

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COLORADO

Basic data for thermal springs and wells
as recorded in GEOTHERM

By

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Open-File Report 83-429

This report is preliminary and
has not been reviewed for conformity
with U.S. Geological Survey
editorial standards and stratigraphic
nomenclature. Any use of
trade names is for descriptive
purposes only and does not imply
endorsement by the USGS.

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INTRODUCTION

GEOTHERM, a computerized information system now offline, was used to maintain data on the geology, geochemistry and hydrology of geothermal sites primarily within the United States. The system was proposed at the First Geothermal Implementation Conference in New Zealand in 1974 (Swanson, 1977) and was active until 1983. The primary mission was to provide a broad informational framework for the Geothermal Research Program (Duffield and Guffanti, 1981). GEOTHERM was used to support national geothermal assessments--in 1978 (Muffler, 1979) and 1982 (Reed, 1983). It was however a public system and provided data to both public and private sectors. A detailed discussion on databases in GEOTHERM and a general scheme of how the information system operated can be found in Bliss and Rapport 1983.

This report on Colorado is one of a series intended to preserve the data collected for GEOTHERM and make the data available to the public. States with significant geochemical data for geothermal fluids will be covered in individual reports such as this. A report will also be issued to cover miscellaneous data collected for sites in the central and eastern United States. The data found in this series is also available as a data file on the internationally-available General Electric Mark III service, a timeshare network. Those interested in accessing that system should contact the Energy Resource Center, University of Oklahoma, Norman, Oklahoma 73070. It is anticipated that a portion of the data will also be available on magnetic tape from the National Technical Information Service, U. S. Department of Commerce, Springfield, VA 22161. It will not be available until after the completion of the open-file series.

GEOTHERM INDEXES

Three computer-generated indexes are found in appendices A, B, and C of this report. The indexes give one line summaries of each GEOTHERM record describing the chemistry of geothermal springs and wells in the sample file for Colorado. Each index is sorted by different variables to assist the user in locating geothermal records describing specific sites.

Appendix A (p. 155-159) is sorted by the county name and the name of the source. Also given are latitude, longitude (both use decimal minutes), township, range, section, GEOTHERM record identifier, and temperature ($^{\circ}\text{C}$). In conducting a search of Appendix A, site names are quite useful for locating springs or wells for which a specific name is commonly used, but sites which do not have specific names are more difficult to locate. It is suggested that site titles which begin with words such as warm, hot, unnamed, pumped, well, or spring be checked. Descriptive text found as part of the site name and the site coordinates should be used to assist in determining location.

Appendix B (p. 160-164) is sorted by county, township, range, and section. Also given are name of source, GEOTHERM record identifier, and temperature (°C). Records missing items used for sorting will be listed first.

Appendix C (p. 165-170) is first sorted into one-degree blocks by latitude, and longitude, and then by name of source. Adjacent one-degree blocks which are published as a 1:250,000 map are combined under the appropriate map name. Also given are GEOTHERM record identifier, and temperature (°C). Records missing items used for sorting will be listed first. Numbers with blank in the same position as zero will be given first.

GEOTHERM SAMPLE FILE

GEOTHERM sample file contains 225 records for Colorado (Table 1). Records may be present which are duplicates for the same analyses. A record may contain data on location, sample description, analysis type (water, condensate, or gas), collection condition, flow rates, and the chemical and physical properties of the fluid. Stable and radioactive isotopic data are occasionally available. Some records may contain only location and temperature. When sufficient chemical data was available, the charge balance (percentage of difference in anion- and cation-milli-equivalents) was computed and added to the record. Many of the numeric fields in the sample file can be directly qualified. The qualifier code precedes the number when appropriate. The codes and their meaning are given in Table 1.

Each thermal spring or well usually is represented by several records. This may document temporal changes in the geothermal fluids. Judgement on what constituted acceptable data was extremely complicated and the primary attempt was to insure that each GEOTHERM record faithfully reproduced the published data. On occasion, glaring inconsistencies or data clearly of poor quality were excluded. Regrettably, no database can be constructed or supported without the introduction of errors. The user, therefore, is advised to check with the published literature whenever possible. Users should carefully and critically evaluate the records they use.

This compilation should contain all of the chemical data for geothermal fluids in Colorado published as of December, 1981. However, no claim is made for completeness, and published sources have probably been missed. For example, Presser and others, 1981, contains data which is missed here. None of the records in this list contains information which was unpublished at the time of data entry. A critically evaluated and corrected list of over 2000 records for the United States was extracted from the sample file and issued as a reference document for the national lowtemperature geothermal resource assessment (Reed and others, 1983). This, along with a list of geothermal springs by Berry, and others, 1980, may be useful to some users.

GEOTHERM BIBLIOGRAPHY

A bibliography is given in Appendix D (p. 171). The abbreviated form of the reference (called code) is identified as the

record source in the full record list and is used to sort the entries in this appendix. Codes with a leading "*" identify records based on information which was unpublished at the time the record was prepared. Codes with a trailing "*" in the full GEOTHERM record are also described in greater detail in Appendix D and are listed ahead of published sources.

ACKNOWLEDGEMENTS

Contributions and support to GEOTHERM have been made by many in both federal and state agencies. This includes the U.S. Department of Energy (and associated contractors), and U.S. National Oceanic and Atmospheric Administration. Data-entry forms for most sites in Colorado were prepared by the staff of Colorado Geological Survey or the U.S. Geological Survey.

REFERENCES CITED

- Berry G. W., Grim, P. J., and Ikelman, J. A., 1980, Thermal springs list for the United States: National Oceanic and Atmospheric Administration, Key to Geophysical Records Document No. 12, 59 p.
- Bliss, J. D., and Rapport, Amy, 1983, GEOTHERM: the U.S. Geological Survey geothermal information system: Computers & Geosciences, v. 9, no. 1, p. 35-39.
- Duffield, W. A., and Guffanti, Marianne, 1981, The geothermal research program of the U.S. Geological Survey: U.S. Geological Survey Open-File Report 81-564, 108 p.
- Muffler, L. J. P., ed., 1979, Assessment of low-temperature geothermal resources of the United States--1978: U.S. Geological Survey Circular 790, 163 p.
- Presser, T. S., Evans, W. C., White, L. D., and Barnes, Ivan, 1981, Chemical and isotopic compositions of selected soda and hot spring water and gases, Colorado: U.S. Geological Survey Open-File Report 81-684, 9 p.
- Reed, M. J., ed., 1983, Assessment of low-temperature geothermal resources of the United States--1982: U.S. Geological Survey Circular 892.
- Reed, M. J., Mariner, R. H., Brook, C. A., and Sorey, M. L., 1983, Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U.S. Geological Survey Circular 892: U.S. Geological Survey Open-File Report 83-250, 129 p.
- Swanson, J. R., 1977, GEOTHERM data file: Geothermal Resources Council Transactions, v. 1, p. 285.

TABLE 1

State of Colorado: computer-generated listing of records describing geothermal-fluid samples. [A few records may be for cold springs or wells--this was to provide ground-water references for some studies.]

ORGANIZATION: Records are sorted by county and then by the name of the spring or well. Order is the same in Appendix A.

QUALIFICATION CODES: All numeric attributes may be qualified. The codes and their meaning:

L = less than

G = greater than

E = estimated

T = trace (no numeric value reported)

N = not detected (not followed by number)

Q = qualified (other data in qualification field)

R = midpoint of range (actual range in qualification field)

REFERENCE: An expanded citation of the reference is found in Appendix B. The abbreviated form used in this table is called "CODE" in the appendix. Unpublished sources are preceded with "*". Those which begin and end with a "*" are also found in Appendix D.

RECORD 00001

GEOTHERM FILE ID: 0073174

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SAND DUNES SWIMMING POOL: HOT WATER WELL
 LOCATION

COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... ALAMOSA
 GEOLOGIC PROVINCE...
 MAP REFERENCE... DEADMAN CAMP 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/08/00

TEMPERATURE (C)... 44.0

WATER ANALYSIS

PH... 8.3
 SPECIFIC CONDUCTANCE... 385.
 ALKALINITY... 176.
 TOTAL DISSOLVED SOLIDS... 334.
 CHARGE IMBALANCE (% DIFF)... 3.4

ANALYSIS IN MG/L

AG... CO3...
 AL... 0.002 CR...
 AS... 0.144 CS...
 AU... CU... 0.001
 H... F... 5.9
 HE...
 HI...
 CA... 3.2 HCO3... 176.
 CMg...
 CO...
 CL... 4.7
 K... 8.6
 LI... 0.010
 MG... 0.4
 MN... N
 NA... 61.
 NI...
 NH4...
 NO3... N
 PB... 0.003
 PO4... 0.18
 SI... 120.
 S... 23.
 SR... 0.03
 ZN... 0.010

ISOTOPES (00/001)

REFERENCE AND IDENTIFICATION

COMPILED BY... RUKKHARDT, H.
 COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE... BARRETT AND PEARL, 1976

RECORD 00002

GEOTHERM FILE ID: 0073184

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED WARM SPRING
 LOCATION

COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... ALAMOSA
 GEOLOGIC PROVINCE...
 MAP REFERENCE... ALAMOSA EAST 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/08/00

TEMPERATURE (C)... 40.0

WATER ANALYSIS

PH... 8.3
 SPECIFIC CONDUCTANCE... 365.
 ALKALINITY... 151.
 AS HCO3

COORDINATES

LAT/LONG... 37-29.32 N 105-51.45 W
 UTM ZONE... 13
 NORTHING... 4149225.
 424191.

TOTAL DISSOLVED SOLIDS... 311.
CHARGE IMBALANCE (% DIFF)... 4.1
ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.010
AL.....	CR.....	MG....	0.4
AS.....	CS.....	MIN....	N
AU.....	CU.....	0.002	
BA.....	F.....	4.2	
BR.....	FE (TOT)...	0.020	
CA.....	GA.....	NH4....	
CA+MG...	HCO3.....	NH3....	N
CD.....	HG.....	PB....	
CL.....	H2S.....	PO4....	0.002
CO.....			0.15
CU.....			
FE.....			
HI.....			
NO.....			
SI.....			
SO.....			
SR.....			
ZN.....			

REFERENCE AND IDENTIFICATION
COMPILED BY..... RUKKHARDT, H.
COMPILED BY..... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00003

GEOTHERM FILE ID: 0073231

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... DUTCH CROWLEY ARTESIAN WELL

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE... 14
MAP REFERENCE..... CHROMO 1:62500
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)..... 79.0
DISCHARGE..... E 284. L/MIN
OTHER SAMPLE INFORMATION.. OLD OIL TEST WELL.

COORDINATES
LAT/LONG... 37-00.02 N 106-47.05 W
UTM ZONE... 13
NORTHING... 4096194.
Easting... 341242.

WATER ANALYSIS

P4..... 7.0
SPECIFIC CONDUCTANCE... 960.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00004

GEOTHERM FILE ID: 0073232

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... FUFF ARTESIAN WELL

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE... 14
MAP REFERENCE..... CHROMO 1:62500
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)..... 39.0
DISCHARGE..... 1.49. L/MIN

COORDINATES
LAT/LONG... 37-11.43 N 106-59.60 W
UTM ZONE... 13
NORTHING... 4117603.
Easting... 323070.

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2500.
REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00005

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000423

NAME OF SAMPLE SOURCE... PAGOSA AREA - ARLINGTON HOTEL WELL

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... ARCHULETA

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 60.0

DISCHARGE..... 379. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF)... 5.6

ANALYSIS

B..... F.....

BE..... FE(TOT).....

CA..... 230. HCO3..... 631.

CL..... 201.

CO..... K..... 260.

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALYARDT, RENNER, J.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GEORGE AND OTHERS, 1920

ISOLOPES (0/00)

160.

1494.

607.

504..

NA...

NB...

RECORD 00006

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073124

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... ARCHULETA

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... PAGOSA SPRINGS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 55.0

DISCHARGE..... 912. L/MIN

WATER ANALYSIS

PH..... 6.6

SPECIFIC CONDUCTANCE..... 4200.

ALKALINITY..... 862. AS HCO3

TOTAL DISSOLVED SOLIDS... 3040.

CHARGE IMBALANCE (% DIFF)... 3.3

ANALYSIS IN MG/LCOORDINATES

LAT/LONG... 37-15.87 N 107-00.62 W

UTM ZONE... 13

NORTHING... 4125905.

321736.

ISOLOPES (0/00)

AS..... 2.0 5. MN.... 0.22 58.
 g..... 0.04 NA.... 800.
 AF..... FE(TOT). 0.02 NH.... 1500.
 HI..... GA..... NH4.... 4.0
 CA..... HCO3.... NO3....
 CO..... H2S..... PO4.... 0.01
 CL..... 190. UO9

CL..... 190. K..... 87.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00007

GEOTHERM FILE 10: 0073125

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW

STATE..... COLORADO

COUNTY..... ARCHULETA

GEOLOGIC PROVINCE..

MAP REFERENCE..... PAGOSA SPRINGS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 54.0

DISCHARGE..... 984. L/MIN

ANALYSIS

PI..... 6.5
 SPECIFIC CONDUCTANCE..... 4340.
 ALKALINITY..... 856. AS HCO3
 TOTAL DISSOLVED SOLIDS..... 3040.
 CHARGE IMBALANCE (% DIFF).... 2.0

ANALYSIS IN MG/L

AL..... CR..... 24.
 AS..... CS..... 0.2
 R..... 2.3 F..... 4.8 730.
 RE..... FE(TOT). 0.020
 CA..... HCO3.... 856. 59.
 CO..... H2S..... 0.21 1500.
 CL..... 180. PO4....

CL..... 180. K..... 85.

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUKKHAROT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00008

GEOTHERM FILE 10: 0073123

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW

STATE..... COLORADO

COUNTY..... ARCHULETA

COORDINATES
 LAT/LONG... 37-15.87 N 107-00.62 W
 UTM ZONE... 13
 NOTHING... 4125905.

321736.

GEOLOGIC PROVINCE... MAP REFERENCE... PAGOSA SPRINGS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/10/00

TEMPERATURE (C)... 57.0

DISCHARGE... 855. L/MIN

WATER ANALYSIS

PH... 6.9

SPECIFIC CONDUCTANCE... 4000.

ALKALINITY... 859. AS HCO3

CHARGE IMBALANCE (% DIFF)... 2.8

ANALYSIS IN MG/L

AG....	CO3.....	LI....	3.2
AL....	CR.....	MG....	23.
AS....	CS.....	MN....	0.22
BA....	F.....	NA....	780.
BE....	FE(TOT)...	NH....	
CA....	HCO3.....		504..
CA+MG...	MG.....		1500.
CL....			
CO....	K.....	ZN....	0.2

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... BARRETT AND PEARL, 1976

RECORD 00009

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING

LOCATION... TOWNSHIP-RANGE

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... ARCHULETA

GEOLOGIC PROVINCE... PAGOSA SPRINGS 1:24000

MAP REFERENCE... 1975/08/00

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/08/00

TEMPERATURE (C)... 58.0

DISCHARGE... 1003. L/MIN

WATER ANALYSIS

PH... 6.5

SPECIFIC CONDUCTANCE... 5810.

ALKALINITY... 855. AS HCO3

TOTAL DISSOLVED SOLIDS... 3200.

CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

AG....	CO3.....	LI....	2.9
AL....	CR.....	MG....	25.
AS....	CS.....	MN....	0.23
BA....	F.....	NA....	790.
BE....	FE(TOT)...	NH....	
CA....	HCO3.....		504..
CA+MG...	MG.....		1400.
CL....			4.0
CO....	K.....	ZN....	0.02

GEOHERM FILE ID: 0073122

COORDINATES

LAT/LONG... 37-15.87 N 107-00.62 W

UTM ZONE... 13

NORTHING... 4125905.

321736.

ISOTOPES (U2000)

CA+MG. HG..... 0.0001 PB... 0.02
CO.... H2S..... P04... 0.21
CL.... 180. K..... 90. ZN... 0.01
REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00010

GEOTHERM FILE ID: 0073126

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL
LOCATION

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
STATE..... COLORADO
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE...
MAP REFERENCE..... PAGOSA SPRINGS 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 56.0 L/MIN
DISCHARGE..... 114.
WATER ANALYSIS

COORDINATES

LAT/LONG... 37-15.92 N 107-00.62 W
UTM ZONE... +13
NORTHING... 4125998.
321738.

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.093
H..... 1.8
HE.....
CA..... 250.
CA+MG.
CO..... 170.
CL.....
CO..... K..... 89.
CR.....
CS.....
F..... 4.5
FE(TOT)... 0.020
HC03..... 858.
HG.....
H2S.....
LI..... 2.8
MG..... 25.
MN..... 0.270
NA..... 780.
NI.....
NO3... 0.01
P04... 0.15
SI02... 52.
S04... 1500.
ZN... 0.010

ISOTOPES (0/000)

0.010

0.010

0.010

0.010

0.010

0.010

0.010

0.010

0.010

0.010

RECORD 00011

GEOTHERM FILE ID: 0073127

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL
LOCATION

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
STATE..... COLORADO
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE...
MAP REFERENCE..... PAGOSA SPRINGS 1:24000
SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES

LAT/LONG... 37-15.85 N 107-00.58 W
UTM ZONE... +13
NORTHING... 4125907.
321794.

DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 53.0

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 6000.
ALKALINITY..... 753.
TOTAL DISSOLVED SOLIDS..... 3320.
CHARGE IMBALANCE (% DIFF) ... 0.3
ANALYSIS IN MG/L

AG.....	CO3.....	LI...	2.9
AL..... 0.35	CR.....	MG...	24.
AS..... 0.000	CS.....	MN...	0.250
AI.....	CU..... 0.14		
HA..... 1.9	F..... 4.4	NA...	780.
RA..... 0.28		SI02.	51.
HE.....	FE(TOT) 0.210		
RI.....	GA.....	NB...	
CA..... 230.	HC03..... 753.	NH4...	
CA+MG.	HG..... N	NO3...	
CU.....	H2S.....	PB...	0.02
CL..... 160.		P04...	0.12
CO.....	K..... 91.		
		ZN...	0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUKKHARDT, H.
COMPILE AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (00/000)

RECORD 00012

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... STINKING SPRINGS

LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... CHROMO 1162500

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 27.0

DISCHARGE..... 91. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1250.
ALKALINITY..... 258.
TOTAL DISSOLVED SOLIDS..... 899.
CHARGE IMBALANCE (% DIFF) ... 2.3
ANALYSIS IN MG/L

AG.....	CO3.....	LI...	0.09
AL..... 0.044	CR.....	MG...	27.
AS..... N	CS.....	MN...	0.12
AI.....	CU..... 0.001		
HA..... 0.06	F..... 0.6	NA...	20.
RA..... 0.037		SI02.	24.
HE.....	FE(TOT) 0.14		
RI.....	GA.....	NH4...	
CA..... 210.	HC03..... 258.	NO3...	

ISOTOPES (00/000)

GEOTHERM FILE ID: 0073188

COORDINATES

LAI/LONG... 37-02.08 N 106-48.42 W
UTM ZONE... 13
NORTHING... 4100042.
339282.

CA+MG..... N PR.... 0.005
 CD..... PU4.... N
 CL..... 7.3
 CO..... 12.
 CO..... 0.01
 ZN.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED BY AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00013

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FLDORADO SPRING: SPRING B

LOCATION
 COUNTRY..... UNITED STATES NE OF SE
 STATE..... COLORADO TOWNSHIP-RANGE
 COUNTY..... BOULDER 01S 071W 2S

COORDINATES

LAT/LONG... 39-55.88 N 105-16.78 W
 UTM ZONE... +13
 NORTHING... 4419953.
 476103.

GEOTHERM FILE ID: 0073035

MAP REFERENCE..... FLDORADO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/02/00
 TEMPERATURE (C)..... 26.0

WATER ANALYSIS

pH..... 6.6
 SPECIFIC CONDUCTANCE..... 130.
 ALKALINITY..... 38.
 TOTAL DISSOLVED SOLIDS..... 91.
 CHARGE IMBALANCE (% DIFF)..... 5.6
 ANALYSIS IN MG/L

AL..... CR..... 3.3
 AS..... CS..... N
 B..... F..... 0.4
 HA..... 0.1
 HE.....
 HI..... FE(TOT) N
 CA..... GA.....
 11. HCO3..... 46.
 CD..... H2S.....
 CL..... K..... 3.3
 CO.....

MG..... 3.3
 NA..... 7.3
 SI02..... 15.
 S04..... 23.
 SR..... 0.3

ISOTOPES 007001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED BY AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00014

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FLDORADO SPRINGS: SPRING A

LOCATION
 COUNTRY..... UNITED STATES NE OF SE
 STATE..... COLORADO TOWNSHIP-RANGE
 COUNTY..... BOULDER 01S 071W 2S

COORDINATES

LAT/LONG... 39-55.87 N 105-16.77 W
 UTM ZONE... +13
 NORTHING... 4419945.
 476117.

GEOTHERM FILE ID: 0073033

MAP REFERENCE..... FLDORADO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: ACTUALLY A WELL LOCATED ON THE SOUTH SIDE OF THE CREEK. APPROX. 100 FT EAST OF THE

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 24.0

WATER ANALYSIS

PH..... 6.9
SPECIFIC CONDUCTANCE..... 152.
ALKALINITY..... 63.
TOTAL DISSOLVED SOLIDS..... 101.
CHARGE IMBALANCE (% DIFF).... 3.2
ANALYSIS IN MG/L

AG.....	0.005	CG.....	0.01
AL.....	0.014	CH.....	4.8
AS.....		CN.....	
AU.....	0.002	CU.....	
BA.....	0.2	FE.....	0.01
BE.....		GA.....	0.54
BI.....	15.	HC.....	0.001
CA.....		HS.....	0.09
CA+MG.		H2S.....	
CO.....	1.		
CL.....			
CU.....	3.2		
K.....			
LI.....			
MG.....			
MN.....			
NA.....	6.9		
NO.....			
NH.....			
NO3.....			
PO.....			
PO4.....			
SI.....	16.		
SO.....	20.		
SR.....	0.3		
ZN.....	0.03		

ISOTOPES (02/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION.... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00015

GEOTHERM FILE ID: 0073036

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... FLOURO SPRINGS: SPRING B
LOCATION.....

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... BOULDER
GEOLOGIC PROVINCE... FLORENCE 1:24000
MAP REFERENCE.....
OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

COORDINATES
LAT/LONG... 39-55.88 N 105-16.78 W
UTM ZONE... 13
NORTHING... 4419963.
EASTING... 476103.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 24.0

WATER ANALYSIS

PH..... 6.6
SPECIFIC CONDUCTANCE..... 135.
ALKALINITY..... 43.
TOTAL DISSOLVED SOLIDS..... 84.
CHARGE IMBALANCE (% DIFF).... 2.2
ANALYSIS IN MG/L

AG.....	0.003	CG.....	0.01
AL.....	0.014	CH.....	4.8
AS.....		CN.....	
AU.....	0.002	CU.....	
BA.....	0.2	FE.....	0.01
BE.....		GA.....	0.54
BI.....	15.	HC.....	0.001
CA.....		HS.....	0.09
CA+MG.		H2S.....	
CO.....	1.		
CL.....			
CU.....	3.2		
K.....			
LI.....			
MG.....			
MN.....			
NA.....	6.9		
NO.....			
NH.....			
NO3.....			
PO.....			
PO4.....			
SI.....	16.		
SO.....	20.		
SR.....	0.3		
ZN.....	0.03		

ISOTOPES (02/00)

CD..... H2S..... PU4.. 0.18
 CL.... 0.8
 CO..... K..... 3.0
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00016

GEOTHERM FILE ID: 0073034

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ELDORADO SPRINGS: SPRING H
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... BOULDER
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ELDORADO SPRINGS 1124000
 OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

COORDINATES

LAT/LONG... 39-55.88 N 105-16.78 W
 UTM ZONE... 13
 NORTHING... 4419903.
 476103.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 25.0

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 122.
 ALKALINITY..... 43. AS HCO3
 TOTAL DISSOLVED SOLIDS... 84.
 CHARGE IMBALANCE (% DIFF)... 66.0

ISOTOPES (00001)

ANALYSIS IN MG/L	AG.....	CO3.....	LI... 0.01
	AL..... 0.02	CR.....	MG... 2.9
	AS..... 0.008	CS.....	MN... N
	AU.....	CU..... 0.002	NA... 6.3
	H..... 0.02	F..... 0.2	SI02. 15.
	HA..... 0.1	FE(NT).....	S04... 75.
	HE.....	GA.....	SR... 0.3
	HI.....	HCO3..... 43.	
	CA..... 12.	MG..... N	
	CA+MG.....	H2S.....	
	CL..... 0.8		
			ZN... 0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00017

GEOTHERM FILE ID: 0073063

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HAYSTACK BUTTE WARM WATER WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... BOULDER

COORDINATES

LAT/LONG... 40-05.80 N 105-14.27 W
 UTM ZONE... 13
 NORTHING... 4438303.

479/27.

GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... NIWOT 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 28.0 L/MIN
 DISCHARGE..... N
 WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1840.
 ALKALINITY..... 1250. AS HCO3
 TOTAL DISSOLVED SOLIDS..... 1200.
 CHARGE I BALANCE (% DIFF).... 3.2
 ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.24
AL..... 0.1	CR.....	MG....	0.7
AS..... N	CS.....	MN....	N
AU.....	CU..... 0.002	NA....	510.
H..... 0.74	F..... 4.4	NI....	29.
HA..... 0.06	FE(TOT)..... 0.05	NO3....	7.9
HF.....	GA.....	SR....	0.2
HI.....	HCO3..... 1250.		
CA..... 2.5	HG..... N		
CA-MG.....	H2S.....		
CL..... 30.			
CO.....	K..... 1.3	ZN....	N

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION.... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00018

GEOTHERM FILE 10: 0073228

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... BROWN'S CANON WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... PONCHA SPRINGS 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 25.0 L/MIN
 DISCHARGE..... E 7.8
 WATER ANALYSIS

COORDINATES
 LAT/LONG... 38-38.23 N 106-04.28 W
 UTM ZONE... 13
 NORTHING... 4276851.
 406756.

NE OF SW SW

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 775.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION.... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00019

GEOTHERM FILE 10: 0073229

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... BROWN'S GROTTO WARM SPRING

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... PONCHA SPRINGS 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 23.0 L/MIN
 DISCHARGE..... E 19.
 WATER ANALYSIS
 PH..... 7.0
 SPECIFIC CONDUCTANCE..... 720.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES
 LAT/LONG... 38-37.83 N 106-04.17 W
 UTM ZONE... 13
 NORTHING... 4276109.
 406907.

TOWNSHIP-RANGE
 51N 008E 34

NW OF NE NW

RECORD 00020

GEOTHERM FILE 10: 0073018

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... BUENA VISTA 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 53.0 L/MIN
 DISCHARGE..... 18.
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 510.
 ALKALINITY..... 73. AS HCO3
 TOTAL DISSOLVED SOLIDS... 370.
 CHARGE IMBALANCE (% DIFF)... 3.2
 ANALYSIS IN MG/L

COORDINATES
 LAT/LONG... 38-48.80 N 106-13.35 W
 UTM ZONE... 13
 NORTHING... 4296565.
 3938660.

TOWNSHIP-RANGE
 14S 079W 21

SW OF SE

ISOTOPES (U/200L)

AG..... CO3..... LI... 0.160
 AL..... CR..... MG... 0.5
 AS..... CS..... MN... N
 AU..... CU..... 0.007
 H..... F..... 14. NA... 110. SI02. 60.
 HA..... 0.052
 HE..... FE(TOT). 0.620
 HI..... BA..... NH...
 CA..... HCO3..... 73. NH4... 110.
 CA+MG. N. PB... 0.08
 CO..... H25..... PO4... 0.003
 CL..... 30. PU... 0.12
 CO..... K..... 2.8
 ZN... 0.010

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RUKKHARUT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00021

GEOTHERM FILE ID: 0073020

GEOTHERM_SAMPLE.FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING
 LOCATION
 COUNTRY... UNITED STATES 14S 079W 21 SE OF SE
 STATE... COLORADO
 COUNTY... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... BUENA VISTA 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/10/00
 TEMPERATURE (C)... 52.0
 DISCHARGE... 341. L/MIN

WATER ANALYSIS

P... 6.0
 SPECIFIC CONDUCTANCE... 510.
 ALKALINITY... 76.
 TOTAL DISSOLVED SOLIDS... 364.
 CHARGE IMBALANCE (% DIFF)... 6.6
 ANALYSIS IN MG/L

AG... CO3... 0.16
 AL... CR... 0.3
 AS... 0.005 CS... 0.01
 B... 0.09 F... 13. SI02... 54.
 RE... FE(TOT)... N 76. S04... 140.
 CA+MG... HCO3... N
 CD... H2S... N
 CL... 30. P04... N

CO... K... 2.6
 ZN... 0.01
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE... BARRETT AND PEARL, 1976

RECORD 00022

GEOTHERM FILE ID: 0073019

GEOTHERM_SAMPLE.FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING
 LOCATION
 COUNTRY... UNITED STATES 14S 079W 21 SE OF SE
 STATE... COLORADO
 COUNTY... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... BUENA VISTA 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/06/00
 TEMPERATURE (C)... 54.0

WATER ANALYSIS

P... 500.
 SPECIFIC CONDUCTANCE... 73.
 ALKALINITY... 356.
 TOTAL DISSOLVED SOLIDS... 4.2
 CHARGE IMBALANCE (% DIFF)... 4.2
 ANALYSIS IN MG/L

AG... CO3... 0.16
 AL... CR... 0.3
 AS... 0.005 CS... 0.01
 B... 0.09 F... 13. SI02... 54.
 RE... FE(TOT)... N 76. S04... 140.
 CA+MG... HCO3... N
 CD... H2S... N
 CL... 30. P04... N

CO... K... 2.6
 ZN... 0.01
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE... BARRETT AND PEARL, 1976

AG..... CO3..... 0.15
 AL..... CR..... 0.6
 AS..... 0.004 CS..... 0.01
 H..... 0.009 F..... 14. S102. 58.
 HE..... FE(TOT) 0.01 NB..... 110.
 CA..... 6.4 HCU3..... 0.12
 CA+MG. H5..... N
 CD..... H2S.....
 CL..... 28. PO4.. N

ZN... 0.02

CO..... K..... 2.6

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00023

GEOTHERM FILE ID: 0073022

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 14S 079W 21 SE OF SE
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BUENA VISTA 1:62500

COORDINATES
 LAT/LONG... 38-48.67 N 106-13.33 W
 UTM ZONE... 413
 NORTHING... 4296324.
 393885.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 53.0
 DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 8.5
 SPECIFIC CONDUCTANCE..... 540.
 ALKALINITY..... 56. AS HCU3
 TOTAL DISSOLVED SOLIDS... 302.
 CHARGE IMBALANCE (% DIFF)... 4.5

ISOTOPES (U/00L)

ANALYSIS IN MG/L
 AG..... CO3..... 9.
 AL..... CR.....
 AS..... MN..... N
 H..... 0.008 F..... 100. S102. 13.
 HE..... FE(TOT) 10. NB..... 110.
 CA..... 5.8 HCU3.....
 CD..... H2S.....
 CL..... 32. PO4.. N

CO..... K..... 2.7

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00024

GEOTHERM FILE ID: 0073021

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 14S 079W 21 SE OF SE
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BUENA VISTA 1:62500

COORDINATES
 LAT/LONG... 38-48.67 N 106-13.33 W
 UTM ZONE... 413
 NORTHING... 4296324.
 393885.

UTM ZONE... +13
NORTHING... 4290324.
393885.

STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE..
MAP REFERENCE..... BUENA VISTA 1:02500
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 53.0
DISCHARGE..... 189. L/MIN
WATER ANALYSIS

P..... 8.2
SPECIFIC CONDUCTANCE..... 547.
ALKALINITY..... 74. AS HCO3
TOTAL DISSOLVED SOLIDS..... 368.
CHARGE IMBALANCE (% DIFF).... 1.7
ANALYSIS IN MG/L

AL.....	CR.....	MG.....	0.3
AS.....	CS.....	MN.....	N
FE.....	F.....	NA.....	110.
HE.....	FE(TOT).....	NH.....	5102. 58.
CA.....	HCO3.....	NO3.....	504.. 110.
CD.....	H2S.....	PO4.....	0.1
CL.....	30.		0.03

CO..... 2.7
REFERENCE AND IDENTIFICATION
COMPILED BY..... BURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEAKL, 1976

ISOTOPES (U/D/L)

RECORD 00025

GEOTHERM FILE ID: 0015730

COORDINATES
LAT/LONG... 38-48.70 N 106-13.42 W

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRINGS WELL
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CHAFFEE
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1974/09/18
TEMPERATURE (C)..... 50.
OTHER SAMPLE INFORMATION... ARTESIAN, WATER USED IN SPACE HEATING.

WATER ANALYSIS
P..... 8.4
RADIATION ANALYSIS
ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
MOUND LABORATORY, MIAMISHURG, OHIO.
RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
METHODS IN TALVITIE, 1971; STEAM SAMPLING: STOKER AND KRUGER, 1975.

RADIOISOTOPES
K-40.....
RA-210.....
RA-226..... 0.68 +/- 0.12
RA-228.....
RN-222..... 250. +/- 94.
TH-230..... L 0.014
PH-232..... L 0.014
U-234..... +/- 0.24
U-238..... 0.18 +/- 0.041

REFERENCE AND IDENTIFICATION
COMPILED BY..... BLISS, JAMES D.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00026

GEOTHERM FILE ID: 0073236

GEOTHERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRINGS; MERRIFIELD HOT WATER WELL

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BUENA VISTA 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 46.

WATER ANALYSIS

PH..... 8.8

SPECIFIC CONDUCTANCE..... 440.

TOTAL DISSOLVED SOLIDS..... 301.

CHARGE IMBALANCE (% DIFF).... 7.7

ANALYSIS IN MG/L

AG..... CO3..... 23. LI... 0.11

AL..... CR..... 0.8

AS..... CU..... 0.003

AU..... F..... 12.

H..... 0.08

HA..... 0.04

HE.....

HI..... FE(TOT) 0.01

CA..... GA.....

CA+MG. 9.5 HCO3... NH4...

CD..... MG..... 0.09

CL..... H2S..... 0.012

CO..... K..... 2.5

ZN... 0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... RARETT AND PEARL, 1976

ISOTOPE 10/0001

RECORD 00027

GEOTHERM FILE ID: 0000407

GEOTHERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... COTTONWOOD SPRINGS

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BUENA VISTA 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/09/00

TEMPERATURE (C)..... 57.0

WATER ANALYSIS

PH.....

SPECIFIC CONDUCTANCE.....

TOTAL DISSOLVED SOLIDS.....

CHARGE IMBALANCE (% DIFF)....

ANALYSIS IN MG/L

AG..... CO3..... 108. SI02... 55.

AL..... CR..... 104.

AS..... CU.....

AU..... F.....

H..... 0.08

HA..... 0.04

HE.....

HI..... FE(TOT) 0.01

CA..... GA.....

CA+MG. 5.6 HCO3... NH4...

CD..... MG.....

CL..... H2S.....

CO..... K.....

ZN... 0.02

REFERENCE AND IDENTIFICATION

COMPILED BY.....

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE.....

ISOTOPE 10/0001

CL..... 2H.
 CO..... K..... 2.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GARYARD, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00028

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HORTENSE WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/09/18
 TEMPERATURE (C)..... R4.
 OTHER SAMPLE INFORMATION.. ARTESIAN.
 WATER ANALYSIS
 PH..... 8.0
 RADIATION ANALYSIS
 ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
 MOUND LABORATORY, MIAMISHURG, OHIO.
 RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
 METHODS IN TALVITIE, 1971; STEAM SAMPLING: STOKER AND KRUGER, 1975.
 RADIOSOTOPES
 K-40.....
 PR-210.....
 RA-226.....
 RA-228.....
 RN-222..... 1400. +/- 73.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BLISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

COORDINATES
 LAT/LONG... 38-43.95 N 106-10.10 W
 TOWNSHIP-RANGE
 15S 079W 24 NW OF SE

GEOTHERM FILE ID: 0015731

RECORD 00029

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MT PRINCETON HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 54.0
 WATER ANALYSIS
 ANALYST.....
 DATE/ANALYST..... 1968/09/00
 PH.....
 PE.....
 CA..... 19.
 CL..... 0.4
 CO..... 1.7

COORDINATES
 LAT/LONG... 38-43.90 N 106-10.20 W
 UTM ZONE... 13
 NORTHING... 4287442.
 398302.

TOWNSHIP-RANGE

GEOTHERM FILE ID: 0000409

LAQUIPES 10/002

ST02. 61.
 504.. 64.

14A... 57.
 N4... 504..

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALKAROT, KENNEDY, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MALLORY AND BARNETT, 1973

RECORD 00030

GEOTHERM-SAMPLE-FILE----- GEOTHERM FILE ID: 0015213

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT WATER WELL

COORDINATES

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 82.0

TOWNSHIP-RANGE

15S 079W 24 SE OF NW

38-43.97 N 106-10.45 W

UTM ZONE... 13

NORTHING... 4287576

397941

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 420.
 ALKALINITY..... 75. AS HCO3
 TOTAL DISSOLVED SOLIDS... 318.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG..... CO3..... LI... 0.120
 AL..... CA..... 1.
 AS..... CS..... 0.010
 H..... F..... 14. SI02. 72.
 HF..... FE(TOT)... 0.040 NA... 92.
 CA..... HCO3..... 75.
 CA+16. HG..... N
 CO..... H2S..... PU4... 0.03
 CL..... 8.3
 CO..... K..... 2.8
 ZN... N

ISOTOPES (0/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00031

GEOTHERM-SAMPLE-FILE----- GEOTHERM FILE ID: 0073105

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WATER WELL

COORDINATES

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 82.0

TOWNSHIP-RANGE

15S 079W 24 SE OF NW

38-43.97 N 106-10.45 W

UTM ZONE... 13

NORTHING... 4287576

397941

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 420.
 ALKALINITY..... 75. AS HCO3
 TOTAL DISSOLVED SOLIDS... 318.
 CHARGE IMBALANCE (% DIFF)... 0.7

7788705-5320Tnct

[illegible]

CONFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

REC'D 00032

GEUTHERM FILE IU: 0073104

GEOTHERMAL SAMPLE FILE	MT. PRINCETON HOT SPRINGS AREA: MOKTENSE HOT SPRING
NAME OF SAMPLE SOURCE	CUMULATES
LOCATION	LAT/LONG...
COUNTRY	UTM ZONE...
STATE	NUTTING...
COUNTY	39771.
	38-43.98 N 106-10.43 W
	413
	4287595.

USU LOPEZ 10/2001

[illegible]

REFERENCE AND IDENTIFICATION

U.S. GEOLOGICAL SURVEY
BARRETT AND PEARL, 1976

REC'D, KD 000033

GOVERNMENT FILE NO: 0073103

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... WT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SPRING
LOCATION LOWVILLE-RANGE COORDINATES
COUNTRY..... UNITED STATES 155 079W 24 SE OF NW 38-43.98 N 105-10.43 W
LAT/LONG...

UTM ZONE... +13
NORTHING... 4287595.
397971.

STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE...
MAP REFERENCE..... PONCHA SPRINGS 1:62500
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 83.0 L/MIN
DISCHARGE..... 68.

