	Continental Oil Co.	1953	-	220	6	Ts	D	5,440	-179	8- 53	-	-	-	-	Casing perforated 200-210 ft.
W26 *16abd-1	G. B. Robbe	1937	-	215	6	-	-	5,175	-195	5- 37	-	-	-	-	Casing perforated at 195 ft.
W18 *26ccc-1	J. S. Butterfield	1954	P	300	12	T	Ir	4,990	-200	12- 54	54	387p	50	8-12-58	Casing perforated 200-295 ft. C.
*27bdd-1	U.S. Smelting, Refining and Mining Co.	1945	-	355	6	-	-	5,045	-110	12- 45	-	240p	35	12- 45	Casing perforated at 120 ft.
Near P211 *28cac-1	do	1937	-	230	8	-	N	5,260	-162	7- 37	-	80p	-	7- 37	Well abandoned November, 1947
a,b *29acc-1	do	1942	-	325	15	-	-	5,430	-123	6- 42	-	25p	125	6- 42	Casing perforated 130-300 ft. L.
*29dac-1	do	1945	-	200	8	-	-	5,400	-	-	-	-	-	-	Flow 0.5 gallon per hour, Nov., 1955. Casing perforated at 190 ft.
W23 *32baa-1	J. A. Dumont	1956	R	360	4	J	D	5,480	- 65.4	4-15-57	-	-	-	-	Casing perforated 140-360 ft.
W41 *32dbc-1	Herriman Irrigation Co.	1950	P	190	12	N	-	5,420	- 13 - 6.5	11- 50 1-27-59	-	50p	47	3- 50	Casing perforated 45-50, 56-73 ft. L.
W185 *34daa-1	Herriman Pipeline and Development Co.	1955	P	615	12	T	Ir, M	5,020	-135	4- 55	-	-	-	-	Casing perforated 180-483 ft. C, L.
W20 *35bdc-1	R. I. Bowles	1954	P	269	8	T	Ir	4,980	-158	4- 54	- 54	430p 266p	67	4- 54 8-12-58	Casing perforated 230-265 ft. C.
(C-4-1) *5ccb-1	Federal Land Bank of Berkeley	1919	-	185	6	N	N	4,660.2	-141.3	3-12-32	-	-	-	-	C.
Near W183 *5cdd-1	J. P. Butterfield	1945	P	193	6	-	-	4,660	-170	4- 45	-	-	-	-	Casing perforated 190-193 ft.
*6acb-1	E. R. Hamilton	1955	P	577	16	T	Ir	4,715	-130	3-11-58	60	600p 183p	104	3- 55 8-12-58	Water level measured by air line. C, L.
Near W145 *6adc-1	J. P. Butterfield	1955	P	355	12	T	Ir	4,690	-119 -122	3-26-57 7-22-58	58 58	320p 260p	114	6- 55 8-12-58	Casing perforated 125-130 ft. Water level measured by air line. C.
W146 *8abc-1	L. R. Batch	1954	P	500	12	J	D	4,662	-115.5 -121.2	10-15-27 3-11-58	-	-	-	-	Casing perforated 190-500 ft.

FOOTNOTES

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

* Wells that have been sampled by Kennecott are designated by "W" and the site number. Those near a Kennecott sampled well are designated as such.

Table B-4. Chemical analyses of water from selected wells and springs in the Jordan Valley

