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Geothermal Resources of Utah

1980

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Geothermal data compiled under the direction of Peter J. Murphy of the Utah Geological and Mineral Survey/Department of Natural Resources. For additional information and data concerning thermal wells and springs of Utah see Goode,Harry D., 1978, Thermal waters of Utah: Utah Geological and Mineral Survey Report of Investigation No. 129.

Utah heat flow data were obtained from the following sources:

University of Utah: D.S. Chapman, J. Bodell, M.D. Clement, R. Darling and W.R. Sill.

U.S. Geological Survey: J.H. Sass, A.H. Lachenbruch, and R. Munroe.

Map available free of charge from Utah Geological and Mineral Survey, 606 Black Hawk Way, Salt Lake City, Utah 84108

Map produced by Albert E. Theberge, Jr., Lieutenant Commander, NOAA Corps, and Joy A. Ikelman, NCSDC/NOAA, Boulder, Colorado, in cooperation with Earth Science Laboratory/University of Utah Research Institute, Salt Lake City, Utah

Digital thermal well and spring data available from GEOTHERM Project, United States Geological Survey, 345 Middlefield Road, MS84 Menlo Park, California 94025

Base map supplied by United States Geological Survey

Geothermal data compiled by the

UTAH GEOLOGICAL AND MINERAL SURVEY

Map prepared by the
National Geophysical and Solar-Terrestrial Data Center
National Oceanic and Atmospheric Administration
for the
Division of Geothermal Energy
United States Department of Energy

Scale 1:500,000
1 centimeter = 5 Kilometers
1 inch = approximately 8 miles

10 0 10 20 30 40 50 Kilometers
10 0 10 20 30 40 Miles

Contour interval 500 feet
National geodetic vertical datum of 1929

1927 North American datum
Lambert conformal conic projection based on standard parallels 33° and 45°

Low-Temperature Geothermal Waters

Area of significant lateral extent favorable for discovery and development of local sources of low-temperature (< 90°C) water. Areas are defined on the basis of thermal springs, wells, and geohydrologic settings generally favorable for recovery of thermal water. *Existing knowledge does not in general permit the inference that thermal water may be found everywhere within the depicted areas, nor do the boundaries represent certain knowledge of the areal extent of the geothermal systems.*

Areas are modified from those defined in U.S. Geological Survey Circular 790. See Sammel, E.A., Occurrence of low-temperature geothermal waters in the United States, in Muffler, L.J.P., ed., 1979, Assessment of geothermal resources of the United States-1978: U.S. Geological Survey Circular 790

Thermal Springs and Wells

Thermal Springs
- Surface Temperature ≤ 50°C
- Surface Temperature > 50°C

Thermal Wells
- Surface Temperature ≤ 50°C
- Surface Temperature > 50°C

Temperature, °Celsius / Flow, liters/minute
Total Dissolved Solids, milligrams/liter / Depth, meters

Heat Flow

▲84 Heat flow measurement in milliwatts/meter².
1 Heat Flow Unit (HFU) = 41.87 milliwatts/meter².

- Known Geothermal Resources Area (KGRA) as designated by the U.S. Department of the Interior. Name of KGRA in red lettering.
- Indian Reservation
- Military Reservation
- National or State Forest
- National Park, National Monument, National Wilderness Areas, National Wildlife Refuge, National Scenic Area, State Wildlife Refuge, or State Park

Private land may exist within federal boundaries

POPULATION KEY

SALT LAKE CITY	more than 100,000
PROVO	25,000 to 100,000
Tooele	5,000 to 25,000
Nephi	2,500 to 5,000
Beaver	less than 2,500

Population indicated by size of letters

- State capital
- County seat
- City, town, village, or locality
- Scheduled service airport
- Built-up area shown for towns over 5,000 population
- Interstate highway
- U. S. highway
- State highway
- Other principal roads

INDIAN COVE
The Indian Cove oil test, drilled by Amoco Production Company in late 1976, encountered higher than expected temperatures (a bottom hole temperature of 214°C) to depths of over 3660 m (12,000 ft). Three other oil tests drilled to the north and northwest did not encounter elevated temperatures.