WATER ANALYSIS

PH..... 8.2
SPECIFIC CONDUCTANCE..... 469.
ALKALINITY..... 82.
TOTAL DISSOLVED SOLIDS... 351.
CHARGE IMBALANCE (* DIFF)... 1.9

ANALYSIS IN MG/L

AL.....	CR.....	MG....	N
AS.....	CS.....	MN....	N
Fe.....	F.....	NA....	100.
HE.....	FE(TOT).....	NH....	
CA.....	HC03.....	NO3...	0.01
CU.....	H2S.....	PO4...	0.03
CL.....			

SI02... 74.
S04... 99.

ISOTOPES (U/001)

CO..... 3.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00034

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: MORTENSE HOT SPRING
LOCATION.....

COUNTRY..... UNITED STATES 155 079W 24 SE OF NW

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE...
MAP REFERENCE.....

PONCHA SPRINGS 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 82.0 L/MIN
DISCHARGE..... 68.

WATER ANALYSIS

PH..... 8.5
SPECIFIC CONDUCTANCE..... 480.
ALKALINITY..... 17.
TOTAL DISSOLVED SOLIDS... 336.
CHARGE IMBALANCE (* DIFF)... 26.7

ANALYSIS IN MG/L

AL.....	CO3.....	LI....	0.14
AS.....	CP.....	MG....	0.1
Fe.....	CS.....	MN....	0.01
CA.....	CU.....		
CU.....	F.....	NA....	94.
HA.....	FE(TOT).....		

SI02... 68.
S04... 100.

ISOTOPES (U/001)

GEOTHERM FILE ID: 0073102

COORDINATES

LAT/LONG... 38-43.98 N 106-10.43 W
UTM ZONE... +13
NORTHING... 4287595.
397971.

HI..... SR.... 0.18
 CA..... NH4... 0.01
 CA+MG... NO3... 0.003
 CO..... PH... 0.003
 CL..... PO4... 0.03

CO..... 3.1 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00035

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT WATER WELL

GEOTHERM FILE ID: 0073106

LOCATION COORDINATES

COUNTRY..... UNITED STATES 155 079W 19 NW OF SE
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE... PONCHA SPRINGS 1:62500
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/08/00
 TEMPERATURE (C)..... 39.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 250.
 ALKALINITY..... 75. AS HCO3
 TOTAL DISSOLVED SOLIDS... 143.
 CHARGE IMBALANCE (% DIFF)... 2.9

ISOTOPE ANALYSIS

ANALYSIS IN MG/L
 AG..... CO3..... LI... 0.06
 AL..... CR..... MG... 0.6
 AS..... CS..... MN... N
 H..... F..... 0.1 40.
 HE..... FE(TOT)... 0.03
 CA..... HCO3... 75. 0.11
 CA+MG... MG..... N
 CD..... H2S.....
 CL..... 3.9
 CO..... K..... 1.7
 CU.....

ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00036

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATER WELL (WEST)

GEOTHERM FILE ID: 0073108

LOCATION COORDINATES

COUNTRY..... UNITED STATES 155 079W 24 SW OF NE
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE... PONCHA SPRINGS 1:62500
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 72.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 370. AS HCO3
ALKALINITY..... 72.
TOTAL DISSOLVED SOLIDS..... 313.
CHARGE IMBALANCE (% DIFF).... 4.5

ANALYSIS IN MG/L

AG.....	CO3.....	LI.....	U.1
AL.....	CR.....	MG.....	0.3
AS.....	CS.....	MN.....	N
R.....	F.....	NA.....	73.
RE.....	FE(TOT).....	NH.....	13.
CA.....	HCO3.....	NO3.....	0.020
CA+MG.....	HG.....	PO4.....	72.
CO.....	H2S.....		0.0002
CL.....			27.

CO..... 6.4 K..... 2.5
CL..... 6.4

REFERENCE AND IDENTIFICATION

COMPILED BY..... RURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00037

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATER WELL (EAST)

LOCATION

COUNTRY.....	UNITED STATES	SE OF NE
STATE.....	COLORADO	
COUNTY.....	CHAFFEE	
GEOLOGIC PROVINCE.....		
MAP REFERENCE.....	PONCHA SPRINGS 1:62500	

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 67.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 240. AS HCO3
ALKALINITY..... 68.
TOTAL DISSOLVED SOLIDS..... 234.
CHARGE IMBALANCE (% DIFF).... 4.3

ANALYSIS IN MG/L

AG.....	CO3.....	LI.....	U.1
AL.....	CR.....	MG.....	0.3
AS.....	CS.....	MN.....	N
R.....	F.....	NA.....	61.
RE.....	FE(TOT).....	NH.....	10.
CA.....	HCO3.....	NO3.....	0.050
CA+MG.....	HG.....	PO4.....	68.
CO.....	H2S.....		0.15
CL.....			N

CO..... 4.9 K..... 2.1
CL..... 4.9

REFERENCE AND IDENTIFICATION

COMPILED BY..... RURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM FILE ID: 0073107

COORDINATES

LAT/LONG... 38-44.00 N 106-10.00 W
UTM ZONE... 13
NORTHING... 4287624.
398594.

ISOLOPES 10/001

SI02. 53.
S04.. 60.

ZN... 0.020

RECORD 00038
GEOTHERM FILE 10: 0073101

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT WATER WELL
LOCATION

COUNTRY..... UNITED STATES 155 079W 24 SE OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE.....
MAP REFERENCE..... PUNCHA SPRINGS 1:62500
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 66.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 320.
ALKALINITY..... 72.
TOTAL DISSOLVED SOLIDS..... 259.
CHARGE IMBALANCE (% DIFF).... 1.2
ANALYSIS IN MG/L

AG..... CO3..... LI.... 0.090
AL..... CR..... MG.... 0.3
AS..... CS..... MN.... N
H..... F..... 9.2
RE..... FE(TOT) 0.030
CA..... HCO3..... NO3.. 0.15
CA+MG. HG..... N
CU..... H2S..... PO4.. 0.12
CL.....

CO..... K..... 2.3
ZN... 0.030

REFERENCE AND IDENTIFICATION
COMPILED BY..... RURKHARDT, M.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPE 10/0001

RECORD 00039
GEOTHERM FILE 10: 0073100

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS, SPRING E
LOCATION

COUNTRY..... UNITED STATES 155 078W 19 SW OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE.....
MAP REFERENCE..... PUNCHA SPRINGS 1:62500
OTHER LOCALITY INFORMATION: LOCATED 10 FEET EAST OF SPRING D
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 50.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 330.
REFERENCE AND IDENTIFICATION
COMPILED BY..... PEARL, R. M.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES
LAT/LONG... 38-43.97 N 106-09.65 W
UTM ZONE... 13
NORTHING... 4287562.
399100.

RECORD 00040
GEOTHERM FILE 10: 0073096

GEOTHERM_SAMPLE-FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
LOCATION
COUNTRY... UNITED STATES 155 078W 19 SW OF NW
STATE... COLORADO
COUNTY... CHAFFEE
GEOLOGIC PROVINCE...
MAP REFERENCE... PONCHA SPRINGS 1:62500
OTHER LOCALITY INFORMATION: LOCATED APPROX 200 FT E OF OLD SWIMMING POOL.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1976/04/00
TEMPERATURE (C)... 56.0
DISCHARGE... 87. L/MIN

WATER ANALYSIS
PH... 7.8
SPECIFIC CONDUCTANCE... 327.
ALKALINITY... 76. AS HCO3
TOTAL DISSOLVED SOLIDS... 248.
CHARGE IMBALANCE (% DIFF)... 3.3

ANALYSIS IN MG/L
AL...
AS...
H... 0.020
HE...
CA... 10.
CO...
CL... 5.2
CU...
K... 2.2

REFERENCE AND IDENTIFICATION
COMPILED BY... RUNKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE... HARRETT AND PEARL, 1976

ISOTOPES (002002)

MG... 0.8
MN... N
NA... 58.
N... 59.
N... 64.
N... 5102.
N... 504..

RECORD 00041
GEOTHERM FILE 10: 0073095

GEOTHERM_SAMPLE-FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
LOCATION
COUNTRY... UNITED STATES 155 078W 19 SW OF NW
STATE... COLORADO
COUNTY... CHAFFEE
GEOLOGIC PROVINCE...
MAP REFERENCE... PONCHA SPRINGS 1:62500
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1976/01/00
TEMPERATURE (C)... 54.0
DISCHARGE... 76. L/MIN

WATER ANALYSIS
PH... 7.9
SPECIFIC CONDUCTANCE... 331.
ALKALINITY... 75. AS HCO3
TOTAL DISSOLVED SOLIDS... 244.
CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L
AL...
AS...
H... 0.020
HE...
CA... 10.
CO...
CL... 5.2
CU...
K... 2.2

REFERENCE AND IDENTIFICATION
COMPILED BY... RUNKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE... HARRETT AND PEARL, 1976

ISOTOPES (002002)

MG... 0.8
MN... N
NA... 58.
N... 59.
N... 64.
N... 5102.
N... 504..

70070) S33017051

ANALYSIS IN MG/L					
AL.....	CR.....	MG....	N	0.9	
AS.....	CS.....	MN....			
H.....	F.....	NA....		57.	
HE.....	FE(TOT) ..	NB....			
CA.....	HC03.....	NO3....		0.21	
CO.....	H2S.....	P04....	N		
CO.....	K.....				
REFERENCE AND IDENTIFICATION					
COMPILED BY.....	PEARL, R. H.				
COMPILER AFFILIATION...	COLORADO GEOLOGICAL SURVEY				
REFERENCE.....	HARRETT AND PEARL, 1976				

RECORD 00042

GEOTHERM FILE ID: 0073094

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
 LOCATION
 COORDINATES
 COUNTRY..... LAT/LONG... 38-43.97 N 106-09.67 W
 STATE..... UTM ZONE... 413
 COUNTY..... NORTHING... 4287562.
 COUNTRY PROVINCE 399071.

ISULOPE\$ (U/UV)

ANALYSIS IN MG/L		
Ag.....		
Al.....		
As.....		
As.....	0.002	
P.....	0.002	
Fe.....		
Ca.....	10.	
Ca+Mg.....		
Co.....		
Cl.....	5.3	
Co.....		
Co3.....	3.	
Cr.....		
Cs.....		
F.....	8.3	
Fe(Tot).....		
HCO3.....	67.	
Hg.....	0.0001	
H2S.....		
K.....	2.1	
Li.....		0.09
Mg.....		0.2
Mn.....		0.01
Na.....		58.
Nb.....		
NO3.....		0.12
P04.....		0.03
SiO2.....		58.
S04.....		69.
Zn.....		0.01

ZN... 0.01

RECORD 00043

GUTHRIE FILE NO: 0073093

GEOTHERM_SAMPLE-FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
LOCATION... TOWNSHIP=HAYDEN
COUNTRY..... UNITED STATES 155 078W 19 54 OF NW
CURRENTLY AVAILABLE
LAT/LONG... 34-43.97 N 106-09.07 W
GEOTHERM FILE NO: 0073099

UTM ZONE... +13
NORTHING... 4287562.
399071.

STATE..... COLORADO
COUNTY..... CHAFFEE

GEOLOGIC PROVINCE...
MAP REFERENCE..... PONCHA SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 200 FT. EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 54.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 326.

ALKALINITY..... 71. AS HCO3

TOTAL DISSOLVED SOLIDS... 245.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG.....	CO3.....	LI...	0.09
AL.....	CR.....	MG...	0.0
AS.....	CS.....	MN...	0.01
AU.....	CU.....	0.001	
H.....	F.....	9.1	57.
HA.....	0.02	SI02.	60.
HE.....	0.014		
HI.....	FE(TOT).	NB...	
CA.....	GA.....	NH4...	
CA+MG.	HCO3.....	NO3...	
CD.....	11.	0.14	
CL.....	4.4	0.002	
		0.15	
		SR...	0.19
		S04...	65.
		ZN...	0.01

ISOTOPES (U/001)

REFERENCE AND IDENTIFICATION
COMPILED BY..... PEARL, R. H.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00044

GEOTHERM FILE ID: 0073098

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING B
LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 155 078W 19 SW OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE

GEOLOGIC PROVINCE...
MAP REFERENCE..... PONCHA SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED AT EAST END OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 54.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 320.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.

COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

CORRINATES

LAT/LONG... 38-43.97 N 106-09.68 W
UTM ZONE... +13
NORTHING... 4287562.
399057.

REFERENCE.....

RECORD 00047

GEOTHERM FILE ID: 0073147

GEOTHERM_SAMPLE-EJLE
... NAME OF SAMPLE SOURCE... PUNCHA HOT SPRING: SPRING B
LOCATION IOWNSHIP-RANGE
COORDINATES
GEOTHERM FILE NO: 0073147

COORDINATES
LAT/LONG... 38-29.82 N 106-04.60 W
UTM ZONE... 413
NORTHING... 4261303.
406109.

MAP REFERENCE..... BONANZA 11:62500
OTHER LOCALITY INFORMATION: LOCATED APPROX 140 FT SE OF SPRING A AND APPROXIMATELY 50 FT HIGHER UP THE HILL.
SAMPLE DESCRIPTION AND CONDITIONS

WATER CHARGE.....	111.	L/MIN
SPECIFIC CONDUCTANCE.....	940.	AS HCU3
ALKALINITY.....	214.	
TOTAL DISSOLVED SOLIDS.....	659.	
CHARGE IMBALANCE (% DIFF)...	0.2	
ANALYSIS IN MG/L		

~~ISO TYPES (0/00)~~

CO..... 7.0
REFERENCE AND IDENTIFICATION
COMPILED BY..... BURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... RABHETT AND PEARL, 1976

RECORD 00048

GEOTHERM FILE ID: 0015732

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS
LOCATION
TOWNSHIP-RANGE
COORDINATES
GEOTHERM FILE ID: 0015732

COORDINATES
LAT/LONG... 38-29.80 N 106-04.00 W

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1974/09/18
TEMPERATURE (C)..... 71.

TEMPERATURE 67.0000 71.
OTHER SAMPLE INFORMATION.. ABANDONED BATH HOUSE.
WATER ANALYSIS

RADIATION ANALYSIS
ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MUNSANLU RES. CORP.,
MOUND LABORATORY, MIAMISBURG, OHIO.
RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF

METHODS IN TALVITIE, 1971: STEAM SAMPLING: STOKER AND KRUGER, 1975.

RADIOISOTOPES

K-40.....		TH-230.....	0.022 +/-	0.016
PH-210.....		TH-232.....	0.02 +/-	0.017
RA-226.....	0.16 +/-	U-234.....	0.041 +/-	0.021
RA-228.....		U-238.....	0.034 +/-	0.020

REFERENCE AND IDENTIFICATION

COMPILER BY..... ALISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00049

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 66.1
 DISCHARGE..... 1.9 L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1974/00/00
 CHARGE IMBALANCE (* DIFF)... 8.0
 ANALYSIS
 H..... F.....
 HE..... FE(TOT).....
 CA..... 16. HCO3..... 218.
 CL..... 51.
 CO..... K..... 8.6
 REFERENCE AND IDENTIFICATION
 COMPILER BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WHITE AND WILLIAMS, 1975

COORDINATES

LAT/LONG... 38-29.90 N 106-04.50 W
 UTM ZONE... 13
 NORTHING... 4261449.
 406257.

TOWNSHIP=RANGE

ISOLINES 10/0001

NA... 200.
 NB... 5102.
 86.
 190.

RECORD 00050

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... BONANZA 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 50.0
 DISCHARGE..... 757. L/MIN
 WATER ANALYSIS
 PH..... 7.5
 SPECIFIC CONDUCTANCE..... 995.
 ALKALINITY..... 219. AS HCO3

COORDINATES

LAT/LONG... 38-29.82 N 106-04.62 W
 UTM ZONE... 13
 NORTHING... 4261303.
 406080.

NW OF S#

TOWNSHIP=RANGE

49N 008E 15

ISOTOPIES (02/001)

TOTAL DISSOLVED SOLIDS... 654.
CHARGE IMBALANCE (% DIFF)... 3.3
ANALYSIS IN MG/L

AL....	CR.....	MG....	0.2
AS....	CS.....	MN....	0.030
H.....	F.....	NA....	190.
HE.....	FE(TOT)...	NB....	77.
CA....	17.	NO3...	190.
CO....	HCO3.....	PO4...	0.01
CL....	H2S.....		0.12
CO....	K.....		8.7

REFERENCE AND IDENTIFICATION
COMPILED BY..... RUKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00051
GEOTHERM FILE ID: 0073145

GEOTHERM_SAMPLE-FILE
NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING A
LOCATION...
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE...
MAP REFERENCE..... BONANZA 1:62500
OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHWEST IN LOWEST COLLECTION BOX.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 70.0
WATER ANALYSIS

COORDINATES
LAT/LONG... 38-29.82 N 106-04.62 W
UTM ZONE... 13
NORTHING... 4261303.
EASTING... 406080.

PH..... 7.7
SPECIFIC CONDUCTANCE..... 996.
ALKALINITY..... 219.
TOTAL DISSOLVED SOLIDS... 697.
CHARGE IMBALANCE (% DIFF)... 0.5
ANALYSIS IN MG/L

AL....	CR.....	MG....	0.2
AS....	CS.....	MN....	0.04
H.....	F.....	NA....	200.
HE.....	FE(TOT)...	NB....	12.
CA....	17.	NO3...	0.02
CO....	HCO3.....	PO4...	219.
CL....	H2S.....		0.01
CO....	K.....		0.09
CO....			8.3

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00052
GEOTHERM FILE ID: 0073144

GEOTHERM_SAMPLE-FILE
NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING A
LOCATION...
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE...
MAP REFERENCE..... BONANZA 1:62500
OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHWEST IN LOWEST COLLECTION BOX.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 70.0
WATER ANALYSIS

COORDINATES
LAT/LONG... 38-29.82 N 106-04.62 W
UTM ZONE... 13
NORTHING... 4261303.
EASTING... 406080.

NW OF SW

STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... HONANZA 1:62500
 OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHEAST OF HOUSE IN LOWEST COLLECTION BOX.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 70.0

WATER ANALYSIS
 PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1040.
 ALKALINITY..... 202.
 TOTAL DISSOLVED SOLIDS..... 678.
 CHARGE IMBALANCE (% DIFF).... 0.6
 ANALYSIS IN MG/L

AG..... CO3..... 0.18
 AL..... CR..... 0.5
 AS..... 0.003 CS..... 0.05
 CA..... 17. HG..... 0.06
 CD..... 50. CL..... 50. CO..... 8.1
 CU..... 0.07
 FE..... 11.
 NI..... 202.
 NO3..... N
 PO4..... 0.01
 SI02..... 71.
 SO4..... 220.
 ZN..... 0.01

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOLOPES 10/0001

RECORD 00053

GEOTHERM FILE ID: 0073143

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS; SPRING A
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... HONANZA 1:62500
 OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHEAST OF HOUSE IN LOWEST COLLECTION BOX.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 71.0

COORDINATES

LAT/LONG... 38-29.82 N 106-04.02 W
 UTM ZONE... 13
 NORTHING... 4261303.
 406080.

WATER ANALYSIS
 PH..... 870.
 SPECIFIC CONDUCTANCE..... 210.
 ALKALINITY..... 667.
 TOTAL DISSOLVED SOLIDS..... 1.0
 CHARGE IMBALANCE (% DIFF).... 1.0
 ANALYSIS IN MG/L

AG..... CO3..... 0.19
 AL..... 0.07 CR..... 0.7
 AS..... 0.002 CS..... 0.04
 CA..... 11. CU..... 0.001
 NI..... 11. NO3..... 190.
 PO4..... 0.01
 SI02..... 81.
 SO4..... 220.
 ZN..... 0.01

ISOLOPES 10/0001

RE..... 200.
 HI..... 504..
 CA..... SR...
 CA+MS. 20. 0.05
 HG..... 216. 0.004
 H2S..... 0.0001 0.15
 CL..... 49. ZN... 0.01
 CO..... K..... 8.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00054

GEUTHERM FILE ID: 0073151

GEUTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C
 LOCATION... TOWNSHIP=RANGE

COORDINATES

LAT/LONG... 38-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

SW OF NW

49N 008E 15

UNITED STATES
 COLORADO
 CHAFFEE

BONANZA 1162500
 MAP REFERENCE... UPPERMOST SPRING IN DRAW E OF SPRINGS A AND B

OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW E OF SPRINGS A AND B

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)..... 62.0 L/MIN

DISCHARGE..... 15.

WATER ANALYSIS

PH..... 7.5

SPECIFIC CONDUCTANCE..... 999.

ALKALINITY..... 219. AS HCO3

TOTAL DISSOLVED SOLIDS..... 655.

CHARGE IMBALANCE (% DIFF)... 2.6

ANALYSIS IN MG/L

AL..... CR..... 0.4

AS..... CS..... 0.040

FE..... F..... 13. 190.

HI..... FE(TOT)... N 219.

CA..... HCO3..... N 0.15

CO..... H2S.....

CL..... K..... 8.6

CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00055

GEUTHERM FILE ID: 0073150

GEUTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C
 LOCATION... TOWNSHIP=RANGE

COORDINATES

LAT/LONG... 38-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

SW OF NW

49N 008E 15

UNITED STATES
 COLORADO
 CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BONANZA 1:62500
 OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW EAST OF SPRINGS A AND B.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 63.0 L/MIN
 DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

PH..... 7.5
 SPECIFIC CONDUCTANCE..... 998.
 ALKALINITY..... 218. AS HCO3
 TOTAL DISSOLVED SOLIDS..... 685.
 CHARGE IMBALANCE (% DIFF).... 0.5

ISOTOPES (U/001)

ANALYSIS IN MG/L
 AL..... CR..... MG..... 0.3
 AS..... CS..... MN..... 0.04
 R..... F..... NA..... 200.
 RE..... FE(TOT)..... 12.
 CA..... HCO3..... 0.03
 CO..... H2S..... 218.
 CL..... 52.
 CO..... K..... 8.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... WAGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00056

GEOTHERM FILE 10: 0073149

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C

LOCATION
 COUNTRY..... UNITED STATES SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

MAP REFERENCE..... BONANZA 1:62500

OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW EAST OF SPRINGS A AND B.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 62.0 L/MIN
 DISCHARGE..... 11. L/MIN

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 860.
 ALKALINITY..... 212. AS HCO3
 TOTAL DISSOLVED SOLIDS..... 660.
 CHARGE IMBALANCE (% DIFF).... 3.6

ISOTOPES (U/001)

ANALYSIS IN MG/L
 AG..... CO3..... LI..... 0.18
 AL..... CR..... MG..... 0.4
 AS..... CS..... MN..... 0.04
 H..... F..... NA..... 190.
 RE..... FE(TOT)..... 8.9
 CA..... HCO3..... 0.01
 CO..... H2S..... 212.
 CA+Mg..... 1.
 CO..... 52.
 CO..... K..... 8.3

CL..... 50.
 CO..... K..... 8.1
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... GARRETT AND PEARL, 1976

ZN... 0.01

RECORD 00057

GEOTHERM FILE ID: 0073148

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS SPRING C
 LOCATION
 COUNTRY..... UNITED STATES SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... BONANZA 1:62500
 OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW EAST OF SPRINGS A AND B.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 63.0
 DISCHARGE..... 7.6 L/MIN

COORDINATES

LAT/LONG... 38-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 960.
 ALKALINITY..... 214. AS HCO3
 TOTAL DISSOLVED SOLIDS... 670.
 CHARGE IMBALANCE (% DIFF)... 1.5
 ANALYSIS IN MG/L

AG.....	CO3.....	LI... 0.2
AL..... 0.035	CR.....	MG... 0.8
AS..... 0.006	CS.....	FA... 0.05
AI.....	CU..... 0.001	NA... 190.
H..... 0.004	F..... 11.	SI02. 81.
HA..... 0.07	FE(TOT)... 0.04	SO4... 200.
HE.....	GA.....	SR... 0.52
HI.....	HCO3..... 214.	
CA..... 24.	HG..... N	
CA+MG...	H2S.....	
CD.....		
CL..... 49.		
CO.....		
K..... 8.3		
ZN... 0.004		

ISOTOPES 10/0001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... GARRETT AND PEARL, 1976

RECORD 00058

GEOTHERM FILE ID: 0073152

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS SPRING D
 LOCATION
 COUNTRY..... UNITED STATES SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... BONANZA 1:62500

COORDINATES

LAT/LONG... 38-29.83 N 106-04.53 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406211.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 40 FEET NORTHWEST OF SPRING C

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 56.0 L/MIN
DISCHARGE..... E 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1000.

ANALYSIS IN MG/L

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00059

GEOTHERM FILE ID: 0073153

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING E

LOCATION
COUNTRY..... UNITED STATES SW OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-29.83 N 106-04.53 W
UTM ZONE... 13
NORTHING... 4261320.
406211.

MAP REFERENCE..... BONANZA 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 20 FEET SOUTHWEST OF SPRING D

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 60.0 L/MIN
DISCHARGE..... E 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 950.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00060

GEOTHERM FILE ID: 0073223

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING

LOCATION
COUNTRY..... UNITED STATES SW OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
UTM ZONE... 13
NORTHING... 4259851.
420631.

MAP REFERENCE..... HOWARD 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 28.0 L/MIN
DISCHARGE..... 662. L/MIN

WATER ANALYSIS

PH..... 7.1

SPECIFIC CONDUCTANCE..... 816.

ALKALINITY..... 328. AS HCO3

TOTAL DISSOLVED SOLIDS... 482.

CHARGE IMBALANCE (± DIFF)... 1.2

ANALYSIS IN MG/L

AL..... CR.....

AS..... CS.....

MG..... 25.

MM..... N

ISULORES 10/001

H..... 0.1 F..... 0.6 NA.... 49. SI02. 31.
 HE..... 81. FE(TOT).. N 328. NO3... 63.
 CA..... H2O3..... PO4... 0.33
 CO..... H2S..... 0.03
 CL..... 63.

CO..... K..... 6.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00061

GEOTHERM_SAMPLE_FILE-----
 NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING
 LOCATION-----

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 49N 010E 18
 COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... HOWARD 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 32.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 670.

ALKALINITY..... 304. AS HC03

TOTAL DISSOLVED SOLIDS... 470.

CHARGE IMBALANCE (% DIFF)... 2.9

ANALYSIS IN MG/L

AG..... CU3..... LI... 0.11
 AL..... CR..... MG... 24.
 AS..... CS..... MN... 0.005
 AU..... CU..... 0.0007
 H..... F..... 0.5 NA... 51. SI02. 32.
 HA..... 0.11
 HE..... FE(TOT).. 0.02 NB... 65.
 RI..... GA..... NM4... 0.4
 CA..... HC03..... NO3...
 CA+MG. HG..... N PB... 0.004
 CD..... H2S..... PO4... 0.06
 CL..... 61. ZN... N

CO..... K..... 6.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00062

GEOTHERM_SAMPLE_FILE-----
 NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING
 LOCATION-----

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 49N 010E 18
 COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
 UTM ZONE... 13
 NORTHING... 4259851.

GEOTHERM_FILE_ID: 0073221

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
 UTM ZONE... 13
 NORTHING... 4259851.
 420631.

ISOTOPE 10/2001

GEOTHERM_FILE_ID: 0073224

420631.

GEOLOGIC PROVINCE..
 MAP REFERENCE..... HOWARD 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 28.0 L/MIN
 DISCHARGE..... 757.
 WATER ANALYSIS
 PH..... 7.2
 SPECIFIC CONDUCTANCE..... 809.
 ALKALINITY..... 328.
 TOTAL DISSOLVED SOLIDS..... 482.
 CHARGE IMBALANCE (% DIFF).... 1.5
 ANALYSIS IN MG/L

AL.....	CR.....	MG.....	26.
AS.....	CS.....	MN.....	N
R.....	F.....	NA.....	52.
FE.....	FE(TOT).....	NB.....	31.
CA.....	HC03.....	NO3.....	65.
CO.....	H2S.....	PO4.....	0.2
CL.....	62.		0.06

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00063

GEOTHERM FILE ID: 0015733

GEOTHERM SAMPLE-FILE
 NAME OF SAMPLE SOURCE... YOUNG LIFE GROUP CAMP WELL
 LOCATION
 COUNTRY..... UNITED STATES 24 NW OF SE
 STATE..... COLORADO
 COUNTY..... CHAFFEE

COORDINATES
 LAT/LONG... 38-43.95 N 106-10.10 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/09/18
 TEMPERATURE (C)..... 65.

OTHER SAMPLE INFORMATION.. WATER USED IN SPAT SAMPLE FROM CISTERN.
 WATER ANALYSIS

PH..... 7.9

RADIATION ANALYSIS

ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
 MOUND LABORATORY, MIAMISBURG, OHIO.
 RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
 METHODS IN ITALY, 1971; STEAM SAMPLING: STOKER AND KRUGER, 1975.

RADIOISOTOPES

K-40.....	1.7	±/-	0.18
PH-210.....	L	0.018	
RA-226.....	0.14	±/-	0.063
RA-228.....	0.14	±/-	0.063
RA-228.....	1.9	±/-	0.063
RA-228.....	57.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... BLISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00064
GEOTHERM FILE ID: 0073072

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... IDAHO HOT SPRING: SPRING A
LOCATION

COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... CLEAR CREEK
GEOLOGIC PROVINCE...
MAP REFERENCE... IDAHO SPRINGS 1:24000
OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LODGE, EAST OF THE CREEK IN THE CLIFF.
SAMPLE-DESCRIPTION-AND-CONDITIONS
DATE/COLLECTOR... 1975/07/00
TEMPERATURE (C)... 45.0
DISCHARGE... 79. L/MIN

COORDINATES
LAT/LONG... 39-44.33 N 105-30.72 W
UTM ZONE... 13
NORTHING... 4398687.
456129.

WATER ANALYSIS
SPECIFIC CONDUCTANCE... 3400.
ALKALINITY... 1510.
TOTAL DISSOLVED SOLIDS... 2020.
CHARGE IMBALANCE (% DIFF)... 2.3
ANALYSIS IN MG/L

AG... CO3... 0.64
AL... CR... 36.
AS... CS... 0.04
AU... CU... 0.008
H... F... 500.
RA... NA... 5102.
RE... FE(TOT)... 0.02
RI... GA... 380.
CA... HCO3... 5.5
CA+MG... N
CD... HG... 0.13
CL... H2S... 0.015
CO... K... 0.34
CN... ZN... 0.01

ISOTOPES (0/000)

REFERENCE AND IDENTIFICATION
COMPILED BY... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE... RARRETT AND PEARL, 1976

RECORD 00065
GEOTHERM FILE ID: 0073078

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: LODGE HOT WATER WELL
LOCATION

COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... CLEAR CREEK
GEOLOGIC PROVINCE... 14
MAP REFERENCE... IDAHO SPRINGS 1:24000
OTHER LOCALITY INFORMATION: LOCATED AT S END OF SWIMMING POOL APPROXIMATELY 100 FT N OF LODGE.
SAMPLE-DESCRIPTION-AND-CONDITIONS
DATE/COLLECTOR... 1975/10/00
TEMPERATURE (C)... 46.0
DISCHARGE... 114. L/MIN

COORDINATES

LAT/LONG... 39-44.37 N 105-30.72 W
UTM ZONE... 13
NORTHING... 4398701.
456129.

PH..... 6.9
SPECIFIC CONDUCTANCE..... 2920.
ALKALINITY..... AS HCO3
TOTAL DISSOLVED SOLIDS..... 1490.
CHARGE IMBALANCE (% DIFF).... 0.7
ANALYSIS IN MG/L

AG..... CO3..... 0.870
AL..... CR..... 38.
AS..... CS..... 0.070
H..... F..... 3.5
HE..... FE(TOT)..... 1.0
CA..... HCO3..... 1490.
CA+MG..... H2S..... N
CL..... 66.
CO..... 82.
K..... 10.

REFERENCE AND IDENTIFICATION
COMPILED BY..... HURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00066

GEOTHERM FILE 10: 0073074

GEOTHERM SAMPLE-EHE
NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CLEAR CREEK
GEOLOGIC PROVINCE...
MAP REFERENCE..... IDAHO SPRINGS 1:24000

COORDINATES

LAT/LONG... 39-44.33 N 105-30.72 W
UTM ZONE... 413
NORTHING... 4398687.
456129.

OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LOUSE, EAST OF THE CREEK IN THE CLIFF.
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/02/00
TEMPERATURE (C)..... 40.0

WATER ANALYSIS

PH..... 6.7
SPECIFIC CONDUCTANCE..... 2760.
ALKALINITY..... AS HCO3
TOTAL DISSOLVED SOLIDS..... 1390.
CHARGE IMBALANCE (% DIFF).... 2.2
ANALYSIS IN MG/L

AG..... CO3..... 34.
AL..... CR..... 0.070
AS..... CS..... 490.
H..... F..... 4.1
HE..... FE(TOT)..... 0.01
CA..... HCO3..... 1390.
CA+MG..... H2S..... 0.2
CL..... 64.
CO..... 0.06
K..... 71.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGINALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (00/0001)

ISOTOPES (00/0001)

RECORD 00067

GEOTHERM FILE 10: 0073073

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION... TOWNSHIP-RANGE

COUNTRY... UNITED STATES 04S 073W 01 NE OF NW

STATE... COLORADO

COUNTY... CLEAR CREEK

GEOLOGIC PROVINCE...

MAP REFERENCE... IDAHO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LODGE, EAST OF THE CREEK IN THE CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/10/00

TEMPERATURE (C)... 40.0

WATER ANALYSIS

PH... 6.9

SPECIFIC CONDUCTANCE... 2800.

ALKALINITY... 1520.

TOTAL DISSOLVED SOLIDS... 2110.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

AG... CO3... 0.9

AL... CR... 40.

AS... 0.019

H... 0.06

HE... 3.7

CA... 150.

CD... 0.07

CL... 1520.

CO... H2S... 0.05

K... 0.09

MANGNALL, P.

COLORADO GEOLOGICAL SURVEY

BARRETT AND PEARL, 1976

ISOTOPES 10/0001

LI... 0.9

MG... 40.

NA... 530.

NH... 58.

NO3... 430.

P04... 0.05

P04... 0.09

ZN... 0.1

RECORD 00068

GEOTHERM FILE 10: 0073075

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION... TOWNSHIP-RANGE

COUNTRY... UNITED STATES 04S 073W 01 NE OF NW

STATE... COLORADO

COUNTY... CLEAR CREEK

GEOLOGIC PROVINCE...

MAP REFERENCE... IDAHO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 75 FT S OF LODGE EAST OF CREEK IN CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)... 40.0

WATER ANALYSIS

PH... 6.9

SPECIFIC CONDUCTANCE... 2600.

ALKALINITY... 1390.

TOTAL DISSOLVED SOLIDS... 1940.

CHARGE IMBALANCE (% DIFF)... 1.1

ISOTOPES 10/0001

LI... 0.9

MG... 40.

NA... 530.

NH... 58.

NO3... 430.

P04... 0.05

P04... 0.09

ZN... 0.1

ANALYSIS IN MG/L

AL.....
 AS.....
 H..... 0.470
 HE.....
 CA..... 130.
 CO.....
 CL..... 66.
 CR.....
 CS.....
 F..... 4.1
 FE(TOT)..... 0.110
 HCO3..... 1390.
 H2S.....
 K..... 76.
 LI.....
 MG.....
 MN.....
 NA.....
 NH.....
 NO3.....
 PO4.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE-FILE
 NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CLEAR CREEK
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... IDAHO SPRINGS 1:24000
 OTHER LOCALITY INFORMATION: LOCATED 50 FT E OF SE CORNER OF LODGE IN CLIFF.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 24.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2900.
 ALKALINITY..... 1520.
 TOTAL DISSOLVED SOLIDS..... 2070.
 CHARGE IMBALANCE (% DIFF).... 0.3

ANALYSIS IN MG/L
 AG.....
 AL..... 0.2
 AS..... 0.012
 AU.....
 H..... 0.370
 HA..... 0.16
 RE.....
 RI.....
 CA..... 130.
 CAMG.....
 CO.....
 CL..... 69.
 CR.....
 CS.....
 CU..... 0.009
 F..... 4.8
 FE(TOT)..... 0.020
 GA.....
 HCO3..... 1520.
 Hg.....
 H2S.....
 K..... 82.
 LI..... 0.660
 MG..... 50.
 MN..... 0.020
 NA.....
 NH.....
 NH4.....
 NO3.....
 PB.....
 PO4.....
 SE OF SW
 SI02..... 68.
 SI04..... 400.
 SR..... 6.0
 TDS.....
 U.....
 V.....
 W.....
 X.....
 Y.....
 ZN..... 0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (0/001)

COORDINATES
 LAT/LONG... 39-44.35 N 105-30.72 W
 UTM ZONE... 13
 NORTING... 4398724.
 456129.

RECORD 00069
 GEOTHERM FILE ID: 0073076

RECORD 00070

GEOTHERM SAMPLE-FILE
 NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING C

GEOTHERM SAMPLE-FILE
 NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING C

RECORD 00070
 GEOTHERM FILE ID: 0073077

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CLEAR CREEK
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... IDAHO SPRINGS 1:24000
 OTHER LOCALITY INFORMATION: LOCATED 100 FEET SOUTH OF LOUGE AND EAST OF THE CREEK.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 20.0 L/MIN
 DISCHARGE..... 3.8
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 1620.
 ALKALINITY..... 759.
 TOTAL DISSOLVED SOLIDS..... 1070.
 CHARGE IMBALANCE (% DIFF).... 1.3
 ANALYSIS IN MG/L
 AG..... CO3..... 0.34
 AL..... CR..... 23.
 AS..... 0.002 CS..... 0.04
 R..... 0.17 F..... 2.9
 HE..... FE(TOT) 0.04
 CA..... 77. HCO3..... 759.
 CD..... H2S.....
 CL..... 36.
 CO..... K..... 44.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES 10Z0001

SI02. 45.
 S04.. 210.
 ZN... 0.02

RECORD 00071

GEOTHERM FILE ID: 0000401

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... IDAHO SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CLEAR CREEK
 GEOLOGIC PROVINCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 50.0
 DATE/ANALYST..... 1976/06/28
 ANALYSIS
 H..... F.....
 HE..... FE(TOT).
 CA..... 138.
 CL..... 65.
 CO..... K..... 77.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALYARDI, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MALLORY AND BARNETT, 1973

TOWNSHIP=RANGE

COORDINATES
 LAT/LONG... 39-44.32 N 105-30.20 W
 UTM ZONE... 13
 NORTHING... 4398442.

ISOTOPES 10Z0001

SI02. 58.
 S04.. 400.

RECORD 00072
GEOTHERM FILE ID: 0073230

GEOTHERM_SAMPLE.FILE

NAME OF SAMPLE SOURCE... DEXTER WARM SPRING

LOCATION... TOWNSHIP-RANGE 35N 011E 08 NE OF SE NE

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... CONEJOS

GEOLOGIC PROVINCE... 15

MAP REFERENCE... PIKES STOCKADE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.0

WELL DEPTH (M)..... 526.

DISCHARGE..... E 189. L/MIN

OTHER SAMPLE INFORMATION.. SEVERAL SPRINGS AND SEEPS IN AREA.

WATER ANALYSIS

P1..... 7.9

SPECIFIC CONDUCTANCE..... 340.

QUALIFICATION FIELD..... FLOW DIFFICULT TO ESTIMATE. EACH SPRING HAS A DISCHARGE OVER 19 L/MIN.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-17.68 N 105-47.08 W

UTM ZONE... 13

NORTHING... 4127646.

430451.

