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UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

BASIC HEAT-FLOW DATA FROM THE UNITED STATES

Compiled by

J. H. Sass and Robert J. Munroe

USGS OPEN FILE
Number 74-9

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Basic heat-flow data from the United States

By J. H. Sass and Robert J. Munroe

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ABSTRACT

It has been impossible to document fully in source papers, the large number of heat-flow results from the United States that have been published in recent years. The basic data of the major American research groups active in heat flow are tabulated in this report. Quantities tabulated include temperature, thermal conductivity, density, heat production, and terrain data for individual boreholes.

The tables were prepared by the authors of the original papers and include what the authors believe to be pertinent information about each borehole.

INTRODUCTION

The early papers on terrestrial heat flow included detailed discussions of methods and techniques and were abundantly documented by tables of basic data. The details allowed a critical evaluation of these papers and were of considerable value to later workers in developing the techniques that are used presently. The early papers also were limited to discussions of a few sites, usually one or two.

In recent years the practice has been to accumulate data from several sites in a given region and to publish all values at once with a considerably abbreviated discussion of techniques and a virtual absence of detailed documentation. This is a reasonable trend because of the great increase in activity in heat-flow research and the relatively limited group that is interested in details, compared with the larger readership, which is interested primarily in the heat-flow values and the authors' interpretation of them.

This healthy trend toward brevity in heat-flow publications notwithstanding, results of measurements from which published heat flows are derived should be made available to critical readers, and to those who wish to use selected portions of the data for related research. The present report is an attempt to do this.

The chapters that follow consist mainly of tables of temperature, thermal conductivity, density, and, where applicable, heat production and terrain information. The tables have been prepared by the original authors and/or their appointees. Within the comments section of the tables, the contributors have been encouraged to make any remarks that seem pertinent to the evaluation of the reliability and quality of the heat-flow results.

In this introductory chapter we set forth the general structure of the tables. Individual peculiarities of technique or presentation are discussed by chapter authors in their introductions.

The basic unit of reporting is a borehole. These are listed in each chapter alphabetically by states and alphabetically within states.

Recent work (Roy et al., 1968; Birch et al., 1968) strongly suggests the existence of heat-flow provinces. Naturally enough, most of these cross at least one state line so we have attempted to define them roughly under the heading of "tectonic unit." Some heat-flow provinces seem to be identical with tectonic and physiographic provinces, while others (see Blackwell, 1969) transcend these boundaries. For the present we recognize 11 tectonic units, for the conterminous United States similar to those proposed by Pakiser and Robinson (1966) as crustal seismic provinces. These, in turn, are essentially the same as the physiographic provinces of Fenneman (1928). Figure 1 shows a map and the abbreviations used in the tables to denote the various provinces. The abbreviations for state names used in the tables are shown in table 1. Table 2 defines the symbols and units used in the data tables. We have used mass units (H, μcal/gm year) for heat production rather than the more frequently used volume units (A, 10^{-13} cal cm^3sec). This was done for convenience since H can be calculated directly from the U, Th, and K abundances without any knowledge of density. To convert from mass to volume units, one simply multiplies the former by density/3.156.

References

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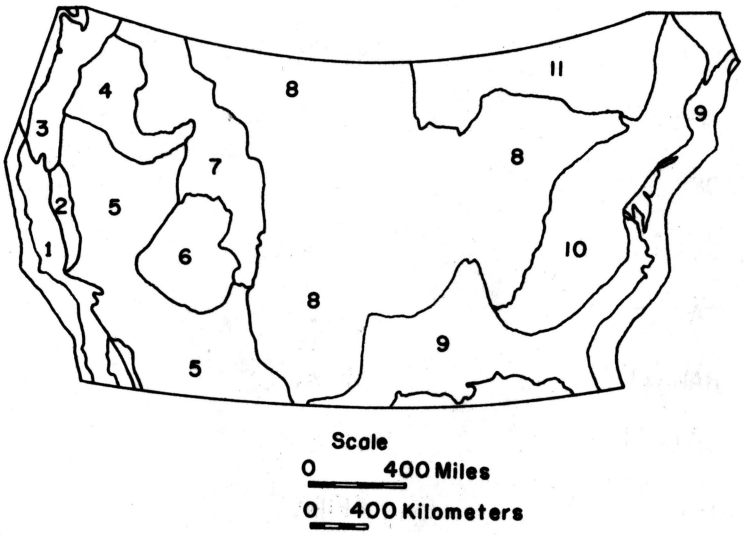
Figure 1

ABBREVIATIONS FOR TECTONIC UNITS



1 PAC. COAST
2 SIERRA NEV
3 PAC. NW
4 CLMB. PLAT
5 BASIN RGE
6 COLO. PLAT
7 ROCKY MTS
8 INT. PLN
9 CSTL. PLN
10 APPALACH.
11 CAN. SHLD

Table 1-1

STATE ABBREVIATIONS

ALA.	MONT.
ALASKA	NEB.
ARIZ.	NEV.
ARK.	N. H.
CALIF.	N. J.
COLO.	N. M.
CONN.	N. Y.
DEL.	N. C.
FLA.	N. DAK.
GA.	OHIO
HAWAII	OKLA.
IDAHO	ORE.
ILL.	PENN.
IND.	R. I.
IOWA	S. C.
KANSAS	S. DAK.
KY.	TENN.
LA.	TEX.
MAINE	UTAH
MD.	VT.
MASS.	VA.
MICH.	WASH.
MINN.	W. VA.
MISS.	WISC.
MO.	WYO.

Table 1-2 -*Symbols and units*

Note: All depths, radii and elevations are in meters	
ELEV,	elevation
N,	number of conductivity samples
COND,	thermal conductivity, mcal/cm sec °C
GRAD,	vertical temperature gradient, °C/km
HEAT FLOW	vertical conductive heat flux, μcal/cm^2sec
TEMP,	temperature, °C
DENS,	density gm/cc
H	radioactive heat production, μcal/gm year
RADIUS,	outer radius (in meters) of a circular zone, centered on the borehole collar. The elevation given in terrain data is the mean elevation of a circular annulus with outer radius as specified and inner radius specified by the preceding zone
ANGLE,	the angle in degrees that the hole makes to the horizontal at the depth in question

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BASIC DATA FOR HEAT FLOW DETERMINATIONS IN THE NORTHWESTERN UNITED STATES

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ABSTRACT

The equipment used for data collection and the mechanical details of data reduction are summarized by Roy et al. (1968b). All of the heat-flow determinations listed were made using holes drilled for the purpose of mineral exploration. For obvious reasons the published hole number will not in general be the hole number used by the company involved. The heat-flow values are tabulated in Roy et al. (1968b) and in Blackwell (1969). A more complete discussion of individual data points may be found in the second reference and in the author's thesis (Blackwell, 1967). All of the heat-flow values, except for DDH-2, Cooke City, Montana, DDH-1, Lincoln, Montana, and DDH-A, Wilber, Washington, were calculated by the resistance integral method. The values for the three exceptions noted were calculated as the product of the mean harmonic conductivity and the least-squares gradient. The gradients are least-squares straight lines fitted to the temperature-depth data in the given interval. The conductivity values listed are mean harmonic averages. The errors

shown are statistical and relate only to the internal consistency of the data. An attempt to assign realistic actual error limits and determine the best average value for each area was made and the results tabulated in Table 1 of Blackwell (1969).

The heat flow values listed in the Corr. column differ only in that terrain corrections (Roy et al., 1968b) were applied.

Several of the heat flow determinations listed have rather large topographic corrections. The procedure suggested by Jeffreys (1938) and modified by Birch (1950) gives satisfactory results if corrections are no greater than 10-15%. The method is much more accurate for drill holes in valleys than on hills, but in both situations the tendency is to overcorrect. Additional error for large corrections may arise owing to departures from the assumed uniform rate of variation of surface temperature with elevation or lateral variations in thermal conductivity. The details are reserved for a later publication, but at Wilbur and North Bend, Washington, the corrections calculated in the normal manner were modified to allow for the inaccuracies of the plane approximation and additional surface temperature information. The resulting error of the heat-flow determinations from topographic corrections should be no more than 10 - 15%.

Because the northwestern United States is an area of rugged

topography, the effect of topographic evolution was considered for all of the drill holes. Except at Meeteetse, Wyoming, the maximum reasonable corrections are not significant ($<$ 5%) and so are neglected.

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STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
IDAHO	ROCKY MTNS	CRESCENT MINE	841	47 30	116 05	1341	1538-1597	9	12.5	17.7	2.19	2.22
								ERROR	0.3	0.3	0.05	

COMPLETED ON OR BEFORE: 4/12/66 MEASURED: 6/17/66 STATIC WATER LEVEL: 0.0

REFERENCE: BLACKWELL, 1969

GEOLOGY: C-BO, PRECAMBRIAN BELT SERIES-REVETT QUARTZITE.

TEMPERATURE

DEPTH	.00	10.00	20.00	30.00	40.00	49.90	59.70	69.60	79.30
TEMP	33.440	34.010	34.300	34.470	34.660	34.860	34.990	35.170	35.360

CONDUCTIVITY AND DENSITY

DEPTH	12.00	23.00	30.00	43.00	48.70	48.70	54.70	54.70	60.80	60.80	66.70	66.70	72.50	72.50	78.50
COND	13.30	14.00	12.40	12.90	7.80	11.70	8.60	12.70	9.10	12.80	11.20	13.60	10.50	13.00	10.60
DENS	2.70	2.78	2.75	2.71	2.74	2.74	2.72	2.72	2.72	2.72	2.69	2.69	2.69	2.69	2.70

DEPTH	78.50
COND	13.20
DENS	2.70

DIP ANGLE

DEPTH	0	64	71	77	83	89
ANGLE	90.0	80.0	79.0	76.0	73.0	69.0

TERRAIN DATA

RADIUS	256	625	932	1250	1562	1875	2187	3125	3750	4375	5000	6250	7500	8750
ELEV	1326	1321	1221	1170	1160	1133	1122	1127	1139	1130	1171	1152	1119	1152

RADIUS	10000	15000	17500	20000	25000	30000	40000	60000	100000
ELEV	1203	1157	1108	1168	1130	1148	1216	1170	1120

COMMENTS

THE DEPTHS ARE VERTICAL DEPTHS. THE FIRST VALUE OF CONDUCTIVITY LISTED FOR EACH DEPTH IS FOR HEAT FLOW PERPENDICULAR TO FOLIATION AND THE SECOND IS FOR HEAT FLOW PARALLEL TO FOLIATION. THE VALUES FOR SAMPLE DEPTHS 12, 23, 30, AND 43M ARE FOR VERTICAL FLOW. THE DIP OF FOLIATION IS ABOUT 70 DEGREES. VENTILATION EFFECTS PENETRATE LESS THAN 20M. THE VERTICAL DEPTH TO THE COLLAR IS 1518M.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
IDAHO	ROCKY MTNS	CRESCENT MINE	854	47 30	116 05	1341	1538-1604	12	12.6	17.6	2.20	2.23
								ERROR	0.2	0.2	0.03	

COMPLETED ON OR BEFORE: 5/12/66 MEASURED: 6/17/66 STATIC WATER LEVEL: 0.0

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-90, PRECAMBRIAN BELT SERIES-REVETT QUARTZITE.

TEMPERATURE

DEPTH	.00	9.80	19.60	29.40	39.00	48.60	58.20	67.60	76.90	86.00
TEMP	33.440	34.240	34.630	34.720	34.890	35.060	35.220	35.410	35.550	35.700

CONDUCTIVITY AND DENSITY

DEPTH	12.00	18.00	18.00	23.90	23.90	29.90	29.90	41.60	41.60	47.50	47.50	53.40	59.20	59.20	65.90
COND	11.30	13.60	14.70	9.40	13.00	9.50	13.20	9.50	13.20	9.80	13.20	12.80	10.00	13.30	9.90
DENS	2.96	2.71	2.71	2.71	2.71	2.71	2.71	2.72	2.72	2.69	2.69	2.72	2.74	2.74	2.72

DEPTH	65.90	70.40	70.40	76.20	76.20	81.80	81.80	87.30	87.30
COND	13.40	10.20	13.20	9.50	12.60	9.00	12.20	11.40	13.10
DENS	2.72	2.72	2.72	2.72	2.72	2.74	2.74	2.70	2.70

DIP ANGLE

DEPTH	0	18	30	68	80	98
ANGLE	80.0	78.0	77.0	70.0	67.0	65.0

TERRAIN DATA

RADIUS	256	625	932	1250	1562	1875	2187	3125	3750	4375	5000	6250	7500	8750
ELEV	1326	1321	1221	1170	1160	1133	1122	1127	1139	1130	1171	1152	1119	1152

RADIUS	10000	15000	17500	20000	25000	30000	40000	50000	100000
ELEV	1203	1157	1108	1168	1130	1148	1216	1170	1120

COMMENTS

THE DEPTHS ARE VERTICAL DEPTHS. THE FIRST VALUE OF CONDUCTIVITY LISTED FOR EACH DEPTH IS FOR HEAT FLOW PERPENDICULAR TO FOLIATION AND THE SECOND IS FOR HEAT FLOW PARALLEL TO FOLIATION. THE VALUE FOR SAMPLE DEPTH 12 IS FOR HEAT FLOW PERPENDICULAR TO FOLIATION WHILE THE VALUE FOR DEPTH 53.4 IS FOR PARALLEL FLOW. SEE DDH-841 FOR OTHER COMMENTS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
IDAHO	ROCKY MTNS	SILVER SUMMIT	3417	47 30	116 02	1189	1382-1435	9	11.7	18.8	2.23	2.25
								ERROR	0.3	0.2	0.03	

COMPLETED ON OR BEFORE: 7/3/58 MEASURED: 7/14/65 STATIC WATER LEVEL: <5.0

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-144, PRECAMBRIAN BELT SERIES ST. REGIS FORMATION(ARGILLITE AND IMPURE QUARTZITE).

TEMPERATURE

DEPTH	9.70	19.20	28.70	38.10	47.10	56.00	64.70	73.30	81.80	90.10	98.30	106.30
TEMP	29.910	30.410	30.880	31.390	31.740	32.070	32.360	32.600	32.850	33.060	33.220	33.370
DEPTH	114.10	121.80	129.30	136.60	143.50							
TEMP	33.540	33.670	33.810	33.930	34.070							

CONDUCTIVITY AND DENSITY

DEPTH	14.40	14.40	31.70	31.70	56.70	56.70	64.70	70.00	70.00	75.20	75.20	80.30	80.30	85.40	85.40
COND	8.30	11.20	7.50	12.40	9.60	13.10	9.30	4.40	10.80	5.90	11.90	6.10	11.80	6.00	11.40
DENS	2.71	2.71	2.74	2.74	2.69	2.69	2.68	2.78	2.78	2.74	2.74	2.75	2.75	2.74	2.74
DEPTH	95.50	100.80	100.80	105.30	105.30	110.10	110.10	119.50	119.50	128.70	128.70	131.20	131.20	133.10	133.10
COND	12.40	5.80	11.60	9.70	13.90	10.20	13.10	10.40	12.90	6.40	13.20	9.10	12.50	9.40	11.40
DENS	2.72	2.75	2.75	2.70	2.70	2.69	2.69	2.71	2.71	2.71	2.71	2.69	2.69	2.69	2.69
DEPTH	135.80	135.80													
COND	8.20	13.50													
DENS	2.68	2.68													

DIP ANGLE

DEPTH	0	61	91	182
ANGLE	76.0	62.0	57.0	41.0

TERRAIN DATA

RADIUS	256	625	932	1250	1562	1875	2187	2500	3125	3750	4375	5000	6250	7500
ELEV	1208	1222	1194	1204	1174	1129	1088	1052	1042	1052	1111	1154	1175	1242
RADIUS	8750	10000	12500	15000	17500	20000	30000	50000	100000					
ELEV	1270	1224	1154	1158	1108	1168	1140	1191	1120					

COMMENTS

THE DEPTHS ARE VERTICAL DEPTHS. THE FIRST VALUE OF CONDUCTIVITY LISTED FOR EACH DEPTH IS FOR HEAT FLOW PERPENDICULAR TO FOLIATION AND THE SECOND IS FOR HEAT FLOW PARALLEL TO FOLIATION. THE VALUE FOR SAMPLE DEPTH 64.7 IS FOR PERPENDICULAR HEAT FLOW AND THE VALUE FOR SAMPLE 95.5 IS FOR FLOW PARALLEL TO FOLIATION. THE DIP OF FOLIATION IS ABOUT 70 DEGREES. THE DISTURBANCE OF TEMPERATURES IN THE UPPER PART OF THE DRILL HOLE IS DUE TO VENTILATION. THE VERTICAL DEPTH TO THE COLLAR IS 1291M.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	COOKE CITY	1	45 03	109 57	2793	50-300	30	7.2	18.4	1.29	1.25
								ERROR	0.2	0.2	0.01	

COMPLETED ON OR BEFORE: 8/10/64 MEASURED: 7/30/65 STATIC WATER LEVEL: 20.0

REFERENCE: BLACKWELL, 1969

GEOLOGY: 10-60, SHALE(CAMBRIAN), 60-80, FLATHEAD QUARTZITE(CAMBRIAN), 80-305, GNEISSIC QUARTZ MONZONITE(PRECAMBRIAN).

TEMPERATURE

DEPTH	20.00	50.00	70.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	3.170	3.630	3.900	4.210	4.360	4.520	4.690	4.840	5.000	5.170	5.350	5.560
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00
TEMP	5.770	5.960	6.160	6.360	6.540	6.720	6.900	7.110	7.300	7.510	7.710	7.920
DEPTH	300.00											
TEMP	8.110											

CONDUCTIVITY AND DENSITY

DEPTH	49.00	58.00	67.00	76.00	85.00	94.00	104.00	113.00	122.00	131.00	140.00	149.00	158.00	168.00	177.00
COND	7.10	9.90	12.80	7.10	8.70	8.70	8.00	8.20	8.20	8.40	7.30	7.50	7.10	6.50	5.60
DENS	2.65	2.70	2.58	2.61	2.50	2.55	2.51	2.57	2.46	2.43	2.45	2.57	2.57	2.59	2.61
DEPTH	186.00	191.00	195.00	200.00	204.00	213.00	223.00	232.00	241.00	250.00	259.00	268.00	277.00	286.00	296.00
COND	7.30	6.20	5.60	5.80	5.30	7.60	6.70	7.20	7.60	7.10	6.20	6.40	6.60	7.70	7.10
DENS	2.62	2.66	2.68	2.65	2.62	2.56	2.58	2.58	2.59	2.62	2.66	2.63	2.63	2.59	2.63
DEPTH	305.00														
COND	6.30														
DENS	2.64														

HEAT PRODUCTION

DEPTH	85.30	94.50	103.60	149.40	199.60	204.20	213.40	236.20	256.20	281.90	304.80
H	4.23	1.19	2.59	1.66	1.81	3.37	10.16	3.14	4.31	2.20	1.66

TERRAIN DATA

RADIUS	200	400	500	750	1000	1250	1500	1750	2000	2500	3125	3750	5000	6250
ELEV	2787	2795	2813	2848	2895	2913	2885	2813	2748	2703	2672	2696	2720	2715
RADIUS	7500	8750	10000	12500	15000	20000	30000	50000	100000					
ELEV	2731	2762	2731	2686	2713	2696	2700	2440	1955					

COMMENTS

HEAT PRODUCTION MEASURED BY ALPHA COUNTING AND X-RAY FLUORESCENCE (SEE ROY, BLACKWELL AND BIRCH, 1968). THE PUBLISHED LATITUDE OF THIS HOLE IS IN ERROR BY 27 MINUTES.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	COOKE CITY	2	45 03	109 57	2870	50-150	13	8.1	18.0	1.45	1.37
								ERROR	0.4	0.4	0.05	

COMPLETED ON OR BEFORE: 9/14/64 MEASURED: 7/22/66 STATIC WATER LEVEL: <50.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-82, DACITE PORPHYRY SILL, 82-92, WOLSEY SHALE(CAMBRIAN), 92-99, DACITE PORPHYRY SILL, 104-130, FLATHEAD QUARTZITE(CAMBRIAN), 130-145, COOKE GRANITE(PRECAMBRIAN), 145-151, ANDESITE PORPHYRY DIKE, 151-152, COOKE GRANITE.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	3.500	3.660	3.840	4.010	4.200	4.390	4.610	4.790	4.990	5.170	5.360

CONDUCTIVITY AND DENSITY

DEPTH	46.00	52.00	59.00	65.00	70.00	77.00	88.00	93.00	101.00	107.00	112.00	119.00	125.00	131.00	137.00
COND	8.10	8.00	7.70	8.40	6.90	9.40	8.60	7.00	9.50	10.30	14.40	14.00	10.70	8.10	9.20
DENS	2.59	2.59	2.56	2.54	2.52	2.65	2.71	2.49	2.72	2.83	2.82	2.70	2.58	2.60	2.56

DEPTH	143.00	149.00
COND	7.70	7.10
DENS	2.59	2.64

TERRAIN DATA

RADIUS	100	200	300	500	750	1000	1250	1750	2000	2500	3125	3750	4375	5000
ELEV	2867	2871	2877	2886	2893	2887	2877	2870	2874	2859	2846	2829	2808	2790

RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000
ELEV	2823	2840	2889	2913	2935	2920	2914	2857	2759

COMMENTS

THE PUBLISHED LATITUDE OF THIS HOLE IS IN ERROR BY 27 MINUTES. THE INTERVAL HEAT FLOW IN THE QUARTZITE(130-145) IS <2.2 BUT WAS NOT INCLUDED IN THE AVERAGE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	LIBBY	1	48 14	115 55	1682	280-390	26	8.9	15.5	1.38	1.75
								ERROR	0.4	1.0	0.04	

COMPLETED ON OR BEFORE: 5/66 MEASURED: 8/4/66 STATIC WATER LEVEL: 135.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-390, PRECAMBRIAN BELT SERIES ARGILLITE, LIMESTONE, AND QUARTZITE.

TEMPERATURE

DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	3.180	3.180	3.190	3.200	3.210	3.220	3.240	3.260	3.280	3.320	3.370	3.410
DEPTH	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00
TEMP	3.440	3.510	3.560	3.680	3.880	4.020	4.160	4.340	4.490	4.650	4.810	4.950
DEPTH	380.00	390.00										
TEMP	5.100	5.230										

CONDUCTIVITY AND DENSITY

DEPTH	213.00	229.00	244.00	259.00	274.00	280.00	287.00	293.00	299.00	305.00	311.00	317.00	323.00	329.00	335.00
COND	8.20	9.60	7.70	7.30	8.20	6.70	6.70	8.10	11.10	9.70	9.70	6.40	10.30	7.40	7.60
DENS	2.74	2.79	2.75	2.74	2.72	2.76	2.74	2.72	2.68	2.72	2.72	2.75	2.73	2.74	2.77
DEPTH	341.00	347.00	354.00	360.00	367.00	378.00	390.00								
COND	8.50	7.80	7.90	7.40	10.80	11.60	12.00								
DENS	2.74	2.75	2.77	2.74	2.72	2.67	2.64								

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000	2500	3125	3750
ELEV	1671	1641	1597	1565	1540	1507	1489	1495	1501	1473	1442	1366	1246	1109
RADIUS	4375	5000	6250	7500	8750	10000	12500	15000	20000	30000	50000	100000		
ELEV	1076	1092	1146	1180	1306	1340	1370	1351	1315	1209	1188	1243		

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	LINCOLN	1	47 02	112 23	1597	100-250	ERROR	8.8	27.5 0.2	2.4	2.1

COMPLETED ON OR BEFORE: 7/27/66 MEASURED: 8/10/67 STATIC WATER LEVEL: <40.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 40-95, PRECAMBRIAN BELT ARGILLITE, 95-112, QUARTZ MONZONITE PORPHYRY, 112-125, ARGILLITE, 125-145, QMP, 145-162, ARGILLITE 162-176, DIORITE PORPHYRY, 176-260, ARGILLITE.

TEMPERATURE

DEPTH	40.00	50.00	60.00	70.00	80.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00
TEMP	6.096	6.338	6.645	6.829	7.071	7.322	7.453	7.553	7.697	7.841	7.990	8.089
DEPTH	125.00	130.00	135.00	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00
TEMP	8.238	8.303	8.496	8.547	8.764	8.868	9.013	9.198	9.289	9.432	9.639	9.740
DEPTH	185.00	190.00	195.00	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00
TEMP	9.905	10.013	10.130	10.300	10.411	10.514	10.719	10.805	10.977	11.114	11.268	11.400
DEPTH	245.00	250.00	255.00									
TEMP	11.545	11.671	11.801									

CONDUCTIVITY AND DENSITY

DEPTH	.00	22.00	34.00	46.00	48.00	57.00	65.00	66.00
COND	8.90	8.70	5.70	7.40	11.50	10.70	15.80	7.70
DENS		2.56	2.28	2.61	2.60	2.65	2.65	2.44

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000	2500	3000	3750
ELEV	1604	1615	1626	1647	1633	1650	1675	1697	1711	1742	1764	1789	1825	1815
RADIUS	5000	6250	7500	10000	15000	20000	30000	50000	100000					
ELEV	1818	1745	1723	1746	1698	1641	1603	1570	1550					

COMMENTS

CONDUCTIVITY WAS ESTIMATED FROM THE SHALLOW SAMPLES AND DATA FROM DDH-29. THE HOLE WAS CASED WITH 1 1/4 INCH IRON PIPE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	LINCOLN	29	47 02	112 23	1919	170-270	10	11.2	17.0	1.92	2.22
								ERROR	0.4	0.2	0.03	

COMPLETED ON OR BEFORE: 11/16/65 MEASURED: 6/30/66 STATIC WATER LEVEL: 65.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 100-154, PRECAMBRIAN BELT SERIES ARGILLITE, 154-305, QUARTZ MONZONITE PORPHYRY.

TEMPERATURE

DEPTH	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00
TEMP	4.160	4.150	4.170	4.250	4.390	4.490	4.620	4.770	4.910	5.040	5.170	5.330
DEPTH	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	
TEMP	5.500	5.680	5.850	6.030	6.180	6.350	6.550	6.650	6.890	7.250	7.490	

CONDUCTIVITY AND DENSITY

DEPTH	101.50	113.00	125.00	137.00	149.00	161.50	174.00	187.00	199.50	210.00	222.50	235.00	259.00	271.00	283.00
COND	9.90	7.30	8.10	7.80	11.30	10.70	12.20	10.70	11.00	13.40	12.50	9.90	12.00	10.10	9.50
DENS	2.36	2.53	2.53	2.42	2.72	2.55	2.69	2.67	2.59	2.77	2.77	2.53	2.69	2.52	2.51

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1750	2000	2500	3750	6250	8750
ELEV	1912	1895	1867	1835	1825	1831	1843	1789	1765	1757	1779	1798	1782	1749
RADIUS	10000	12500	15000	17500	20000	25000	30000	50000	100000					
ELEV	1743	1707	1690	1658	1625	1595	1612	1570	1550					

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	MARYSVILLE	1-2	46 43	112 21	2043	100-210	13	11.7	70.4	8.0	
								ERROR	0.8	2.1	0.2	

COMPLETED ON OR BEFORE: 9/19/64 MEASURED: 8/14/66 STATIC WATER LEVEL: 45.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 70-230, SILICIFIED QUARTZ PORPHYRY.

TEMPERATURE

DEPTH	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00
TEMP	11.090	11.810	12.390	12.980	13.510	13.980	14.820	15.850	16.830	17.540	18.080	18.520
DEPTH	220.00	230.00										
TEMP	19.480	20.510										

CONDUCTIVITY AND DENSITY

DEPTH	77.00	94.00	113.00	131.00	141.00	177.00	195.00	214.00	231.00
COND	8.80	10.90	13.90	19.80	7.00	12.40	11.20	17.50	10.70
DENS	2.52	2.57	2.61	2.62	2.47	2.59	2.57	2.62	2.53

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000
ELEV	2040	2037	2028	2009	1989	1968	1961	1975	1975	1973	1978

COMMENTS

UPPER PART OF HOLE SUBJECT TO SMALL SEASONAL WATER FLOW. WATER APPARENTLY EXITS BETWEEN 210 AND 230 M. GRADIENT IS PROBALY ONLY SLIGHTLY MODIFIED.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	MARYSVILLE	1-4	46 43	112 21	2001	50-270	13	8.4	72.5	6.38	
								ERROR	0.4	0.5	0.07	

COMPLETED ON OR BEFORE: 9/11/65 MEASURED: 6/22/66 STATIC WATER LEVEL: <10.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-270, HORNFELSED DOLOMITIC HELENA LIMESTONE(PRECAMBRIAN BELT SERIES).

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	7.460	8.440	9.250	9.980	10.850	11.640	12.460	13.210	14.060	15.020	15.750	16.510
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	17.280	18.030	18.790	19.520	20.190	20.870	21.650	22.400	23.120	23.810	24.550	25.200
DEPTH	250.00	260.00	270.00									
TEMP	26.020	26.840	27.620									

CONDUCTIVITY AND DENSITY

DEPTH	49.00	68.00	85.00	104.00	122.00	140.00	158.00	177.00	195.00	213.00	232.00	250.00	268.00
COND	7.70	6.80	7.50	9.30	8.70	8.10	9.30	10.90	12.30	8.70	7.80	7.80	7.40
DENS	2.97	2.71	2.74	2.79	2.73	2.75	2.66	2.73	2.75	2.71	2.68	2.72	2.71

DIP ANGLE

DEPTH	0	76	152	228	304
ANGLE	70.0	72.0	73.0	70.0	67.0

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000
ELEV	2001	1998	1991	1987	1966	1933	1914	1905	1920	1937	1947

COMMENTS

BEARING VARYS FROM N75W TO N51W. TOPOGRAPHY RISES APPROXIMATELY 20M OVER LENGTH OF HOLE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	MARYSVILLE	1-6	46 43	112 21	2043	100-280	13	9.0	72.5	6.68	
								ERROR	0.6	1.6	0.15	

COMPLETED ON OR BEFORE: 7/25/66 MEASURED: STATIC WATER LEVEL: <80.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-211, HORNFELSED DOLOMITIC HELENA LIMESTONE(PRECAMBRIAN BELT SERIES), 211-302, QUARTZ PORPHYRY.

TEMPERATURE

DEPTH	100.00	120.00	140.00	160.00	180.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	11.890	13.280	14.790	16.200	17.420	18.620	19.390	20.130	20.930	21.610	22.470	23.470
DEPTH	270.00	280.00	290.00									
TEMP	24.370	25.320	26.180									

CONDUCTIVITY AND DENSITY

DEPTH	122.00	137.00	152.00	167.00	182.00	198.00	213.00	225.00	231.00	237.00	243.00	258.00	274.00	289.00	302.00
COND	10.90	7.20	8.70	9.90	10.40	10.20	12.20	14.50	9.30	6.10	7.70	8.50	7.70	7.80	8.30
DENS	2.68	2.69	2.76	2.68	2.72	2.72	2.53	2.58	2.53	2.52	2.56	2.52	2.52	2.59	2.57

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000
ELEV	2044	2034	2020	2005	1999	1976	1960	1961	1961	1959	1964

COMMENTS

TEMPERATURES MEASURED 2 AND 5 DAYS AFTER DRILLING. SUBSEQUENTLY HOLE CAVED. EQUILIBRIM TEMPERATURES(LISTED ABOVE) CALCULATED ACCORDING TO EQ (3) OF LACHENBRUCH AND BREWER(1959).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	NEIHART	36	46 58	110 43	2006	70-150	10	6.6	24.3	1.56	1.60
								ERROR	0.6	0.6	0.02	

COMPLETED ON OR BEFORE: 1963 MEASURED: 9/15/64 STATIC WATER LEVEL: <60.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-75, PRECAMBRIAN GNEISS AND SCHIST, 75-93, MESOZOIC PORPHYRY DIKE, 93-152, PRECAMBRIAN GNEISS AND SCHIST.

TEMPERATURE

DEPTH	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	4.170	4.360	4.600	4.820	5.040	5.240	5.490	5.760	6.050	6.330

CONDUCTIVITY AND DENSITY

DEPTH	61.00	70.00	79.00	88.00	98.00	107.00	116.00	125.00	134.00	143.00	152.00
COND	5.40	4.70	7.70	7.50	6.90	9.20	5.30	5.30	5.10	6.90	14.90
DENS	2.68	2.67	2.58	2.59	2.62	2.57	2.73	2.69	2.76	2.61	2.60

TERRAIN DATA

RADIUS	200	300	500	750	1000	1250	1500	1750	2000	2500	3000	3750	5000	6250
ELEV	2007	1997	1990	1974	1970	1973	2004	2040	2081	2137	2159	2092	2012	1987

RADIUS	7500	8750	10000	12500	15000	20000	30000	50000	100000
ELEV	2034	2074	2060	2043	2075	1998	1805	1555	1379

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT	ROCKY MTNS	NEIHART	37	46 58	110 43	1939	170-280	12	6.5	29.1	1.82	1.72
								ERROR	0.2	0.2	0.03	

COMPLETED ON OR BEFORE: 1963 MEASURED: 9/15/64 STATIC WATER LEVEL: <100.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-142, PRECAMBRIAN GNEISS AND SCHIST, 142-176, MESOZOIC PORPHYRY DIKE, 176-285, PRECAMBRIAN GNEISS AND SCHIST.

TEMPERATURE

DEPTH	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00
TEMP	6.250	6.420	6.720	7.150	7.720	7.800	7.890	8.030	8.270	8.540	8.810	9.090

DEPTH	220.00	230.00	240.00	250.00	260.00	270.00	280.00
TEMP	9.390	9.710	10.010	10.320	10.600	10.890	11.180

CONDUCTIVITY AND DENSITY

DEPTH	100.00	112.50	122.50	132.50	141.00	144.50	150.00	155.00	162.50	170.00	177.50	185.00	192.50	201.00	205.00
COND	8.20	6.30	6.70	6.20	5.40	7.50	7.10	7.30	7.70	7.70	7.00	5.70	5.10	8.60	7.50
DENS	2.62	2.54	2.47	2.50	2.53	2.58	2.63	2.57	2.55	2.61	2.56	2.43	2.46	2.51	2.55

DEPTH	217.50	230.00	237.50	247.50	252.00	262.50	272.50	282.50
COND	6.10	6.30	5.90	9.00	9.80	5.50	5.50	7.00
DENS	2.50	2.47	2.48	2.31	2.54	2.49	2.53	2.52

TERRAIN DATA

RADIUS	100	300	500	750	1000	1250	1500	1750	2000	2500	3000	3750	5000	6250
ELEV	1935	1927	1934	1920	1931	1967	2001	2022	2056	2086	2096	2056	2008	1981

RADIUS	7500	8750	10000	12500	15000	20000	30000	50000	100000
ELEV	2034	2074	2060	2043	2075	1998	1805	1555	1379

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S. DAK	INT. PLN	LEAD	N84 SHFT	44 21	103 45		1455-2048	13	7.9	23.4	1.82	1.84
								ERROR	0.3	0.8	0.07	

COMPLETED ON OR BEFORE: MEASURED: STATIC WATER LEVEL:

REFERENCE: BLACKWELL, 1969

GEOLOGY: 500-750, FLAG ROCK FM., 750-1200, NORTHWESTERN FM., 1200-1490 AND 1550-1585, ELLISON FM. 1490-1495, 1540-1550, 1585-1615, HOMESTAKE FM., 1495-1540, 1615-2070, POORMAN FM. ALL PRECAMBRIAN.

TEMPERATURE

DEPTH	585.00	858.00	1134.00	1455.00	1499.00	1545.00	1591.00	1637.00	1682.00	1728.00	1774.00	1774.00
TEMP	18.100	23.500	28.700	35.500	36.200	36.300	37.900	38.900	39.500	40.500	42.500	42.300
DEPTH	1819.00	1819.00	1865.00	1865.00	1880.00	1911.00	1957.00	2002.00	2048.00	2048.00	2068.00	
TEMP	43.500	43.500	43.700	44.500	45.000	45.000	46.000	45.500	48.900	49.000	49.000	

CONDUCTIVITY AND DENSITY

DEPTH	1455.00	1455.00	1545.00	1545.00	1545.00	1545.00	1455.00	1455.00	1499.00	1499.00	1545.00	1545.00	1591.00	1591.00	1455.00
COND	14.30	15.10	10.10	15.10	4.80	4.90	5.30	7.80	4.80	7.40	5.60	9.20	8.00	11.30	4.30
DENS	2.66	2.66	2.71	2.71	2.87	2.87	3.32	3.32	3.36	3.36	3.45	3.45	2.94	2.94	2.83
DEPTH	1455.00	1499.00	1499.00	1682.00	1682.00	1774.00	1774.00	1865.00	1865.00	1865.00	1865.00	2048.00	2048.00		
COND	8.80	4.90	9.10	6.10	7.70	4.10	8.30	6.90	8.90	5.30	9.00	5.80	9.10		
DENS	2.83	2.86	2.86	2.84	2.84	2.87	2.87	2.82	2.82	2.91	2.91	2.74	2.74		

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1750	2000	2500	3125	3750	5000	7500
ELEV	3	23	44	63	76	92	73	58	74	90	115	109	105	124
RADIUS	8750	10000	12500	15000	17500	20000	30000	50000	100000					
ELEV	90	63	12	-49	-47	-65	-143	-272	-416					

COMMENTS

THE FIRST VALUE OF CONDUCTIVITY LISTED FOR EACH DEPTH IS FOR HEAT FLOW PERPENDICULAR TO FOLIATION AND THE SECOND IS FOR HEAT FLOW PARALLEL TO FOLIATION. THE FIRST THREE SAMPLES ARE FROM THE ELLISON FM., THE FOLLOWING FOUR ARE FROM THE HOMESTAKE FM., AND THE REMIANDER ARE FROM THE POORMAN FM. THE TEMPERATURE MEASURMENTS WERE MADE BY THE GEOLOGIC STAFF OF HOMESTAKE MINING CO. WITH MERCURY THERMOMETERS. THE AVERAGE DIP IS 65 DEGREES. VALUES LISTED UNDER ELEV ARE DIFFERENCES ONLY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S. DAK	INT. PLN	LEAD	YATES	44 21	103 45	1618	584-1508	15	10.7	19.0	1.98	1.96
								ERROR	0.8	1.2	0.05	

COMPLETED ON OR BEFORE: MEASURED: STATIC WATER LEVEL:

REFERENCE: NOBLE,1948, BLACKWELL,1969

GEOLOGY: 0-200, FLAG ROCK FM., 200-450, NORTHWESTERN FM., 450-730, ELLISON FM., 730-760, HOMESTAKE FM., 760-1200, POORMAN FM., 1200-1500, AMPHIBOLITE. ALL ROCKS ARE PRECAMBRIAN.

CONDUCTIVITY AND DENSITY

DEPTH	.00	.00	42.10	42.10	267.00	267.00	548.00	548.00	594.00	594.00	728.00	728.00	868.00	914.00	914.00
COND	4.10	10.40	10.80	11.60	8.40	12.40	15.80	16.30	14.20	16.00	16.40	17.60	7.20	6.50	12.90
DENS	2.66	2.66	2.60	2.60	2.86	2.86	2.67	2.67	2.69	2.69	2.67	2.67	2.77	2.76	2.76
DEPTH	914.00	914.00	960.00	960.00	1006.00	1006.00	1051.00	1051.00	1097.00	1097.00	1144.00	1144.00	1188.00	1188.00	362.00
COND	9.00	10.70	7.00	13.10	11.60	13.30	8.00	9.80	8.30	9.50	8.50	11.60	8.60	14.00	6.20
DENS	2.78	2.78	2.80	2.80	2.71	2.71	2.78	2.78	2.78	2.78	2.73	2.73	2.70	2.70	3.05
DEPTH	362.00	1213.00	1213.00	1280.00	1280.00	823.00	823.00								
COND	6.20	6.90	7.00	6.10	9.10	7.20	7.30								
DENS	3.04	2.98	2.99	3.04	3.02	2.54	2.55								

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1750	2000	2500	3125	3750	4375	5000
ELEV	1598	1575	1550	1528	1535	1545	1558	1574	1589	1578	1612	1636	1650	1664
RADIUS	7500	8750	10000	12500	17500	20000	30000	50000	100000					
ELEV	1672	1656	1629	1578	1518	1501	1423	1294	1150					

COMMENTS

THE TEMPERATURE MEASURMENTS WERE PUBLISHED BY NOBLE(1948). THE CONDUCTIVITY MEASUREMENTS WERE MADE BY FRANCIS BIRCH IN 1950. EXCEPT AS NOTED THE LISTED CONDUCTIVITY VALUES ARE FOR HEAT FLOW PERPENDICULAR AND PARALLEL TO FOLIATION RESPECTIVELY. AT SAMPLE DEPTH 868 THE VALUE IS FOR PERPENDICULAR FLOW. THE VALUES AT 362, 1213, AND 1280 ARE 6 SEPERATE SAMPLES OF AMPHIBOLITE. THE VALUES AT 823 ARE 2 SEPERATE SAMPLES OF A RHYOLITE DIKE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	ROCKY MTNS	LEADPOINT	1	48 55	117 36	711	100-240	16	14.3	23.9	3.43	3.00
								ERROR	0.1	0.1	0.01	

COMPLETED ON OR BEFORE: 6/8/64 MEASURED: 6/16/65 STATIC WATER LEVEL: 0.0

REFERENCE: BLACKWELL,1969

GEOLOGY: 0-240, MIDDLE DOLOMITIC MEMBER OF METALINE FORMATION(CAMBRIAN).