Well or spring number	Date of collection	Temperature (°F)	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]
			Parts per million																		
West Slope district																					
(C-1-1)																					
30ddc-1[29]	8-18-58	55	40	-	107	90	383		467	489	405	-	12	1,760	640	257	57	6.6	2,690	7.0	GS
32bbb[29]	10-22-58	-	40	-	124	102	328		487	476	380	-	14	1,700	730	331	49	5.3	2,640	7.6	GS
(C-1-2)																					
28cdd-1[29]	8-18-58	-	33	-	156	67	200		313	373	300	-	35	6/1,320	662	405	40	3.4	2,060	7.5	GS
29bc[29]	1- 4-52	-	24	0.33	104	105	278		465	424	315	0.0	29	6/1,510	693	312	-	-	-	7.4	DB
30abb-1[29]	3-24-33	-	27	.02	99	50	281	11	325	231	398	-	15	1,270	452	186	57	5.8	-	-	GS
35ada-2[29]	3-24-33	55	-	-	121	71	238		375	321	325	-	13	7/1,270	594	286	47	4.3	-	-	GS
36abb-5[29]	10- 8-57	57	18	-	110	65	76		300	37	286	-	22	762	540	294	23	1.4	1,700	7.1	GS
	8-18-58	60	42	-	111	68	146		296	215	280	-	14	1,020	556	313	36	2.7	1,680	7.4	GS
36abc-1[29]	8-18-58	61	44	-	116	67	169		294	248	298	-	14	1,100	564	323	39	3.1	1,810	7.3	GS
(C-2-1)																					
4dbc[29]	9-10-58	68	23	-	123	71	276		409	401	312	-	5.5	1,410	598	263	50	4.9	2,200	7.8	GS
6abc-4[29]	8-18-58	-	33	-	123	71	125		196	253	312	-	6.8	1,020	598	437	31	2.2	1,690	7.5	GS
* 7ccc-1	3-22-48	-	46	-	58	41	84		218	46	184	.4	9.8	577	313	134	37	2.1	979	-	GS
	3-22-48	-	45	-	59	42	82		216	44	190	-	9.5	6/578	320	142	36	2.0	991	-	GS
* 10cbb[29]	8-20-58	-	8.6	-	157	101	429		882	798	480	-	2.3	2,110	808	577	54	6.6	3,190	7.6	GS
W4 * 27ddc-1	3- 6-33	57	-	-	82	37	39		176	75	155	-	1.8	7/476	357	213	19	.9	-	-	GS
* 30cdm-1	11-23-40	-	34	.10	94	38	114		216	74	220	.2	5.0	6/841	394	217	-	-	-	7.5	DB
Near W139 * 32dcm-1	8-27-58	-	25	.00	101	44	148		360	166	196	-	11	868	432	137	43	3.1	1,440	7.5	GS
* 34acb[29]	8-21-58	60	27	-	160	79	260		488	402	330	-	7.1	1,510	725	325	44	4.2	2,300	7.4	GS
Near W178 * 34ddm-1	9-17-58	57	29	.00	74	31	50		173	68	146	-	2.8	486	312	170	26	1.2	855	7.6	GS
* 34ddm-2[29]	8-20-58	58	23	.00	200	71	179		246	412	385	-	7.1	1,400	790	588	33	2.8	2,200	7.3	GS
(C-2-2)																					
5aac	8- 4-58	68	57	-	363	105	195		409	284	310	-	856	2,370	1,340	1,000	24	2.3	3,320	7.5	GS
	1- 7-59	48	47	-	297	90	207		348	251	290	-	750	2,100	1,110	825	29	2.7	2,860	7.8	GS
* 8baa-2	2-26-53	-	60	.54	59	28	58		230	20	121	.4	4.7	6/488	260	71	-	-	-	7.8	DB
* 8baa-3	2-26-53	-	57	4.3	73	31	47		223	27	139	.3	5.6	6/546	311	128	-	-	-	7.7	DB
* 9bcm-1	11- 3-58	56	58	.01	75	31	49		218	25	150	-	5.6	501	314	135	25	1.2	861	7.3	GS
* 9bdb-1	11- 3-58	56	59	.01	87	34	90		294	36	190	-	5.8	647	356	115	35	2.1	987	7.6	GS
* 24aaa-1	5-13-33	-	-	-	65	-	188		163	16	363	-	1.5	-	255	122	62	5.1	-	-	GS
(C-3-1)																					
4ddc-1[29]	8-27-58	-	22	.00	253	92	166		292	579	368	-	11	1,640	1,010	771	26	2.3	2,430	7.4	GS
6dbc-2	8-27-58	-	28	.00	178	65	144		232	441	260	-	10	1,240	710	520	31	2.4	1,860	7.4	GS
W11 9ccc-1	8-13-58	57	33	-	425	156	122		544	1,150	225	-	7.5	2,390	1,700	1,250	14	1.3	2,960	7.1	GS

FOOTNOTES

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

* Wells that have been sampled by Kennecott are designated by "W" and the site number. Those near a Kennecott sampled well are designated as such.

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.

Table B-4. —Chemical analyses of water from selected wells and springs in the Jordan Valley - Continued