427424.

4126045.

427424.

4126045.

427424.

4126045.

427424.

4126045.

427424.

4126045.

427424.

RECORD 00073

GEOTHERM FILE ID: 0073234

GEOTHERM_SAMPLE.FILE

NAME OF SAMPLE SOURCE... MCINTYRE WARM SPRING

LOCATION... TOWNSHIP-RANGE 35N 011E 18 NW OF SW NW

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... CONEJOS

GEOLOGIC PROVINCE...

MAP REFERENCE... PIKES STOCKADE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 14.0

DISCHARGE..... 19. L/MIN

OTHER SAMPLE INFORMATION.. 15-20 SPRINGS IN AREA.

WATER ANALYSIS

P1..... 7.9

SPECIFIC CONDUCTANCE..... 265.

QUALIFICATION FIELD..... ADJACENT SPRINGS 10-14 DEG C. TOTAL FLOW APPEARS TO BE LARGE, BUT DIFFICULT TO ESTIMATE DUE

TO SURFACE WATER.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-52.38 N 107-38.07 W

UTM ZONE... 13

RECORD 00074

GEOTHERM FILE ID: 0073016

GEOTHERM_SAMPLE.FILE

NAME OF SAMPLE SOURCE... COLONEL CHINN HOT WATER WELL

LOCATION... TOWNSHIP-RANGE 14S 092W 14 SW OF SE NE

COUNTRY... UNITED STATES

STATE... COLORADO

COORDINATES

LAT/LONG... 38-52.38 N 107-38.07 W

UTM ZONE... 13

NORTHING... 4305715.
271444.

COUNTY..... DELTA
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... PAONIA 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 42.0
WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 3560.
ALKALINITY..... 764.
ANALYSIS IN MG/L AS HCO3

AG.....	CO3.....	162.	MG.....	32.
AL.....	CR.....		MN.....	0.88
AS.....	CS.....		NA.....	570.
H.....	F.....	1.7		
HE.....	FE(TOT).....	2.5		25.
CA.....	HC03.....	0.1		
CD.....	H2S.....	764.	NO3.. N	
			PO4..	0.06
CL.....		400.		
CO.....	K.....	41.		

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00075
GEOTHERM FILE ID: 0073030

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... DOLORES
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... DOLORES PEAK 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 44.0 L/MIN
DISCHARGE..... 98.

COORDINATES
LAT/LONG... 37-46.30 N 108-05.63 W
UTM ZONE... 12
NORTHING... 4184255.
755977.

WATER ANALYSIS
SPECIFIC CONDUCTANCE..... 1850.
ALKALINITY..... 877.
TOTAL DISSOLVED SOLIDS... 1260.
CHARGE IMBALANCE (% DIFF)... 1.7
ANALYSIS IN MG/L AS HCO3

AG.....	CO3.....	0.1	LI.....	0.1
AL.....	CR.....	45.	MG.....	45.
AS.....	CS.....	1.8	MN.....	1.8
AU.....	CU.....	0.002		
BA.....	F.....	0.6	NA.....	35.
BE.....	FE(TOT).....	2.3		
BI.....	GA.....	877.	NI.....	34.
CA.....	HC03.....	330.	NO3..	350.
CA+MG.	HG.....		SR...	3.0
CD.....	H2S.....			

ISOTOPES 10/2007

CL... 6.6 K... 19. ZN... N

REFERENCE AND IDENTIFICATION
 COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE... DOLORES PEAK 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1976/04/00
 TEMPERATURE (C)... 42.0
 DISCHARGE... 95. L/MIN
 WATER ANALYSIS
 pH... 6.4
 SPECIFIC CONDUCTANCE... 1860.
 ALKALINITY... 1020. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1300.
 CHARGE IMBALANCE (% DIFF)... 3.1
 ANALYSIS IN MG/L
 AL...
 AS...
 H... 0.09
 HE...
 CA... 340.
 CO...
 CL... 7.0
 CR...
 CS...
 F... 0.7
 FE(TOT)...
 HCO3... 1020.
 H2S...
 MG... 45.
 MN... 1.9
 NA... 34.
 NB...
 NO3... 0.02
 PO4... 0.03

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
 LOCATION
 COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE... DOLORES PEAK 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1976/04/00
 TEMPERATURE (C)... 42.0
 DISCHARGE... 95. L/MIN
 WATER ANALYSIS
 pH... 6.4
 SPECIFIC CONDUCTANCE... 1860.
 ALKALINITY... 1020. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1300.
 CHARGE IMBALANCE (% DIFF)... 3.1
 ANALYSIS IN MG/L
 AL...
 AS...
 H... 0.09
 HE...
 CA... 340.
 CO...
 CL... 7.0
 CR...
 CS...
 F... 0.7
 FE(TOT)...
 HCO3... 1020.
 H2S...
 MG... 45.
 MN... 1.9
 NA... 34.
 NB...
 NO3... 0.02
 PO4... 0.03

COORDINATES
 LAT/LONG... 37-46.30 N 108-05.63 W
 UTM ZONE... 12
 NORTHING... 4184255.
 755977.

ISOTOPES (QZ001)

SI02... 33.
 SO4... 310.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
 LOCATION
 COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE... DOLORES PEAK 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1976/01/00
 TEMPERATURE (C)... 42.0
 DISCHARGE... 95. L/MIN
 WATER ANALYSIS
 pH... 6.6
 SPECIFIC CONDUCTANCE... 19.
 ALKALINITY... 1020. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1300.
 CHARGE IMBALANCE (% DIFF)... 3.1
 ANALYSIS IN MG/L
 AL...
 AS...
 H... 0.09
 HE...
 CA... 340.
 CO...
 CL... 7.0
 CR...
 CS...
 F... 0.7
 FE(TOT)...
 HCO3... 1020.
 H2S...
 MG... 45.
 MN... 1.9
 NA... 34.
 NB...
 NO3... 0.02
 PO4... 0.03

COORDINATES
 LAT/LONG... 37-46.30 N 108-05.63 W
 UTM ZONE... 12
 NORTHING... 4184255.
 755977.

P'..... 7.0
 SPECIFIC CONDUCTANCE..... 1890.
 ALKALINITY..... 1010.
 TOTAL DISSOLVED SOLIDS..... 1340.
 CHARGE IMBALANCE (% DIFF).... 1.3
 ANALYSIS IN MG/L
 AL..... CR..... 43.
 AS..... CS..... 1.7
 R..... F..... 0.4
 HF..... FE(TOT)..... 0.83
 CA..... HCO3..... 1010.
 CD..... H2S..... 0.15
 CL..... 6.3
 CO..... K..... 21.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00078
 GEOTHERM FILE ID: 0073042

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GEYSER WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... WICO 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 28.0
 DISCHARGE..... 0
 OTHER SAMPLE INFORMATION.. GEYSER-LIKE ACTIVITY.

COORDINATES

LAT/LONG... 37-44.80 N 108-07.03 W
 UTM ZONE... 12
 NORTHING... 4181416.
 754007.

ISOTOPEES_10Z001

ANALYSIS IN MG/L
 AG..... CO3..... 0.28
 AL..... CR..... 40.
 AS..... CS..... 0.7
 AR..... CU..... 0.006
 R..... F..... 0.4
 HA..... FE(TOT)..... 0.02
 HF..... GA..... 1770.
 HI..... HCO3..... 0.02
 CA..... H2S..... 0.024
 CA+MG..... N
 CD..... 2.4
 CL..... 36.
 CO..... 68.
 CR..... 12.
 CS..... 340.
 CU..... 340.
 F..... 0.01
 FE(TOT)..... 0.15
 GA..... 0.01
 HCO3..... 0.15
 H2S..... 0.15
 K..... 21.
 LI..... 0.28
 MG..... 40.
 MN..... 0.7
 NA..... 400.
 NH4..... 0.02
 NO3..... 0.024
 P..... 0.28
 PU4..... 0.28
 SI02..... 36.
 SO4..... 68.
 SM..... 12.
 ZN..... 29.

QUALIFICATION FIELD..... DISCHARGE VARIES DUE TO GEYSER-LIKE ACTIVITY. UNABLE TO MAKE MEASUREMENT.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.

COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00079

GEOTHERM FILE ID: 0073128

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 011W 06
STATE..... COLORADO
COUNTY..... DOLORES

GEOLOGIC PROVINCE...
MAP REFERENCE.....
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 46.0 L/MIN
DISCHARGE..... 98.
WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 9560.
ALKALINITY..... 628.
TOTAL DISSOLVED SOLIDS..... 6070.
CHARGE IMBALANCE (% DIFF).... 1.7

ISOTOPES (0/001)

AG.....	CO3.....	LI....	9.6
AL..... 0.24	CR.....	MG....	27.
AS..... 0.14	CS.....	MN....	0.78
AU.....	CU.....		0.004
R..... 9.3	F.....	NA....	3.9
BA..... 0.29			
RE.....	FE(TOT).	SI02..	150.
RI.....	GA.....	S04... 140.	
CA..... 100.	HCO3....	SR.... 3.8	
CA+MG.	HG.....		0.07
CD.....	H2S.....		0.037
CL..... 3100.			0.31
CU.....	K.....	ZN....	0.05

COORDINATES

LAT/LONG... 37-45.25 N 108-07.88 W
UTM ZONE... +12
NORTHING... 4182210.
752733.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGHALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00080

GEOTHERM FILE ID: 0073130

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 011W 06
STATE..... COLORADO
COUNTY..... DOLORES

GEOLOGIC PROVINCE...
MAP REFERENCE.....
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/04/00

TEMPERATURE (C)..... 42.0 L/MIN
DISCHARGE..... 114.
WATER ANALYSIS

COORDINATES

LAT/LONG... 37-45.25 N 108-07.88 W
UTM ZONE... +12
NORTHING... 4182210.
752733.

P1..... 6.8
 SPECIFIC CONDUCTANCE..... 10000.
 ALKALINITY..... 697. AS HCO3
 TOTAL DISSOLVED SOLIDS..... 6180.
 CHARGE IMBALANCE (% DIFF).... 1.5
 ANALYSIS IN MG/L

AL..... CR..... MG.... 28.
 AS..... CS..... MN.... 0.830
 H..... 4.3 F..... 3.7 NA.... 1900.
 HE..... FE(TOT)..... 0.2 NH....
 CA..... 170. HCO3..... 697. NO3... 0.09
 CD..... H2S..... PO4... 0.67
 CL..... 3100.

CO..... K..... 370.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... HURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00041

GEOTHERM FILE 10: 0073129

GEOTHERM SAMPLE-FILE
 NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 40N 01W 06

COORDINATES
 LAT/LONG... 37-45.25 N 108-07.88 W
 UTM ZONE... 12
 NORTHING... 4182210.
 752733.

STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE... GROUNDHOG MOUNTAIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 40.0
 DISCHARGE..... 129. L/MIN

*ANALYSIS

PH..... 6.9
 SPECIFIC CONDUCTANCE..... 10700. AS HCO3
 ALKALINITY..... 685.
 TOTAL DISSOLVED SOLIDS..... 6530.
 CHARGE IMBALANCE (% DIFF).... 0.6
 ANALYSIS IN MG/L

AL..... CR..... MG.... 30.
 AS..... CS..... MN.... 0.86
 H..... 1.0 F..... 3.8 NA.... 1900.
 HE..... FE(TOT)..... 0.06 NH....
 CA..... 240. HCO3..... 685. NO3... 0.11
 CD..... H2S..... PO4... 0.37
 CL..... 3300.

CO..... K..... 380.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00042

GEOTHERM FILE 10: 0073163

GEOTHERM SAMPLE-FILE

NAME OF SAMPLE SOURCE... RICO AREA: BIG GEYSER WARM SPRING
LOCATION

TOWNSHIP-RANGE
40N 011W

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... DOLORS

GEOLOGIC PROVINCE..

MAP REFERENCE..... RICO 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 36.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 3100.

ALKALINITY..... 1650.

TOTAL DISSOLVED SOLIDS..... 2740.

CHARGE IMBALANCE (% DIFF).... 1.3

ANALYSIS IN MG/L

AL..... CR..... MG..... 93.

AS..... CS..... MN..... 4.4

FE..... F..... NA..... 67.

CA..... HCO3..... NO3..... 0.01

CD..... H2S..... PO4..... 0.55

CL..... 4.3

CO..... K..... 31.

REFERENCE AND IDENTIFICATION

COMPILED BY..... HURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE

RECORD 00083

NAME OF SAMPLE SOURCE... RICO AREA: BIG GEYSER WARM SPRING
LOCATION

TOWNSHIP-RANGE
40N 011W

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... DOLORS

GEOLOGIC PROVINCE..

MAP REFERENCE..... RICO 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 34.0

DISCHARGE..... 30. L/MIN

WATER ANALYSIS

PH..... 3250.

SPECIFIC CONDUCTANCE..... 1700.

ALKALINITY..... 2750.

TOTAL DISSOLVED SOLIDS..... 1.4

CHARGE IMBALANCE (% DIFF).... 1.4

ANALYSIS IN MG/L

AL..... CO3..... LI..... 0.25

AS..... CR..... MG..... 98.

FE..... CS..... MN..... 3.1

CA..... F..... NA..... 78.

CD..... FE(II)..... 2.1

CL..... 8.3

COORDINATES

LAT/LONG... 37-42.00 N 108-01.73 W

UTM ZONE... +12

NORTHING... 4176481.

761956.

ISOLINES (0/0001)

SI02. 140.

SI04. 920.

COORDINATES

LAT/LONG... 37-42.00 N 108-01.73 W

UTM ZONE... +12

NORTHING... 4176481.

761956.

ISOLINES (0/0001)

SI02. 110.

SI04. 900.

CA.... 680. HCU3.... 1700. NO3.. 0.05
 CA+MG. HG..... N
 CD.... H2S..... PO4.. 0.25
 CL.... 4.1
 CO.... K..... 30.
 ZN... 1.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00084

GEOCHEM-SAMPLE-FILE

GEOTHERM FILE ID: 0073161

NAME OF SAMPLE SOURCE... RICO AREA: DIAMOND DRILL HOLE
 LOCATION

COORDINATES

LAT/LONG... 37-42.08 N 108-01.75 W
 UTM ZONE... 12
 NORTHING... 4176628.
 761922.

TOWNSHIP-RANGE

40N 011W

UNITED STATES

COLORADO

COLORADO

14

RICO 1124000

MAP REFERENCE.....

OTHER LOCALITY INFORMATION: LOCATED APPROX 100 YDS NW OF LITTLE SPRING IN MIDDLE OF FLOODPLAIN.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 44.0

DISCHARGE..... 57. L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2710.
 ALKALINITY..... 1120.
 TOTAL DISSOLVED SOLIDS... 2250.
 CHARGE IMBALANCE (% DIFF)... 11.7
 ANALYSIS IN MG/L

ISOTOPES 10Z001

AL.... CR..... MG... 82.
 AS.... CS..... MN... 1.3
 R.... F..... NA... 66.
 HF.... FE(TOT)... NB...
 CA.... HCU3.... NO3.. 0.07
 CD.... H2S..... PO4.. 0.25
 CL.... 2.4

CO.... K..... 28.

REFERENCE AND IDENTIFICATION

COMPILED BY..... HURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00085

GEOCHEM-SAMPLE-FILE

GEOTHERM FILE ID: 0073164

NAME OF SAMPLE SOURCE... RICO AREA: GEYSER WARM SPRING
 LOCATION

COORDINATES

LAT/LONG... 37-42.03 N 108-01.73 W
 UTM ZONE... 12
 NORTHING... 4176536.
 761954.

TOWNSHIP-RANGE

40N 011W

UNITED STATES

COLORADO

COLORADO

14

RICO 1124000

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 34.0 L/MIN
 DISCHARGE..... 53.
 WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3200.
 ALKALINITY..... 1730. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2790.
 CHARGE IMBALANCE (% DIFF)... 2.3
 ANALYSIS IN MG/L

AG..... CO3..... LI... 0.250
 AL..... 0.13 CR..... MG... 100.
 AS..... 0.026 CS..... MN... 1.9
 AU..... CU..... 0.004
 H..... 0.080 F..... 80. SI02. 110.
 NA..... 0.034 NA...
 HE..... FE(TOT). 8.5 NH... 504... 920.
 HI..... GA..... NH4... 6.7
 CA..... HCO3..... NO3... 0.02
 CA+MG. 680. H6..... PR... 0.017
 CU..... H2S..... PO4... 0.28
 CL..... 3.9 CL...
 CO..... K..... 32. ZN... 0.080

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RUKKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00086
 GEOTHERM FILE ID: 0073165

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... RICO AREA: LITTLE SPRING
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 40N 01W
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 37-42.07 N 108-01.73 W
 UTM ZONE... 12
 NORTHING... 4176610.
 761952.

MAP REFERENCE..... RICO 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 38.0 L/MIN
 DISCHARGE..... 49.

WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 4700.
 ALKALINITY..... 1710. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2790.
 CHARGE IMBALANCE (% DIFF)... 12.0
 ANALYSIS IN MG/L

AG..... CO3..... LI... 0.210
 AL..... CR..... MG... 110.
 AS..... 0.026 CS..... MN... 1.5
 H..... 0.03 F..... 76. SI02. 120.
 HE..... FE(TOT). 4.8 NH... 1000.
 CA..... 620. H6..... NO3... 0.05
 CA+MG. 1710. PO4... 0.25
 CU..... H2S.....
 CL..... 2.3 CL...

ISOTOPES (0/000)

SI02. 120.
 S04... 1000.

ISOTOPES (0/000)

CO..... K..... 5.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0-1

RECORD 00087

GEOTHERM FILE ID: 0073166

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... RICO AREA: LITTLE SPRING
 LOCATION TOWNSHIP=RANGE
 40N 01W

COORDINATES

LAT/LONG... 37-42.07 N 108-01.73 W
 UTM ZONE... 12
 NORTHING... 4176610.
 761952.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... MICO 1124000

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 39.0 L/MIN
 DISCHARGE..... 57.

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 3350.
 ALKALINITY..... 1450.
 TOTAL DISSOLVED SOLIDS... 2700.
 CHARGE IMBALANCE (% DIFF)... 4.6

ANALYSIS IN MG/L

AL.....
 AS.....
 H..... 0.070
 HE.....
 CA..... 690.
 CD.....
 CL..... 3.
 CR.....
 CS.....
 F..... 4.8
 FE (TOT)... 7.4
 HC03..... 1450.
 H2S.....
 MG..... 92.
 MN..... 1.6
 NA..... 77.
 NB.....
 NO3..... 0.08
 PO4..... 0.34

ISOTOPIES (0/001)

S102... 120.
 S04... 960.

CO..... K..... 32.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00088

GEOTHERM FILE ID: 0073028

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DOTSEKO WARM SPRINGS
 LOCATION TOWNSHIP=RANGE
 05S 087W 12 SE OF NW

COORDINATES

LAT/LONG... 39-37.65 N 107-06.37 W
 UTM ZONE... 13
 NORTHING... 4388325.
 319233.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... GLENWOOD SPRINGS 1162500

OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00

WATER ANALYSIS

PH.....
 SPECIFIC CONDUCTANCE..... 7.9
 18560.

ALCALINITY..... 454. AS HCU3
 TOTAL DISSOLVED SOLIDS... 9940.
 CHARGE IMBALANCE (% DIFF)... 0.9
 ANALYSIS IN MG/L
 AL..... CR..... MG... 65.
 AS..... CS..... MN... 0.02
 H..... F..... NA... 3500.
 HE..... FE(101)... 0.3
 CA..... HCU3... 0.04
 CO..... H2S..... 454.
 CL..... 5400.
 CO..... K..... 44.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE..... DOTSENU WARM SPRINGS
 NAME OF SAMPLE SOURCE... TOWNSHIP=RANGE
 LOCATION... USS 087W 12 SE OF NW
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... GLENWOOD SPRINGS 1:62500
 OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 31.0 L/MIN
 DISCHARGE..... N
 WATER ANALYSIS

COORDINATES
 LAT/LONG... 39-37.65 N 107-06.37 W
 UTM ZONE... 13
 NORTHING... 4388325.
 319233.

PH..... 7.2
 SPECIFIC CONDUCTANCE... 17000.
 ALKALINITY..... 451. AS HCU3
 TOTAL DISSOLVED SOLIDS... 10400.
 ANALYSIS IN MG/L
 AL..... CR..... MG... 79.
 AS..... CS..... MN... N
 H..... F..... NA... 3500.
 HE..... FE(101)... 0.8
 CA..... HCU3... 451.
 CO..... H2S..... 0.06
 CL..... 0.06
 CO..... K..... 95.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE..... DOTSENU WARM SPRINGS
 NAME OF SAMPLE SOURCE... TOWNSHIP=RANGE
 LOCATION... USS 087W 12 SE OF NW
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE...
 MAP REFERENCE... GLENWOOD SPRINGS 1:62500
 OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 31.0 L/MIN
 DISCHARGE..... N
 WATER ANALYSIS

COORDINATES
 LAT/LONG... 39-37.65 N 107-06.37 W
 UTM ZONE... 13
 NORTHING... 4388325.
 319233.

H..... 0.19 F..... 0.3 NA..... 3100. S102. 13.
 HE..... FE(TOT) 0.01 NH..... 504..
 CA..... 250. HCO3..... 421. NO3..... 0.09
 CA-MG..... N Hg..... P04.. 0.06
 CD..... H2S.....
 CL..... 4900. ZN... 0.01
 CO..... K..... 37.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00092

GEOTHERM FILE 10: 0073004

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 18S 070W 31 SE
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... ROYAL GORGE 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 7.6 L/MIN
 WATER ANALYSIS

COORDINATES
 LAT/LONG... 38-25.95 N 105-15.77 W
 UTM ZONE... 13
 NORTHING... 4253630.
 477060.

ANALYSIS IN MG/L
 AL..... CR..... 61.
 AS..... MN..... N
 H..... 0.2 F..... 1.5 NA..... S102. 21.
 HE..... FE(TOT) 0.020 NH..... 504..
 CA..... 170. HCO3..... 888. NO3..... 0.67
 CD..... H2S..... P04.. 0.09
 CL..... 190.

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00093

GEOTHERM FILE 10: 0073003

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 18S 070W 31 SE
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... ROYAL GORGE 1:24000

COORDINATES
 LAT/LONG... 38-25.95 N 105-15.77 W
 UTM ZONE... 13
 NORTHING... 4253630.
 477060.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 40.0 L/MIN
 DISCHARGE..... 3.8

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2010. AS HCO3
 ALKALINITY..... 888.
 TOTAL DISSOLVED SOLIDS... 1220.
 CHARGE IMBALANCE (% DIFF)... 1.9
 ANALYSIS IN MG/L

AL..... 0.02	CR.....	MG.... 55.
AS.....	CS.....	MN.... 0.01
AU.....	CU..... 0.002	
R..... 0.2	F..... 1.5	NA.... 180.
HA..... 0.1		
HF.....	FE(TOT)..... 0.03	NB.... 21.
HI.....	GA.....	NH4... 130.
HO.....	HCO3..... 888.	SR.... 1.1
CA+MG..... 190.	HG.....	
	H2S.....	
CD..... 190.		
CL.....		
CO.....	K..... 16.	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00094

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... ROYAL GORGE 1:24000

TOWNSHIP=RANGE
 18S 070W 31 SE

COORDINATES
 LAT/LONG... 38-25.95 N 105-15.77 W
 UTM ZONE... 13
 NORTHING... 4253630.
 477060.

GEOTHERM FILE ID: 0073002

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 40.0 L/MIN
 DISCHARGE..... 19.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 6.3
 ALKALINITY..... 1900. AS HCO3
 TOTAL DISSOLVED SOLIDS... 887.
 CHARGE IMBALANCE (% DIFF)... 1230.
 ANALYSIS IN MG/L

AG.....	CO3.....	LI.... 0.230
AL.....	CR.....	MG.... 62.
AS..... 0.011	CS.....	MN.... 0.01
R..... 0.19	F.....	NA.... 190.
HA.....	FE(TOT)..... 1.5	NB.... 22.
HO.....	HCO3..... 0.03	SR.... 130.
CA+MG..... 190.	HG..... 887.	
	H2S.....	
CD.....		
CL.....		
CO.....		

ISOTOPES 10/0001

ISOTOPES 10/0001

CL..... 180.
 CO..... K..... 15.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... PEARL, R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.010

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DON K RANCH ARTESIAN WELL
 LOCATION... TOWNSHIP=RANGE
 COUNTRY... UNITED STATES 22S 068W 05 NE

STATE... COLORADO
 COUNTY... FREMONT
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE... NETHORE 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/09/00
 TEMPERATURE (C)..... 28.0 L/MIN
 DISCHARGE..... 95.
 WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 2300.
 ALKALITY..... 1580.
 TOTAL DISSOLVED SOLIDS... 1710.
 CHARGE IMBALANCE (% DIFF)... 2.0
 ANALYSIS IN MG/L

ISOTOPE (0/000)

AG..... CO3..... 0.52
 AL..... CR..... 66.
 AS..... CS..... 0.87
 AU..... CU..... 0.003
 H..... F..... 1.9
 RA..... FE(TOT) 1.1
 RE..... GA..... 1580.
 RI..... HCU3..... N
 CA..... HG..... 0.01
 CM..... H2S..... 0.012
 CL..... 150.
 CO..... K..... 50.
 ZN... 0.01

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00095
 GEOTHERM FILE ID: 0073025

CORRELATION
 LAT/LONG... 38-10.33 N 105-00.53 W
 UTM ZONE... 13
 NORTHING... 4224712.
 499226.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FLORENCE ARTESIAN WELL
 LOCATION... TOWNSHIP=RANGE
 COUNTRY... UNITED STATES 19S 068W 07 NE OF NW

STATE... COLORADO
 COUNTY... FREMONT
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE... FLORENCE 1:24000

CORRELATION
 LAT/LONG... 38-24.88 N 105-02.72 W
 UTM ZONE... 13
 NORTHING... 4251619.
 496042.

RECORD 00096
 GEOTHERM FILE ID: 0073037

RE.....
 RI.....
 CA..... 150.
 CA+16.
 CO.....
 CL..... 36.
 CO.....
 K..... 13.
 FE(TOT). 0.88
 GA.....
 HCU3..... 628.
 HG..... 0.0001
 H2S.....
 NB.....
 NH4.....
 NO3..... 0.03
 PH..... 0.009
 PO4... N
 S04...
 SR.....
 ZN... 0.01

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FREMONT NATATORIUM HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE...
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 35.0
 DISCHARGE..... 68. L/MIN

COORDINATES
 LAT/LONG... 38-27.63 N 105-11.77 W
 UTM ZONE... +13
 NORTHING... 4256722.
 482885.
 ISOTOPE 10/001

WATER ANALYSIS
 PH..... 6.7
 SPECIFIC CONDUCTANCE..... 1850.
 ALKALINITY..... 633. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1330.
 CHARGE IMBALANCE (% DIFF)... 2.5
 ANALYSIS IN MG/L
 AL.....
 AS.....
 R..... 0.09
 HF.....
 CA..... 140.
 CO.....
 CL..... 30.
 CR.....
 CS.....
 F..... 0.5
 FE(TOT). 0.99
 HCO3..... 633.
 H2S.....
 MG... 67.
 MN... 0.04
 NA... 210.
 NB...
 NO3... 0.01
 PO4... 0.03

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FREMONT NATATORIUM HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE.....

COORDINATES
 LAT/LONG... 38-27.63 N 105-11.77 W
 UTM ZONE... +13
 NORTHING... 4256722.
 482885.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 36.0

DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 1900.

ALKALINITY..... AS HCO3

TOTAL DISSOLVED SOLIDS..... 630.

CHARGE IMBALANCE (% DIFF).... 0.7

ANALYSIS IN MG/L

AL.....

AS.....

H..... 0.08

RE.....

CA..... 140.

CO.....

CL..... 30.

CO..... K..... 13.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPE LOG/DWL

67.

0.05

210.

15.

510.

0.01

P04.. N

RECORD 00100

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SWISSVALE WARM SPRINGS: SPRING A

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... FREMONT

GEOLOGIC PROVINCE.. 15

MAP REFERENCE..... HOWARD 1:62500

OTHER LOCALITY INFORMATION: LOCATED 30 FEET SOUTH OF U.S. BUREAU OF LAND MANAGEMENT CADASTRAL SURVEY MARKER.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 28.0

DISCHARGE..... 473. L/MIN

WATER ANALYSIS

PH..... 7.

SPECIFIC CONDUCTANCE..... 880.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

GEUTHERM FILE ID: 0073189

COORDINATES

LAT/LONG... 38-28.82 N 105-53.42 W

UTM ZONE... 13

NORTHING... 4259280.

422341.

RECORD 00101

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SWISSVALE WARM SPRINGS: SPRING F

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... FREMONT

GEOLOGIC PROVINCE.. 15

MAP REFERENCE..... HOWARD 1:62500

GEUTHERM FILE ID: 0073190

COORDINATES

LAT/LONG... 38-28.82 N 105-53.47 W

UTM ZONE... 13

NORTHING... 4259281.

422268.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 350 FEET WEST OF SPRING A AND ABOUT 20 FT ABOVE THE RIVER BANK.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.0
DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 7.
SPECIFIC CONDUCTANCE..... 775.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00102

GEOTERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING
LOCATION... TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 49N 010E 18
STATE..... COLORADO
COUNTY..... FREMONT
GEOLOGIC PROVINCE.. 15
MAP REFERENCE..... HOWARD 1:62500

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
UTM ZONE... 13
NORTHING... 4259851.
420631.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
TEMPERATURE (C)..... 33.0 L/MIN
DISCHARGE..... 606. L/MIN

WATER ANALYSIS

PH..... 7.0
SPECIFIC CONDUCTANCE..... 760. AS HC03
ALKALINITY..... 322.
TOTAL DISSOLVED SOLIDS... 484.
CHARGE IMBALANCE (% DIFF)... 2.5
ANALYSIS IN MG/L
AG..... CO3..... 0.1
AL..... CR..... 27.
AS..... CS..... 0.01
H..... F..... 0.9
HE..... FE(TOT)... 0.06
CA..... HC03..... 322.
CA+MG... HG..... N
CO..... H2S.....
CL..... 62.
CO..... K..... 6.1

ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

ISOLINES 10/001

SI02... 30.
S04... 72.

RECORD 00103

GEOTERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS
LOCATION... TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 39-33.00 N 107-19.30 W
UTM ZONE... 13
NORTHING... 4380179.

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GARFIELD

GEOTHERM FILE 101 0000403

300513.

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 41.1

DISCHARGE..... 53. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

PH..... 8.5

CHARGE IMBALANCE (% DIFF).... 2.9

ANALYSIS

Na..... F..... NA.... 7586. SI02. 100.

HE..... FE(TOT)..... NO.... 2693.

CA.... 853. HCO3.... 799.

CL.... 11593.

CO.... K..... 478.

REFERENCE AND IDENTIFICATION

COMPILED BY..... GAILYARDT, KENNER, J.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GEORGE AND OTHERS, 1920

ISOTOPES 10/001

RECORD 00104

GEOTHERM FILE ID: 0073047

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA; DRINKING SPRING

LOCATION... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE

STATE..... COLORADO

COUNTY..... GARFIELD

GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 530. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 30000.

ALKALINITY..... 712. AS HCO3

TOTAL DISSOLVED SOLIDS.... 18800.

CHARGE IMBALANCE (% DIFF).... 0.3

ANALYSIS IN MG/L

AL..... CR..... MG.... 15.

AS..... CS..... MN.... 0.06

HA.... 0.87 F..... 2.2 NA.... 30.

HE..... FE(TOT)..... NO.... 1100.

CA.... 480. HCO3.... 0.04

CL.... 10000. H2S..... 0.01

CO.... K..... 180. PO4.... 0.15

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 39-32.98 N 107-19.32 W

UTM ZONE... 13

NORTHING... 4380142.

300483.

ISOTOPES 10/001

RECORD 00105

GEOTHERM FILE 101 0073046

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
LOCATION
COUNTRY... UNITED STATES 06S 089W 09 SE OF NE
STATE... COLORADO
COUNTY... GARFIELD
GEOLOGIC PROVINCE... 14
MAP REFERENCE... GLENWOOD SPRINGS 1124000
OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00

TEMPERATURE (C)... 51.0

DISCHARGE... 609. L/MIN

WATER ANALYSIS

PH... 6.4

SPECIFIC CONDUCTANCE... 31100.

ALKALINITY... 773. AS HCO3

TOTAL DISSOLVED SOLIDS... 20500.

CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

AL... CR...

AS... CS...

H... F... 2.7

HF... FE(TOT)... 0.02

CA... 500. HCO3... 773.

CO... H2S...

CL... 11000.

CO... K... 380.

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... BARRETT AND PEARL, 1976

ISOTOPES (u/DU)

30.

1100.

SI02.

S04..

H2.

0.07

7000.

NA...

NB...

NO3..

PO4..

RECORD 00106

GEOTHERM FILE 101 0073045

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
LOCATION
COUNTRY... UNITED STATES 06S 089W 09 SE OF NE
STATE... COLORADO
COUNTY... GARFIELD
GEOLOGIC PROVINCE... 14
MAP REFERENCE... GLENWOOD SPRINGS 1124000
OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/10/00

TEMPERATURE (C)... 50.0

WATER ANALYSIS

PH... 6.5

SPECIFIC CONDUCTANCE... 30100.

ALKALINITY... 777. AS HCO3

TOTAL DISSOLVED SOLIDS... 20200.

CHARGE IMBALANCE (% DIFF)... 2.3

COORDINATES

LAT/LONG...

UTM ZONE...

NORTHING...

300483.

COORDINATES

LAT/LONG...

UTM ZONE...

NORTHING...

300483.

ISOTOPES (U/ZUUL)

ANALYSIS IN MG/L

AG....	LI....	0.9
AL....	MG....	88.
AS....	MN....	0.09
FE....	NA....	6900.
FE(TOT)...	NB....	29.
CA....	NO3...	1100.
CA+MG...		
CD....	PO4...	0.15
CL....		
CO....		
CU....		
NI....		
ZN....		0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00107

GEOTHERM FILE 101 0073044

COORDINATES

LAT/LONG.... 39-32.98 N 107-19.32 W
 UTM ZONE.... 13
 NORTHING.... 4380142.
 300483.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
 LOCATION

TOWNSHIP-RANGE

U6S 089W 09 SE OF NE

UNITED STATES

COLORADO

GARFIELD

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE.....

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 50.0

WATER ANALYSIS

PH..... 6.3

ALKALINITY..... 778. AS HCO3

TOTAL DISSOLVED SOLIDS... 20300.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AG....	LI....	0.81
AL....	MG....	90.
AS....	MN....	0.08
FE....	NA....	7000.
FE(TOT)...	NB....	32.
CA....	NO3...	1100.
CA+MG...		
CD....	PO4...	0.01
CL....		
CO....		
CU....		
NI....		
ZN....		0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00108

GEOTHERM FILE 101 0073049

COORDINATES

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: GRAVES SPRING
 LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 06S 089W 09 NW OF NW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... GLENWOOD SPRINGS 1124000
 OTHER LOCALITY INFORMATION: LOCATED AT 0281 164 ROAD IN GLENWOOD SPRINGS.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 46.0 L/MIN
 DISCHARGE..... 19.
 WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 33500.
 ALKALINITY..... 744.
 TOTAL DISSOLVED SOLIDS..... 21500.
 CHARGE IMBALANCE (% DIFF).... 1.2
 ANALYSIS IN MG/L
 AG.....
 AL.....
 AS..... N 1.0
 H..... 2.9
 HE..... 0.07
 CA..... 770.
 CA+MG..... N
 CD.....
 CL..... 11000.
 CO..... K..... 180.
 CR.....
 CU.....
 FE..... 2.9
 FE(TOT)..... 0.07
 HC03..... 744.
 HG.....
 H2S.....
 LI..... 0.69
 MG..... 150.
 MN..... 0.05
 NA..... 7000.
 NB.....
 NO3..... 0.04
 P04..... 0.15
 SI02..... 32.
 S04..... 2000.
 ZN..... 0.02

ISOTOPES 10/0001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00109

GEOTHERM FILE ID: 0073057

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: RAILROAD SPRING
 LOCATION
 COUNTRY..... UNITED STATES 06S 089W 10 NW OF NE NW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... GLENWOOD SPRINGS 1124000
 OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER WEST OF RAILROAD TUNNEL.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 51.0 L/MIN
 DISCHARGE..... 284.
 WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 29900.
 ALKALINITY..... 479.
 TOTAL DISSOLVED SOLIDS..... 18200.
 CHARGE IMBALANCE (% DIFF).... 1.3
 ANALYSIS IN MG/L
 AL.....
 AS.....
 CH..... 86.
 CU.....
 FE.....
 HG.....
 H2S.....
 LI.....
 MG.....
 MN..... 0.08
 NA.....
 NB.....
 NO3.....
 P04.....
 SI02.....
 S04.....
 ZN.....

ISOTOPES 10/0001

H..... 0.89 2.1 NA.... 6200. SI02. 29.
 RE..... FE(TOT). 0.04 NH.... S04.. 880.
 CA..... 460. HCO3.... 479. NO3...
 CO..... H2S..... P04..
 CL..... 10000.
 CO..... K..... 180.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00110

GEOTHERM FILE ID: 0073056

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: RAILROAD SPRING

LOCATION TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 39-33.27 N 107-18.85 W
 UTM ZONE... 13
 NORTHING... 4380662.
 301170.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE...

MAP REFERENCE... GLENWOOD SPRINGS 1:24000
 OTHER LOCALITY INFORMATION! LOCATED ON SOUTH SIDE OF COLORADO RIVER WEST OF RAILROAD TUNNEL.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1976/01/00
 TEMPERATURE (C)..... 51.0 L/MIN
 DISCHARGE..... 284.

WATER ANALYSIS

P4..... 7.1
 SPECIFIC CONDUCTANCE... 30500.
 ALKALINITY..... 775. AS HCO3
 TOTAL DISSOLVED SOLIDS... 18400.
 CHARGE IMBALANCE (% DIFF)... 5.8

ANALYSIS IN MG/L

AL..... CR..... MG... 80.
 AS..... CS..... MN... 0.07
 H..... 0.85 F..... 2.4 NA... 6100. SI02. 29.
 RE..... FE(TOT). 0.02 NB... 1100. S04..
 CA..... 460. HCO3.... 775. NO3...
 CO..... H2S..... P04..
 CL..... 10000.

ISOLOPES 10/001

CO..... K..... 200.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00111

GEOTHERM FILE ID: 0073050

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING A

LOCATION TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 39-32.97 N 107-19.17 W
 UTM ZONE... 13
 NORTHING... 4380118.
 300698.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE...

MAP REFERENCE... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER, 480 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 44.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.3
SPECIFIC CONDUCTANCE..... 31000.
ALKALINITY..... 736.
TOTAL DISSOLVED SOLIDS..... 17600.
CHARGE IMBALANCE (% DIFF).... 3.5

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.73	
AL.....	CR.....	MG....	88.	
AS..... N	CS.....	MN....	0.07	
BA.....	F.....	NA....	6000.	
BF.....	FE(TOT).....	NH....	30.	
CA.....	HC03.....	NO3...	980.	
CA+MG.....	HG.....			
CD.....	H2S.....	PO4...	0.01	
CL.....			0.09	
CO.....	K.....	ZN....		0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00112

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... GARFIELD

GEOLOGIC PROVINCE...

MAP REFERENCE.....