HILL AIR FORCE BASE
A geothermal exploration program, funded by the Department of Energy Division of Geothermal Energy was conducted in the vicinity of Hill Air Force Base. A 305 m (1,000 ft) test hole drilled on the base in late 1979 had a bottom hole temperature of 40°C (104°F). The Air Force is investigating the use of ground water as a heat source.

UTAH ROSES, INC.
The growing greenhouse facility is currently the site of a heat demonstration project jointly funded by Utah Roses, Inc. and the U.S. Department of Energy Division of Geothermal Energy. The production hole drilled in late 1979 now supply thermal water for space heating the equivalent of seventeen acres of greenhouses.

CRYSTAL HOT SPRINGS
The geothermal system at Crystal Hot Springs is being developed by two users. A field demonstration project jointly funded by the State of Utah and the U.S. Department of Energy Division of Geothermal Energy is investigating prospects of heating the minimum security section of the Utah State Prison. The geothermal heating system may be expanded to the prison facilities are modernized. The immediate vicinity of the springs, Utah Roses, Inc. of Sandy contains a 915 m (3,000 ft) well that produces a 600 L/min (150 gpm) flow of 85°C (185°F) water. Water from this well will be used to heat the initial phase of a large greenhouse complex.

ROOSEVELT HOT SPRINGS
This major geothermal discovery is being developed for electric power generation. Surface manifestations of this geothermal system include zones of hydrothermal alteration, opaline and chalcedonic sinter deposits, and thermal springs that flowed as recently as 1957. At depth, the reservoir consists of faulted and fractured intrusive and metamorphic rocks in which temperatures as great as 265°C (509°F) have been measured. Seven of the eleven deep holes drilled in the KGRA have encountered geothermal fluids. The holes range in depth from 686 to 2290m (2,250 to 7,510 ft). The reservoir is water dominated although 20% of the fluid flashes to steam when brought to the surface. Current plans for resource development call for the installation of a 20-megawatt electric generating unit and future additional 55-megawatt units.

COVE FORT-SULPHURDALE
Surface manifestations of this geothermal system consist of numerous hydrothermally altered areas, opaline and calcite deposits, and recently altered ground near the crest of an elongate, north-trending ridge. Thermal springs are absent, because the water table is approximately 400 m (1,300 ft) below the surface. The reservoir consists primarily of fractured Tertiary rhyolites, quartzites, and intrusive igneous rocks. Geothermal test drilling has proved a reservoir temperature of 275°C (545°F). The heat source may be related to recent basaltic volcanism.

MONROE
The City of Monroe and the Department of Energy Division of Geothermal Energy jointly funded geothermal exploration in Monroe in 1979 a production well was drilled near the Monroe Hot Spring found to a depth of 1,430 m (4,690 ft). A pump test on the hole demonstrated that 2,500 L/min (600 gpm) of 75°C (167°F) water can be obtained. However, at high well flow rates, the flow rates of the springs at Monroe Hot Springs diminish and the temperature of the springs is reduced.

COLORADO PLATEAU
In general, the potential for the development of geothermal resources in the Colorado Plateau province is limited. The low rate of heat from the interior of the Earth is very low here in the Colorado Plateau area. Topographic and geologic and structural conditions in the plateau region are not conducive to the deep circulation of meteoric water. A number of springs with low flows and slightly warm temperatures are not shown on this map because the springs are presumed to be warmed by the sun and not the Earth. Future investigations may reveal the presence of resources suitable for certain low temperature applications.

ASHLEY VALLEY OIL FIELD
Twenty-eight oil wells, with an average depth of 1280 meters, produced over 3.8 billion liters (1.4 billion gallons) of thermal water during 1977. The temperature of the water ranges from 45 to 56°C, so the water has a very low potential for geothermal energy (500 mgh). Water production from the field is increasing as oil production declines. To date as is known, this water is not used for its thermal value.