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00
TEMP	8.760	8.860	8.930	8.980	9.010	9.010	9.270	9.510	9.740	9.980	10.210	10.450
DEPTH	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00				
TEMP	10.680	10.930	11.160	11.420	11.660	11.890	12.120	12.370				

CONDUCTIVITY AND DENSITY

DEPTH	104.00	113.00	121.00	130.00	141.00	149.00	158.00	168.00	177.00	186.00	195.00	204.00	213.00	223.00	232.00
COND	13.70	14.70	15.00	14.70	14.70	14.50	14.40	14.90	14.10	14.00	14.10	13.80	13.80	14.30	14.80
DENS	2.83	2.82	2.84	2.83	2.84	2.83	2.82	2.83	2.80	2.82	2.84	2.81	3.48	2.83	2.84
DEPTH	240.00	250.00													
COND	13.00	13.50													
DENS	2.78	2.86													

TERRAIN DATA

RADIUS	100	200	300	500	750	1000	1250	1500	1750	2000	2500	3000	3750	5000
ELEV	714	710	714	725	731	736	739	764	799	835	886	929	995	1033
RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000					
ELEV	1046	1000	953	996	1081	967	1080	1172	1201					

COMMENTS

THE BEST VALUE OF REGIONAL HEAT FLOW IS 2.0. THE OBSERVED VALUES ARE HIGH DUE TO REFRACTION. THE TEMPERATURES ABOVE 100M ARE AFFECTED BY WATER FLOW.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	ROCKY MTNS	LEADPOINT	3	48 55	117 36	820	290-340	16	14.4	22.0	3.16	2.93
								ERROR	0.1	0.1	0.02	

COMPLETED ON OR BEFORE: 7/18/64 MEASURED: 6/17/65 STATIC WATER LEVEL: 155.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-340, MIDDLE DOLOMITIC MEMBER OF METALINE FORMATION(CAMBRIAN). BASIC DIKES BETWEEN 139-147, 243-251, 324-340.

TEMPERATURE

DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00
TEMP	8.840	9.030	9.170	9.670	9.980	10.220	10.440	10.680	10.870	11.020	11.270	11.530

DEPTH	280.00	290.00	300.00	310.00	320.00	330.00	340.00
TEMP	11.920	12.240	12.470	12.690	12.900	13.130	13.340

CONDUCTIVITY AND DENSITY

DEPTH	143.00	152.00	162.00	171.00	182.00	187.00	198.00	207.00	215.00	228.00	238.00	247.00	257.00	264.00	279.00
COND	6.80	12.80	13.70	13.90	14.70	14.70	14.20	15.00	13.70	14.40	14.30	5.00	14.50	13.60	14.20
DENS	2.68	2.82	2.83	2.85	2.85	2.84	2.85	2.84	2.82	2.83	2.84	2.76	2.83	2.80	2.84

DEPTH	283.00	292.00	302.00	311.00	320.00	329.00	338.00
COND	14.60	14.50	14.40	14.20	14.50	7.00	7.20
DENS	2.83	2.84	2.84	2.82	2.84	2.70	2.71

TERRAIN DATA

RADIUS	100	200	300	400	500	1000	1250	1500	1750	2000	2500	3000	3750	5000
ELEV	817	811	803	795	788	789	796	813	843	870	926	965	1000	1064

RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000
ELEV	1077	1031	984	1027	1112	998	1111	1203	1232

COMMENTS

THE BEST VALUE OF REGIONAL HEAT FLOW IS 2.0. THE OBSERVED VALUES ARE HIGH DUE TO REFRACTION. THE TEMPERATURES ABOVE 290M ARE AFFECTED BY WATER FLOW.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	PAC. NW	NORTH BEND	1	47 30	121 22	838	80-130	9	9.4	16.2	1.52	1.18
								ERROR	0.5	0.3	0.03	

COMPLETED ON OR BEFORE: 1963 MEASURED: 6/25/65 STATIC WATER LEVEL: <10.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-130, SLIGHTLY TO HIGHLY SILICFIED GRANODIORITE OF THE LATE CENEOZOIC SNOQUALMIE BATHOLITH.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	5.550	5.760	5.720	5.710	5.740	5.790	5.870	5.980	6.120	6.290	6.440	6.610
DEPTH	130.00											
TEMP	6.790											

CONDUCTIVITY AND DENSITY

DEPTH	79.00	85.00	91.00	98.00	104.00	110.00	116.00	122.00	128.00	134.00	140.00	147.00	152.00
COND	12.30	8.90	10.10	10.90	10.10	10.30	8.00	7.80	8.00	9.10	7.50	10.40	7.50
DENS	2.75	2.64	2.77	2.73	2.66	2.75	2.69	2.70	2.71	2.70	2.70	2.67	2.67

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2500	3125	3750	5000
ELEV	842	853	866	881	902	944	1042	1151	1209	1275	1306	1271	1343	1415
RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000					
ELEV	1385	1328	1297	1252	1141	1112	1005	983	825					

COMMENTS

THE TERRAIN CORRECTED VALUE WAS INCREASED BY 5 PERCENT TO ALLOW FOR SYSTEMATIC ERRORS IN THE TECHNIQUE FOR LARGE CORRECTIONS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	PAC. NW.	NORTH BEND	2	47 30	121 22	585	80-251	24	7.2	25.2	1.84	1.34
								ERROR	0.2	1.0	0.08	

COMPLETED ON OR BEFORE: 6/24/65 MEASURED: 7/24/65 STATIC WATER LEVEL: 0.0

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-295, GRANODIORITE OF CENOZOIC SNOQUALMIE BATHOLITH.

TEMPERATURE

DEPTH	.00	100.00	110.00	120.00	130.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00
TEMP	13.860	14.780	15.520	15.580	15.610	15.780	16.010	16.070	16.770	16.830	16.860	17.090
DEPTH	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00				
TEMP	17.800	17.850	17.930	18.270	18.640	18.730	18.810	18.880				

CONDUCTIVITY AND DENSITY

DEPTH	104.00	116.00	128.00	141.00	152.00	165.00	177.00	189.00	201.00	213.00	225.00	238.00	250.00	274.00	280.00
COND	8.30	6.90	7.70	7.60	7.10	6.90	7.60	6.80	7.70	9.40	7.20	7.50	7.00	6.00	7.20
DENS	2.77	2.71	2.75	2.74	2.71	2.73	2.72	2.67	2.70	2.72	2.70	2.71	2.72	2.70	2.73
DEPTH	287.00	293.00	295.00												
COND	7.20	6.80	7.40												
DENS	2.71	2.73	2.74												

DIP ANGLE

DEPTH	0
ANGLE	60.0

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2500	3125	3750	5000
ELEV	594	609	635	663	694	745	810	876	929	977	1080	1171	1238	1296
RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000					
ELEV	1262	1362	1283	1236	1151	1108	1005	983	825					

COMMENTS

THE TERRAIN CORRECTED VALUE WAS INCREASED BY 5 PERCENT TO ALLOW FOR SYSTEMATIC ERRORS IN THE TECHNIQUE FOR LARGE CORRECTIONS. APPROXIMATELY 25 GPM OF WATER WAS ISSUING FROM THE DRILL HOLE WHEN THE TEMPERATURES WHERE MEASURED.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	ROCKY MTNS	WILBUR	A	48 04	118 42	892	90-170	2	9.1	14.5	1.33	1.77
								ERROR		0.1		

COMPLETED ON OR BEFORE: 7/15/66 MEASURED: 8/11/66 STATIC WATER LEVEL: <90.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-170, ALTERED QUARTZ MONZONITE OF THE CRETACEOUS OKANOGAN BATHOLITH.

TEMPERATURE

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	8.150	8.310	8.480	8.650	8.820	8.990	9.140	9.310	9.490

CONDUCTIVITY AND DENSITY

DEPTH	106.70	121.90
COND	10.10	8.10

DIP ANGLE

DEPTH	0
ANGLE	55.0

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1562	1875	2187	2500	3125	3750
ELEV	888	879	868	844	817	744	684	657	627	617	613	587	553	548

RADIUS	4375	5000	6250	7500	8750	10000	15000	20000	30000	50000	100000
ELEV	575	598	652	745	793	807	755	684	717	801	740

COMMENTS

THE SURFACE TEMPERATURES IN THE VICINITY DO NOT FIT THE USUAL ASSUMPTIONS MADE IN CALCULATING TERRAIN CORRECTIONS. THE METHOD OF TERRAIN CORRECTION USED WILL BE DESCRIBED IN A FUTURE PUBLICATION. REPEATED TEMPERATURE MEASURMENTS SHOW NO SIGNIFICANT DRILLING DISTURBANCE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	ROCKY MTNS	WILBUR	3	48 04	118 42	1036	130-250	11	9.9	12.0	1.17	1.75
								ERROR	0.5	0.1	0.03	

COMPLETED ON OR BEFORE: 8/13/66 MEASURED: 8/23/66 STATIC WATER LEVEL: <90.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-260, ALTERED QUARTZ MONZONITE OF THE CRETACEOUS COLVILLE BATHOLITH.

TEMPERATURE

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	7.930	8.020	8.180	8.260	8.350	8.470	8.570	8.700	8.800	8.910	9.040	9.160
DEPTH	210.00	220.00	230.00	240.00	250.00	255.00						
TEMP	9.290	9.400	9.450	9.650	9.770	9.820						

CONDUCTIVITY AND DENSITY

DEPTH	140.20	152.40	164.00	182.90	199.60	210.30	216.00	229.20	236.00	246.90	247.00	257.60	259.00
COND	10.10	8.90	8.20	10.70	12.60	11.20	8.60	8.20	9.10	13.20	10.00	15.30	10.20
DENS							2.52		2.54		2.69		2.60

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1562	1875	2187	2500	3125	3750
ELEV	1035	1000	962	914	867	802	739	709	672	661	656	630	596	591
RADIUS	4375	5000	6250	7500	8750	10000	15000	20000	30000	50000	100000			
ELEV	618	641	695	788	836	850	798	727	760	844	783			

COMMENTS

THE SURFACE TEMPERATURES IN THE VICINITY DO NOT FIT THE USUAL ASSUMPTIONS MADE IN CALCULATING TERRAIN CORRECTIONS. THE METHOD OF TERRAIN CORRECTION USED WILL BE DESCRIBED IN A FUTURE PUBLICATION. REPEATED TEMPERATURE MEASURMENTS SHOW NO SIGNIFICANT DRILLING DISTURBANCE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH	ROCKY MTNS	WILBUR	C	48 04	118 42	963	200-470	28	9.1	13.5	1.23	1.51
								ERROR	0.4	0.5	0.03	

COMPLETED ON OR BEFORE: 1966 MEASURED: 8/16/67 STATIC WATER LEVEL: <90.

REFERENCE: BLACKWELL, 1969

GEOLOGY: 0-475, ALTERED QUARTZ MONZONITE OF THE CRETACEOUS COLVILLE BATHOLITH. ANDESITE DIKES BETWEEN 291-300, 324-330, 335-347, 440-451.

TEMPERATURE

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	10.264	10.311	10.359	10.409	10.471	10.536	10.599	10.672	10.751	10.823	10.906	11.006
DEPTH	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	305.00	310.00
TEMP	11.112	11.212	11.318	11.419	11.540	11.652	11.765	11.879	11.987	12.143	12.245	12.327
DEPTH	315.00	320.00	325.00	330.00	335.00	340.00	345.00	350.00	355.00	360.00	365.00	370.00
TEMP	12.393	12.463	12.535	12.609	12.683	12.755	12.837	12.916	12.980	13.036	13.098	13.163
DEPTH	375.00	380.00	385.00	390.00	395.00	400.00	405.00	410.00	415.00	420.00	425.00	430.00
TEMP	13.233	13.297	13.364	13.434	13.505	13.570	13.641	13.712	13.785	13.854	13.934	14.016
DEPTH	435.00	440.00	445.00	450.00	455.00	460.00	465.00	470.00	475.00			
TEMP	14.105	14.190	14.289	14.387	14.468	14.545	14.632	14.712	14.794			

CONDUCTIVITY AND DENSITY

DEPTH	167.60	212.80	228.60	243.80	259.10	274.30	283.40	289.60	295.70	301.80	306.90	313.90	321.60	329.20	332.20
COND	12.80	13.20	13.40	12.80	9.30	8.60	10.30	5.50	5.10	6.60	6.30	9.10	7.10	6.00	8.00
DEPTH	335.30	337.70	342.00	351.40	356.30	362.10	374.90	381.00	386.20	391.10	405.40	411.40	423.70	429.80	435.30
COND	10.10	6.00	6.10	10.90	11.30	12.00	8.80	7.60	10.60	7.40	8.20	7.40	9.70	7.20	5.30
DEPTH	443.20	448.10	452.60	460.20	466.30	472.40									
COND	6.50	6.10	8.40	7.60	6.80	6.60									

TERRAIN DATA

RADIUS	100	200	300	400	500	750	1000	1250	1500	1750	2000	2500	3125	3750
ELEV	964	969	952	913	876	821	758	710	685	660	650	632	596	591
RADIUS	4375	5000	6250	7500	8750	10000	15000	20000	30000	50000	100000			
ELEV	618	641	695	788	836	850	798	727	760	844	783			

COMMENTS

THE SURFACE TEMPERATURES IN THE VICINITY DO NOT FIT THE USUAL ASSUMPTIONS MADE IN CALCULATING TERRAIN CORRECTIONS. THE METHOD OF TERRAIN CORRECTION USED WILL BE DESCRIBED IN A FUTURE PUBLICATION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WYO	ROCKY MTNS	MEETEETSE	17	43 52	109 17	3010	140-440	36	6.97	30.35	2.14	1.95
								ERROR	0.05	0.03	0.01	

COMPLETED ON OR BEFORE: 8/31/65 MEASURED: 7/16/66 STATIC WATER LEVEL: <40.

REFERENCE: BLACKWELL,1969

GEOLOGY: 0-455, TUFFACEOUS CONGLOMERATE GRADING INTO CRYSTAL TUFF.

TEMPERATURE

DEPTH	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00
TEMP	1.630	2.110	2.680	3.170	3.450	3.710	3.980	4.260	4.560	4.860	5.160	5.480
DEPTH	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00
TEMP	5.770	6.070	6.370	6.680	6.970	7.280	7.590	7.900	8.200	8.520	8.820	9.120
DEPTH	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00
TEMP	9.430	9.720	10.030	10.320	10.620	10.920	11.210	11.520	11.820	12.130	12.430	12.770
DEPTH	430.00	440.00	450.00									
TEMP	13.090	13.380	13.680									

CONDUCTIVITY AND DENSITY

DEPTH	37.00	55.00	64.00	73.00	82.00	91.00	101.00	110.00	119.00	128.00	137.00	146.00	155.00	165.00	174.00
COND	7.00	6.40	6.40	7.10	7.20	7.30	6.60	7.10	6.90	6.80	6.50	6.70	7.10	6.40	6.50
DENS	2.36	2.22	2.30						2.33	2.32	2.32		2.34	2.37	2.39
DEPTH	183.00	192.00	201.00	210.00	219.00	229.00	238.00	247.00	256.00	265.00	274.00	283.00	293.00	302.00	311.00
COND	7.00	7.20	7.00	7.00	7.10	7.30	6.90	7.30	6.90	7.00	7.00	7.10	7.10	7.00	7.20
DENS	2.43			2.44	2.39	2.36	2.42	2.46	2.45	2.43	2.49	2.51	2.48	2.47	2.48
DEPTH	320.00	329.00	338.00	347.00	357.00	366.00	375.00	384.00	393.00	402.00	407.00	411.00	416.00	421.00	425.00
COND	7.00	7.10	7.50	6.80	6.70	7.70	7.40	7.20	7.10	6.40	6.80	6.90	6.90	6.90	6.80
DENS	2.47	2.47	2.48	2.40	2.44	2.46	2.43	2.53	2.48	2.43	2.47	2.46	2.50	2.37	2.44
DEPTH	430.00	439.00	448.00	455.00											
COND	6.90	6.70	6.40	6.50											
DENS	2.47	2.41	2.40	2.44											

TERRAIN DATA

RADIUS	100	300	400	500	750	1000	1250	1500	1750	2000	2500	3125	3750	5000
ELEV	3008	3012	3002	2984	2971	2981	3059	3147	3233	3293	3299	3288	3304	3248
RADIUS	6250	7500	8750	10000	15000	20000	30000	50000	100000					
ELEV	3199	3205	3150	3103	3050	2940	2702	2410	2183					

COMMENTS

THE PUBLISHED VALUE OF HEAT FLOW WAS DECREASED TO 1.8 TO ALLOW FOR THE EFFECTS OF TOPOGRAPHIC EVOLUTION. THE DRILL HOLE IS IN A TUFF PIPE WHICH INTRUDES THE WIGGINS FM. OF EARLY CENOZOIC AGE.

3. Basic Heat-Flow Data from the Western United States

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The heat flows documented herein were all presented by Sass and others (1971b). Detailed discussion for heat flows from the Sierra Nevada appear in Lachenbruch (1968), and from Menlo Park, California, in Sass and others (1968). Sass and others (1971b) describe measurement techniques and the methods of data reduction. Most heat flows were calculated by combining arithmetic mean thermal conductivities and least-squares temperature gradients over the intervals of interest in individual boreholes. Exceptions to this general rule are noted in the comments sections of the tables.

Thermal conductivity and density

By far the majority of conductivity measurements were made using a modified Birch (1950) type apparatus. For unconsolidated or poorly consolidated material, the needle probe (Von Herzen and Maxwell, 1959) or a chip technique (Sass and others, 1971a) was employed. The results obtained using the three methods do not differ systematically among one another; however, a single divided-bar determination was usually more precise ($\sim \pm 2\%$) than a single determination using one of the other methods ($\sim \pm 10\%$). In cases where it seemed appropriate to do so, the conductivity technique was specified in the comments section.

Most conductivity and density determinations were made with the specimens water-saturated. Instances where this was not so are identified in the comments sections. Since chip samples and many needle-probe samples are not suitable

for easy density determinations, densities generally were not listed in these cases.

Where conductivities were measured at temperatures markedly different from the in situ formation temperatures, interval average conductivities were adjusted to the temperature at the midpoint of the applicable depth interval. The temperature corrections were adopted from the curves of thermal resistivity (R) versus temperature published by Birch and Clark (1940). Checks between 0 and 50°C on a few samples from the present work all confirmed the magnitude of Birch's and Clark's work. Table 3-1 shows temperature coefficients for a number of common rocks.

Topographic corrections

For three of the holes from the Sierra Nevada, Lachenbruch (1968) gave details of calculations regarding the evolution of the topography. For all other sites reported here, the only effect considered was steady-state topography. The majority of corrections were of the three-dimensional Birch (1950) type. In these cases, radii and elevations of circular annuli centered on the borehole collar are given. Two-dimensional corrections involved exact solutions of Lees-type hills and monoclines which approximated or bracketed the true topography. They can be reconstructed by reference to Jaeger and Sass (1963) and to the following parameters given in the comments sections of the applicable tables:

H, hill height or valley depth meters

B, half width of hill or valley at a height of H/2

X, horizontal distance with the same origins and sign covention as Jaeger and Sass (1963).

ALPHA, shape factor for monoclines (this is "α" in equations 10 through 13 of Jaeger and Sass, 1963).

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TABLE 3-1. Temperature Coefficients of Thermal Resistivity for Some Common Rocks [based on Birch and Clark, 1940]

Rock(s)	$\Delta R/\Delta\theta$ (cm sec/cal)
Quartz-rich granitic rocks	0.20
Granodiorite and quartz diorite	0.14
Basic igneous rocks	0.10
Anorthosite	-0.05
Quartzitic sandstone	0.20
Limestone or marble	0.30
Dolomite	0.25
Shale	0.20

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	CHRISTMAS	SM-1	33 02	110 41	762	168-320	12	7.61	18.84	1.43	1.4
								ERROR	0.58	0.15	0.11	

COMPLETED ON OR BEFORE: 10/27/58 MEASURED: 13/ 8/63 STATIC WATER LEVEL: ABOUT 15.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-20, ALLUVIUM. 20-215, ANDESITE. 215-280, QUARTZ DIORITE PORPHYRY. 280-321, ANDESITE.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	106.68	121.92	137.16	152.40	167.64	182.88	198.12
TEMP	21.480	21.420	21.420	21.530	21.720	22.190	22.480	22.770	23.440	23.340	23.630	23.910
DEPTH	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04				
TEMP	24.200	24.490	24.780	25.060	25.350	25.640	25.920	26.210				

CONDUCTIVITY AND DENSITY

DEPTH	170.38	181.97	182.88	183.19	200.25	212.75	227.99	243.23	258.78	274.93	289.56	304.80
COND	6.05	6.17	11.16	7.37	7.28	11.61	6.69	6.57	6.13	5.66	9.21	7.40
DENS	2.84	2.82	2.90	2.77	2.61	2.74	2.62	2.63	2.61	2.59	2.80	2.80

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	ELOY	D-7-8	32 47	111 29	480	200-230	6	3.70	34.2	1.27	1.3
								ERROR	0.33	0.2	0.11	

COMPLETED ON OR BEFORE: 9/18/63 MEASURED: 5/12/65 STATIC WATER LEVEL: 98.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-230, SEDIMENTARY DEPOSITS, MOSTLY SANDSTONE AND CLAYSTONE.

TEMPERATURE

DEPTH	50.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	25.889	27.059	27.306	27.530	27.736	28.084	28.504	28.958	29.418	29.927	30.382	31.136

DEPTH	210.00	220.00	230.00
TEMP	31.473	31.824	32.160

CONDUCTIVITY

DEPTH	162.46	188.37	195.07	196.60	200.56	222.20
COND	5.31	3.27	3.45	3.62	3.39	3.17

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	HELMET PEAK	A-545	31 58	111 04	1033	91-335	8	8.09	26.40	2.14	2.14
								ERROR	0.23	0.07	0.06	

COMPLETED ON OR BEFORE: ? MEASURED: 6/10/65 STATIC WATER LEVEL: 44.2

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-11, HOLOCENE ALLUVIUM. 11-336, PYROCLASTIC ROCKS LOCALLY ARKOSIC.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12
TEMP	24.017	24.070	24.113	24.486	24.847	25.229	25.625	26.051	26.471	26.865	27.254	27.644
DEPTH	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28			
TEMP	28.070	28.466	28.864	29.257	29.661	30.008	30.479	30.885	31.305			

CONDUCTIVITY AND DENSITY

DEPTH	67.67	99.82	103.33	138.68	168.86	196.29	277.37	330.40
COND	8.30	7.55	8.26	9.12	8.06	8.58	7.86	7.01
DENS	2.56	2.53	2.59	2.55	2.48	2.56	2.60	2.52

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	HIGLEY	D-1-6	33 19	111 43	395	100-280	22	3.79	45.7	1.73	1.7
								ERROR	0.11	0.6	0.06	

COMPLETED ON OR BEFORE: 9/ 3/64 MEASURED: 5/ 8/65 STATIC WATER LEVEL: 125.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-280, SEDIMENTARY DEPOSITS, MOSTLY SANDSTONE AND CLAYSTONE.

TEMPERATURE

DEPTH	50.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	25.019	26.894	27.332	27.818	28.232	28.824	29.266	29.803	30.337	30.759	31.431	31.629

DEPTH	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00
TEMP	31.855	32.410	32.868	33.303	33.749	34.175	34.612	35.085

CONDUCTIVITY

DEPTH	15.54	76.81	96.62	98.76	108.51	121.01	129.54	145.69	150.27	161.54	167.34	185.62	194.77	204.52	209.09
COND	3.98	4.10	3.13	4.54	4.01	3.37	3.36	3.56	3.28	4.01	4.24	3.71	4.27	3.68	4.18

DEPTH	215.80	223.11	226.77	235.31	238.05	241.10	272.80
COND	4.24	3.37	3.26	3.65	3.94	2.75	4.74

COMMENTS: POROSITIES CALCULATED FROM APPARENT DENSITIES WERE COMBINED WITH CONDUCTIVITIES OF FRAGMENTS TO ESTIMATE IN SITU CONDUCTIVITY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	PHOENIX	ST-1	33 32	112 20	331	107-229	9	3.7	85.9	3.18	
								ERROR	0.5	0.5	0.43	
							238-268	6	8.1	50.9	4.12	
								ERROR	0.4	1.1	0.22	
							268-1365	0	13.0	14.8	1.92	
								ERROR	1.0	1.0	0.20	
							107-1365					>3

COMPLETED ON OR BEFORE: 2/69 MEASURED: 4/ 4/69 STATIC WATER LEVEL: 54.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-238, SEDIMENTARY DEPOSITS. 238-268, ANHYDRITE. 268-1365, SALT.

TEMPERATURE

DEPTH	53.68	60.96	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12	213.36	216.41
TEMP	26.335	26.576	28.256	29.027	30.268	31.499	32.762	34.062	35.462	36.784	38.079	38.376
DEPTH	219.46	222.50	225.55	228.60	231.65	234.70	237.74	240.79	243.84	246.89	249.94	252.98
TEMP	38.624	38.861	39.096	39.357	39.575	39.805	39.997	40.181	40.328	40.460	40.580	40.762
DEPTH	256.03	259.08	262.13	265.18	268.22	271.27	274.32	1364.96				
TEMP	40.875	41.032	41.245	41.402	41.596	41.645	41.678	57.778				

CONDUCTIVITY

DEPTH	121.92	137.16	152.40	167.64	182.88	192.02	210.31	228.60	234.70	240.79	246.89	252.98	259.08	262.13	268.22
COND	4.39	3.76	4.18	4.24	3.49	4.18	2.57	3.41	3.42	8.71	6.75	8.06	9.30	8.43	7.40

COMMENTS: THE HOLE IS LOCATED ABOUT 500 METERS FROM THE EDGE OF A SALT DOME ABOUT 25 SQUARE KILOMETERS IN AREA WHICH INTRUDES THE ALLUVIAL SEDIMENTS. CONDUCTIVITY WAS DETERMINED FROM ROCK FRAGMENTS ASSUMING AN IN SITU ROCK POROSITY OF 30%. THE HEAT FLOW IN THE INTERVAL 107-1365 IS THE MEAN FOR ST-1. CONDUCTIVITY OF ROCK SALT TAKEN FROM HERRIN AND CLARK(1956). THE TEMPERATURE AT 1364.89 IS FROM A SCHLUMBERGER TEMPERATURE LOG.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	RED ROCK	D-9-7	32 36	111 36	500	100-260	2	2.8	30.19	0.85	
								ERROR	0.2	0.25	0.06	
							260-353	6	3.77	22.6	0.85	
								ERROR	0.30	0.4	0.07	
							100-353					0.85

COMPLETED ON OR BEFORE: 11/25/63 MEASURED: 5/11/65 STATIC WATER LEVEL: 91.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-353, SEDIMENTARY DEPOSITS, MOSTLY SANDSTONE AND CLAYSTONE.

TEMPERATURE

DEPTH	50.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	24.651	25.748	26.147	26.566	26.803	27.074	27.397	27.662	27.953	28.234	28.553	28.851
DEPTH	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00
TEMP	29.158	29.503	29.725	30.020	30.439	30.726	30.984	31.246	31.500	31.727	31.961	32.199
DEPTH	330.00	340.00	350.00	353.00								
TEMP	32.402	32.575	32.781	32.838								

CONDUCTIVITY

DEPTH	35.05	111.86	275.08	276.45	305.71	321.87	336.96	352.65
COND	2.98	2.54	4.64	3.01	4.19	2.77	4.19	3.83

COMMENTS: THE HEAT FLOW IN THE INTERVAL 100-353 IS THE MEAN FOR D-9-7. FOR ADDITIONAL COMMENTS SEE HIGLEY D-1-6.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SAN MANUEL	DH-34	32 40	110 42	1053	914-1372	42	8.72	17.61	1.54	1.54
								ERROR	0.34	0.14	0.06	

COMPLETED ON OR BEFORE: 9/66 MEASURED: 9/27/66 STATIC WATER LEVEL: ?

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-125, ALLUVIUM. 125-1440, MONZONITE PORPHYRY AND QUARTZ MONZONITE PORPHYRY.

TEMPERATURE

DEPTH	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80	335.28	365.76	396.24
TEMP	27.780	27.780	27.940	28.220	28.440	29.110	29.500	30.110	30.610	31.220	31.720	32.160
DEPTH	426.72	457.20	487.68	518.16	548.64	579.12	609.60	640.08	670.56	701.04	731.52	762.00
TEMP	32.550	32.940	33.330	33.830	34.330	34.830	35.220	35.660	36.110	36.550	36.940	37.500
DEPTH	792.48	822.96	853.44	883.92	914.40	944.88	975.36	1005.84	1036.32	1066.80	1097.28	1127.76
TEMP	37.830	38.330	38.770	39.270	39.610	40.280	40.890	41.500	41.780	42.330	42.940	43.390
DEPTH	1158.24	1188.72	1219.20	1249.68	1280.16	1310.64	1341.12	1371.60				
TEMP	44.000	44.560	45.060	45.560	46.110	46.670	47.220	47.890				

CONDUCTIVITY AND DENSITY

DEPTH	924.00	932.08	937.57	945.80	951.28	961.65	969.88	982.98	1000.05	1015.29	1029.31	1043.33	1055.83	1068.33	1077.47
COND	11.01	9.54	9.03	9.72	15.79	9.60	9.15	7.02	8.32	7.67	10.94	8.24	8.82	10.14	12.90
DENS	2.76	2.77	2.66	2.68	2.76	2.74	2.67	2.64		2.66	2.85	2.66	2.65	2.63	2.62
DEPTH	1086.61	1096.06	1107.34	1132.64	1143.61	1158.24	1169.21	1183.54	1196.65	1210.67	1225.91	1240.84	1251.82	1268.88	1280.47
COND	6.96	8.69	8.15	7.23	7.68	11.41	7.82	7.93	7.71	6.32	6.86	7.25	6.74	15.35	6.10
DENS	2.67	2.68	2.63	2.54	2.59	2.58	2.55		2.54	2.53					2.61
DEPTH	1292.96	1306.07	1322.53	1335.94	1353.01	1366.12	1377.09	1377.09	1401.47	1414.27	1437.13	1439.27			
COND	7.97	7.67	8.00	9.64	8.43	6.89	7.26	9.30	9.26	8.40	6.44	8.89			
DENS	2.62	2.55	2.65		2.57		2.48								

COMMENTS: TEMPERATURES WERE MEASURED BY SCHLUMBERGER.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TEMPE	A-1-3	33 25	112 01	340	107-175	4	3.7	29.6	1.09	1.1
								ERROR	0.5	0.2	0.15	

COMPLETED ON OR BEFORE: 10/28/64 MEASURED: 5/ 6/65 STATIC WATER LEVEL: 24.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-48, ALLUVIUM. 48-176, INDURATED SEDIMENTARY DEPOSITS, MOSTLY SANDSTONE AND CLAYSTONE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	24.333	24.312	23.629	23.596	23.612	23.261	23.207	23.282	23.403	23.530	23.694	23.864
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26		
TEMP	24.040	24.230	24.457	24.671	24.899	25.127	25.350	25.581	25.824	26.053		

CONDUCTIVITY

DEPTH	107.59	108.20	138.07	168.25
COND	2.25	4.13	4.17	4.10

COMMENTS: SEE COMMENTS HIGLEY D-1-6.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TUCSON	KCL-7	32 11	111 07	795	152-442	70	8.61	29.69	2.56	2.56
								ERROR	0.29	0.08	0.09	

COMPLETED ON OR BEFORE: 5/28/62 MEASURED: 5/18/65 STATIC WATER LEVEL: ABOVE 60.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-456, INTERBEDDED ARKOSE, SILTSTONE, AND LIMESTONE.

TEMPERATURE

DEPTH	30.48	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12	213.36
TEMP	26.365	26.468	26.744	27.048	27.438	27.799	28.192	28.518	28.914	29.345	29.843	30.284
DEPTH	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	365.76	381.00	396.24
TEMP	30.719	31.156	31.587	32.046	32.539	32.982	33.420	33.900	34.348	34.790	35.173	35.647
DEPTH	411.48	426.72	441.96	455.68								
TEMP	36.141	36.615	37.111	37.519								

CONDUCTIVITY AND DENSITY

DEPTH	61.26	69.80	75.29	80.47	85.50	92.05	97.54	101.19	106.07	112.17	114.45	120.70	126.19	130.45	135.33
COND	6.17	9.14	11.04	10.13	11.09	9.40	10.19	4.66	6.04	6.78	10.00	11.05	7.47	9.32	11.48
DENS	2.71	2.71	2.63	2.60	2.67	2.63	2.69	2.68	2.78	2.74	2.63	2.78	2.63	2.65	2.72
DEPTH	140.51	144.17	149.05	154.23	157.58	162.46	173.43	179.83	185.32	190.50	195.99	202.39	203.91	210.92	215.49
COND	10.13	9.24	12.32	11.82	13.40	10.87	9.44	10.16	9.75	10.76	9.81	7.96	7.96	7.27	8.04
DENS	2.63	2.63	2.71	2.67	2.86	2.79	2.64	2.64	2.67	2.67	2.65	2.59	2.58	2.64	2.56
DEPTH	221.59	225.25	230.12	241.10	246.89	252.68	257.25	259.08	275.54	284.38	290.47	295.96	301.14	306.93	312.12
COND	8.14	9.08	9.13	6.48	8.20	8.54	8.52	7.84	5.25	4.08	7.85	10.51	9.56	9.49	6.34
DENS	2.64	2.64	2.62	2.60	2.59	2.62	2.64	2.64	2.62	2.52	2.62	2.72	2.60	2.69	2.56
DEPTH	317.30	321.26	328.57	334.67	339.55	345.34	348.69	353.57	359.05	370.94	376.73	381.92	385.27	396.24	401.73
COND	9.26	9.22	4.35	7.16	9.01	6.25	9.80	9.92	6.62	9.31	9.89	8.44	9.87	8.20	6.84
DENS	2.56	2.53	2.51	2.67	2.62	2.51	2.60	2.59	2.57	2.61	2.63	2.66	2.68	2.65	2.66
DEPTH	409.96	415.90	421.84	426.72	430.68	435.86	441.66	447.14	452.63	455.98					
COND	7.60	6.88	10.28	6.10	4.78	10.16	9.25	5.06	8.04	8.51					
DENS	2.68	2.50	2.71	2.79	2.75	2.65	2.61	2.71	2.58	2.65					

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TWIN BUTTES	A-616	31 53	111 02	1010	183-396	23	8.82	21.3	1.88	1.88
								ERROR	0.42	0.3	0.09	

COMPLETED ON OR BEFORE: ? MEASURED: 5/26/65 STATIC WATER LEVEL: ABOVE 180.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-166, QUATERNARY SEDIMENTARY DEPOSITS. 166-264, LIMESTONE. 264-277, QUARTZ MONZONITE. 277-292, LIMESTONE. 292-338, QUARTZ MONZONITE. 338-415, LIMESTONE.

TEMPERATURE

DEPTH	60.96	121.92	182.88	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04
TEMP	25.591	27.540	29.340	29.668	29.940	30.187	30.478	30.778	31.105	31.400	31.733	32.087
DEPTH	335.28	350.52	365.76	381.00	396.24	406.91						
TEMP	32.444	32.803	33.191	33.568	33.877	34.020						

CONDUCTIVITY AND DENSITY

DEPTH	166.12	172.82	178.31	181.05	216.56	220.68	226.77	232.87	248.11	254.51	259.69	271.27	293.83	299.92	318.52
COND	7.16	11.46	7.36	13.11	11.99	11.25	6.78	8.67	7.19	8.29	8.83	7.12	7.55	6.85	7.89
DENS	2.57	2.62		2.96	4.34	4.20	2.65			2.40	2.50	2.56	2.55	2.59	2.42
DEPTH	324.92	346.56	375.21	381.00	385.88	391.06	402.64	414.53							
COND	8.31	5.49	11.02	10.28	10.76	8.92	6.65	9.87							
DENS	2.59	2.27	3.04	2.91	3.00	2.53	2.31	2.50							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TWIN BUTTES	A-644	31 54	111 03	1017	198-472	46	9.31	22.6	2.10	2.10
								ERROR	0.29	0.3	0.07	

COMPLETED ON OR BEFORE: ? MEASURED: 5/27/65 STATIC WATER LEVEL: ABOVE 180.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-93, QUATERNARY SEDIMENTARY DEPOSITS. 93-377, LIMESTONE. 377-442, QUARTZ MONZONITE. 442-483, LIMESTONE.

TEMPERATURE

DEPTH	182.88	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52
TEMP	28.364	28.526	28.876	29.174	29.474	29.792	30.117	30.428	30.742	31.069	31.403	31.740
DEPTH	365.76	381.00	396.24	411.48	426.72	441.96	472.44	480.06				
TEMP	32.060	32.413	32.768	33.319	33.700	34.074	34.762	34.939				

CONDUCTIVITY AND DENSITY

DEPTH	189.89	192.02	199.64	202.69	217.48	217.48	222.96	227.99	233.93	239.73	246.89	252.68	258.78	265.48	269.75
COND	9.56	8.46	11.90	12.14	8.78	8.08	7.38	11.45	8.14	11.08	9.87	11.96	8.18	12.00	6.51
DENS	2.73	2.70	3.47	3.61	3.56	3.42	2.80	3.52	2.66	3.43	2.98	3.14	3.35	3.42	2.98
DEPTH	275.54	281.48	287.12	292.30	299.92	307.70	319.13	322.17	326.44	343.51	349.61	349.61	356.62	363.63	369.72
COND	11.00	14.19	9.21	11.48	9.33	7.93	9.58	9.01	12.06	7.91	9.61	9.05	12.91	11.62	11.05
DENS	3.05	3.18	3.71	3.12	2.80	2.98	3.02	3.04	3.00	2.97	3.08	3.02	3.44	3.13	3.07
DEPTH	373.99	377.95	387.10	396.39	401.12	401.73	406.30	413.61	420.32	426.72	432.82	440.74	447.14	455.07	460.55
COND	7.30	7.06	8.30	7.55	8.23	10.17	8.02	7.26	7.01	6.52	7.07	9.49	10.07	6.82	6.34
DENS	2.99	2.51	2.53	2.50	2.50	2.53	2.53	2.52	2.51	2.50	2.57	2.56	3.13	3.04	3.00
DEPTH	466.95	482.50													
COND	6.84	10.80													
DENS	2.69	2.58													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TWIN BUTTES	A-911	31 54	111 02	1025	137-366	43	8.37	23.7	1.98	1.98
								ERROR	0.21	0.1	0.05	

COMPLETED ON OR BEFORE: ? MEASURED: 5/26/65 STATIC WATER LEVEL: ABOVE 130.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-366, LIMESTONE.

TEMPERATURE

DEPTH	129.54	137.16	152.40	167.64	182.88	198.12	213.36	228.60	243.84	259.08	274.32	289.56
TEMP	26.215	26.305	26.652	27.000	27.376	27.725	28.112	28.407	28.775	29.104	29.471	29.863
DEPTH	304.80	320.04	335.28	350.52	365.76							
TEMP	30.262	30.631	31.014	31.348	31.716							

CONDUCTIVITY AND DENSITY

DEPTH	121.62	127.71	134.11	140.82	146.61	149.35	149.35	157.89	164.59	170.69	175.26	182.73	188.98	196.60	201.47
COND	8.67	8.19	10.28	7.76	7.70	9.03	6.72	8.98	9.96	8.31	7.04	8.30	9.08	7.46	5.78
DENS	2.72	2.71	2.95	2.75	2.67	2.89	2.69	2.91	3.03	2.86	2.75	2.84	2.96	2.68	2.68
DEPTH	207.57	212.45	217.93	224.94	224.94	230.73	243.84	247.50	253.90	259.39	259.39	264.11	270.66	275.84	281.33
COND	9.76	6.57	8.30	7.64	7.98	7.56	10.46	8.57	7.46	7.55	7.96	7.78	6.90	7.71	7.84
DENS	2.97	2.70	2.68	2.68	2.67	2.80	2.82	2.68		2.66	2.67	2.69	2.52	2.62	2.65
DEPTH	287.73	292.91	294.13	298.09	305.11	310.90	316.38	329.49	340.77	345.03	349.30	361.19	365.76		
COND	7.08	8.22	10.34	11.01	11.64	6.68	10.00	8.78	7.87	10.32	11.12	7.20	6.24		
DENS	2.60	2.69	2.83	2.83	2.84	2.68	2.83	2.83	2.82	2.84	2.84	2.74	2.79		

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	TWIN BUTTES	A-940	31 53	111 02	993	183-335	31	7.48	20.9	1.56	1.56
								ERROR	0.22	0.2	0.05	

COMPLETED ON OR BEFORE: ? MEASURED: 5/25/65 STATIC WATER LEVEL: ABOVE 60.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-152, QUATERNARY SEDIMENTARY DEPOSITS. 152-336, ARKOSIC-LIKE ROCKS PROBABLY PYROCLASTIC.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	182.88	213.36	243.84	274.32	289.56	304.80	320.04	335.28
TEMP	24.055	25.122	26.460	27.766	29.645	30.326	30.961	31.610	31.880	32.206	32.546	32.876

CONDUCTIVITY AND DENSITY

DEPTH	195.38	201.93	207.26	212.29	218.24	222.50	227.99	230.73	236.53	240.03	245.67	249.33	252.37	255.12	256.95
COND	7.84	10.09	8.10	7.82	8.02	11.63	8.87	8.28	6.95	7.70	8.62	8.30	7.11	7.70	7.34
DENS	2.65	2.64	2.69	2.68	2.60	2.66	2.72		2.65	2.67	2.62	2.70	2.72	2.62	2.68

DEPTH	259.23	261.82	270.36	274.63	274.63	286.51	291.69	295.05	301.75	305.71	312.27	322.48	327.97	331.01	331.62
COND	6.37	6.19	5.73	6.46	6.17	6.20	7.49	7.01	6.67	6.45	7.78	6.41	7.54	7.84	6.19
DENS	2.66	2.73	2.71	2.64	2.64	2.60	2.63	2.66	2.60	2.64	2.63	2.69	2.67	2.67	2.62

DEPTH	335.89
COND	7.02
DENS	2.74

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	YUMA	LCRP-13	32 41	114 37	60	30-137	7	5.0	44.9	2.24	
								ERROR	0.5	0.5	0.22	
							137-223	3	5.3	35.6	1.88	
								ERROR	0.5	1.2	0.19	
							30-223				2.06	2.1

COMPLETED ON OR BEFORE: 3/63 MEASURED: 3/12/63 STATIC WATER LEVEL: 24.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-224, SILTY SANDSTONE, SILTSTONE, AND GRAVEL.