OTHER LOCALITY INFORMATION: GLENWOOD SPRINGS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 284. L/MIN

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 35000.
ALKALINITY..... 747.
TOTAL DISSOLVED SOLIDS..... 18300.
CHARGE IMBALANCE (% DIFF).... 1.4

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.8	
AL.....	CR.....	MG....	86.	
AS..... N	CS.....	MN....	0.07	
BA.....	F.....	NA....	6300.	
BF.....	FE(TOT).....	NH....		
CA.....	HC03.....	PO4...	0.03	
CA+MG.....	HG.....			
CD.....	H2S.....			
CL.....				
CO.....	K.....	ZN....		0.02

GEOTHERM FILE ID: 0073051

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W

UTM ZONE... 13

NORTHING... 4380226.

EASTING... 300844.

ISOTOPES (0/000)

30.

1000.

HI..... 450. SR... 8.1
 CA..... 747. NM4... 0.02
 CA+MG..... N PG... 0.09
 CD..... H2S..... P04... 0.03
 CL..... 9900. ZN... 0.02
 CO..... K..... 170.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00113

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 10 NW OF SW
 STATE..... COLORADO 10 NW OF SW
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... GLENWOOD SPRINGS 1:24000
 OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W
 UTM ZONE... 13
 NORTHING... 4380226.
 300844.

GEOTHERM FILE ID: 0073054

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 51.0 L/MIN
 DISCHARGE..... 416.

WATER ANALYSIS

pH..... 7.0
 SPECIFIC CONDUCTANCE..... 29700. AS HCO3
 ALKALINITY..... 746.
 TOTAL DISSOLVED SOLIDS..... 17800.
 CHARGE IMBALANCE (% DIFF)... 0.8
 ANALYSIS IN MG/L

ISOTOPIES (0/001)

AL..... CR..... 86.
 AS..... CS..... 0.06
 H..... F..... 2.1 NM... 6300. S102. 28.
 HE..... FE(TOT)... 0.04 NH... 990.
 CA..... HCO3... 746. N
 CD..... H2S..... P04... 0.12
 CL..... 9500.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00114

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 10 NW OF SW
 STATE..... COLORADO 10 NW OF SW
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W
 UTM ZONE... 13
 NORTHING... 4380226.
 300844.

GEOTHERM FILE ID: 0073053

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/J1/00
TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 379.

WATER ANALYSIS

PH..... 6.7
SPECIFIC CONDUCTANCE..... 29100. AS HCO3
ALKALINITY..... 749.
TOTAL DISSOLVED SOLIDS..... 17700.
CHARGE IMBALANCE (% DIFF).... 1.6
ANALYSIS IN MG/L

AL..... CR..... MG..... 76.
AS..... CS..... MN..... 0.07
H..... 0.84 F..... 2.1 NA..... 6500.
HE..... FE(TOT)..... 0.03 NB.....
CA..... 49. HCO3..... 749. NO3..... 0.01
CD..... H2S..... P04..... 0.12
CL..... 9500.

CO..... K..... 190.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARETT AND PEARL, 1976

ISOTOPES 10/0001

S102.. 28.
S04.. 1000.

RECORD 00115

GEOTHERM FILE ID: 0073052

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B

LOCALITY RANGE

06S 089W 10 NW OF SW

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W
UTM ZONE... 13
NORTHING... 4380226.
300844.

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
TEMPERATURE (C)..... 50.0 L/MIN
DISCHARGE..... 284.

WATER ANALYSIS

PH..... 7.0
SPECIFIC CONDUCTANCE..... 31000. AS HCO3
ALKALINITY..... 752.
TOTAL DISSOLVED SOLIDS..... 18400.
CHARGE IMBALANCE (% DIFF).... 0.6
ANALYSIS IN MG/L

AG..... CO3..... LI... 0.86
AL..... CR..... MG... 79.
AS..... 0.001 CS..... MN... 0.07
H..... 0.83 F..... 2.3 NA... 6400.
HE..... FE(TOT)..... 0.06 NB...
CA..... 490. HCO3..... 752. NO3... 0.18
CA+MG..... H2S..... P04... 0.09
CL..... 9800.

ISOTOPES 10/0001

S102.. 27.
S04.. 1100.

ZN... 0.02

K..... 160.

CO..... REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

GEOTERM SAMPLE FILE
NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING C
LOCATION

GEOTERM FILE ID: 0073233

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GARFIELD
GEOLOGIC PROVINCE...
MAP REFERENCE..... GLENWOOD SPRINGS 1:24000
OTHER LOCALITY INFORMATION: LOCATED 170 FEET OF SIPHON PIPE ON SOUTH SIDE OF COLORADO RIVER.
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)..... 46.0
DISCHARGE..... N L/MIN
REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 39-32.03 N 107-19.03 W
UTM ZONE... +13
NORTHING... 4378374.
300853.

RECORD 00117

GEOTERM SAMPLE FILE
NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING D
LOCATION

GEOTERM FILE ID: 0073055

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GARFIELD
GEOLOGIC PROVINCE...
MAP REFERENCE..... GLENWOOD SPRINGS 1:24000
OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER, 225 FEET EAST OF SIPHON.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 50.0
DISCHARGE..... PAU. L/MIN
WATER ANALYSIS

COORDINATES

LAT/LONG... 39-33.08 N 107-19.00 W
UTM ZONE... +13
NORTHING... 4380316.
300946.

ISOTOPES (02/001)

AG.....	CO3.....	LI...	0.8
AL.....	CR.....	MG...	82.
AS..... N	CS.....	MN...	0.07
AU.....	CU.....	NA...	89.
B.....	F.....	SI02.	30.
HA.....	HA.....	SO4..	1000.
HE.....	FE(TOT)...	SH...	9.0
HI.....	GA.....		
CA.....	HCO3.....		
			0.01

CA+MG. HG..... N PB... 0.09
 CD.... H2S..... P04.. 0.09
 CL.... 9800. K..... 160. ZN... 0.01

CO....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00118

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SPRING
 LOCATION

GEOTHERM FILE ID: 0073048

COUNTRY..... UNITED STATES 39-32.98 N 107-19.28 W
 STATE..... COLORADO
 COUNTY..... GARFIELD UTM ZONE... +13
 GEOLOGIC PROVINCE... NORTHING... 4380141.
 MAP REFERENCE... GLENWOOD SPRINGS 1:24000 300541.

OTHER LOCALITY INFORMATION: LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 50.0 L/MIN

DISCHARGE..... N

WATER ANALYSIS

P4..... 6.7
 SPECIFIC CONDUCTANCE..... 31000.
 ALKALINITY..... 744. AS HCO3
 TOTAL DISSOLVED SOLIDS... 18000.
 CHARGE IMBALANCE (% DIFF)... 0.9

ISOTOPES 10/2001

ANALYSIS IN MG/L
 AG..... LI... 0.67
 AL..... MG... 40.
 AS..... MN... 0.07
 H..... 0.001 CS..... 6300.
 RE..... 0.87 FE..... 1.9 SI02. 28.
 CA..... 440. F(TOT)... 0.08 NB... 1100.
 CA+MG. HCO3... 744. NO3... 0.01
 CU..... HG..... N
 CL.... H2S..... P04... 0.09

ZN... 0.02

CO.... K..... 150.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00119

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS
 LOCATION

GEOTHERM FILE ID: 0073043

COUNTRY..... UNITED STATES 39-32.98 N 107-19.30 W
 STATE..... COLORADO
 COUNTY..... GARFIELD UTM ZONE... +13
 GEOLOGIC PROVINCE... NORTHING... 4380142.
 MAP REFERENCE... GLENWOOD SPRINGS 1:24000 300512.

OTHER LOCALITY INFORMATION: LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR.....	1975/07/00
TEMPERATURE (C).....	50.0
DISCHARGE.....	8566. L/MIN

WATER ANALYSIS

PH.....	6.3
SPECIFIC CONDUCTANCE.....	36800.
ALKALINITY.....	773.
TOTAL DISSOLVED SOLIDS.....	20200.
CHARGE IMBALANCE (% DIFF)...	2.3
ANALYSIS IN MG/L	

ISOLOPES (07/00)

AG.....		C03.....		LI....	0.8	
AL.....	0.22	CR.....		Mg....	.91.	
AS.....	N	CS.....		MN....	0.08	
AU.....		CU.....				
H.....	0.89	F.....	0.02	NA....	6900.	32.
HA.....	0.1		2.3		S102.	
HF.....		FE(TOT).	0.06	NH....	S04..	1100.
HI.....		GA.....		NH4...	SR...	8.9
CA.....	510.	HCO3....	773.	NO3...		
CA+MG.		HG.....	N	PB....	0.01	
CD.....		H2S.....		P04...	0.1	
CL.....	11000.	K.....	180.		0.12	
CU.....				Zn....		0.03

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
COMPILED BY..... AFFILIATION..
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00120

GEUTHERM FILE ID: 0073182

GEOTHERM_SAMPLEFILE

NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING A

COORDINATES
LAT/LONG... 39-33.27 N 107-23.88 W
UTM ZONE... 43
NORTHING... 4380850.
293961.

MAP REFERENCE..... STORM KING MOUNTAIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

```
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 47.0
...DISCHARGE..... 64. L/MIN
```

STAT ANALYSIS

P ⁴	7.3	
SPECIFIC CONDUCTANCE.....	1100.	
ALKALINITY.....	305.	
TOTAL DISSOLVED SOLIDS.....	772.	
CHARGE IMBALANCE (% DIFF)...	1.7	
ANALYSIS IN MG/L		
AL.....		CR.....
AS.....		CS.....
HA.....	0.26	F.....
HF.....		FE (TOT).....
CA.....	7.8	HCO ₃
		MG.....
		MIN.....
		NA.....
		NH.....
		NO ₃

TOP SECRET (000000)

270. 5102. 41.
504.. 100.

CD..... H2S..... P04... 0.03
 CL..... 190. K..... 8.2
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

----- RECORD 00121 -----
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING A
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GARFIELD
 TOWNSHIP=RANGE
 06S 090W 02 SE OF SW

COORDINATES

LAT/LONG... 39-33.27 N 107-23.88 W
 UTM ZONE... +13
 NOTHING... 4380850.
 293967.

GEOLOGIC PROVINCE... STORM KING MOUNTAIN 1:24000

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 48.0 L/MIN

DISCHARGE..... 34.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1220;

ALKALINITY..... 306. AS HC03

TOTAL DISSOLVED SOLIDS... 783.

CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AL..... CR..... MG... 2.2
 AS..... CS..... MN... 0.05
 H..... F..... NA... 270.
 HE..... FE(TOT)... 4.0
 CA..... HCO3... 306.
 CO..... H2S..... P04... 0.01
 CL..... 200. P04... 0.03

ISOTOPIES (0/000)

SI02. 45.
 S04... 94.

----- RECORD 00122 -----
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING A
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GARFIELD
 TOWNSHIP=RANGE
 06S 090W 02 SE OF SW

COORDINATES

LAT/LONG... 39-33.27 N 107-23.88 W
 UTM ZONE... +13
 NOTHING... 4380850.
 293967.

GEOLOGIC PROVINCE... STORM KING MOUNTAIN 1:24000

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 48.0 L/MIN

DISCHARGE..... 45.

WATER ANALYSIS

P-1.....
 SPECIFIC CONDUCTANCE..... 7.1
 ALKALINITY..... 1300.
 TOTAL DISSOLVED SOLIDS..... 302.
 CHARGE IMBALANCE (% DIFF)..... 794.
 ANALYSIS IN MG/L..... 0.2
 AG..... CO3.....
 AL..... 0.075 CR..... 0.15
 AS..... 0.002 CS..... 1.0
 AU..... CU..... 0.005 MN..... 0.04
 R..... F..... 280.
 RA..... 0.21 NA..... 44.
 RE..... 0.12 FE(TOT)..... 0.02 NH..... 110.
 HI..... GA..... NH4..... 0.23
 CA..... 7.0 HCO3..... 0.04
 CACMG..... MG..... 0.005
 CD..... H2S..... 0.06
 CL..... 190.
 CO..... K..... 8.2
 ZN..... N
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00123
 GEOTHERM FILE ID: 0073183

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING B
 LOCATION
 COUNTY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... STORM KING MOUNTAIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 48.0
 DISCHARGE..... N L/MIN
 COORDINATES
 LAT/LONG... 39-33.25 N 107-23.85 W
 UTM ZONE... 13
 NORTHING... 4380812.
 294009.

P-1.....
 SPECIFIC CONDUCTANCE..... 7.1
 ALKALINITY..... 1300.
 TOTAL DISSOLVED SOLIDS..... 291.
 CHARGE IMBALANCE (% DIFF)..... 757.
 ANALYSIS IN MG/L..... 3.8
 AG..... CO3.....
 AL..... CR.....
 AS..... 0.002 CS.....
 R..... 0.23 F..... 4.0
 RE..... FE(TOT)..... 0.04 NH.....
 CA..... 7.1 HCO3..... 291.
 CACMG..... MG..... N
 CD..... H2S.....
 CL..... 190.
 CO..... K.....
 ZN..... N
 REFERENCE AND IDENTIFICATION

ISOTOPES 10/001

ISOTOPES 10/001

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
COMPILED BY..... BARRETT AND PEARL, 1976
REFERENCE.....

 GEOTHERM_SAMPLE_ELE
 GEOTHERM FILE ID: 0073066
 RECORD 00124

COORDINATES
LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... 48J
NORTHING... 4436556.
EASTING... 405182.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500
...OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00

DATE/ COLLECTION	1978/01/00
TEMPERATURE (C)	44.0
DISCHARGE	45. L/MIN

WATER ANALYSIS	
PH.....	6.9
SPECIFIC CONDUCTANCE.....	1930.
ALKALINITY.....	829.
TOTAL DISSOLVED SOLIDS.....	1220.
CHARGE IMBALANCE (% DIFF)....	1.2

LSU LOPE\$ (0/00)

Element	Weight %	Atomic %	Weight %	Atomic %
Al	0.00	0.00	0.00	0.00
As	0.00	0.00	0.00	0.00
B	0.00	0.00	0.00	0.00
Ca	0.48	0.01	0.01	0.01
Fe	15.00	0.01	0.01	0.01
C	0.00	0.00	0.00	0.00
CO ₃	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.00
CS	0.00	0.00	0.00	0.00
F	0.00	0.00	0.00	0.00
Fe(10T)	0.00	0.00	0.00	0.00
H	0.00	0.00	0.00	0.00
Na	0.00	0.00	0.00	0.00
Nb	0.00	0.00	0.00	0.00
NO ₃	0.00	0.00	0.00	0.00
P	0.00	0.00	0.00	0.00
Pb	0.00	0.00	0.00	0.00
Pu	0.00	0.00	0.00	0.00
Si	0.00	0.00	0.00	0.00
SiO ₂	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00
SiO ₂	0.00	0.00	0.00	0.00
SO ₄	0.00	0.00	0.00	0.00
Ti	0.00	0.00	0.00	0.00
U	0.00	0.00	0.00	0.00
V	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00
X	0.00	0.00	0.00	0.00
Y	0.00	0.00	0.00	0.00
Zn	0.00	0.00	0.00	0.00

CO... 23.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
COMPILED BY..... BARRETT AND PEARL, 1976
REFERENCE.....

GEOTERM-SAMPLE-FILE

RECORD 00125
GEOTERM FILE ID: 0073067

COORDINATES
LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... 41J
NORTHING... 4436556.
405182.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500
 ...OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LUDGE.

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C).....	44.0
DISCHARGE.....	49.0

SYSTEM ANALYSIS

pt..... 6.9

0.1.....6.9

SPECIFIC CONDUCTANCE..... 1900.
ALKALINITY..... 840.
TOTAL DISSOLVED SOLIDS..... 1160.
CHARGE IMBALANCE (% DIFF).... 1.8
ANALYSIS IN MG/L

AL.....
AS.....
H.....
HE.....
CA.....
CD.....
CL.....

CR.....
CS.....
F.....
FE(TOT).....
HC03.....
H2S.....
K.....

MG.... 3.9
MN.... 0.09
NA.... 420.
NH....
NO3... 0.01
PO4... 0.09

SI02. 33.
S04... 120.

ISOIOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00126
GEOTHERM FILE 10: 0073065

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING A
LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GRAND
GEOLOGIC PROVINCE..

SW OF SE

COORDINATES

LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... +13
NORTHING... 4436556.
405182.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 44.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

PH..... 7.1
SPECIFIC CONDUCTANCE..... 1800.
ALKALINITY..... 815.
TOTAL DISSOLVED SOLIDS... 1210.
CHARGE IMBALANCE (% DIFF).... 1.3
ANALYSIS IN MG/L

AG.....
AL.....
AS.....
H.....
HE.....
CA.....
CD.....
CL.....

CO3.....
CR.....
CS.....
F.....
FE(TOT).....
HC03.....
HG.....
H2S.....

LI.... 1.5
MG.... 3.6
MN.... 0.07
NA.... 440.
NH....
NO3... N
PO4... 0.03

SI02. 31.
S04... 140.

ISOIOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00127
GEOTHERM FILE 10: 0073064

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING A
LOCATION
COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... GRAND
GEOLOGIC PROVINCE...
MAP REFERENCE...
OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LODGE.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1975/07/00
TEMPERATURE (C)... 44.0
WATER ANALYSIS
PH... 6.6
SPECIFIC CONDUCTANCE... 1920.
ALKALINITY... 813.
TOTAL DISSOLVED SOLIDS... 1200.
CHARGE IMBALANCE (% DIFF)... 1.4
ANALYSIS IN MG/L
AG... CO3... 1.1
AL... CR... 3.7
AS... CS... 0.07
AU... CU... 0.003
H... F... 12.
HA... NA... 430.
RE... FE(TOT)... 0.02
HI... GA... 0.02
CA... HCO3... 813.
CA+MG... HG... 0.009
CL... H2S... 0.03
CO... K... 25.
ZN... N

ISOTOPIES (002001)

COORDINATES
LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... 13
NORTHING... 4436556.
405182.

REFERENCE AND IDENTIFICATION
COMPILED BY... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE... HARRETT AND PEARL, 1976

RECORD 00128
GEOTHERM FILE 10: 0073068

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING B
LOCATION
COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... GRAND
GEOLOGIC PROVINCE...
MAP REFERENCE...
OTHER LOCALITY INFORMATION: LOCATED APPROX. 75 FEET NORTHWEST OF SPRING A IN COLLECTION BOX.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1975/07/00
TEMPERATURE (C)... 41.0
DISCHARGE... 3.8 L/MIN
WATER ANALYSIS
PH... 6.6
SPECIFIC CONDUCTANCE... 1920.
ALKALINITY... 813.
TOTAL DISSOLVED SOLIDS... 1200.
CHARGE IMBALANCE (% DIFF)... 1.4
ANALYSIS IN MG/L
AG... CO3... 1.1
AL... CR... 3.7
AS... CS... 0.07
AU... CU... 0.003
H... F... 12.
HA... NA... 430.
RE... FE(TOT)... 0.02
HI... GA... 0.02
CA... HCO3... 813.
CA+MG... HG... 0.009
CL... H2S... 0.03
CO... K... 25.
ZN... N

COORDINATES
LAT/LONG... 40-04.55 N 106-06.73 W
UTM ZONE... 13
NORTHING... 4436556.
405167.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00130

GEOTHERM FILE ID: 0073069

GEOTHERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING C

TOWNSHIP-RANGE

LOCATION
 COUNTRY..... UNITED STATES SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND

COORDINATES

LAT/LONG... 40-04.55 N 106-06.75 W
 UTM ZONE... +13
 NORTHING... 4436557.
 405139.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED AT BASE OF NORTH WALL OF INDOOR SWIMMING POOL BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1870.

ALKALINITY..... 814. AS HCO3

TOTAL DISSOLVED SOLIDS... 1210.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG..... CO3..... 1.1
 AL..... CR..... 3.5
 AS..... CS..... 0.09
 BA..... F..... 12.
 BE..... FE(TOT)... 0.06
 CA..... HCO3..... 814.
 CA+MG... MG..... N
 CD..... H2S..... N
 CL..... 140.

SI02... 35.
 SO4... 140.

ISOTOPES (0/00)

DN... N

CO..... K..... 25.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00131

GEOTHERM FILE ID: 0073071

GEOTHERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING D

TOWNSHIP-RANGE

LOCATION
 COUNTRY..... UNITED STATES SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND

COORDINATES

LAT/LONG... 40-04.53 N 106-06.75 W
 UTM ZONE... +13
 NORTHING... 4436520.
 405138.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 50 FEET SOUTH OF POOL BUILDING IN MARSHY AREA.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 87. L/MIN

ISOTOPES (0/00)	
P1.....	6.7
SPECIFIC CONDUCTANCE.....	1850.
ALKALINITY.....	817.
TOTAL DISSOLVED SOLIDS.....	1200.
CHARGE IMBALANCE (% DIFF)....	1.9
ANALYSIS IN MG/L	
AG.....	CO3.....
AL.....	0.13
AS.....	0.005
AU.....	0.002
BA.....	0.57
BR.....	0.13
CA.....	15.
CA+MG.	
CD.....	
CL.....	140.
CO.....	24.
REFERENCE AND IDENTIFICATION	
COMPILED BY.....	MANGNALL, P.
COMPILED AFFILIATION...	COLORADO GEOLOGICAL SURVEY
REFERENCE.....	BARRETT AND PEARL, 1976

RECORD 00129

GEOTHERM FILE 10: 0073070

REC'D 00129

GEOTHERM-FILE 10: 0073070
 GEOTHERM-SAMPLE-EILE
 NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING C
 LOCATION
 COORDINATES
 LAT/LONG... 40-04.55 N 106-06.75 W
 UTM ZONE... 13
 NORTHING... 4436557.
 405139.
 UNITED STATES SW OF SE
 COLORADO VIN 07RW 03
 GRAND
 GEOLOGIC PROVINCE...
 MAP REFERENCE... HOT SULPHUR SPRINGS 1:62500
 OTHER LOCALITY INFORMATION: LOCATED AT BASE OF NORTH WALL OF INDOOR SWIMMING POOL BUILDING.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/10/00
 TEMPERATURE (C)... 40.0
 DISCHARGE... 57. L/MIN

---DISCHARGE-----		57.	L/MIN
WATER ANALYSIS			
PH.....		7.1	
SPECIFIC CONDUCTANCE.....		1700.	
ALKALINITY.....	AS HC03	828.	
TOTAL DISSOLVED SOLIDS.....		1190.	
CHARGE IMBALANCE (% DIFF)....		1.1	
ANALYSIS IN MG/L			
AG.....		CO3.....	LI....
AL.....		CR.....	MG....
AS.....	0.006	CS.....	MN....
H.....	0.56	F.....	NA....
RE.....		FE(TQ)...	NH....
CA.....	15.	HCO3.....	NO3... N
CA+MG.		HG.....	
CL.....	140.	H2S.....	PO4... 0.03
CO.....		K.....	ZN.... 0.01

7N... U.U1

WATER ANALYSIS

PH..... 7.1
 SPECIFIC CONDUCTANCE..... 1800.
 ALKALINITY..... 790.
 TOTAL DISSOLVED SOLIDS..... 1190.
 CHARGE IMBALANCE (% DIFF).... 0.3
 ANALYSIS IN MG/L

AS HCO3

AG..... CO3..... 1.5
 AL..... CR..... 3.0
 AS..... 0.009 CS..... 0.09
 H..... 9.1 NA..... 430.
 HE..... FE(TOT)..... 0.2 NB.....
 CA..... HCO3..... 790. NO3..... 0.02
 C+MG. CA+MG. 0.0001 PU4... N
 CD.....
 CL..... 140. ZN... 0.02

CO..... K..... 23.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00132

GEOTHERM FILE 10: 0000417

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON

COORDINATES

LAT/LONG... 38-16.50 N 107-05.90 W
 UTM ZONE... +13
 NORTHING... 4238204.
 316448.

TOWNSHIP-RANGE

SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 45.6
 DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS
 DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF).... 18.5

ISOIOPES 10/001

NA... 267. SI02. 80.
 NB... S04... 132.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALYARUT, KENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00133

GEOTHERM FILE 10: 0073006

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON

COORDINATES

LAT/LONG... 38-16.43 N 107-05.87 W
 UTM ZONE... +13
 NORTHING... 3350812.

TOWNSHIP-RANGE

46N 002W 04 NW OF NE

298152.

GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... POWDERHORN 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD. WESTERN POOL
 IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 41.0 L/MIN
 DISCHARGE..... 11.

WATER ANALYSIS

PH..... 6.8
 SPECIFIC CONDUCTANCE..... 200.
 ALKALINITY..... 1180. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1440.
 CHARGE IMBALANCE (% DIFF)... 1.4
 ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.750
AL.....	CR.....	MG....	47.
AS.....	CS.....	MN....	0.05
H.....	F.....	NA....	310.
RE.....	FE(TOT)...	NH....	66.
CA.....	120.	NO3..	120.
CA+MG.	HCO3.....	PO4..	0.04
CD.....	H2S.....		0.09
CL.....	120.		
CO.....	K.....	ZN....	0.008

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00134

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... POWDERHORN 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD. WESTERN POOL
 IN BUILDING.

IONSHIP-RANGE
 46N 002W 04 NW OF NE

COORDINATES

LAT/LONG... 38-16.43 N 107-05.87 W
 UTM ZONE... 13
 NORTHING... 3350812.
 298152.

GEOTHERM FILE ID: 0073005

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 41.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2100.
 ALKALINITY..... 1179. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1450.
 CHARGE IMBALANCE (% DIFF)... 0.1
 ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.710
AL.....	CR.....	MG....	50.
AS.....	CS.....	MN....	0.05
AI.....	CU.....	NA....	310.
H.....	1.1	SI02.	74.

ISOLINES 10/001

HA.... 0.13
 HE....
 RI....
 CA.... 120.
 CA+MG.
 CD.... 120.
 CL....
 CU....
 FE(TOT). 0.05
 GA....
 HCO3.... 1170.
 HG.... 0.0005
 H2S....
 K..... 63.
 NH....
 NH4....
 NO3.... 0.08
 PH.... 0.010
 PU4.... 0.34
 SO4... 130.
 SR.... 6.0
 ZN... 0.03

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00135

GEOTHERM FILE ID: 0073008

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS APPROXIMATELY 300 FEET SOUTH OF ROAD. WESTERN
 POOL IN BUILDING.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 38.0 L/MIN
 DISCHARGE..... 11.
 WATER ANALYSIS
 PH..... 6.4
 SPECIFIC CONDUCTANCE..... 2200.
 ALKALINITY..... 1180.
 TOTAL DISSOLVED SOLIDS... 1450.
 CHARGE IMBALANCE (% DIFF)... 0.5
 ANALYSIS IN MG/L
 AL.....
 AS.....
 R.... 1.1
 HE....
 CA.... 120.
 CO....
 CL.... 120.
 CR.....
 CS.....
 F..... 4.9
 FE(TOT). 0.020
 HCO3.... 1180.
 H2S....
 K..... 66.
 MG.... 51.
 MN.... 0.1
 NA.... 310.
 NH....
 NO3... 0.03
 PU4... 0.31
 SI02... 92.
 SO4... 120.
 COORDINATES
 LAT/LONG... 38-16.43 N 107-05.87 W
 UTM ZONE... 13
 NORTHING... 3350812.

ISOLUPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00136

GEOTHERM FILE ID: 0073007

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 SO4... 130.
 SR.... 6.0
 ZN... 0.03
 FE(TOT). 0.05
 GA....
 HCO3.... 1170.
 HG.... 0.0005
 H2S....
 K..... 63.
 NH....
 NH4....
 NO3.... 0.08
 PH.... 0.010
 PU4.... 0.34
 SI02... 92.
 SO4... 120.
 COORDINATES
 LAT/LONG... 38-16.43 N 107-05.87 W
 UTM ZONE... 13
 NORTHING... 3350812.

298152.
GEOLOGIC PROVINCE... POWDERHORN 1:24000
MAP REFERENCE...
OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD. WESTERN POOL
IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 39.0 L/MIN
DISCHARGE..... 11.

WATER ANALYSIS

PH..... 6.9
SPECIFIC CONDUCTANCE..... 2220.
ALKALINITY..... 1170. AS HCO3
TOTAL DISSOLVED SOLIDS..... 1470.
CHARGE IMBALANCE (% DIFF) ... 1.0

ANALYSIS IN MG/L

AL.....	CR.....	MG.....	48.
AS.....	CS.....	MN.....	0.05
FE.....	FE(TOT) N	NA.....	330.
CA.....	HC03.....	NH.....	85.
CD.....	H2S.....	NO3.....	130.
CL.....		PO4.....	0.06
			0.18

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (0/000)

RECORD 00137

GEOTHERM FILE ID: 0073009

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING B
LOCATION.....
SHIP-RANGE

COORDINATES

LAT/LONG... 38-16.43 N 107-05.87 W
UTM ZONE... 13
NORTHING... 3350812.
298152.

NW OF NE

46N 002W 04

UNITED STATES

COLORADO

GUNNISON

GEOLOGIC PROVINCE

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS APPROXIMATELY 300 FEET SOUTH OF ROAD. WESTERN
POOL IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 38.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2050.
ALKALINITY..... 1180. AS HCO3
TOTAL DISSOLVED SOLIDS... 1460.
CHARGE IMBALANCE (% DIFF) ... 1.6

ANALYSIS IN MG/L

AG.....	CO3.....	LI.....	0.720
AL.....	CR.....	MG.....	50.
AS.....	CS.....	MN.....	0.050
FE.....	FE(TOT) N	NA.....	310.
CA.....	HC03.....	NH.....	77.
CD.....	H2S.....	NO3.....	130.
CL.....		PO4.....	0.08
			0.06

ISOTOPES (0/000)

CL..... 120. K..... 64.
 CO.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00138
 GEOTHERM FILE 10: 0073010
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CEBOLLA HUT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES NW OF NE
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE...
 OTHER LOCALITY INFORMATION: LOCATED IN NORTHERN CABIN APPROXIMATELY 200 FT S OF ROAD AND APPROXIMATELY 75 FT NW OF
 SPRINGS A AND B.
 COORDINATES
 LAT/LONG... 39-16.43 N 107-05.90 W
 UTM ZONE... +13
 NORTHING... 4238074.
 316445.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 40.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2100. AS HC03
 ALKALINITY..... 1170.
 TOTAL DISSOLVED SOLIDS... 1460.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG..... CO3.....
 AL..... CR.....
 AS..... 0.040 MG... 0.710
 H..... 1.1 MN... 51.
 HE..... F..... 4.6 NA... 0.040
 CA..... FE(TOT)... 0.040 NB... 300.
 CA+MG... HC03..... 0.03 NO3... 0.03
 CD..... HG..... N PO4... 0.15
 CL..... H2S.....
 CO..... K..... 63.

ZN... 0.010

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

ISOTOPES (0/000)

S102. 79.
S04.. 130.

RECORD 00139
 GEOTHERM FILE 10: 0073013
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES SE OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... CEMENT MTN. 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 25.0
 DISCHARGE..... 227. L/MIN

COORDINATES
 LAT/LONG... 38-50.10 N 106-49.57 W
 UTM ZONE... +13
 NORTHING... 4299843.
 341493.

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 650.
 ALKALINITY..... 305.
 TOTAL DISSOLVED SOLIDS..... 398.
 CHARGE IMBALANCE (% DIFF).... 0.8
 ANALYSIS

AS HCO3

AL..... CR..... 18.
 AS..... CS..... MN..... N
 H..... 0.07 F..... 1.9 40.
 HE..... FE(TOT)..... N
 CA..... 73. HCO3..... 305. 0.15
 CD..... H2S..... N
 CL..... 11. K..... 6.
 CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00140

GEOTHERM FILE ID: 0073012

GEOTHERM SAMPLE FILE CEMENT CREEK WARM SPRING
 NAME OF SAMPLE SOURCE... TOWNSHIP-RANGE
 LOCATION 145 084W 18 SE OF S#

CORGINATES

LAT/LONG... 38-50.10 N 106-49.57 W
 UTM ZONE... +13
 NORTHING... 4299843.
 341493.

MAP REFERENCE..... CEMENT MTN. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 25.
 DISCHARGE..... 303. L/MIN

WATER ANALYSIS

PH..... 7.2
 SPECIFIC CONDUCTANCE..... 540.
 ALKALINITY..... 308.
 TOTAL DISSOLVED SOLIDS..... 389.
 CHARGE IMBALANCE (% DIFF).... 1.0
 ANALYSIS IN MG/L

AS HCO3

AG..... CO3..... 0.09
 AL..... CR..... 18.
 AS..... 0.01 CS..... MN..... N
 H..... 0.06 F..... 1.4 41.
 HE..... FE(TOT)..... 0.03
 CA..... 69. HCO3..... 308. 0.11
 CA+MG..... N
 CD..... H2S..... N
 CL..... 13. K..... 6.
 CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES 00/001

SI02. 17.
 S04.. 74.

ZN... N

 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... CEMENT MTN. 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 26.0
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 640.
 ALKALINITY..... 302.
 TOTAL DISSOLVED SOLIDS..... 401.
 CHARGE IMBALANCE (% DIFF).... 3.4
 ANALYSIS IN MG/L

AG..... CO3..... LI... 0.09
 AL..... CR..... MG... 22.
 AS..... CS..... MN... 0.01
 AU..... CU..... N
 H..... F..... 1.9
 HA..... 0.06
 RE..... 0.082
 HI.....
 CA..... 75.
 CAMG.....
 CD.....
 CL..... 11.
 CO..... K..... 5.8

COORDINATES
 LAT/LONG... 38-50.10 N 106-49.57 W
 UTM ZONE... 13
 NORTHING... 4299843.
 341493.

 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (02/001)

SI02. 19.
 S04... 81.
 SR... 0.48
 0.14
 0.003
 0.03
 ZN... 0.01

 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... CEMENT MTN. 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 26.0
 DISCHARGE..... 227. L/MIN
 WATER ANALYSIS
 PH..... 7.2
 SPECIFIC CONDUCTANCE..... 625.
 ALKALINITY..... 306.
 AS HC03

COORDINATES
 LAT/LONG... 38-50.10 N 106-49.57 W
 UTM ZONE... 13
 NORTHING... 4299843.
 341493.

ISOTOPES 10/2001

TOTAL DISSOLVED SOLIDS... 382.
 CHARGE IMBALANCE (% DIFF)... 1.1
 ANALYSIS IN MG/L
 AL... CR... 20.
 AS... MN... N
 B... 1.5
 RE... FE(TOT)... 0.01
 CA... HCO3... 306.
 CO... H2S... 0.15
 CL... 11.
 CO... K... 6.4
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE... RARETT AND PEARL, 1976

RECORD 00143

GEOTHERM FILE 10: 0073220

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS
 LOCATION
 COUNTRY... UNITED STATES
 STATE... COLORADO
 COUNTY... GUNNISON
 GEOLOGIC PROVINCE...
 MAP REFERENCE... PITKIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/07/00
 TEMPERATURE (C)... 62.0
 WATER ANALYSIS

COORDINATES

LAT/LONG... 38-31.02 N 106-31.00 W
 UTM ZONE... 13
 NORTHING... 4264063.
 367774.

SW OF NW

TOWNSHIP-RANGE

49N 004E 10

AS HCO3

SPECIFIC CONDUCTANCE... 800.
 ALKALINITY... 153.
 TOTAL DISSOLVED SOLIDS... 535.
 CHARGE IMBALANCE (% DIFF)... 4.3
 ANALYSIS IN MG/L

ISOTOPES 10/2001

AG... CO3... 0.2
 AL... CR... 0.5
 AS... MN... 0.020
 AU... CU... N
 H... F... 20.
 HA... FE(TOT)... 0.170
 HE... GA...
 HI... HCO3... 153.
 CA... H2S... N
 CM... HPS...
 CL... 15.
 CO... K... 10.
 REFERENCE AND IDENTIFICATION
 COMPILED BY... BROOK, C.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE... RARETT AND PEARL, 1976

ZN... N

RECORD 00144

GEOTHERM FILE 10: 0073215

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 70.0
 DISCHARGE..... 284. L/MIN
 OTHER SAMPLE INFORMATION.. AREA CONSISTS OF A SERIES OF SMALL TO MEDIUM SIZE SPRINGS.
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 765.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-31.03 N 106-30.93 W
 UTM ZONE... 13
 NORTHING... 4264080.
 367876.

RECORD 00145

GEOTHERM FILE ID: 0073218

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKIN 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN SMALL CEMENT POOL NEAR EAST MARGIN OF GROUP.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 70.0
 DISCHARGE..... 76. L/MIN

COORDINATES

LAT/LONG... 38-31.00 N 106-30.92 W
 UTM ZONE... 13
 NORTHING... 4264024.
 367890.

WATER ANALYSIS
 P..... 8.0
 SPECIFIC CONDUCTANCE..... 830.
 ALKALINITY..... 165. AS HCO3
 TOTAL DISSOLVED SOLIDS... 549.
 CHARGE IMBALANCE (8 DIFF)... 0.2
 ANALYSIS IN MG/L

AG.....	CO3.....	LI...	0.2
AL.....	CH.....	MG...	0.4
AS..... N	CS.....	MN...	0.03
H..... 0.06	F.....	NA...	160.
FE.....	FE(TOT)...	NO...	77.
CA..... 8.6	HCO3.....	NO3.. N	180.
CA+MG.	HG..... N	PO4...	0.03
CD.....	H2S.....		
CL..... 16.			
CO.....	K.....	ZN... N	

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOLINES 10/000

RECORD 00146

GEOTHERM FILE ID: 0073217

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY... UNITED STATES 49N 004E 10 SW OF NW
 STATE... COLORADO
 COUNTY... GUNNISON
 GEOLOGIC PROVINCE...
 MAP REFERENCE... PITKIN 1124000
 OTHER LOCALITY INFORMATION: LOCATED IN SMALL CEMENT POOL NEAR EAST MARGIN OF GROUP.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/07/00
 TEMPERATURE (C)... 70.0
 WATER ANALYSIS

SPECIFIC CONDUCTANCE... 765.
 ALKALINITY... 152. AS HC03
 TOTAL DISSOLVED SOLIDS... 544.
 CHARGE IMBALANCE (% DIFF)... 4.0
 ANALYSIS IN MG/L

AG... CO3... 0.2
 AL... 0.085 CR... 0.7
 AS... N CS... 0.02
 AU... CU... 0.001
 BA... F... 17. NA... 150. ST02. 88.
 HA... 0.094
 HE... FE(TOT)... 0.05 NB... 180.
 NI... GA... NH4... 0.29
 CA... HC03... NO3...
 CA+MG... Hg... 0.04
 CD... H2S... 0.004
 CL... 15. PU4... N
 CO... K... 9.9 ZN... 0.01

ISOTOPES 10/2001

REFERENCE AND IDENTIFICATION
 COMPILED BY... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE... HARRETT AND PEARL, 1976

COORDINATES
 LAT/LONG... 38-31.00 N 106-30.92 W
 UTM ZONE... 13
 NORTHING... 4264024.
 367890.

RECORD 00147

GEOTHERM FILE ID: 0073219

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY... UNITED STATES 49N 004E 10 SW OF NW
 STATE... COLORADO
 COUNTY... GUNNISON
 GEOLOGIC PROVINCE...
 MAP REFERENCE... PITKIN 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1976/04/00
 TEMPERATURE (C)... 70.0 L/MIN
 DISCHARGE... 2.95
 WATER ANALYSIS

SPECIFIC CONDUCTANCE... 7.7
 pH... 7.3

COORDINATES
 LAT/LONG... 38-31.00 N 106-30.92 W
 UTM ZONE... 13
 NORTHING... 4264024.
 367890.