BEAVER COUNTY

1 W	UNION OIL 42-7	C 26 06 7BAD	178°		2232
2 W	UNION OIL 31-33	C 26 06 33AA	178°		
3 W	PHILLIPS PETROLEUM 32-33	C 26 06 33AD	177°		1838
4 W	PHILLIPS PETROLEUM 13-35	C 26 06 35BC	226°		2253
5 S	ROOSEVELT HOT SPRINGS	C 26 09 34DB	265°	7800	
6 W	PHILLIPS PETROLEUM 34-3	C 27 09 3ACC	260°	6642	879
7 W	PHILLIPS PETROLEUM 14-3	C 27 09 3ACD	222°	5067	832
8 W	THERMAL POWER 14-7	C 27 09 7BCC	204°		1863
9 W	THERMAL POWER 23-9-1	C 27 09 9DAA	204°		1863
10 W	PHILLIPS PETROLEUM 13-10	C 27 09 10BCB	193°C		1632
11 W	PHILLIPS POWER 72-16	C 27 09 16AAC	222°		382
12 W	PHILLIPS PETROLEUM 25-15	C 27 09 15DDB	193°C		2287
13 W	WELTMAN LAND & LIVESTOCK	103 C 27 10 32CB	22° 2915	316	213
14 W	CLUNKER	103 C 26 09 34CB	20° 1524		87
15 W	PROVINCE OF THE HOLY NAME	103 C 26 11 12ADB	23° 2234	561	134
16 W	ROBERTS, ALTON	103 C 26 11 12DDB	23° 2134	561	134
17 W	HANSEN LAND & LIVESTOCK	103 C 26 11 18BBA	22°	234	78
18 W	JOHN FORGIE	103 C 26 10 18AB	26°	95	109
19 W	T.E. WALKER	103 C 26 10 18BB	25°	213	211
20 W	EARTH SCIENCES INC.	103 C 26 11 11ABB	25°	586	449
21 W	GREENVILLE WARD	103 C 26 11 23DDA	23°	274	
22 W	GREENVILLE WARD LDS CHURCH	103 C 26 11 24CCB	23°	294	104
23 W	S.B. BARTON	145 C 29 08 36AAB	29°	26	96
24 S	DOTSONS (RADIUM) WARM SPRING	145 C 30 09 30BCB	19°C		1030
25 W	WEB CRAW	103 C 30 10 18ABD	21°	3785	309
26 S	US BLM	103 C 30 08 19DDC	19°		1020
27 S	THERMO HOT SPRINGS	103 C 30 12 21ADD	89°	41	1500
28 S	THERMO HOT SPRINGS	103 C 30 12 21BAA	89°	41	1500
29 W	US BLM	103 C 30 11 22DDC	29°	55	50
30 S	WILLOW SPRING	103 C 30 09 31DAA	22°	475	