TEMPERATURE

DEPTH	24.38	27.43	30.48	33.53	36.58	39.62	42.67	45.72	48.77	51.82	54.86	57.91
TEMP	25.550	25.940	26.110	26.230	26.360	26.480	26.600	26.750	26.800	26.930	27.080	27.220
DEPTH	60.96	64.01	67.06	70.10	73.15	76.20	79.25	82.30	85.34	88.39	91.44	94.49
TEMP	27.450	27.580	27.750	27.890	28.050	28.200	28.340	28.510	28.640	28.800	28.890	28.950
DEPTH	97.54	100.58	103.63	106.68	109.73	112.78	115.82	118.87	121.92	124.97	128.02	131.06
TEMP	29.110	29.250	29.390	29.570	29.700	29.850	30.010	30.120	30.250	30.320	30.470	30.620
DEPTH	134.11	137.16	140.21	143.26	146.30	149.35	152.40	155.45	158.50	161.54	164.59	167.64
TEMP	30.770	30.820	30.970	31.110	31.210	31.330	31.440	31.520	31.640	31.780	31.870	31.970
DEPTH	170.69	173.74	176.78	179.83	182.88	185.93	188.98	192.02	195.07	198.12	201.17	204.22
TEMP	32.020	32.140	32.190	32.240	32.300	32.410	32.580	32.680	32.640	32.720	32.720	32.770
DEPTH	207.26	210.31	213.36	216.41	219.46	222.50	223.42					
TEMP	33.000	33.110	33.280	33.660	33.750	33.910	33.970					

CONDUCTIVITY

DEPTH	46.63	56.39	63.40	88.09	89.92	105.16	129.54	160.02	171.30
COND	5.84	10.70	10.56	6.05	9.84	5.40	11.13	11.19	5.54

COMMENTS: THE MEAN CONDUCTIVITY OF THE INTERVAL 30-137 IS 8.50 AND OF THE INTERVAL 137-223 IS 9.3. ASSUMING AN IN SITU POROSITY OF 30 % GIVES AN EFFECTIVE CONDUCTIVITY OF 5.0 IN THE UPPER INTERVAL AND 5.3 IN THE LOWER. THE CONDUCTIVITY AT 129.54 METERS WAS USED FOR BOTH CONDUCTIVITY ESTIMATES. TEMPERATURES WERE MEASURED BY WATER RESOURCES DIVISION OF U. S. GEOLOGICAL SURVEY, DENVER.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	YUMA	LCRP-26	32 44	114 37	50	220-338	15	5.6	34.3	1.92	1.92
								ERROR	0.5	1.1	0.18	

COMPLETED ON OR BEFORE: ? MEASURED: 3/26/70 STATIC WATER LEVEL: 4.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-443, SEDIMENTARY DEPOSITS, SANDY GRAVELS AND CLAYS.

TEMPERATURE

DEPTH	15.26	22.71	30.48	38.10	45.38	53.05	60.69	68.43	76.20	83.55	91.44	99.06
TEMP	21.815	22.137	22.545	24.156	25.747	25.751	25.753	25.755	25.757	25.762	25.783	25.791
DEPTH	106.54	114.39	121.91	129.33	137.39	144.67	152.61	159.91	167.67	174.97	182.91	190.56
TEMP	25.803	25.808	25.812	25.817	25.828	25.839	25.859	25.917	26.041	26.119	26.189	26.231
DEPTH	198.12	205.65	213.44	220.86	228.54	235.89	243.84	251.28	259.23	266.56	274.44	281.64
TEMP	26.354	27.103	27.896	28.716	29.064	29.203	29.385	29.838	30.247	30.444	30.609	31.154
DEPTH	289.52	297.17	304.69	312.53	320.01	327.58	335.27	342.86	350.40	357.99	365.76	373.27
TEMP	31.376	31.559	31.771	31.923	32.111	32.201	32.629	32.718	32.782	32.831	32.892	32.931
DEPTH	381.00	388.62	396.24	403.65	411.27	419.10	426.61	434.34	442.11			
TEMP	32.974	32.999	33.029	33.047	33.071	33.099	33.206	34.042	34.180			

CONDUCTIVITY

DEPTH	210.31	220.07	229.82	238.96	248.72	259.08	270.05	279.20	287.43	296.88	306.32	315.77	325.53	334.67	343.81
COND	12.87	11.90	10.01	9.41	11.02	10.02	11.45	8.40	8.84	10.23	9.89	9.64	8.46	9.60	9.24

COMMENTS: THE MEAN CONDUCTIVITY OF SOLID FRAGMENTS IS 10.07. ASSUMNG AN IN SITU POROSITY OF 30% GIVES AN EFFECTIVE CONDUCTIVITY OF 5.6.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	AUBURN DAM	34	38 52	121 03	295	30-183	20	9.00	15.05	1.35	0.72
								ERROR	0.10	0.27	0.03	

COMPLETED ON OR BEFORE: 3/23/67 MEASURED: 12/17/69 STATIC WATER LEVEL: 3.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-187, DIORITE WITH SCATTERED DIKES.

TEMPERATURE

DEPTH	30.48	33.53	36.58	39.62	42.67	45.72	48.77	51.82	54.86	57.91	60.96	64.01
TEMP	15.151	15.192	15.234	15.292	15.356	15.407	15.458	15.508	15.558	15.608	15.658	15.707
DEPTH	67.06	70.10	73.15	76.20	79.25	82.30	85.34	88.39	91.44	94.49	97.54	100.58
TEMP	15.754	15.804	15.850	15.900	15.946	15.988	16.036	16.080	16.125	16.168	16.213	16.256
DEPTH	103.63	106.68	109.73	112.78	115.82	118.87	121.92	124.97	128.02	131.06	134.11	137.16
TEMP	16.299	16.341	16.383	16.424	16.466	16.507	16.553	16.584	16.626	16.665	16.704	16.742
DEPTH	140.21	143.26	146.30	149.35	152.40	155.45	158.50	161.54	164.59	167.64	170.69	173.74
TEMP	16.780	16.817	16.853	16.890	16.925	16.962	16.998	17.035	17.070	17.106	17.141	17.174
DEPTH	176.78	179.83	182.88	184.10								
TEMP	17.203	17.233	17.263	17.286								

CONDUCTIVITY AND DENSITY

DEPTH	37.06	45.84	52.12	59.44	66.05	74.34	81.75	88.42	97.26	108.84	114.91	126.40	134.30	139.02	147.37
COND	9.05	9.74	8.43	8.17	9.06	9.83	9.33	8.57	8.62	9.10	9.43	8.99	9.05	8.87	9.82
DENS	2.72	2.77	2.72	2.78	2.78	2.77	2.77	2.76	2.77	2.77	2.78	2.78	2.78	2.79	2.77
DEPTH	155.48	164.44	174.80	180.69	186.26										
COND	9.06	8.20	8.60	9.34	8.74										
DENS	2.78	2.73	2.78	2.82	2.79										

COMMENTS: THE TWO DIMENSIONAL TOPOGRAPHY AFFECTING DH-34 IS BRACKETED BY LEES VALLEYS 305 METERS DEEP WITH B/H = 1.25 AND 1.5, X/H = 1.25. CURVATURE IN THE TEMPERATURE PROFILE SUGGESTS A SUDDEN LOWERING OF GROUND SURFACE TEMPERATURE ABOUT 100 YEARS AGO (LANDSLIDE OR HYDRAULIC MINING?). A CORRECTION WAS MADE FOR A 1 DEGREE STEP 80 YEARS AGO WITH A DIFFUSIVITY OF 0.018.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	AUBURN DAM	117	38 53	121 03	150	44-152	12	8.65	(17.7)	1.53	0.72
								ERROR	0.30		0.11	

COMPLETED ON OR BEFORE: 12/22/67 MEASURED: 8/20/68 STATIC WATER LEVEL: 1.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3, TALUS. 3-153, MAINLY AMPHIBOLITE.

TEMPERATURE

DEPTH	4.00	14.00	24.00	34.00	44.00	54.00	64.00	74.00	84.00	94.00	104.00	114.00
TEMP	18.697	14.995	15.174	15.266	15.462	15.706	15.925	16.127	16.312	16.501	16.674	16.838
DEPTH	124.00	134.00	144.00	152.50								
TEMP	16.996	17.149	17.279	17.395								

CONDUCTIVITY AND DENSITY

DEPTH	14.54	38.34	48.49	60.05	65.71	79.10	85.89	99.12	108.51	127.89	137.92	149.66
COND	8.00	6.80	8.40	8.72	8.26	9.12	9.47	9.63	10.84	8.67	8.00	7.84
DENS	3.02	2.78	3.00	2.79	3.05	3.02	3.02	3.09	2.98	2.94	2.94	2.96

COMMENTS: HOLE 117 IS ON THE RIVER BANK. A CORRECTION WAS APPLIED FOR A PLANE SEMICIRCULAR SECTOR OF 100 METER RADIUS, 4 DEG. COOLER THAN THE LAND SURFACE, CENTERED ON THE BOREHOLE COLLAR. TWO DIMENSIONAL TOPOGRAPHY IS BRACKETED BY LEES VALLEYS 305 METERS DEEP, WITH B/H = 1 AND 1.5, X/H = 0.25. THE MEAN HEAT FLOW FOR AUBURN DAM 34, 117 AND 212 IS 0.70.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	AUBURN DAM	212	38 53	121 03	157	60-130	19	7.17	(19.8)	1.42	0.67
								ERROR	0.17		0.06	

COMPLETED ON OR BEFORE: 3/11/69 MEASURED: 3/13/69 STATIC WATER LEVEL: 1.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3, TALUS. 3-130, MAINLY AMPHIBOLITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	14.977	15.183	15.325	15.502	15.713	15.936	16.146	16.354	16.554	16.744	16.927	17.099

CONDUCTIVITY AND DENSITY

DEPTH	13.05	13.11	23.90	34.87	34.90	34.90	52.33	56.45	56.48	69.59	69.62	82.08	82.14	86.35	86.41
COND	10.08	11.30	7.69	7.22	7.40	7.11	7.99	5.67	7.44	6.99	7.19	6.73	6.95	8.10	8.01
DENS	2.79	2.80	3.04	2.98	3.22	2.99	3.00	2.99	2.99	2.96	2.96	3.03	3.03	2.91	2.89

DEPTH	91.38	103.54	103.57	114.33	122.68	128.78
COND	7.99	5.77	6.58	6.70	6.66	8.10
DENS	2.96	2.92	2.94	3.01	3.00	2.82

COMMENTS: HOLE 212 IS ON THE RIVER BANK. A CORRECTION WAS APPLIED FOR A PLANE SEMICIRCULAR SECTOR OF 150 METER RADIUS, 4 DEG. COOLER THAN THE LAND SURFACE, CENTERED ON THE BOREHOLE COLLAR. TWO DIMENSIONAL TOPOGRAPHY IS BRACKETED BY LEES VALLEYS 305 METERS DEEP, WITH B/H = 1 AND 1.5, X/H = 0.25. THE MEAN HEAT FLOW FOR AUBURN DAM 34, 117 AND 212 IS 0.70.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF	PAC. COAST	BERKELEY	MSTW	37 52	122 15	122	33-159	6	5.0	36.74	1.84	2.
								ERROR	1.0	0.07	0.4	

COMPLETED ON OR BEFORE: 2/26/68 MEASURED: 3/25/68 STATIC WATER LEVEL: 5.5

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-161, FAULT GOUGE CONTAINING FRAGMENTS OF FRANCISCAN METASEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	7.73	12.73	17.73	22.73	27.73	32.73	37.73	42.73	47.73	52.73	57.73	62.73
TEMP	16.650	16.718	16.911	17.119	17.297	17.456	17.604	17.793	17.976	18.144	18.347	18.510
DEPTH	67.73	72.73	77.73	82.73	87.73	92.73	97.73	102.73	107.73	112.73	117.73	122.73
TEMP	18.701	18.880	19.063	19.240	19.424	19.602	19.793	19.986	20.161	20.352	20.538	20.719
DEPTH	127.73	132.73	137.73	142.73	147.73	152.73	157.73	159.27				
TEMP	20.910	21.094	21.284	21.467	21.657	21.868	22.008	22.051				

CONDUCTIVITY AND DENSITY

DEPTH	31.09	31.70	34.14	35.36	60.96	160.02
COND	13.4	6.0	6.1	6.4	4.4	2.1
DENS	2.62	2.60	2.94	2.91		2.13

COMMENTS: CONDUCTIVITIES FROM 61.0 AND 160.0 ARE SIDEWALL SAMPLES FROM ORIGINAL HOLE. THE REMAINING CONDUCTIVITIES ARE CORE FROM A HOLE DRILLED NEXT TO THE ORIGINAL HOLE. UNCERTAINITY IN K IS DUE IN PART TO LATERAL INHOMOGENEITY IN K. THE CONDUCTIVITY OF THE ROCK AT 31.1 METERS WAS NOT INCLUDED IN THE AVERAGE DUE TO A HIGH QUARTZ CONTENT WHICH IS NOT REPRESENTATIVE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	BASIN RGE	BLACK ROCK		37 41	118 32	2110	183-206	0	6.	33.5	2.0	2.
								ERROR		1.6		

COMPLETED ON OR BEFORE: 60 MEASURED: 9/10/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-206, HORNFELS AND CALC-HORNFELS.

TEMPERATURE

DEPTH	0.0	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20
TEMP	9.144	10.642	11.788	12.465	12.928	13.230	13.446	13.597	13.742	13.871	13.979

COMMENTS: TEMPERATURES MEASURED IN A INCLINED HOLE IN THE BLACK ROCK MINE. THE HOLE IS INCLINED 30 DEGREES PLUS OR MINUS 5 DEGREES. THERE IS APPROXIMATELY 136 METERS OVERBURDEN. THE CONDUCTIVITY OF HORNFELS AND CALC-HORNFELS IS AN ESTIMATE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	COLD CREEK	EG-8	39 42	122 53	1186	175-327	10	10.3	20.43	2.11	1.6
								ERROR	0.5	0.05	0.10	

COMPLETED ON OR BEFORE: 8/ 9/67 MEASURED: 8/27/69 STATIC WATER LEVEL: 45.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-328, PRE-CRETACEOUS METASEDIMENTARY DEPOSITS, MAINLY PHYLLITES AND PHYLLITIC SCHISTS. THERE ARE NUMEROUS GOUGEY SHEAR ZONES, MOSTLY LESS THAN ONE METER THICK.

TEMPERATURE

DEPTH	45.19	52.73	60.35	67.97	75.56	83.24	90.82	98.44	106.09	113.66	121.31	128.93
TEMP	9.474	9.616	9.656	9.708	9.776	9.861	9.915	10.011	10.093	10.212	10.315	10.420
DEPTH	136.58	144.19	151.88	159.41	167.03	174.65	182.36	189.89	197.45	205.16	212.75	220.37
TEMP	10.544	10.670	10.803	10.948	11.079	11.193	11.348	11.502	11.669	11.807	11.934	12.117
DEPTH	228.01	235.61	243.19	250.85	258.41	266.08	273.68	281.36	288.95	296.57	304.22	311.84
TEMP	12.274	12.424	12.573	12.729	12.884	13.036	13.194	13.356	13.516	13.676	13.829	13.989
DEPTH	319.51	327.05										
TEMP	14.139	14.292										

CONDUCTIVITY AND DENSITY

DEPTH	181.05	257.56	283.77	286.82	302.97	306.02	308.15	313.58	317.91	321.87	327.36
COND	9.13	11.82	12.92	8.89	9.04	11.54	11.28	11.90	9.31	8.38	9.31
DENS	2.76	2.73	2.90	2.89	2.78	2.69	2.67	2.63			

DIP ANGLE

DEPTH	27	274	365
ANGLE	90.0	84.2	78.2

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1185	1185	1158	1158	1280	1313	1402	1429	1490	1734	1483	1446	1508	1411
RADIUS	15875													
ELEV	1168													

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	COTTONWOOD GL.	EG-7	39 42	122 48	1585	220-1245	39	6.95	16.2	1.13	1.17
								ERROR	0.31	0.02	0.05	

COMPLETED ON OR BEFORE: 6/66 MEASURED: 10/18/67 STATIC WATER LEVEL: 222.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-1422, PRE-CRETACEOUS METASEDIMENTARY DEPOSITS, MAINLY PHYLLITES AND PHYLLITIC SCHISTS. THERE ARE NUMEROUS GOUGEY SHEAR ZONES, MOSTLY LESS THAN ONE METER THICK.

TEMPERATURE

DEPTH	223.46	230.90	238.35	245.80	253.25	260.70	268.15	275.60	283.05	290.49	297.97	305.39
TEMP	10.031	10.172	10.276	10.405	10.508	10.647	10.752	10.878	10.978	11.097	11.205	11.311
DEPTH	312.84	320.29	327.74	335.19	342.64	350.08	357.53	364.98	372.43	379.88	387.33	394.78
TEMP	11.433	11.543	11.648	11.749	11.856	11.964	12.069	12.185	12.281	12.375	12.488	12.605
DEPTH	402.22	409.67	418.19	424.57	432.02	439.46	446.91	454.36	461.81	469.26	476.71	484.16
TEMP	12.722	12.835	12.963	13.068	13.157	13.276	13.408	13.539	13.673	13.802	13.919	14.058
DEPTH	491.61	499.05	506.50	513.95	521.40	528.85	536.30	543.75	551.20	558.64	566.09	573.54
TEMP	14.187	14.322	14.455	14.588	14.708	14.810	14.936	15.051	15.152	15.258	15.369	15.483
DEPTH	580.99	588.44	595.89	603.34	610.78	618.23	625.68	633.13	640.58	648.02	655.47	662.92
TEMP	15.582	15.685	15.783	15.868	15.974	16.072	16.174	16.250	16.344	16.442	16.546	16.644
DEPTH	670.37	677.82	685.27	692.72	700.17	707.61	715.06	722.51	729.96	737.41	744.86	752.31
TEMP	16.738	16.822	16.901	16.989	17.074	17.169	17.258	17.355	17.460	17.552	17.650	17.745
DEPTH	759.76	767.20	774.65	782.10	789.55	797.00	804.45	811.90	819.34	826.79	834.24	841.69
TEMP	17.840	17.950	18.060	18.173	18.272	18.376	18.470	18.598	18.718	18.834	18.950	19.040
DEPTH	849.14	856.59	864.03	871.48	878.93	886.38	893.83	901.28	908.73	916.17	923.62	931.07
TEMP	19.161	19.289	19.396	19.513	19.638	19.747	19.846	19.950	20.053	20.158	20.259	20.374
DEPTH	938.52	945.97	953.42	960.87	968.32	975.76	983.21	990.66	998.11	1005.56	1013.01	1020.46
TEMP	20.486	20.588	20.714	20.833	20.950	21.067	21.176	21.274	21.364	21.450	21.538	21.630
DEPTH	1027.90	1035.35	1042.80	1050.25	1057.70	1065.15	1072.59	1080.04	1087.49	1094.94	1102.39	1109.84
TEMP	21.723	21.818	21.903	21.985	22.070	22.150	22.245	22.336	22.419	22.512	22.597	22.685
DEPTH	1117.29	1124.73	1132.18	1139.63	1147.08	1154.53	1161.98	1169.43	1176.88	1184.32	1191.77	1199.22
TEMP	22.778	22.874	22.971	23.070	23.172	23.261	23.344	23.424	23.496	23.586	23.687	23.791
DEPTH	1206.67	1214.12	1221.57	1229.02	1236.46	1243.91	1251.36	1258.81	1266.26	1273.70	1281.15	1288.60
TEMP	23.886	24.001	24.103	24.204	24.287	24.383	24.472	24.563	24.653	24.755	24.848	24.953
DEPTH	1296.05	1303.50	1310.95	1318.40	1325.85	1333.29	1340.74	1348.19	1355.64	1363.09	1370.54	1377.99
TEMP	25.057	25.155	25.251	25.345	25.445	25.539	25.634	25.730	25.818	25.912	26.015	26.105

COTTONWOOD GL. EG-7

TEMPERATURE (CONTINUED)

DEPTH	1385.44	1392.88	1400.33	1407.78	1415.23	1421.04
TEMP	26.206	26.295	26.366	26.486	26.534	26.600

CONDUCTIVITY AND DENSITY

DEPTH	63.19	68.76	71.99	74.71	84.37	85.92	85.92	87.54	92.81	94.55	120.15	127.10	134.20	179.68	187.82
COND	8.55	7.24	8.04	7.52	10.66	8.62	7.10	8.31	9.39	8.75	4.73	4.05	3.90	6.40	6.97
DENS	2.72	2.77	2.74	2.75	2.70	2.69	2.68	2.72	2.70	2.70				2.74	2.77
DEPTH	216.65	254.51	267.43	288.13	316.81	328.24	331.01	336.50	343.75	347.47	349.48	355.03	356.86	365.97	373.50
COND	11.37	8.58	4.81	5.02	8.18	5.23	9.00	4.46	5.65	6.90	6.68	10.04	8.21	8.81	5.01
DENS	2.70	2.71	2.75	2.72	2.73	2.74	2.74	2.74	2.72	2.71	2.78	2.71	2.74	2.71	2.74
DEPTH	375.30	377.16	379.05	386.70	397.92	401.42	403.16	408.86	425.04						
COND	6.79	5.36	3.77	7.85	5.27	5.35	6.23	4.79	7.41						
DENS	2.74	2.74	2.74	2.75	2.72	2.72	2.70	2.76	2.74						

DIP ANGLE

DEPTH	29	59	88	118	147	177	206	236	266	295	325	354	384	413	443	473	502	532
ANGLE	86.5	85.5	88.5	88.0	84.5	84.5	82.0	80.0	79.0	78.0	76.0	75.0	75.0	75.0	71.0	70.0	71.0	74.0
DEPTH	561	591	620	650	680	709	739	768	798	827	857	886	914	937	960	982	1005	1028
ANGLE	73.0	68.0	63.0	60.0	51.0	56.0	55.0	54.0	63.0	61.0	59.0	57.0	57.0	57.0	60.0	58.7	57.0	55.0
DEPTH	1051	1074	1097	1120	1143	1165	1188	1211	1234									
ANGLE	53.0	52.0	51.0	50.0	50.0	49.2	49.0	50.0	49.5									

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1584	1584	1577	1562	1550	1527	1520	1527	1508	1541	1500	1411	1314	1182
RADIUS	15875	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928
ELEV	1171	1463	1463	1447	1417	1409	1417	1428	1444	1463	1494	1481	1411	1314
RADIUS	11112	15875												
ELEV	1182	1171												

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH. DRIFT DIRECTION AVERAGES ABOUT N45DEG.E. THE FIRST TERRAIN CORRECTIONS ARE RELATIVE TO THE COLLAR OF THE HOLE AND THE SECOND ARE RELATIVE TO A POINT AT THE BOTTOM OF THE HOLE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	BASIN RGE	DEEP SPRINGS	DS-1A	37 24	118 00	1630	250-305	55	6.6	28.76	1.89	1.8
								ERROR	0.7	0.27	0.20	

COMPLETED ON OR BEFORE: 7/ 9/69 MEASURED: 10/26/69 STATIC WATER LEVEL: 9.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-305, GRANODIORITE WITH MONZONITE INCLUSIONS.

TEMPERATURE

DEPTH	12.19	15.24	18.29	21.34	24.38	27.43	30.48	33.53	36.58	39.62	42.67	45.72
TEMP	15.383	15.390	15.336	15.317	15.307	15.301	15.304	15.313	15.303	15.299	15.313	15.338
DEPTH	48.77	51.82	54.86	57.91	60.96	64.01	67.06	70.10	73.15	76.20	79.25	82.30
TEMP	15.374	15.376	15.355	15.327	15.300	15.242	15.179	15.169	15.159	15.209	15.257	15.291
DEPTH	85.34	88.39	91.44	94.49	97.54	100.58	103.63	106.68	109.73	112.78	115.82	118.87
TEMP	15.316	15.324	15.326	15.326	15.329	15.337	15.348	15.367	15.386	15.402	15.411	15.412
DEPTH	121.92	124.97	128.02	131.06	134.11	137.16	140.21	143.26	146.30	149.35	152.40	155.45
TEMP	15.409	15.407	15.411	15.422	15.438	15.458	15.475	15.492	15.508	15.527	15.550	15.577
DEPTH	158.50	161.54	164.59	167.64	170.69	173.74	176.78	179.83	182.88	185.93	188.98	192.02
TEMP	15.605	15.635	15.663	15.692	15.721	15.750	15.783	15.820	15.855	15.892	15.931	15.973
DEPTH	195.07	198.12	201.17	204.22	207.26	210.31	213.36	216.41	219.46	222.50	225.55	228.60
TEMP	16.021	16.076	16.138	16.205	16.268	16.320	16.371	16.423	16.465	16.519	16.563	16.609
DEPTH	231.65	234.70	237.74	240.79	243.84	246.89	249.94	252.98	256.03	259.08	262.13	265.18
TEMP	16.662	16.719	16.780	16.844	16.913	16.986	17.060	17.142	17.226	17.318	17.399	17.474
DEPTH	268.22	271.27	274.32	277.37	280.42	283.46	286.51	289.56	292.61	295.66	298.70	301.75
TEMP	17.551	17.630	17.725	17.825	17.920	18.009	18.099	18.192	18.288	18.368	18.445	18.520
DEPTH	304.50											
TEMP	18.598											

CONDUCTIVITY AND DENSITY

DEPTH	83.82	89.92	96.01	102.11	108.20	114.30	120.40	126.49	132.89	138.38	144.78	157.28	163.07	169.16	175.26
COND	7.72	7.15	7.42	6.96	7.28	7.05	6.81	7.40	6.96	7.34	7.33	7.10	7.66	7.24	7.36
DENS	2.62	2.62	2.61	2.60	2.62	2.61	2.80	2.62	2.57	2.61	2.61	2.60	2.61	2.61	2.60
DEPTH	181.36	187.45	193.76	193.79	199.95	205.71	212.14	212.17	217.93	217.96	224.06	224.09	230.22	230.22	236.28
COND	7.64	7.19	7.02	7.39	7.62	7.28	7.34	7.34	7.39	7.38	7.47	7.30	7.69	6.99	7.05
DENS	2.62	2.63		2.61	2.62	2.62	2.63	2.63	2.62	2.62	2.61	2.62	2.62	2.62	2.60
DEPTH	242.32	248.41	248.44	254.54	255.85	260.85	262.13	265.18	266.61	268.22	271.27	272.80	274.63	278.19	283.46
COND	6.97	7.66	7.56	7.64	7.55	6.48	5.07	4.67	4.98	4.51	5.95	5.41	5.27	6.40	5.40
DENS	2.61	2.63	2.63	2.61	2.63	2.62	2.68	2.78	2.72	2.74	2.73	2.73	2.65	2.66	2.70

DEEP SPRINGS DS-1A

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	284.99	290.17	291.75	292.91	295.66	296.88	298.70	301.75	303.28	304.80
COND	5.69	5.86	5.52	5.85	5.37	6.05	6.19	4.95	4.71	5.19
DENS	2.67	2.74	2.72	2.69	2.74	2.63	2.64	2.69	2.77	2.74

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1630	1633	1633	1645	1661	1650	1651	1660	1677	1705	1769	1883	1967	1877
RADIUS	15875													
ELEV	1892													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	DUMBARTON	SF BAY	37 29	122 08	1	114-117	10	3.72	63.85	2.37	2.4
								ERROR	0.15	0.78	0.10	
							155-157	5	4.13	51.5	2.13	2.1
								ERROR	0.13	2.1	0.11	
							114-157					2.25

COMPLETED ON OR BEFORE: 7/18/70 MEASURED: 10/23/70 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-170, CLAY LOCALLY SANDY AND SILTY.

TEMPERATURE

DEPTH	4.57	7.50	10.67	13.72	16.78	19.86	22.89	25.91	28.90	31.94	34.99	38.02
TEMP	17.064	16.466	16.261	16.213	16.191	16.105	15.964	15.991	16.075	16.193	16.331	16.518
DEPTH	41.06	44.23	47.27	50.29	53.34	56.33	59.31	62.45	65.52	68.58	71.60	74.72
TEMP	16.754	17.020	17.290	17.577	17.780	17.940	18.083	18.228	18.398	18.606	18.789	18.984
DEPTH	77.72	80.77	83.90	86.87	89.84	92.92	95.94	99.05	102.11	105.16	108.16	111.22
TEMP	19.146	19.300	19.455	19.614	19.793	19.975	20.124	20.290	20.471	20.646	20.821	20.996
DEPTH	114.35	114.59	114.91	115.32	115.52	115.89	116.11	116.45	116.86	117.33	117.67	117.90
TEMP	21.182	21.197	21.214	21.240	21.258	21.278	21.294	21.315	21.341	21.370	21.388	21.401
DEPTH	118.23	118.48	118.90	119.04	119.48	119.79	120.09	120.37	120.94	121.31	123.47	126.42
TEMP	21.422	21.436	21.466	21.471	21.496	21.516	21.536	21.551	21.590	21.606	21.738	21.899
DEPTH	129.54	132.53	135.64	138.64	141.73	144.67	147.81	150.88	153.95	154.26	154.64	154.81
TEMP	22.078	22.276	22.483	22.678	22.847	23.010	23.191	23.386	23.561	23.583	23.596	23.612
DEPTH	155.19	155.45	155.77	156.06	156.33	156.67	156.96	158.51	158.82	159.11	159.38	159.72
TEMP	23.626	23.639	23.651	23.666	23.694	23.703	23.716	23.795	23.814	23.823	23.836	23.851
DEPTH	159.93	160.33	160.65	160.89	161.21	161.44	162.40	166.09	169.16	169.77		
TEMP	23.861	23.876	23.891	23.901	23.920	23.928	24.002	24.243	24.443	24.493		

CONDUCTIVITY

DEPTH	115.29	115.33	115.37	115.40	115.44	115.45	115.52	115.58	115.58	115.58	115.73	155.60	155.75	155.83	155.91
COND	3.32	3.39	3.29	3.35	3.76	3.46	3.41	4.37	4.37	4.52	4.30	4.26	4.32	4.19	4.26
DEPTH	155.97														
COND	3.61														

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	BASIN RGE	EAGLE MOUNTAIN	CK-3	33 52	115 26	285	350-426	10	6.48	19.9	1.29	1.29
								ERROR	0.22	0.5	0.05	

COMPLETED ON OR BEFORE: 2/19/62 MEASURED: 7/12/63 STATIC WATER LEVEL: 143.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-335, QUATERNARY SEDIMENTARY DEPOSITS. 335-426, QUARTZ MONZONITE.

TEMPERATURE

DEPTH	30.50	61.00	76.20	91.40	106.70	121.90	137.20	152.40	167.60	182.90	198.10	213.40
TEMP	28.111	29.443	30.014	30.726	31.355	31.974	32.556	33.324	33.924	34.448	34.952	35.542
DEPTH	228.60	244.60	259.10	274.40	289.60	304.80	320.00	335.40	350.50	365.90	381.00	396.20
TEMP	36.010	36.639	37.280	38.014	38.632	39.131	39.582	40.031	40.323	40.617	40.944	41.196
DEPTH	426.00											
TEMP	41.922											

CONDUCTIVITY AND DENSITY

DEPTH	353.30	367.00	375.20	378.90	382.80	390.10	397.50	402.00	404.20	416.10
COND	6.15	6.29	7.29	6.61	6.91	5.17	6.20	6.30	6.41	6.86
DENS	2.89	2.88	2.65	2.65	2.73	2.79	2.74	2.84	2.76	2.64

COMMENTS: THIS HEAT FLOW IS CONFIRMED BY GRADIENTS AVERAGING 42.2 DEG C/KM IN ALLUVIUM IN 6 HOLES IN THE AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	326-28R	35 17	119 31	441	685-838	7	3.58	36.9	1.32	
								ERROR	0.25	1.0	0.10	
							1420-1850	23	3.47	35.81	1.24	
								ERROR	0.08	0.20	0.03	
							685-1850					1.26

COMPLETED ON OR BEFORE: 12/20/48 MEASURED: 4/20/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-722, TULARE FORMATION; SAND AND MUDSTONE. 722-1116, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 1116-1740, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1740-1977, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	25.857	27.105	28.375	29.710	30.742	31.430	32.278	32.884	33.549	36.550	37.995	39.252
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	40.575	41.532	43.003	44.491	45.846	47.220	48.407	49.883	51.178	52.412	53.523	54.535
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	55.566	56.624	57.757	58.844	59.840	60.905	61.881	63.040	64.113	65.274	66.399	67.472
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	68.589	69.638	70.711	71.767	72.844	73.978	75.027	76.189	77.340	78.546	79.667	80.856
DEPTH	1540.00	1570.00	1600.00	1630.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1840.00	1870.00
TEMP	81.950	83.122	84.111	85.224	86.317	87.368	88.404	89.456	90.497	91.707	92.571	93.563
DEPTH	1900.00	1930.00	1946.35									
TEMP	94.509	95.391	95.897									

CONDUCTIVITY

DEPTH	708.66	719.33	746.76	778.77	798.58	807.72	838.20	1447.19	1447.19	1447.80	1524.61	1551.43	1584.35	1590.45	1641.96
COND	4.48	4.30	.5.40	5.90	6.00	6.19	4.54	2.62	2.70	4.08	2.94	3.02	3.61	3.23	3.68
DEPTH	1648.06	1648.06	1654.15	1785.52	1788.57	1794.67	1794.67	1808.08	1805.33	1811.12	1811.12	1817.22	1817.22	1823.01	1823.01
COND	3.78	3.55	3.12	5.88	3.66	4.83	4.02	4.75	3.75	3.58	3.62	3.54	3.69	3.67	3.59
DEPTH	1976.33														
COND	4.59														

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z. THE HEAT FLOW IN THE INTERVAL 685-1850 IS THE MEAN FOR 326-28R.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	343-4G	35 16	119 24	317	1391-2142	26	3.82	(29.3)	1.12	1.12
								ERROR	0.16		0.03	

COMPLETED ON OR BEFORE: 2/23/47 MEASURED: 4/21/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-673, TULARE FORMATION; SAND AND MUDSTONE. 673-903, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 903-1362, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1362-2142, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	26.279	27.381	28.411	29.413	30.404	31.353	32.320	33.382	34.474	35.615	36.735	37.935
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	39.149	40.294	41.478	42.818	44.086	45.307	46.516	47.678	48.766	49.894	51.023	52.229
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	53.527	54.763	55.978	57.190	58.382	59.436	60.618	61.766	62.841	63.961	65.196	66.335
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	67.407	68.538	69.649	70.850	72.046	73.168	74.188	75.306	76.403	77.550	78.678	79.863
DEPTH	1540.00	1570.00	1600.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1840.00	1870.00	1900.00
TEMP	80.959	82.088	83.181	85.388	86.469	87.535	88.624	89.757	90.917	91.886	92.906	93.970
DEPTH	1930.00	1960.00	1990.00	2020.00	2050.00	2080.00	2106.20					
TEMP	94.903	95.781	96.701	97.568	98.429	99.309	100.121					

CONDUCTIVITY

DEPTH	1391.11	1391.11	1545.34	1704.75	1704.75	1931.83	1931.83	1948.29	1948.29	1979.07	1979.07	2076.30	2076.30	2076.30	2082.09
COND	2.91	3.24	3.44	3.29	3.40	3.64	4.24	3.69	4.11	4.53	4.67	3.47	3.60	3.76	3.90
DEPTH	2085.45	2090.32	2096.42	2102.51	2116.54	2116.54	2116.54	2129.03	2135.43	2135.43	2141.53				
COND	3.73	4.44	4.26	4.43	2.96	3.18	6.28	2.79	2.50	4.92	4.05				

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	344-35S	35 17	119 22	222	2091-2152	7	4.05	(28.4)	1.15	1.2
								ERROR	0.28		0.25	

COMPLETED ON OR BEFORE: 1/ 1/52 MEASURED: 4/22/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-623, TULARE FORMATION; SAND AND MUDSTONE. 623-1148, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 1148-1608, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1608-2191, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	26.275	27.293	28.092	28.915	29.774	30.777	31.525	32.766	33.786	34.931	36.134	37.258
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	38.403	39.467	40.655	41.883	43.116	44.357	45.549	46.683	47.953	49.157	50.323	51.441
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	52.441	53.703	54.925	56.225	57.458	58.616	59.612	60.702	61.805	62.986	64.043	65.155
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	66.299	67.446	68.636	69.790	70.929	72.033	73.204	74.366	75.576	76.704	77.836	78.874
DEPTH	1540.00	1570.00	1600.00	1630.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1840.00	1870.00
TEMP	80.009	81.126	82.252	83.373	84.473	85.555	86.625	87.510	88.834	89.882	90.922	92.044
DEPTH	1900.00	1930.00	1960.00	1990.00	2020.00	2050.00	2080.00	2110.00	2140.00	2170.00	2191.00	
TEMP	93.184	94.228	95.192	96.281	97.203	98.104	98.936	99.791	100.664	101.483	102.028	

CONDUCTIVITY

DEPTH	2091.54	2091.54	2091.54	2151.89	2151.89	2151.89	2151.89
COND	4.79	4.99	4.70	3.42	3.26	3.46	3.72

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	366-24Z	35 18	119 34	365	1782-1864	22	5.08	19.2	0.98	1.0
								ERROR	0.16	0.8	0.05	

COMPLETED ON OR BEFORE: 3/ 8/53 MEASURED: 4/19/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-640, TULARE FORMATION; SAND AND MUDSTONE. 640-945, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 945-1524, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1524-1865, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	25.274	27.029	28.426	29.746	30.905	32.172	33.230	34.352	35.493	36.700	37.904	39.125
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	40.361	41.853	43.335	44.562	45.893	47.247	48.578	50.004	51.312	52.577	53.659	54.751
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	55.784	56.822	57.891	59.039	60.022	60.999	62.134	63.287	64.508	65.670	66.934	68.083
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	69.258	70.424	71.575	72.800	74.020	75.127	76.234	77.312	78.524	79.591	80.800	81.870
DEPTH	1540.00	1570.00	1600.00	1630.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1830.00	1835.60
TEMP	82.987	84.038	85.099	86.040	87.178	88.780	89.954	90.475	90.981	91.653	92.123	92.342

CONDUCTIVITY

DEPTH	1782.47	1782.47	1791.01	1791.01	1799.54	1799.54	1816.61	1816.61	1825.15	1825.15	1825.15	1833.38	1833.38	1841.60	1841.60
COND	4.28	5.73	5.72	4.62	5.05	5.67	5.56	4.61	3.46	5.44	5.25	5.46	5.64	4.46	6.99
DEPTH	1841.60	1849.53	1849.53	1856.84	1856.84	1864.77	1864.77	1864.77							
COND	6.03	5.14	4.49	4.4	4.2	5.08	4.90	5.10							

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	372-35R	35 17	119 28	405	2098-2113	6	4.90	(27.3)	1.34	1.3
								ERROR	0.15		0.14	

COMPLETED ON OR BEFORE: 10/11/51 MEASURED: 4/17/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-689, TULARE FORMATION; SAND AND MUDSTONE. 689-1345, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 1345-2113, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	25.874	26.921	28.037	28.875	30.004	31.241	32.057	32.824	33.468	35.671	36.854	38.099
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	39.262	40.503	41.762	43.222	44.513	45.784	47.058	48.395	49.709	50.984	52.420	53.617
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	54.874	56.149	57.265	58.350	59.510	60.631	61.765	62.909	64.064	65.143	66.222	67.298
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	68.326	69.356	70.461	71.612	72.656	73.817	75.095	76.284	77.489	78.562	79.636	80.724
DEPTH	1540.00	1570.00	1600.00	1630.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1840.00	1870.00
TEMP	81.813	82.845	83.940	85.075	86.157	87.239	88.336	89.387	90.461	91.541	92.654	93.717
DEPTH	1900.00	1930.00	1960.00	1990.00	2020.00	2050.00	2080.00	2110.00	2112.10			
TEMP	94.695	95.618	96.534	97.358	98.288	99.078	99.959	100.767	100.771			

CONDUCTIVITY

DEPTH	2097.94	2097.94	2097.94	2106.17	2112.57	2112.57
COND	4.75	4.74	4.33	5.05	5.35	5.16

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	382-3G	35 16	119 23	277	2115-2141	5	4.23	(32.2)	1.36	
								ERROR	0.35		0.20	
							2207-2331	19	4.58	27.10	1.24	
								ERROR	0.16	0.30	0.04	
							2115-2331					1.26

COMPLETED ON OR BEFORE: 1/ 3/48 MEASURED: 4/16/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-623, TULARE FORMATION; SAND AND MUDSTONE. 623-853, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 853-1345, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1345-2332, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	30.00	60.00	90.00	120.00	150.00	180.00	210.00	210.00	240.00	270.00	300.00	330.00
TEMP	23.624	24.792	25.868	27.024	28.029	28.894	29.713	29.681	30.596	31.540	32.554	33.584
DEPTH	360.00	390.00	420.00	450.00	480.00	510.00	540.00	570.00	600.00	630.00	660.00	690.00
TEMP	34.642	35.736	36.794	37.922	39.076	40.248	41.443	42.689	43.847	45.097	46.338	47.589
DEPTH	720.00	750.00	780.00	810.00	840.00	870.00	900.00	930.00	960.00	990.00	1020.00	1050.00
TEMP	48.764	49.795	50.939	51.957	53.068	54.387	55.735	56.924	58.100	59.165	60.172	61.290
DEPTH	1080.00	1110.00	1140.00	1170.00	1200.00	1230.00	1260.00	1290.00	1320.00	1350.00	1380.00	1410.00
TEMP	62.402	63.484	64.586	65.650	66.829	68.019	69.139	70.242	71.377	72.540	73.732	74.894
DEPTH	1440.00	1470.00	1500.00	1530.00	1560.00	1590.00	1620.00	1650.00	1680.00	1710.00	1740.00	1770.00
TEMP	75.955	77.036	78.186	79.294	80.433	81.579	82.692	83.752	84.859	85.968	87.038	88.153
DEPTH	1800.00	1830.00	1860.00	1890.00	1920.00	1950.00	1980.00	2010.00	2040.00	2070.00	2100.00	2130.00
TEMP	89.210	90.254	91.309	92.427	93.550	94.557	95.509	96.551	97.528	98.376	99.256	100.117
DEPTH	2160.00	2190.00	2220.00	2250.00	2280.00	2280.00	2280.60					
TEMP	101.013	101.857	102.693	103.496	104.282	104.287	104.287					

CONDUCTIVITY

DEPTH	2115.32	2115.32	2115.32	2115.32	2140.92	2207.06	2216.20	2216.20	2225.35	2225.35	2225.35	2232.97	2232.97	2240.59	2240.59
COND	3.90	4.04	3.78	3.79	5.62	3.85	5.43	4.96	4.07	4.90	3.37	3.66	3.89	5.25	4.33
DEPTH	2240.59	2240.59	2249.73	2261.92	2272.59	2277.77	2301.24	2311.61	2331.11						
COND	4.97	5.74	5.25	5.01	4.53	3.91	4.28	5.60	4.10						

COMMENTS: SEE COMMENTS ELK HILLS 385-24Z. THE HEAT FLOW IN THE INTERVAL 2115-2331 IS THE MEAN FOR 382-3G.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	ELK HILLS	385-24Z	35 18	119 33	361	1496-1756	20	3.76	(31.1)	1.17	1.2
								ERROR	0.28		0.05	

COMPLETED ON OR BEFORE: 4/18/51 MEASURED: 4/18/69 STATIC WATER LEVEL:

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-689, TULARE FORMATION; SAND AND MUDSTONE. 689-1050, SAN JOAQUIN FORMATION; CLAY WITH SAND LENSES. 1050-1640, ETCHEGOIN FORMATION; CLAY AND CLAYSTONE. 1640-1816, MONTEREY SHALE WITH SANDSTONE AND CONGLOMERATE LENSES.