ALKALINITY..... 165. AS HCO3
TOTAL DISSOLVED SOLIDS... 528.
CHARGE IMBALANCE (% DIFF)... 0.2
ANALYSIS IN MG/L

AL.....	CR.....	MG...	1.0
AS.....	CS.....	MN...	0.030
H.....	F.....	NA...	150.
HF.....	FE(TOT)...	NH...	16.
CA.....	CA.....	NO3...	0.160
CO.....	HCO3.....	P04...	165.
CL.....	H2S.....		0.01
CO.....	CL.....		0.12
	K.....		15.
			10.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROOK, C.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00148

GEOTHERM FILE 10: 0073216

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING C

LOCATION
COUNTRY..... UNITED STATES 49N 004E 10 SW OF NW

COORDINATES
LAT/LONG... 38-30.45 N 106-30.92 W
UTM ZONE... 13
NORTHING... 4263007.
367873.

STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE...
MAP REFERENCE..... PITKIN 1:24000

OTHER LOCALITY INFORMATION: LOCATED UNDER ROCK BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0

DISCHARGE..... 30. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 780.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00149

GEOTHERM FILE 10: 0073158

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... RANGEM WARM SPRING

LOCATION
COUNTRY..... UNITED STATES 14S 085W 22 SW OF SE

COORDINATES
LAT/LONG... 38-48.95 N 106-52.47 W
UTM ZONE... 13
NORTHING... 4297801.
337253.

STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE...
MAP REFERENCE..... CEMENT MTH. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 27.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 7.1

SPECIFIC CONDUCTANCE..... 760.

ALKALINITY..... 363. AS HCO3

TOTAL DISSOLVED SOLIDS... 474.
CHARGE IMBALANCE (% DIFF)... 0.6
ANALYSIS IN MG/L

AL.....	CR.....	MG....	23.
AS.....	CS.....	MN....	N
H.....	F.....	NA....	5102.
RE.....	FE(TOT)...	NB....	504..
CA.....	HCO3.....	NO3...	0.14
CD.....	H2S.....	PO4...	N
CL.....			

CO..... K..... 8.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00150

GEUTHERM FILE 10: 0073157

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RANGER WARM SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE..
MAP REFERENCE..... CEMENT MTN. 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 27.0 L/MIN
DISCHARGE..... N

TOWNSHIP=RANGE
14S 08SW 22 SW OF SE

COORDINATES

LAT/LONG... 38-48.95 N 106-52.47 W
UTM ZONE... 13
NORTHING... 4297801.
337253.

ISOTOPES (00/000)

AL.....	CR.....	MG....	20.
AS.....	CS.....	MN....	N
H.....	F.....	NA....	62.
RE.....	FE(TOT)...	NB....	5102.
CA.....	HCO3.....	NO3...	504..
CD.....	H2S.....	PO4...	0.12
CL.....			N

CO..... K..... 8.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00151

GEUTHERM FILE 10: 0073156

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RANGER WARM SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE..
MAP REFERENCE..... CEMENT MTN. 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 27.0 L/MIN
DISCHARGE..... N

TOWNSHIP=RANGE
14S 08SW 22 SW OF SE

COORDINATES

LAT/LONG... 38-48.95 N 106-52.47 W

UTM ZONE... +13
NORTHING... 4297801.
337253.

STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE...
MAP REFERENCE..... CEMENT MTN. 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00
TEMPERATURE (C)..... 27.0 L/MIN
DISCHARGE..... N
WATER ANALYSIS

PH..... 7.1
SPECIFIC CONDUCTANCE..... 730.
ALKALINITY..... 363.
TOTAL DISSOLVED SOLIDS..... 465.
CHARGE IMBALANCE (% DIFF).... 4.0
ANALYSIS IN MG/L

AG.....
AL.....
AS..... 0.015
H..... 0.008
HF.....
CA..... 70.
CA+MG.....
CD..... 18.
CL.....
CO.....
K..... 7.7

ISOTOPES 10/0001

CO3.....
CR.....
CS.....
F..... 0.2
FE(TOT)..... 0.02
HCO3..... 363.
HG..... N
H2S.....
LI..... 0.160
MG..... 20.
MN..... N
NA..... 61.
NH.....
NO3..... 0.08
PO4... N
ZN.... 0.010

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00152

GEOTHERM FILE ID: 007J155

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... RANGER WARM SPRING

COORDINATES
LAT/LONG... J8-48.95 N 106-52.47 W
UTM ZONE... +13
NORTHING... 4297801.
337253.

TOWNSHIP-RANGE
14S 08SW 22 SW OF SE

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE... 14
MAP REFERENCE..... CEMENT MTN. 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 26.0 L/MIN
DISCHARGE..... 500.

WATER ANALYSIS
SPECIFIC CONDUCTANCE..... 700.
ALKALINITY..... 347.
TOTAL DISSOLVED SOLIDS..... 461.
CHARGE IMBALANCE (% DIFF).... 1.5
ANALYSIS IN MG/L

AG.....
AL..... 0.1
AS..... 0.012
AU..... 0.008
H..... 1.04
HA.....

ISOTOPES 10/0001

CO3.....
CR.....
CS.....
CU..... 0.004
F..... 1.04
LI..... 0.14
MG..... 22.
MN..... N
NA..... 59.
SIO2... 20.
HA.....

TEMPERATURE (C)..... 70.0 L/MIN
 DISCHARGE..... 38.
 WATER ANALYSIS
 DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF).... 4.7
 ANALYSIS
 H..... F.....
 HE..... FE(TOT).....
 CA..... 5.4 HC03..... 175.
 CL..... 27.
 CO..... K..... 2.5
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

ISOTOPES (02/00)

NA.... 155. S102. 86.
 NB.... S04.. 182.

RECORD 00155

GEUTHERM FILE 10: 0073213

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES SW OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKTN 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN ROCK SHED IN FRONT OF LODGE.
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 76.0
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 750.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... 13
 NORTHING... 4263698.
 368568.

RECORD 00156

GEUTHERM FILE 10: 0073214

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES SW OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKTN 1:24000
 OTHER LOCALITY INFORMATION: LOCATED 75 FEET FROM SPRING A ALONG CREEK.
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 78.0
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 720.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... 13
 NORTHING... 4263698.
 368568.

RECORD 00157
GEOTHERM FILE ID: 0073210

GEOTHERM FILE ID: 0073210

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING C

LOCATION... TOWNSHIP=RANGE

COUNTRY... UNITED STATES 49N 004E 11 SW OF SW

STATE... COLORADO

COUNTY... GUNNISON

GEOLOGIC PROVINCE... PIUTIN 1:24000

MAP REFERENCE... 1976/01/00

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00

TEMPERATURE (C)... 77.0

DISCHARGE... 208. L/MIN

WATER ANALYSIS

P_H... 8.5

SPECIFIC CONDUCTANCE... 766.

ALKALINITY... 119. AS HCO₃

TOTAL DISSOLVED SOLIDS... 613.

CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN MG/L

AG... CO₃... 9.

AL... CR... 0.3

AS... CS... N

B... F... 19.

RE... FE(TOT)... 0.01

CA... HCO₃... 119.CU... H₂S... 0.01CL... 15. PO₄... 0.12

CO... K... 9.8

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... HARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W

UTM ZONE... +13

NORTHING... 4263698.

368568.

ISOTOPES (0/00)

RECORD 00158
GEOTHERM FILE ID: 0073209

GEOTHERM FILE ID: 0073209

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING C

LOCATION... TOWNSHIP=RANGE

COUNTRY... UNITED STATES 49N 004E 11 SW OF SW

STATE... COLORADO

COUNTY... GUNNISON

GEOLOGIC PROVINCE... PIUTIN 1:24000

MAP REFERENCE... 1975/10/00

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/10/00

TEMPERATURE (C)... 80.0

DISCHARGE... 114. L/MIN

WATER ANALYSIS

P_H... 8.4

SPECIFIC CONDUCTANCE... 796.

ALKALINITY... 119. AS HCO₃

TOTAL DISSOLVED SOLIDS... 579.

CHARGE IMBALANCE (% DIFF)... 1.3

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W

UTM ZONE... +13

NORTHING... 4263698.

368568.

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS; SPRING D

LOCATION

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... GUNNISON

GEOLOGIC PROVINCE... PITKIN 1:24000

MAP REFERENCE... 1975/07/00

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/07/00

TEMPERATURE (C)... 54.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 770.

ALKALINITY... 132.

TOTAL DISSOLVED SOLIDS... 594.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG... 0.210
AL...
AS... N
H... 0.070
HE...
CA... 6.0
CA+MG...
CL... 15.
CO...
K... 10.
LI...
MG... N
MN... N
NA...
NB...
NO3...
P04... 0.06
SI02... 130.
S04... 190.
ZN... N

AS HC03

ISOTOPE 10/001

RECORD 00161

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BRANDS RANCH ARTESIAN WELL

LOCATION

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... JACKSON

GEOLOGIC PROVINCE... 14

MAP REFERENCE... PITCHPINE MOUNTAIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)... 42.0

WELL DEPTH (M)... 244.

DISCHARGE... 303. L/MIN

OTHER SAMPLE INFORMATION... OLD OIL WELL.

WATER ANALYSIS

PH... 6.0

SPECIFIC CONDUCTANCE... 405.

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... BARRETT AND PEARL, 1976

GEOTHERM FILE ID: 0073227

COORDINATES

LAT/LONG... 40-42.28 N 106-32.08 W

UTM ZONE... 13

NORTHING... 4506894.

370352.

RECORD 00162
GEOTHERM FILE ID: 0073142

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS
LOCATION

COUNTRY... UNITED STATES 37N 009W 25 NE OF NW

STATE... COLORADO

COUNTY... LA PLATA

GEOLOGIC PROVINCE...

MAP REFERENCE... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 26.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 5500.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-27.15 N 107-48.35 W

UTM ZONE... 13

NORTHING... 4148565.

251803.

RECORD 00163

GEOTHERM FILE ID: 0073141

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: MOUND SPRING
LOCATION

COUNTRY... UNITED STATES 37N 009W 25 NE OF NW

STATE... COLORADO

COUNTY... LA PLATA

GEOLOGIC PROVINCE...

MAP REFERENCE... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 29.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 5890.

ALKALINITY..... 1620.

TOTAL DISSOLVED SOLIDS..... 3840.

CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AL.....

AS.....

H..... 2.9

HE.....

CA..... 550.

CL..... 900.

CO.....

K..... 120.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-27.12 N 107-48.33 W

UTM ZONE... 13

NORTHING... 4148568.

251831.

ISOTOPE (02/00)

MG... 72.

MN... 0.48

NA... 710.

NH... 28.

NO3... 504.

PO4... N

PU4... N

COUNTY..... UTAH
GEOLOGIC PROVINCE..
MAP REFERENCE..... URAY 1:24000
OTHER LOCALITY INFORMATION: LOCATED JUST INSIDE CAVE ENTRANCE TO THE LEFT.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 53.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1900.
ALKALINITY..... 213.
TOTAL DISSOLVED SOLIDS... 1580.
CHARGE IMBALANCE (% DIFF)... 3.1
ANALYSIS IN MG/L

ISOIOPES.10/2002

AG.....	CO3.....	LI.....	2.4
AL.....	CR.....	MO.....	8.
AS.....	CS.....	MN.....	0.8
AU.....	CU.....	NA.....	120.
BA.....	F.....	SI02.	40.
BE.....	FE(TOT)...	NB.....	504..
BI.....	GA.....	NH4...	910.
CA.....	HCO3.....	NO3...	10.
CA+MG.	HG.....	PB...	0.05
CO.....	H2S.....	PO4...	0.009
CL.....	31.		0.06
CO.....	K.....	ZN...	0.2
11.			

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00200

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0073058

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRING: SPRING A
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... PARK
GEOLOGIC PROVINCE..
MAP REFERENCE..... HARTSEL 1:24000
OTHER LOCALITY INFORMATION: WESTERN MOST SPRING.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 52.0

COORDINATES

LAT/LONG... 39-01.08 N 105-47.67 W
UTM ZONE... 13
NORTHING... 4318866.
431218.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3780.
ALKALINITY.....
TOTAL DISSOLVED SOLIDS... 2280.
ANALYSIS IN MG/L

ISOIOPES.10/2002

AG.....	CO3.....	LI.....	1.0
AL.....	CR.....	MO.....	20.
AS.....	CS.....	MN.....	0.150
AU.....	CU.....	NA.....	680.
BA.....	F.....	SI02.	41.
BE.....	FE(TOT)...	NB.....	504..
BI.....	GA.....	NH4...	910.
CA.....	HCO3.....	NO3...	10.
CA+MG.	HG.....	PB...	0.05
CO.....	H2S.....	PO4...	0.009
CL.....	31.		0.06
CO.....	K.....	ZN...	0.2
11.			

HE..... FE(TOT)..... 0.17
 HI..... GA.....
 CA..... 120. HCO3.....
 CA+MG. H2S..... N
 CD.....
 CL..... 820. K..... 33.
 CO.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

NB.....
 NH4.....
 NO3.....
 PH.....
 PO4.....
 SR.....
 ZN...

RECORD 00201

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
 LOCATION... IOWNSHIP-RANGE

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... 43
 NORTHING... 4318866.

GEOHERM FILE ID: 0073059

STATE..... UNITED STATES
 COUNTY..... COLORADO
 GEOLOGIC PROVINCE... PARK
 MAP REFERENCE..... HARTSEL 1:24000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 52.0
 WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3650.
 ALKALINITY..... 484.
 TOTAL DISSOLVED SOLIDS... 2140.
 CHARGE IMBALANCE (% DIFF)... 3.9
 ANALYSIS IN MG/L

AS HCO3

ISOTOPES 10/002

AG..... CO3.....
 AL..... CR.....
 AS..... 0.002 CS.....
 H..... 0.55 F.....
 HE..... FE(TOT)..... 2.
 CA..... 120. HCO3..... 520.
 CA+MG. H2S..... 484.
 CD..... H2S..... 0.0001
 CL..... 780. K..... 32.
 CO.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

LI..... 1.0
 MG..... 20.
 MN..... 0.18
 NA..... 650.
 NB.....
 NO3.....
 PU4... 0.09
 ZN... 0.01

RECORD 00202

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
 LOCATION... IOWNSHIP-RANGE
 COUNTY..... UNITED STATES
 STATE..... COLORADO
 GEOLOGIC PROVINCE... PARK

COORDINATES

LAT/LONG... 39-01.04 N 105-47.65 W
 UTM ZONE... 43
 NORTHING... 4318866.

GEOHERM FILE ID: 0073062

RECORD 00164
GEOTHERM FILE ID: 0073140

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: MOUND SPRING
LOCATION

COUNTRY... UNITED STATES 37N 009W 25 NE OF NW

STATE... COLORADO

COUNTY... LA PLATA

GEOLOGIC PROVINCE...

MAP REFERENCE... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00

TEMPERATURE (C)... 29.0

DISCHARGE... N L/MIN

WATER ANALYSIS

PH... 6.5

SPECIFIC CONDUCTANCE... 6050.

ALKALINITY... 1610.

TOTAL DISSOLVED SOLIDS... 3880.

CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AL... 3.0

AS... 550.

CA... 1000.

CL... 1000.

CO... 120.

CR... 68.

CS... 0.49

F... 1.9

FE(TOT)... 4.2

HC03... 1610.

H2S... 0.09

MG... 68.

MN... 0.49

NA... 710.

NB... 28.

NO3... 600.

PO4... 0.09

SI02... 28.

S04... 600.

ISOTOPES 10/00/01

RECORD 00165
GEOTHERM FILE ID: 0073139

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: MOUND SPRING
LOCATION

COUNTRY... UNITED STATES 37N 009W 25 NE OF NW

STATE... COLORADO

COUNTY... LA PLATA

GEOLOGIC PROVINCE...

MAP REFERENCE... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00

TEMPERATURE (C)... 30.0

DISCHARGE... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 5600.

ALKALINITY... 1630.

TOTAL DISSOLVED SOLIDS... 3940.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AL... 3.0

AS... 550.

CA... 1000.

CL... 1000.

CO... 120.

CR... 68.

CS... 0.49

F... 1.9

FE(TOT)... 4.2

HC03... 1610.

H2S... 0.09

MG... 68.

MN... 0.49

NA... 710.

NB... 28.

NO3... 600.

PO4... 0.09

SI02... 28.

S04... 600.

ISOTOPES 10/00/01

RECORD 00165
GEOTHERM FILE ID: 0073139

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: MOUND SPRING
LOCATION

COUNTRY... UNITED STATES 37N 009W 25 NE OF NW

STATE... COLORADO

COUNTY... LA PLATA

GEOLOGIC PROVINCE...

MAP REFERENCE... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00

TEMPERATURE (C)... 30.0

DISCHARGE... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 5600.

ALKALINITY... 1630.

TOTAL DISSOLVED SOLIDS... 3940.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AL... 3.0

AS... 550.

CA... 1000.

CL... 1000.

CO... 120.

CR... 68.

CS... 0.49

F... 1.9

FE(TOT)... 4.2

HC03... 1610.

H2S... 0.09

MG... 68.

MN... 0.49

NA... 710.

NB... 28.

NO3... 600.

PO4... 0.09

SI02... 28.

S04... 600.

ISOTOPES 10/00/01

COUNTY..... LA PLATA
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... HERMOSA 1:24000
 OTHER LOCALITY INFORMATION: LOCATED SOUTH OF RESORT AND APPROX. 50 FEET EAST OF U.S. 50.
 NOTHING... 4147
 251889.

