PREPARED IN COOPERATION WITH THE
U.S. DEPARTMENT OF THE ARMY

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CONVERSION FACTORS, VERTICAL DATUM, AND ABBREVIATED WATER-QUALITY UNITS

Multiply	By	To obtain
acre-foot (acre-ft)	1,233	cubic meter
foot (ft)	0.3048	meter
foot per day (ft/d)	0.3048	meter per day
foot per foot (ft/ft)	1	meter per meter
square mi (mi^2)	2.59	square kilometer

Discharge is the volume of fluid that moves past a reference point per specified time interval and is reported in units of cubic feet per second (ft^3/s). One ft^3/s is equivalent to 1.9835 acre-feet per day.

Water temperature is reported in degrees Celsius (°C) and can be converted to degrees Fahrenheit (°F) by using the following equation:

$$°F = 1.8\ (°C) + 32.$$

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

Specific conductance is reported in microsiemens per centimeter at 25 degrees Celsius (µS/cm).

Chemical concentration and water temperature are reported only in metric units. Chemical concentration in water is reported in milligrams per liter (mg/L) or micrograms per liter (µg/L). Milligrams per liter is a unit expressing the solute per unit volume (liter) of water and is about the same as parts per million unless concentrations are greater than 7,000 milligrams per liter. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Table 2. Records of selected springs and other surface-water sites, Dugway Proving Ground and adjoining area, Utah

[—, no data]

Location: See figure 2 for an explanation of the numbering system used for hydrologic-data sites in Utah.
Use of water: S, stock; H, campground.
Formation: Source of water to spring; TE, extrusive igneous rocks; PCG, intrusive igneous rock; PZQ, quartzite rock; ALVM alluvium; PCU, quartzite and metasedimentary rocks.
Remarks: C, chemical analyses listed in table 4.

Location	Owner	Name of spring or site	Use of water	Formation	Altitude of land surface (feet)	Remarks
		Spring				
(C-5-10)34cba-S1	US Army	Cane Spring Group	S	TE	5,780	C
(C-8-13)3dad-S1	US Army	Stagecoach Canyon Spring	S	PCG	4,870	C
(C-9-7)11cdd-S1	US Forest Service	Copper Spring	S	PZQ	6,560	C
(C-9-7)28bca-S1	—	—	S	ALVM	5,700	C
(C-9-7)28cac-S1	—	—	—	ALVM	5,770	C
(C-9-7)31dbb-S1	Bureau of Land Management	—	S	TE	6,310	C
(C-9-7)35b-S	Wright Ranch	—	S	ALVM	6,200	C
(C-9-8)15dbc-S1	Bureau of Land Management	Winter Spring Group	S	PCU	6,000	C
(C-9-8)15dbd-S1	Bureau of Land Management	Winter Spring Group	S	PCU	6,030	C
(C-9-8)18adb-S1	Bureau of Land Management	Simpson Spring	H	PZQ	5,070	C
(C-9-8)18adc-S1	Bureau of Land Management	Simpson Spring	H	PZQ	5,100	C
(C-9-8)34dcd-S1	Bureau of Land Management	Indian Spring Group	S	PZC	6,540	C
(C-10-7)5-S	Bureau of Land Management	—	S	TE	6,300	C
(C-10-7)8cac-S1	Bureau of Land Management	Cherry Spring	S	TE	6,490	C
(C-10-7)8cad-S1	Bureau of Land Management	Cherry Spring	S	TE	6,460	C
(C-10-7)17a-S	Bureau of Land Management	—	S	TE	6,400	C
(C-10-7)17bab-S1	Bureau of Land Management	—	S	TE	6,555	C
(C-10-8)2dba-S1	State of Utah	—	S	PZC	6,900	C
(C-10-8)4abb-S1	Bureau of Land Management	Indian Spring Group	S	PZC	6,050	C
(C-10-8)20aca-S1	Bureau of Land Management	Burnt Spring	S	PCU	5,700	C
(C-10-8)23cdc-S1	—	—	S	PCU	6,620	C
(C-10-8)26cbc-S1	—	—	S	PCU	6,240	C
(C-10-8)28cbb-S1	Bureau of Land Management	—	S	PCU	5,800	C
(C-10-8)33bbb-S1	Bureau of Land Management	Six Mile Spring	S	PCU	5,760	C
(C-10-8)34add-S1	—	Spring pond outflow	S	PCU	5,940	C
(C-11-8)12bab-S1	Bureau of Land Management	Antelope Spring	S	PCU	5,540	C
(C-11-8)12bab-S2	Bureau of Land Management	Antelope Spring	S	PCU	5,515	C
(C-11-8)12bac-S1	Bureau of Land Management	—	S	PCU	5,540	C
(C-11-10)34dcd-S1	Bureau of Land Management	Flint Spring	S	TE	5,250	C
(C-12-9)8bbc-S1	Bureau of Land Management	Keg Spring	S	TE	5,790	C
		Surface-water sites				
(C-9-7)28bca	—	Government Creek	—	—	—	C
(C-9-9)28dac	—	South Simpson Reservoir	S	—	4,510	C
(C-9-10)21ddb	—	Unnamed reservoir	S	—	4,368	C
(C-10-8)35cad	—	Unnamed surface-water site	—	—	6,180	C
(C-10-10)23cab	—	N. Table Mountain Reservoir	S	—	4,510	C
(C-11-10)5abb	—	East Dugway Reservoir	S	—	4,540	C