BOX ELDER COUNTY

1 W	J.E. LEE	8 B 15 09 29CBB	29°	8958	2640 122
2 W	ETHEL TAYLOR	96 B 15 09 30CC	29°	8706	432 124
3 W	R.W. TOLMAN	96 B 15 09 36CCC	22°		938 107
4 W	C. TAYLOR	96 B 16 08 6BAB	22°		1220
5 W	DELORES STOKES	146 B 14 06 9AAB	21°		870 125
6 W	CITY OF PLYMOUTH	92 B 13 05 31DAC	29°	197	183
7 S	COYOTE SPRING	96 B 14 10 35BCC	43°	76	5240
8 S	HEAD SPRING	96 B 14 10 35CCC	43°	76	5240
9 W	CRYSTAL HOT SPRINGS	92 B 13 04 26DDA	29°	17715	2010
10 S	BLUE CREEK SPRING	146 B 13 05 29BCC	28°	17715	2010
11 S	PUGSLEY	158 B 13 05 31ADC	29°		514
12 S	HEAD SPRING	158 B 13 06 23CCD	21°	56	240
13 S	CLAUSEN SPRINGS	158 B 13 06 24CCC	21°	19	274
14 S	LARSON SPRINGS	158 B 13 13 27DDD	21°		795
15 S	L.S. CARTER	158 B 13 13 34AAA	21°		123
16 S	W.B. CARTER SPRINGS	158 B 13 13 34ADA	21°		
17 S	WARM SPRING	158 B 12 15 19AAB	27°	1287	223
18 S	ROTHWELL WARM SPRINGS	158 B 11 09 2	24°	6505	2000
19 S	SPRING (HOT)	106 B 11 19 11DAD	42°	852	248
20 S	CRYSTAL (HARDEN) HOT SPRINGS	92 B 11 05 2BDA	29°	69048	47500
21 W	JEFFERSON	92 B 10 04 6CCA	22°		85
22 W	JEFFERSON	92 B 10 04 6CCB	22°		10800 155
23 W	MIDDLEMAKE SERVICE	159 B 10 05 18DDB	21°	91	2120
24 S	WARM SPRING	158 B 10 05 8CDB	29°	1461	501
25 W	DAVID T	92 B 10 05 3DAC	29°	55	8500 3354
26 S	LITTLE MOUNTAIN HOT SPRING	92 B 10 04 28CCC	42°	1701	37000
27 S	SULPHURDALE	92 B 10 05 25CCC	42°	1701	19
28 S	STANLEY WARM SPRINGS	92 B 10 05 36BBB	29°	120	38600
29 S	KIMBER (ROSS) SPRING	106 B 10 10 18BAD	29°	814	304
30 W	L. SANDERSON	106 B 10 10 18BBB	29°	76	91
31 W	B.C. KIMBER	106 B 10 10 18BBA	29°	6277	28
32 W	CHESAPEAKE DUCK CLUB	92 B 09 05 29CBA	19°	151	5592 153
33 S	POULSEN SPRING (SALT)	159 B 08 05 5CDC	22°	833	3750
34 S	WILSON SPRING	159 B 08 05 8CCC	22°	1173	24900 214
35 S	UNNAMED	159 B 08 05 8CDA	22°	1173	24900
36 W	K.G. PENTON	98 B 07 02 16DCD	29°	159	221 358
37 W	ARGOO INDIAN COVE	98 B 07 07 23	214°		3797
38 S	COMPTON SPRING	159 B 06 05 21AAC	22°	159	1520
39 W	L.W. KELLER CORP. WELL#2	171 B 05 13 31ACD	29°		8050 61

CACHE COUNTY

1 S	GANSCHEFF SPRING	147 B 14 01 35ACA	31°		4380
2 W	N. BROWN	147 B 13 01 36DAD	49°	97	3380 1502
3 W	W.W. TOOMBS	147 B 13 01 25BAB	29°	1156	720 449
4 W	N.B. SIMMONS	147 B 13 01 25CDD	29°	163	283
5 W	H.G. CRONQUIST	147 B 12 01 28CD	22°	91	1010 233
6 W	J.L. NUTTALL	147 B 12 01 18DCD	21°	61	162
7 W	CHAS. TAYLOR	147 B 12 01 18CAA	21°	136	76
8 W	C. WENNERGREN	147 B 12 01 19CBA	29°		91
9 W	G.M. PETERSON	147 A 12 01 25DDC	29°	42	61
10 W	STATE LAND	147 A 12 01 25DDC	29°	568	61
11 W	F.V. STETLER	147 A 12 01 27AAB	29°	61	60
12 W	LOGANA FLUNGE	147 A 12 01 28BAA	29°		61
13 W	GOSSNER CHEESE	147 A 12 01 29ACC	29°	2082	33

DAVIS COUNTY

1 S	HOOPER HOT SPRINGS	97 B 05 03 25CBD	69°	9510	
2 W	HILL AFB NO. 1	97 B 05 03 26BAA	29°	3839	9510 191
3 W	HILL AFB NO. 5	97 B 04 01 6DCD	22°	3394	272 245
4 W	GSL AUTHORITY	97 B 04 01 7BAA	29°	1060	758 167
5 W	C.D. SMITH	97 B 03 01 5DAA	29°	1136	195 280
6 W	C.D. SMITH	97 B 03 01 5DAB	29°		195 280
7 W	UNNAMED	97 B 03 01 16ABB	29°	282	195
8 W	CEN. DAVIS CO.	97 B 03 01 18BAC	29°	95	267 300
9 W	WHEELER MACH. CO.	97 B 03 01 21ADA	29°	144	250 305
10 W	FARMINGTON BAY REFUGE	97 B 03 01 30ABA	19°		773 372
11 W	F. THALMANN	97 B 02 01 26CDD	29°	8317	2200 150