TEMPERATURE

DEPTH	100.00	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00	370.00	400.00	430.00
TEMP	25.919	27.176	28.557	29.973	31.180	32.479	33.555	34.552	36.005	37.265	38.514	39.763
DEPTH	460.00	490.00	520.00	550.00	580.00	610.00	640.00	670.00	700.00	730.00	760.00	790.00
TEMP	41.152	42.561	44.035	45.173	46.584	47.962	49.336	50.644	51.753	52.870	53.900	55.000
DEPTH	820.00	850.00	880.00	910.00	940.00	970.00	1000.00	1030.00	1060.00	1090.00	1120.00	1150.00
TEMP	56.217	57.128	58.258	59.311	60.489	61.715	62.848	63.939	65.166	66.306	67.456	68.680
DEPTH	1180.00	1210.00	1240.00	1270.00	1300.00	1330.00	1360.00	1390.00	1420.00	1450.00	1480.00	1510.00
TEMP	69.826	71.042	72.232	73.461	74.556	75.738	76.938	78.095	79.293	80.484	81.651	82.698
DEPTH	1540.00	1570.00	1600.00	1630.00	1660.00	1690.00	1720.00	1750.00	1780.00	1810.00	1815.10	
TEMP	83.845	84.823	85.827	86.816	87.852	88.844	89.912	90.844	91.826	92.720	92.953	

CONDUCTIVITY

DEPTH	1495.66	1500.84	1508.15	1508.15	1517.30	1525.22	1525.22	1533.76	1533.76	1533.76	1533.76	1588.62	1588.62	1588.62	1588.62
COND	3.11	3.42	3.08	3.57	3.23	5.05	3.46	3.22	2.76	3.54	3.15	2.75	6.44	6.81	3.10
DEPTH	1588.62	1725.48	1725.48	1756.26	1756.26										
COND	6.03	3.71	2.94	2.90	2.95										

COMMENTS: THE HOLES IN THE ELK HILLS AREA ARE OIL WELLS. THE HOLES ARE FILLED TO THE SURFACE WITH CRUDE OIL. THE DEPTHS OF THE DEPTH-TEMPERATURE PAIRS ARE MEASURED DEPTHS. THE DEPTHS OF THE DEPTH INTERVALS ARE CORRECTED DEPTHS WHICH ARE 1.022 TIMES THE MEASURED DEPTHS. ALL CONDUCTIVITIES WERE MEASURED BY THE NEEDLE PROBE METHOD.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	FORT BRAGG		39 26	123 44	120	444-1207	0	4.	48.3	2.	2.
								ERROR		6.5		

COMPLETED ON OR BEFORE: 8/ 7/65 MEASURED: 8/ 7/65 STATIC WATER LEVEL: 15.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-444, GRAVEL. 444-1208, CLAY AND CONGLOMERATE WITH SOME SAND.

TEMPERATURE

DEPTH	443.79	555.35	619.05	769.62	829.06	939.09	1013.46	1165.86	1207.01
TEMP	26.700	30.600	41.100	50.000	57.800	57.800	57.200	61.700	64.200

COMMENTS: TEMPERATURES ARE BOTTOM HOLE TEMPERATURES RECORDED DURING DRILLING. A MEAN CONDUCTIVITY OF 4.0 ASSUMED.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	HELMS CREEK	HC-1	37 08	118 59	2510	60-490	203	7.09	17.2	1.22	1.30
								ERROR	0.03	0.01	0.01	

COMPLETED ON OR BEFORE: 11/12/65 MEASURED: 9/23/66 STATIC WATER LEVEL: 0.0

REFERENCE: LACHENBRUCH(1968), SASS ET AL. (1971b).

GEOLOGY: 0-510, UPPER CRETACEOUS(80-90MY) MOUNT GIVENS GRANODIORITE.

TEMPERATURE

DEPTH	9.56	19.56	29.56	39.56	49.56	59.56	69.56	79.56	89.56	99.56	109.56	119.56
TEMP	6.903	5.805	6.042	6.223	6.396	6.563	6.734	6.905	7.077	7.250	7.423	7.597
DEPTH	129.56	139.56	149.56	159.56	169.56	179.56	189.56	199.56	209.56	219.56	229.56	239.56
TEMP	7.770	7.944	8.116	8.290	8.461	8.632	8.805	8.978	9.151	9.327	9.502	9.677
DEPTH	249.56	259.56	269.56	279.56	289.56	299.56	309.56	319.56	329.56	339.56	349.56	359.56
TEMP	9.843	10.014	10.188	10.361	10.532	10.704	10.875	11.050	11.221	11.395	11.567	11.740
DEPTH	369.56	379.56	389.56	399.56	409.56	419.56	429.56	439.56	449.56	459.56	469.56	479.56
TEMP	11.910	12.081	12.254	12.423	12.590	12.757	12.926	13.093	13.261	13.424	13.591	13.758
DEPTH	489.56	499.56	502.63									
TEMP	13.921	14.084	14.132									

CONDUCTIVITY AND DENSITY

DEPTH	4.97	4.97	9.96	9.96	14.97	14.97	19.97	19.97	25.03	25.03	29.97	29.97	34.97	34.97	40.03
COND	6.94	6.31	6.62	6.44	6.75	6.73	6.48	6.98	6.78	6.80	7.43	7.26	7.20	7.10	6.68
DENS	2.64	2.64	2.64	2.65	2.64	2.65	2.64	2.66	2.67	2.65	2.63	2.65	2.65	2.63	2.63
DEPTH	40.03	44.97	44.97	49.97	49.97	55.03	55.03	60.03	60.03	65.02	65.02	70.04	70.04	75.02	75.02
COND	6.64	6.99	6.81	7.28	6.92	6.59	6.69	6.90	6.54	6.46	6.50	6.82	7.07	7.35	6.72
DENS	2.65	2.63	2.63	2.64	2.63	2.64	2.64	2.65	2.64	2.63	2.65	2.64	2.64	2.64	2.64
DEPTH	79.97	79.97	85.03	85.03	90.02	90.02	95.03	95.03	100.03	100.03	104.97	104.97	110.07	110.07	115.03
COND	6.37	6.91	6.63	6.25	6.91	6.75	6.71	6.93	7.13	7.08	6.66	6.78	6.96	6.30	6.68
DENS	2.63	2.64	2.64	2.65	2.65	2.64	2.64	2.65	2.64	2.64	2.64	2.64	2.64	2.93	2.63
DEPTH	115.03	120.02	120.02	125.03	125.03	130.03	130.03	135.03	135.03	139.95	139.95	145.05	145.05	150.07	150.07
COND	6.59	6.85	6.98	6.85	6.73	6.70	6.77	7.18	7.01	7.05	6.83	6.46	6.70	7.42	7.04
DENS	2.64	2.63	2.64	2.64	2.64	2.63	2.64	2.64	2.64	2.61	2.61	2.64	2.64	2.64	2.64
DEPTH	154.97	154.97	160.03	160.03	164.97	164.97	169.97	169.97	175.03	175.03	180.02	180.02	184.97	184.97	190.03
COND	7.39	7.27	6.87	6.99	7.24	6.61	7.47	6.67	7.47	7.52	7.95	7.40	7.49	6.83	6.31
DENS	2.63	2.63	2.65	2.65	2.62	2.62	2.61	2.61	2.60	2.61	2.62	2.62	2.62	2.61	2.72
DEPTH	190.03	195.02	195.02	200.02	200.02	205.03	205.03	210.07	210.07	214.97	214.97	220.03	220.03	225.03	225.03
COND	6.32	7.57	6.90	6.97	7.47	7.37	7.17	7.62	7.37	6.99	7.01	7.52	7.18	6.73	6.82
DENS	2.71	2.63	2.63	2.61	2.62	2.61	2.62	2.63	2.63	2.64	2.65	2.61	2.61	2.62	2.64

HELMS CREEK HC-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	230.02	230.02	234.97	234.97	240.03	240.03	245.02	245.02	249.97	249.97	255.03	255.03	260.02	260.02	264.97
COND	7.20	7.43	6.68	7.53	6.69	6.91	6.48	6.72	7.68	7.59	7.45	7.25	7.53	7.19	6.85
DENS	2.62	2.63	2.63	2.64	2.63	2.63	2.62	2.63	2.63	2.63	2.63	2.63	2.64	2.63	2.62
DEPTH	264.97	269.97	269.97	274.97	274.97	279.97	279.97	285.03	285.03	290.02	290.02	295.03	295.03	299.97	299.97
COND	7.01	7.88	7.19	7.20	7.22	6.91	6.85	7.59	6.91	6.44	6.76	7.43	6.98	7.29	7.51
DENS	2.63	2.62	2.64	2.61	2.62	2.62	2.62	2.62	2.62	2.63	2.64	2.63	2.63	2.63	2.63
DEPTH	305.03	305.03	310.02	310.02	315.03	315.03	319.97	319.97	325.03	325.03	330.03	330.03	335.02	335.02	340.02
COND	7.20	7.63	6.74	6.54	6.38	7.49	6.92	6.92	6.57	6.45	7.21	7.12	6.63	7.12	6.92
DENS	2.62	2.61	2.62	2.63	2.62	2.64	2.62	2.63	2.62	2.64	2.64	2.64	2.64	2.65	2.63
DEPTH	340.02	344.97	344.97	350.03	350.03	355.02	355.02	360.03	360.03	365.03	365.03	369.96	369.96	375.02	375.02
COND	7.36	7.94	7.20	7.50	6.99	6.91	6.96	7.13	6.36	7.07	6.69	8.11	7.57	7.82	7.30
DENS	2.64	2.65	2.63	2.65	2.64	2.62	2.64	2.66	2.64	2.62	2.63	2.61	2.61	2.64	2.65
DEPTH	379.96	379.96	385.03	385.03	390.06	390.06	395.02	395.02	399.95	399.95	405.02	405.02	410.04	410.04	415.03
COND	7.39	7.41	7.95	6.68	6.38	6.68	7.39	7.52	7.11	7.14	7.43	6.77	7.29	7.32	8.07
DENS	2.63	2.64	2.63	2.63	2.64	2.65	2.64	2.64	2.64	2.64	2.61	2.62	2.63	2.63	2.63
DEPTH	415.03	420.03	420.03	425.02	425.02	430.02	430.02	435.04	435.04	440.02	440.02	445.02	445.02	450.05	450.05
COND	7.37	7.62	7.27	7.23	7.68	6.72	7.36	7.49	7.01	6.70	7.83	7.44	7.24	7.13	7.01
DENS	2.63	2.64	2.63	2.62	2.62	2.64	2.63	2.63	2.64	2.64	2.64	2.62	2.65	2.62	2.63
DEPTH	455.07	455.07	459.97	465.03	465.03	470.03	470.03	475.03	475.03	479.97	479.97	485.04	485.04	490.02	490.02
COND	8.27	8.07	6.95	7.60	7.41	7.46	7.65	7.24	7.55	6.73	7.43	6.67	7.48	6.75	7.70
DENS	2.59	2.59	2.61	2.62	2.63	2.63	2.63	2.62	2.63	2.63	2.63	2.63	2.64	2.62	2.63
DEPTH	495.03	495.03	500.02	500.02	505.03	505.03	509.97	509.97							
COND	7.41	7.17	8.18	7.36	6.94	6.99	8.03	6.96							
DENS	2.62	2.62	2.62	2.62	2.61	2.62	2.63	2.63							

HEAT PRODUCTION

DEPTH	5.50	61.00	91.00	122.00	152.00	183.00	213.00	244.00	274.00	305.00	335.00	365.00
H	12.29	10.39	7.99	11.72	11.18	12.27	13.28	11.02	9.26	10.28	10.82	9.21
DEPTH	396.00	426.00	457.00	487.00	518.00	550.00						
H	9.69	12.07	9.60	11.68	10.28	10.65						

TERRAIN DATA

RADIUS	0	44	90	151	227	308	404	524	694	963	1481	2018	3028	4245
ELEV	2510	2510	2507	2504	2498	2501	2501	2496	2493	2499	2512	2540	2605	2649
RADIUS	6065	9513	13334	19049										
ELEV	2742	2721	2712	2614										

COMMENTS: CORED FROM SURFACE AND CASED TO TOTAL DEPTH WITH 1 1/4 INCH WATER PIPE. CORE RECOVERY WAS VIRTUALLY 100%. HEAT FLOW CORRECTED FOR GLACIATION AND TOPOGRAPHIC EVOLUTION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF	SIERRA NEV	JOSE BASIN	JB-1	37 06	119 23	1000	201-491	191	6.05	12.2	0.74	0.77
								ERROR	0.03	0.03	0.01	

COMPLETED ON OR BEFORE: 9/14/66 MEASURED: 12/14/67 STATIC WATER LEVEL: 0.0

REFERENCE: LACHENBRUCH(1968), SASS ET AL. (1971b).

GEOLOGY: 0-492, CRETACEOUS(?) GRANODIORITE OF THE DINKEY CREEK TYPE.

TEMPERATURE

DEPTH	17.75	22.75	27.75	32.75	37.75	42.75	47.75	52.75	57.75	62.75	67.75	72.75
TEMP	12.269	12.522	12.691	12.846	12.990	13.126	13.250	13.365	13.481	13.601	13.699	13.804
DEPTH	77.75	82.75	87.75	92.75	97.75	102.75	107.75	112.75	117.75	122.75	127.75	132.75
TEMP	13.902	14.002	14.106	14.200	14.299	14.393	14.484	14.575	14.662	14.744	14.821	14.902
DEPTH	137.75	142.75	147.75	152.75	157.75	162.75	167.75	172.75	177.75	182.75	187.75	192.75
TEMP	14.978	15.055	15.129	15.203	15.274	15.346	15.416	15.487	15.553	15.625	15.694	15.762
DEPTH	197.75	202.75	207.75	217.75	222.75	227.75	232.75	237.75	242.75	247.75	252.75	257.75
TEMP	15.829	15.896	15.960	16.088	16.150	16.213	16.276	16.338	16.399	16.460	16.520	16.583
DEPTH	262.75	267.75	272.75	277.75	282.75	287.75	292.75	297.75	302.75	307.75	312.75	317.75
TEMP	16.644	16.704	16.763	16.826	16.889	16.950	17.012	17.065	17.125	17.184	17.242	17.302
DEPTH	322.75	327.75	332.75	337.75	342.75	347.75	352.75	357.75	362.75	367.75	372.75	377.75
TEMP	17.363	17.422	17.478	17.539	17.599	17.657	17.717	17.776	17.835	17.896	17.954	18.012
DEPTH	382.75	387.75	392.75	397.75	402.75	407.75	412.75	417.75	422.75	427.75	432.75	437.75
TEMP	18.072	18.135	18.196	18.262	18.323	18.381	18.439	18.502	18.566	18.627	18.690	18.756
DEPTH	442.75	447.75	452.75	457.75	462.75	467.75	472.75	477.75	482.75	487.75	491.49	
TEMP	18.820	18.887	18.948	19.018	19.083	19.146	19.207	19.277	19.342	19.407	19.458	

CONDUCTIVITY AND DENSITY

DEPTH	14.97	14.97	20.02	20.02	25.03	25.03	30.03	30.03	35.03	35.03	40.03	40.03	45.04	45.04	50.20
COND	5.64	5.89	5.32	5.63	5.82	6.00	6.03	5.84	5.55	5.26	6.09	5.94	5.78	5.88	6.12
DENS	2.93	2.94	2.79	2.75	2.75	2.75	2.76	2.76	2.76	2.78	2.74	2.75	2.75	2.76	2.76
DEPTH	50.20	55.07	55.07	59.88	59.88	65.02	65.02	70.03	70.03	75.02	75.02	80.03	80.03	85.02	85.02
COND	5.99	5.80	6.01	6.01	5.94	5.67	5.98	6.75	6.51	5.89	6.07	6.33	5.96	5.83	6.01
DENS	2.77	2.75	2.73	2.76	2.74	2.76	2.76	2.71	2.71	2.75	2.75	2.73	2.75	2.76	2.75
DEPTH	90.08	90.08	94.96	94.96	100.02	100.02	105.03	105.03	109.98	109.98	114.92	114.92	120.05	120.05	125.03
COND	6.14	5.88	6.19	6.27	6.60	6.69	6.16	6.32	6.32	5.99	6.01	6.17	5.84	5.79	5.98
DENS	2.77	2.76	2.78	2.76	2.73	2.75	2.75	2.77	2.71	2.75	2.77	2.77	2.77	2.78	2.76

JOSE BASIN JB-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	125.03	130.02	130.02	135.10	135.10	139.97	199.97	145.03	145.03	150.22	150.22	155.02	155.02	159.97	159.97
COND	5.98	5.91	5.81	5.77	5.82	5.88	5.87	5.67	6.01	6.57	6.39	5.75	5.97	5.92	5.80
DENS	2.76	2.79	2.77	2.76	2.78	2.79	2.78	2.78	2.76	2.76	2.75	2.77	2.77	2.79	2.77
DEPTH	165.03	165.03	170.02	170.02	175.02	175.02	180.22	180.22	184.96	184.96	190.02	190.02	194.98	194.98	200.02
COND	6.02	6.05	5.85	5.74	5.63	5.72	6.06	6.09	7.06	6.02	5.50	6.04	5.77	5.65	6.02
DENS	2.79	2.79	2.74	2.74	2.78	2.77	2.77	2.77	2.77	2.77	2.82	2.79	2.77	2.79	2.76
DEPTH	200.02	205.03	205.03	210.03	210.03	214.97	214.97	220.03	220.03	225.02	225.02	230.03	230.03	234.95	234.95
COND	4.67	5.57	5.76	5.83	5.72	5.74	5.71	5.81	5.74	5.93	6.07	5.81	5.73	5.27	5.57
DENS	2.76	2.77	2.79	2.78	2.79	2.77	2.76	2.77	2.77	2.78	2.78	2.78	2.79	2.79	2.77
DEPTH	239.92	239.92	244.95	244.95	250.04	250.04	255.04	255.04	260.03	260.03	265.03	265.03	270.35	270.35	275.02
COND	5.89	5.96	5.83	5.99	5.66	5.45	5.64	5.10	5.96	5.97	6.84	6.71	6.11	6.04	5.75
DENS	2.81	2.82	2.79	2.78	2.77	2.78	2.78	2.85	2.79	2.77	2.68	2.71	2.76	2.76	2.78
DEPTH	275.02	280.03	280.03	285.03	285.03	290.03	290.03	295.02	295.02	300.60	300.60	305.02	305.02	309.96	309.96
COND	6.13	6.17	6.30	5.50	5.53	5.92	5.72	8.13	8.12	6.12	6.34	5.63	5.69	5.83	5.80
DENS	2.77	2.86	2.88	2.78	2.78	2.77	2.78	2.59	2.60	2.78	2.76	2.79	2.79	2.77	2.78
DEPTH	315.02	315.02	319.97	319.97	324.97	324.97	330.52	330.52	335.05	335.05	340.02	340.02	345.03	345.03	350.03
COND	5.93	6.26	5.89	5.91	5.82	6.03	6.69	6.60	6.18	6.33	6.42	6.40	6.06	6.39	6.21
DENS	2.77	2.75	2.79	2.83	2.73	2.75	2.69	2.67	2.75	2.75	2.75	2.74	2.76	2.78	2.74
DEPTH	350.03	355.04	355.04	359.89	359.89	365.04	365.04	369.95	365.95	375.03	375.03	380.12	380.12	385.03	385.03
COND	6.20	6.26	6.24	5.87	5.77	5.75	5.94	6.79	6.20	5.64	5.69	6.11	6.03	5.64	5.93
DENS	2.74	2.76	2.75	2.77	2.77	2.76	2.77	2.73	2.73	2.78	2.78	2.73	2.74	2.76	2.78
DEPTH	390.09	390.09	394.97	394.97	400.00	400.00	405.00	410.00	410.00	415.00	415.00	420.00	420.00	425.00	425.00
COND	6.23	6.23	5.97	5.83	6.41	6.14	7.93	7.61	7.78	6.11	5.99	6.44	6.24	5.80	5.53
DENS	2.77	2.77	2.75	2.78	2.76	2.77	2.59	2.60	2.60	2.77	2.78	2.75	2.74	2.78	2.78
DEPTH	430.00	430.00	435.00	435.00	440.00	440.00	445.00	445.00	450.00	450.00	455.00	455.00	460.00	460.00	465.00
COND	6.14	6.06	5.61	5.96	6.26	6.01	5.99	5.85	7.38	7.02	6.15	5.58	6.03	5.78	5.74
DENS	2.76	2.78	2.86	2.75	2.77	2.76	2.78	2.77	2.68	2.68	2.76	2.77	2.76	2.76	2.73
DEPTH	465.00	470.00	470.00	475.00	475.00	479.97	479.97	485.00	485.00	490.00	490.00				
COND	6.57	6.30	6.11	6.65	6.34	6.16	5.77	6.21	6.12	6.20	6.10				
DENS	2.74	2.76	2.76	2.68	2.69	2.70	2.77	2.73	2.74	2.75	2.75				

HEAT PRODUCTION

DEPTH	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	270.00	300.00	330.00	360.00
H	4.25	4.58	3.98	4.05	4.85	3.18	3.55	2.95	4.20	3.33	4.39	2.80
DEPTH	390.00	420.00	450.00	480.00	490.00							
H	5.04	4.39	4.26	7.58	4.57							

JOSE BASIN JB-1

TERRAIN DATA

RADIUS	0	62	111	165	228	310	406	528	698	969	1490	2029	3044	6040
ELEV	999	999	1008	1018	1015	1050	1033	1043	1075	1067	1060	1062	1144	1219

COMMENTS: CORED FROM SURFACE AND CASED TO TOTAL DEPTH WITH 1 1/4 INCH WATER PIPE. CORE RECOVERY WAS VIRTUALLY 100%. HEAT FLOW CORRECTED FOR GLACIATION AND TOPOGRAPHIC EVOLUTION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	LA PANZA	TS-1	35 26	120 30	427	76-166	14	6.90	32.90	2.25	2.14
								ERROR	0.16	0.66	0.07	

COMPLETED ON OR BEFORE: 8/ 5/69 MEASURED: 9/17/69 STATIC WATER LEVEL: 0.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-166, GRANITE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	
TEMP	16.540	16.561	17.259	17.618	17.939	18.316	18.552	18.771	18.949	19.255	19.508	19.779	
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	140.23						
TEMP	20.041	20.308	20.558	20.836	21.092	21.352	21.443						

CONDUCTIVITY AND DENSITY

DEPTH	55.02	61.08	67.09	73.15	79.25	85.34	91.44	97.78	103.63	109.79	115.82	122.01	127.92	134.11	140.30
COND	6.48	6.99	7.04	7.15	6.26	6.32	6.84	7.98	7.24	7.82	7.11	7.54	6.44	6.43	6.14
DENS	2.64	2.69	2.69	2.69	2.67	2.63	2.69	2.62	2.67	2.60	2.65	2.63	2.62	2.65	2.60
DEPTH	146.30	152.40	158.53												
COND	6.58	7.02	6.95												
DENS	2.66	2.62	2.61												

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	426	426	449	464	480	445	460	465	471	478	456	451	468	432
RADIUS	15875													
ELEV	472													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF	PAC. COAST	LOS ANG. BASIN	LB-1	33 53	118 02	21	2073-3223	40	5.04	34.5	1.75	1.74
								ERROR	0.16	0.1	0.05	

COMPLETED ON OR BEFORE: 2/22/46 MEASURED: 2/10/65 STATIC WATER LEVEL: 0.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-1067, QUATERNARY SEDIMENTARY DEPOSITS. 1067-3223, TERTIARY SEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80	335.28	365.76	396.24
TEMP	20.665	21.440	22.309	23.241	24.129	24.929	25.502	26.072	26.725	27.352	27.994	28.576
DEPTH	426.72	457.20	487.68	518.16	548.64	579.12	609.60	640.08	670.56	701.04	731.52	762.00
TEMP	29.067	29.538	30.021	30.666	31.389	32.199	32.652	33.626	34.391	35.182	36.098	36.983
DEPTH	792.48	822.96	853.44	883.92	914.40	944.88	975.36	1005.84	1036.32	1066.80	1097.28	1127.76
TEMP	37.878	38.806	39.750	40.706	41.689	42.722	43.786	44.924	45.924	46.933	47.968	48.987
DEPTH	1158.24	1188.72	1219.20	1249.68	1280.16	1310.64	1341.12	1371.60	1402.08	1432.56	1463.04	1493.52
TEMP	50.095	51.219	52.325	53.306	54.411	55.544	56.691	57.786	58.970	60.219	61.421	62.496
DEPTH	1524.00	1554.48	1584.96	1615.44	1645.92	1676.40	1706.88	1737.36	1767.84	1798.32	1828.80	1859.28
TEMP	63.556	64.630	65.965	67.308	68.698	70.065	71.405	72.564	73.602	74.659	75.857	76.956
DEPTH	1889.76	1920.24	1950.72	1981.20	2011.68	2042.16	2072.64	2103.12	2133.60	2164.08	2194.56	2225.04
TEMP	78.010	79.107	80.195	81.241	82.273	83.451	84.675	85.790	86.847	87.846	88.938	90.057
DEPTH	2255.52	2286.00	2316.48	2346.96	2377.44	2407.92	2438.40	2468.88	2499.36	2529.84	2560.32	2590.80
TEMP	91.168	92.213	93.264	94.375	95.459	96.522	97.546	98.553	99.562	100.624	101.764	102.824
DEPTH	2621.28	2651.76	2682.24	2712.72	2743.21	2773.69	2804.17	2834.65	2865.13	2895.61	2926.09	2956.57
TEMP	103.955	105.014	106.092	107.110	108.269	109.307	110.419	111.388	112.373	113.395	114.420	115.477
DEPTH	2987.05	3017.53	3048.01	3078.49	3108.97	3139.45	3169.93	3200.41	3222.96			
TEMP	116.442	117.467	118.536	119.468	120.538	121.478	122.580	123.441	124.071			

CONDUCTIVITY AND DENSITY

DEPTH	2073.86	2125.68	2166.83	2286.61	2594.77	2594.77	2662.13	2691.39	2691.39	2724.00	2724.00	2779.48	2803.56	2803.56	2869.39
COND	6.31	6.34	4.47	4.46	5.47	3.69	3.45	3.59	3.88	4.39	4.23	3.72	3.64	4.57	4.02
DENS	2.58	2.63	2.63	2.22	2.56	2.54	2.54	2.53	2.50	2.38	2.51	2.52	2.55	2.10	2.55
DEPTH	2993.14	3040.69	3049.83	3052.88	3055.93	3058.98	3062.03	3064.46	3067.21	3070.26	3076.35	3079.40	3097.99	3100.43	3101.65
COND	3.62	3.23	3.66	4.54	4.94	4.40	6.02	4.58	6.19	4.58	6.06	5.69	7.36	5.13	7.41
DENS	2.55	2.27	2.53	2.31	2.51	2.07	2.33	2.34	2.20	2.12	2.38	2.06	2.63	2.33	2.36
DEPTH	3103.78	3106.83	3111.10	3111.10	3164.74	3167.18	3168.71	3173.28	3192.18	3214.43					
COND	4.26	5.92	4.72	5.13	8.08	7.36	5.60	6.37	4.44	6.33					
DENS	2.35	2.34	2.34	2.23	2.27	2.31	2.33	2.35	2.46	2.38					

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC.COAST	MENLO PARK	MP-1	37 27	122 10	16	68-218	165	3.99	(54.1)	2.16	2.16
								ERROR	0.03			
							218-240	53	5.1	42.5	2.2	2.2
								ERROR	0.5	0.2	0.2	
							68-240					2.2

COMPLETED ON OR BEFORE: 7/ 7/67 MEASURED: 9/25/67 STATIC WATER LEVEL: 25.0

REFERENCE: SASS ET AL.(1968), SASS ET AL. (1971b).

GEOLOGY: 0-220, HOLOCENE ALLUVIUM AND POORLY CONSOLIDATED SEDIMENTS OF PLIOCENE AND PLEISTOCENE SANTA CLARA FORMATION. 220-304, JURASSIC AND CRETACEOUS METASEDIMENTARY DEPOSITS OF FRANCISCAN FORMATION PRESENT AS FRAGMENTS IN FAULT GOUGE.

TEMPERATURE

DEPTH	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	67.00	68.00	69.00	69.99
TEMP	17.838	17.842	17.909	18.022	18.142	18.276	18.406	18.678	18.816	18.880	18.935	18.989
DEPTH	74.69	80.16	84.77	90.06	94.99	100.12	104.70	109.92	115.01	116.05	117.04	118.11
TEMP	19.264	19.548	19.795	20.084	20.337	20.619	20.892	21.175	21.469	21.539	21.588	21.640
DEPTH	119.06	120.04	121.02	122.03	123.48	125.52	129.92	135.20	139.82	144.98	149.02	149.87
TEMP	21.696	21.760	21.814	21.869	21.949	22.069	22.373	22.722	23.043	23.358	23.585	23.638
DEPTH	151.10	152.44	153.90	154.98	156.10	156.98	160.01	164.50	169.87	174.79	180.10	185.20
TEMP	23.709	23.793	23.879	23.940	24.004	24.053	24.248	24.545	24.936	25.291	25.654	25.989
DEPTH	190.04	195.21	199.90	205.55	210.00	211.42	213.16	215.87	217.08	218.25	219.35	22 .32
TEMP	26.335	26.719	27.035	27.427	27.649	27.718	27.817	27.976	28.033	28.082	28.133	2 .179
DEPTH	221.38	222.45	223.60	224.60	225.77	226.82	227.81	228.84	229.86	230.88	231.97	233.00
TEMP	28.229	28.279	28.333	28.376	28.423	28.465	28.500	28.536	28.577	28.621	28.669	28.723
DEPTH	234.05	235.06	236.04	236.98	238.03	239.02	240.01	240.98	241.96	242.97	243.97	245.04
TEMP	28.765	28.812	28.855	28.897	28.938	28.977	29.015	29.052	29.093	29.132	29.181	29.225
DEPTH	246.01	247.06										
TEMP	29.267	29.307										

CONDUCTIVITY

DEPTH	68.64	68.76	68.85	115.92	115.98	116.07	116.13	116.16	116.25	116.31	116.40	116.46	116.53	116.62	116.68
COND	4.03	4.08	3.70	4.40	3.78	3.44	3.27	4.20	4.35	4.47	4.47	4.00	4.21	4.16	4.18
DEPTH	116.77	116.92	117.04	117.07	117.17	117.23	117.32	117.38	117.47	117.53	117.59	117.68	117.74	117.84	117.99
COND	4.04	4.09	4.24	4.54	4.49	4.17	4.30	4.45	4.41	4.16	4.62	4.22	4.25	4.26	4.31
DEPTH	118.05	118.14	121.68	121.77	121.83	121.95	122.04	122.10	122.16	122.22	122.32	122.35	149.41	149.50	149.57
COND	4.17	3.92	3.19	3.28	3.32	3.60	3.76	3.74	3.82	3.99	3.57	3.98	2.91	3.03	3.91

MENLO PARK MP-1

CONDUCTIVITY (CONTINUED)

DEPTH	149.66	149.87	150.08	150.17	150.24	150.30	150.42	150.48	150.54	150.63	150.69	150.75	150.78	150.88	150.94
COND	3.94	3.82	3.51	3.62	3.43	3.42	3.37	3.45	3.11	3.55	4.04	4.16	4.33	4.27	4.06
DEPTH	151.00	151.15	151.24	151.33	151.39	151.46	151.61	151.67	151.70	151.73	151.79	152.37	152.46	152.55	152.61
COND	4.22	4.32	4.19	4.19	4.26	4.13	3.95	3.81	3.03	3.13	3.27	3.39	3.79	3.55	3.92
DEPTH	152.70	152.74	152.83	152.92	152.98	153.07	153.13	153.22	153.28	153.38	153.44	153.53	153.59	153.65	153.74
COND	3.92	3.71	3.84	3.53	3.36	3.73	3.80	3.92	3.79	3.68	3.77	3.54	3.55	3.88	4.26
DEPTH	153.83	153.92	153.98	154.05	154.14	154.20	154.29	154.38	154.44	154.50	154.56	154.66	154.72	154.81	154.90
COND	3.95	3.69	3.91	3.45	3.87	4.17	4.05	4.15	4.35	4.07	3.65	4.20	3.38	3.78	3.58
DEPTH	154.96	155.05	155.11	155.20	155.30	155.36	155.42	155.45	210.40	210.46	210.56	210.62	210.71	210.74	210.83
COND	3.95	4.09	4.12	3.66	3.47	3.98	3.23	3.52	4.05	4.27	4.18	4.60	4.78	4.45	4.41
DEPTH	210.92	210.98	211.04	211.20	211.29	211.38	211.44	211.50	211.59	211.65	211.74	211.84	211.90	212.11	212.29
COND	4.67	4.49	4.30	3.72	3.00	2.95	3.30	3.40	3.65	3.80	3.46	3.50	3.20	2.20	2.26
DEPTH	215.10	215.22	215.28	215.40	215.49	215.59	215.65	215.74	215.77	215.86	215.95	216.01	216.07	216.16	216.23
COND	3.40	3.10	3.96	4.62	4.97	4.81	4.53	4.49	4.46	4.17	4.32	4.49	4.46	4.36	4.45
DEPTH	216.44	216.53	216.62	216.68	216.87	216.99	217.08	217.14	217.20	217.32	217.35	217.41	217.47	217.60	217.66
COND	4.71	4.82	4.83	5.04	5.18	4.86	5.05	4.80	4.45	4.41	5.14	4.88	5.59	4.81	4.37
DEPTH	230.20	236.60	236.60	240.00	241.60	241.60	242.20	242.20	243.10	243.40	246.10	246.70	246.70	248.00	248.00
COND	7.61	8.35	8.19	0.37	7.80	7.41	6.71	7.26	7.76	8.28	6.91	0.57	9.81	8.28	8.15
DEPTH	253.40	253.40	254.40	254.40	257.10	257.10	258.40	260.90	260.90	264.00	264.00	267.00	267.00	279.50	279.50
COND	3.91	4.01	4.00	3.57	3.69	3.65	4.28	4.57	4.00	3.01	3.88	3.81	3.82	4.47	3.78
DEPTH	282.20	282.40	282.40	284.30	284.30	284.50	284.50	284.80	284.80	285.30	285.30	285.70	285.70	286.80	291.20
COND	4.20	3.87	4.11	4.19	3.52	4.01	3.90	4.37	3.68	3.82	4.28	3.79	4.18	4.00	3.80
DEPTH	291.20	294.70	294.70	298.90	300.40	300.40	300.80	304.00							
COND	3.77	3.35	3.54	3.70	3.81	3.70	4.13	3.44							

COMMENTS: HEAT FLOW BETWEEN 68 AND 218 METERS IS THE MEAN OF 12 COMPONENTS OVER ONE-METER CORED INTERVALS. THE HEAT FLOW IN THE INTERVAL 68-240 METERS IS THE BEST VALUE FOR MP-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	MOONLIGHT VAL.	ML-9	40 13	120 48	1710	238-334	15	7.99	19.64	1.57	1.60
								ERROR	0.25	0.19	0.05	

COMPLETED ON OR BEFORE: 7/18/67 MEASURED: 11/ 6/70 STATIC WATER LEVEL: 39.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: J-342, QUARTZ MONZONITE.

TEMPERATURE

DEPTH	39.62	45.72	51.82	57.91	64.01	70.10	76.20	82.30	88.39	94.49	100.58	106.68
TEMP	7.229	7.549	7.708	7.827	7.923	8.073	8.100	8.134	8.180	8.264	8.310	8.356
DEPTH	112.78	118.87	124.97	131.06	137.16	143.26	149.35	155.45	161.54	167.64	173.74	179.83
TEMP	8.420	8.502	8.589	8.672	8.775	8.840	8.916	9.008	9.097	9.177	9.261	9.353
DEPTH	185.93	192.02	198.12	204.22	210.31	216.41	222.50	228.60	234.70	240.79	246.89	252.98
TEMP	9.488	9.557	9.637	9.736	9.844	9.951	10.072	10.174	10.269	10.394	10.523	10.643
DEPTH	259.08	265.18	271.27	277.37	283.46	289.56	295.66	301.75	307.85	313.94	320.04	326.14
TEMP	10.741	10.834	10.948	11.092	11.232	11.349	11.444	11.516	11.681	11.815	11.929	12.103
DEPTH	332.23	336.20										
TEMP	12.189	12.277										

CONDUCTIVITY AND DENSITY

DEPTH	235.92	243.23	252.07	259.39	267.01	274.32	281.33	289.56	297.18	304.19	312.42	320.35	328.27	337.11	341.68
COND	8.29	8.24	8.34	8.33	8.43	8.72	8.22	8.29	8.86	8.04	7.94	8.38	8.47	5.99	5.37
DENS	2.69			2.66				2.66				2.65			2.61

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1710	1710	1712	1721	1660	1752	1749	1740	1705	1647	1588	1602	1668	1733
RADIUS	15875													
ELEV	1645													

COMMENTS: THE BEST HEAT FLOW VALUE FOR MOONLIGHT VALLEY ML-9 AND ML-43 IS 1.9.

STATE	TECT UNIT	LOCALITY	HOLE NO	LAT DEG MIN	LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	MOONLIGHT VAL.	ML-43	40 14	120 48	1670	46-148	14	8.11	24.97	2.03	1.92
								ERROR	0.36	0.13	0.09	

COMPLETED ON OR BEFORE: 9/26/67 MEASURED: 11/ 6/70 STATIC WATER LEVEL: 8.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-154, QUARTZ MONZONITE.