Table 3. Comparison of average horizontal hydraulic conductivity and lithologic descriptions for basin-fill deposits of the northern Milford area and Dugway Proving Ground, Utah

[K, hydraulic conductivity; —, no data]

Mower and Cordova (1974)		Ageiss Environmental (1998) and Parsons Engineering Science (1996)	
K, in feet per day	General description	K, in feet per day	Descriptions
1	Clay or silt or combination	1.4 to 2.4	Sandy silt, and silty clay; Clay, silt; Silts, clay, and silty clayey sands;
3	Hardpan and cemented material	—	Description not used in reports
3	Sand and clay	3.1 to 8.9	Clay, silt, sand; Silty clay; Clayey sands, clayey gravels, silt; Silts and clays with sand present; Gravels; Clay and sand layers; Silt, sand; Clay, minor amount of sand;
10	Sand, clay, and gravel	14	Lacustrine sand, silty sand, gravel;
25	Sand	23 to 40	Sand, gravel, small pebbles; Sand;
100	Sand and gravel	65	Sand and gravel

Table 5. Volatile and semivolatile organic compounds and explosive compounds analyzed for in water from selected wells and springs, Dugway Proving Ground and adjoining area, Utah, 1998-99

Volatile compounds		
Acetone	Benzene	Bromodichloromethane
Bromoform	Bromomethane	2-Butanone (MEK)
Carbon disulfide	Carbon tetrachloride	Chlorobenzene
Chloroethane	Chloroform	Chloromethane
Dibromochloromethane	1,1-Dichloroethane	1,2,-Dichloroethane
1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
1,2-Dichloroethene (total)	1,2-Dichloropropane	cis-1,3-Dichloropropene
trans-1,3-Dichloropropene	Ethylbenzene	2-Hexanone
Methylene chloride	4-Methyl-2-pentanone	Styrene
1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene
1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Vinyl chloride	Xylenes (total)	
Semivolatile compounds		
Acenaphthene	Acenaphthylene	Anthracene
Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene
Benzo(ghi)perylene	Benzo(a)pyrene	bis(2-Chloroethoxy)methane
bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	4-Bromophenyl phenyl ether
Butyl benzyl phthalate	Carbazole	4-Chloroaniline
4-Chloro-3-methylphenol	2-Chloronaphthalene	2-Chlorophenol
4-Chlorophenyl phenyl ether	Chrysene	Dibenz(a,h)anthracene
Dibenzofuran	Di-n-butyl phthalate	1,2-Dichlorobenzene
1,3-Dichlorobenzene	1,4-Dichlorobenzene	3,3'-Dichlorobenzidine
2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol
Dimethyl phthalate	Di-n-octyl phthalate	4,6-Dinitro-2-methylphenol
2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene
Fluoranthene	Fluorene	Hexachlorobenzene
Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene
2-Methylphenol	4-Methylphenol	Naphthalene
2-Nitroaniline	3-Nitroaniline	4-Nitroaniline
Nitrobenzene	2-Nitrophenol	4-Nitrophenol
N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol
Phenanthrene	Phenol	Pyrene
1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
2,2'-oxybis(a-Chloropropane)		
Aldrin	alpha-BHC	beta-BHC
delta-BHC	gamma-BHC (Lindane)	alpha-Chlordane
gamma-chlordane	4,4'-DDD	4,4'-DDE
4,4'-DDT	Dieldrin	Endosulfan I
Endosulfan II	Endosulfan sulfate	Endrin
Endrin ketone	Heptachlor	Heptachlor epoxide
Methoxychlor	Toxaphene	Aroclor 1016
Aroclor 1221	Aroclor 1232	Aroclor 1242
Aroclor 1248	Aroclor 1254	Aroclor 1260
Azinphos-methyl	Bolstar	Chlorpyrifos
Coumaphos	Diazinon	Dichlorvos
Dimethoate	Disulfoton	Ethoprop
Fensulfothion	Fenthion	Merphos
Methyl parathion	Mevinphos	Naled
Phorate	Ronnel	Tokuthion
Trichloronate	Demeton (total)	Ethyl parathion
Malathion	Sulfotepp	Tetrachlorvionphos (Stirophos)
2,4-D	2,4-DB	2,4,5-T
2,4,5-TP (Silvex)	Dalapon	Dicamba
Dichlorprop	Dinoseb	MCPA
MCPP		
Explosive compounds		
1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene
2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Amino-4,6-dinitrotoluene
4-Amino-2,6-dinitrotoluene	RDX	3-Nitrotoluene
Tetryl	Nitrobenzene	Nitroglycerin
HMX	PETN	2&4-Nitrotoluene

Ground-Water Hydrology of Dugway Proving Ground and Adjoining Area, Tooele and Juab Counties, Utah

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2001

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