DUCHESNE COUNTY

1 S	WARM SPRINGS	130 UB 05 08AADB	29°	757	454

EMERY COUNTY

1 W	ROADSIDE GEYSER	150 D 18 14 8DCD	29°	4710	55

GARFIELD COUNTY

1 S	LEFEVRE	124 C 31 05 17AC	32°	57	
2 S	TEBBS	124 C 31 05 18CDD	32°	1060	218
3 W	SHITTAMARING MINE	150 D 31 11 16CDD	29°	132	305 171
4 W	SHITTAMARING MINE	151 D 31 11 9AAA	29°	284	250 305

IRON COUNTY

1 S	BIG MAPLE SPRING	105 C 31 09 3CBA	22°	268	
2 W	BUCKHORN CORP.	156 C 32 08 1BAC	29°	13211	210 134
3 W	DR ARMAND 3	102 C 34 15 6DCD	149°	3785	2134
4 W	COLUMBIA IRON MINING CO.	102 C 36 15 6DCD	29°	3501	72
5 S	TULIP	102 C 36 15 6DDC	29°		1040
6 W	V. PICKENS	102 C 36 15 8BBB	29°	3596	122
7 W	CHRISTENSEN BROS.	102 C 36 15 18BBD	98°	6435	1120 152
8 W	G. VANDENBURGE	156 C 37 12 12AAA	29°		408 111

JUAB COUNTY

1 S	NORTH SPRINGS	121 C 11 14 3DDB	28°		80
2 S	FISH SPRINGS	121 C 11 14 10AAA	28°	1820	14
3 S	FAN LAKE SPRING	153 C 11 14 20BAA	28°	5	962
4 W	FUMAROLE BUTTE	156 C 16 09 1DAC	29°		
5 S	BAKER (ABRAHAM, CRATER) HOT S.	120 C 16 08 6DDA	82°	946	3630