TEMPERATURE

DEPTH	15.24	21.34	27.43	33.53	39.62	45.72	51.82	57.91	64.01	70.10	76.20	82.30
TEMP	7.513	7.612	7.736	7.847	7.993	8.140	8.298	8.445	8.589	8.737	8.889	9.037
DEPTH	88.39	94.49	100.58	106.68	112.78	118.87	124.97	131.06	137.16	143.26	147.83	
TEMP	9.189	9.351	9.499	9.659	9.807	9.954	10.087	10.241	10.395	10.589	10.728	

CONDUCTIVITY AND DENSITY

DEPTH	45.11	53.34	60.66	68.88	76.20	83.82	91.44	98.45	106.68	121.92	128.63	136.86	145.09	153.01
COND	7.69	8.31	8.80	7.49	8.66	7.12	8.14	7.31	8.92	10.99	8.81	6.23	5.58	9.46
DENS	2.63			2.57				2.59			2.67		2.55	

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1670	1670	1675	1690	1705	1722	1738	1733	1726	1689	1600	1600	1668	1733
RADIUS	15875													
ELEV	1645													

COMMENTS: THE BEST HEAT FLOW VALUE FOR MOONLIGHT VALLEY ML-9 AND ML-43 IS 1.9.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	PERMANENTE	586	37 19	122 07	509	183-204	7	6.40	21.87	1.40	1.9
								ERROR	0.49	0.65	0.11	

COMPLETED ON OR BEFORE: 12/10/68 MEASURED: 6/12/69 STATIC WATER LEVEL: 154.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-21, LIMESTONE. 21-55, ANDESITE. 55-201, LIMESTONE. 201-207, FRANCISCAN SEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	154.23	158.50	164.59	170.69	176.78	182.88	188.98	195.07	201.17	204.13
TEMP	16.467	16.515	16.587	16.661	16.752	16.856	16.973	17.100	17.246	17.320

CONDUCTIVITY

DEPTH	201.47	202.08	203.30	204.83	205.44	206.05	206.65
COND	8.48	7.72	5.33	5.37	6.84	5.55	5.53

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	509	509	492	501	500	444	427	397	360	310	301	290	308	281
RADIUS	6096													
ELEV	241													

COMMENTS: TERRAIN CORRECTION MADE ON ELEVATIONS PRIOR TO STRIPPING OPERATIONS BEGUN ABOUT 1940.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	PERMANENTE	659	37 19	122 07	483	92-155	21	10.05	12.03	1.21	2.2
								ERROR	0.25	0.22	0.04	
							155-181	11	7.04	27.6	1.94	2.4
								ERROR	0.38	0.8	0.12	
							92-181					2.2

COMPLETED ON OR BEFORE: 2/ 3/69 MEASURED: 6/12/69 STATIC WATER LEVEL: 68.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-6, ANDESITE. 6-172, LIMESTONE. 172-184, FRANCISCAN SEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	51.82	60.96	68.58	73.15	79.25	85.34	91.44	97.54	103.63	109.73	115.82	121.92
TEMP	16.676	16.563	16.335	16.289	16.231	16.238	16.358	16.454	16.520	16.580	16.645	16.715
DEPTH	128.02	134.11	140.21	146.30	152.40	158.50	164.59	170.69	176.78	182.42		
TEMP	16.786	16.861	16.943	17.027	17.119	17.236	17.375	17.517	17.702	17.880		

CONDUCTIVITY

DEPTH	91.44	94.49	97.54	100.58	103.63	106.68	109.73	112.78	115.82	118.87	121.92	124.97	128.02	131.06	134.11
COND	9.02	10.37	10.04	11.18	12.22	10.78	12.32	10.05	8.48	9.38	9.55	10.35	11.05	11.40	10.36
DEPTH	137.16	140.21	143.26	146.30	149.35	152.40	155.45	158.50	161.54	163.07	167.64	170.69	173.74	176.78	179.83
COND	8.79	8.95	8.07	9.13	10.26	9.27	8.43	8.45	7.37	7.76	8.50	7.55	7.01	5.92	5.21
DEPTH	182.88	183.19													
COND	5.44	5.77													

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	482	482	482	479	458	413	396	366	329	280	270	259	277	250
RADIUS	6096													
ELEV	210													

COMMENTS: TERRAIN CORRECTION MADE ON ELEVATIONS PRIOR TO STRIPPING OPERATIONS BEGUN ABOUT 1940. THE HEAT FLOW IN THE INTERVAL 92-181 IS THE MEAN FOR 659.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	SAN JOAQ EX RGE	SJ-1	37 06	119 44	335	280-459	201	6.97	8.90	0.62	0.61
								ERROR	0.06	0.04	0.01	

COMPLETED ON OR BEFORE: 5/ 5/65 MEASURED: 11/30/65 STATIC WATER LEVEL: 0.0

REFERENCE: LACHENBRUCH(1968), SASS ET AL. (1971b).

GEOLOGY: 0-461, CRETACEOUS FINE GRAINED QUARTZ MONZONITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	20.629	20.367	20.533	20.599	20.649	20.680	20.707	20.741	20.777	20.809	20.848	20.897
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	20.954	21.003	21.075	21.141	21.216	21.289	21.362	21.453	21.540	21.718	21.861	21.972
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	22.066	22.167	22.271	22.384	22.477	22.573	22.666	22.760	22.851	22.941	23.032	23.121
DEPTH	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	459.20		
TEMP	23.210	23.298	23.387	23.475	23.558	23.641	23.729	23.816	23.903	23.984		

CONDUCTIVITY AND DENSITY

DEPTH	20.00	25.94	25.94	30.42	30.42	31.97	31.97	37.83	37.83	44.07	50.30	50.03	55.93	55.93	60.99
COND	6.90	7.00	6.51	6.85	7.15	6.95	7.19	7.10	6.69	6.60	6.84	7.08	7.08	6.99	6.73
DENS	2.64	2.65	2.65	2.65	2.64	2.64	2.65	2.64	2.65	2.65	2.64	2.64	2.65	2.65	2.64
DEPTH	60.99	61.86	61.86	67.83	67.83	75.12	75.12	80.04	80.04	85.76	85.76	91.47	91.47	91.73	91.73
COND	6.86	6.96	6.73	7.05	7.34	6.86	6.97	7.36	7.20	7.72	7.66	6.95	6.87	6.83	6.80
DENS	2.64	2.64	2.65	2.63	2.65	2.64	2.64	2.63	2.64	2.65	2.65	2.68	2.69	2.68	2.68
DEPTH	98.12	98.12	104.07	104.07	111.38	111.38	115.90	115.90	118.90	118.90	121.89	121.89	121.89	128.05	128.05
COND	6.68	6.81	6.66	6.55	6.91	7.17	7.96	7.33	6.99	7.35	7.43	7.03	7.03	6.88	7.04
DENS	2.66	2.65	2.66	2.66	2.63	2.66	2.64	2.65	2.66	2.66	2.66	2.66	2.66	2.65	2.65
DEPTH	133.78	133.78	139.66	139.66	140.24	140.24	145.79	145.79	146.33	146.33	150.00	150.00	152.52	152.52	158.53
COND	6.93	6.82	6.93	6.88	7.16	7.01	5.40	5.29	6.53	6.90	7.50	7.84	7.31	7.46	6.87
DENS	2.65	2.66	2.66	2.56	2.65	2.65	2.70	2.70	2.66	2.67	2.65	2.66	2.65	2.64	2.66
DEPTH	158.53	164.62	164.62	170.69	170.69	176.81	176.81	182.97	182.97	189.01	189.01	195.10	195.10	199.06	199.06
COND	7.14	7.21	6.91	6.94	6.88	5.97	6.17	6.92	6.95	6.11	5.68	4.68	4.78	5.06	5.26
DENS	2.66	2.64	2.66	2.66	2.65	2.65	2.65	2.68	2.68	2.70	2.71	2.78	2.78	2.74	2.75
DEPTH	201.17	201.17	203.87	203.87	207.29	207.29	210.05	210.05	212.87	212.87	213.30	213.30	216.93	216.93	219.34
COND	6.27	5.69	6.56	6.65	3.98	3.83	6.37	6.87	5.13	5.84	6.62	6.65	6.64	6.32	6.80
DENS	2.71	2.74	2.66	2.66	2.78	2.79	2.67	2.66	2.75	2.73	2.67	2.68	2.66	2.66	2.64

SAN JOAQ FX RGF SJ-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	219.34	219.93	219.93	222.93	222.93	225.65	225.65	226.85	226.85	228.73	228.73	231.68	231.68	234.80	234.80
COND	6.34	6.57	6.80	6.72	7.06	8.41	7.17	6.63	6.81	6.53	6.60	6.68	6.57	7.44	6.78
DENS	2.65	2.65	2.65	2.64	2.64	2.63	2.65	2.66	2.66	2.63	2.63	2.65	2.64	2.65	2.65
DEPTH	237.81	237.81	238.79	238.79	243.78	243.78	243.78	249.97	249.97	251.72	251.72	256.03	256.03	259.16	259.16
COND	6.61	7.26	6.77	6.94	7.07	6.77	7.18	6.85	6.82	6.61	6.68	6.70	6.79	6.61	6.82
DENS	2.65	2.65	2.61	2.64	2.63	2.66	2.66	2.65	2.66	2.67	2.66	2.65	2.66	2.67	2.66
DEPTH	262.13	262.13	262.98	262.98	265.71	265.71	268.12	268.12	269.18	269.18	271.53	271.53	274.26	274.26	274.85
COND	6.30	6.37	6.65	6.54	6.39	6.55	6.58	6.50	7.07	6.74	6.81	6.59	6.77	6.21	6.46
DENS	2.64	2.64	2.63	2.64	2.64	2.64	2.64	2.65	2.64	2.65	2.65	2.65	2.66	2.96	2.66
DEPTH	274.85	277.72	277.72	280.49	280.49	286.24	286.24	292.77	292.77	298.73	298.73	304.83	304.83	310.93	310.93
COND	6.50	7.48	7.53	6.83	7.14	5.51	4.86	7.34	6.86	6.69	6.74	7.45	7.31	6.58	6.55
DENS	2.66	2.62	2.65	2.60	2.61	2.62	2.67	2.65	2.65	2.65	2.66	2.64	2.64	2.65	2.64
DEPTH	316.99	316.99	322.14	322.14	329.18	329.18	335.58	335.58	341.38	341.38	347.47	347.47	353.57	353.57	359.59
COND	6.90	6.88	7.13	6.66	7.12	7.28	7.06	6.97	6.89	7.02	6.82	6.90	7.15	6.91	6.78
DENS	2.65	2.64	2.64	2.65	2.63	2.64	2.63	2.64	2.66	2.66	2.67	2.67	2.62	2.64	2.65
DEPTH	359.59	365.85	365.85	365.85	372.16	372.16	377.98	377.98	384.02	384.02	390.14	390.14	396.27	396.27	402.31
COND	6.85	7.52		6.86	6.58	6.74	6.81	7.01	6.55	6.76	7.01	6.95	8.34	7.28	7.24
DENS	2.62	2.64		2.68	2.64	2.63	2.65	2.65	2.65	2.64	2.63	2.65	2.39	2.65	2.62
DEPTH	402.31	408.33	408.33	414.50	414.50	420.72	420.72	426.75	426.75	432.92	432.92	438.94	438.94	445.04	445.04
COND	7.47	7.50	8.65	7.32	7.45	7.65	6.88	6.86	6.63	6.81	6.43	7.07	7.13	6.80	6.73
DENS	2.64	2.68	2.71	2.62	2.66	2.65	2.64	2.66	2.66	2.65	2.65	2.60	2.61	2.66	2.67
DEPTH	451.13	451.13	457.75	457.75	457.75	460.25	460.25								
COND	7.36	7.27	6.66	7.24	6.61	6.77	6.88								
DENS	2.63	2.60	2.65	2.38	2.65	2.65	2.65								

HEAT PRODUCTION

DEPTH	31.70	62.50	93.60	124.70	153.90	183.80	214.60	245.00	276.00	306.00	336.00	367.00
H	2.53	2.64	1.98	3.76	3.10	3.13	2.21	2.43	1.87	2.93	3.55	2.29
DEPTH	398.00	428.00	459.00									
H	1.16	2.51	2.67									

TERRAIN DATA

RADIUS	0	142	285	475	713	971	1270	1648	2180	3028	4655	6341	9513	13334
ELEV	334	334	342	345	350	346	350	352	346	341	337	316	318	309
RADIUS	19049													
ELEV	357													

COMMENTS: CORED FROM SURFACE AND CASED TO TOTAL DEPTH WITH 1 1/4 INCH WATER PIPE. CORE RECOVERY WAS VIRTUALLY 100%. HEAT FLOW CORRECTED FOR GLACIATION AND TOPOGRAPHIC EVOLUTION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	SAN JUAN RIDGE	SJR-1	39 24	120 52	1378	246-256	6	7.84	8.79	0.69	0.65
								ERROR	0.14	0.11	0.02	

COMPLETED ON OR BEFORE: 9/ 2/68 MEASURED: 10/ 8/69 STATIC WATER LEVEL: 1.8

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-154, TERTIARY VOLCANIC BRECCIA. 154-246, TERTIARY GRAVELS. 246-257, ALTERED GRANITIC BEDROCK.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	182.88	213.36	243.84	244.15	244.45	244.76	245.06
TEMP	8.233	8.156	8.519	9.058	9.620	9.993	10.393	10.752	10.758	10.762	10.765	10.768
DEPTH	245.36	245.67	245.97	246.28	246.58	246.89	247.19	247.50	247.80	248.11	248.41	248.72
TEMP	10.770	10.772	10.776	10.779	10.783	10.786	10.789	10.792	10.795	10.798	10.777	10.804
DEPTH	249.02	249.33	249.63	249.94	250.24	250.55	250.85	251.16	251.46	251.77	252.07	252.38
TEMP	10.808	10.810	10.813	10.816	10.818	10.822	10.824	10.827	10.829	10.832	10.835	10.838
DEPTH	252.68	252.98	253.29	253.59	253.90	254.20	254.51	254.81	255.12	255.42	255.73	256.03
TEMP	10.841	10.844	10.849	10.850	10.853	10.855	10.857	10.860	10.863	10.864	10.867	10.870
DEPTH	256.34	256.64	256.92									
TEMP	10.872	10.875	10.877									

CONDUCTIVITY AND DENSITY

DEPTH	254.51	254.51	255.12	255.12	255.73	255.73
COND	7.82	8.42	7.77	7.62	8.01	7.43
DENS	2.80	2.80	2.81	2.81	2.80	2.80

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1378	1378	1352	1365	1341	1288	1284	1280	1283	1284	1212	1145	1070	1118
RADIUS	15875													
ELEV	1120													

COMMENTS:MEAN HEAT FLOW FOR SJR-1 AND SJR-2 IS 0.69.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	SAN JUAN RIDGE	SJR-2	39 24	120 53	1406	274-276	9	13.0	5.74	0.75	0.72
								ERROR	1.0	0.05	0.06	

COMPLETED ON OR BEFORE: 10/25/68 MEASURED: 10/ 9/69 STATIC WATER LEVEL: 168.9

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-198, TERTIARY VOLCANIC BRECCIA. 198-268, TERTIARY GRAVELS. 268-276, CAPE HORN SLATE.

TEMPERATURE

DEPTH	170.69	176.78	182.88	188.98	195.07	201.17	207.26	213.36	219.46	225.55	231.65	237.74
TEMP	9.716	9.833	9.997	10.153	10.301	10.416	10.522	10.631	10.745	10.825	10.899	10.961
DEPTH	243.84	249.94	256.03	259.08	260.60	262.13	263.65	265.18	266.70	268.22	268.53	268.83
TEMP	11.022	11.109	11.168	11.202	11.225	11.244	11.262	11.278	11.294	11.308	11.309	11.311
DEPTH	269.14	269.44	269.75	270.05	270.36	270.66	270.97	271.27	271.58	271.88	272.19	272.49
TEMP	11.313	11.317	11.320	11.321	11.325	11.328	11.332	11.334	11.331	11.339	11.341	11.345
DEPTH	272.80	273.10	273.41	273.71	274.02	274.32	274.63	274.93	275.24	275.54	275.81	
TEMP	11.348	11.350	11.353	11.355	11.357	11.361	11.363	11.365	11.366	11.368	11.370	

CONDUCTIVITY AND DENSITY

DEPTH	274.93	274.93	274.93	275.39	275.39	275.39	275.84	275.84	275.84
COND	8.10	14.07	14.22	6.86	14.05	14.10	8.48	13.98	14.04
DENS		2.76	2.75		2.74	2.74		2.75	2.74

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1406	1408	1410	1402	1390	1364	1335	1358	1356	1320	1263	1146	1070	1119
RADIUS	15875													
ELEV	1120													

COMMENTS:MEAN HEAT FLOW FOR SJR-1 AND SJR-2 IS 0.69.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	SANTA ANA	AC-1	33 58	117 38	300	30-183	17	3.6	46.0	1.66	
								ERROR	0.1	2.2	0.09	
							183-305	13	2.35	64.2	1.51	
								ERROR	0.04	2.9	0.07	
							30-305					1.6

COMPLETED ON OR BEFORE: 6/23/69 MEASURED: 9/18/69 STATIC WATER LEVEL: BELOW 305.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-305, SAND, SHALE, AND CLAY.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80
TEMP	23.588	25.030	26.923	28.281	29.348	30.548	32.591	34.945	36.749	38.261

CONDUCTIVITY

DEPTH	64.01	70.10	76.20	82.30	88.39	94.49	100.58	106.68	112.78	118.87	126.49	135.64	144.78	153.92	163.07
COND	3.66	3.21	3.50	3.11	3.88	3.57	3.50	3.90	3.52	3.71	3.87	3.90	3.75	2.45	3.05
DEPTH	172.21	181.36	190.50	199.64	208.79	217.93	227.08	236.22	245.36	254.51	263.65	272.80	281.94	291.08	300.23
COND	4.59	3.98	2.45	2.47	2.52	2.44	2.15	2.27	2.08	2.33	2.19	2.25	2.42	2.45	2.59

COMMENTS: HEAT FLOW FOR THE INTERVAL 30-305 IS THE MEAN FOR AC-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF	PAC. COAST	SUNNYVALE	C-3	37 27	122 02	12	160-258	42	3.44	58.6	2.02	2.02
								ERROR	0.06	0.6	0.04	

COMPLETED ON OR BEFORE: 1/61 MEASURED: 9/21/67 STATIC WATER LEVEL: 45.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-258, QUATERNARY SEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	45.00	50.00	55.00	60.00	65.00	70.40	75.00	80.00	85.00	90.00	95.00	100.00
TEMP	18.471	18.623	18.800	18.988	19.137	19.339	19.509	19.677	19.851	20.004	20.111	20.274
DEPTH	105.00	110.00	115.00	120.50	125.00	130.00	135.00	140.00	145.00	150.00	155.10	
TEMP	20.560	20.871	21.144	21.417	21.659	21.862	22.085	22.282	22.453	22.644	22.825	

CONDUCTIVITY

DEPTH	169.47	169.47	169.47	169.47	171.30	171.30	176.78	176.78	186.23	186.23	190.81	190.81	195.68	195.68	199.64
COND	4.0	3.8	3.4	4.2	2.7	3.2	3.6	3.4	3.4	3.1	3.8	3.1	3.6	3.2	3.6
DEPTH	199.64	203.30	203.30	205.74	205.74	220.07	220.07	222.50	222.50	226.16	226.16	231.34	236.22	236.22	240.79
COND	3.8	3.9	3.5	3.6	3.1	3.9	4.1	3.4	3.1	3.4	3.0	2.6	3.4	3.2	2.6
DEPTH	240.79	242.62	242.62	246.58	246.58	251.46	251.46	251.46	254.20	254.20	256.95	256.95			
COND	2.7	4.0	3.7	3.6	3.6	3.1	3.8	3.7	3.5	3.4	3.2	3.5			

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	TEJON RANCH	DH-43	34 53	118 46	1119	122-183	6	8.13	21.75	1.77	1.83
								ERROR	0.26	0.09	0.06	

COMPLETED ON OR BEFORE: 3/ 5/64 MEASURED: 3/14/65 STATIC WATER LEVEL: 79.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3, ALLUVIUM. 3-18, DECOMPOSED GNEISSIC DIORITE. 18-45, ALTERED GNEISSIC DIORITE WITH FAULT ZONE EXTENDING FROM 36-55. 55-183, MICA SCHIST.

TEMPERATURE

DEPTH	121.92	137.16	152.40	167.64	182.88
TEMP	19.028	19.351	19.675	20.009	20.356

CONDUCTIVITY AND DENSITY

DEPTH	36.27	82.30	96.01	109.42	142.19	152.40	157.89	164.59	176.48	182.88
COND	6.00	8.04	7.15	7.86	7.31	8.41	8.37	8.01	7.59	9.11
DENS	2.65	2.67	2.69	2.66	2.79	2.77	2.76	2.75	2.76	2.67

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	1118	1119	1121	1121	1121	1109	1110	1108	1101	1104	1054	1066	1129	1211
RADIUS	6096													
ELEV	1206													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	TEJON RANCH	DH-61	34 57	118 49	506	107-153	9	7.23	18.4	1.33	1.31
					-			ERROR	0.24	2.1	0.16	

COMPLETED ON OR BEFORE: 1/ 5/65 MEASURED: 3/ 5/65 STATIC WATER LEVEL: 84.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-159, GNEISSIC DIORITE.

TEMPERATURE

DEPTH	91.44	106.68	121.92	137.16	153.01
TEMP	21.650	21.800	22.040	22.250	22.670

CONDUCTIVITY AND DENSITY

DEPTH	5.49	10.67	19.51	27.43	33.95	47.24	50.29	54.86	62.03	68.58	73.15	85.34	92.96	99.06	103.33
COND	9.82	7.25	7.93	7.72	7.47	8.71	8.63	7.80	7.31	8.14	7.74	8.29	8.09	7.46	8.32
DENS	2.64	2.64	2.64	2.67	2.66	2.68	2.67	2.67	2.65	2.67	2.70	2.68	2.66	2.65	2.69

DEPTH	108.20	111.25	116.74	123.29	129.24	136.55	143.26	146.91	153.47	158.19
COND	7.25	6.16	7.91	7.67	6.32	7.68	7.34	6.65	8.13	7.39
DENS	2.86	2.79	2.67	2.68	2.63	2.68	2.73	2.66	2.68	2.67

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	505	505	496	463	447	452	464	483	497	502	512	547	567	629

RADIUS	6096
ELEV	687

COMMENTS: THE MEAN HEAT FLOW FOR TEJON RANCH DH-61, DH-62 AND DH-65 IS 1.36.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	TEJON RANCH	DH-62	34 56	118 49	476	76-130	10	6.35	23.93	1.52	1.33
								ERROR	0.44	0.39	0.11	

COMPLETED ON OR BEFORE: 2/12/65 MEASURED: 9/12/65 STATIC WATER LEVEL: 3.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-6, ALLUVIUM AND WEATHERED GNEISSIC DIORITE. 6-130, GNEISSIC DIORITE WITH SOME ALTERATION.

TEMPERATURE

DEPTH	60.96	76.20	91.44	106.68	121.92	129.54
TEMP	21.381	21.670	22.055	22.395	22.752	22.967

CONDUCTIVITY AND DENSITY

DEPTH	10.06	12.50	15.54	24.38	30.78	43.89	48.77	54.86	60.96	65.53	70.10	74.98	81.08	86.11	91.44
COND	6.17	6.65	5.35	5.78	5.52	7.54	5.72	5.58	5.52	6.38	5.48	5.55	6.72	5.46	9.38
DENS	2.91	2.80	2.69	2.88	2.83	2.73	2.88	2.90	3.11	2.71	2.91	2.87	2.69	2.87	2.67

DEPTH	97.84	106.68	109.73	113.08	118.26	121.92	128.32
COND	5.42	5.45	5.77	8.41	5.36	5.67	5.83
DENS	2.73	2.92	2.92	2.73	2.90	2.95	2.77

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	476	479	493	504	516	524	532	542	536	549	559	587	593	640

RADIUS	6096
ELEV	698

COMMENTS: THE MEAN HEAT FLOW FOR TEJON RANCH DH-61, DH-62 AND DH-65 IS 1.36.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	TEJON RANCH	DH-65	34 56	118 49	791	244-433	31	6.95	18.51	1.29	1.38
								ERROR	0.25	0.08	0.05	

COMPLETED ON OR BEFORE: 12/19/64 MEASURED: 9/15/65 STATIC WATER LEVEL: 172.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-8, DECOMPOSED GNEISSIC DIORITE. 8-433, GNEISSIC DIORITE WITH SOME ALTERATION.

TEMPERATURE

DEPTH	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	365.76	381.00	396.24	411.48
TEMP	21.472	21.732	21.987	22.267	22.558	22.846	23.137	23.416	23.703	23.996	24.287	24.565
DEPTH	426.72	432.82										
TEMP	24.822	24.916										

CONDUCTIVITY AND DENSITY

DEPTH	167.64	172.21	176.94	182.88	188.98	195.07	201.47	207.87	213.67	219.15	225.55	231.65	237.74	244.75	250.85
COND	9.69	7.61	8.41	8.06	7.50	7.82	8.21	8.55	7.29	7.42	7.53	8.13	7.80	8.67	8.16
DENS	2.64	2.66	2.63	2.64	2.64	2.67	2.64	2.65	2.64	2.67	2.61	2.59	2.63	2.64	2.64
DEPTH	256.03	262.13	268.53	274.63	280.42	286.66	292.61	299.01	304.80	310.59	317.30	323.39	327.51	335.28	341.38
COND	7.75	7.25	7.96	7.14	7.70	8.19	7.10	8.71	5.42	5.72	5.99	6.00	7.02	9.41	9.39
DENS	2.65	2.63	2.61	2.68	2.61	2.65	2.61	2.65	2.89	2.87	2.98	2.90	2.78	2.66	2.70
DEPTH	347.47	353.57	361.19	366.07	379.78	385.88	390.14	395.63	402.34	406.91	416.05	421.39	427.03	432.51	
COND	10.18	5.40	5.45	4.97	6.07	5.06	6.14	5.72	6.31	6.02	7.10	6.05	7.72	5.71	
DENS	2.66	2.86	2.87	2.85	2.84	2.85	2.90	2.81	2.85	2.88	2.80	2.82	2.76	2.87	

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	790	789	788	780	760	722	688	665	664	686	669	707	647	697
RADIUS	6096													
ELEV	669													

COMMENTS: THE MEAN HEAT FLOW FOR TEJON RANCH DH-61, DH-62 AND DH-65 IS 1.36.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	THOMAS RANCH	ST-1	37 10	120 04	110	203-488	90	7.13	6.35	0.45	0.45
								ERROR	0.04	0.02	0.01	

COMPLETED ON OR BEFORE: 12/13/67 MEASURED: 4/30/68 STATIC WATER LEVEL: 0.0

REFERENCE: LACHENBRUCH(1968), SASS ET AL.(1971b).

GEOLOGY: 0-203, CENOZOIC SAN JOAQUIN VALLEY SEDIMENTARY DEPOSITS. 203-493, JURASSIC GNEISSOSE QUARTZ DIORITE.

TEMPERATURE

DEPTH	17.75	22.75	27.75	32.75	47.75	52.75	57.75	62.75	67.75	72.75	77.75	82.75
TEMP	20.656	20.758	20.984	21.280	21.911	22.018	22.119	22.212	22.283	22.340	22.391	22.459
DEPTH	87.75	92.75	97.75	102.75	107.75	112.75	117.75	122.75	127.75	132.75	137.75	142.75
TEMP	22.516	22.575	22.630	22.673	22.698	22.813	22.905	22.989	23.070	23.124	23.172	23.222
DEPTH	147.75	152.75	157.75	162.75	167.75	172.75	177.75	182.75	187.75	192.75	197.75	202.75
TEMP	23.265	23.308	23.349	23.391	23.430	23.469	23.505	23.543	23.580	23.619	23.659	23.700
DEPTH	207.75	212.75	217.75	222.75	227.75	232.75	237.75	242.75	247.75	252.75	257.75	262.75
TEMP	23.736	23.768	23.798	23.827	23.855	23.886	23.920	23.954	23.988	24.017	24.045	24.077
DEPTH	267.75	272.75	277.75	282.75	287.75	292.75	297.75	302.75	307.75	312.75	317.75	322.75
TEMP	24.113	24.152	24.188	24.217	24.241	24.268	24.296	24.329	24.362	24.399	24.430	24.464
DEPTH	327.75	332.75	337.75	342.75	347.75	352.75	357.75	362.75	367.75	372.75	377.75	382.75
TEMP	24.498	24.537	24.572	24.611	24.644	24.673	24.701	24.730	24.759	24.792	24.824	24.856
DEPTH	387.75	392.75	397.75	402.75	407.75	412.75	417.75	422.75	427.75	432.75	437.75	442.75
TEMP	24.886	24.918	24.950	24.982	25.016	25.054	25.091	25.125	25.156	25.180	25.203	25.231
DEPTH	447.75	452.75	457.75	462.75	467.75	472.75	477.75	482.75	487.75	492.45	492.45	
TEMP	25.258	25.286	25.313	25.342	25.371	25.401	25.430	25.458	25.487	25.507	25.510	

CONDUCTIVITY AND DENSITY

DEPTH	155.44	155.44	162.15	162.15	167.64	167.64	175.26	175.26	182.26	182.26	190.50	190.50	198.12	198.12	205.74
COND	7.26	6.88	6.43	7.19	7.46	7.47	6.85	7.36	7.35	7.46	7.18	7.47	7.04	7.55	7.05
DENS	2.62	2.62	2.59	2.63	2.67	2.67	2.69	2.68	2.67	2.67	2.69	2.70	2.67	2.68	2.67
DEPTH	205.74	213.38	213.38	220.98	220.98	228.60	228.60	236.22	236.22	244.13	244.13	251.46	251.46	259.08	259.08
COND	7.51	7.02	6.97	7.34	6.88	7.74	7.17	7.32	7.64	6.67	6.74	6.65	7.50	6.92	7.72
DENS	2.67	2.67	2.68	2.67	2.67	2.67	2.67	2.71	2.70	2.67	2.67	2.69	2.67	2.67	2.67
DEPTH	266.70	266.70	274.31	274.31	282.25	282.25	289.56	289.56	297.18	297.18	304.78	304.78	312.73	312.73	320.04
COND	7.16	7.17	7.01	6.79	6.94	6.30	7.94	7.41	7.74	7.34	6.66	7.43	6.65	6.80	6.99
DENS	2.67	2.68	2.68	2.67	2.68	2.68	2.66	2.66	2.66	2.67	2.67	2.66	2.69	2.68	2.69

THOMAS RANCH ST-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	320.04	328.27	328.27	335.26	335.26	342.90	342.90	350.52	350.52	358.14	358.14	365.13	365.13	373.38	373.38
COND	6.76	6.93	7.00	7.28	7.20	7.35	6.83	6.17	7.47	7.03	7.32	7.04	6.86	7.40	7.04
DENS	2.68	2.67	2.66	2.68	2.68	2.67	2.66	2.67	2.68	2.67	2.69	2.67	2.69	2.67	2.69
DEPTH	381.00	381.00	388.62	388.62	396.49	396.49	403.25	403.25	411.79	411.79	419.10	419.10	426.55	426.55	434.34
COND	6.89	7.31	7.75	7.48	7.06	7.25	7.29	6.96	6.90	6.86	7.16	7.04	6.83	6.82	7.13
DENS	2.68	2.67	2.69	2.68	2.68	2.68	2.68	2.69	2.67	2.68	2.69	2.69	2.68	2.68	2.67
DEPTH	434.34	441.96	441.96	449.58	449.58	457.18	457.18	464.82	464.82	472.44	472.44	480.06	480.06	487.10	487.10
COND	7.21	7.17	7.08	7.58	7.49	7.33	7.07	6.70	6.92	6.83	7.05	7.55	7.20	6.82	6.36
DENS	2.68	2.67	2.66	2.66	2.67	2.67	2.68	2.68	2.68	2.67	2.67		2.68	2.67	2.68

HEAT PRODUCTION

DEPTH	155.00	175.00	195.00	215.00	235.00	255.00	275.00	295.00	315.00	335.00	355.00	374.00
H	0.94	0.92	0.82	0.99	0.74	0.86	0.94	0.94	1.08	0.74	0.87	0.85
DEPTH	395.00	415.00	435.00	455.00	475.00	485.00						
H	0.71	0.63	0.80	0.81	0.91	0.87						

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF	PAC. COAST	TRACY	DH-2	37 48	121 35	19	33-246	34	3.27	(29.3)	0.96	0.96
								ERROR	0.14		0.02	

COMPLETED ON OR BEFORE: 5/20/63 MEASURED: 5/21/63 STATIC WATER LEVEL: 0.0

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-247, QUATERNARY AND TERTIARY SEDIMENTARY DEPOSITS.

TEMPERATURE

DEPTH	32.90	48.20	63.40	78.60	93.90	109.10	124.40	139.60	154.80	170.10	185.30	200.60
TEMP	19.137	19.661	20.197	20.857	21.443	22.193	22.542	22.966	23.324	23.956	24.297	24.711
DEPTH	215.80	246.30										
TEMP	25.527	26.921										

CONDUCTIVITY

DEPTH	15.24	33.59	33.83	36.58	36.88	39.62	39.93	42.67	42.98	45.78	52.43	52.73	55.78	56.39	60.96
COND	3.85	3.88	3.79	4.09	4.09	3.76	3.79	4.15	4.11	3.79	4.11	4.37	4.08	4.20	4.13
DEPTH	61.63	65.53	65.84	68.88	69.80	71.93	73.21	88.39	91.50	91.74	122.47	125.03	159.08	182.21	196.47
COND	4.21	4.22	3.77	4.07	3.11	3.63	3.48	2.33	2.70	2.68	2.36	2.26	2.86	3.22	3.73
DEPTH	196.60	197.51	227.84	227.99											
COND	3.28	2.82	2.55	2.26											

COMMENTS: HEAT FLOW WAS CALCULATED BY BULLARD'S METHOD. SEE TEXT.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	PAC. COAST	WILLITTS	EC-1	39 34	123 07	1100	153-344	6	8.41	21.40	1.80	1.8
								ERROR	0.28	0.06	0.06	

COMPLETED ON OR BEFORE: 4/ 3/66 MEASURED: 8/ 9/69 STATIC WATER LEVEL: 146.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-459, CHERT AND GRAYWACKE SANDSTONE.

TEMPERATURE

DEPTH	153.31	160.90	168.55	176.17	183.75	191.46	199.02	206.66	214.34	221.86	229.47	237.14
TEMP	12.296	12.451	12.606	12.778	12.928	13.084	13.246	13.407	13.574	13.736	13.899	14.057
DEPTH	244.82	252.44	259.98	267.57	275.24	282.87	290.40	298.16	305.73	313.34	321.00	328.58
TEMP	14.210	14.372	14.529	14.695	14.871	15.034	15.209	15.385	15.549	15.721	15.881	16.040
DEPTH	336.20	343.80	351.39	359.06	366.66	374.30	381.92	389.54	397.19	404.76	412.36	420.00
TEMP	16.186	16.344	16.524	16.699	16.876	17.062	17.250	17.429	17.621	17.818	18.034	18.237
DEPTH	427.59	435.26	442.88	450.47	458.14							
TEMP	18.443	18.617	18.821	19.060	19.204							

CONDUCTIVITY AND DENSITY

DEPTH	139.42	210.31	210.62	222.81	321.02	321.11	322.45	401.12	458.48
COND	14.26	8.49	8.72	7.66	7.50	9.29	8.78	7.13	11.53
DENS		2.72	2.72		2.74	2.72	2.71	2.72	2.67

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1100	1097	1066	1127	1158	1063	1046	1061	1107	1108	1126	960	872	882
RADIUS	15875													
ELEV	947													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	COLO. PLAT	BARCUS CREEK	BC-1	40 03	108 31	1920	411-544	17	2.87	67.4	1.93	2.0
								ERROR	0.36	0.7	0.24	

COMPLETED ON OR BEFORE: 11/68 MEASURED: 11/29/69 STATIC WATER LEVEL: 229.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-545, PARACHUTE CREEK MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	9.713	9.891	10.100	10.309	10.618	10.928	11.289	11.669	12.108	12.479	12.799	13.128
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	13.390	13.651	13.925	14.205	14.508	14.803	15.051	15.278	15.460	15.633	15.788	15.879
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94
TEMP	16.353	16.453	16.477	16.461	16.507	16.534	16.569	16.612	16.647	16.672	16.643	16.655
DEPTH	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38
TEMP	16.680	16.708	16.732	16.761	16.793	25.584	25.684	25.694	25.702	25.709	25.716	25.722
DEPTH	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20	464.82
TEMP	25.728	25.732	25.735	25.939	26.080	26.502	26.914	27.342	27.808	28.489	28.873	29.316
DEPTH	472.44	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40	541.02	544.07	
TEMP	29.919	30.571	31.242	31.535	32.196	32.711	33.133	33.551	34.272	34.516	34.743	

CONDUCTIVITY AND DENSITY

DEPTH	335.31	341.44	347.78	353.66	359.79	365.67	371.95	377.92	384.14	390.18	396.27	402.34	408.52	414.56	420.35
COND	3.53	3.83	2.38	2.24	1.94	3.17	3.25	2.11	3.31	5.43	4.73	2.89	3.08	2.93	.95
DENS	2.26	2.29	2.07	1.91	1.71	2.15	2.18	1.97	2.26	2.34	2.15	2.06	2.03	2.03	2.32
DEPTH	426.57	432.88	438.82	445.01	451.10	457.14	469.39	475.49	481.71	487.77	493.56	499.87	506.03	512.13	518.16
COND	3.80	2.17	3.00	3.38	2.30	2.55	1.70	4.09	2.10	1.41	1.95	2.86	1.51	2.01	4.42
DENS	2.22	1.83	2.22		2.31	2.32	2.20	2.17	1.91	2.03	2.25		2.09	2.14	
DEPTH	524.26	530.44	542.54												
COND	4.62	7.16	1.62												
DENS	2.51	2.66	2.15												

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	COLO. PLAT	RIO BLANCO	TG2-3	39 46	108 09	2070	46-107	8	3.79	57.9	2.19	
								ERROR	0.16	0.4	0.09	
							201-322	16	2.69	49.4	1.33	
								ERROR	0.20	1.4	0.11	
							46-322					1.5

COMPLETED ON OR BEFORE: 11/20/68 MEASURED: 12/ 1/69 STATIC WATER LEVEL: 3.

REFERENCE: SASS ET AL. (1971b)

GEOLOGY: 0-322, PARACHUTE CREEK MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	7.908	9.034	9.550	9.395	9.734	9.974	10.385	10.830	11.264	11.695	12.134	12.580
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	13.026	13.520	14.110	15.275	17.433	19.382	21.318	21.448	21.515	21.555	21.563	21.441
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	21.878	21.880	22.292	22.554	22.750	23.445	23.551	23.860	23.959	24.309	24.996	25.478
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04						
TEMP	25.708	26.365	26.823	27.160	27.417	27.606						

CONDUCTIVITY AND DENSITY

DEPTH	48.16	54.86	60.96	66.75	73.15	79.25	91.44	97.54	201.17	207.26	213.36	219.46	231.65	237.74	244.15
COND	3.18	3.62	4.70	4.11	3.59	3.84	3.58	3.70	3.55	2.97	1.89	3.76	2.54	3.76	1.34
DENS	2.15	2.18	2.33	2.24	2.14	2.36	2.11	2.36	2.41	2.30	1.97	2.39	2.21	2.32	1.70
DEPTH	249.94	255.88	261.82	273.71	285.90	298.70	304.19	310.90	316.99						
COND	1.51	3.44	2.95	2.07	2.01	3.19	2.03	2.61	3.44						
DENS	1.79	2.19	2.14	1.97	1.95	2.20	1.96	2.14	2.36						

COMMENTS: WATER FLOWING FROM TG2-3. THE HEAT FLOW IN THE INTERVAL 46-322 IS THE MEAN FOR TG2-3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	ROCKY MTS	ROCKY MT. ARS.		39 51	104 51	1501	368-2535	42	5.83	(38.6)	2.25	2.14
								ERROR	0.65		0.11	
							3017-3597	19	8.96	24.7	2.21	1.88
								ERROR	0.60	1.0	0.16	
							368-3597					2.0

COMPLETED ON OR BEFORE: 9/28/61 MEASURED: 2/ 1/68 STATIC WATER LEVEL: 358.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-140, TERTIARY SHALE, SAND, AND CONGLOMERATE. 140-2677, CRETACEOUS SHALE, SAND, AND LIMESTONE. 2677-2735, JURASSIC SHALE. 2735-2926, TRIASSIC SHALE. 2926-2979, PERMIAN SILTSTONE, SANDSTONE, AND SHALE. 2979-3620, PENNSYLVANIAN SILTSTONE, SANDSTONE, AND SHALE. 3620-3625, SHALE, QUARTZITE, AND DOLOMITE. 3625-3653, PRE-CAMBRIAN GRANITE GNEISS.

TEMPERATURE

DEPTH	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	580.00
TEMP	24.259	25.121	25.854	26.386	26.875	27.404	27.982	28.525	29.161	29.797	30.501	31.235
DEPTH	600.00	620.00	640.00	660.00	680.00	700.20	700.20	700.20	720.00	720.00	740.00	760.00
TEMP	31.887	32.595	33.178	33.785	34.368	34.990	34.985	34.985	35.578	35.589	36.179	36.651
DEPTH	780.00	800.00	820.00	840.00	860.00	880.00	900.00	920.00	940.00	960.00	980.00	1000.00
TEMP	37.332	37.962	38.742	39.512	40.351	41.308	42.309	43.005	43.856	44.484	45.297	46.264
DEPTH	1020.00	1040.00	1060.00	1080.00	1100.00	1120.00	1140.00	1180.00	1200.00	1220.00	1240.00	1260.00
TEMP	47.146	48.093	48.910	49.705	50.587	51.452	52.377	53.745	54.654	55.438	56.581	57.623
DEPTH	1280.00	1300.00	1320.00	1340.00	1360.00	1380.00	1400.00	1420.00	1440.00	1460.00	1480.00	1500.00
TEMP	58.071	59.058	60.013	61.031	61.783	63.011	63.745	64.550	65.099	65.897	66.743	67.766
DEPTH	1520.00	1540.00	1560.00	1580.00	1600.00	1620.00	1640.00	1660.00	1680.00	1700.00	1720.00	1740.00
TEMP	68.636	69.221	70.200	70.881	71.389	71.892	72.631	73.202	74.211	74.821	75.512	76.245
DEPTH	1760.00	1780.00	1800.00	1820.00	1840.00	1860.00	1880.00	1900.00	1920.00	1940.00	1960.00	1980.00
TEMP	77.042	77.624	78.386	79.099	79.986	80.821	81.549	82.390	83.129	84.041	84.933	85.898
DEPTH	2000.00	2010.00	2020.00	2030.00	2040.00	2050.00	2060.00	2070.00	2080.00	2090.00	2100.00	2110.00
TEMP	86.895	87.333	87.801	88.452	88.854	89.243	89.723	90.436	90.792	91.303	91.892	92.457
DEPTH	2120.00	2130.00	2140.00	2150.00	2160.00	2170.00	2180.00	2190.00	2200.00	2210.00	2220.00	2230.00
TEMP	92.983	93.331	93.841	94.423	94.834	95.359	95.764	96.395	96.736	97.267	97.659	98.318
DEPTH	2240.00	2250.00	2260.00	2270.00	2280.00	2290.00	2300.00	2310.00	2320.00	2330.00	2340.00	2350.00
TEMP	98.585	98.831	99.436	99.892	100.192	100.477	100.662	100.815	101.307	101.744	102.222	102.520
DEPTH	2360.00	2370.00	2380.00	2390.00	2400.00	2410.00	2420.00	2430.00	2440.00	2450.00	2460.00	2470.00
TEMP	102.946	103.264	103.633	104.045	104.588	104.964	105.377	105.825	106.127	106.514	106.996	107.308

ROCKY MT. ARS.