DATE/COLLECTOR..... 1975/09/00

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DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 32.0
DISCHARGE..... 204. L/MIN
```

AS HCU3	5600.
	1630.
	3990.
	1.9
ANALYSIS IN MG/L	
CHARGE IMBALANCE (% DIFF)...	
TOTAL DISSOLVED SOLIDS...	
ALKALINITY.....	
SPECIFIC CONDUCTANCE.....	
TEMPERATURE.....	
PH.....	

ISOIOPES (0/00)

[illegible]
$$Z_N \dots Z_2 Z_1$$

CO...	CO...	K.....	12U.

REFERENCE AND IDENTIFICATION
 120
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00168

GEUTHERM FILE ID: 0073136

GEOTHERM_SAMPLE_ID#
NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; SPRING A
TOWNSHIP=RANGE
LOCATION
COORDINATES

COORDINATES
LAT/LONG... 37-26.83 N 107-48.28 W
UTM ZONE... 413
NORTHING... 4147970.
251889.

3-010000 PROVENCE.. 14
MAP REFERENCE..... HERMOSA 1:24000
OTHER LOCALITY INFORMATION: LOCATED SOUTH OF RESURT AND APPROX. 50 FEET EAST OF U.S. 50.

DATE/collector..... 1976/01/00

TEMPERATURE (C)..... 32.0 L/MIN
DISCHARGE..... 204.
PER ANALYSIS

PH.....	6.5
SPECIFIC CONDUCTANCE.....	6060.
ALKALINITY.....	1620.
TOTAL DISSOLVED SOLIDS.....	3880.
CHARGE IMBALANCE (% DIFF)...	1.7

TECHNICAL

[illegible]

B..... 2.8 F..... 1.9 NA.... 690. SI02. 28.
 HF..... 560. FE(TOT). 4.0 NB.... 0.01 S04.. 610.
 CA..... HCO3..... 1620. NO3.. 0.03
 CD..... H2S..... 0.04.. 0.03
 CL..... 1000. K..... 110.

REFERENCE AND IDENTIFICATION
 COPIED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00169

GEOTHERM_SAMPLE_FILE NAME OF SAMPLE SOURCE... PINKENTON HOT SPRINGS; SPRING B GEOTHERM FILE ID: 0073138

LOCATION
 COUNTRY..... UNITED STATES 37N 009W 25 NE COORDINATES
 STATE..... COLORADO LAT/LONG... 37-27.97 N 107-48.30 W
 COUNTY..... LA PLATA TOWNSHIP=RANGE UTM ZONE... 13
 GEOLOGIC PROVINCE... HERMOSA 1:24000 NORTHING... 41500/9.
 MAP REFERENCE..... 251922.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 1200 FEET WEST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 33.0 L/MIN
 DISCHARGE..... 76.

WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 6000.
 ALKALINITY..... 1640. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.6

ISOTOPE 10/0007

ANALYSIS IN MG/L
 AG..... CO3..... 2.8
 AL..... CR..... 71.
 AS..... 0.16 CS..... 0.53
 H..... 3.0 F..... 720.
 HE..... FE(TOT). 4.4
 CA..... HCO3..... 1640.
 CA+MG... HG..... N
 CD..... H2S..... 0.04
 CL..... 990. PU4.. 0.04
 CO..... K..... 120. ZN... 0.02

REFERENCE AND IDENTIFICATION
 COPIED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00170

GEOTHERM_SAMPLE_FILE NAME OF SAMPLE SOURCE... TRIMBLE HOT SPRING GEOTHERM FILE ID: 0073191

LOCATION
 COUNTRY..... UNITED STATES 36N 009W 15 NW OF NW COORDINATES
 STATE..... COLORADO LAT/LONG... 37-23.47 N 107-50.87 W
 COUNTY..... LA PLATA TOWNSHIP=RANGE UTM ZONE... 13
 GEOLOGIC PROVINCE... 14 NORTHING... 41418/0.
 MAP REFERENCE..... 247881.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 36.0 L/MIN
 DISCHARGE..... 4.
 WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 4400. AS HCO3
 ALKALINITY..... 1090.
 TOTAL DISSOLVED SOLIDS... 3340.
 CHARGE IMBALANCE (% DIFF)... 1.4
 ANALYSIS IN MG/L

AG..... CO3..... LI.... 1.6
 AL..... 0.04 CH..... 42.
 AS..... 0.017 CS..... 0.080
 AU..... CU..... 0.003
 R..... F..... 510. 72.
 HA..... 1.4 HA..... 2.7
 HE..... 0.015
 HI..... FE(TOT). 0.050 NB.... 1400.
 CA..... 510. GA..... NH4... 4.5
 CA+MG. HCO3... 1090. NO3...
 CD..... HG..... 0.08
 CL..... H2S..... 0.01
 CO..... 220. PO4... 0.06
 K..... 47. ZN... 0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00171

GEOTHERM FILE ID: 0073192

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... TRIPP HOT SPRING

LOCATION

COUNTRY..... UNITED STATES SW OF SW

STATE..... COLORADO

COUNTY..... LA PLATA

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... HERMOSA 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 44.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3900. AS HCO3
 ALKALINITY..... 988.
 TOTAL DISSOLVED SOLIDS... 3240.
 CHARGE IMBALANCE (% DIFF)... 3.0
 ANALYSIS IN MG/L

AG..... CO3..... LI.... 1.6
 AL..... 0.16 CH..... 41.
 AS..... 0.017 CS..... 0.080
 AU..... CU..... 0.005
 R..... F..... 500. 64.
 HA..... 1.5 HA..... 2.7
 HE..... 0.035
 HI..... FE(TOT). 0.010 NH.... 1400.
 CA..... 470. GA..... NH4... 7.5
 HCO3... 988. NO3... 0.16

CORRELATES

LAT/LONG... 37-23.50 N 107-50.87 W
 UTM ZONE... 13
 NORTHING... 4141925.
 247883.

ISOTOPES 10/001

ISOTOPES 10/001

CA+MG. HG..... N PB... 0.02
 CD.... H2S..... P04.. 0.15
 CL.... 220. ZN... 0.020
 CO.... K..... 47.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00172

 GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ANTELOPE WARM SPRING
 LOCATION IOWNSHIP=RANGE
 40N 002W 01 SE OF SE
 GEOTHERM FILE ID: 0073001

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
 UTM ZONE... 413
 NORTHING... 4179087.
 320507.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE... WORKMAN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 32.0 L/MIN
 DISCHARGE..... N

WATER ANALYSIS

PH..... 8.9
 SPECIFIC CONDUCTANCE..... 160.
 ALKALINITY..... 95. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 150.
 CHARGE IMBALANCE (% DIFF)... 6.5

ANALYSIS IN MG/L

AG.... CO3..... 19. LI... 0.008
 AL.... CR..... MG... 0.6
 AS.... N CS..... MN... N
 H.... 0.130 F..... 1.6 S102. 34.
 HF.... FE(TOT)... 0.06 S04.. 3.2
 CA.... 1.7 HCO3.... 77. NO3.. 0.02
 CA+MG. HG..... N P04.. 0.03
 CD.... H2S.....

CL.... 3.5 K..... 0.3 ZN... N
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00173

 GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ANTELOPE WARM SPRINGS
 LOCATION IOWNSHIP=RANGE
 40N 002W 01 SE OF SE
 GEOTHERM FILE ID: 0073000

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
 UTM ZONE... 413
 NORTHING... 4179087.
 320507.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE... WORKMAN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 32.0 L/MIN
 DISCHARGE..... N

WATER ANALYSIS

PH..... 8.9
 SPECIFIC CONDUCTANCE..... 160.
 ALKALINITY..... 95. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 150.
 CHARGE IMBALANCE (% DIFF)... 6.5

ANALYSIS IN MG/L

AG.... CO3..... 19. LI... 0.008
 AL.... CR..... MG... 0.6
 AS.... N CS..... MN... N
 H.... 0.130 F..... 1.6 S102. 34.
 HF.... FE(TOT)... 0.06 S04.. 3.2
 CA.... 1.7 HCO3.... 77. NO3.. 0.02
 CA+MG. HG..... N P04.. 0.03
 CD.... H2S.....

CL.... 3.5 K..... 0.3 ZN... N
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 32.0 L/MIN
DISCHARGE..... N

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 180.
ALKALINITY..... 110.
TOTAL DISSOLVED SOLIDS..... 151.
CHARGE IMBALANCE (% DIFF).... 5.2

ANALYSIS IN MG/L

AG..... CO3..... 0.01
AL..... CR..... 0.3
AS..... N 0.130
B..... F..... 2.0
HE..... FE(TOT)..... 0.02
CA..... 4. HCO3..... 110.
CA+MG..... MG..... N
CO..... H2S..... N
CL..... 2.8
CO..... K..... 0.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (0/000)

SI02..... 41.
S04..... 2.2
ZN..... 0.03
P04..... N

RECORD 00174

GEOTHERM FILE 101 0073226

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... BIRDIE WARM SPRING

LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... MINERAL
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... WORKMAN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 30.0
DISCHARGE..... 57. L/MIN

WATER ANALYSIS

PH..... 8.6
SPECIFIC CONDUCTANCE..... 200.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
UTM ZONE... 13
NORTHING... 4179087.
320507.

RECORD 00175

GEOTHERM FILE 101 0073154

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... RAINBOW HOT SPRING

LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... MINERAL
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... SPAR CITY 1:62500

COORDINATES

LAT/LONG... 37-30.57 N 106-56.87 W
UTM ZONE... 13
NORTHING... 4152973.
327840.

SAMPLE DESCRIPTION AND CONDITIONS

RECORD 00177

GEUTHERM FILE 10: 0073207

GEUTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... MINERAL

GEOLOGIC PROVINCE..

MAP REFERENCE..... SPAR CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 50.0

DISCHARGE..... 121. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 2330.

ALKALINITY..... 1030. AS HCO3

TOTAL DISSOLVED SOLIDS... 1470.

CHARGE IMBALANCE (% DIFF)... 3.6

ANALYSIS IN MG/L

AL.....

AS.....

H..... 2.6

HE.....

CA..... 68.

CO.....

CL..... 190.

CO..... K..... 46.

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUKKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W

UTM ZONE... 13

NORTHING... 4172107.

338662.

ISOTOPES 10/0001

15.

0.540

430.

SI02.

S04..

0.02

0.25

67.

130.

RECORD 00178

GEUTHERM FILE 10: 0073206

GEUTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... MINERAL

GEOLOGIC PROVINCE..

MAP REFERENCE..... SPAR CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 48.0

DISCHARGE..... 114. L/MIN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 2300.

ALKALINITY..... 1020. AS HCO3

TOTAL DISSOLVED SOLIDS... 1540.

CHARGE IMBALANCE (% DIFF)... 3.0

ANALYSIS IN MG/L

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W

UTM ZONE... 13

NORTHING... 4172107.

338662.

ISOTOPES 10/0001

AL..... 15.
AS..... 0.56
R..... 450.
FE(TOT)..... 6.8
CA..... 0.12
CU..... 1020.
CL..... 200.
CO..... 46.
K.....

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00179

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0073205

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO
COUNTY..... MINERAL

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

WATER ANALYSIS
PH..... 6.4
SPECIFIC CONDUCTANCE..... 2400.
ALKALINITY..... 1020.
TOTAL DISSOLVED SOLIDS... 1520.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.002
H..... 2.5
FE..... 6.3
CA..... 68.
CU.....
CL..... 200.
CO.....
K..... 47.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

WATER ANALYSIS
PH..... 6.4
SPECIFIC CONDUCTANCE..... 2400.
ALKALINITY..... 1020.
TOTAL DISSOLVED SOLIDS... 1520.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.002
H..... 2.5
FE..... 6.3
CA..... 68.
CU.....
CL..... 200.
CO.....
K..... 47.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

WATER ANALYSIS
PH..... 6.4
SPECIFIC CONDUCTANCE..... 2400.
ALKALINITY..... 1020.
TOTAL DISSOLVED SOLIDS... 1520.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.002
H..... 2.5
FE..... 6.3
CA..... 68.
CU.....
CL..... 200.
CO.....
K..... 47.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

WATER ANALYSIS
PH..... 6.4
SPECIFIC CONDUCTANCE..... 2400.
ALKALINITY..... 1020.
TOTAL DISSOLVED SOLIDS... 1520.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.002
H..... 2.5
FE..... 6.3
CA..... 68.
CU.....
CL..... 200.
CO.....
K..... 47.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

WATER ANALYSIS
PH..... 6.4
SPECIFIC CONDUCTANCE..... 2400.
ALKALINITY..... 1020.
TOTAL DISSOLVED SOLIDS... 1520.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.002
H..... 2.5
FE..... 6.3
CA..... 68.
CU.....
CL..... 200.
CO.....
K..... 47.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING
LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
STATE..... COLORADO

GEOLOGIC PROVINCE.. SPAR CITY 1:24000
MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0 L/MIN
DISCHARGE..... 189.

RECORD 00180

GEOHEM FILE ID: 0073204

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W
UTM ZONE... +13

NORTHING... 4172107.
338662.

COUNTY..... MINERAL
GEOLOGIC PROVINCE...
MAP REFERENCE..... SPAR CITY 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 50.0 L/MIN
DISCHARGE..... 114.

WATER ANALYSIS
SPECIFIC CONDUCTANCE..... 2800.
ALKALINITY..... AS HCO3
TOTAL DISSOLVED SOLIDS..... 1020.
CHARGE IMBALANCE (% DIFF).... 0.5
ANALYSIS IN MG/L

AG.....	CO3.....	LI....	1.8
AL..... 0.06	CR.....	MG....	16.
AS..... N	CS.....	MN....	0.56
AU.....	CU.....	NA....	450.
BA..... 2.6	F.....	SI02.	74.
BE..... 0.12	FE(TOT).	SO4...	140.
HE.....	GA.....	SR...	2.1
HI.....	H4.....		
CA..... 67.	HC03.....		
CA+MG.	HG.....		
CD.....	H2S.....		
CL..... 200.			
CO.....	K.....	ZN... N	

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00181
GEOHEM FILE 10: 0073203

GEOHEM SAMPLE FILE
NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING
LOCATION
COUNTRY..... UNITED STATES 41N 001E 35 SE OF SE
STATE..... COLORADO
COUNTY..... MINERAL
GEOLOGIC PROVINCE...
MAP REFERENCE..... SPAR CITY 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 57.0 L/MIN
DISCHARGE..... E 106.

COORDINATES
LAT/LONG... 37-41.10 N 106-49.78 W
UTM ZONE... 13
NORTHING... 4172236.
338664.
ISOTOPES 10/0001
ANALYSIS IN MG/L
AL.....
AS..... 2.6
H.....
HE.....
CR.....
CS.....
F..... 7.6
FE(TOT). N
MG.... 15.
MN.... 0.3
NA.... 440.
SI02. 84.
SO4... 200.

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2400.
 ALKALINITY..... AS HCO3
 TOTAL DISSOLVED SOLIDS..... 1040.
 CHARGE IMBALANCE (% DIFF).... 1580.
 ANALYSIS IN MG/L

AG.....	CO3.....	LI....	2.2
AL.....	CR.....	MG....	15.
AS.....	CS.....	MN....	0.31
AU.....	CU.....		
BA.....	F.....	NA....	480.
BE.....	FE(TOT).....	SI02..	81.
BI.....	GA.....	SO4... 170.	
CA.....	HCO3.....	SR....	3.4
CA+MG..	HG.....		
CD.....	H2S.....		
CL.....	K.....	ZN....	0.02
CO.....			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION.... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00184

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CRAIG WARM WATER WELL
 LOCATION..... TOWNSHIP-RANGE
 COUNTY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... MOFFAT

NW OF SW SE

COORDINATES

LAT/LONG... 40-30.10 N 107-33.07 W
 UTM ZONE... 13
 NORTHING... 4486356.
 283818.

GEOTHERM FILE ID: 0073024

MAP REFERENCE..... CRAIG 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 39.0 L/MIN
 DISCHARGE..... 91.

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 1440.
 ALKALINITY..... 998.
 TOTAL DISSOLVED SOLIDS..... 896.
 CHARGE IMBALANCE (% DIFF).... 3.9
 ANALYSIS IN MG/L

AL.....	CR.....	MG....	0.9
AS.....	CS.....	MN....	N
BA.....	F.....	NA....	360.
BE.....	FE(TOT).....	NB....	
BI.....	HCO3.....	NO3... 0.04	
CA.....	H2S.....	PO4... 0.12	
CL.....	K.....	SI02.. 14.	
CO.....		SO4... 6.7	

REFERENCE AND IDENTIFICATION

ISOTOPES 10/2001

ISOTOPES 10/2001

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00185

GEOTHERM FILE ID: 0073079

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS
 LOCATION... TOWNSHIP=RANGE
 06N 094W 16 SE OF SW

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... MOFFAT

GEOLOGIC PROVINCE... 14

MAP REFERENCE..... JUNIPER HOT SPRING 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 38.0

DISCHARGE..... 49. L/MIN

WATER ANALYSIS

PH..... 7.8

SPECIFIC CONDUCTANCE..... 1900.

ALKALINITY..... 1100. AS HC03

TOTAL DISSOLVED SOLIDS..... 1150.

CHARGE IMBALANCE (% DIFF).... 3.8

ANALYSIS IN MG/L

AG..... CO3.....

AL..... CR.....

AS..... CS.....

AU..... CU.....

BA..... F.....

BR..... FE(TOT).....

CA..... GA.....

CL..... HC03.....

CO..... HG.....

CU..... H2S.....

K..... 2.3

LI..... 0.17

MG..... 0.8

MN..... 0.01

NA..... 460.

NH..... 0.05

NO3..... 0.009

PB..... 0.03

PU.....

SI..... 33.

SO4..... 12.

SR..... 0.36

ZN..... N

COORDINATES

LAT/LONG.... 40-28.02 N 107-57.17 W

UTM ZONE.... +13

NORTHING.... 4483570.

249648.

ISOTOPES (0/00)

RECORD 00186

GEOTHERM FILE ID: 0073082

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS
 LOCATION... TOWNSHIP=RANGE
 06N 094W 16 SE OF SW

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... MOFFAT

GEOLOGIC PROVINCE...

MAP REFERENCE..... JUNIPER HOT SPRING 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 36.0

COORDINATES

LAT/LONG.... 40-28.02 N 107-57.17 W

UTM ZONE.... +13

NORTHING.... 4483570.

249648.

DISCHARGE..... 68. L/MIN

WATER ANALYSIS

PH..... 7.9
 SPECIFIC CONDUCTANCE..... 1850.
 ALKALINITY..... 1100.
 TOTAL DISSOLVED SOLIDS..... 1150.
 CHARGE IMBALANCE (% DIFF).... 3.7
 ANALYSIS IN MG/L

AL..... CR..... MG... 0.3
 AS..... CS..... MN... N
 B..... 0.52 F..... 3.3
 H..... FE(TOT)..... 0.02
 CA..... HCO3..... 1100.
 CO..... H2S.....
 CL..... 90. K..... 2.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00187

GEOTHERM FILE ID: 0073081

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... JUNIPER HOT SPRING 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 37.0 L/MIN
 DISCHARGE..... 49. L/MIN

TOWNSHIP-RANGE
 06N 094W 16

COORDINATES
 LAT/LONG... 40-28.02 N 107-57.17 W
 UTM ZONE... 13
 NORTHING... 4483570.
 249848.

SE OF SW

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 1180.
 ALKALINITY..... 1090.
 TOTAL DISSOLVED SOLIDS..... 1160.
 CHARGE IMBALANCE (% DIFF).... 1.2
 ANALYSIS IN MG/L

AL..... CR..... MG... 0.3
 AS..... CS..... MN... N
 H..... 0.48 F..... 3.3
 HE..... FE(TOT)..... 0.01
 CA..... HCO3..... 1090.
 CO..... H2S.....
 CL..... 89. K..... 2.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

ISOTOPES 10/001

SI02... 31.
 S04... 20.

ISOTOPES 10/001

SI02... 34.
 S04... 13.

RECORD 00188
GEOTHERM FILE ID: 0073080

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS
LOCATION
COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... MOFFAT
GEOLOGIC PROVINCE...
MAP REFERENCE... JUNIPER HOT SPRING 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1975/10/00
TEMPERATURE (C)... 33.0 L/MIN
DISCHARGE... 53.
WATER ANALYSIS

PH... 8.0
SPECIFIC CONDUCTANCE... 1900.
ALKALINITY... 1090.
TOTAL DISSOLVED SOLIDS... 1160.
CHARGE IMBALANCE (% DIFF)... 1.5
ANALYSIS IN MG/L
AG... CO3... 0.25
AL... CR... 0.4
AS... CS... 0.01
H... F... 3.1
RE... FE(TOT)... 0.01
CA... HCO3... 1090.
CA+MG... HG... 0.01
CL... H2S... 0.03
CO... K... 2.0
ZN... 0.01

REFERENCE AND IDENTIFICATION
COMPILED BY... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE... GARRETT AND PEARL, 1976

ISOTOPES 10/0001

COORDINATES
LAT/LONG... 40-28.02 N 107-57.17 W
UTM ZONE... 13
NORTHING... 4483570.
Easting... 249648.

RECORD 00189
GEOTHERM FILE ID: 0073111

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... ORVIS HOT SPRING
LOCATION
COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... OURAY
GEOLOGIC PROVINCE...
MAP REFERENCE... DALLAS 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1976/01/00
TEMPERATURE (C)... 52.0 L/MIN
DISCHARGE... 3.8
WATER ANALYSIS

PH... 6.5
SPECIFIC CONDUCTANCE... 3180.
ALKALINITY... 277.
TOTAL DISSOLVED SOLIDS... 2490.
ANALYSIS IN MG/L
AG... CO3... 0.25
AL... CR... 0.4
AS... CS... 0.01
H... F... 3.1
RE... FE(TOT)... 0.01
CA... HCO3... 1090.
CA+MG... HG... 0.01
CL... H2S... 0.03
CO... K... 2.0
ZN... 0.01

REFERENCE AND IDENTIFICATION
COMPILED BY... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE... GARRETT AND PEARL, 1976

COORDINATES
LAT/LONG... 38-07.98 N 107-44.02 W
UTM ZONE... 13
NORTHING... 4223897.
Easting... 260398.

CHARGE IMBALANCE (% DIFF) ... 1.1 ANALYSIS IN MG/L

AL....	CR.....	MG....	18.
AS....	CS.....	MN....	0.13
B.....	F.....	NA....	460.
HF.....	FE(TOT)...	NB....	4.1
CA....	HC03.....	NO3...	0.92
CD....	H2S.....	PO4...	277.
CL....			0.01
			0.21

CO.... 33.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00190

GEOTERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... OURAY

GEOLOGIC PROVINCE..

MAP REFERENCE..... DALLAS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 53.0

DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2900.

ALKALINITY..... 409. AS HC03

TOTAL DISSOLVED SOLIDS... 2270.

CHARGE IMBALANCE (% DIFF) ... 1.2

ANALYSIS IN MG/L

AG....	CO3.....	LI....	1.4
AL....	CR.....	MG....	19.
AS....	CS.....	MN....	0.13
AU....	CU.....	NA....	420.
H.....	F.....		0.004
HA....			3.6
HF....	FE(TOT)...	NH....	0.92
HI....	GA.....	NH4...	
CA....	HC03.....	NO3...	409.
CA+MG.		PR....	0.02
CD....	H2S.....	PO4...	0.013
CL....			0.03

CO.... 28.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00191

GEOTERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... OURAY

GEOLOGIC PROVINCE..

MAP REFERENCE..... DALLAS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 53.0

DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2900.

ALKALINITY..... 409. AS HC03

TOTAL DISSOLVED SOLIDS... 2270.

CHARGE IMBALANCE (% DIFF) ... 1.2

ANALYSIS IN MG/L

AG....	CO3.....	LI....	1.4
AL....	CR.....	MG....	19.
AS....	CS.....	MN....	0.13
AU....	CU.....	NA....	420.
H.....	F.....		0.004
HA....			3.6
HF....	FE(TOT)...	NH....	0.92
HI....	GA.....	NH4...	
CA....	HC03.....	NO3...	409.
CA+MG.		PR....	0.02
CD....	H2S.....	PO4...	0.013
CL....			0.03

CO.... 28.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00191

GEOTERM FILE ID: 0073112

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING		TOWNSHIP-RANGE	
LOCATION		45N 008W 22	
		SE OF SW	
COUNTRY.....	UNITED STATES		
STATE.....	COLORADO		
COUNTY.....	OURAY		
GEOLOGIC PROVINCE..	14		
MAP REFERENCE.....	DALLAS 1:24000		
<u>SAMPLE DESCRIPTION AND CONDITIONS</u>			
DATE/COLLECTION.....	1976/04/00		
TEMPERATURE (C).....	52.0		
DISCHARGE.....	3.8	L/MIN	
<u>MAJOR ANALYSIS</u>			
PH.....	6.6		
SPECIFIC CONDUCTANCE.....	3030.		
ALKALINITY.....	424.	AS	HC03
TOTAL DISSOLVED SOLIDS.....	2270.		
CHARGE IMBALANCE (% DIFF)...	3.8		
<u>ANALYSIS IN MG/L</u>			
AL.....	CR.....	MG...	19.
AS.....	CS.....	MM...	0.130
HA.....	FE.....	NA...	390.
HE.....	FE(TOT)...	NB...	
CA.....	HC03.....	NU3...	0.01
CD.....	H2S.....	P04...	0.34
CL.....	As.		
CO.....	K.....		30.
<u>REFERENCE AND IDENTIFICATION</u>			
COMPILED BY..... BURKHARDT, H.			
COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY			
REFERENCE..... BARRETT AND PEARL, 1976			

RECORD 00192

GEOTHERM FILE LU: 0000419

RECORD 00192

GEOTHERM-SAMPLE-FILE
NAME OF SAMPLE SOURCE... ORVIS HOT SPRING (RIDGWAY HOT SPRING)
LOCATION TOWNSHIP-RANGE

GEOTERM FILE IN: 0000419

RECORD 00192

COORDINATES
LAT/LONG... 38-08.00
UTM ZONE... +13
NORTHING... 4223933.
260428.

COORDINATES

LAT/LONG... 38-08.00 N 107-44.00 W
UTM ZONE... +13
Easting... 422393.
260428.

38-08-00

13

NOTHING... 4223933.
260428.

GEOLOGIC PROVINCE..
SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 57.5

DISCHARGE..... 1136. L/MIN

SYSTEM ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF) ... 5.1

ANALYSIS

SECRET

HE.....	FEV017.	274.	274.
CA.....	HCU3....		

[illegible]

C0.....
C0.....
K..... 102.

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALYAGOT, PEN

COMPILED AFFILIATION... U.S. GEOLOGIC

REFERENCE.....

RECORD 00193

GEOTHERM FILE ID: 0073119

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OURAY AREA: POOL SPRING

LOCATION... TOWNSHIP=RANGE

COUNTRY... UNITED STATES 44N 007W 31

STATE... COLORADO

COUNTY... OURAY

GEOLOGIC PROVINCE... 14

MAP REFERENCE... OURAY 1:24000

OTHER LOCALITY INFORMATION: LOCATED IN BOX CANYON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00

TEMPERATURE (C)... 69.0

DISCHARGE... 227. L/MIN

WATER ANALYSIS

P... 6.5

SPECIFIC CONDUCTANCE... 2020.

ALKALINITY... 131. AS HCO3

TOTAL DISSOLVED SOLIDS... 1660.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AL... CR... 8.5

AS... CS... 0.75

H... F... 3.6

HE... FE(TOT)... N

CA... HCO3... 131.

CO... H2S... 0.01

CL... K... 8.6

CO... 44.

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... HARRETT AND PEARL, 1976

ISOIOPES (0/200)

49.

1000.

SI02.

S04..

RECORD 00194

GEOTHERM FILE ID: 0073118

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OURAY AREA: POOL SPRING

LOCATION... TOWNSHIP=RANGE

COUNTRY... UNITED STATES 44N 007W 31

STATE... COLORADO

COUNTY... OURAY

GEOLOGIC PROVINCE... 14

MAP REFERENCE... OURAY 1:24000

OTHER LOCALITY INFORMATION: LOCATED IN BOX CANYON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00

TEMPERATURE (C)... 67.0

DISCHARGE... 473. L/MIN

WATER ANALYSIS

P... 6.7

SPECIFIC CONDUCTANCE... 2000.

ALKALINITY... 129. AS HCO3

TOTAL DISSOLVED SOLIDS... 1650.

COORDINATES

LAT/LONG... 38-01.00 N 107-40.68 W

UTM ZONE... 13

NORTHING... 4210844.

264905.

CHARGE IMBALANCE (% DIFF) ... 2.9
ANALYSIS IN MG/L

AG.....	0.05	CO3.....	LI....	2.8
AL.....	0.013	CR.....	MG....	8.9
AS.....		CS.....	MN....	0.67
AU.....	0.2	CU.....	NA....	110.
HA.....	0.04	F.....	SI02..	47.
HE.....		FE(TOT)..	NB....	990.
HI.....		GA.....	NH4...	5.6
CA.....	370.	HCO3.....	NO3...	
CA+MG..		HG.....	PB....	0.01
CL.....	41.	H2S.....	P04...	0.009
				0.03

CL..... 41. K..... 9.2 ZN.... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00195

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT SPRING C

LOCATION... UNITED STATES
STATE..... COLORADO
COUNTY..... OURAY

COORDINATES
LAT/LONG... 38-01.25 N 107-40.05 W
UTM ZONE... 13
NORTHING... 4211280.
265840.

MAP REFERENCE... OURAY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)..... 48.0 L/MIN

DISCHARGE..... N

WATER ANALYSIS

PH.....	7.1	AS HCO3
SPECIFIC CONDUCTANCE.....	1850.	
ALKALINITY.....	192.	
TOTAL DISSOLVED SOLIDS.....	1390.	
CHARGE IMBALANCE (% DIFF)...	3.5	

ISOTOPE 10/001

AL.....	CR.....	MG....	8.9
AS.....	CS.....	MN....	0.54
H.....	F.....	NA....	110.
HE.....	FE(TOT)..	NB....	39.
CA.....	HCO3.....	NO3...	780.
CD.....	H2S.....	P04...	0.04
			0.15

CL..... 34. K..... 9.4

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

GEOTHERM FILE ID: 0073117

RECORD 00196
GEOTHERM FILE ID: 0073116

GEOTHERM FILE ID: 0073116

GEOTHERM SAMPLE FILE
LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... OURAY
GEOLOGIC PROVINCE.....
MAP REFERENCE..... OURAY 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 30.0
DISCHARGE..... N L/MIN

WESBADEN VAPOR CAVES AND MOTEL HOT SPRING C
COORDINATES
LAT/LONG... 38-01.25 N 107-40.05 W
UTM ZONE... 13
NORTHING... 4211280.
265840.

WATER ANALYSIS
SPECIFIC CONDUCTANCE..... 1810.
ALKALINITY..... 194.
TOTAL DISSOLVED SOLIDS... 1430.
CHARGE IMBALANCE (% DIFF)... 0.6
ANALYSIS IN MG/L

AL.....
AS.....
H..... 0.17
FE.....
CA..... 310.
CO.....
CL..... 32.

CR.....
CS.....
F..... 3.
FE(TOT). N
HCO3..... 194.
H2S.....
K..... 9.1

CO.....
COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

AS HCO3
MG... 8.5
MN... 0.48
NA... 110.
NB...
NO3... 0.03
PO4... 0.03

SI02... 39.
S04... 820.

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

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ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

RECORD 00197
GEOTHERM FILE ID: 0073115

GEOTHERM FILE ID: 0073115

GEOTHERM SAMPLE FILE
LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... OURAY
GEOLOGIC PROVINCE.....
MAP REFERENCE..... OURAY 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 46.0
DISCHARGE..... E 3.8 L/MIN

WESBADEN VAPOR CAVES AND MOTEL HOT SPRING C
COORDINATES
LAT/LONG... 38-01.25 N 107-40.05 W
UTM ZONE... 13
NORTHING... 4211280.
265840.

WATER ANALYSIS
SPECIFIC CONDUCTANCE..... 1840.
ALKALINITY..... 194.
TOTAL DISSOLVED SOLIDS... 1380.
CHARGE IMBALANCE (% DIFF)... 3.7
ANALYSIS IN MG/L

AL.....
AS.....
H.....
FE.....
CA.....
CO.....
CL.....

CR.....
CS.....
F.....
FE(TOT). N
HCO3.....
H2S.....
K.....

CO.....
COMPILED BY.....
COMPILED AFFILIATION...
REFERENCE.....

AS HCO3
MG...
MN...
NA...
NB...
NO3...
PO4...

SI02...
S04...

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION									
COMPILED BY..... MANGNALL, P.									
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY									
REFERENCE..... BARRETT AND PEARL, 1976									
AS.....	0.012	CS.....				MIN...	0.47		
R.....	0.16	F.....	2.7			NA...	110.	SI02.	39.
HE.....		FE(TOT)...	0.03			NB...		SO4...	780.
CA.....	300.	MCU3.....	194.			NO3...	0.03		
CA+MG.		H6.....	N						
CD.....		H2S.....				P04...	0.03		
CL.....	300.								
		K.....	8.9						
Zn...									
0.02									

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00198

GEOTHERM_SAMPLE-FILE
GEOTHERM FILE ID: 0073114

NAME OF SAMPLE SOURCE... NURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HUT SPRING B
LOCATION TOWNSHIP-RANGE COORDINATES

LAI/LUNG... 38-01.25 N 107-40.05 W
UTM ZONE... 413
NORTHING... 4211280.
265840.

OTHER LOCALITY INFORMATION: LOCATED 15 FEET INSIDE CAVE ON LEDGE ABOUT 8 FEET ABOVE FLOOR.
 MAP REFERENCE..... UIRAY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C) 30.0

DISCHARGE..... N L/MIN

STYAN, M. J. V.

SPECIFIC CONDUCTANCE.....	975.	AS HC03
ALKALINITY.....	189.	
TOTAL DISSOLVED SOLIDS.....	695.	
CHARGE IMBALANCE (% DIFF)...	1.4	

ISOTOPES (0/00)

Element	Concentration (ppm)	Element	Concentration (ppm)
Ag	0.0000	Co	0.0000
Al	0.0000	Cr	0.0000
As	0.0004	Cs	0.0000
B	0.006	F	0.0000
Be	0.0000	Fe(OT)	0.0000
Ca	150	HCO ₃	0.0000
Ca-Mg	0.0000	Hg	0.0000
Cd	0.0000	H ₂ S	0.0000
Cu	0.0000	Li	0.0000
Fe	0.0000	Mg	0.0000
Fe(OT)	0.0000	Mn	0.0000
HCO ₃	0.0000	Na	0.0000
Hg	0.0000	NB	0.0000
H ₂ S	0.0000	NO ₃	0.0000
Li	0.0000	P ₂ O ₅	0.0000
Mg	0.0000		
Mn	0.0000		
Na	0.0000		
NB	0.0000		
NO ₃	0.0000		
P ₂ O ₅	0.0000		

$$Z_N \dots Z_2$$

• • • • •
K

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPUTER AFFILIATION..... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00149

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 GEOTHERM SAMPLE FILE
 GEOTHERM FILE ID: 0073113

NAME OF SAMPLE SOURCE... MUKAY AREA: WESBADEN VAPOR CAVES AND MOTEL HUT SPRING A
LOCATION TOWNSHIP-RANGE COORDINATES

38-01.25 N 107-40.05 W
LAT/LONG...
UIM ZONE... +13

HE..... 320.
SI..... 2.2
S04... 0.22
SR... 0.013
P04... 0.12
Zn... 0.01

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
LOCATION... TOWNSHIP-RANGE
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... PARK
GEOLOGIC PROVINCE...
MAP REFERENCE..... HARTSEL 1:24000
OTHER LOCALITY INFORMATION: EASTERN MOST SPRING.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 52.0
WATER ANALYSIS

COORDINATES
LAT/LONG... 39-01.08 N 105-47.65 W
UTM ZONE... 13
NORTHING... 4318866.
Easting... 431247.

SPECIFIC CONDUCTANCE..... 3850.
ALKALINITY..... 484.
TOTAL DISSOLVED SOLIDS... 2140.
CHARGE IMBALANCE (% DIFF)... 3.9
ANALYSIS IN MG/L
AG.....
AL.....
AS.....
H.....
HE.....
CA.....
CA+MG.....
CD.....
CL.....
CU.....

LI..... 1.0
MG..... 20.
MN..... 0.18
NA..... 650.
NB.....
NO3... 0.03
P04... 0.09
Zn... 0.01

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

HE..... 320.
SI..... 2.2
S04... 0.22
SR... 0.013
P04... 0.12
Zn... 0.01

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES
LAT/LONG... 39-01.08 N 105-47.65 W
UTM ZONE... 13
NORTHING... 4318866.
Easting... 431247.

SPECIFIC CONDUCTANCE..... 3850.
ALKALINITY..... 484.
TOTAL DISSOLVED SOLIDS... 2140.
CHARGE IMBALANCE (% DIFF)... 3.9
ANALYSIS IN MG/L
AG.....
AL.....
AS.....
H.....
HE.....
CA.....
CA+MG.....
CD.....
CL.....
CU.....

LI..... 1.0
MG..... 20.
MN..... 0.18
NA..... 650.
NB.....
NO3... 0.03
P04... 0.09
Zn... 0.01

MAP REFERENCE..... HARTSEL 1:24000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 189. L/MIN
 WATER ANALYSIS

PH..... 6.6
 SPECIFIC CONDUCTANCE..... 3800.
 ALKALINITY..... 491. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2330.
 CHARGE IMBALANCE (% DIFF)... 3.9
 ANALYSIS IN MG/L

AL.....	CR.....	MG...	21.
AS.....	CS.....	MN...	0.170
BA.....	FE.....	NA...	670.
RE.....	FE(TOT)...	NB...	37.
CA.....	HC03.....	NO3...	380.
CD.....	H2S.....	PO4...	0.06
CL.....			0.03

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00203

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS: SPRING B
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 12S 07SW 08 NE OF SE

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... 13
 NORTHING... 4318866.
 431247.

GEOTHERM FILE ID: 0073060

MAP REFERENCE..... HARTSEL 1:24000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 151. L/MIN
 WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 3600.
 ALKALINITY..... 503. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2260.
 CHARGE IMBALANCE (% DIFF)... 2.3
 ANALYSIS IN MG/L

AL.....	CO3.....	LI...	1.0
AS.....	CR.....	MG...	20.
BA.....	CS.....	MN...	0.21
RE.....	FE.....	NA...	670.
CA.....	FE(TOT)...	NB...	35.
CD.....	HC03.....	NO3...	320.
CL.....	H2S.....	PO4...	0.03

ISOLOPES 10/001

CL.... 820. K..... 33. ZN... 0.01

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... PARK
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... HARTSEL 1:24000
OTHER LOCALITY INFORMATION: EASTERN MOST SPRING
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 45.0
DISCHARGE..... 182. L/MIN

COORDINATES
LAT/LONG... 39-01.08 N 105-47.65 W
UTM ZONE... +13
NORTHING... 4318866.
Easting... 431247.

GEOTHERM FILE ID: 0073061

RECORD 00204

WATER ANALYSIS

PH..... 6.6
SPECIFIC CONDUCTANCE..... 3800. AS HCO3
ALKALINITY..... 500.
TOTAL DISSOLVED SOLIDS... 2310.
CHARGE IMBALANCE (% DIFF)... 3.1
ANALYSIS IN MG/L

ANALYSIS	MG...	MG...
AL....	19.	
AS....	0.18	
RE....	710.	
CA....	NA...	36.
CL....	NB...	320.
	HCO3...	
	H2S....	
	PO4...	

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... RHODES WARM SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... PARK
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... FAIRPLAY WEST 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00
TEMPERATURE (C)..... 25.0
DISCHARGE..... 757. L/MIN

COORDINATES
LAT/LONG... 39-09.82 N 106-03.88 W
UTM ZONE... +13
NORTHING... 3337219.
Easting... 397479.

GEOTHERM FILE ID: 0073160

RECORD 00205

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 340.
 ALKALINITY..... 202.
 TOTAL DISSOLVED SOLIDS..... 194.
 CHARGE IMBALANCE (% DIFF).... 5.6
 ANALYSIS IN MG/L

AG..... CO3..... 0.02
 AL..... CR..... 19.
 AS..... CS..... 0.01
 H..... F..... 8.6
 RA..... 0.18
 HE..... FE(TOT)..... 0.04
 HI..... GA.....
 CA..... HCO3..... 202.
 CA+MG..... HG..... N
 CO..... H2S.....
 CL..... 4.1
 CO..... K..... 1.2
 ZN..... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00206

GEOTHERM FILE ID: 0073159

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RHODES WARM SPRING

TOWNSHIP-RANGE

10S 07RW 24

NW OF SW

COORDINATES

LAT/LONG... 39-09.82 N 106-03.68 W
 UTM ZONE... +13
 NORTHING... 3337219.
 397479.

UNITED STATES

COLORADO

PARK

COUNTRY.....

STATE.....

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE.....

FAIRPLAY WEST 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 24.0

WATER ANALYSIS

PH..... 8.2

SPECIFIC CONDUCTANCE..... 340.

ALKALINITY..... 197.

TOTAL DISSOLVED SOLIDS..... 186.

CHARGE IMBALANCE (% DIFF).... 1.7

ANALYSIS IN MG/L

AG..... CO3.....

AL..... CR.....

AS..... CS.....

AU..... CU.....

H..... F.....

HA..... 0.18

HE..... FE(TOT).....

HI..... GA.....

CA..... HCO3.....

CA+MG..... HG.....

CO..... H2S.....

CL..... 1.8

ISOTOPES (02/00)

LI... 0.01
 MG... 21.
 MN... 0.005
 NA... 5.5
 SIU2. 11.
 SIU2. 14.
 SR... 0.065
 SO4... 0.21
 SR... 0.002
 P04... N

LI... 0.01
 MG... 21.
 MN... 0.005
 NA... 5.5
 SIU2. 11.
 SIU2. 14.
 SR... 0.065
 SO4... 0.21
 SR... 0.002
 P04... N

CO..... K..... 1.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

ZN... 0.02

RECORD 00207

GEOTHERM FILE ID: 0000405

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... AVALANCHE SPRINGS
 LOCATION... TOWNSHIP=RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... PITKIN

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 53.9

DISCHARGE..... 757. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF)... 11.2

ANALYSIS

H..... F.....

HE..... FE(TOT).....

CA..... HCO3..... 473.

CL..... 260.

CO..... K..... 90.

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTARDT, KENNER, J.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GEORGE AND OTHERS, 1920

ISOLINES 10/0001

98.

1214.

S102.

504..

337.

NA...

NB...

RECORD 00208

GEOTHERM FILE ID: 0073017

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... CONUNDRUM HOT SPRING
 LOCATION... TOWNSHIP=RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... PITKIN

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... MAROON BELLS 1:24000

OTHER LOCALITY INFORMATION: TWO SPRINGS WITHIN 100 FEET OF EACH OTHER. LOWER SPRING SAMPLED.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 38.

DISCHARGE..... 50. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2400.

TOTAL DISSOLVED SOLIDS... 1910.

ANALYSIS IN MG/L

AG..... CO3.....

AL..... CR.....

AS..... 0.001 CS.....

H..... 0.003 F..... 2.3

FE..... FE (TOT)..... 0.05

LI... 0.01

MG... 1.4

MN... 0.14

NA... 44.

NB...

S102.

504..

38.

1300.

ISOLINES 10/0001

COORDINATES

LAT/LONG... 39-00.73 N 106-53.43 W

UTM ZONE... 413

NORTHING... 4319619.

336316.

CA.... 500. HC03.... 0.01
 C+MG. HG.... N
 CD.... H2S....
 CL.... 8.6
 CO.... K.... 3.4
 CU....

ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00209

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PENNY HOT SPRING
 LOCATION
 STATE..... UNITED STATES
 COUNTY..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... REDSTONE 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 46.0 L/MIN
 DISCHARGE..... 38.
 WATER ANALYSIS

TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 39-13.55 N 107-13.47 W
 UTM ZONE... 13
 NORTHING... 4343988.
 307976.

GEOTHERM FILE ID: 0073132

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 3450.
 ALKALINITY..... 593. AS HC03
 TOTAL DISSOLVED SOLIDS... 2820.
 CHARGE IMBALANCE (% DIFF)... 2.2

ISOTOPES (00/001)

ANALYSIS IN MG/L
 AL.... CR..... 51.
 AS.... CS..... 0.43
 R.... F..... 3.4
 RE.... FE(TOT)... 1.0
 CA.... HC03.... 0.01
 CD.... H2S..... 0.12
 CL.... 250.
 CO.... K..... 36.

SI02. 74.
 S04.. 1300.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00210

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PENNY HOT SPRINGS
 LOCATION
 STATE..... UNITED STATES
 COUNTY..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... REDSTONE 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN MEADOWS ON EAST SIDE OF CRYSTAL RIVER. SAMPLING POINT IS LOCATED 50 FT
 SOUTH OF WOODEN FENCE-LIKE STRUCTURE.

TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 39-13.55 N 107-13.47 W
 UTM ZONE... 13
 NORTHING... 4343988.
 307976.

GEOTHERM FILE ID: 0073131

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 38. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3550.

ALKALINITY..... 570. AS HCO3

TOTAL DISSOLVED SOLIDS..... 2820.

CHARGE IMBALANCE (% DIFF).... 0.3

ANALYSIS IN MG/L

AG..... 0.97

AL..... 50.

AS..... 0.38

AU..... 0.004

BA..... 3.

BR..... 400.

CA..... 96.

CL..... 1300.

CO..... 5.7

CR..... 0.02

CU..... 0.016

FE..... 0.06

HI..... 0.02

H2S..... 0.06

K..... 0.02

MANGNALL, P.

COLORADO GEOLOGICAL SURVEY

BARRETT AND PEARL, 1976

RECORD 00211

GEOTHERM FILE ID: 0073133

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE.... PENNY HOT SPRINGS

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... PITKIN

GEOLOGIC PROVINCE.....

MAP REFERENCE..... REDSTONE 1:24000

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 45.0

DISCHARGE..... 38. L/MIN

WATER ANALYSIS

PH..... 6.3

SPECIFIC CONDUCTANCE..... 3850.

ALKALINITY..... 599. AS HCO3

TOTAL DISSOLVED SOLIDS..... 2750.

CHARGE IMBALANCE (% DIFF).... 1.0

ANALYSIS IN MG/L

AG..... 53.

AL..... 0.430

AS..... 380.

BA..... 150.

BR..... 1200.

CA..... 0.01

CL..... 0.15

ISOTOPES (00/000)

SI02..... 150.

S04..... 1200.

COORDINATES

LAT/LONG.... 39-13.55 N 107-13.47 W

UTM ZONE.... 13

NORTHING.... 4343988.

EASTING.... 307976.

CO..... K..... 38.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00212

GEOTHERM FILE ID: 0073134

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PENNY HOT SPRINGS; GRANGES SPRING
 LOCATION
 COUNTRY..... UNITED STATES SW OF SE SW
 STATE..... COLORADO TOWNSHIP=RANGE
 COUNTY..... PITKIN 09S 08W 33
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... REDSTONE 1:24000
 OTHER LOCALITY INFORMATION: HIGHEST SPRING ON W SIDE OF CRYSTAL RIVER APPROXIMATELY 100 YDS N OF RIVER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 56.0 L/MIN
 DISCHARGE..... 45.
 WATER ANALYSIS

PH..... 9.2
 SPECIFIC CONDUCTANCE..... 3760.
 ALKALINITY..... 565. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2960.
 CHARGE IMBALANCE (% DIFF)... 2.3
 ANALYSIS IN MG/L
 AL..... CR..... MG..... 55.
 AS..... CS..... MN..... 0.3
 H..... 0.650 F..... 2.7
 HE..... FE(TOT)... 2.3
 CA..... HCO3..... NO3..... 0.01
 CO..... H2S..... PO4..... 0.15
 CL..... 260.
 CO..... K..... 38.

ISOTOPES 10/00/77

SI02.. 81.
 SO4.. 1400.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00213

GEOTHERM FILE ID: 0073015

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CLARK SPRING WARM WATER WELL
 LOCATION
 COUNTRY..... UNITED STATES NE OF NE
 STATE..... COLORADO TOWNSHIP=RANGE
 COUNTY..... PUEBLO 21S 06SW 01
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... NE PUEBLO 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 25.0 L/MIN
 DISCHARGE..... 45.
 WATER ANALYSIS

COORDINATES

LAT/LONG... 38-15.48 N 104-36.58 W
 UTM ZONE... 13
 NORTHING... 4234307.
 534151.

P1..... 6.8
 SPECIFIC CONDUCTANCE..... 1650.
 ALKALINITY..... 323.
 TOTAL DISSOLVED SOLIDS..... 1210.
 CHARGE IMBALANCE (% DIFF).... 1.1
 ANALYSIS IN MG/L
 AG..... CO3.....
 AL..... 0.02 CR.....
 AS..... N CS.....
 AU..... CU..... 0.003
 H..... 0.1 F..... 1.4
 RA..... 0.02 FE(TOT)..... 2.7
 HE..... GA.....
 HI..... 75. HC03..... 323.
 CA+MG..... N
 CD..... H2S.....
 CL..... 28.
 CO..... K..... 18.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES 10/001

LI.... 0.22
 MG.... 45.
 MN.... 0.04
 NA.... 250.
 SI02. 11.
 S04... 620.
 SR.... 2.4
 N
 P04... 0.007
 N
 ZN.... 0.01

RECORD 00214

GEOTHERM FILE ID: 0073171

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ROUTT HOT SPRING; SPRING B
 LOCATION... TOWNSHIP-RANGE
 COUNTY..... UNITED STATES 07N 08W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... ROCKY PEAK 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 62.0
 DISCHARGE..... 114. L/MIN
 WATER ANALYSIS

COORDINATES

LAT/LONG... 40-33.58 N 106-50.98 W
 UTM ZONE... +13
 NORTHING... 4491311.
 343401.

ISOTOPES 10/001

LI.... 0.310
 MG.... 0.5
 MN.... 0.010
 NA.... 160.
 SI02. 98.
 S04... 49.
 SR.... 0.38
 N
 P04... 0.004
 0.06

P4..... 7.1
 SPECIFIC CONDUCTANCE..... 770.
 ALKALINITY..... 135.
 TOTAL DISSOLVED SOLIDS... 539.
 CHARGE IMBALANCE (% DIFF).... 1.5
 ANALYSIS IN MG/L
 AG..... CO3.....
 AL..... 0.15 CR.....
 AS..... 0.1 CS.....
 AU..... CU..... 0.004
 H..... 0.280 F..... 17.
 RA..... 0.02 FE(TOT)..... 0.080
 HE..... GA.....
 HI..... 7.8 HC03..... 135.
 CA+MG..... H2S.....
 CD.....

AS HC03

CL.... 130. K..... 9.1 ZN... 0-006

REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00215

GEOTHERM FILE ID: 0000397

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 64.4
 WATER ANALYSIS

DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF)... 8.3
 ANALYSIS

H..... F.....
 HE..... FE(TOT)...
 CA..... 7.6 HCO3..... 141.
 CL..... 137.
 CO..... K..... 11.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALLYARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

ISOLOPES (0/001)

SI02. 88.
 S04... 44.

RECORD 00216

GEOTHERM FILE ID: 0073169

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ROCKY PEAK 1:24000
 OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100. FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 64.0
 DISCHARGE..... 95. L/MIN

WATER ANALYSIS
 PH..... 9.3
 SPECIFIC CONDUCTANCE..... 810.
 ALKALINITY..... 139. AS HCO3
 TOTAL DISSOLVED SOLIDS... 521.
 CHARGE IMBALANCE (% DIFF)... 0.8

ANALYSIS IN MG/L
 AL.....
 AS.....
 CA.....
 CS.....
 MN.....
 NI.....

ISOLOPES (0/001)

H..... 0.260 F..... 16. NA.... 160. SI02. 86.
HE..... FE(TOT). N NB.... S04.. 54.
CA..... 7.7 HC03..... 139. NO3... 0.01
CD..... H2S..... P04... 0.12
CL..... 120. K..... 8.5

CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00217

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE

STATE..... COLORADO

COUNTY..... ROUTT

GEOLOGIC PROVINCE..

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 64.0

DISCHARGE..... 189. L/MIN

MAJOR ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 890.

ALKALINITY..... 138. AS HC03

TOTAL DISSOLVED SOLIDS... 518.

CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

AG..... CO3..... 0.420

AL..... CR..... 0.2

AS..... CS..... 0.01

BA..... F..... 14. SI02. 80.

BE..... FE(TOT). 0.06 S04.. 49.

CA..... HC03..... 138. NO3... N

CMG..... HG..... 0.06 P04... 0.06

CD..... H2S.....