KANE COUNTY

1 S	RED CANYON	168 C 42 06 9BBD	22°	57	

MILLARD COUNTY

1 W	DIMAD IRR. CO.	120 C 15 05 35DCB	22°	11113	308 251
2 S	CANADY WARM SPRINGS	163 C 15 07 31DAA	22°	19284	198
3 W	L.C. FECK	120 C 16 08 12DDD	29°	4549	363 291
4 S	UNNAMED SPRING	163 C 16 08 9CD	29°	3585	
5 W	DIMAD IRR. CO.	120 C 16 05 3ACAA	29°	12113	209 285
6 W	DIMAD IRR. CO.	120 C 16 05 3ACAB	29°	12113	209
7 W	J.F. LUNDELL	120 C 16 05 3ADC	29°	5186	262 261
8 W	DIMAD IRR. CO.	120 C 16 05 9ACBD	29°	3511	208 253
9 S	TWIN SPRINGS	163 C 16 08 22CAB	29°	6614	
10 W	GOLDEN HARVEST IRR. COMPANY	120 C 16 08 26BDB	29°	5262	607 257
11 S	SPRING	161 C 16 15 2ACAB	29°		
12 W	TOWN OF DELTA	120 C 17 07 1DDD	29°	2233	277 264
13 W	R.M. ANDERSON	120 C 17 06 11AAA	29°		227 251
14 W	R.M. AND J.F. GARDNER	120 C 17 06 13AAA	29°	7511	230 256
15 W	D.D. MOODY	120 C 17 06 18BDA	29°		292 250
16 S	SOUTH TULE SPRING	163 C 17 15 5ABC	29°		
17 W	T. LARSEN	120 C 17 06 21BDB	21°	54	128
18 W	D. CRAFTS	120 C 17 07 22AAB	29°		137
19 W	L.B. ELLSWORTH	120 C 17 06 26ADA	24°	4353	339 219
20 W	P. THEOBALD	120 C 17 06 28ACB	29°	6019	373
21 S	UNNAMED SPRING	163 C 17 15 29BCB	29°		
22 W	C.M. ROSS	120 C 17 06 32ABD	29°	757	13
23 W	C.K. ROSS	120 C 17 06 33BCC	29°	8	110
24 W	G.M. PETERSON	120 C 17 07 36CBD	22°	19	461 182
25 W	UNION PACIFIC	120 C 18 05 4BAA	29°	568	61 834 147
26 S	KSOLL SPRINGS	163 C 18 18 16ABB	20°	11	
27 W	W. ROBISON	120 C 18 06 34ADA	29°	2250	183
28 W	J.D. HILL	120 C 18 07 3BDD	22°	284	173
29 W	J.D. HILL	120 C 18 19 26BBB	22°		195
30 W	FRANK BADGER	115 C 19 03 1CCB	29°	303	91
31 W	U.S.R.L.M.	115 C 19 05 31CBD	30°	16	114
32 W	E.V. WILSON	115 C 19 05 31DAA	29°	95	128
33 W	NEELS BR WELL	115 C 20 08 29AAD	HOT	984	3336 421
34 W	G.R. MCBRIDE	115 C 20 08 31DDA	29°	1136	4570
35 W	CHRISTENSEN BROS.	115 C 20 09 4BBB	29°	45	167
36 W	D.D. MOODY	115 C 21 06 9CAD	21°	6056	161
37 W	UTLEY AND STARLEY	115 C 21 06 18ABA	29°	6435	274
38 S	UNNAMED SPRING	115 C 22 06 2BCB	29°		195
39 S	MEADOW HOT SPRINGS	115 C 22 09 27DDC	41°	4900	259
40 S	HATTON HOT SPRING	115 C 22 08 9DDC	38°	4650	
41 S	UNNAMED	115 C 23 09 15BDA	29°		27
42 S	COYOTE SPRING	115 C 23 09 15BDD	29°		
43 S	SPRINGS	115 C 24 09 4BAA	29°		305
44 W	GRADIENT HOLE	10 C 25 07 1CC	43°		122
45 W	GRADIENT HOLE	10 C 25 07 1DD	43°		122
46 W	GRADIENT HOLE	10 C 25 08 30AD	HOT		1220
47 W	FORMINCOFH	10 C 25 08 29BCC	93°		665
48 W	UNION OIL 31-33	10 C 25 08 33DDA	29°		10000 1835