TEMPERATURE (CONTINUED)

DEPTH	2480.00	2490.00	2500.00	2510.00	2520.00	2530.00	2540.00	2550.00	2560.00	2570.00	2580.00	2590.00
TEMP	107.839	108.565	109.848	110.396	111.131	111.659	112.282	112.468	112.662	112.997	113.381	113.741
DEPTH	2600.00	2610.00	2620.00	2630.00	2640.00	2650.00	2660.00	2670.00	2680.00	2690.00	2700.00	2710.00
TEMP	113.952	114.120	114.047	113.628	113.795	114.008	114.232	114.497	114.945	115.355	115.958	116.302
DEPTH	2720.00	2730.00	2740.00	2750.00	2760.00	2770.00	2780.00	2790.00	2800.00	2810.00	2820.00	2830.00
TEMP	116.379	116.434	116.692	116.961	117.219	117.439	117.839	118.077	118.423	118.848	119.315	119.531
DEPTH	2840.00	2850.00	2860.00	2870.00	2880.00	2890.00	2900.00	2910.00	2920.00	2930.00	2940.00	2950.00
TEMP	119.723	119.766	120.151	120.609	120.896	121.062	121.143	121.081	121.135	121.366	121.518	121.632
DEPTH	2960.00	2970.00	2980.00	2990.00	3000.00	3010.00	3020.00	3030.00	3040.00	3050.00	3060.00	3070.00
TEMP	121.793	121.934	122.326	122.619	122.838	123.004	123.236	123.441	123.513	123.518	123.628	123.785
DEPTH	3080.00	3090.00	3100.00	3110.00	3120.00	3130.00	3140.00	3150.00	3160.00	3170.00	3180.00	3190.00
TEMP	123.937	124.229	124.489	124.603	124.743	125.001	125.302	125.518	125.786	126.091	126.309	126.512
DEPTH	3200.00	3210.00	3220.00	3230.00	3240.00	3250.00	3260.00	3270.00	3280.00	3290.00	3300.00	3310.00
TEMP	126.704	127.039	127.413	127.622	127.692	127.832	128.151	128.396	128.672	128.887	128.810	128.757
DEPTH	3320.00	3330.00	3340.00	3350.00	3360.00	3370.00	3380.00	3390.00	3400.00	3410.00	3420.00	3430.00
TEMP	129.123	129.301	129.598	130.073	130.620	131.176	131.420	132.079	132.612	132.792	133.215	133.695
DEPTH	3440.00	3450.00	3460.00	3470.00	3480.00	3490.00	3500.00	3510.00	3520.00	3530.00	3540.00	3550.00
TEMP	134.255	134.755	135.212	135.511	135.771	135.841	136.147	136.528	136.711	136.924	136.585	134.779
DEPTH	3560.00	3570.00	3578.90	3578.90								
TEMP	129.620	119.439	111.982	111.925								

CONDUCTIVITY AND DENSITY

DEPTH	62.48	123.44	184.40	245.36	306.32	370.33	428.24	489.20	550.16	611.13	672.09	733.05	794.01	854.97	915.93
COND	5.73	6.25	5.00	5.70	5.29	5.65	6.16	5.56	6.99	5.67	5.22	8.18	7.32	5.82	5.98
DENS															
DEPTH	976.89	1037.85	1098.81	1159.77	1220.73	1281.69	1342.65	1403.61	1464.57	1522.48	1586.49	1647.45	1708.41	1769.37	1830.33
COND	5.54	5.60	6.40	5.81	6.52	5.69	5.44	5.37	6.12	6.36	6.04	6.31	6.51	5.72	5.71
DENS															
DEPTH	1891.29	1952.25	2013.21	2074.17	2135.13	2193.04	2257.05	2318.01	2378.97	2439.93	2500.89	2561.85	3019.96	3019.96	3092.81
COND	5.60	5.77	6.07	5.45	5.19	5.71	5.21	5.21	5.64	5.49	5.53	4.30	12.04	11.8	13.52
DENS													2.56	2.56	2.59
DEPTH	3092.81	3145.85	3145.85	3167.18	3167.18	3230.89	3230.89	3239.42	3239.42	3299.16	3299.16	3368.05	3368.05	3402.18	3402.18
COND	14.40	7.25	7.02	7.77	7.56	4.88	5.07	8.58	9.07	10.39	10.10	9.10	9.09	7.06	7.10
DENS	2.58	2.70	2.71	2.65	2.66	2.73	2.72	2.69	2.68	2.63	2.64	2.66	2.66	2.66	2.66

ROCKY MT. ARS.

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH 3652.12
COND 8.33
DENS 2.65

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH. A SECOND SET OF TEMPERATURE MEASUREMENTS BY SCHLUMBERGER ON 11/10/68 WERE USED TO DETERMINE THE GRADIENT IN THE INTERVAL 3017-3597. A TEMPERATURE CORRECTION WAS APPLIED TO THE CONDUCTIVITIES REDUCING THE MEAN FROM 8.96 TO 7.6.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	COLO. PLAT	YELLOW CREEK	CH-1	40 03	108 20	1830	46-671	25	3.40	43.3	1.47	
								ERROR	0.26	0.2	0.11	
							671-881	14	2.25	63.4	1.43	
								ERROR	0.25	0.9	0.16	
							46-881					1.5

COMPLETED ON OR BEFORE: 21/66 MEASURED: 11/30/69 STATIC WATER LEVEL: 50.

REFERENCE: SASS ET AL. (1971b)

GEOLOGY: 0-14, ALLUVIUM. 14-299, EVACUATION CREEK MEMBER OF THE GREEN RIVER FORMATION; SILTSTONE, SANDSTONE, AND SHALE. 299-789, PARACHUTE CREEK MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE. 789-930, GARDEN GULCH MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	8.649	8.219	8.263	8.455	8.757	9.120	9.477	9.799	10.123	10.456	10.800	11.121
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	11.433	11.676	11.957	12.247	12.556	12.857	13.152	13.421	13.681	13.964	14.252	14.534
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	267.31	274.32	281.94
TEMP	14.816	15.056	15.332	15.580	15.821	16.096	16.429	16.829	17.277	17.631	17.888	18.208
DEPTH	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38
TEMP	18.457	18.713	18.964	19.227	19.569	19.997	20.367	20.849	21.227	21.529	21.894	22.242
DEPTH	381.00	388.62	396.24	403.86	412.09	419.10	426.72	434.34	441.96	449.58	457.20	464.82
TEMP	22.664	23.166	23.447	23.846	24.165	24.556	24.907	25.410	25.696	26.146	26.485	26.860
DEPTH	472.44	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40	541.02	548.64	556.26
TEMP	27.301	27.618	27.952	28.244	28.521	28.784	29.040	29.315	29.502	29.797	30.085	30.416
DEPTH	564.19	571.50	579.12	586.74	594.36	601.98	609.60	617.22	624.84	632.46	640.08	647.70
TEMP	30.743	31.122	31.472	31.809	32.141	32.476	32.968	33.501	33.686	33.990	34.284	34.532
DEPTH	655.32	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90	731.52	739.14
TEMP	34.850	35.154	35.477	35.858	36.304	36.829	37.256	37.719	38.242	38.621	38.950	39.334
DEPTH	746.76	754.38	762.00	769.62	777.24	784.86	792.48	800.10	807.72	815.34	822.96	830.58
TEMP	39.685	40.069	40.479	40.778	41.216	41.751	42.387	42.928	43.488	43.997	44.720	45.187
DEPTH	838.20	845.82	853.44	861.06	868.99	876.30	880.57	880.57				
TEMP	45.875	46.528	47.009	47.522	47.931	48.358	48.677	48.677				

YELLOW CREEK CH-1

CONDUCTIVITY AND DENSITY

DEPTH	234.70	243.84	259.08	274.93	289.87	305.41	320.04	349.91	365.76	375.82	396.24	411.48	426.72	441.96	457.20
COND	5.40	4.41	3.98	4.50	3.78	4.25	2.57	2.47	3.28	2.84	1.74	6.97	1.89	2.13	2.59
DENS	2.40	2.33	2.28	2.24	2.30	2.37	2.10	2.09	2.30	2.06	1.87	2.41	2.12	2.12	2.25
DEPTH	473.05	484.94	502.31	518.77	535.23	548.95	563.88	579.12	594.36	609.60	685.80	701.35	716.28	731.52	762.00
COND	4.89	1.82	3.63	3.28	4.10	4.36	2.38	2.60	1.80	3.42	2.13	2.16	3.21	2.13	3.43
DENS	2.23	2.01	2.43	2.40		2.42	2.12	2.11	1.86	2.24	1.95	2.00	2.24	1.97	2.27
DEPTH	777.24	807.72	822.96	838.20	853.44	868.68	883.92	899.16	929.64						
COND	1.53	2.78	1.16	2.16	1.83	1.77	2.70	1.86	2.59						
DENS	1.92	2.38	2.03	2.39	2.27	2.41	2.44	2.34	2.50						

COMMENTS: THE HEAT FLOW IN THE INTERVAL 46-881 IS THE MEAN FOR CH-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	COLO. PLAT	YELLOW CREEK	CH-2	39 58	108 28	2011	76-404	10	3.42	30.1	1.03	
								ERROR	0.28	0.2	0.08	
							404-488	6	2.58	57.0	1.47	
								ERROR	0.27	0.3	0.15	
							663-716	5	2.52	50.9	1.28	
								ERROR	0.39	1.9	0.20	
							76-716					1.4

COMPLETED ON OR BEFORE: 7/17/66 MEASURED: 11/30/69 STATIC WATER LEVEL: 57.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-15, ALLUVIUM. 15-381, EVACUATION CREEK MEMBER OF THE GREEN RIVER FORMATION; SILTSTONE, SANDSTONE, AND SHALE. 381-631, PARACHUTE CREEK MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE. 631-717, GARDEN GULCH MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE.

TEMPERATURE

DEPTH	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54	137.16	144.78
TEMP	11.208	11.322	11.486	11.691	11.880	12.083	12.290	12.502	12.718	12.943	13.097	13.290
DEPTH	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98	228.60	236.22
TEMP	13.515	13.713	13.914	14.113	14.336	14.572	14.807	15.044	15.288	15.528	15.785	16.033
DEPTH	243.84	251.46	259.08	266.70	274.32	283.16	289.56	297.18	304.80	312.42	320.04	327.66
TEMP	16.265	16.490	16.735	16.995	17.237	17.515	17.718	17.965	18.233	18.539	18.791	19.053
DEPTH	335.28	342.90	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48	419.10
TEMP	19.221	19.383	19.556	19.763	19.969	20.204	20.448	20.682	20.972	21.207	21.623	22.010
DEPTH	426.72	434.34	441.96	449.58	457.20	464.82	472.44	480.06	487.68	495.30	502.92	510.54
TEMP	22.537	22.968	23.373	23.798	24.218	24.681	25.111	25.531	25.982	26.387	26.720	27.078
DEPTH	518.16	525.78	533.40	541.02	548.64	556.26	563.88	571.50	579.12	586.74	594.36	601.98
TEMP	27.394	27.643	27.936	28.183	28.305	28.199	28.154	28.149	27.922	27.701	27.275	26.857
DEPTH	609.60	617.22	624.84	632.46	640.08	647.70	655.32	662.94	670.56	678.18	685.80	693.42
TEMP	26.121	24.524	23.973	24.397	26.046	32.282	36.613	37.652	38.216	38.614	38.905	39.436
DEPTH	701.04	708.66	716.28									
TEMP	39.739	40.130	40.377									

CONDUCTIVITY AND DENSITY

DEPTH	259.69	274.02	289.56	304.80	320.04	335.28	350.52	365.76	381.00	396.24	409.96	429.77	441.66	459.64	474.88
COND	3.46	3.13	5.29	4.05	3.28	3.70	3.58	2.61	3.16	1.98	3.49	1.45	2.52	2.76	2.78
DENS	2.33	2.35	2.23	2.40	2.37	2.13	2.42	2.32	2.31	1.99	2.32	1.69	2.09	2.33	2.21

YELLOW CREEK CH-2

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	487.68	518.16	533.40	548.64	564.19	579.12	594.67	610.82	624.84	640.08	655.32	670.56
COND	2.50	3.48	1.52	2.04	1.55	1.53	2.16	1.96	1.87	2.53	4.00	2.23
DENS	2.22	2.37	1.82	2.11	1.99	1.80	2.19	1.89	1.91	2.02	2.27	1.89

COMMENTS: TEMPERATURES AFFECTED BY WATER FLOW IN ZONE BETWEEN 76 AND 404 AND THE HEAT FLOW IN THE INTERVAL IS NOT INCLUDED IN THE MEAN. THE HEAT FLOW IN THE INTERVAL 76-716 IS THE BEST VALUE FOR CH-2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
COLO.	COLO. PLAT	YELLOW CREEK	CH-3	40 03	108 21	1937	617-983	14	2.64	56.4	1.49	1.5
								ERROR	0.21	0.7	0.12	

COMPLETED ON OR BEFORE: 11/ 6/67 MEASURED: 11/29/69 STATIC WATER LEVEL: 213.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-15, ALLUVIUM. 15-634, EVACUATION CREEK MEMBER OF THE GREEN RIVER FORMATION; SILTSTONE, SANDSTONE, AND SHALE. 634-986, PARACHUTE CREEK MEMBER OF THE GREEN RIVER FORMATION; OIL SHALE.

TEMPERATURE

DEPTH	68.58	106.68	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56
TEMP	11.370	12.153	13.865	13.961	14.052	14.310	14.577	15.067	15.297	15.378	15.400	15.439
DEPTH	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38	381.00
TEMP	15.448	15.497	15.560	15.543	15.593	15.638	15.637	15.687	15.698	15.739	15.806	15.845
DEPTH	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20	464.82	472.44
TEMP	15.870	15.913	15.917	15.921	15.969	16.022	16.152	17.157	24.462	27.191	28.945	29.706
DEPTH	480.06	487.68	495.30	504.14	510.54	518.16	525.78	533.40	541.02	548.64	556.26	563.88
TEMP	30.197	30.592	30.752	30.884	30.982	31.073	31.123	31.186	31.207	31.229	31.242	31.263
DEPTH	571.50	579.12	587.35	594.36	601.98	617.22	624.84	632.46	640.08	647.70	655.32	662.94
TEMP	31.285	31.301	31.309	31.324	31.344	31.661	32.174	32.422	32.802	33.068	33.367	33.684
DEPTH	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90	731.52	739.14	746.76	754.38
TEMP	33.977	34.241	34.537	34.830	35.123	35.457	35.828	36.246	36.726	37.196	37.633	38.055
DEPTH	762.00	769.62	777.55	784.86	792.48	800.10	807.72	815.34	822.96	830.58	838.20	845.82
TEMP	38.522	38.929	39.287	39.636	39.994	40.360	40.727	41.105	41.557	42.069	42.589	43.094
DEPTH	853.44	861.06	868.68	876.30	883.92	891.54	899.16	906.78	914.40	922.02	929.64	937.26
TEMP	43.611	44.199	44.794	45.384	45.922	46.488	47.040	47.530	47.959	48.485	48.962	49.418
DEPTH	944.88	952.50	960.12	967.74	975.36	982.98	985.12					
TEMP	49.795	50.121	50.421	50.796	51.103	51.370	51.419					

CONDUCTIVITY AND DENSITY

DEPTH	614.17	639.78	686.11	708.48	708.66	732.04	756.51	802.23	822.96	852.22	852.22	875.08	899.16	922.33
COND	2.84	3.78	3.53	3.02	3.11	4.08	1.93	2.02	2.71	1.52	2.28	2.26	1.69	2.24
DENS	2.08	2.24				2.17	1.92	1.88	2.09	2.00	2.18	2.10	2.04	2.16

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
IDAHO	ROCKY MTS	WALLACE		47 29	115 58	928	957-1201	30	11.9	21.42	2.55	2.3
								ERROR	1.8	0.01	0.38	

COMPLETED ON OR BEFORE: 10/62 MEASURED: 9/64 STATIC WATER LEVEL: ?

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-1202, REVETT FORMATION; QUARTZITE.

TEMPERATURE

DEPTH	957.00	1016.00	1109.00	1201.00
TEMP	31.300	32.500	34.500	36.500

CONDUCTIVITY AND DENSITY

DEPTH	954.94	954.94	954.94	954.94	954.94	955.85	955.85	955.85	955.85	955.85	1016.51	1016.51	1016.51	1016.51	1016.51
COND	12.78	13.88	10.41	14.53	17.17	10.65	15.13	13.32	13.44	14.96	10.03	13.85	11.28	11.03	16.35
DENS	2.86	2.76	2.74	2.73	2.80	2.77	2.80	2.82	2.70	2.76	3.05	2.76	2.75	2.86	2.79
DEPTH	1097.28	1097.28	1097.28	1097.28	1097.28	1109.78	1109.78	1109.78	1109.78	1109.78	1201.52	1201.52	1201.52	1201.52	1201.52
COND	13.95	6.16	8.35	9.81	12.45	13.85	15.70	14.66	14.38	13.52	14.40	15.21	13.26	14.02	15.10
DENS	2.76	2.77	2.70	2.80	2.70	2.72	2.71	2.71	2.72	2.69	2.76	2.74	2.68	2.72	2.73

COMMENTS: TEMPERATURES MEASURED IN HOLES DRILLED IN DRIFT WALLS ON FOUR LEVELS IN THE GALENA MINE. TEMPERATURES ARE CORRECTED FOR THE EFFECTS OF VENTILATION. CONDUCTIVITY ERROR INCLUDES AN ESTIMATE OF THE EFFECT ON THE CONDUCTIVITY OF THE NEARBY CONTACT BETWEEN THE REVETT FORMATION AND THE ST. REGIS FORMATION. THE TWO FORMATIONS HAD MEAN CONDUCTIVITIES OF 13.7 AND 10.1. THE MEAN OF 11.9 WAS ADOPTED AS THE BEST VALUE. THE TOPOGRAPHY AFFECTING THE HEAT FLOW AT THE GALENA MINE IS APPROXIMATED BY A LEES VALLEY 370 METERS DEEP WITH B/H = 1 AND X/H = 0.2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
KANSAS	INT. PLN	LYONS	#1	38 23	98 10	525	99-229		3.82	36.42	1.39	
								ERROR	0.38	0.56	0.14	
							252-328		12.5	13.35	1.67	
								ERROR	1.0	0.20	0.14	

COMPLETED ON OR BEFORE: 10/ 8/70 MEASURED: 11/17/70 STATIC WATER LEVEL: 44.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-394, INTERBEDDED SEDIMENTARY ROCKS MAINLY SHALE, SILTSTONE, GYPSUM, DOLOMITE, ANHYDRITE, AND SALT.

TEMPERATURE

DEPTH	48.83	53.28	61.14	68.52	76.20	83.91	91.47	99.30	106.68	114.30	121.92	129.69
TEMP	16.066	16.130	16.297	16.437	16.596	16.752	17.011	17.107	17.478	17.782	17.859	18.272
DEPTH	137.31	144.93	152.40	160.23	167.79	175.32	182.88	190.53	198.18	205.68	213.39	221.04
TEMP	18.495	18.786	18.996	19.385	19.662	19.720	20.091	20.590	20.705	20.848	21.437	21.506
DEPTH	228.66	236.22	243.66	251.55	259.02	266.70	274.23	281.85	289.65	297.18	304.89	312.63
TEMP	21.825	22.090	22.257	22.414	22.497	22.578	22.724	22.796	22.906	23.039	23.122	23.222
DEPTH	320.10	327.72	335.28	342.90	350.37	358.26						
TEMP	23.313	23.409	23.409	23.733	23.915	24.096						

CONDUCTIVITY AND DENSITY

DEPTH	42.58	64.31	73.67	92.84	95.34	96.53	99.30	106.07	110.61	111.86	129.69	139.87	148.50	156.79	161.12
COND	3.74	6.50	5.88	3.22	8.11	4.15	3.63	3.82	5.22	5.99	5.00	5.12	4.29	4.08	5.28
DENS					2.48										
DEPTH	165.05	172.55	187.94	205.74	216.71	224.55	235.92	241.25	244.60	248.26	255.79	259.08	263.13	264.26	268.16
COND	3.59	3.88	2.91	4.53	7.97	6.09	9.21	12.30	6.32	4.95	13.02	8.91	13.72	8.56	12.06
DENS							2.85								
DEPTH	279.99	285.72	288.37	292.36	297.55	300.41	301.69	308.28	314.61	320.95	323.79	326.47	330.10	332.54	333.36
COND	11.10	9.9	11.62	14.42	10.66	16.04	13.59	14.26	12.97	10.38	5.96	14.20	8.98	10.09	6.92
DENS														2.87	2.53
DEPTH	336.47	342.75	346.31	347.84	349.51	353.39	357.59	359.51	360.30	364.57	367.99	368.26	371.64	373.84	376.22
COND	8.65	10.87	13.24	10.63	5.34	8.22	5.21	12.86	4.59	13.80	5.71	5.95	6.11	6.20	5.22
DENS		2.85													
DEPTH	380.82	381.76	385.27	390.82	393.53										
COND	12.22	6.29	7.13	5.54	4.38										
DENS		2.56													

LYONS #1

COMMENTS: LYONS, KANSAS LK-1 AND LK-2 PENETRATED FLAT LYING LAYERS OF CONTRASTING CONDUCTIVITIES. AN ARITHMETIC MEAN CONDUCTIVITY WAS CALCULATED FOR EACH DISTINCT ROCK TYPE. THESE AVERAGES WERE USED, TOGETHER WITH RELATIVE ABUNDANCES FROM DETAILED CORE LOGS, TO CALCULATE A HARMONIC MEAN CONDUCTIVITY FOR EACH GRADIENT INTERVAL. THE CONDUCTIVITIES LISTED FOR SHALES ARE CONDUCTIVITIES MEASURED IN THE HORIZONTAL DIRECTION. MEASUREMENTS ON 10 SHALE SAMPLES GAVE AN AVERAGE RATIO OF HORIZONTAL TO VERTICAL CONDUCTIVITY OF 1.38. THE ARITHMETIC MEAN CONDUCTIVITY USED FOR EACH ROCK TYPE AND THE NUMBER OF SAMPLES FOLLOW: SHALE, 3.78, 31; SALTY SHALE, 7.42, 7; SILTSTONE, 6.03, 7; GYPSUM, 3.24, 3; DOLOMITE, 6.43, 6; SALT, 13.32, 24; ANHYDRITE, 10.92, 13. IN LK-1 IN THE INTERVAL 99-229 THERE ARE 120 METERS OF SHALE, 6 METERS OF GYPSUM AND 4 METERS OF ANHYDRITE GIVING A HARMONIC MEAN CONDUCTIVITY OF 3.82. IN THE INTERVAL 252-328, THERE ARE 6 METERS OF SALTY SHALE, 1 METER OF ANHYDRITE AND 69 METERS OF SALT GIVING A HARMONIC MEAN CONDUCTIVITY OF 12.5. IN LK-2 IN THE INTERVAL 128-212 THERE ARE 74 METERS OF SHALE AND 10 METERS OF GYPSUM GIVING A HARMONIC MEAN CONDUCTIVITY OF 3.70. IN THE INTERVAL 235-311 THERE ARE 60 METERS OF SALT, 6 METERS OF ANHYDRITE AND 10 METERS OF SALTY SHALE GIVING A HARMONIC MEAN CONDUCTIVITY OF 11.9. THE MEAN HEAT FLOW FOR LK-1 AND LK-2 IS 1.50

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
KANSAS	INT. PLN	LYONS	#2	38 22	98 10	512	128-212		3.70	40.84	1.51	
								ERROR	0.37	0.30	0.15	
							235-311		11.9	12.63	1.50	
								ERROR	1.0	0.21	0.13	

COMPLETED ON OR BEFORE: 10/27/70 MEASURED: 11/17/70 STATIC WATER LEVEL: 18.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-347, INTERBEDDED SEDIMENTARY ROCKS MAINLY SHALE, SILTSTONE, GYPSUM, DOLOMITE, ANHYDRITE, AND SALT.

TEMPERATURE

DEPTH	21.64	29.20	36.88	44.53	52.03	59.71	67.42	75.13	82.54	90.28	97.87	105.52
TEMP	14.945	15.375	15.552	15.853	16.033	16.251	16.471	16.595	16.754	16.914	17.116	17.292
DEPTH	112.99	120.76	125.46	128.32	135.88	143.50	151.18	158.80	166.30	174.16	181.66	189.37
TEMP	17.573	17.828	17.955	17.982	18.276	18.544	18.891	19.222	19.544	19.818	20.215	20.475
DEPTH	196.99	204.49	207.84	212.17	219.58	222.05	227.47	235.00	242.50	250.39	258.17	265.48
TEMP	20.756	21.062	21.195	21.399	21.595	21.629	21.807	21.933	22.071	22.173	22.276	22.376
DEPTH	273.04	281.00	288.49	295.99	303.73	311.20	318.88	326.66	334.15	341.71	346.25	
TEMP	22.444	22.535	22.637	22.729	22.837	22.930	23.182	23.373	23.512	23.687	23.773	

CONDUCTIVITY AND DENSITY

DEPTH	226.47	230.15	235.43	240.34	241.71	245.88	253.20	254.94	261.76	271.39	274.99	279.75	285.35	293.07	299.25
COND	4.98	12.40	13.43	5.25	5.11	15.54	13.29	13.0	15.19	13.6	5.24	13.88	7.31	13.61	15.66
DENS															
DEPTH	302.06	305.99	312.18	315.41	316.99	320.53	322.84	326.87	333.27	334.98					
COND	12.15	9.83	4.85	4.56	7.54	11.36	4.15	10.90	5.30	14.33					
DENS					2.63										

COMMENTS: FOR INFORMATION CONCERNING CONDUCTIVITIES SEE LYONS LK-1. THE MEAN HEAT FLOW FOR LK-1 AND LK-2 IS 1.5.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEVADA	ROCKY MTS	NYE BASIN	NB-2	45 22	109 49	2470	163-253	6	7.8	18.7	1.46	1.39
								ERROR	0.4	0.4	0.08	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 9/15/68 STATIC WATER LEVEL: 20.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-263, NURITE.

TEMPERATURE

DEPTH	23.00	33.00	43.00	53.00	63.00	73.00	83.00	93.00	103.00	113.00	123.00	133.00
TEMP	3.841	3.822	3.825	3.873	3.907	3.939	4.016	4.057	4.099	4.184	4.296	4.468
DEPTH	143.00	153.00	163.00	173.00	183.00	193.00	203.00	213.00	223.00	233.00	243.00	253.00
TEMP	4.745	4.852	4.939	5.125	5.344	5.503	5.654	5.786	5.959	6.194	6.392	6.533
DEPTH	263.00											
TEMP	6.576											

CONDUCTIVITY AND DENSITY

DEPTH	163.37	179.53	195.99	212.14	227.08	238.66
COND	7.74	5.69	8.36	8.83	7.79	8.19
DENS	3.24	3.02	2.76	3.34	3.28	3.18

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2470	2470	2499	2514	2572	2590	2596	2589	2533	2479	2367	2119	2159	2284
RADIUS	15875													
ELEV	2322													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT.	ROCKY MTS	VERDIGRIS CREEK	M-19A	45 23	109 55	2140	111-171	11	8.4	16.9	1.42	1.35
								ERROR	0.4	0.2	0.07	
							171-269	21	7.15	21.2	1.52	1.47
								ERROR	0.21	0.2	0.05	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 9/14/68 STATIC WATER LEVEL: 65.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-247, ULTRAMAFIC ROCKS AND NORITE. 247-271, HORNFELS.

TEMPERATURE

DEPTH	61.00	71.00	81.00	91.00	101.00	111.00	121.00	131.00	141.00	151.00	161.00	171.00
TEMP	6.443	6.524	6.665	6.664	6.752	6.896	7.052	7.209	7.371	7.560	7.731	7.905
DEPTH	181.00	191.00	201.00	211.00	221.00	231.00	241.00	251.00	261.00	268.55		
TEMP	8.077	8.286	8.507	8.711	8.966	9.165	9.361	9.572	9.778	9.945		

CONDUCTIVITY AND DENSITY

DEPTH	109.12	114.91	115.82	121.92	128.32	136.86	142.95	149.35	158.19	162.15	166.12	171.91	176.78	181.05	186.54
COND	8.72	8.72	8.43	8.43	9.62	9.62	9.15	7.06	7.06	7.26	7.26	8.08	8.08	5.61	5.61
DENS	3.24	3.24	3.11	3.11	3.30	3.30	3.28	3.16	3.16	3.07	3.07	3.26	3.26	3.00	3.00
DEPTH	189.89	196.29	205.74	211.53	220.07	220.07	220.07	228.91	234.09	237.13	243.84	248.11	250.85	256.03	261.52
COND	7.13	7.13	6.83	6.83	7.68	7.60	7.81	7.01	7.01	6.71	6.72	6.11	6.11	8.09	8.09
DENS	3.19	3.19	2.91	2.91	4.40	4.39	4.37	2.91	2.91	3.09	3.03	2.83	2.83	2.82	2.82
DEPTH	270.36	270.66													
COND	7.51	7.51													
DENS	2.85	2.85													

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2140	2140	2159	2162	2177	2221	2193	2191	2136	2147	2139	2144	2303	2339
RADIUS	15857													
ELEV	2574													

COMMENTS: THE CONDUCTIVITIES FOR M-19A WERE MEASURED ON SAMPLES COMPOSED OF TWO PIECES OF CORE ABOUT 20 FEET APART, EXCEPT FOR 142.95 AND 220.07 WHICH ARE FROM A SINGLE SAMPLE OF CORE. THE CONDUCTIVITY OF THE COMPOSITE SAMPLE IS LISTED FOR THE DEPTH OF BOTH PIECES OF CORE. THE WEIGHTED MEAN HEAT FLOW FOR VERDIGRIS CREEK M-19A AND M-22 IS 1.52.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MONT.	ROCKY MTS	VERDIGRIS CREEK	M-22	45 23	109 54	2151	83-209	24	8.80	17.8	1.57	1.63
								ERROR	0.17	0.1	0.03	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 9/16/68 STATIC WATER LEVEL: 60.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-36, ULTRAMFIC ROCKS AND NORITE. 36-212, ULTRAMAFIC ROCKS.

TEMPERATURE

DEPTH	63.00	73.00	83.00	93.00	103.00	113.00	123.00	133.00	143.00	153.00	163.00	173.00	
TEMP	5.117	5.281	5.424	5.601	5.766	5.936	6.107	6.281	6.455	6.627	6.812	6.981	
DEPTH	183.00	193.00	203.00	208.64									
TEMP	7.169	7.352	7.555	7.679									

CONDUCTIVITY AND DENSITY

DEPTH	74.07	82.91	88.70	95.71	101.19	105.46	110.64	117.04	123.14	129.85	138.68	144.48	146.91	153.62	159.72
COND	8.21	8.21	8.05	8.05	9.10	8.66	8.21	8.21	8.25	8.54	8.98	8.98	8.17	8.17	9.38
DENS	3.24	3.24	3.12	3.12	3.17	3.18	3.18	3.18	3.18	3.17	3.11	3.11	3.10	3.10	3.14
DEPTH	165.20	176.78	180.44	186.54	192.02	195.99	201.17	207.26	211.23						
COND	9.38	8.27	8.27	8.25	8.25	10.08	9.97	9.80	8.97						
DENS	3.14	3.05	3.05	3.08	3.08	3.27	3.27	3.26	3.32						

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2150	2148	2154	2164	2103	2093	2104	2074	2060	2097	2140	2154	2280	2390
RADIUS	15875													
ELEV	2477													

COMMENTS: THE CONDUCTIVITIES FOR M-22 WERE MEASURED ON SAMPLES COMPOSED OF TWO PIECES OF CORE ABOUT 20 FEET APART. THE CONDUCTIVITY OF THE COMPOSITE SAMPLE IS LISTED FOR THE DEPTH OF BOTH PIECES OF CORE. THE WEIGHTED MEAN HEAT FLOW FOR VERDIGRIS CREEK M-19A AND M-22 IS 1.52.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	ADELAIDE	GV-1	40 50	117 32	1780	38-107	8	8.1	42.8	3.47	3.32
								ERROR	0.8	0.9	0.34	
							107-305	10	6.80	51.1	3.47	3.41
								ERROR	0.62	0.2	0.32	
							38-305					3.4

COMPLETED ON OR BEFORE: 11/ 1/69 MEASURED: 12/ 7/69 STATIC WATER LEVEL: 47.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-33, QUARTZITE. 33-307, PHYLLITE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	11.158	11.825	12.226	12.369	12.642	12.987	13.278	13.535	13.807	14.293	14.567	14.974
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	15.288	15.650	15.920	16.437	16.802	17.084	17.599	17.927	18.281	18.664	19.081	19.501
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94
TEMP	19.965	20.336	20.707	21.094	21.421	21.793	22.212	22.704	23.059	23.438	23.907	24.278
DEPTH	289.56	297.18	304.80	306.32								
TEMP	24.602	24.910	25.174	25.224								

CONDUCTIVITY AND DENSITY

DEPTH	3.35	14.02	33.53	38.40	38.40	61.26	84.73	99.97	124.66	139.90	154.84	181.36	209.70	238.66	258.17
COND	7.22	10.19	11.72	7.66	8.94	5.97	5.00	8.08	8.45	4.93	5.75	5.36	8.54	7.94	4.93
DENS	2.69	2.70	2.66	2.67		2.67		2.72	2.75	2.70	2.63	2.74	2.60	2.74	2.74
DEPTH	273.41	285.29	306.02												
COND	5.78	5.66	10.68												
DENS	2.74	2.73	2.74												

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1780	1780	1780	1804	1810	1791	1789	1769	1757	1772	1776	1796	1883	1766
RADIUS	15875													
ELEV	1684													

COMMENTS: HEAT FLOW FOR THE INTERVAL 38-305 IS THE MEAN FOR GV-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	BRISTOL RANGE	ESP-1	38 04	114 36	2274	30-457	18	10.44	13.54	1.41	1.72
								ERROR	0.74	0.48	0.11	
							549-579	6	7.18	20.98	1.51	1.65
								ERROR	0.15	0.23	0.04	

COMPLETED ON OR BEFORE: 12/ 5/69 MEASURED: 5/14/70 STATIC WATER LEVEL: 543.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-208, LIMESTONE WITH SOME DOLOMITE. 208-665, LIMESTONE.

TEMPERATURE

DEPTH	30.48	76.20	152.40	228.60	304.80	381.00	457.20	533.40	548.64	554.74	560.83	566.93
TEMP	7.780	8.449	9.212	10.215	11.274	12.234	13.630	15.424	15.907	16.051	16.172	16.301
DEPTH	573.03	579.12	585.22	591.31	597.41	603.51	609.60	615.70	621.79	627.89	633.99	640.08
TEMP	16.428	16.552	16.634	16.696	16.757	16.814	16.869	16.924	16.986	17.051	17.113	17.168
DEPTH	646.18	652.27	658.37	664.47								
TEMP	17.225	17.285	17.346	17.404								

CONDUCTIVITY AND DENSITY

DEPTH	33.53	58.52	94.79	94.79	121.01	153.01	153.01	186.23	186.23	211.53	242.93	274.63	307.54	330.86	330.71
COND	7.24	15.03	14.10	15.34	11.79	6.83	7.89	8.18	9.80	11.91	8.63	8.44	9.93	14.96	14.73
DENS	2.70		2.80		2.71	2.60		2.57		2.77				2.82	
DEPTH	367.28	402.64	426.72	487.07	516.33	544.98	555.35	560.83	567.23	572.87	579.12	585.22	591.01	597.41	603.51
COND	8.36	7.29	7.51	8.13	7.65	6.86	6.97	7.05	7.56	6.89	7.78	7.48	8.18	8.16	7.23
DENS	2.73	2.68	2.72	2.71	2.69	2.69	2.71	2.71	2.71	2.47	2.68	2.69	2.71	2.72	2.71
DEPTH	609.60	616.00	621.79	627.89	633.68	640.08	646.18	652.27	658.37	664.47					
COND	7.55	7.78	7.80	8.16	7.31	8.07	9.39	9.87	7.97	6.70					
DENS	2.74	2.70	2.73	2.71	2.69	2.73	2.75	2.69	2.69	2.66					

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2273	2273	2266	2270	2293	2231	2228	2198	2138	2079	2006	1931	1845	1797

COMMENTS: THE MEAN HEAT FLOW FOR BRISTOL RANGE ESP-1 AND ESP-3 IS 1.72.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	BRISTOL RANGE	ESP-3	38 06	114 36	2061	602-762	28	7.13	23.32	1.66	1.74
								ERROR	0.24	0.14	0.06	

COMPLETED ON OR BEFORE: 3/12/70 MEASURED: 5/14/70 STATIC WATER LEVEL: 387.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-7, ALLUVIUM. 7-90, INTERBEDDED LIMESTONE AND DOLOMITE. 90-696, LIMESTONE. 696-815, SHALE.

TEMPERATURE

DEPTH	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20	464.82	472.44
TEMP	16.838	16.947	17.082	17.150	17.187	17.193	17.205	17.261	17.311	17.341	17.375	17.432
DEPTH	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40	541.02	548.64	556.26	563.88
TEMP	17.496	17.511	17.558	17.607	17.654	17.700	17.744	17.782	17.825	17.863	17.919	17.984
DEPTH	571.50	579.12	586.74	594.36	601.98	609.60	617.22	624.84	632.46	640.08	647.70	655.32
TEMP	18.061	18.165	18.273	18.385	18.504	18.653	18.803	18.968	19.135	19.314	19.494	19.672
DEPTH	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90	731.52	739.14	746.76
TEMP	19.863	20.048	20.225	20.412	20.564	20.712	20.886	21.051	21.249	21.481	21.668	21.857
DEPTH	754.38	762.00	766.27									
TEMP	22.035	22.206	22.341									

CONDUCTIVITY AND DENSITY

DEPTH	389.53	396.24	401.73	408.43	415.14	419.71	426.42	434.34	440.44	445.01	452.02	456.90	458.42	463.60	469.24
COND	7.88	7.95	9.37	8.00	7.59	7.82	8.65	10.53	8.21	10.34	7.71	7.53	8.22	7.60	8.11
DENS	2.69	2.71	2.73		2.66	2.69	2.71	2.78	2.60	2.75	2.69	2.64	2.73	2.68	2.61
DEPTH	475.49	481.58	488.29	494.54	499.57	506.88	511.46	518.16	524.41	530.35	536.45	542.54	548.64	554.74	561.14
COND	6.99	7.46	7.20	7.70	8.17	9.35	7.39	7.57	7.32	6.81	7.59	8.17	7.60	7.30	7.26
DENS	2.69	2.67	2.66	2.66	2.72	2.70	2.68	2.70	2.71	2.69	2.69	2.71	2.69	2.69	2.69
DEPTH	567.54	572.72	578.82	585.52	591.31	598.17	603.51	610.21	615.70	621.79	627.28	633.99	640.39	646.18	652.27
COND	7.64	7.54	7.81	7.96	8.41	7.83	7.46	7.53	7.40	6.87	7.40	7.14	6.60	6.89	6.65
DENS	2.68	2.70	2.70	2.70	2.72	2.71	2.68	2.71	2.70	2.70	2.71	2.70	2.72	2.71	2.73
DEPTH	658.37	664.47	670.56	676.96	682.75	688.85	688.85	694.95	701.04	707.14	713.23	719.18	725.27	731.52	737.92
COND	6.52	6.68	7.19	8.15	7.13	7.15	7.16	6.42	6.90	7.00	8.35	6.26	4.79	7.11	7.01
DENS	2.88	2.72	2.67	2.68	2.69	2.69		2.74	2.71	2.75	2.74	2.76	2.79	2.76	2.70
DEPTH	743.41	749.81	755.91	762.00	769.93	774.80	780.90	787.60	792.48	797.97	804.37	811.07	814.73		
COND	3.65	8.28	11.26	8.62	8.60	7.13	7.80	7.75	10.94	7.06	9.91	6.94	8.48		
DENS	2.79	2.73	2.72	2.85	2.71	2.67	2.69	2.74	2.70	2.71		2.71			

BRISTOL RANGE ESP-3

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2061	2061	2060	2077	2083	2095	2066	2049	2022	2001	1936	1881	1844	1823

COMMENTS: THE MEAN HEAT FLOW FOR BRISTOL RANGE ESP-1 AND ESP-3 IS 1.72.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	BUCKINGHAM	B-6	40 37	117 04	1780	61-247	8	8.8	33.2	2.92	2.8
								ERROR	1.3	0.3	0.43	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 8/ 8/69 STATIC WATER LEVEL: BELOW 247.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-61, ALLUVIUM. 61-257, HARMONY FORMATION; SHALE, SILTSTONE, SANDSTONE, AND QUARTZITE.