Well or spring number	Date of collection	Temperature (°F)	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]
			Parts per million																		
West Slope district - Continued																					
(C-3-1)																					
Near 300 *15bda-1	3- 7-33	-	84	0.02	80	31	47	2.9	178	89	128	-	7.4	6/497	327	181	24	1.1	-	-	GS
304 *15bda-2	11-23-51	-	81	.83	110	35	71		177	132	185	0.0	33	6/712	419	274	-	-	-	7.6	DH
152 *15dda-1	8-20-58	55	17	.00	64	89	59		136	72	155	-	1.0	464	278	166	32	1.5	842	7.6	GS
Near Kennecott *18abc[30]	9-11-58	-	139	-	648	2,390	3,290		-	17,400	388	-	.7	24,300	11,400	11,400	38	13	9,970	3.0	GS
Evap. Ponds *26cad-1[29]	12- 9-31	56	-	-	230	69	111		230	339	390	-	7.5	7/1,260	858	668	22	1.6	-	-	GS
Near W176 *26cdb-1[29]	11- 9-31	56	-	-	232	70	102		228	335	392	-	-	7/1,240	867	680	20	1.5	-	-	GS
W15 *30abm-1	10- 7-57	57	23	-	216	61	42		306	320	208	-	4.4	1,020	790	539	10	.6	1,610	7.3	GS
	8-14-58	58	29	-	199	51	61		294	317	186	-	3.9	992	704	463	16	1.0	1,510	7.5	GS
W16 *30acd-1	8-13-58	55	24	-	174	43	52		243	299	150	-	3.5	864	612	413	16	.9	1,320	7.6	GS
W173 *31dcd-3	8-12-58	-	55	-	87	22	48		265	36	111	-	1.8	491	308	91	25	1.2	802	7.5	GS
Near W144 *32bab-1	10-22-58	-	23	.01	109	32	42		223	75	164	-	3.5	559	404	221	18	.9	985	7.7	GS
Near W43 *32bdc-1[31]	1- 55	-	63	5/.60	83	15	54		32/224	87	113	.3	2.8	6/519	268	84	-	-	-	8.1	DH
	1-11-55	-	65	.12	67	27	39	10	218	88	116	.1	1.2	460	278	100	23	1.0	758	7.6	GS
W43 *32dcc-1	10-10-57	55	22	-	216	50	40		308	72	352	-	8.4	911	744	491	10	.6	1,760	7.1	GS
	8-12-58	55	34	-	212	47	66		309	142	325	-	7.1	985	722	469	16	1.1	1,700	7.7	GS
(C-3-2)																					
W32A *5aac-1	1- 45	-	61	.18	86	35	-	-	-	13	142	-	1.2	6/636	359	-	-	-	-	7.1	DH
W32C *5acb-1	1- 45	-	61	.13	83	32	-	-	-	21	134	-	2.4	6/719	338	-	-	-	-	7.8	DH
W32B *5adb-1	7- 46	-	25	-	89	1.4	101		-	21	144	-	-	6/686	230	-	-	-	-	8.3	DH
W26 *26ccc-1	8-12-58	54	33	-	205	53	78		366	261	220	-	19	1,050	728	428	19	1.3	1,640	7.8	GS
W185 *34dma-1[33]	5-20-55	-	24	.03	110	32	36	2.1	297	127	74	.0	1.5	553	406	162	16	.8	877	7.6	GS
W20 *35bdc-1	8-18-54	-	22	5/.04	229	37	63		316	128	329	.2	7.6	6/1,140	726	467	-	-	-	7.4	DH
	8-12-58	54	32	-	236	69	58		326	158	395	-	14	1,120	874	607	13	.9	1,940	7.6	GS
(4-1)																					
Near W183 *5aab-1	5-15-33	-	-	-	528	178	146		312	545	1,100	-	-	6/2,650	1,050	1,790	13	1.4	-	-	GS
	8-12-58	-	58	-	92	3.6	91		278	33	127	-	1.4	543	245	17	45	2.5	874	7.7	GS
Near W24 *6acb-1	10-10-57	58	22	-	85	22	130		248	203	120	-	2.3	706	302	99	48	3.3	851	7.1	GS
*6adc-1	8-12-58	58	56	-	68	19	58		234	59	84	-	.8	460	247	55	34	1.6	725	7.4	GS
Near W323 *10bdd-1[29]	8-28-58	-	19	.00	105	74	228		298	327	315	-	40	1,260	566	322	47	4.2	1,990	7.3	GS
*22bdd	7-30-58	70	24	-	65	23	32		250	40	57	-	.8	365	258	53	21	.9	639	7.6	GS
26cba	8-15-58	60	57	.09	89	28	72		296	91	110	-	1.8	595	337	94	32	1.7	954	7.2	GS
All Upgradient and South *27dcd	7-30-58	55	55	-	114	22	47		256	35	161	-	2.4	562	374	164	21	1.0	911	7.4	GS