MORGAN COUNTY

1 S	COMO SPRINGS	171 A 04 01 31CAB	22°	34068	648

SALT LAKE COUNTY

1 W	LAKEFRONT GUN CLUB	107 B 02 02 35CDC	22°	132	492
2 W	R.L. BYTNE	95 C 02 04 18ACC	29°		1005 165
3 W	D.H. BLAIR	95 C 02 04 30BCD	29°	43	915 96
4 W	CUTLER, GILLMORE	95 C 02 04 31CCC	29°	1080	1080
5 S	BECKS HOT SPRING	95 C 02 05 19ADB	42°		13900
6 W	E.J. JERMEY	164 C 02 06 16AAD	29°	1516	25800
7 W	BONNEVILLE-ON-THE HILL	108 B 01 02 19CBA	88°	106	635 183
8 W	BONNEVILLE-ON-THE HILL	108 B 01 02 27CCA	29°	110	4600 188
9 W	BONNEVILLE-ON-THE HILL	108 B 01 02 28CCC	29°		4600
10 S	WASATCH HOT SPRINGS	108 B 01 02 30BBD	42°		7395
11 W	E.J. JERMEY	108 B 01 02 36BAA	29°	16	6110 141
12 W	MOUNTAIN SALT CO.	108 B 01 03 36CCC	29°	129	1800 235
13 W	BONNEVILLE-ON-THE HILL	108 B 01 03 3ADA	29°	12	902 152
14 W	BONNEVILLE-ON-THE HILL	108 B 01 03 3BDD	21°	5	746 170
15 W	BONNEVILLE-ON-THE HILL	108 B 01 03 3DDA	29°	76	3440 138
16 W	F.G. KLEIN	108 B 01 03 4BBB	29°	170	3380 137
17 W	KENNECOTT COPPER	108 B 01 03 10ACA	29°	13400	10900 235
18 W	S.A. SUDBURY	108 B 01 03 10DDD	21°	7	746 170
19 W	F.G. KLEIN	108 B 01 03 15AAA	29°	170	3380 137
20 W	M. SCHMIDT	108 B 01 03 19BAC	26°		609 32
21 W	GREAT SALT LAKE MINERALS	108 B 01 03 20CCC	29°	5299	393 275
22 W	KENNECOTT COPPER	108 B 01 04 19CAA	29°		1900 396
23 W	KENNECOTT COPPER	108 B 01 04 19CAB	29°	11810	1550 396
24 W	D.W. YOUNG	108 B 01 04 29CDD	29°	227	1140 41
25 W	GRANGER-HUNTER IMPROVEMENT DIST.	107 C 01 01 27DDA	21°	1616	470 236
26 W	S.L. CO. WATER CONSERV. DIST.	107 C 01 01 35CAA	21°	1476	372 228
27 W	H.A. TOWERS	107 C 01 01 7DCD	20°	369	148
28 W	GRANGER SPRING	107 C 01 01 8CAA	29°	3776	98 260
29 W	S.L. CO. WATER CONSERV. DIST.	107 C 01 01 9CAB	29°	3776	343 244
30 W	A.W. HARRISON	107 C 03 01 12CCB	21°	35	578 36
31 W	SANDY CITY CORP.	107 C 03 01 13DAB	29°	6845	1560 351
32 W	BARROS INC.	107 C 03 01 20BAA	24°	1321	173
33 S	EAST JORDAN CANAL	107 C 03 01 23BCC	29°		393
34 W	DRAPER IRRIGATION	107 C 03 01 29CBC	26°	1325	686 84
35 W	DRAPER IRR. CO.	107 C 03 01 32BAA	29°	1325	686 84
36 W	C.L. HOLLIDAY	107 C 03 01 33BD	29°	227	251
37 W	UTAH ROSES 1 RUFFDALE	107 C 04 01 12BCB	88°	568	125
38 S	CAMP WILLIAMS	107 C 04 01 22ADD	29°	114	365

SAN JUAN COUNTY

1 S	WARM SPRING	193 D 41 16 34 MDCC	26°	189	1860
2 W	NATIONAL PARK SERVICE	21 S 39 26 21BDB	21°	110	1070 434
3 W	ELEFFY (ER. CO.	21 S 40 22 30BEB	29°	85	387 346

SANPETE COUNTY

1 S	LIVINGSTON WARM SPRINGS	128 D 18 02 15CAD	23°	1478	587
2 S	STERLING (PEACOCK) WARM SPRING	128 D 19 02 6DCA	22°	1618	466

SEVIER COUNTY

1 S	SALT SPRING	75 C 23 01 32B	22°		
2 S	RICHFIELD WARM SPRINGS	125 C 25 01 20ACA	29°	2650	307
3 S	RED HILL HOT SPRING	125 C 25 01 21ACC	75°	151	3630
4 S	MONROE (COOPER) HOT SPRINGS	125 C 25 01 35DDA	29°	151	2860
5 W	MRC	C 25 01 35AA	29°	1154	457
6 W	RENA MECHAM	125 C 25 04 13CBC	20°	79	22
7 S	JOSEPH HOT SPRINGS	125 C 25 04 23CBA	29°	376	6970
8 S	JOHNSON WARM SPRING	125 C 25 05 27ABA	29°	56	628