TEMPERATURE

DEPTH	60.96	121.92	182.88	247.35
TEMP	13.881	15.977	17.965	20.076

CONDUCTIVITY AND DENSITY

DEPTH	67.06	98.45	98.76	129.54	161.54	182.88	213.36	256.03
COND	5.55	8.04	4.75	16.60	9.23	9.80	6.73	9.27
DENS	2.66		2.67				2.44	

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1780	1780	1780	1780	1810	1826	1813	1828	1839	1833	1776	1756	1678	1627

RADIUS	15875
ELEV	1489

COMMENTS: THE MEAN HEAT FLOW FOR BUCKINGHAM B-6 AND B-11 IS 2.7.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	BUCKINGHAM	B-11	40 37	117 04	1830	152-311	5	8.7	29.66	2.58	2.5
								ERROR	0.6	0.15	0.18	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 8/ 8/69 STATIC WATER LEVEL: ABOVE 152.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-183, PORPHYRY. 183-311, HARMONY FORMATION; SHALE, SILTSTONE, SANDSTONE, AND QUARTZITE.

TEMPERATURE

DEPTH	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98	228.60	236.22
TEMP	16.377	16.560	16.767	16.962	17.171	17.396	17.630	17.863	18.070	18.298	18.532	18.746
DEPTH	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	310.90		
TEMP	18.969	19.206	19.437	19.674	19.899	20.136	20.357	20.622	20.863	21.032		

CONDUCTIVITY AND DENSITY

DEPTH	182.88	174.65	198.12	268.22	292.61
COND	10.42	10.08	7.99	7.75	7.29
DENS	2.54	2.60	2.52		2.61

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1830	1830	1830	1830	1860	1876	1863	1878	1889	1883	1826	1806	1728	1677
RADIUS	15875													
ELEV	1539													

COMMENTS: THE MEAN HEAT FLOW FOR BUCKINGHAM B-6 AND B-11 IS 2.7.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	DOLOMITE HILL	DOL.	37 11	116 12	1950	152-320	7	11.7	16.40	1.92	1.9
								ERROR	0.3	0.30	0.05	

COMPLETED ON OR BEFORE: 5/14/59 MEASURED: 7/17/63 STATIC WATER LEVEL: BELOW 320.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-337, DEVILS GATE AND NEVADA FORMATIONS; UNDIFFERENTIATED DOLOMITE.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88
TEMP	14.939	14.394	14.230	14.164	14.174	14.276	14.406	14.581	14.778	14.994	15.223	15.457
DEPTH	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04			
TEMP	15.689	15.936	16.193	16.453	16.694	16.953	17.213	17.464	17.738			

CONDUCTIVITY AND DENSITY

DEPTH	16.15	39.93	44.50	63.40	67.51	135.64	148.74	160.33	193.85	199.95	220.68	258.04	265.79	288.04	336.96
COND	12.72	12.29	13.22	12.13	12.66	12.17	12.73	10.71	12.72	11.85	10.64	11.47	12.17	12.60	10.01
DENS	2.84	2.82	2.83	2.80	2.82	2.81	2.83	2.59	2.82	2.81	2.77	2.77	2.81	2.82	2.72

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	1950	1947	1941	1925	1905	1869	1858	1869	1902	1912	1924	1958	1998	1946
RADIUS	6096													
ELEV	1834													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	ELDER CREEK	EC-4	40 41	117 04	1510	26-252	7	9.5	35.06	3.33	3.2
								ERROR	1.1	0.06	0.39	

COMPLETED ON OR BEFORE: 11/68 MEASURED: 8/ 7/69 STATIC WATER LEVEL: 26.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-275, HARMONY FORMATION; SHALE, SILTSTONE, SANDSTONE, QUARTZITE, AND HORNFELS.

TEMPERATURE

DEPTH	26.21	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30
TEMP	15.756	16.203	16.489	16.764	17.035	17.313	17.565	17.873	18.146	18.407	18.642	18.901
DEPTH	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.59
TEMP	19.173	19.398	19.670	19.976	20.245	20.504	20.773	21.036	21.301	21.579	21.855	22.120
DEPTH	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32			
TEMP	22.387	22.654	22.885	23.143	23.415	23.723	24.068	24.419	24.658			

CONDUCTIVITY AND DENSITY

DEPTH	79.25	91.44	156.06	182.88	213.36	245.67	274.32
COND	5.07	10.02	6.73	13.85	10.46	9.98	10.11
DENS	2.75	2.75	2.81	2.68	2.68	2.68	2.65

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1509	1509	1537	1583	1613	1545	1578	1628	1607	1549	1507	1446	1466	1599

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	EUREKA	608	39 30	115 59	2115	159-245	14	8.18	7.18	0.59	0.58
								ERROR	0.10	0.19	0.02	

COMPLETED ON OR BEFORE: 10/68 MEASURED: 10/22/69 STATIC WATER LEVEL: 157.

REFERENCE: SASS ET AL. (1971b)

GEOLOGY: 0-150, ALLUVIUM. 150-250, SHALE, LIMESTONE, AND CHERT.

TEMPERATURE

DEPTH	158.50	164.59	170.69	176.78	182.88	188.98	195.07	201.17	207.26	213.36	219.46	225.55
TEMP	9.855	9.894	9.925	9.953	9.993	10.041	10.073	10.117	10.161	10.208	10.258	10.309

DEPTH	231.65	237.74	243.84	245.36
TEMP	10.357	10.400	10.428	10.510

CONDUCTIVITY

DEPTH	154.69	162.31	169.93	177.55	185.17	192.79	200.41	208.03	214.12	219.46	226.31	233.93	241.55	249.17
COND	8.15	8.9	7.75	7.75	7.85	8.0	8.25	8.1	8.8	8.35	8.35	8.2	7.7	8.3

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2115	2118	2133	2148	2154	2153	2140	2128	2123	2108	2116	2146	2187	2166

RADIUS	15875
ELEV	2137

COMMENTS: THE MEAN HEAT FLOW FOR EUREKA 608, 703, 706, 713 AND 720 IS 0.88.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	EUREKA	703	39 30	116 00	1989	165-189	8	6.02	15.6	0.94	0.88
								ERROR	0.22	0.3	0.04	

COMPLETED ON OR BEFORE: 10/68 MEASURED: 10/22/69 STATIC WATER LEVEL: 152.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-155, ALLUVIUM. 155-183, LIMEY SHALE. 183-189, LIMESTONE AND SHALE.

TEMPERATURE

DEPTH	164.59	167.64	170.69	173.74	176.78	179.83	182.88	185.93	188.98
TEMP	11.690	11.753	11.793	11.836	11.878	11.922	11.989	12.033	12.075

CONDUCTIVITY

DEPTH	166.12	169.16	172.21	175.26	178.31	181.36	184.40	187.45
COND	5.2	6.4	5.45	6.3	5.45	6.95	6.55	5.9

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112	15875
ELEV	1989	1992	2007	2037	2037	2017	2009	2001	2014	2018	2015	2079	2123	2117	2089

COMMENTS: THE MEAN HEAT FLOW FOR EUREKA 608, 703, 706, 713 AND 720 IS 0.88.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	EUREKA	706	39 29	115 59	2232	31-183	5	9.6	11.2	1.07	1.13
								ERROR	1.1	0.4	0.13	

COMPLETED ON OR BEFORE: 10/68 MEASURED: 10/21/69 STATIC WATER LEVEL: ABOUT 213.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-9, ALLUVIUM. 9-58, LIMESTONE. 58-77, DOLOMITIC SILTSTONE. 77-214, DOLOMITE.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	182.88	213.36
TEMP	9.052	9.424	9.811	10.097	10.360	10.818	11.730

CONDUCTIVITY AND DENSITY

DEPTH	102.41	136.25	136.86	165.20	193.55
COND	7.53	7.66	12.19	12.14	8.43
DENS	2.69	2.69	2.82	2.83	2.77

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112	15875
ELEV	2232	2232	2251	2274	2274	2179	2192	2165	2134	2138	2116	2116	2160	2110	2096

COMMENTS: THE MEAN HEAT FLOW FOR EUREKA 608, 703, 706, 713 AND 720 IS 0.88.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	EUREKA	713	39 30	115 59	2139	183-450	8	8.38	6.92	0.58	0.60
								ERROR	0.12	0.10	0.01	

COMPLETED ON OR BEFORE: 10/68 MEASURED: 10/23/69 STATIC WATER LEVEL: 159.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-68, ALLUVIUM. 68-450, QUARTZ MONZONITE.

TEMPERATURE

DEPTH	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84
TEMP	10.258	10.231	10.290	10.347	10.390	10.429	10.470	10.512	10.560	10.611	10.660	10.710
DEPTH	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28
TEMP	10.762	10.816	10.866	10.918	10.970	11.024	11.077	11.133	11.197	11.274	11.343	11.411
DEPTH	342.90	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48	419.10	426.72
TEMP	11.453	11.489	11.524	11.569	11.616	11.670	11.722	11.773	11.832	11.887	11.943	12.001
DEPTH	434.34	441.96	449.58									
TEMP	12.054	12.112	12.164									

CONDUCTIVITY AND DENSITY

DEPTH	195.07	243.84	286.51	333.15	363.02	386.79	417.58	448.06
COND	8.65	8.79	8.12	8.48	7.74	8.66	8.31	8.33
DENS	2.71	2.76	2.70	2.73	2.72	2.71	2.74	2.69

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2139	2139	2169	2230	2200	2136	2132	2136	2136	2107	2102	2164	2205	2157
RADIUS	15875													
ELEV	2129													

COMMENTS: THE MEAN HEAT FLOW FOR EUREKA 608, 703, 706, 713 AND 720 IS 0.88.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	EUREKA	720	39 29	115 59	2318	61-366	5	9.4	10.7	1.01	1.08
								ERROR	1.8	0.7	0.20	

COMPLETED ON OR BEFORE: 9/68 MEASURED: 10/21/69 STATIC WATER LEVEL: 351.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-89, MARBLE. 89-93, DOLOMITE. 93-120, MARBLE. 120-153, DOLOMITE. 153-156, MARBLE. 156-500, DOLOMITE.

TEMPERATURE

DEPTH	60.96	121.92	182.88	243.84	304.80	353.57	359.67	365.76	371.86	377.95	384.05	390.15
TEMP	9.532	9.897	10.713	11.134	11.914	12.654	12.740	12.807	12.859	12.905	12.971	13.049
DEPTH	396.24	402.34	408.43	414.53	420.63	426.72	432.82	440.22	441.96	457.20	472.44	487.68
TEMP	13.069	13.077	13.074	13.037	13.024	13.019	13.025	13.046	13.079	13.003	12.924	12.835
DEPTH	499.87											
TEMP	12.798											

CONDUCTIVITY AND DENSITY

DEPTH	106.68	164.59	222.50	286.51	347.47
COND	7.83	13.74	13.74	4.80	6.97
DENS	2.70	2.83	2.84		2.70

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2318	2318	2318	2333	2378	2244	2235	2208	2174	2182	2160	2198	2204	2153
RADIUS	15875													
ELEV	2125													

COMMENTS: THE MEAN HEAT FLOW FOR EUREKA 608, 703, 706, 713 AND 720 IS 0.88.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	FISH LK. VALLEY	UCE-9	38 49	116 27	2088	154-866	0	3.0	39.4	1.2	1.2
								ERROR		0.2		

COMPLETED ON OR BEFORE: 2/20/67 MEASURED: 9/14/67 STATIC WATER LEVEL: 25.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-855, ALLUVIUM. 855-866, BEDDED TUFF OR TUFFACEOUS SANDSTONE.

TEMPERATURE

DEPTH	25.00	50.00	75.00	100.00	125.00	150.00	175.00	200.00	225.00	250.00	275.00	300.00
TEMP	10.560	11.346	11.440	11.502	11.699	12.215	13.100	14.046	15.158	16.096	16.922	17.908
DEPTH	325.00	350.00	375.00	400.00	425.00	450.00	475.00	500.00	525.00	550.00	575.00	600.00
TEMP	18.890	20.173	21.271	21.546	22.806	23.709	24.752	25.832	26.893	27.867	28.819	29.762
DEPTH	625.00	650.00	675.00	700.00	725.00	750.00	775.00	800.00	825.00	850.00	855.80	
TEMP	30.638	31.623	32.609	33.564	34.602	35.681	36.774	37.915	39.145	40.462	40.880	

COMMENTS: THE CONDUCTIVITY IS THE MEAN VALUE OF 35 SAMPLES OF ALLUVIUM FROM UCE SERIES HOLES. SEE MUNROE AND MOSES(1968).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	FISH LK. VALLEY	UCE-10	38 41	116 28	1980	150-780	7	2.34	49.0	1.15	1.2
								ERROR	0.07	0.6	0.04	

COMPLETED ON OR BEFORE: 2/11/67 MEASURED: 3/ 9/67 STATIC WATER LEVEL: 5.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-811, ALLUVIUM. 811-902, DOLOMITE.

TEMPERATURE

DEPTH	30.00	60.00	90.00	150.00	180.00	210.05	240.00	270.35	300.00	330.05	360.00	390.15
TEMP	15.030	15.052	16.010	19.414	21.082	22.655	24.243	26.050	27.529	29.580	31.257	32.716
DEPTH	420.15	450.25	480.00	510.00	539.40	544.30	570.00	600.05	630.00	662.00	690.00	710.00
TEMP	34.155	35.563	36.989	38.386	39.763	40.087	41.211	42.490	43.675	45.112	46.354	47.236
DEPTH	740.55	743.60	750.00	780.00	810.00	815.50	822.45	824.10	825.30	883.65	887.80	901.10
TEMP	48.889	49.160	49.443	50.481	50.964	51.743	51.894	51.920	51.944	52.798	52.855	53.000

CONDUCTIVITY

DEPTH	542.55	542.55	543.16	543.16	543.16	544.07	544.07
COND	2.17	2.38	2.20	2.24	2.31	2.45	2.58

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	FISH LK. VALLEY	UCE-12A	38 55	116 20	2111	288-455	9	2.52	49.9	1.26	
								ERROR	0.07	0.6	0.04	
							455-582	4	3.62	42.9	1.55	
								ERROR	0.36	2.7	0.18	
							582-697	4	5.09	32.3	1.64	
								ERROR	0.21	0.4	0.07	
							288-697					1.4

COMPLETED ON OR BEFORE: 4/ 6/67 MEASURED: 9/15/67 STATIC WATER LEVEL: 60.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-469, ALLUVIUM. 469-488, DENSELY TO PARTLY WELDED TUFF. 488-697, WEAKLY WELDED TUFF.

TEMPERATURE

DEPTH	60.00	75.00	100.00	125.00	150.00	175.00	200.00	225.00	250.00	275.00	300.00	325.00
TEMP	12.145	12.431	13.102	13.701	14.377	15.067	15.872	16.771	17.853	18.977	20.243	21.517
DEPTH	350.00	375.00	400.00	425.00	450.00	475.00	500.00	525.00	550.00	575.00	600.00	625.00
TEMP	22.825	23.987	25.288	26.650	28.136	29.504	30.974	31.326	32.680	33.778	34.693	35.497
DEPTH	650.00	675.10	688.60									
TEMP	36.297	37.091	37.538									

CONDUCTIVITY AND DENSITY

DEPTH	315.77	315.77	315.77	318.52	423.37	423.37	423.37	426.11	426.11	477.78	480.21	550.47	552.91	613.72	615.70
COND	2.68	2.47	2.67	2.67	2.30	2.82	2.45	2.29	2.27	4.59	3.57	2.83	3.49	4.54	5.02
DENS										2.33	2.16	1.94	1.63	2.45	2.45
DEPTH	676.51	678.97													
COND	5.21	5.58													
DENS	2.49	2.49													

COMMENTS: HEAT FLOW FOR THE INTERVAL 288-697 IS THE MEAN WEIGHTED FOR DEPTH INTERVAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	FRENCHMAN FLAT	TW-3	36 46	115 52	1062	137-350	6	6.5	39.9	2.6	2.2
								ERROR	0.5	0.7	0.2	

COMPLETED ON OR BEFORE: 12/62 MEASURED: 7/22/63 STATIC WATER LEVEL: 336.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-48, ALLUVIUM. 48-351, POGONIP GROUP LIMESTONE WITH SOME SHALE AND CHERT.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88
TEMP	20.260	21.140	21.920	22.470	23.060	23.750	24.510	25.320	26.210	26.880	27.510	28.150
DEPTH	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	
TEMP	28.760	29.320	29.930	30.530	31.120	31.710	32.250	32.840	33.500	34.150	35.000	

CONDUCTIVITY AND DENSITY

DEPTH	51.82	138.07	183.19	192.94	244.45	288.04	349.61
COND	8.59	4.40	5.46	7.16	6.81	7.28	7.81
DENS	2.64	2.55	2.62	2.70	2.70	2.69	2.68

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	1061	1061	1089	1135	1150	1130	1139	1176	1208	1255	1346	1301	1316	1394
RADIUS	63500													
ELEV	1535													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	GOLD ACRES	GAP-1	40 16	116 45	1676	122-177	8	9.16	27.2	2.49	2.5
								ERROR	0.55	0.2	0.15	

COMPLETED ON OR BEFORE: ? MEASURED: 8/19/68 STATIC WATER LEVEL: 111.3

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-4, ALLUVIUM. 4-120, LIMESTONE WITH SOME ALTERATION. 120-200, GRANITE.

TEMPERATURE

DEPTH	30.48	111.25	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	177.09
TEMP	14.815	16.903	16.926	17.070	17.309	17.518	17.711	17.915	18.104	18.324	18.546	18.590

CONDUCTIVITY AND DENSITY

DEPTH	99.06	106.68	114.30	129.24	137.16	152.71	152.71	160.02	167.64	175.26	199.64
COND	8.37	6.98	9.13	6.66	9.61	7.95	8.40	9.18	9.03	11.38	11.10
DENS	2.75	2.66	2.71	2.78	2.74	2.68	2.68	2.72	2.71	2.69	2.77

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	GOLDFIELD	1	37 43	117 12	1771	330-465	14	8.76	30.73	2.69	
								ERROR	0.22	0.19	0.07	

COMPLETED ON OR BEFORE: 10/ 8/68 MEASURED: 4/ 7/69 STATIC WATER LEVEL: 177.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3, ALLUVIUM. 3-73, DACITE. 73-94, ANDESITE. 94-191, LATITE. 191-248, SILTSTONE AND SHALE. 248-282, SANDSTONE AND SILTSTONE. 282-326, SILICIFIED INTRUSIVE ROCK. 326-409, LEUCO-QUARTZ MONZONITE. 409-415, ANDESITE DIKE. 415-465, LEUCO-QUARTZ MONZONITE.

TEMPERATURE

DEPTH	182.88	190.50	204.22	201.17	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46
TEMP	21.457	21.884	22.811	22.468	22.324	22.849	23.070	23.212	23.390	23.622	23.916	24.064
DEPTH	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90
TEMP	24.313	24.535	24.670	24.795	24.894	24.987	25.043	25.319	25.618	25.859	26.072	26.266
DEPTH	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34
TEMP	26.486	26.724	26.977	27.231	27.452	27.664	27.884	28.149	28.426	28.672	28.899	29.136
DEPTH	441.96	450.59										
TEMP	29.388	29.657										

CONDUCTIVITY AND DENSITY

DEPTH	292.30	298.40	305.71	314.55	319.43	327.66	335.89	341.38	352.04	359.05	366.07	373.38	382.52	395.02	403.25
COND	6.58	7.13	6.98	8.70	11.08	9.34	8.74	10.24	9.53	8.82	9.14	8.21	8.45	8.38	16.66
DENS	3.00	2.63	2.64	2.71	2.82	2.57	2.54	2.55	2.58	2.57	2.55	2.57	2.58	2.55	2.70
DEPTH	413.00	418.19	424.59	435.56	441.66	449.28									
COND	7.64	9.37	9.77	7.81	9.05	7.54									
DENS	2.59	2.56	2.60	2.57	2.57										

COMMENTS: REFRACTION FROM A NEARBY LOW CONDUCTIVITY MATERIAL RESULTED IN AN OVERESTIMATE OF HEAT FLOW IN GOLDFIELD GF-1. THE AVERAGE HEAT FLOW FOR GOLDFIELD GF-1 AND GF-2 IS 2.3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	GOLDFIELD	2	37 45	117 11	1731	146-316	11	5.52	35.71	1.97	
								ERROR	0.11	0.20	0.04	

COMPLETED ON OR BEFORE: 1/ 6/68 MEASURED: 4/ 7/69 STATIC WATER LEVEL: 29.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-4, ALLUVIUM. 4-311, ANDESITE. 311-370, ARGILLIZED ANDESITE.

TEMPERATURE

DEPTH	28.71	30.48	33.56	36.61	39.65	42.70	45.75	61.17	76.20	91.87	107.05	121.95
TEMP	16.240	16.455	16.545	16.642	16.708	16.772	16.833	17.204	17.620	18.063	18.595	19.240
DEPTH	138.50	152.31	169.29	182.88	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80
TEMP	19.492	19.806	20.472	20.891	21.341	21.780	22.240	22.662	23.138	23.616	24.129	24.619
DEPTH	320.04	335.28	350.52	364.54								
TEMP	25.096	25.568	26.065	26.493								

CONDUCTIVITY AND DENSITY

DEPTH	33.53	61.57	95.71	112.47	128.02	140.51	150.88	169.47	182.88	262.43	268.22	281.94	299.62	312.73	313.64
COND	4.90	5.07	5.01	4.18	4.61	4.34	4.87	4.88	5.64	6.12	5.53	5.22	5.41	5.14	5.15
DENS	2.48	2.51	2.57	2.43	2.49	2.42	2.60	2.53	2.58	2.66	2.59	2.61	2.53	2.95	2.46
DEPTH	323.09	345.95	356.62	369.72											
COND	6.24	5.64	5.40	5.26											
DENS	2.51	2.66	2.68	2.69											

COMMENTS: REFRACTION THROUGH A NEARBY HIGH CONDUCTIVITY MATERIAL RESULTED IN AN UNDERESTIMATE OF HEAT FLOW IN GOLDFIELD GF-2. THE AVERAGE HEAT FLOW IN GOLDFIELD GF-1 AND GF-2 IS 2.3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	HAMPEL HILL	TW-F	36 46	116 07	1263	564-808	11	4.42	41.77	1.85	1.81
								ERROR	0.18	0.07	0.08	

COMPLETED ON OR BEFORE: 6/62 MEASURED: 8/27/68 STATIC WATER LEVEL: 528.6

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-335, LITHIC TUFF. 335-454, LITHIC TUFF AND BRECCIA. 454-518, TUFF. 518-808, FLUVIAL AND LACUSTRINE DEPOSITS. 808-954, FLUVIAL AND LACUSTRINE DEPOSITS CONTAINING DOLOMITE AND LIMESTONE. 954-1037, DOLOMITE.

TEMPERATURE

DEPTH	541.02	548.64	556.26	563.88	571.50	578.82	586.74	594.36	601.98	609.60	617.22	624.84
TEMP	49.110	49.325	49.493	49.723	50.074	50.392	50.762	51.074	51.382	51.686	52.003	52.315
DEPTH	632.46	643.13	647.70	655.32	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28
TEMP	52.667	52.995	53.318	53.665	53.918	54.224	54.564	54.861	55.190	55.506	55.807	56.102
DEPTH	723.90	731.52	739.14	746.76	754.38	762.00	769.62	777.24	784.86	792.48	800.10	807.72
TEMP	56.416	56.766	57.094	57.431	57.749	58.081	58.380	58.697	59.015	59.330	59.635	59.917
DEPTH	815.34	822.96	830.58	838.20	845.82	853.44	861.06	868.68	876.30	883.92	891.54	899.16
TEMP	60.172	60.406	60.633	60.848	61.064	61.206	61.511	61.690	61.888	62.095	62.299	62.500
DEPTH	906.78	914.40	922.02	929.64	937.26	944.88	952.50	960.12	967.74	975.36	982.98	990.60
TEMP	62.703	62.921	63.146	63.373	63.586	63.787	63.975	64.120	64.211	64.275	64.349	64.409
DEPTH	998.22	1013.46	1021.08	1028.70	1036.02							
TEMP	64.450	64.543	64.615	64.758	64.895							

CONDUCTIVITY AND DENSITY

DEPTH	576.38	594.97	613.56	616.92	642.52	644.65	668.12	687.63	691.59	750.11	755.91	973.23	991.52	993.65	1021.69
COND	5.01	4.73	5.56	4.73	3.88	3.95	4.36	4.05	4.79	3.56	4.02	12.83	12.69	13.18	14.47
DENS	2.45	2.40	2.54	2.44	2.17	2.28	2.42	2.32	2.02	2.37	2.30	2.80	2.81	2.83	2.77
DEPTH	1030.23														
COND	11.52														
DENS	2.77														

TERRAIN DATA

RADIUS	0	46	91	152	228	311	407	528	698	969	1490	2029	3044	4267
ELEV	1263	1262	1262	1262	1262	1265	1267	1268	1274	1281	1292	1314	1297	1297
RADIUS	6096													
ELEV	1266													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	HOT CK. VALLEY	UCE-18	38 35	116 12	1757	192-1292	11	3.56	36.8	1.31	1.29
								ERROR	0.22	0.2	0.08	
							1292-1664	14	4.94	25.4	1.25	1.24
								ERROR	0.11	0.4	0.03	
							192-1664					1.28

COMPLETED ON OR BEFORE: 5/27/67 MEASURED: 9/18/67 STATIC WATER LEVEL: 53.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-1282, ALLUVIUM OR FANGLOMERATE. 1282-1334, LAKE BEDS AND GYPSUM. 1334-1873, RHYOLITE.

TEMPERATURE

DEPTH	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00
TEMP	18.946	19.203	19.549	19.966	20.394	20.764	21.496	22.426	23.496	24.690	26.250	27.886
DEPTH	120.00	125.00	130.00	135.00	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00
TEMP	29.497	30.705	30.712	30.743	30.749	30.769	30.816	31.065	31.066	31.081	31.091	31.132
DEPTH	180.00	185.00	190.00	195.00	200.00	225.00	250.00	275.00	300.00	325.00	350.00	375.00
TEMP	31.510	31.596	31.731	31.909	32.093	32.978	33.883	34.704	35.510	36.420	37.258	38.051
DEPTH	400.00	425.00	450.00	475.00	500.00	525.00	550.00	575.00	600.00	625.00	650.00	675.00
TEMP	38.813	39.713	40.530	41.390	42.236	43.052	43.927	44.784	45.681	46.656	47.532	48.458
DEPTH	700.00	725.00	750.00	775.00	800.00	825.00	850.00	875.00	900.00	925.00	950.00	975.00
TEMP	49.371	50.276	51.225	52.167	53.064	53.994	54.946	55.939	56.848	57.794	58.753	59.751
DEPTH	1000.00	1025.00	1050.00	1075.00	1100.00	1125.00	1150.00	1175.00	1200.00	1225.00	1250.00	1275.00
TEMP	60.728	61.763	62.724	63.744	64.781	65.810	66.835	67.826	68.927	69.976	70.888	71.674
DEPTH	1300.00	1325.00	1350.00	1375.00	1400.00	1425.00	1450.00	1475.00	1500.00	1525.00	1550.00	1575.00
TEMP	72.415	73.145	73.941	74.711	75.360	76.075	76.690	77.327	77.890	78.519	79.256	79.806
DEPTH	1600.00	1625.00	1641.80									
TEMP	80.294	80.779	81.062									

CONDUCTIVITY AND DENSITY

DEPTH	152.89	251.46	457.81	611.74	611.74	611.74	765.66	765.66	917.15	917.15	1285.50	1370.69	1417.32	1420.07	1459.08
COND	3.98	5.46	3.18	3.55	3.64	3.82	3.37	2.68	3.28	3.00	3.20	4.43	5.79	4.64	5.46
DENS	2.20	2.46									2.20	2.27	2.40	2.19	2.29
DEPTH	1460.91	1460.91	1461.43	1495.81	1496.27	1496.27	1525.22	1525.22	1616.36	1616.36	1738.89	1769.37	1799.54	1835.21	1873.00
COND	4.40	4.58	5.07	4.81	4.65	4.85	4.86	4.73	5.35	5.43	4.95	5.97	5.44	4.66	5.27
DENS	2.33	2.33	2.35	2.28	2.32	2.32	2.35	2.35	2.40	2.40	2.33	2.34	2.45	2.34	2.40

HOT CK. VALLEY UCE-18

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712
ELEV	1756	1752	1752	1752	1767	1744	1759	1790	1887	1987	1978	2005	2015

COMMENTS: THERE IS UPWARD WATER MOVEMENT IN THE INTERVAL 192-1292.THE HEAT FLOW VALUE IN THE INTERVAL 192-1664 IS A WEIGHTED MEAN FOR UCE-18.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	INDIAN SPR. VAL	TW-4	36 36	115 47	1060	396-457	3	14.2	15.7	2.23	2.17
								ERROR	0.4	0.5	0.09	

COMPLETED ON OR BEFORE: 9/62 MEASURED: 8/ 6/63 STATIC WATER LEVEL: 224.4

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-6, ARTIFICAL FILL. 6-110, POGONIP GROUP LIMESTONE. 110-458, WINDFALL FORMATION; LIMESTONE, DOLOMITE, AND CHERT.

TEMPERATURE

DEPTH	152.40	167.64	182.88	198.12	213.36	243.84	259.08	274.32	289.56	304.80	320.04	335.28
TEMP	22.261	23.527	22.574	22.714	22.853	23.415	23.479	23.511	23.525	23.532	23.614	23.637
DEPTH	350.52	365.76	381.00	396.24	411.48	426.72	441.96	457.20				
TEMP	23.698	23.665	23.681	23.694	23.905	24.175	24.434	24.625				

CONDUCTIVITY AND DENSITY

DEPTH	411.18	432.21	456.59
COND	14.20	13.56	14.77
DENS	2.81	2.83	2.82

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712
ELEV	1059	1059	1099	1099	1129	1085	1079	1067	1093	1144	1262	1325	1404

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	IRON CANYON	IC-1	40 33	117 06	1675	259-1410	46	11.2	31.24	3.50	3.50
								ERROR	0.5	0.08	0.16	

COMPLETED ON OR BEFORE: 3/11/68 MEASURED: 8/21/68 STATIC WATER LEVEL: 258.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-7, QUATERNARY ALLUVIUM. 7-1413, CAMBRIAN SCOTT CANYON FORMATION; CHERT, SHALE, AND ARGILLITE.

TEMPERATURE

DEPTH	182.88	213.36	243.84	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42	320.04
TEMP	19.108	20.425	21.517	22.169	22.434	22.684	22.934	23.195	23.473	23.754	24.033	24.255
DEPTH	327.66	335.28	342.90	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48
TEMP	24.538	24.798	25.045	25.280	25.479	25.665	25.877	26.136	26.445	26.758	27.004	27.250
DEPTH	419.10	426.72	434.34	441.96	449.58	457.20	464.82	472.44	480.06	487.68	495.30	502.92
TEMP	27.487	27.738	28.024	28.292	28.581	28.843	29.077	29.337	29.593	29.836	30.082	30.338
DEPTH	510.54	518.16	525.78	533.40	541.02	548.64	556.26	563.88	571.50	579.12	586.74	594.36
TEMP	30.588	30.791	30.990	31.192	31.423	31.649	31.946	32.013	32.179	32.321	32.446	32.583
DEPTH	601.98	609.60	617.22	624.84	632.46	640.08	647.70	655.32	662.94	670.56	678.18	685.80
TEMP	32.776	33.016	33.416	33.611	33.740	33.922	34.101	34.269	34.465	34.664	34.869	35.079
DEPTH	693.42	701.04	708.66	716.28	723.90	731.52	739.14	746.76	754.38	762.00	769.62	777.24
TEMP	35.292	35.506	35.718	35.934	36.184	36.425	36.668	36.921	37.178	37.446	37.699	37.952
DEPTH	784.86	792.48	800.10	807.72	815.34	822.96	830.58	838.20	845.82	853.44	861.06	868.68
TEMP	38.214	38.444	38.702	38.953	39.200	39.448	39.677	39.921	40.170	40.421	40.631	40.806
DEPTH	876.30	883.92	891.54	899.16	906.78	914.40	922.02	929.64	937.26	944.88	952.50	960.12
TEMP	41.002	41.248	41.493	41.798	42.085	42.353	42.595	42.859	43.117	43.343	43.625	43.874
DEPTH	967.74	975.36	982.98	990.60	998.22	1005.84	1013.46	1021.08	1028.70	1036.32	1043.94	1051.56
TEMP	44.109	44.335	44.564	44.845	45.164	45.463	45.703	45.932	46.155	46.380	46.617	46.912
DEPTH	1059.18	1066.80	1074.42	1082.04	1089.66	1097.28	1104.90	1112.52	1120.14	1127.76	1135.38	1143.00
TEMP	47.162	47.403	47.670	47.927	48.184	48.415	48.658	48.890	49.094	49.312	49.534	49.769
DEPTH	1150.62	1158.24	1164.34	1173.48	1181.10	1188.72	1196.34	1203.96	1211.58	1219.20	1226.82	1234.44
TEMP	49.979	50.219	50.452	50.656	50.851	51.053	51.297	51.553	51.789	51.950	52.140	52.409
DEPTH	1242.06	1249.68	1257.30	1264.92	1272.54	1280.16	1287.78	1295.40	1303.02	1310.64	1318.26	1325.88
TEMP	52.713	53.017	53.255	53.461	53.731	53.951	54.630	55.129	55.475	55.694	55.975	56.204
DEPTH	1333.50	1341.12	1348.74	1356.36	1363.98	1371.60	1379.22	1386.84	1394.46	1402.08	1409.70	
TEMP	56.422	56.629	56.832	57.070	57.267	57.472	57.710	57.987	58.220	58.403	58.586	

IRON CANYON IC-1

CONDUCTIVITY AND DENSITY

DEPTH	41.15	74.68	106.98	137.47	176.48	192.33	224.03	261.52	291.08	312.42	361.49	380.39	423.06	450.50	478.23
COND	15.17	13.96	9.63	14.77	15.05	7.35	16.18	5.00	8.75	12.96	13.89	15.38	10.50	8.48	12.65
DENS	2.58	2.66	2.66	2.64	2.62	2.69	2.65	2.67	2.63	2.69	2.63	2.63		2.70	2.68
DEPTH	517.55	542.85	574.24	608.69	641.00	669.95	699.52	728.78	761.09	790.96	824.49	856.18	884.23	915.32	946.10
COND	15.89	13.50	14.69	9.11	13.58	9.43	6.95	7.98	10.74	8.51	7.49	9.72	8.27	9.94	13.94
DENS	2.67	2.69		2.66	2.64	2.70	2.72	2.72	2.67	2.69	2.73	2.70	2.73	2.66	2.66
DEPTH	976.89	1006.45	1036.93	1064.67	1100.03	1125.63	1155.80	1188.72	1219.20	1249.38	1283.82	1315.82	1339.60	1370.99	1389.28
COND	8.86	8.47	9.18	8.71	12.74	16.80	17.33	6.67	5.72	16.16	16.98	7.96	12.00	9.12	11.50
DENS	2.62	2.73	2.70	2.69	2.68	2.64	2.62	2.76	2.92	2.65	2.62	2.73	2.72	2.75	2.74
DEPTH	1412.14														
COND	8.21														
DENS	2.68														

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1674	1674	1690	1688	1697	1696	1712	1728	1738	1746	1722	1677	1655	1648
RADIUS	15875													
ELEV	1550													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LANDER	TN-1	40 20	116 43	1670	61-411	10	11.3	30.6	3.46	3.16
								ERROR	1.2	0.3	0.35	
							442-747	12	14.16	24.35	3.45	3.31
								ERROR	1.1	0.06	0.28	
							747-1218	18	7.82	34.1	2.67	2.63
								ERROR	0.28	0.1	0.10	
							61-1218					3.0

COMPLETED ON OR BEFORE: 11/21/67 MEASURED: 8/17/68 STATIC WATER LEVEL: 10.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-10, QUATERNARY ALLUVIUM. 10-924, DEVONIAN SLAVEN CHERT AND ARGILLITE. 924-1218, PALEOZOIC LIMESTONE.

TEMPERATURE

DEPTH	10.67	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	13.652	13.594	13.938	14.113	14.242	14.392	14.555	14.747	14.953	15.146	15.349	15.558
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	145.69	152.40	160.02	167.64	175.26	182.88
TEMP	15.761	15.921	16.117	16.303	16.478	16.653	16.895	17.047	17.255	17.450	17.660	17.859
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	18.095	18.282	18.526	18.764	18.915	19.219	19.527	19.803	20.078	20.319	20.624	20.875
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76
TEMP	21.187	21.494	21.631	22.110	22.335	22.564	22.791	23.029	23.268	23.465	23.666	23.861
DEPTH	373.38	381.00	388.62	396.24	403.86	411.48	419.10	426.72	441.96	449.58	457.20	464.82
TEMP	24.019	24.215	24.422	24.610	24.808	24.982	25.595	25.862	26.328	26.496	26.655	26.843
DEPTH	472.44	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40	541.02	548.64	556.26
TEMP	27.039	27.219	27.395	27.562	27.741	27.895	28.063	28.241	28.421	28.608	28.820	29.031
DEPTH	563.88	571.50	579.12	586.74	594.36	601.98	609.60	617.22	624.84	632.46	640.08	647.70
TEMP	29.211	29.392	29.580	29.762	29.965	30.174	30.360	30.530	30.701	30.887	31.063	31.245
DEPTH	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90	731.52	739.14	746.76
TEMP	31.609	31.785	31.975	32.208	32.413	32.619	32.810	32.984	33.152	33.320	33.495	33.676
DEPTH	754.38	762.00	769.62	777.24	784.86	792.48	800.10	807.72	815.65	822.96	830.58	838.20
TEMP	33.883	34.106	34.367	34.601	34.847	35.082	35.318	35.502	35.773	35.982	36.198	36.463
DEPTH	845.82	853.44	861.06	868.68	876.30	883.92	891.54	899.16	906.78	914.40	922.02	929.64
TEMP	36.715	36.935	37.141	37.349	37.616	37.872	38.173	38.474	38.748	39.001	39.262	39.508
DEPTH	937.26	944.88	952.81	960.12	967.74	975.36	982.98	990.60	998.22	1005.84	1013.46	1021.08
TEMP	39.767	39.993	40.228	40.457	40.748	41.024	41.275	41.537	41.817	42.086	42.362	42.623

LANDER TN-1

TEMPERATURE (CONTINUED)

DEPTH	1028.70	1036.32	1043.94	1051.56	1059.18	1066.80	1074.42	1082.04	1089.66	1097.28	1104.90	1112.52
TEMP	42.872	43.131	43.413	43.692	43.959	44.220	44.439	44.756	45.014	45.266	45.528	45.795
DEPTH	1120.14	1127.76	1135.38	1143.00	1150.62	1158.24	1165.86	1173.48	1181.10	1188.72	1196.34	1203.96
TEMP	46.074	46.335	46.609	46.876	47.156	47.449	47.737	48.041	48.334	48.615	48.873	49.120
DEPTH	1211.58	1217.68										
TEMP	49.376	49.579										

CONDUCTIVITY AND DENSITY

DEPTH	121.31	151.79	181.36	214.58	243.84	274.02	304.80	334.98	365.76	396.24	426.42	457.20	487.68	517.09	548.64
COND	15.91	12.15	8.87	5.33	6.75	9.71	15.05	16.92	12.63	9.75	10.97	18.19	17.69	8.67	8.49
DENS	2.66	2.73	2.72	2.39	2.70	2.68	2.66	2.63	2.73	2.77	2.63	2.65	2.68	2.71	2.75
DEPTH	581.25	613.11	638.86	639.17	670.26	701.65	732.59	762.00	791.57	824.18	854.05	883.92	914.40	945.92	976.12
COND	16.37	15.70	13.76	17.29	9.54	16.72	16.59	6.28	9.74	10.10	9.51	6.61	8.28	6.93	8.97
DENS	2.66	2.67	2.66	2.64	2.76	2.65	2.64	2.94	2.69	2.76	2.91	2.78	2.94	2.88	2.86
DEPTH	1005.84	1036.63	1065.74	1094.54	1127.76	1158.24	1158.39	1188.36	1217.68	1217.98					
COND	8.51	6.34	8.74	7.91	7.15	7.22	7.73	8.17	6.26	6.36					
DENS	2.83	2.69	2.92	2.75	2.71	2.78	2.76	2.71	2.74	2.75					

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1669	1672	1675	1706	1706	1720	1722	1737	1766	1774	1785	1707	1740	1764
RADIUS	15875													
ELEV	1798													

COMMENTS: THE HEAT FLOW IN THE INTERVAL 61-1218 IS THE MEAN FOR TN-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LIT. SMOKY VAL.	UCE-14	38 43	116 02	1902	282-393	3	3.0	38.0	1.14	
								ERROR	0.3	0.2	0.11	
							424-449	4	5.5	31.5	1.73	
								ERROR	0.2	0.9	0.08	
							282-449					1.5

COMPLETED ON OR BEFORE: 12/30/66 MEASURED: 9/17/67 STATIC WATER LEVEL: 262.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-396, ALLUVIUM-COLLUVIUM. 396-428, TUFFACEOUS SANDSTONE. 428-471, DENSELY WELDED TUFF WITH MINOR BASALT AND TUFFACEOUS SANDSTONE.