1/ Dissolved solids are calculated from determined constituents except as noted.
2/ Analysis by: DH, Utah State Department of Health. KC, Kennecott Copper Corp. SU, Utah State University, Logan, Utah.
GS, U.S. Geological Survey. SL, City Chemist, Salt Lake City, Utah. UO, Utah Oil Refining Co.
3/ Analysis of 8-8-49 includes .06 ppm (parts per million) boron (B), and analysis of 9-22-49 includes .01 ppm boron (B) and .00 ppm manganese (Mn).
4/ Includes .16 ppm boron (B) and .76 ppm manganese (Mn).
5/ Iron (Fe) in solution at time of collection.
6/ Residue on evaporation.
7/ Dissolved solids does not include silica (SiO_2).
8/ Analysis of 8-27-57 includes .00 ppm manganese (Mn).
9/ Analysis of 8-7-57 includes .00 ppm manganese (Mn).
10/ Analysis includes .00 ppm manganese (Mn).
11/ Analysis includes .00 ppm manganese (Mn).
12/ Includes equivalent of 3 ppm carbonate (CO_3).
13/ Analysis of 5-6-54 includes .10 ppm boron (B) and .49 ppm manganese (Mn), and analysis of 7-23-57 includes .09 ppm boron (B) and .00 ppm manganese (Mn).
14/ Analysis of 6-30-52 includes .0 ppm lithium (Li).
15/ Includes equivalent of 14 ppm carbonate (CO_3).
16/ Analysis includes .07 ppm boron (B) and .00 ppm manganese (Mn).
17/ Both 1954 samples taken while well was being drilled; the 11-15-54 sample at well depth of 245 feet, and the 11-30-54 sample at well depth of 510 feet.
18/ Includes equivalent of 3 ppm carbonate (CO_3).
19/ Includes equivalent of 6 ppm carbonate (CO_3).
20/ Includes equivalent of 5 ppm carbonate (CO_3).
21/ Includes equivalent of 7 ppm carbonate (CO_3).
22/ Includes equivalent of 8 ppm carbonate (CO_3).
23/ Analysis includes .00 ppm manganese (Mn).
24/ Includes equivalent of 3 ppm carbonate (CO_3).
25/ Analysis of 8-6-57 includes .00 ppm manganese (Mn).
26/ Analysis of 8-17-55 includes .03 ppm boron (B) and .00 ppm manganese (Mn), and analysis of 9-1-55 includes .02 ppm boron (B).
27/ The first analysis is from sample collected when pump discharged 25 gpm (gallons per minute) and includes .40 ppm boron (B) and .86 ppm manganese (Mn). The second analysis is from sample collected when pump discharged 60 gpm and includes .41 ppm boron (B) and .86 ppm manganese (Mn).
28/ Samples of 1958 were collected while drilling the well at depth of 500, 600, 1,000, and 1,150 feet. Samples of 1959 were collected while developing the well after pumping the well for ½ hour at 500 gpm, 3 3/4 hours at 920 gpm, and 8 hours at 1,560 gpm.
29/ Part of the water of this sample is thought to originate from irrigation seepage from the Jordan River canal system.
30/ Water is from seep below Bingham evaporating ponds. Analysis includes acidity of 54 ppm as H_2SO_4 and density of 1.019.
31/ Analysis of 1-11-55 includes .08 ppm boron (B).
32/ Includes equivalent of 2 ppm carbonate (CO_3).
33/ Includes .02 ppm boron (B) and .10 ppm manganese (Mn).
34/ Includes equivalent of 10 ppm carbonate (CO_3).
35/ Includes equivalent of 21 ppm carbonate (CO_3).
36/ Analysis of 6-3-52 includes .08 ppm boron (B) and .00 ppm manganese (Mn).
37/ Includes equivalent of 1 ppm carbonate (CO_3).
38/ Includes equivalent of 8 ppm carbonate (CO_3).
39/ Analysis of 6-6-55 includes .62 ppm boron (B) and .30 ppm manganese (Mn), and analysis of 6-17-55 includes .71 ppm boron (B) and .22 ppm manganese (Mn).

Table B-4. Records of selected wells and springs in the Jordan Valley - Continued

	Well or spring number	Owner or user	Year drilled	Type of well	Depth of well (feet)	Diameter of well (inches)	Method of lift	Use of water	Altitude of land-surface datum (feet)	Water level: Above (+) or below (-) land-surface datum (feet)	Water level: Date of measurement	Temperature (°F)	Yield: Quantity (gpm)	Yield: Drawdown (feet)	Yield: Date of measurement	Remarks and other available data
		West Slope district - Continued														
	(C-4-1)															
Next W323	*10acb-1	Nichols	1949	D	16	48	Cy	D	4,380	- 10.5	12-23-57	-	-	-	-	B.
	10bdd-1	M. Lewis	1920	D	50	60	J	D	4,426.0	- 35.5 - 26.6	3-12-32 8-28-58	-	-	-	-	B, C.
All S. & Up-gradient	*22add	Camp Williams, Railroad Spring	-	S	-	-	-	P	4,460	-	-	70	30f	-	7- 58	C.
	*26cbm	Lower Beef Hollow Spring	-	S	-	-	-	N	4,580	-	-	60	30f	-	8- 58	C.
	*27dcd	Camp Williams, Upper Beef Hollow Spring	-	S	-	-	-	P	4,800	-	-	55	20f	-	7- 58	C.

FOOTNOTES

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

* Wells that have been sampled by Kennecott are designated by "W" and the site number. Those near a Kennecott sampled well are designated as such.