SUMMIT COUNTY

1 S	UNNAMED SPRING	106 D 01 04 35AAA	21°	189	

TOOELE COUNTY

1 W	BERTAGNOLE	161 B 05 08 26CDD	29°	151	3070 66
2 W	BONNEVILLE LTD.#8	95 B 05 08 28CCC	29°	95	6260 51
3 W	BLM (RADER WELL PW28)	95 B 05 08 31ACC	29°	568	90
4 W	BONNEVILLE LTD.#13	95 C 01 01 3ADB	29°	95	5700 69
5 W	BONNEVILLE LTD.	95 C 01 01 3BAA	29°	95	69
6 W	C. HAMMOND	95 C 01 01 4ADD	HOT		36 20
7 W	BONNEVILLE LTD. # 5	95 C 01 01 9DC	93°		665 66
8 S	EG WARM SPRINGS	95 C 01 01 14BV	29°	13627	
9 S	UNNAMED	161 C 01 07 19EDB	29°	114	
10 W	BONNEVILLE LTD. DRW 13	95 C 01 11 1BBB	29°	95	456
11 S	UNNAMED SPRING	161 C 01 07 23ACC	29°		
12 W	BONNEVILLE LTD. DRW 7	95 C 01 11 34BDC	29°	6807	319
13 W	KAISER DRW 5	95 C 02 10 3BCD	30°	6542	433
14 W	BLM (KAISER #5)	95 C 02 17 4AAC	21°	16	196000 6
15 W	KAISER DRW 8	95 C 02 10 3BDD	29°		196000 526
16 W	KENNECOTT COPPER	164 C 02 06 9CDA	30°		2760 209
17 W	BONNEVILLE LTD. DRW 1	95 C 02 11 14ADB	29°	6349	1980
18 W	BONNEVILLE LTD. DRW 3	95 C 02 11 14BAA	29°		19900
19 S	GRANTSVILLE WARM SPRINGS	164 C 02 06 16AAD	29°	1516	25800
20 W	BONNEVILLE LTD. DRW 2	95 C 02 11 19CBA	88°	106	635 183
21 W	J.R. WORTHINGTON	164 C 02 06 23CBB	29°	1136	774 64
22 S	UNNAMED SPRING	164 C 02 06 24CCC	29°	76	3490
23 S	HORSESHOE SPRINGS	164 C 02 06 36CAB	29°		7395
24 W	KENNECOTT COPPER	164 C 02 07 19CAA	29°	6824	5080
25 S	DESERET LIVESTOCK SOUTH SPRINGS	164 C 03 04 12CAA	29°	1230	418 218
26 S	DESERET LIVESTOCK	164 C 03 04 12CAB	29°	58	137
27 W	TOOELE CITY	164 C 03 04 12DCC	29°	1230	418 218
28 S	BLUE LAKE SPRING	164 C 03 04 13BAA	29°		365
29 S	NEVADA WARM SPRING	164 C 03 04 13BAB	29°	13400	10900 235
30 S	BONNEVILLE SPRINGS	164 C 05 05 19AAA	29°	1703	645
31 S	DAVIS 1	164 C 05 05 33ABA	29°	170	3380 137
32 W	C 10 14 33	63 144	21800		

UINTAH COUNTY

1 S	SPLIT MTN. WARM SPRING	130 D 23 04 16CDD	30°	10220	942
2 W	PAN-AM PETROL.ER1	129 D 05 22 23CCA	49°	341	1210 1304
3 W	HOLLANDSWORTH & TRAVIS	129 D 05 23 24ADA	56°	15	1960 1259
4 W	PAN AM PETROL.	129 D 05 23 28BBB	49°	757	1580 1000
5 W	MRC	129 D 05 23 33CCC	29°	757	1995 1457
6 W	SHELL-OLAF STATE	130 D 08 20 36BAA	58°		1457
7 W	WYSCO TEST HOLE	130 D 09 20 36DDC	28°		72700 720
8 W	U.S.R.L.M.	130 D 11 14 4DDC	28°	189	1150 1814

WASATCH COUNTY

1 W	V.V. STAKE LDS CHURCH	135 C 05 01 20CCD	29°	1060	27
2 W	F. EASTMOND	135 C 05 01 29CCC	46°	473	1506 32
3 S	CRATER HOT SPRING	135 C 05 01 29BD	64°		
4 S	SARATOGA HOT SPRINGS	135 C 05 01 29AAB	29°		
5 S	FAULT ZONE SPRING	135 C 06 01 1AAB	32°		1668
6 W	U.S. STEEL	133 D 06 02 5ACC	21°	7571	157 324
7 W	U.S. STEEL	133 D 06 02 8BCD	21°	8328	141 293
8 W	COOPERATIVE SECURITY CORP.	157 C 06 01 18DCA	29°		45 421