CL..... 130. ZN... 0.01

CO..... K..... 8.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00218

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE

STATE..... COLORADO

COUNTY..... ROUTT

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 64.0

DISCHARGE..... 189. L/MIN

MAJOR ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 890.

ALKALINITY..... 138. AS HC03

TOTAL DISSOLVED SOLIDS... 518.

CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

AG..... CO3..... 0.420

AL..... CR..... 0.2

AS..... CS..... 0.01

BA..... F..... 14. SI02. 80.

BE..... FE(TOT). 0.06 S04.. 49.

CA..... HC03..... 138. NO3... N

CMG..... HG..... 0.06 P04... 0.06

CD..... H2S.....

CL..... 130. ZN... 0.01

CO..... K..... 8.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00219

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE

STATE..... COLORADO

COUNTY..... ROUTT

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 64.0

DISCHARGE..... 189. L/MIN

MAJOR ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 890.

ALKALINITY..... 138. AS HC03

TOTAL DISSOLVED SOLIDS... 518.

CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

AG..... CO3..... 0.420

AL..... CR..... 0.2

AS..... CS..... 0.01

BA..... F..... 14. SI02. 80.

BE..... FE(TOT). 0.06 S04.. 49.

CA..... HC03..... 138. NO3... N

CMG..... HG..... 0.06 P04... 0.06

CD..... H2S.....

CL..... 130. ZN... 0.01

CO..... K..... 8.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

343373.

GEOLOGIC PROVINCE... ROCKY PEAK 1:24000
MAP REFERENCE.....
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 64.0 L/MIN
DISCHARGE..... 132.

WATER ANALYSIS

PH..... 7.8
SPECIFIC CONDUCTANCE..... 1000.
ALKALINITY..... 139. AS HCO3
TOTAL DISSOLVED SOLIDS..... 527.
CHARGE IMBALANCE (% DIFF).... 2.6
ANALYSIS IN MG/L

AL.....	CR.....	MG....	0.1
AS.....	CS.....	MN....	0.010
FE.....	F.....	NA....	160.
CA.....	FE(TOT).....	NH....	89.
CO.....	HCO3.....	NO3...	504..
CL.....	H2S.....	PO4...	0.02
			0.15

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
COMPILED BY..... RUMKARDT, M.
COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00219

GEO THERM SAMPLE FILE
NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
LOCATION

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ROUTT
GEOLOGIC PROVINCE... ROCKY PEAK 1:24000
MAP REFERENCE.....
OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 64.0 L/MIN
DISCHARGE..... 125.

WATER ANALYSIS
PH..... 7.6
SPECIFIC CONDUCTANCE..... 830.
ALKALINITY..... 136. AS HCO3
TOTAL DISSOLVED SOLIDS..... 552.
CHARGE IMBALANCE (% DIFF).... 2.3
ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.29
AL.....	CR.....	MG....	0.4
AS.....	CS.....	MN....	N
AU.....	CU.....	NA....	160.
FE.....	F.....	SI02.	91.
HA.....	0.016	504..	41.
HI.....	0.014	SH....	0.30

ISOTOPES 10/001

GEOTHERM FILE ID: 0073167

COORDINATES

LAT/LONG... 40-33.57 N 106-51.00 W
UTM ZONE... 13
NORTHING... 4491293.
343373.

CA.... 13. HC03.... 136. N03.. N 0.004
 CA-MG. HG..... N PB... 0.03
 CD.... H2S..... P04..
 CL.... 140. K..... 9. ZN... N

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00220

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING C

LOCATION TOWNSHIP-RANGE 07N 08W 18 SW OF SE

COORDINATES
 LAT/LONG... 40-33.57 N 106-50.98 W
 UTM ZONE... +13
 NORTHING... 4491292.
 343401.

GEOTHERM FILE ID: 0073172

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... ROUTT

GEOLOGIC PROVINCE..

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 50 FEET EAST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 54.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 860.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00221

GEOTHERM FILE ID: 0073173

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING D

LOCATION TOWNSHIP-RANGE 07N 08W 18 SW OF SE

COORDINATES
 LAT/LONG... 40-33.57 N 106-50.97 W
 UTM ZONE... +13
 NORTHING... 4491292.
 343415.

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... ROUTT

GEOLOGIC PROVINCE..

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 40 FEET SOUTHEAST OF SPRING C.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 51.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 830.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00222

GEOTHERM FILE ID: 0000399

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS

LOCATIONSHIP-RANGE

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ROUTT
GEOLOGIC PROVINCE.....
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)..... 24.0
WATER ANALYSIS

DATE/ANALYST..... 1912/00/00
CHARGE IMBALANCE (% DIFF).... 2.7

ANALYSIS
H.....
HE.....
CA..... 113.
CL..... 1345.
CO.....
K..... 155.
F.....
FE(TOT).....
HCO3..... 3253.
NA..... 2047.
NB.....
SI02.....
SO4.....
85.
486.

REFERENCE AND IDENTIFICATION
COMPILED BY..... GARYKOT, RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... GEORGE AND OTHERS, 1920

ISOLOPES 10/2001

COORDINATES

LAT/LONG... 40-29.10 N 106-50.30 W
UTM ZONE... 13
NORTHING... 4483002.
344188.

RECORD 00223

GEOTHERM FILE 10: 0073185

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS AREA: HEART HOT SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ROUTT
GEOLOGIC PROVINCE... 14
MAP REFERENCE..... STEAMBOAT SPRINGS 1:24000
OTHER LOCALITY INFORMATION: LOCATED AT EAST END OF MAIN STREET.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 39.0
DISCHARGE..... 530. L/MIN
OTHER SAMPLE INFORMATION... SUPPLIES WATER TO SWIMMING POOL.

LOCATIONSHIP-RANGE

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... ROUTT
GEOLOGIC PROVINCE.....
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)..... 39.0
DISCHARGE..... 530. L/MIN
OTHER SAMPLE INFORMATION... SUPPLIES WATER TO SWIMMING POOL.

WATER ANALYSIS

PH.....
SPECIFIC CONDUCTANCE..... 8.0
ALKALINITY..... 1450.
TOTAL DISSOLVED SOLIDS... 103.
CHARGE IMBALANCE (% DIFF).... 903.
ANALYSIS IN MG/L
AG.....
AL.....
AS..... 0.905
H..... 0.7
HE.....
CA..... 18.
CA+MG.....
CD.....
CL..... 320.
CO.....
K..... 11.
MANGNALL, P.

ISOLOPES 10/2001

LI..... 0.35
MG..... 1.
MN.....
NA..... 300.
NB.....
NO3..... 0.04
PO4..... 0.06
SI02.....
SO4.....
49.
150.

24... N

GEOTHERM-SAMPLE-FILE-----RECORD 00224
GEOTHERM FILE ID: 0073187

GEOOTHERM-SAMPLE-FILE
NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING
LOCATION
COUNTRY..... UNITED STATES NE OF SE SE
STATE..... COLORADO
COUNTY..... ROUTT
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... STEAMBOAT SPRINGS 1:24000
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 26.0
DISCHARGE..... L/MIN
WATER ANALYSIS

P-H.....	6.7
SPECIFIC CONDUCTANCE.....	9130.
ALKALINITY.....	3390.
TOTAL DISSOLVED SOLIDS.....	6170.
CHARGE IMBALANCE (% DIFF)...	0.3
ANALYSIS IN MG/L	

7007053301051

Element	Concentration (ppm)	Element	Concentration (ppm)
Ag	0.13	Li	3.7
Al	3.2	Mg	31
As	110	Mn	0.38
B	1400	Na	2200
Ca	0.01	Nb	0.16
Co	3390	NO ₃	0.21
Cu	0.21	P ₂ O ₅	0.03
Fe	2.9	Zn	21
Hg	0.01		590
K	140		
Mg	31		
Mn	0.38		
Na	2200		
Nb	0.16		
NO ₃	0.21		
P ₂ O ₅	0.03		
Zn	21		
	590		

GO.... K..... 140.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MANGALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00225

GEOTHERM FILE 10: 0073186

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE...	STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING
LOCATION	TOWNSHIP=RANGE
COUNTRY.....	UNITED STATES
STATE.....	COLORADO
COUNTY.....	ROUTE
GEOLOGIC PROVINCE..	
MAP REFERENCE.....	STEAMBOAT SPRINGS 1:24000
SAMPLE DESCRIPTION AND CONDITIONS	
DATE/COLLECTOR.....	1976/04/90
TEMPERATURE (C).....	20.0
DISCHARGE.....	18. L/MIN

TEMPERATURE (°C).....	20.0
DISCHARGE.....	38.
PER ANALYSIS.....	6.5
SPECIFIC CONDUCTANCE.....	500.

AL KAL INITY..... 2420. AS HCU3
 TOTAL DISSOLVED SOLIDS... 4530.
 CHARGE IMBALANCE (% DIFF)... 1.4
 ANALYSIS IN MG/L
 AG..... CO3..... 3.0
 AL..... CR..... 24.
 AS..... 0.045 CS..... 0.31
 H..... 2.9 F..... 1600.
 HE..... 3.0 FE(TOT)... 18.
 CA..... 90. HCO3..... 0.06 490.
 CA+MG. N
 CD..... H2S.....
 CL..... 1000. PO4... 0.18
 CO..... K..... 110.
 CO..... 110. ZN... 0.01

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECOMD 00226
 GEOTHERM FILE ID: 0073041

COORDINATES
 LAT/LONG... 38-18.30 N 105-58.92 W
 UTM ZONE... 13
 NORTHING... 4239906.
 414138.

NAME OF SAMPLE SOURCE... FULLINWIDER WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE... 15

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/10/00
 TEMPERATURE (C)..... 18.0 L/MIN
 DISCHARGE..... 42.

WATER ANALYSIS
 PH..... 6.7
 SPECIFIC CONDUCTANCE... 530.
 AL KAL INITY..... 116.
 TOTAL DISSOLVED SOLIDS... 332.
 CHARGE IMBALANCE (% DIFF)... 2.5
 ANALYSIS IN MG/L
 AG..... CO3..... 0.1
 AL..... CR..... 4.2
 AS..... 0.001 CS..... 0.005
 H..... 0.05 F..... 80.
 HE..... 4.4 FE(TOT)... 27.
 CA..... 21. HCO3..... 0.29 140.
 CA+MG. N
 CD..... H2S.....
 CL..... 15. PO4... 0.06
 CO..... K..... 1.6
 CO..... 1.6 ZN... 0.008

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOLOPES 10/001

ISOLOPES 10/001

RECORD 00227
GEOTHERM FILE ID: 0073900

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS (SPRING C)
LOCATION
COUNTRY... UNITED STATES 12 SE OF NE
STATE... COLORADO
COUNTY... SAGUACHE
GEOLOGIC PROVINCE...
MAP REFERENCE... VILLA GROVE 1:24000
OTHER LOCALITY INFORMATION: LOCATED APPROX 2300 FT E OF CULO 17 AND 150 FT NW OF SPRING A.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1975/06/00
TEMPERATURE (C)... 60.0

COORDINATES
LAT/LONG... 38-10.10 N 105-55.18 W
UTM ZONE... 13
NORTHING... 4224686.
419438.

WATER ANALYSIS
SPECIFIC CONDUCTANCE... 1060.
ALKALINITY... 341.
TOTAL DISSOLVED SOLIDS... 723.
CHARGE IMBALANCE (% DIFF)... 0.9
ANALYSIS IN MG/L

AG... CO3... 0.330
AL... CR... 14.
AS... CS... 0.030
H... F... 4.2
RE... FE(TOT)... 0.020
CA... HCO3... 6.5
CMG... MG... 0.12
CD... H2S...
CL... K... 14.
CO... N

REFERENCE AND IDENTIFICATION
COMPILED BY... BURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE... BARRETT AND PEARL, 1976

RECORD 00228
GEOTHERM FILE ID: 0000413

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)
LOCATION
COUNTRY... UNITED STATES
STATE... COLORADO
COUNTY... SAGUACHE
GEOLOGIC PROVINCE...
SAMPLE DESCRIPTION AND CONDITIONS
TEMPERATURE (C)... 63.0 L/MIN
DISCHARGE... 133.
DATE/ANALYST... 1974/09/00
CHARGE IMBALANCE (% DIFF)... 9.2
ANALYSIS

COORDINATES
LAT/LONG... 38-10.10 N 105-55.00 W
UTM ZONE... 13
NORTHING... 4224683.
419701.

AG... 56.
H...
HF...
CA... 34.
F...
FE(TOT)...
HCO3... 34.
NA... 140.
S04... 51.
S04... 160.

CI..... 39.
 CO..... K..... 14.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALYARDI, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WHITE AND WILLIAMS, 1975

RECORD 00229
 GEOTHERM FILE ID: 0073085

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE.. 15
 MAP REFERENCE..... VILLA GROVE 1:24000
 OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERNMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 60.0 L/MIN
 DISCHARGE..... 379.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 970.
 ALKALINITY..... 335. AS HCO3
 TOTAL DISSOLVED SOLIDS... 643.
 CHARGE IMBALANCE (% DIFF)... 2.4

ANALYSIS IN MG/L

AG.....	CO3.....	LI... 0.3
AL.....	CR.....	MG... 14.
AS... 0.045	CS.....	MN... 0.02
BA.....	CU..... 0.002	NA... 130.
HA... 0.36	F..... 3.7	SI02. 48.
BA... 0.09	FE(TQT). 0.27	SO4... 170.
HE.....	GA.....	SR... 1.2
RI.....	HCO3... 335.	
CA... 57.	MG..... N	
CA+MG.	H2S.....	
CD.....		
CL... 39.		
CO... 14.		
		ZN... N

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION
 COMPILED BY..... WAGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00230
 GEOTHERM FILE ID: 0073088

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE.. 15
 MAP REFERENCE..... VILLA GROVE 1:24000

COORDINATES
 LAT/LONG... 38-10.13 N 105-55.08 W
 UTM ZONE... 13
 NORTHING... 4224740.
 419584.

OTHER LOCALITY INFORMATION: ACTUALLY, LOCATED IN EASTERMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 60.0 L/MIN

DISCHARGE..... 360.

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 995.

ALKALINITY..... 352. AS HCO3

TOTAL DISSOLVED SOLIDS..... 639.

CHARGE IMBALANCE (% DIFF).... 2.7

ANALYSIS IN MG/L

AL..... CR..... MG... 13.
AS..... CS..... MW... 0.01
R..... 0.45 F..... 4.6 SI02. 47.
FE..... FE(TOT). 0.25 NA... 140. S04.. 150.
CA..... 59. HCO3.... N
CD..... H2S..... P04.. 0.12
CL..... 37. CO..... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00231

GEOTHERM FILE ID: 0073087

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A

LOCATION..... TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... VILLA GROVE 1124000

OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERNMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 60.0 L/MIN

DISCHARGE..... 265.

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 1020.

ALKALINITY..... 1020. AS HCO3

TOTAL DISSOLVED SOLIDS..... 658.

CHARGE IMBALANCE (% DIFF).... 70.0

ANALYSIS IN MG/L

AL..... CR..... MG... 13.
AS..... CS..... MN... 0.02
H..... 0.37 F..... 3.9 SI02. 47.
FE..... FE(TOT). 0.15 NA... 140. S04.. 170.
CA..... 57. HCO3.... N
CD..... H2S..... P04.. N
CL..... 39. CO..... 15.

REFERENCE AND IDENTIFICATION

COMPILED BY..... K.....

COORDINATES

LAT/LONG... 38-10-13 N 105-55.08 W

UTM ZONE... 13

NORTHING... 4224740.

EASTING... 419584.

ISOTOPES 10/2001

ISOTOPES 10/2001

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00232

GEOTHERM FILE 10: 0073086

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A
 LOCATION TOWNSHIP=RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

MAP REFERENCE..... VILLA GROVE 1:24000

OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERNMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 60.0

DISCHARGE..... 632. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 1000.
 ALKALINITY..... 335.
 TOTAL DISSOLVED SOLIDS..... 663.
 CHARGE IMBALANCE (% DIFF).... 0.3

ANALYSIS IN MG/L

AG.....
 AL.....
 AS..... 0.032
 H..... 0.35
 HE.....
 CA..... 60.
 CA-MG.....
 CO.....
 CL..... 41.
 CO.....
 CR.....
 CS.....
 F..... 3.6
 FE(TOT)..... 0.22
 HC03..... 335.
 HG.....
 H2S.....
 LI..... 0.32
 MG..... 13.
 MN..... 0.02
 NA..... 140.
 NB.....
 NO3..... 0.04
 PO4..... 0.13

ISOLOPES 10/001

SI02. 45.
S04.. 180.

ZN... 0.01

K..... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00233

GEOTHERM FILE 10: 0073235

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING B
 LOCATION TOWNSHIP=RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

MAP REFERENCE..... VILLA GROVE 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROXIMATELY 25 FT NORTHWEST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 51.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

COORDINATES

LAT/LONG... 38-10.12 N 105-55.10 W
 UTM ZONE... 13
 NORTHING... 4224722.
 419555.

SPECIFIC CONDUCTANCE..... 1000.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00234

GEOTHERM FILE 10: 0073092

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VILLA GROVE 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 60.0
 WATER ANALYSIS

PH.....	7.3		
SPECIFIC CONDUCTANCE.....	995.		
ALKALINITY.....	351.	AS	HC03
TOTAL DISSOLVED SOLIDS...	648.		
CHARGE IMBALANCE (% DIFF)...	0.1		
ANALYSIS IN MG/L			

AL.....	CR.....	MG...	13.
AS.....	CS.....	MN...	0.01
FE.....	F.....	NA...	140.
RE.....	FE(TOT)...	NB...	47.
CA.....	HC03.....	S02...	160.
CO.....	H2S.....	S04...	
CL.....			

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00235

GEOTHERM FILE 10: 0073091

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VILLA GROVE 1:24000
 OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 60.0
 DISCHARGE..... N L/MIN
 WATER ANALYSIS

COORDINATES	38-10.07 N 105-55.33 W
LAT/LONG...	+13
UTM ZONE...	4224632.
NORTHING...	419218.

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 950.
 ALKALINITY..... 352.
 TOTAL DISSOLVED SOLIDS..... 657.
 CHARGE IMBALANCE (% DIFF).... 3.1
 ANALYSIS IN MG/L
 AL..... CR..... 13.
 AS..... CS..... 0.02
 H..... F..... 3.8
 RE..... FE(TOT)..... 0.05
 CA..... 56. HCO3..... 0.02
 CO..... H2S.....
 CL..... 40.
 CO..... K..... 14.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00236
 GEOTHERM FILE 10: 0073090

COORDINATES
 LAT/LONG... 38-10.07 N 105-55.33 W
 UTM ZONE... 13
 NORTHING... 4224632.
 419218.

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D
 LOCATION... TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VILLA GROVE 1124000
 OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1975/10/00
 TEMPERATURE (C)..... 60.0
 WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 1000.
 ALKALINITY..... 354.
 TOTAL DISSOLVED SOLIDS..... 690.
 CHARGE IMBALANCE (% DIFF).... 1.1
 ANALYSIS IN MG/L
 AG..... CO3..... 0.32
 AL..... CR..... 13.
 AS..... 0.036 MG..... 0.01
 H..... 0.35 CS..... 150.
 RE..... F..... 3.4
 CA..... 59. FE(TOT)..... 0.13
 CO..... HCO3..... 0.05
 CL..... H2S.....
 CO..... K..... 14.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

ISOTOPES 10/0001
 SI02... 45.
 S04... 190.
 ISOTOPES 10/0001
 SI02... 45.
 S04... 190.
 ZN... 0.01

RECORD 00237

GEOTHERM FILE ID: 0073089

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D
LOCATION

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... SAGUACHE

GEOLOGIC PROVINCE...

MAP REFERENCE... VILLA GROVE 1:24000

OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/06/00

TEMPERATURE (C)..... 59.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 995.

ALKALINITY..... 349. AS HCO3

TOTAL DISSOLVED SOLIDS... 665.

CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

AG..... CO3..... 0.33

AL..... CR..... 13.

AS..... CS..... 0.02

AU..... CU..... 0.001

H..... F..... 3.9

HA.....

HE.....

HI..... FE(TOT)... 0.03

CA..... GA.....

CA+MG... HCO3..... 349.

CI..... HG..... N

CL..... H2S.....

CO..... K..... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-10.07 N 105-55.33 W

UTM ZONE... 13

NORTHING... 4224632.

419218.

ISOTOPES 10/2001

48.

SI02.

170.

SR...

0.008

ZN...

RECORD 00238

GEOTHERM FILE ID: 0073175

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING

LOCATION

COUNTRY... UNITED STATES

STATE... COLORADO

COUNTY... SAGUACHE

GEOLOGIC PROVINCE...

MAP REFERENCE... TWIN MOUNTAINS SE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/08/00

TEMPERATURE (C)..... 30.0

DISCHARGE..... 129. L/MIN

WATER ANALYSIS

PH..... 9.3

SPECIFIC CONDUCTANCE..... 550.

COORDINATES

LAT/LONG... 37-45.02 N 106-19.02 W

UTM ZONE... 13

NORTHING... 4178726.

383975.

ALKALINITY..... 121. AS HC03
 TOTAL DISSOLVED SOLIDS... 406.
 CHARGE IMBALANCE (% DIFF)... 1.6
 ANALYSIS IN MG/L

AG..... 0.04 AL..... 0.01
 AS..... N CR..... 0.6
 AU..... 0.001 CS..... N
 CU..... 0.001
 F..... 130. SI02. 83.
 HA..... 0.003
 RE..... 0.04
 RI..... 0.04
 CA..... 0.9
 CA+MG..... 121.
 CD..... N
 CL..... 7.5
 CO..... 1.5
 K..... 1.5
 ZN.... N

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00239

GEOTHERM FILE 10: 0073176

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES 41N 006E 33 SE OF SE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... TWIN MOUNTAINS SE 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 30.0
 DISCHARGE..... 129. L/MIN
 WATER ANALYSIS

COORDINATES

LAT/LONG... 37-45.02 N 106-19.02 W
 UTM ZONE... 13
 NORTHING... 4178726.
 383975.

PH..... 9.3
 SPECIFIC CONDUCTANCE... 540. AS HC03
 ALKALINITY..... 114.
 TOTAL DISSOLVED SOLIDS... 402.
 CHARGE IMBALANCE (% DIFF)... 2.6
 ANALYSIS IN MG/L

AG..... 77. LI... 0.01
 AL..... 0.3
 AS..... N
 H..... 0.14
 RE..... 2.9
 CA..... 0.5
 CA+MG..... 114.
 CD..... N
 CL..... 7.2
 CO..... 1.4
 K..... 1.4
 ZN.... N

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

ISOTOPES 10/0001

ISOTOPES 10/0001

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00240

GEOTHERM FILE ID: 0073177

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING

TOWNSHIP-RANGE

41N 006E 33

SE OF SE

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE.. 15

MAP REFERENCE..... TWIN MOUNTAINS SE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 30.0

DISCHARGE..... 197. L/MIN

WATER ANALYSIS

PH..... 9.0

SPECIFIC CONDUCTANCE..... 569.

ALKALINITY..... 154. AS HCO3

TOTAL DISSOLVED SOLIDS..... 424.

CHARGE IMBALANCE (% DIFF).... 2.4

ANALYSIS IN MG/L

AG..... CO3..... 57.

AL..... CR.....

AS..... MN..... 0.7

H..... F..... 3.0

HE..... FE(TOT)..... 0.01

CA..... HCO3..... 154.

CO..... H2S.....

CL..... K..... 1.5

CO.....

COMPILED BY..... MANGNALL, P.

COMPILED BY..... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (0/00L)

100.

46.

SI02.

S04..

0.02

0.15

RECORD 00241

GEOTHERM FILE ID: 0073180

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING A

TOWNSHIP-RANGE

06S 090W 02

SE OF SW

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... STORM KING MOUNTAIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 48.0

DISCHARGE..... 26. L/MIN

WATER ANALYSIS

PH..... 7.6

SPECIFIC CONDUCTANCE..... 1300.

ALKALINITY..... 303. AS HCO3

TOTAL DISSOLVED SOLIDS.... 800.

COORDINATES

LAT/LONG...

UTM ZONE...

NORTHING...

383975.

37-45.02 N 106-19.02 W

+13

4178726.

COORDINATES

LAT/LONG...

UTM ZONE...

NORTHING...

293967.

39-33.27 N 107-23.88 W

+13

4380850.

CHARGE IMBALANCE (% DIFF).... 1.7
ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.15
AL.....	CR.....	MG....	1.4
AS.....	CS.....	MN....	0.04
FE.....	F.....	NA....	280.
0.26	3.0	NO3...	39.
0.03	0.03	PO4...	100.
7.7	303.		
CA+MG.	HCO3.....		
CD.....	HG.....		
CL.....	H2S.....		
CO.....	K.....		
8.0			
ZN....			0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00242

GEUTHERM FILE 101 0073194

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS; SPRING A
LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... SAGUACHE
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-11.53 N 105-48.82 W
UTM ZONE... +13
NORTHING... 4227243.
428747.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1124000
OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 36.0 L/MIN
DISCHARGE..... N

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 384.
ALKALINITY..... 124.
TOTAL DISSOLVED SOLIDS... 249.
CHARGE IMBALANCE (% DIFF)... 5.0
ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.01
AL.....	CR.....	MG....	14.
AS.....	CS.....	MN....	0.01
0.01	0.4	NA....	3.7
0.01	0.02	NO3...	20.
50.	124.	PO4...	95.
CA+MG.	HCO3.....		
CD.....	HG.....		
CL.....	H2S.....		
CO.....	K.....		
2.6			
ZN....			0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED BY..... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPES (00/00)

ISOTOPES (00/00)

RECORD 00243

GEOTHERM FILE ID: 0073196

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A
LOCATION

COUNTRY... UNITED STATES 46N 010E 36 NW OF SE

STATE... COLORADO

COUNTY... SAGUACHE

GEOLOGIC PROVINCE...

MAP REFERENCE... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)..... 36.0

WATER ANALYSIS

PH..... 7.5

SPECIFIC CONDUCTANCE..... 381.

ALKALINITY..... AS HCO3

TOTAL DISSOLVED SOLIDS..... 125.

CHARGE IMBALANCE (% DIFF).... 2.2

ANALYSIS IN MG/L

AL.....

AS.....

H..... 0.31

HE.....

CA..... 50.

CD.....

CL..... 0.9

CO..... K..... 2.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

ISOLINES (0/001)

MG... 14.

MN... 0.01

NA... 3.3

NB... 20.

NO3... 80.

PO4... 0.14

PO4... 0.03

RECORD 00244

GEOTHERM FILE ID: 0073195

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A
LOCATION

COUNTRY... UNITED STATES 46N 010E 36 NW OF SE

STATE... COLORADO

COUNTY... SAGUACHE

GEOLOGIC PROVINCE...

MAP REFERENCE... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00

TEMPERATURE (C)..... 35.0

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 385.

ALKALINITY..... AS HCO3

TOTAL DISSOLVED SOLIDS..... 124.

CHARGE IMBALANCE (% DIFF).... 1.2

ANALYSIS IN MG/L

ISOLINES (0/001)

MG... 14.

MN... 0.01

NA... 3.3

NB... 20.

NO3... 80.

PO4... 0.14

PO4... 0.03

LAT/LONG... 38-11.52 N 105-48.83 W
UTM ZONE... +13
NORTHING... 4227225.
428732.

COUNTRY..... UNITED STATES 46N 010E 36 NW OF SE
STATE..... COLORADO
COUNTY..... SAGUACHE
GEOLOGIC PROVINCE..

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 150 FEET SOUTHWEST OF SPRING A

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 32.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 350.
ALKALINITY..... 128.
TOTAL DISSOLVED SOLIDS... 234.
CHARGE IMBALANCE (% DIFF)... 6.1

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.01
AL.....	CR.....	MG....	14.
AS.....	CS.....	MN....	N
H.....	F.....	NA....	3.7
HE.....	FE(TOT)...	NB....	19.
CA.....	HC03.....	NO3...	504...
CA*MG.	HG.....		0.22
CL.....	H2S.....	P04...	0.03
CU.....			
	K.....		2.2
			ZN....
			N

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

C. COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00247

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING D

LOCATION

COUNTRY..... UNITED STATES 46N 010E 36
STATE..... COLORADO
COUNTY..... SAGUACHE
GEOLOGIC PROVINCE..

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 34.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.0
SPECIFIC CONDUCTANCE..... 360.
ALKALINITY..... 122.
TOTAL DISSOLVED SOLIDS... 229.
CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.01
AL.....	CR.....	MG....	12.
AS.....	CS.....	MN....	0.01
H.....	F.....	NA....	3.2
			5102.
			17.

ISOLOPES 10/001

GEOTHERM FILE ID: 0073198

COORDINATES

LAT/LONG... 38-11.38 N 105-48.58 W
UTM ZONE... +13
NORTHING... 4226963.
429095.

HE..... 49. FE(TOT). 0.01 NH.... 82.
 CA..... HC03.... 122. NO3... 504...
 CA+MG. HG..... N P04... 0.12
 CU..... H2S..... P04... N
 CL..... 1.8
 CO..... K..... 2.4
 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00248

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING U
 LOCATION TOWNSHIP=RANGE 46N 010E 36

COORDINATES

LAT/LONG... 38-11.38 N 105-48.58 W
 UTM ZONE... +13
 NORTHING... 4226963.
 429095.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

MAP REFERENCE... VALLEY VIEW HOT SPRINGS 1:24000
 OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 36.0 L/MIN

DISCHARGE..... N

WATER ANALYSIS

P..... 7.5
 SPECIFIC CONDUCTANCE... 361.
 ALKALINITY..... 125.
 TOTAL DISSOLVED SOLIDS... 223.
 CHARGE IMBALANCE (% DIFF)... 3.7
 ANALYSIS IN MG/L

ISOTOPES 10/2001

AL..... CR..... 13.
 AS..... CS..... MN.... N
 H..... F..... 0.4
 HE..... FE(TOT). 0.02
 CA..... HC03.... 125.
 CO..... H2S..... P04... 0.15
 CL..... 0.6 P04... 0.03

CO..... K..... 2.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00249

GEOTHERM SAMPLE FILE NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING U
 LOCATION TOWNSHIP=RANGE 46N 010E 36

COORDINATES

LAT/LONG... 38-11.38 N 105-48.58 W
 UTM ZONE... +13
 NORTHING... 4226963.
 429095.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

MAP REFERENCE... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 35.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 360.

ALKALINITY..... 124.

TOTAL DISSOLVED SOLIDS..... 247.

CHARGE IMBALANCE (% DIFF).... 4.5

ANALYSIS IN MG/L

AL.....

AS.....

H..... 0.02

HE.....

CA..... 51.

CD.....

CL..... 2.5

CO.....

K..... 2.8

CR.....

CS.....

F..... 0.2

FE(TOT)..... 0.06

HC03..... 124.

H2S.....

CL.....

CO.....

K.....

CR.....

CS.....

F.....

FE(TOT).....

HC03.....

H2S.....

CL.....

CO.....

K.....

CR.....

CS.....

F.....

FE(TOT).....

HC03.....

H2S.....

CL.....

CO.....

K.....

CR.....

CS.....

F.....

FE(TOT).....

HC03.....

H2S.....

CL.....

CO.....

K.....

CR.....

CS.....

F.....

FE(TOT).....

HC03.....

AS HC03

MG... 13.

MN... 0.01

NA... 4.3

NB... 18.

NO3... 93.

PO4... 0.17

P04... N

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

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44N 01W 34

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44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

44N 01W 34

SE OF SE

RECORD 00250

GEOTHERM FILE 10: 0073084

COORDINATES

LAT/LONG... 38-51.00 N 108-03.18 W

UTM ZONE... 12

NORTHING... 4304051.

755755.

ISOTOPE 10/001

MG... 10.

0.380

780.

100.

800.

5102.

504...

0.08

0.25

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE... HARRETT AND PEARL, 1976

RECORD 00251

GEOTHERM FILE ID: 0073083

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LEMON HOT SPRING
LOCATION

COUNTRY... UNITED STATES 44N 011W 34 SE OF SE

STATE... COLORADO

COUNTY... SAN MIGUEL

GEOLOGIC PROVINCE... PLACERVILLE 1124000

MAP REFERENCE... 1975/09/00

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00

TEMPERATURE (C)... 31.0 L/MIN

DISCHARGE... 30.

WATER ANALYSIS

SPECIFIC CONDUCTANCE... J920.

ALKALINITY... 1100. AS HC03

TOTAL DISSOLVED SOLIDS... 2760.

CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN MG/L

AG... CU3... 4.4

AL... CR... 11.

AS... CS... 0.380

AU... CU... 0.004

R... F... 4.7

HA... NA... 730.

HF... FE (TOT)... 0.850

HI... GA... 0.017

CA... HC03... 1100. N

CA+MG... HG... 0.015

CD... H2S... 0.15

CL... 260.

CO... K... 84. ZN... N

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE... HARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-51.00 N 108-03.18 W

UTM ZONE... +12

NORTHING... 4304051.

755755.

ISOTOPE (D/D01)

95.

860.

7.0

RECORD 00252

GEOTHERM FILE ID: 0015208

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LEMON HOT SPRING
LOCATION

COUNTRY... UNITED STATES 44N 011W 34 SE OF SE

STATE... COLORADO

COUNTY... SAN MIGUEL

GEOLOGIC PROVINCE... 14

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)... 33.0 L/MIN

DISCHARGE... 34.

WATER ANALYSIS

P4... 6.2

COORDINATES

LAT/LONG... 38-51.00 N 108-03.18 W

UTM ZONE... +12

NORTHING... 4304051.

755755.

SPECIFIC CONDUCTANCE.....	3950.		
ALKALINITY.....	1110.	AS	HCO3
TOTAL DISSOLVED SOLIDS...	2740.		
CHARGE IMBALANCE (% DIFF)...	1.5		
ANALYSIS IN MG/L			
AL.....		CR.....	MG....
AS.....		CS.....	MN....
CA.....	2.5	F.....	NA....
FE.....		FE(TOT).....	NB....
CO.....	150.	HCO3.....	
CU.....		H2S.....	PO4...
CL.....	270.		
CO.....		K.....	
			84.
REFERENCE AND IDENTIFICATION			
COMPILED BY..... RUKKHARDT, H.			
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY			
REFERENCE..... BARRETT AND PEARL, 1976			

ISOIOPES (0200)

11.
0.390
760.
SI02.
S04..
94.
810.

APPENDIX A

Index to GEOTHERM'S sample file for the state of Colorado. This computer generated appendix contains some truncated fields. The index is sorted by county and name of the source. TNS - township, RNG range, Sect. - section, I.D. - GEOTHERM record identifier, Temp. - temperature °C (see Table 1 for explanation of alphabetic qualifiers preceding temperature.)

County	Name of Source	Latitude	Longitude	TNS	RNG	Sect.	I.D.	Temp.
ALAMOSA	SAND DUNES SWIMMING POOL: HOT WATER WELL	37-46.42 N	105-51.20 W	41N	010E	27	0073174	44.0
ALAMOSA	UNNAMED WARM SPRING	37-29.32 N	105-51.45 W	38N	010E	34	0073184	40.0
ARCHULETA	DUTCH CROMLEY ARTESIAN WELL	37-00.02 N	106-47.05 W	32N	002E	19	0073231	70.0
ARCHULETA	EDOF ARTESIAN WELL	37-11.43 N	106-59.60 W	34N	001W	07	0073232	39.0
ARCHULETA	PAGOSA AREA - ARLINGTON HOTEL WELL	37-15.50 N	107-00.50 W				0000423	60.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073124	55.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073125	54.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073123	57.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073122	58.0
ARCHULETA	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	37-15.92 N	107-00.62 W	35N	002W	13	0073126	56.0
ARCHULETA	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	37-15.85 N	107-00.58 W	35N	002W	13	0073127	53.0
ARCHULETA	STINKING SPRINGS	37-02.08 N	106-48.42 W	32N	001E	02	0073188	27.0
BOULDER	ELDORADO SPRINGS: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073035	26.0
BOULDER	ELDORADO SPRINGS: SPRING A	39-55.87 N	105-16.77 W	01S	071W	25	0073033	24.0
BOULDER	ELDORADO SPRINGS: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073036	24.0
BOULDER	ELDORADO SPRINGS: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073034	25.0
BOULDER	HAYSTACK BUTTE WARM WATER WELL	40-05.80 N	105-14.27 W	02N	070W	33	0073063	28.0
CHAFFEE	BROWN'S CANYON WARM SPRING	38-38.23 N	106-04.28 W	51N	008E	23	0073228	25.0
CHAFFEE	BROWN'S GROTTO WARM SPRING	38-37.83 N	106-04.17 W	51N	008E	34	0073229	23.0
CHAFFEE	COTTONWOOD HOT SPRING	38-48.80 N	106-13.35 W	14S	079W	21	0073018	58.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	38-48.67 N	106-13.33 W	14S	079W	21	0073020	52.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073019	54.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073022	53.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073021	53.0
CHAFFEE	COTTONWOOD HOT SPRINGS WELL	38-48.70 N	106-13.42 W	14S	079W	21	0015730	50.
CHAFFEE	COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	38-48.67 N	106-13.35 W	14S	079W	21	0073236	46.
CHAFFEE	COTTONWOOD SPRINGS	38-48.70 N	106-13.50 W				0000407	57.0
CHAFFEE	HORTENSE WELL	38-43.95 N	106-10.10 W	15S	079W	24	0015731	84.
CHAFFEE	MT PRINCETON HOT SPRINGS	38-43.90 N	106-10.20 W				0000409	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	38-43.97 N	106-10.45 W	15S	079W	24	0015213	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	38-43.97 N	106-10.45 W	15S	079W	24	0073105	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073104	83.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073103	83.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073102	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	38-43.40 N	106-10.63 W	15S	079W	19	0073106	39.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	38-43.97 N	106-10.42 W	15S	079W	24	0073108	72.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	38-44.00 N	106-10.00 W	15S	079W	24	0073107	67.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	38-43.95 N	106-10.45 W	15S	079W	24	0073101	66.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING E	38-43.97 N	106-09.65 W	15S	078W	19	0073100	50.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073096	56.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073095	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073094	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073093	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING B	38-43.97 N	106-09.68 W	15S	078W	19	0073098	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING D	38-43.97 N	106-09.65 W	15S	078W	19	0073099	44.0

CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING F	38-43.97	N	106-09.72	W	15S	078W	19	0073097	49.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING B	38-29.82	N	106-04.60	W	49N	008E	15	0073147	66.0
CHAFFEE	PONCHA HOT SPRINGS	38-29.80	N	106-04.60	W	49N	008E	15	0015732	71.1
CHAFFEE	PONCHA HOT SPRINGS	38-29.90	N	106-04.50	W				0000411	66.1
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82	N	106-04.62	W	49N	008E	15	0073146	50.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82	N	106-04.62	W	49N	008E	15	0073145	70.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82	N	106-04.62	W	49N	008E	15	0073144	70.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82	N	106-04.62	W	49N	008E	15	0073143	71.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83	N	106-04.52	W	49N	008E	15	0073151	62.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83	N	106-04.52	W	49N	008E	15	0073150	63.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83	N	106-04.52	W	49N	008E	15	0073149	62.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83	N	106-04.52	W	49N	008E	15	0073148	63.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING D	38-29.83	N	106-04.53	W	49N	008E	15	0073152	56.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING E	38-29.83	N	106-04.53	W	49N	008E	15	0073153	60.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12	N	105-54.60	W	49N	010E	18	0073223	28.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12	N	105-54.60	W	49N	010E	18	0073221	32.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12	N	105-54.60	W	49N	010E	18	0073224	28.0
CHAFFEE	YOUNG LIFE GROUP CAMP WELL	38-43.95	N	106-10.10	W	15S	079E	24	0015733	65.1
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33	N	105-30.72	W	04S	073W	01	0073072	45.0
CLEAR CREEK	IDAHO HOT SPRINGS: LODGE HOT WATER WELL	39-44.37	N	105-30.72	W	03S	073W	36	0073078	46.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33	N	105-30.72	W	04S	073W	01	0073074	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33	N	105-30.72	W	04S	073W	01	0073073	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33	N	105-30.72	W	04S	073W	01	0073075	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING B	39-44.35	N	105-30.72	W	03S	073W	36	0073076	24.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING C	39-44.32	N	105-30.72	W	04S	073W	01	0073077	20.0
CLEAR CREEK	IDAHO SPRINGS	39-44.20	N	105-30.20	W				0000401	50.0
CONEJOS	DEXTER WARM SPRING	37-17.68	N	105-47.08	W	35N	011E	08	0073230	20.0
CONEJOS	MCINTYRE WARM SPRING	37-16.80	N	105-49.12	W	35N	011E	18	0073234	Q 14.0
DELTA	COLONEL CHINN HOT WATER WELL	38-52.38	N	107-38.07	W	14S	092W	14	0073016	42.0
DOLORES	DUNTON HOT SPRING	37-46.30	N	108-05.63	W	41N	011W	32	0073030	44.0
DOLORES	DUNTON HOT SPRING	37-46.30	N	108-05.63	W	41N	011W	32	0073032	42.0
DOLORES	DUNTON HOT SPRING	37-46.30	N	108-05.63	W	41N	011W	32	0073031	42.0
DOLORES	GEYSER WARM SPRING	37-44.80	N	108-07.03	W	40N	011W	06	0073042	28.0
DOLORES	PARADISE HOT SPRING	37-45.25	N	108-07.88	W	40N	011W	06	0073128	46.0
DOLORES	PARADISE HOT SPRING	37-45.25	N	108-07.88	W	40N	011W	06	0073130	42.0
DOLORES	PARADISE HOT SPRING	37-45.25	N	108-07.88	W	40N	011W	06	0073129	40.0
DOLORES	RICO AREA: BIG GEYSER WARM SPRING	37-42.00	N	108-01.73	W	40N	011W		0073163	36.0
DOLORES	RICO AREA: BIG GEYSER WARM SPRING	37-42.00	N	108-01.73	W	40N	011W		0073162	34.0
DOLORES	RICO AREA: DIAMOND DRILL HOLE	37-42.08	N	108-01.75	W	40N	011W		0073161	44.0
DOLORES	RICO AREA: GEYSER WARM SPRING	37-42.03	N	108-01.73	W	40N	011W		0073164	38.0
DOLORES	RICO AREA: LITTLE SPRING	37-42.07	N	108-01.73	W	40N	011W		0073165	38.0
DOLORES	RICO AREA: LITTLE SPRING	37-42.07	N	108-01.73	W	40N	011W		0073166	39.0
EAGLE	DOTSERO WARM SPRINGS	39-37.65	N	107-06.37	W	05S	087W	12	0073028	
EAGLE	DOTSERO WARM SPRINGS	39-37.65	N	107-06.37	W	05S	087W	12	0073027	31.0
EAGLE	DOTSERO WARM SPRINGS	39-37.65	N	107-06.37	W	05S	087W	12	0073026	31.0
EAGLE	DOTSERO WARM SPRINGS, SOUTH	39-37.62	N	107-06.00	W	05S	087W	12	0073029	32.0
FREMONT	CANON CITY HOT SPRING	38-25.95	N	105-15.77	W	18S	070W	31	0073004	40.0
FREMONT	CANON CITY HOT SPRING	38-25.95	N	105-15.77	W	18S	070W	31	0073003	40.0
FREMONT	CANON CITY HOT SPRING	38-25.95	N	105-15.77	W	18S	070W	31	0073002	40.0
FREMONT	DON K RANCH ARTESIAN WELL	38-10.33	N	105-00.53	W	22S	068W	05	0073025	28.0
FREMONT	FLORENCE ARTESIAN WELL	38-24.88	N	105-02.72	W	19S	068W	07	0073037	28.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63	N	105-11.77	W	18S	070W	26	0073038	35.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63	N	105-11.77	W	18S	070W	26	0073040	35.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63	N	105-11.77	W	18S	070W	26	0073039	36.0

FREMONT	SWISSVALE WARM SPRINGS: SPRING A	38-28.82	N	105-53.42	W	49N	010E	20	0073189	28.0
FREMONT	SWISSVALE WARM SPRINGS: SPRING F	38-28.82	N	105-53.47	W	49N	010E	20	0073190	20.0
FREMONT	WELLSVILLE WARM SPRING	38-29.12	N	105-54.60	W	49N	010E	18	0073222	33.0
GARFIELD	GLENWOOD SPRINGS	39-33.00	N	107-19.30	W				0000403	41.1
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98	N	107-19.32	W	06S	089W	09	0073047	51.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98	N	107-19.32	W	06S	089W	09	0073046	51.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98	N	107-19.32	W	06S	089W	09	0073045	50.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98	N	107-19.32	W	06S	089W	09	0073044	50.0
GARFIELD	GLENWOOD SPRINGS AREA: GRAVES SPRING	39-33.23	N	107-20.13	W	06S	089W	09	0073049	46.0
GARFIELD	GLENWOOD SPRINGS AREA: RAILROAD SPRING	39-33.27	N	107-18.85	W	06S	089W	10	0073057	51.0
GARFIELD	GLENWOOD SPRINGS AREA: RAILROAD SPRING	39-33.27	N	107-18.85	W	06S	089W	10	0073056	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING A	39-32.97	N	107-19.17	W	06S	089W	09	0073050	44.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03	N	107-19.07	W	06S	089W	10	0073051	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03	N	107-19.07	W	06S	089W	10	0073054	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03	N	107-19.07	W	06S	089W	10	0073053	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03	N	107-19.07	W	06S	089W	10	0073052	50.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING C	39-32.03	N	107-19.03	W	06S	089W	10	0073233	46.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING D	39-33.08	N	107-19.00	W	06S	089W	10	0073055	50.0
GARFIELD	GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SP	39-32.98	N	107-19.28	W	06S	089W	09	0073048	50.0
GARFIELD	GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS	39-32.98	N	107-19.30	W	06S	089W	09	0073043	50.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27	N	107-23.88	W	06S	090W	02	0073182	47.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27	N	107-23.88	W	06S	090W	02	0073181	48.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.25	N	107-23.88	W	06S	090W	02	0073179	48.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING B	39-33.25	N	107-23.85	W	06S	090W	02	0073183	48.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55	N	106-06.72	W	01N	078W	03	0073066	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55	N	106-06.72	W	01N	078W	03	0073067	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55	N	106-06.72	W	01N	078W	03	0073065	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55	N	106-06.72	W	01N	078W	03	0073064	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING B	40-04.55	N	106-06.73	W	01N	078W	03	0073068	41.0
GRAND	HOT SULPHUR SPRINGS: SPRING C	40-04.55	N	106-06.75	W	01N	078W	03	0073070	40.0
GRAND	HOT SULPHUR SPRINGS: SPRING C	40-04.55	N	106-06.75	W	01N	078W	03	0073069	40.0
GRAND	HOT SULPHUR SPRINGS: SPRING D	40-04.53	N	106-06.75	W	01N	078W	03	0073071	40.0
GUNNISON	CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	38-16.50	N	107-05.90	W				0000417	45.6
GUNNISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43	N	107-05.87	W	46N	002W	04	0073006	41.0
GUNNISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43	N	107-05.87	W	46N	002W	04	0073005	41.0
GUNNISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43	N	107-05.87	W	46N	002W	04	0073008	38.0
GUNNISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43	N	107-05.87	W	46N	002W	04	0073007	39.0
GUNNISON	CEBOLLA HOT SPRINGS: SPRING B	38-16.43	N	107-05.87	W	46N	002W	04	0073009	38.0
GUNNISON	CEBOLLA HOT SPRINGS: SPRING C	38-16.43	N	107-05.90	W	46N	002W	04	0073010	40.0
GUNNISON	CEMENT CREEK WARM SPRING	38-50.10	N	106-49.57	W	14S	084W	18	0073013	25.0
GUNNISON	CEMENT CREEK WARM SPRING	38-50.10	N	106-49.57	W	14S	084W	18	0073012	25.0
GUNNISON	CEMENT CREEK WARM SPRING	38-50.10	N	106-49.57	W	14S	084W	18	0073011	26.0
GUNNISON	CEMENT CREEK WARM SPRING	38-50.10	N	106-49.57	W	14S	084W	18	0073014	26.0
GUNNISON	LOWER WAUNITA HOT SPRINGS	38-31.02	N	106-31.00	W	49N	004E	10	0073220	62.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING A	38-31.03	N	106-30.93	W	49N	004E	10	0073215	70.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00	N	106-30.92	W	49N	004E	10	0073218	70.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00	N	106-30.92	W	49N	004E	10	0073217	70.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00	N	106-30.92	W	49N	004E	10	0073219	70.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING C	38-30.45	N	106-30.92	W	49N	004E	10	0073216	70.0
GUNNISON	LOWER WAUNITA HOT SPRINGS: SPRING C	38-30.45	N	106-30.92	W	49N	004E	10	0073216	70.0
GUNNISON	RANGER WARM SPRING	38-48.95	N	106-52.47	W	14S	085W	22	0073158	27.0
GUNNISON	RANGER WARM SPRING	38-48.95	N	106-52.47	W	14S	085W	22	0073157	27.0
GUNNISON	RANGER WARM SPRING	38-48.95	N	106-52.47	W	14S	085W	22	0073156	27.0
GUNNISON	RANGER WARM SPRING	38-48.95	N	106-52.47	W	14S	085W	22	0073155	26.0
GUNNISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83	N	106-30.45	W	49N	004E	11	0073211	77.0

GUINISON	WAUNITA HOT SPRINGS	38-31.00 N 106-29.10 W		0000415	70.0
GUINISON	WAUNITA HOT SPRINGS: SPRING A	38-30.83 N 106-30.45 W 49N 004E	11	0073213	76.0
GUINISON	WAUNITA HOT SPRINGS: SPRING B	38-30.83 N 106-30.45 W 49N 004E	11	0073214	78.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073210	77.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073209	80.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073208	78.0
GUINISON	WAUNITA HOT SPRINGS: SPRING D	38-30.83 N 106-30.47 W 49N 004E	11	0073212	54.0
JACKSON	BRANDS RANCH ARTESIAN WELL	40-42.28 N 106-32.08 W 09N 081W	31	0073227	42.0
LA PLATA	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	37-27.15 N 107-48.35 W 37N 009W	25	0073142	26.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073141	29.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073140	29.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073139	30.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073137	32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073135	32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073136	32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073138	33.0
LA PLATA	TRIMBLE HOT SPRING	37-23.47 N 107-50.87 W 36N 009W	15	0073191	36.0
LA PLATA	TRIPP HOT SPRING	37-23.50 N 107-50.87 W 36N 009W	10	0073192	44.0
MINERAL	ANTELOPE WARM SPRING	37-44.60 N 107-02.23 W 40N 002W	01	0073001	32.0
MINERAL	ANTELOPE WARM SPRINGS	37-44.60 N 107-02.23 W 40N 002W	01	0073000	32.0
MINERAL	BIRDSE WARM SPRING	37-44.60 N 107-02.23 W 40N 002W	14	0073226	30.0
MINERAL	RAINBOW HOT SPRING	37-30.57 N 106-56.87 W 38N 001W	09	0073154	40.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS	37-45.00 N 106-49.25 W		0000421	57.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073207	50.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073206	48.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073205	51.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073204	50.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073203	57.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073202	55.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073201	57.0
MOFFAT	CRAIG WARM WATER WELL	40-30.10 N 107-33.07 W 06N 091W	01	0073024	39.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073079	38.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073082	36.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073081	37.0
OURAY	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073080	33.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073111	52.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073110	53.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073112	52.0
OURAY	ORVIS HOT SPRING (RIDGWAY HOT SPRING)	38-08.00 N 107-44.00 W		0000419	57.5
OURAY	OURAY AREA: POOL SPRING	38-01.00 N 107-40.68 W 44N 007W	31	0073119	69.0
OURAY	OURAY AREA: POOL SPRING	38-01.00 N 107-40.68 W 44N 007W	31	0073118	67.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073117	48.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073116	30.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073115	46.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073114	30.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073113	53.0
PARK	HARTSEL HOT SPRING: SPRING A	39-01.08 N 105-47.67 W 12S 075W	08	0073058	52.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073059	52.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073062	45.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073060	45.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073061	45.0
PARK	RHODES WARM SPRING	39-09.82 N 106-03.88 W 10S 078W	24	0073160	25.0
PARK	RHODES WARM SPRING	39-09.82 N 106-03.88 W 10S 078W	24	0073159	24.0
PITKIN	AVAI ANCHE SPRINGS	39-13.90 N 107-13.50 W		0000405	53.9

PITKIN	CONUNDRUM HOT SPRING	39-00.73 N 106-53.43 W 12S 085W	16	0073017	38.
PITKIN	PENNY HOT SPRING	39-13.55 N 107-13.47 W 10S 088W	04	0073132	46.0
PITKIN	PENNY HOT SPRINGS	39-13.55 N 107-13.47 W 10S 088W	04	0073131	40.0
PITKIN	PENNY HOT SPRINGS	39-13.55 N 107-13.47 W 10S 088W	04	0073133	45.0
PITKIN	PENNY HOT SPRINGS: GRANCES SPRING	39-13.83 N 107-13.60 W 09S 088W	33	0073134	56.0
PUEBLO	CLARK SPRING WARM WATER WELL	38-15.48 N 104-36.58 W 21S 065W	01	0073015	25.0
ROUTT	ROUTT HOT SPRING: SPRING B	40-33.58 N 106-50.98 W 07N 084W	18	0073171	62.0
ROUTT	ROUTT HOT SPRINGS	40-33.60 N 106-51.00 W		0000397	64.4
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073169	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073168	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073170	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073167	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING C	40-33.57 N 106-50.98 W 07N 084W	18	0073172	54.0
ROUTT	ROUTT HOT SPRINGS: SPRING D	40-33.57 N 106-50.97 W 07N 084W	18	0073173	51.0
ROUTT	STEAMBOAT SPRINGS	40-29.10 N 106-50.30 W		0000399	24.0
ROUTT	STEAMBOAT SPRINGS AREA: HEART HOT SPRING	40-28.97 N 106-49.62 W 06N 084W	17	0073185	39.0
ROUTT	STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	40-29.30 N 106-50.45 W 06N 084W	08	0073187	26.0
ROUTT	STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	40-29.03 N 106-50.38 W 06N 084W	17	0073186	20.0
SAGUACHE	FULLINWIDER WARM SPRING	38-18.30 N 105-58.92 W 47N 009E	21	0073041	18.0
SAGUACHE	MINERAL HOT SPRING: SPRING C	38-10.10 N 105-55.18 W 45N 009E	12	0073900	60.0
SAGUACHE	MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	38-10.10 N 105-55.00 W		0000413	63.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073085	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073088	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073087	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073086	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING B	38-10.12 N 105-55.10 W 45N 009E	12	0073235	51.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073092	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073091	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073090	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073089	59.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073175	30.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073176	30.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073177	30.0
SAGUACHE	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27 N 107-23.88 W 06S 090W	02	0073180	48.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073194	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073196	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073195	35.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING B	38-11.53 N 105-48.82 W 46N 010E	36	0073193	37.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING B	38-11.52 N 105-48.83 W 46N 010E	36	0073197	32.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073198	34.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073200	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073199	35.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0073084	33.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0073083	31.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0015208	33.0

APPENDIX B

Index to GEOTHERM sample file for the state of Colorado sorted by county, township (TNS), range (RNG), and section (Sect.) Also given are the name of source, GEOTHERM record identifier (I.D.), and temperature (Temp. °C). See Table 1 for explanation of alphabetic qualifiers proceeding temperature.

<u>County</u>	<u>TNS</u>	<u>RNG</u>	<u>Sect.</u>	<u>Name of Source</u>	<u>I.D.</u>	<u>Temp.</u>
ALAMOSA	38N	010E	34	UNNAMED WARM SPRING	0073184	40.0
ALAMOSA	41N	010E	27	SAND DUNES SWIMMING POOL: HOT WATER WELL	0073174	44.0
ARCHULETA				PAGOSA AREA - ARLINGTON HOTEL WELL	0000423	60.0
ARCHULETA	32N	001E	02	STINKING SPRINGS	0073188	27.0
ARCHULETA	32N	002E	19	DUTCH CROWLEY ARTESIAN WELL	0073231	70.0
ARCHULETA	34N	001W	07	EOFF ARTESIAN WELL	0073232	39.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073124	55.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	0073127	53.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	0073126	56.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073125	54.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073123	57.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073122	58.0
BOULDER	01S	071W	25	ELDORADO SPRING: SPRING B	0073035	26.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING A	0073033	24.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING B	0073036	24.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING B	0073034	25.0
BOULDER	02N	070W	33	HAYSTACK BUTTE WARM WATER WELL	0073063	28.0
CHAFFEE				COTTONWOOD SPRINGS	0000407	57.0
CHAFFEE				MT PRINCETON HOT SPRINGS	0000409	54.0
CHAFFEE				PONCHA HOT SPRINGS	0000411	66.1
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING	0073018	58.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	0073236	46.
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073022	53.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073021	53.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	0073020	52.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073019	54.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRINGS WELL	0015730	50.
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS, SPRING E	0073100	50.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING D	0073099	44.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING B	0073098	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING F	0073097	49.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073096	56.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073095	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073094	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073093	54.0
CHAFFEE	15S	079E	24	YOUNG LIFE GROUP CAMP WELL	0015733	65.
CHAFFEE	15S	079W	19	MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	0073106	39.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	0073105	82.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	0073108	72.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	0073107	67.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073104	83.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073103	83.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073102	82.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	0073101	66.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	0015213	82.0

CHAFFEE	15S 079W	24	HORTENSE WELL	0015731	84.
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS	0015732	71.
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073143	71.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING E	0073153	60.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING D	0073152	56.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073151	62.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073150	63.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073149	62.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073148	63.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRING: SPRING B	0073147	66.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073146	50.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073145	70.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073144	70.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073223	28.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073221	32.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073224	28.0
CHAFFEE	51N 008E	23	BROWN'S CANON WARM SPRING	0073228	25.0
CHAFFEE	51N 008E	34	BROWN'S GROTTO WARM SPRING	0073229	23.0
CLEAR CREEK			IDAHO SPRINGS	0000401	50.0
CLEAR CREEK	03S 073W	36	IDAHO HOT SPRINGS: LODGE HOT WATER WELL	0073078	46.0
CLEAR CREEK	03S 073W	36	IDAHO HOT SPRINGS: SPRING B	0073076	24.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073075	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING C	0073077	20.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073074	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073073	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRING: SPRING A	0073072	45.0
CONEJOS	35N 011E	08	DEXTER WARM SPRING	0073230	20.0
CONEJOS	35N 011E	18	MCINTYRE WARM SPRING	0073234	Q 14.0
DELTA	14S 092W	14	COLONEL CHINN HOT WATER WELL	0073016	42.0
DOLORES	40N 011W		RICO AREA: BIG GEYSER WARM SPRING	0073163	36.0
DOLORES	40N 011W		RICO AREA: BIG GEYSER WARM SPRING	0073162	34.0
DOLORES	40N 011W		RICO AREA: DIAMOND DRILL HOLE	0073161	44.0
DOLORES	40N 011W		RICO AREA: LITTLE SPRING	0073166	39.0
DOLORES	40N 011W		RICO AREA: LITTLE SPRING	0073165	38.0
DOLORES	40N 011W		RICO AREA: GEYSER WARM SPRING	0073164	38.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073128	46.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073130	42.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073129	40.0
DOLORES	40N 011W	06	GEYSER WARM SPRING	0073042	28.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073032	42.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073031	42.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073030	44.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS, SOUTH	0073029	32.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073028	
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073027	31.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073026	31.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073040	35.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073039	36.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073038	35.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073004	40.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073003	40.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073002	40.0
FREMONT	19S 068W	07	FLORENCE ARTESIAN WELL	0073037	28.0
FREMONT	22S 068W	05	DON K RANCH ARTESIAN WELL	0073025	28.0

FREMONT	49N 010E	18	WELLSVILLE WARM SPRING	0073222	33.0
FREMONT	49N 010E	20	SWISSVALE WARM SPRINGS: SPRING A	0073189	28.0
FREMONT	49N 010E	20	SWISSVALE WARM SPRINGS: SPRING F	0073190	20.0
GARFIELD			GLENWOOD SPRINGS	0000403	41.1
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS	0073043	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: SPRING A	0073050	44.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: GRAVES SPRING	0073049	46.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SP	0073048	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073047	51.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073046	51.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073045	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073044	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073051	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: RAILROAD SPRING	0073057	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: RAILROAD SPRING	0073056	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING D	0073055	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073054	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073053	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073052	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING C	0073233	46.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073182	47.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING B	0073183	48.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073181	48.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073179	48.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING D	0073071	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073066	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING C	0073070	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING C	0073069	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING B	0073068	41.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073067	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073065	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073064	44.0
GUNNISON			CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	0000417	45.6
GUNNISON			WAUNITA HOT SPRINGS	0000415	70.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073014	26.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073013	25.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073012	25.
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073011	26.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073155	26.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073158	27.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073157	27.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073156	27.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073006	41.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073005	41.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING C	0073010	40.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING B	0073009	38.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073008	38.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073007	39.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS	0073220	62.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073219	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073218	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073217	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING C	0073216	70.0

GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING A	0073215	70.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING B	0073214	78.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING A	0073213	76.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING D	0073212	54.0
GUNNISON	49N 004E	11	WAUNITA HOT SPINNGS: SPRING C	0073211	77.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073210	77.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073209	80.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073208	78.0
JACKSON	09N 081W	31	BRANDS RANCH ARTESIAN WELL	0073227	42.0
LA PLATA	36N 009W	10	TRIPP HOT SPRING	0073192	44.0
LA PLATA	36N 009W	15	TRIMBLE HOT SPRING	0073191	36.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	0073142	26.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073141	29.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073140	29.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073139	30.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING B	0073138	33.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073137	32.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073135	32.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073136	32.0
MINERAL			WAGON WHEEL GAP HOT SPRINGS	0000421	57.0
MINERAL	38N 001W	09	RAINBOW HOT SPRING	0073154	40.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073207	50.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073206	48.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073205	51.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073204	50.0
MINERAL	40N 002W	01	ANTELOPE WARM SPRING	0073001	32.0
MINERAL	40N 002W	01	ANTELOPE WARM SPRINGS	0073000	32.0
MINERAL	40N 002W	14	BIRDSIE WARM SPRING	0073226	30.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073203	57.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073202	55.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073201	57.0
MOFFAT	06N 091W	01	CRAIG WARM WATER WELL	0073024	39.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073079	38.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073082	36.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073081	37.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073080	33.0
OURAY			ORVIS HOT SPRING (RIDGWAY HOT SPRING)	0000419	57.5
OURAY	44N 007W	31	OURAY AREA: POOL SPRING	0073119	69.0
OURAY	44N 007W	31	OURAY AREA: POOL SPRING	0073118	67.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073117	48.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073116	30.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073115	46.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073114	30.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073113	53.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073111	52.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073110	53.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073112	52.0
PARK	10S 078W	24	RHODES WARM SPRING	0073160	25.0
PARK	10S 078W	24	RHODES WARM SPRING	0073159	24.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073061	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073062	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073060	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073059	52.0
PARK	12S 075W	08	HARTSEL HOT SPRING: SPRING A	0073058	52.0

PITKIN				AVALANCHE SPRINGS	0000405	53.9
PITKIN	09S	088W	33	PENNY HOT SPRINGS: GRANGES SPRING	0073134	56.0
PITKIN	10S	088W	04	PENNY HOT SPRINGS	0073133	45.0
PITKIN	10S	088W	04	PENNY HOT SPRING	0073132	46.0
PITKIN	10S	088W	04	PENNY HOT SPRINGS	0073131	40.0
PITKIN	12S	085W	16	CONUNDRUM HOT SPRING	0073017	38.
PUEBLO	21S	065W	01	CLARK SPRING WARM WATER WELL	0073015	25.0
ROUTT				STEAMBOAT SPRINGS	0000399	24.0
ROUTT				ROUTT HOT SPRINGS	0000397	64.4
ROUTT	06N	084W	08	STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	0073187	26.0
ROUTT	06N	084W	17	STEAMBOAT SPRINGS AREA: HEART HOT SPRING	0073185	39.0
ROUTT	06N	084W	17	STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	0073186	20.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING D	0073173	51.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING C	0073172	54.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING A	0073167	64.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGA: SPRING B	0073171	62.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING A	0073170	64.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING A	0073169	64.0
ROUTT	07N	084W	18	ROUTT HOT SPRINGS: SPRING A	0073168	64.0
SAGUACHE				MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	0000413	63.0
SAGUACHE	06S	090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073180	48.0
SAGUACHE	41N	006E	33	SHAWS WARM SPRING	0073176	30.0
SAGUACHE	41N	006E	33	SHAWS WARM SPRING	0073175	30.0
SAGUACHE	41N	006E	33	SHAWS WARM SPRING	0073177	30.0
SAGUACHE	45N	009E	12	MINERAL HOT SPRINGS: SPRING B	0073235	51.0
SAGUACHE	45N	009E	12	MINERAL HOT SPRINGS: SPRING A	0073085	60.0
SAGUACHE	45N	009E	12	MINERAL HOT SPRINGS: SPRING A	0073088	60.0
SAGUACHE	45N	009E	12	MINERAL HOT SPRINGS: SPRING A	0073087	60.0
SAGUACHE	45N	009E	12	MINERAL HOT SPRING: SPRING C	0073900	60.0
SAGUACHE	45N	009W	12	MINERAL HOT SPRINGS: SPRING D	0073092	60.0
SAGUACHE	45N	009W	12	MINERAL HOT SPRINGS: SPRING D	0073091	60.0
SAGUACHE	45N	009W	12	MINERAL HOT SPRINGS: SPRING D	0073090	60.0
SAGUACHE	45N	009W	12	MINERAL HOT SPRINGS: SPRING D	0073089	59.0
SAGUACHE	45W	009E	12	MINERAL HOT SPRINGS: SPRING A	0073086	60.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073194	36.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073198	34.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING B	0073197	32.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073196	36.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073195	35.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073200	36.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073199	35.0
SAGUACHE	46N	010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073193	37.0
SAGUACHE	47N	009E	21	FULLINWIDER WARM SPRING	0073041	18.0
SAN MIGUEL	44N	011W	34	LEMON HOT SPRING	0015208	33.0
SAN MIGUEL	44N	011W	34	LEMON HOT SPRING	0073084	33.0
SAN MIGUEL	44N	011W	34	LEMON HOT SPRING	0073083	31.0

APPENDIX C

Index to GEOTHERM sample file for the state of Colorado sorted into one-degree blocks by latitude and longitude. Records are sorted by name of source within each one-degree block. Adjacent one-degree blocks which are published as a 1:250,000 map are combined under the appropriate map name. See Table 1 for explanation of alphabetic qualifiers preceding temperature. I.D. - GEOTHERM record identifier. Temp. - Temperature °C.

<u>Latitude</u>	<u>Longitude</u>	<u>Name of Source</u>	<u>County</u>	<u>I.D.</u>	<u>Temp.</u>
TRINIDAD 1:250,000					
37-17.68 N	105-47.08 W	DEXTER WARM SPRING	CONEJOS	0073230	20.0
37-16.80 N	105-49.12 W	MCINTYRE WARM SPRING	CONEJOS	0073234 Q	14.0
37-46.42 N	105-51.20 W	SAND DUNES SWIMMING POOL: HOT WATER WELL	ALAMOSA	0073174	44.0
37-29.32 N	105-51.45 W	UNNAMED WARM SPRING	ALAMOSA	0073184	40.0
DURANGO 1:250,000					
37-00.02 N	106-47.05 W	DUTCH CROWLEY ARTESIAN WELL	ARCHULETA	0073231	70.0
37-11.43 N	106-59.60 W	EOFF ARTESIAN WELL	ARCHULETA	0073232	39.0
37-30.57 N	106-56.87 W	RAINBOW HOT SPRING	MINERAL	0073154	40.0
37-45.02 N	106-19.02 W	SHAW'S WARM SPRING	SAGUACHE	0073177	30.0
37-45.02 N	106-19.02 W	SHAW'S WARM SPRING	SAGUACHE	0073175	30.0
37-45.02 N	106-19.02 W	SHAW'S WARM SPRING	SAGUACHE	0073176	30.0
37-02.08 N	106-48.42 W	STINKING SPRINGS	ARCHULETA	0073188	27.0
37-45.00 N	106-49.25 W	WAGON WHEEL GAP HOT SPRINGS	MINERAL	0000421	57.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073207	50.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073206	48.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073205	51.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073204	50.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073203	57.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073202	55.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073201	57.0
37-44.60 N	107-02.23 W	ANTELOPE WARM SPRING	MINERAL	0073001	32.0
37-44.60 N	107-02.23 W	BIRDIE WARM SPRING	MINERAL	0073000	32.0
37-44.60 N	107-02.23 W	BIRDIE WARM SPRING	MINERAL	0073226	30.0
37-15.50 N	107-00.50 W	PAGOSA AREA - ARLINGTON HOTEL WELL	ARCHULETA	0000423	60.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073124	55.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073125	54.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073123	57.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073122	58.0
37-15.92 N	107-00.62 W	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	ARCHULETA	0073126	56.0
37-15.85 N	107-00.58 W	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	ARCHULETA	0073127	53.0
37-27.15 N	107-48.35 W	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	LA PLATA	0073142	26.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073141	29.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073140	29.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073139	30.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073137	32.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073135	32.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073136	32.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073138	33.0
37-27.97 N	107-48.30 W	PINKERTON HOT SPRINGS: SPRING B	LA PLATA	0073138	33.0
37-23.47 N	107-50.87 W	TRIMBLE HOT SPRING	LA PLATA	0073191	36.0
37-23.50 N	107-50.87 W	TRIPP HOT SPRING	LA PLATA	0073192	44.0

CORTEZ 1:250,000

37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORS	0073032	42.0
37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORS	0073031	42.0
37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORS	0073030	44.0
37-44.80 N 108-07.03 W GEYSER WARM SPRING	DOLORS	0073042	28.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORS	0073128	46.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORS	0073130	42.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORS	0073129	40.0
37-42.00 N 108-01.73 W RICO AREA: BIG GEYSER WARM SPRING	DOLORS	0073163	36.0
37-42.00 N 108-01.73 W RICO AREA: BIG GEYSER WARM SPRING	DOLORS	0073162	34.0
37-42.08 N 108-01.75 W RICO AREA: DIAMOND DRILL HOLE	DOLORS	0073161	44.0
37-42.03 N 108-01.73 W RICO AREA: GEYSER WARM SPRING	DOLORS	0073164	38.0
37-42.07 N 108-01.73 W RICO AREA: LITTLE SPRING	DOLORS	0073165	38.0
37-42.07 N 108-01.73 W RICO AREA: LITTLE SPRING	DOLORS	0073166	39.0

PUEBLO 1:250,000

38-15.48 N 104-36.58 W CLARK SPRING WARM WATER WELL	PUEBLO	0073015	25.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073004	40.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073003	40.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073002	40.0
38-10.33 N 105-00.53 W DON K RANCH ARTESIAN WELL	FREMONT	0073025	28.0
38-24.88 N 105-02.72 W FLORENCE ARTESIAN WELL	FREMONT	0073037	28.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073038	35.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073040	35.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073039	36.0
38-18.30 N 105-58.92 W FULLINWIDER WARM SPRING	SAGUACHE	0073041	18.0
38-10.10 N 105-55.00 W MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	SAGUACHE	0073900	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0000413	63.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073085	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073088	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073087	60.0
38-10.12 N 105-55.10 W MINERAL HOT SPRINGS: SPRING B	SAGUACHE	0073086	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073235	51.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073092	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073091	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073090	60.0
38-28.82 N 105-53.42 W SWISSVALE WARM SPRINGS: SPRING A	FREMONT	0073089	59.0
38-28.82 N 105-53.47 W SWISSVALE WARM SPRINGS: SPRING F	FREMONT	0073189	28.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073190	20.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073194	36.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073196	36.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073195	35.0
38-11.52 N 105-48.83 W VALLEY VIEW HOT SPRINGS: SPRING B	SAGUACHE	0073193	37.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073197	32.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073198	34.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073200	36.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073199	35.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073223	28.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073221	32.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073224	28.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	FREMONT	0073222	33.0

MONTROSE 1:250,000

38-38.23	N 106-04.28	W BROWN'S CANON WARM SPRING	CHAFFEE	0073228	25.0
38-37.83	N 106-04.17	W BROWN'S GROTTO WARM SPRING	CHAFFEE	0073229	23.0
38-50.10	N 106-49.57	W CEMENT CREEK WARM SPRING	GUNNISON	0073013	25.0
38-50.10	N 106-49.57	W CEMENT CREEK WARM SPRING	GUNNISON	0073012	25.
38-50.10	N 106-49.57	W CEMENT CREEK WARM SPRING	GUNNISON	0073011	26.0
38-50.10	N 106-49.57	W CEMENT CREEK WARM SPRING	GUNNISON	0073014	26.0
38-48.80	N 106-13.35	W COTTONWOOD HOT SPRING	CHAFFEE	0073018	58.0
38-48.67	N 106-13.33	W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	CHAFFEE	0073020	52.0
38-48.67	N 106-13.33	W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073019	54.0
38-48.67	N 106-13.33	W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073022	53.0
38-48.67	N 106-13.33	W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073021	53.0
38-48.70	N 106-13.42	W COTTONWOOD HOT SPRINGS WELL	CHAFFEE	0015730	50.
38-48.67	N 106-13.35	W COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	CHAFFEE	0073236	46.
38-48.70	N 106-13.50	W COTTONWOOD SPRINGS	CHAFFEE	0000407	57.0
38-43.95	N 106-10.10	W HORTENSE WELL	CHAFFEE	0015731	84.
38-31.02	N 106-31.00	W LOWER WAUNITA HOT SPRINGS	GUNNISON	0073220	62.0
38-31.03	N 106-30.93	W LOWER WAUNITA HOT SPRINGS: SPRING A	GUNNISON	0073215	70.0
38-31.00	N 106-30.92	W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073218	70.0
38-31.00	N 106-30.92	W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073217	70.0
38-31.00	N 106-30.92	W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073219	70.0
38-30.45	N 106-30.92	W LOWER WAUNITA HOT SPRINGS: SPRING C	GUNNISON	0073216	70.0
38-43.90	N 106-10.20	W MT PRINCETON HOT SPRINGS	CHAFFEE	0000409	54.0
38-43.97	N 106-10.45	W MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	CHAFFEE	0015213	82.0
38-43.98	N 106-10.43	W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073104	83.0
38-43.98	N 106-10.43	W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073103	83.0
38-43.98	N 106-10.43	W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073102	82.0
38-43.97	N 106-10.45	W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	CHAFFEE	0073105	82.0
38-43.40	N 106-10.63	W MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	CHAFFEE	0073106	39.0
38-43.97	N 106-10.42	W MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	CHAFFEE	0073108	72.0
38-44.00	N 106-10.00	W MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	CHAFFEE	0073107	67.0
38-43.95	N 106-10.45	W MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	CHAFFEE	0073101	66.0
38-43.97	N 106-09.65	W MT. PRINCETON HOT SPRINGS: SPRING E	CHAFFEE	0073100	50.0
38-43.97	N 106-09.67	W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073096	56.0
38-43.97	N 106-09.67	W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073095	54.0
38-43.97	N 106-09.67	W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073094	54.0
38-43.97	N 106-09.67	W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073093	54.0
38-43.97	N 106-09.68	W MT. PRINCETON HOT SPRINGS: SPRING B	CHAFFEE	0073098	54.0
38-43.97	N 106-09.65	W MT. PRINCETON HOT SPRINGS: SPRING D	CHAFFEE	0073099	44.0
38-43.97	N 106-09.72	W MT. PRINCETON HOT SPRINGS: SPRING F	CHAFFEE	0073097	49.0
38-29.82	N 106-04.60	W PONCHA HOT SPRINGS: SPRING B	CHAFFEE	0073147	66.0
38-29.80	N 106-04.60	W PONCHA HOT SPRINGS	CHAFFEE	0015732	71.
38-29.90	N 106-04.50	W PONCHA HOT SPRINGS	CHAFFEE	0000411	66.1
38-29.82	N 106-04.62	W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073146	50.0
38-29.82	N 106-04.62	W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073145	70.0
38-29.82	N 106-04.62	W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073144	70.0
38-29.82	N 106-04.62	W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073143	71.0
38-29.83	N 106-04.52	W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073151	62.0
38-29.83	N 106-04.52	W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073150	63.0
38-29.83	N 106-04.52	W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073149	62.0
38-29.83	N 106-04.52	W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073148	63.0
38-29.83	N 106-04.53	W PONCHA HOT SPRINGS: SPRING D	CHAFFEE	0073152	56.0
38-29.83	N 106-04.53	W PONCHA HOT SPRINGS: SPRING E	CHAFFEE	0073153	60.0

38-48.95 N 106-52.47 W RANGER WARM SPRING	0073157	27.0	GUNNISON
38-48.95 N 106-52.47 W RANGER WARM SPRING	0073156	27.0	GUNNISON
38-48.95 N 106-52.47 W RANGER WARM SPRING	0073158	27.0	GUNNISON
38-48.95 N 106-52.47 W RANGER WARM SPRING	0073155	26.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPINGS: SPRING C	0073211	77.0	GUNNISON
38-31.00 N 106-29.10 W WAUNITA HOT SPRINGS	0000415	70.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS	0073213	76.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS	0073214	78.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS	0073208	78.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS	0073210	77.0	GUNNISON
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS	0073209	80.0	GUNNISON
38-30.83 N 106-30.47 W WAUNITA HOT SPRINGS	0073212	54.0	GUNNISON
38-43.95 N 106-10.10 W YOUNG LIFE GROUP CAMP WELL	0015733	65.	CHAFFEE
38-16.50 N 107-05.90 W CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	0000417	45.6	GUNNISON
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS	0073006	41.0	GUNNISON
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS	0073005	41.0	GUNNISON
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS	0073008	38.0	GUNNISON
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS	0073007	39.0	GUNNISON
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS	0073009	38.0	GUNNISON
38-16.43 N 107-05.90 W CEBOLLA HOT SPRINGS	0073010	40.0	GUNNISON
38-52.38 N 107-38.07 W COLONEL CHINN HOT WATER WELL	0073016	42.0	DELTA
38-07.98 N 107-44.02 W ORVIS HOT SPRING	0073112	52.0	OURAY
38-07.98 N 107-44.02 W ORVIS HOT SPRING	0073111	52.0	OURAY
38-07.98 N 107-44.02 W ORVIS HOT SPRING	0073110	53.0	OURAY
38-08.00 N 107-44.00 W ORVIS HOT SPRING (RIDGWAY HOT SPRING)	0000419	57.5	OURAY
38-01.00 N 107-40.68 W OURAY AREA: POOL SPRING	0073119	69.0	OURAY
38-01.00 N 107-40.68 W OURAY AREA: POOL SPRING	0073118	67.0	OURAY
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073117	48.0	OURAY
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073116	30.0	OURAY
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073115	46.0	OURAY
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073114	30.0	OURAY
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073113	53.0	OURAY
MOAB 1:250,000			
38-51.00 N 108-03.18 W LEMON HOT SPRING	0073084	33.0	SAN MIGUEL
38-51.00 N 108-03.18 W LEMON HOT SPRING	0073083	31.0	SAN MIGUEL
38-51.00 N 108-03.18 W LEMON HOT SPRING	0015208	33.0	SAN MIGUEL
DENVER 1:250,000			
39-55.88 N 105-16.78 W ELDERADO SPRING: SPRING B	0073035	26.0	BOULDER
39-55.87 N 105-16.77 W ELDERADO SPRINGS: SPRING A	0073033	24.0	BOULDER
39-55.88 N 105-16.78 W ELDERADO SPRINGS: SPRING B	0073036	24.0	BOULDER
39-55.88 N 105-16.78 W ELDERADO SPRINGS: SPRING B	0073034	25.0	BOULDER
39-01.08 N 105-47.67 W HARTSEL HOT SPRING: SPRING A	0073058	52.0	PARK
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	0073059	52.0	PARK
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	0073062	45.0	PARK
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	0073060	45.0	PARK
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	0073061	45.0	PARK
39-44.33 N 105-30.72 W IDAHO HOT SPRING: SPRING A	0073072	45.0	CLEAR CREEK
39-44.37 N 105-30.72 W IDAHO HOT SPRINGS: LODGE HOT WATER WELL	0073078	46.0	CLEAR CREEK
39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A	0073074	40.0	CLEAR CREEK
39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A	0073073	40.0	CLEAR CREEK

39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A	CLEAR CREEK	0073075	40.0
39-44.35 N 105-30.72 W IDAHO HOT SPRINGS: SPRING B	CLEAR CREEK	0073076	24.0
39-44.32 N 105-30.72 W IDAHO HOT SPRINGS: SPRING C	CLEAR CREEK	0073077	20.0
39-44.20 N 105-30.20 W IDAHO SPRINGS	CLEAR CREEK	0000401	50.0
LEADVILLE 1:250,000			
39-00.73 N 106-53.43 W CONUNDRUM HOT SPRING	PITKIN	0073017	38.
39-09.82 N 106-03.88 W RHODES WARM SPRING	PARK	0073160	25.0
39-09.82 N 106-03.88 W RHODES WARM SPRING	PARK	0073159	24.0
39-13.90 N 107-13.50 W AVALANCHE SPRINGS	PITKIN	0000405	53.9
39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS	EAGLE	0073028	
39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS	EAGLE	0073027	31.0
39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS	EAGLE	0073026	31.0
39-37.62 N 107-06.00 W DOTSERO WARM SPRINGS, SOUTH	EAGLE	0073029	32.0
39-33.00 N 107-19.30 W GLENWOOD SPRINGS	EAGLE	0000403	41.1
39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING	GARFIELD	0073047	51.0
39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING	GARFIELD	0073046	51.0
39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING	GARFIELD	0073045	50.0
39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING	GARFIELD	0073044	50.0
39-33.23 N 107-20.13 W GLENWOOD SPRINGS AREA: GRAVES SPRING	GARFIELD	0073049	46.0
39-33.27 N 107-18.85 W GLENWOOD SPRINGS AREA: RAILROAD SPRING	GARFIELD	0073057	51.0
39-33.27 N 107-18.85 W GLENWOOD SPRINGS AREA: RAILROAD SPRING	GARFIELD	0073056	51.0
39-32.97 N 107-19.17 W GLENWOOD SPRINGS AREA: SPRING A	GARFIELD	0073050	44.0
39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B	GARFIELD	0073051	51.0
39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B	GARFIELD	0073054	51.0
39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B	GARFIELD	0073053	51.0
39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B	GARFIELD	0073052	50.0
39-32.03 N 107-19.03 W GLENWOOD SPRINGS AREA: SPRING C	GARFIELD	0073233	46.0
39-33.08 N 107-19.00 W GLENWOOD SPRINGS AREA: SPRING D	GARFIELD	0073055	50.0
39-32.98 N 107-19.28 W GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SP	GARFIELD	0073048	50.0
39-32.98 N 107-19.30 W GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS	GARFIELD	0073043	50.0
39-13.55 N 107-13.47 W PENNY HOT SPRING	PITKIN	0073132	46.0
39-13.55 N 107-13.47 W PENNY HOT SPRINGS	PITKIN	0073131	40.0
39-13.55 N 107-13.47 W PENNY HOT SPRINGS	PITKIN	0073133	45.0
39-13.83 N 107-13.60 W PENNY HOT SPRINGS: GRANGES SPRING	PITKIN	0073134	56.0
39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A	GARFIELD	0073179	48.0
39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A	GARFIELD	0073181	48.0
39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A	SAGUACHE	0073180	48.0
39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A	GARFIELD	0073182	47.0
39-33.25 N 107-23.85 W SOUTH CANYON HOT SPRINGS: SPRING B	GARFIELD	0073183	48.0
GREELEY 1:250,000			
40-05.80 N 105-14.27 W HAYSTACK BUTTE WARM WATER WELL	BOULDER	0073063	28.0
CRAIG 1:250,000			
40-42.28 N 106-32.08 W BRANDS RANCH ARTESIAN WELL	JACKSON	0073227	42.0
40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A	GRAND	0073066	44.0
40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A	GRAND	0073065	44.0
40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A	GRAND	0073064	44.0
40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A	GRAND	0073067	44.0
40-04.55 N 106-06.73 W HOT SULPHUR SPRINGS: SPRING B	GRAND	0073068	41.0

40-04.55 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING C	0073070	40.0
40-04.55 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING C	0073069	40.0
40-04.53 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING D	0073071	40.0
40-33.58 N 106-50.98 W ROUTT HOT SPRING: SPRING B	0073171	62.0
40-33.60 N 106-51.00 W ROUTT HOT SPRINGS	0000397	64.4
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	0073169	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	0073168	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	0073170	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	0073167	64.0
40-33.57 N 106-50.98 W ROUTT HOT SPRINGS: SPRING C	0073172	54.0
40-33.57 N 106-50.97 W ROUTT HOT SPRINGS: SPRING D	0073173	51.0
40-29.10 N 106-50.30 W STEAMBOAT SPRINGS	0000399	24.0
40-28.97 N 106-49.62 W STEAMBOAT SPRINGS AREA: HEART HOT SPRING	0073185	39.0
40-29.30 N 106-50.45 W STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	0073187	26.0
40-29.03 N 106-50.38 W STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	0073186	20.0
40-30.10 N 107-33.07 W CRAIG WARM WATER WELL	0073024	39.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	0073079	38.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	0073082	36.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	0073081	37.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	0073080	33.0

APPENDIX D

Sources for the records in the GEOTHERM sample file for Colorado. Each reference is preceded by its abbreviated form (called CODE) used in the sample file (Table 1). Entries in this computer-generated appendix are sorted by CODE.

CODE = BARRETT AND PEARL, 1976

BARRETT, J. K. AND PEARL, R. H., 1976, HYDROGEOLOGICAL DATA OF THERMAL SPRINGS AND WELLS IN COLORADO: COLORADO GEOLOGICAL SURVEY INFORMATION SERIES NO. 6, 124 P.

CODE = GEORGE AND OTHERS, 1920

GEORGE, R. D., CURTIS, H. A., LESTER, O. C., CROOK, J. K., AND YEO, J. B., 1920, MINERAL WATERS OF COLORADO: COLORADO GEOLOGICAL SURVEY, BULLETIN 11, 470 P.

CODE = MALLORY AND BARNETT, 1973

MALLORY, E. C., JR., AND BARNETT, P. R., 1973, CHEMICAL AND SPECTROCHEMICAL ANALYSES OF SELECTED GROUND WATER IN COLORADO: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT, 47 P.

CODE = O'CONNELL AND KAUFMAN, 1976

O'CONNELL, M. F., AND KAUFMAN, R. F., 1976, RADIOACTIVITY ASSOCIATED WITH GEOTHERMAL WATERS IN THE WESTERN UNITED STATES: U. S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL NOTE ORP/LV-75-8A, 25 P.