TEMPERATURE

DEPTH	262.00	270.00	280.00	290.30	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00
TEMP	22.831	22.998	23.276	23.649	24.020	24.456	24.840	25.238	25.588	25.968	26.362	26.742
DEPTH	380.00	390.00	400.00	410.00	420.00	430.00	440.00	444.60				
TEMP	27.071	27.456	27.946	28.591	29.163	29.511	29.807	29.954				

CONDUCTIVITY

DEPTH	347.17	347.47	347.47	442.27	442.27	470.31	470.61
COND	3.11	3.44	2.33	5.76	5.78	4.98	5.43

COMMENTS: HEAT FLOW IN THE INTERVAL 282-449 IS THE BEST VALUE FOR UCE-14. THE AVERAGE CONDUCTIVITY FOR THE INTERVAL 424-449 IS ABOUT 20% LOWER THAN THE MEAN FOR 41 TUFF SAMPLES FROM UCE SERIES HOLES. SEE MUNROE AND MOSES(1968).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LOUSETOWN	VC-2	39 23	119 38	1770	30-108	6	4.00	54.7	2.19	2.0
								ERROR	0.12	3.3	0.15	

COMPLETED ON OR BEFORE: 12/17/68 MEASURED: 7/ 2/69 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-10, ALLUVIUM. 10-109, ALTERED ANDESITE AND BRECCIA.

TEMPERATURE

DEPTH	0.91	1.52	3.05	4.57	6.10	9.14	12.19	15.24	18.29	21.34	24.38	27.43
TEMP	15.762	13.036	9.734	8.945	9.083	9.369	9.785	10.273	10.560	10.813	11.012	11.245
DEPTH	30.48	33.53	36.58	39.62	42.67	45.72	48.77	51.82	54.86	57.91	60.96	64.01
TEMP	11.412	11.570	11.751	11.927	12.062	12.219	12.345	12.467	12.586	12.719	12.863	13.018
DEPTH	67.06	70.10	73.15	76.20	79.25	82.30	85.34	88.39	91.44	94.49	97.54	100.58
TEMP	13.176	13.357	13.541	13.697	13.858	14.020	14.148	14.275	14.396	14.660	14.997	15.350
DEPTH	103.63	106.68	108.51									
TEMP	15.553	15.748	15.859									

CONDUCTIVITY AND DENSITY

DEPTH	27.43	60.05	76.81	86.56	98.15	100.89
COND	4.23	3.92	4.01	4.16	4.24	3.43
DENS	2.42	2.41	2.46	2.47	2.52	

COMMENTS: THE TERRAIN CORRECTION FOR VC-2 IS ASSUMED TO BE THE SAME AS FOR VC-3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LOUSETOWN	VC-3	39 23	119 38	1800	46-111	8	6.24	62.5	3.90	3.5
								ERROR	0.54	1.6	0.35	

COMPLETED ON OR BEFORE: 3/16/69 MEASURED: 6/24/69 STATIC WATER LEVEL: 46.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: O-112, ALTERED ANDESITE AND BRECCIA.

TEMPERATURE

DEPTH	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	111.25
TEMP	13.287	13.890	14.317	14.746	15.192	15.602	16.044	16.605	17.363	17.382

CONDUCTIVITY AND DENSITY

DEPTH	45.72	53.34	61.26	76.50	83.21	91.44	101.19	109.73
COND	5.08	4.70	8.24	7.90	7.24	7.10	5.17	4.45
DENS	2.64	2.60	2.51	2.39	2.31	2.32	2.63	

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112	15875
ELEV	1800	1800	1809	1821	1836	1831	1831	1847	1856	1877	1905	1870	1787	1696	1609

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LUNING	M-4	38 29	118 12	1585	30-249	18	8.11	88.2	7.15	7.2
								ERROR	0.18	1.5	0.20	

COMPLETED ON OR BEFORE: 1/68 MEASURED: 10/22/69 STATIC WATER LEVEL: BELOW 268.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-30, ALLUVIUM. 30-269, MARBLE.

TEMPERATURE

DEPTH	30.42	46.94	62.27	78.00	93.48	109.18	124.57	140.21	155.88	171.27	186.96	202.36
TEMP	17.667	19.362	20.900	21.928	23.257	24.402	25.965	27.025	28.398	29.539	31.155	32.407
DEPTH	218.02	233.45	248.90	268.22								
TEMP	34.090	35.776	37.918	41.137								

CONDUCTIVITY

DEPTH	35.05	47.24	59.44	63.40	74.68	89.92	105.16	114.30	129.54	144.78	160.02	172.21	184.40	196.60	227.08
COND	7.85	7.92	8.75	10.56	8.25	7.87	8.17	8.67	8.41	8.35	8.42	8.14	7.08	7.82	7.58
DEPTH	242.32	254.51	266.09												
COND	7.57	7.10	7.52												

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MANHATTAN GAP	MAN-2	37 58	114 36	2103	152-191	8	7.97	22.16	1.76	1.71
								ERROR	1.12	0.74	0.26	
							198-305	12	9.54	19.44	1.85	1.87
								ERROR	1.03	0.20	0.20	
							152-305					1.83

COMPLETED ON OR BEFORE: ? MEASURED: 2/10/70 STATIC WATER LEVEL: 268.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3, TALUS. 3-57, LIMESTONE. 57-195, THERMALLY ALTERED PIOCHE SHALE. 195-214, LIMESTONE. 214-286, PIOCHE SHALE. 286-310, PROSPECT MOUNTAIN WHITE QUARTZITE.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	160.02	167.64
TEMP	10.746	10.904	11.254	11.608	11.935	12.283	12.616	13.132	13.525	13.778	13.918	14.129
DEPTH	175.26	182.88	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08
TEMP	14.275	14.415	14.632	14.856	15.010	15.126	15.245	15.390	15.516	15.683	15.847	16.005
DEPTH	266.70	274.32	281.94	289.56	297.18	304.80	307.85					
TEMP	16.181	16.327	16.456	16.604	16.748	16.907	16.954					

CONDUCTIVITY AND DENSITY

DEPTH	17.68	32.61	49.07	56.08	77.11	91.44	108.20	121.92	138.07	152.40	165.81	182.88	200.86	214.88	228.60
COND	6.44	6.52	6.97	7.15	9.52	8.18	6.07	6.86	3.49	14.53	7.65	7.46	8.09	8.11	8.87
DENS	2.71	2.69	2.69	3.16	3.22	2.66	2.79	2.76	2.61	2.79	2.80	2.82	3.18	2.84	2.79
DEPTH	243.84	259.99	266.70	273.71	281.94	289.56	295.66	304.80	309.37						
COND	6.21	7.10	9.12	8.03	9.21	17.78	7.57	8.29	16.07						
DENS	2.84	2.86	2.77	2.78	2.79	2.63	2.85	2.86	2.65						

TERRAIN DATA

RADIUS	0	119	238	397	595	310	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2103	2106	2124	2143	2135	2141	2128	2118	2125	2130	2099	2039	1967	1840

COMMENTS: THE HEAT FLOW IN THE INTERVAL 152-305 IS THE MEAN FOR MANHATTAN GAP MAN-2. THE MEAN HEAT FLOW FOR MANHATTAN GAP MAN-2, 3, 4, 7 AND 9 IS 1.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MANHATTAN GAP	MAN-3	37 57	114 36	2164	30-274	9	8.66	18.05	1.56	1.67
								ERROR	0.51	0.22	0.09	
							305-404	5	16.80	11.38	1.91	2.00
								ERROR	0.42	0.09	0.05	
							404-456	8	8.7	17.93	1.56	1.62
								ERROR	1.2	0.17	0.22	
							30-456					1.75

COMPLETED ON OR BEFORE: ? MEASURED: 5/11/70 STATIC WATER LEVEL: 407.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-5, TALUS. 5-147, THERMALLY ALTERED PIOCHE SHALE. 147-168, LIMESTONE. 168-229, THERMALLY ALTERED PIOCHE SHALE. 229-456, PROSPECT MOUNTAIN WHITE QUARTZITE.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80	312.42	320.04
TEMP	11.844	12.375	12.825	13.394	14.031	14.498	15.130	15.692	16.182	16.635	16.725	16.814
DEPTH	327.66	335.28	342.90	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48
TEMP	16.912	17.011	17.093	17.178	17.261	17.343	17.423	17.507	17.598	17.683	17.773	17.919
DEPTH	419.10	426.72	434.34	441.96	449.58	455.98						
TEMP	18.064	18.192	18.331	18.467	18.594	18.743						

CONDUCTIVITY AND DENSITY

DEPTH	94.18	115.52	157.89	169.47	184.86	198.12	213.36	227.99	245.06	313.64	333.45	350.52	396.55	403.56	410.26
COND	10.15	7.10	10.38	8.60	9.23	7.84	5.72	9.05	9.83	17.70	15.55	17.62	16.93	16.18	5.71
DENS		3.13	3.21	2.76	2.79	2.64	2.79	2.78	2.78	2.63	2.64	2.63	2.62	2.62	2.76
DEPTH	413.92	419.10	426.72	434.34	443.48	449.58	455.68								
COND	7.11	7.01	7.18	12.62	9.14	14.83	6.07								
DENS	2.69	2.75	2.73	2.63	2.68	2.61	2.55								

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3890	5285	7928	11112
ELEV	2164	2161	2160	2148	2148	2138	2117	2132	2136	2130	2116	2044	1986	1840

COMMENTS: THE HEAT FLOW IN THE INTERVAL 30-456 IS THE MEAN FOR MANHATTAN GAP MAN-3. THE MEAN HEAT FLOW FOR MANHATTAN GAP MAN-2, 3, 4, 7 AND 9 IS 1.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MANHATTAN GAP	MAN-4	37 58	114 36	2210	296-414	19	9.31	18.1	1.69	1.80
								ERROR	0.52	0.2	0.10	

COMPLETED ON OR BEFORE: ? MEASURED: 5/ 9/70 STATIC WATER LEVEL: 314.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-196, HIGHLAND PEAK FORMATION; LIMESTONE. 196-243, RHYOLITE PORPHRY DIKE. 243-451, SILICIFIED PIOCHE SHALE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	12.754	12.756	12.778	12.792	12.822	12.873	13.099	13.113	12.940	12.910	12.897	12.929
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	13.001	13.114	13.298	13.910	13.605	13.436	13.503	13.818	13.693	13.695	13.912	13.922
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94
TEMP	13.998	14.137	14.230	14.455	14.967	15.198	14.802	14.879	14.963	15.057	15.179	16.177
DEPTH	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38
TEMP	15.563	15.626	15.777	15.936	16.072	16.184	16.313	16.418	16.544	16.690	16.828	16.969
DEPTH	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	447.45		
TEMP	17.112	17.282	17.422	17.575	17.757	17.945	18.074	18.135	18.209	18.318		

CONDUCTIVITY AND DENSITY

DEPTH	68.88	84.73	98.45	110.03	126.49	140.21	153.01	173.43	184.71	190.50	304.80	310.29	317.60	323.70	329.18
COND	7.74	8.18	7.33	7.40	8.59	7.05	7.32	7.60	7.47	7.19	7.39	7.06	6.41	8.52	10.02
DENS	2.65	2.69	2.69	2.73	2.70	2.70	2.70	2.69	2.68	2.69	2.74	2.69	2.69	2.78	2.67
DEPTH	335.28	341.38	347.47	353.26	359.66	365.76	371.86	377.95	384.05	390.14	396.24	402.34	408.43	414.53	420.62
COND	7.97	14.34	11.02	11.17	12.40	8.99	8.82	6.59	7.78	10.83	8.17	8.10	8.27	13.01	46.26
DENS	2.79	2.83	2.63	2.80	2.76	2.76	2.75	2.88	2.82	2.75	2.84	2.83	2.85	2.96	4.56
DEPTH	420.62	426.72	426.72	432.82	432.82	439.52	439.52	445.62	450.80						
COND	8.67	42.71	32.72	55.21	42.21	27.34	31.90	7.19	14.66						
DENS		4.32		4.34		3.51		2.83	2.69						

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2210	2209	2203	2199	2164	2162	2162	2154	2150	2144	2088	2032	1967	1840

COMMENTS: THE MEAN HEAT FLOW FOR MANHATTAN GAP MAN-2, 3, 4, 7 AND 9 IS 1.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MANHATTAN GAP	MAN-7	37 58	114 35	2200	152-305	25	9.29	17.08	1.59	1.69
								ERROR	0.33	0.16	0.06	
							305-389	13	9.28	17.02	1.58	1.67
								ERROR	0.48	0.22	0.08	
							152-389					1.68

COMPLETED ON OR BEFORE: ? MEASURED: 5/13/70 STATIC WATER LEVEL: 305.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-347, PORPHYRY. 347-390, ALTERED PIOCHE SHALE.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	167.64	182.88	198.12	213.36	228.60	243.84	259.08
TEMP	10.645	11.319	11.978	12.497	13.010	13.271	13.542	13.788	14.029	14.282	14.542	14.792
DEPTH	274.32	289.56	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38
TEMP	15.053	15.364	15.650	15.790	15.912	16.032	16.141	16.264	16.388	16.532	16.681	16.825
DEPTH	381.00	388.62										
TEMP	16.966	17.067										

CONDUCTIVITY AND DENSITY

DEPTH	31.09	37.49	42.37	49.38	54.86	67.06	73.15	79.86	85.65	90.83	97.54	103.33	109.42	115.52	121.31
COND	8.83	9.96	8.32	11.61	9.45	8.36	9.39	9.19	11.42	7.68	10.99	11.33	12.36	9.56	9.96
DENS	2.47					2.52	2.56	2.61	2.60	2.56	2.62			2.59	2.64
DEPTH	128.47	134.42	140.21	146.30	152.10	158.19	164.59	170.69	177.09	182.27	188.98	195.07	201.47	207.26	213.36
COND	13.84	8.74	12.38	9.16	8.52	9.95	9.31	8.60	8.36	8.77	10.38	9.83	11.89	12.81	7.96
DENS	2.50	2.56		2.63	2.64		2.72	2.61	2.59	2.86		2.59	2.67	2.91	2.68
DEPTH	219.46	226.16	232.56	238.05	243.84	249.94	255.42	261.52	268.53	271.88	280.42	286.51	292.61	298.40	305.11
COND	8.82	10.10	10.54	8.82	10.94	11.51	7.60	8.11	8.62	6.63	9.94	6.52	10.88	6.89	6.02
DENS	2.69	2.64	2.72		2.63		2.73	2.69	2.67	2.73	2.70	2.74		2.79	
DEPTH	310.90	316.99	323.70	329.18	335.28	341.68	347.02	354.18	367.28	377.65	385.57	389.08			
COND	11.78	10.50	9.75	10.22	9.94	9.49	8.75	7.72	11.77	9.58	6.85	8.21			
DENS	3.41	3.44	2.56	2.69	2.61	2.71	2.67	2.72	2.74	2.71					

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2200	2197	2196	2198	2171	2161	2170	2172	2168	2156	2129	2040	1986	1840

COMMENTS: THE HEAT FLOW IN THE INTERVAL 152-389 IS THE MEAN FOR MANHATTAN GAP MAN-7. THE MEAN HEAT FLOW FOR MANHATTAN GAP MAN-2, 3, 4, 7 AND 9 IS 1.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MANHATTAN GAP	MAN-9	37 58	114 36	2260	389-509	15	6.91	21.84	1.51	1.59
								ERROR	0.29	0.29	0.07	

COMPLETED ON OR BEFORE: ? MEASURED: 5/12/70 STATIC WATER LEVEL: 379.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-169, LIMESTONE. 169-195, CHISHOLM(?) SHALE. 195-268, LIMESTONE, WHITE. 268-296, LIMESTONE, BLACK. 328-480, PIOCHE SHALE. 480-510, LIMESTONE.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80	335.28	365.76
TEMP	11.422	11.409	11.441	11.671	11.958	12.362	12.856	13.289	13.807	14.346	15.030	15.640
DEPTH	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20	464.82
TEMP	16.172	16.343	16.499	16.629	16.784	16.938	17.102	17.236	17.384	17.564	17.739	17.917
DEPTH	472.44	480.06	487.68	495.30	502.92	509.02						
TEMP	18.111	18.304	18.476	18.638	18.836	18.969						

CONDUCTIVITY AND DENSITY

DEPTH	60.96	426.11	438.91	432.82	445.01	451.10	457.35	463.30	469.39	475.49	481.89	487.38	493.17	499.26	505.97
COND	10.38	8.74	5.59	7.56	6.53	6.80	7.41	6.58	6.07	6.35	5.98	7.18	7.42	6.88	9.47
DENS		2.78	2.79	2.74	2.80	2.78	2.75	2.81	2.80	2.80	2.75	2.71	2.72	2.71	2.69
DEPTH	509.32														
COND	5.13														
DENS	2.80														

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2260	2260	2211	2178	2165	2154	2150	2143	2147	2144	2088	2032	1967	1840

COMMENTS: THE MEAN HEAT FLOW FOR MANHATTAN GAP MAN-2, 3, 4, 7 AND 9 IS 1.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MONITOR VALLEY	UCE-3	38 58	116 38	2165	401-597	9	3.94	51.7	2.04	2.0
								ERROR	0.26	0.4	0.13	

COMPLETED ON OR BEFORE: 2/ 4/67 MEASURED: 9/13/67 STATIC WATER LEVEL: 33.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL. (1971b).

GEOLOGY: 0-397, SHINGLE PASS(?) TUFF AND TUFF OF BIG ORANGE CLIFFS. 397-597, ANDESITE.

TEMPERATURE

DEPTH	33.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00
TEMP	13.054	13.264	14.027	14.881	15.520	15.925	16.387	16.944	17.517	18.097	18.704	19.241
DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	19.717	20.096	20.469	20.810	21.108	21.360	21.542	21.714	21.885	22.021	22.128	22.342
DEPTH	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.10	380.00
TEMP	22.670	23.019	23.350	23.685	23.963	24.197	24.439	24.698	25.124	25.509	26.009	26.559
DEPTH	390.00	391.00	392.00	393.00	394.00	395.00	396.00	397.00	398.00	399.00	400.00	401.00
TEMP	27.109	27.163	27.219	27.262	27.302	27.343	27.389	27.431	27.464	27.508	27.547	27.602
DEPTH	402.00	403.00	404.00	405.00	406.00	407.00	408.00	409.00	410.00	420.00	430.00	440.00
TEMP	27.650	27.702	27.760	27.812	27.867	27.915	27.971	28.026	28.076	28.602	29.176	29.739
DEPTH	450.00	460.00	470.00	480.00	490.00	500.00	510.00	520.00	530.00	540.00	550.20	560.00
TEMP	30.161	30.696	31.262	31.838	32.470	33.025	33.518	34.007	34.486	34.940	35.435	35.892
DEPTH	570.00	580.00	589.00									
TEMP	36.355	36.955	37.552									

CONDUCTIVITY AND DENSITY

DEPTH	308.76	342.29	374.30	413.01	441.96	459.94	469.39	484.02	498.35	518.47	553.52	579.12
COND	4.50	4.56	2.73	3.39	3.24	5.03	3.22	3.48	3.30	5.09	4.66	4.05
DENS	2.21	2.23	1.96	2.52	2.40	2.53	2.44	2.46	2.41	2.51	2.52	2.49

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PAHUTE MESA	PM-1	37 17	116 24	1999	610-914	4	3.06	28.8	0.88	
								ERROR	0.25	0.1	0.07	
							914-1219	4	4.83	24.4	1.18	
								ERROR	0.44	0.1	0.11	
							610-1219					1.0

COMPLETED ON OR BEFORE: 5/ 5/64 MEASURED: 7/19/65 STATIC WATER LEVEL: 644.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-17, PARTLY WELDED, DEVITRIFIED TUFF. 17-35, DEVITRIFIED TUFF. 35-1216, ZEOLITIZED TUFF. 1216-1219, PARTLY WELDED, DEVITRIFIED TUFF.

TEMPERATURE

DEPTH	609.60	640.08	670.56	701.04	731.52	762.00	792.48	822.96	853.44	883.92	914.40	944.88
TEMP	31.304	32.210	33.184	34.055	34.888	35.793	36.657	37.515	38.402	39.248	40.107	40.911
DEPTH	975.36	1005.84	1036.32	1066.80	1097.28	1127.76	1158.24	1188.72	1219.20	1249.68	1280.16	1310.64
TEMP	41.633	42.427	43.165	43.866	44.572	45.313	46.088	46.855	47.600	48.243	49.013	49.771
DEPTH	1341.12	1371.60	1402.08	1432.56	1463.04	1493.52	1524.00	1554.48	1584.96	1615.44	1645.92	1676.40
TEMP	50.524	51.316	52.083	52.769	53.489	54.069	54.822	55.471	56.188	56.619	57.069	57.566
DEPTH	1706.88	1737.36	1767.84	1798.32								
TEMP	57.965	58.498	58.975	59.472								

CONDUCTIVITY AND DENSITY

DEPTH	460.55	501.09	553.97	606.86	722.99	795.22	797.97	954.64	958.29	1104.90	1172.57
COND	2.38	2.53	2.82	2.67	3.76	2.74	3.07	3.70	5.83	4.86	4.94
DENS	1.85	1.83	1.98	1.99	2.04	1.92	1.87	2.12	2.46	2.29	

COMMENTS: THE HEAT FLOW VALUE IN THE INTERVAL 610-1219 IS THE MEAN FOR PM-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PAHUTE MESA	PM-2	37 21	116 34	1703	457-610	4	2.32	56.8	1.32	
								ERROR	0.08	0.6	0.05	
							610-732	3	3.15	48.7	1.53	
								ERROR	0.15	0.8	0.08	
							732-792	3	4.40	38.2	1.68	
								ERROR	0.18	1.9	0.11	
							457-792					1.5

COMPLETED ON OR BEFORE: 12/64 MEASURED: 1/ 8/65 STATIC WATER LEVEL: 396.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-131, THIRSTY CANYON TUFF. 131-875, BELTED RANGE TUFF.

TEMPERATURE

DEPTH	457.20	487.68	518.16	548.64	579.12	609.60	640.08	670.56	701.04	731.52	762.00	792.48
TEMP	48.380	50.220	51.960	53.730	55.420	57.040	58.610	60.080	61.430	63.060	64.330	65.390

CONDUCTIVITY AND DENSITY

DEPTH	550.77	550.77	550.77	550.77	640.39	640.39	640.39	762.92	762.92	762.92
COND	2.28	2.54	2.28	2.17	2.99	3.01	3.45	4.05	4.48	4.67
DENS	1.87	1.92	1.92	1.94	2.04	2.00	2.11	2.27	2.25	2.22

COMMENTS: THE HEAT FLOW IN THE INTERVAL 457-792 IS THE MEAN VALUE FOR PM-2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PANTHER CANYON	BM-3	40 33	117 34	1608	61-160	11	6.81	64.3	4.38	3.5
								ERROR	0.38	0.7	0.25	

COMPLETED ON OR BEFORE: 4/ 3/68 MEASURED: 8/ 6/69 STATIC WATER LEVEL: BELOW 160.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-5, ALLUVIUM. 5-27, PYROCLASTIC ROCKS. 27-107, GREENSTONE. 107-161, CHERT, SHALE, AND LIMEY TUFF.

TEMPERATURE

DEPTH	60.96	91.44	121.92	152.40	160.02
TEMP	18.051	20.035	22.067	23.896	24.449

CONDUCTIVITY AND DENSITY

DEPTH	66.75	82.30	92.05	99.97	108.51	117.96	125.58	135.03	143.56	152.40	158.80
COND	6.87	6.94	7.34	6.68	7.73	5.45	7.60	6.54	3.78	8.31	7.69
DENS		2.72		2.70	2.79	2.84	2.70	2.66	2.69	2.94	

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	1622	1622	1603	1619	1626	1673	1687	1715	1742	1797	1740	1671	1678	1623

COMMENTS: THE MEAN HEAT FLOW FOR PANTHER CANYON BM-3 AND BM-37 IS 3.8.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PANTHER CANYON	BM-37	40 33	117 34	1635	122-241	13	8.32	57.6	4.79	4.0
								ERROR	0.58	1.2	0.25	

COMPLETED ON OR BEFORE: 9/12/68 MEASURED: 8/ 5/69 STATIC WATER LEVEL: BELOW 25.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-2, ALLUVIUM. 2-83, CHERT AND ARGILLITE. 83-147, GREENSTONE. 147-215, TUFFACEOUS LIMESTONE. 215-241, LIMESTONE AND DOLOMITE.

TEMPERATURE

DEPTH	91.44	121.92	152.40	182.88	213.36	240.64
TEMP	18.504	19.523	21.408	23.243	24.957	26.341

CONDUCTIVITY AND DENSITY

DEPTH	121.92	131.06	141.12	150.57	159.72	169.16	178.31	187.45	196.29	205.44	213.36	222.50	231.65	240.34
COND	10.44	8.50	7.57	7.38	7.34	5.58	7.11	7.18	10.13	7.40	10.31	8.31	13.96	7.48
DENS		2.72	2.71	2.68	2.76	2.73	2.75	2.79	2.75	2.79	2.65	2.64	2.66	2.68

COMMENTS: TERRAIN CORRECTION FOR PANTHER CANYON BM-37 IS ASSUMED TO BE THE SAME AS PANTHER CANYON BM-3. THE MEAN HEAT FLOW FOR PANTHER CANYON BM-3 AND BM-37 IS 3.8.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PATTERSON PASS	PP-2	38 36	114 44	2250	76-151	6	7.72	16.21	1.25	1.25
								ERROR	0.20	0.45	0.05	

COMPLETED ON OR BEFORE: 6/15/70 MEASURED: 8/ 5/70 STATIC WATER LEVEL: 64.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-154, LIMESTONE.

TEMPERATURE

DEPTH	51.79	57.85	63.92	70.07	76.20	82.30	88.42	94.49	100.52	106.68	112.75	118.84
TEMP	9.186	9.271	9.402	9.488	9.557	9.634	9.716	9.801	9.896	9.992	10.090	10.186
DEPTH	124.97	131.00	137.13	143.26	147.80	150.88						
TEMP	10.293	10.399	10.533	10.637	10.721	10.746						

CONDUCTIVITY

DEPTH	76.96	92.20	107.44	122.68	137.92	153.16
COND	7.10	7.61	7.82	7.26	8.23	8.28

COMMENTS: THE CONDUCTIVITIES FOR PATTERSON PASS PP-2 ARE THOSE MEASURED ON CUTTINGS FROM PATTERSON PASS PP-3 BETWEEN 76 AND 151. PP-2 AND PP-3 ARE WITHIN 1 KM. OF EACH OTHER AND THE ROCK IS SIMILIAR. THE TERRAIN CORRECTION MADE FOR PP-3 WAS USED FOR PP-2. THE MEAN HEAT FLOW FOR PP-2 AND PP-3 IS 1.2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PATTERSON PASS	PP-3	38 36	114 44	2260	76-305	21	8.92	13.5	1.20	1.20
								ERROR	0.34	0.8	0.08	

COMPLETED ON OR BEFORE: 8/25/70 MEASURED: 10/27/70 STATIC WATER LEVEL: 328.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-337, LIMESTONE.

TEMPERATURE

DEPTH	76.20	152.40	228.60	304.80	312.42	320.04	326.56
TEMP	9.235	10.429	11.500	12.295	12.374	12.446	12.503

CONDUCTIVITY

DEPTH	34.29	46.48	61.72	76.96	92.20	107.44	122.68	137.92	153.16	168.40	183.64	198.88	214.12	229.36	244.60
COND	7.44	7.58	7.72	7.10	7.61	7.82	7.26	8.23	8.28	8.45	11.46	9.73	8.22	10.04	8.34

DEPTH	258.32	273.56	290.32	297.94	307.09	313.18	320.80	328.42	336.04
COND	7.77	8.93	13.56	11.20	9.70	8.14	8.19	8.31	8.88

TERRAIN DATA

RADIUS	0	746	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	2270	2270	2293	2339	2308	2238	2181	2120	2063	2029	2010	2022	1980	1896

RADIUS	63500
ELEV	1951

COMMENTS: THE MEAN HEAT FLOW FOR PATTERSON PASS PP-2 AND PP-3 IS 1.2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PILOT MTS.	DH-1	38 19	117 52	1978	76-191	10	6.73	28.07	1.89	1.98
								ERROR	0.67	0.16	0.19	

COMPLETED ON OR BEFORE: 7/25/70 MEASURED: 10/30/70 STATIC WATER LEVEL: ABOUT 30.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-76, VOLCANIC ROCKS. 76-191, GRANITE.

TEMPERATURE

DEPTH	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30
TEMP	13.984	14.195	14.444	14.712	14.967	15.238	15.557	15.769	15.957	16.205	16.446	16.668
DEPTH	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50		
TEMP	16.899	17.080	17.290	17.488	17.701	17.904	18.105	18.335	18.565	18.792		

CONDUCTIVITY AND DENSITY

DEPTH	76.50	89.31	100.28	112.78	124.97	137.47	149.35	161.54	173.74	185.93
COND	4.27	3.56	4.35	7.47	6.54	9.34	9.31	7.45	6.40	8.57
DENS	2.47					2.68				3.01

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	1978	1978	1933	1960	1965	1995	1989	1941	1928	1894	1875	1769	1734	1687
RADIUS	63500													
ELEV	1860													

COMMENTS: ONE TERRAIN CORRECTION WAS MADE FOR PILOT MTS. DH-1, 2, AND 3. THE MEAN HEAT FLOW FOR DH-1, 2 AND 3 IS 1.95.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PILOT MTS.	DH-2	38 19	117 52	1933	99-332	11	6.91	28.17	1.95	1.92
								ERROR	0.20	0.06	0.06	

COMPLETED ON OR BEFORE: 7/25/70 MEASURED: 10/30/70 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-99, VOLCANIC ROCKS. 99-333, GRANITE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	14.050	14.362	14.754	15.121	15.448	15.788	16.124	16.512	16.802	17.115	17.474	17.750
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	17.965	18.189	18.426	18.610	18.811	19.019	19.235	19.456	19.664	19.881	20.090	20.310
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94
TEMP	20.526	20.760	20.990	21.182	21.382	21.575	21.786	22.000	22.221	22.416	22.658	22.886
DEPTH	289.56	297.18	304.80	312.42	320.04	327.66	332.23					
TEMP	23.112	23.329	23.550	23.781	24.006	24.217	24.320					

CONDUCTIVITY AND DENSITY

DEPTH	99.06	122.53	145.09	167.95	190.20	213.36	236.53	258.78	282.55	302.97	326.14
COND	6.27	6.09	8.73	6.78	6.78	6.77	6.94	6.79	6.69	7.19	7.01
DENS	2.61					2.60					2.64

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	1933	1933	1933	1960	1965	1995	1989	1941	1928	1894	1875	1769	1734	1687
RADIUS	63500													
ELEV	1860													

COMMENTS: ONE TERRAIN CORRECTION WAS MADE FOR PILOT MTS. DH-1, 2, AND 3. THE MEAN HEAT FLOW FOR DH-1, 2 AND 3 IS 1.95.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PILOT MTS.	DH-3	38 19	117 52	1940	99-267	10	6.94	28.69	1.99	1.98
								ERROR	0.36	0.06	0.10	

COMPLETED ON OR BEFORE: 8/ 1/70 MEASURED: 10/30/70 STATIC WATER LEVEL: ABOVE 46.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-99, VOLCANIC ROCKS. 99-267, GRANITE.

TEMPERATURE

DEPTH	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54
TEMP	15.751	16.158	16.532	16.809	17.055	17.303	17.548	17.783	18.005	18.233	18.464	18.684
DEPTH	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98
TEMP	18.897	19.124	19.367	19.568	19.766	19.969	20.216	20.418	20.626	20.853	21.096	21.308
DEPTH	228.60	236.22	243.84	251.46	259.08	266.70						
TEMP	21.518	21.730	21.982	22.188	22.375	22.592						

CONDUCTIVITY AND DENSITY

DEPTH	99.06	115.52	132.59	166.73	169.16	182.88	215.49	232.56	250.55	266.09
COND	7.24	6.14	6.45	6.15	6.66	7.20	6.61	6.16	6.85	9.94
DENS	2.64					2.63				2.64

TERRAIN DATA

RADIUS	0	476	952	1588	2380	3240	4236	5500	7272	10096	15520	21140	31712	44448
ELEV	1940	1940	1933	1960	1965	1995	1989	1941	1928	1894	1875	1769	1734	1687
RADIUS	63500													
ELEV	1860													

COMMENTS: ONE TERRAIN CORRECTION WAS MADE FOR PILOT MTS. DH-1, 2, AND 3. THE MEAN HEAT FLOW FOR DH-1, 2 AND 3 IS 1.95.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PINE NUT CANYON	PN-10	38 53	119 35	1850	58-88	7	7.24	40.34	2.92	2.6
								ERROR	0.72	0.25	0.29	
							88-104	4	8.72	34.4	3.00	2.6
								ERROR	1.3	0.3	0.45	

COMPLETED ON OR BEFORE: 12/68 MEASURED: 12/15/69 STATIC WATER LEVEL: 35.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-39, ALLUVIUM. 39-104, META-VOLCANIC ROCKS.

TEMPERATURE

DEPTH	36.58	39.62	42.67	45.72	48.77	51.82	54.86	57.91	60.96	64.01	67.06	70.10
TEMP	11.529	11.671	11.810	11.977	12.126	12.273	12.415	12.532	12.668	12.794	12.923	13.039
DEPTH	73.15	76.20	79.25	82.30	85.34	88.39	91.44	94.49	97.54	100.58	103.63	
TEMP	13.158	13.278	13.407	13.540	13.647	13.771	13.877	13.981	14.090	14.190	14.288	

CONDUCTIVITY AND DENSITY

DEPTH	39.01	47.24	54.86	61.26	69.49	80.16	87.17	95.10	98.15	100.58	103.63
COND	8.37	4.62	7.00	9.85	9.00	5.71	6.15	6.73	10.61	6.28	11.26
DENS	2.70	2.72	2.84	3.06	2.67	2.76	2.89	2.55	3.14	2.89	3.30

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1850	1850	1837	1834	1856	1879	1896	1900	1904	1902	1911	1986	2016	1953
RADIUS	15875													
ELEV	1837													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PINE NUT CANYON	PN-19	38 52	119 35	1890	99-183	12	7.05	36.3	2.56	2.26
								ERROR	0.63	0.2	0.23	
							183-383	16	7.95	32.49	2.58	2.38
								ERROR	0.19	0.05	0.06	
							99-383					2.3

COMPLETED ON OR BEFORE: 10/ 1/69 MEASURED: 12/15/69 STATIC WATER LEVEL: 44.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-24, ALLUVIUM. 24-171, META-VOLCANIC ROCKS. 171-383, GRANITE.

TEMPERATURE

DEPTH	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54
TEMP	11.535	11.931	12.295	12.663	13.063	13.504	13.816	14.151	14.415	14.660	15.021	15.192
DEPTH	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98
TEMP	15.494	15.785	16.052	16.343	16.656	16.910	17.170	17.435	17.649	17.908	18.160	18.414
DEPTH	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42
TEMP	18.643	18.885	19.137	19.386	19.631	19.876	20.125	20.374	20.623	20.879	21.127	21.381
DEPTH	320.04	322.78										
TEMP	21.631	21.724										

CONDUCTIVITY AND DENSITY

DEPTH	24.38	50.90	60.96	76.20	83.82	103.02	118.26	132.89	148.74	159.11	170.69	176.78	183.49	192.02	202.08
COND	5.86	8.49	11.24	10.04	7.76	6.31	6.44	9.29	6.96	7.33	7.53	7.29	7.42	7.37	7.35
DENS	2.73	2.68	2.84	2.69	2.71	2.94	2.89	2.67	2.63	2.65	2.63	2.63	2.64	2.63	2.61
DEPTH	210.31	215.80	219.46	227.99	233.17	241.40	249.02	251.46	257.56	265.48	270.97	278.59	280.42		
COND	7.01	7.50	9.33	7.63	7.84	8.37	7.82	7.53	8.40	7.74	9.71	8.72	7.40		
DENS	2.61	2.62	2.61	2.63	2.60	2.63	2.63	2.56	2.63	2.63	2.64	2.63	2.62		

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1890	1890	1890	1920	1966	1931	1948	1944	1944	1937	1949	2001	2033	1957
RADIUS	15875													
ELEV	1835													

COMMENTS: THE HEAT FLOW IN THE INTERVAL 99-383 IS THE BEST VALUE FOR PN-19.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	RALSTON VALLEY	UCE-1	38 34	116 56	2150	198-609	153	7.15	25.58	1.83	1.79
								ERROR	0.03	0.08	0.01	

COMPLETED ON OR BEFORE: 1/30/67 MEASURED: 8/23/68 STATIC WATER LEVEL: 45.0

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL.(1971b).

GEOLOGY: 0-104, ALLUVIUM. 104-610, GRANITE.

TEMPERATURE

DEPTH	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54	137.16
TEMP	14.267	14.712	15.219	15.697	16.137	16.624	17.107	17.443	17.696	17.938	18.176	18.412
DEPTH	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98	228.60
TEMP	18.645	18.874	19.098	19.328	19.550	19.771	19.990	20.206	20.426	20.631	20.847	21.049
DEPTH	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42	320.04
TEMP	21.258	21.463	21.667	21.868	22.070	22.272	22.470	22.671	22.872	23.071	23.273	23.472
DEPTH	327.66	335.28	342.90	350.52	358.14	365.76	381.00	388.62	396.24	403.86	411.48	419.10
TEMP	23.676	23.877	24.076	24.277	24.479	24.683	25.081	25.282	25.480	25.680	25.881	26.074
DEPTH	426.72	434.34	441.96	449.58	457.20	464.82	472.44	480.06	487.68	495.30	502.92	510.54
TEMP	26.275	26.470	26.654	26.848	27.033	27.216	27.410	27.609	27.794	27.983	28.162	28.343
DEPTH	518.16	525.78	533.40	541.02	548.64	556.26	563.88	571.50	579.12	586.74	594.36	601.98
TEMP	28.523	28.707	28.892	29.074	29.256	29.439	29.623	29.804	29.976	30.160	30.339	30.515
DEPTH	609.60											
TEMP	30.685											

CONDUCTIVITY AND DENSITY

DEPTH	118.57	118.57	119.18	119.18	119.18	129.24	129.24	129.24	129.85	129.85	137.47	137.47	137.47	137.47	150.57
COND	6.14	7.45	5.65	5.95	6.59	7.78	7.23	7.16	7.47	6.68	8.41	7.75	7.73	7.55	8.01
DENS	2.42	2.46	2.43	2.38	2.42	2.50	2.53	2.51	2.48	2.52	2.56	2.56	2.57	2.56	2.57
DEPTH	150.57	153.16	153.16	167.64	167.64	167.64	167.64	170.69	170.69	170.69	170.69	174.65	174.65	179.83	179.83
COND	8.28	7.62	7.63	7.49	7.66	7.46	7.80	7.29	7.11	7.34	7.39	5.44	5.82	6.88	7.05
DENS	2.58	2.58	2.58	2.58	2.59	2.58	2.58	2.57	2.58	2.57	2.58	2.41	2.33	2.56	2.56
DEPTH	196.29	196.29	196.29	204.52	204.83	204.83	216.10	216.10	216.10	216.10	217.32	217.32	217.32	217.32	224.03
COND	7.27	6.88	7.51	7.89	7.03	7.02	7.15	7.11	7.56	7.77	6.71	7.09	7.17	7.29	7.44
DENS	2.58	2.57	2.58	2.56	2.57	2.56	2.54	2.56	2.56	2.57	2.56	2.57	2.56	2.58	2.58
DEPTH	224.03	225.55	225.55	225.55	231.50	231.50	231.50	231.50	233.48	233.48	233.48	233.48	242.47	243.69	243.69
COND	7.51	7.83	7.18	7.62	7.98	7.52	7.64	7.79	7.46	7.62	7.83	7.91	7.12	7.80	7.96
DENS	2.58	2.57	2.55	2.57	2.57	2.57	2.57	2.57	2.57	2.58	2.58	2.58	2.56	2.59	2.58

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	250.09	250.09	258.78	269.14	269.14	276.15	284.38	291.08	298.70	298.70	313.34	322.17	322.17	327.66	329.79
COND	7.30	7.63	7.14	7.01	7.53	7.15	7.19	6.89	7.53	7.66	7.50	7.48	6.79	6.33	6.62
DENS	2.57	2.58	2.56	2.57	2.58	2.56	2.56	2.55	2.57	2.57	2.44	2.57	2.57	2.44	2.53
DEPTH	336.20	343.51	343.51	345.34	345.34	352.04	360.58	361.49	361.49	367.59	374.30	375.51	375.51	381.61	389.23
COND	6.48	7.23	7.07	6.92	7.32	7.04	7.07	6.74	6.60	6.98	6.84	6.61	6.85	6.73	6.65
DENS	2.57	2.59	2.59	2.58	2.58	2.58	2.57	2.57	2.58	2.59	2.58	2.57	2.57	2.56	2.58
DEPTH	389.23	390.15	397.46	405.99	405.99	408.74	408.74	416.36	418.19	426.72	426.72	433.73	433.73	443.18	443.18
COND	6.43	7.07	7.16	7.16	7.06	6.76	7.08	6.92	6.39	6.35	6.83	6.89	6.77	8.08	7.26
DENS	2.57	2.59	2.56	2.54	2.57	2.58	2.59	2.59	2.54	2.59	2.59	2.59	2.56	2.57	2.57
DEPTH	450.19	450.19	451.71	451.71	457.51	457.51	464.52	473.66	473.66	483.72	489.36	489.36	496.83	498.65	498.65
COND	7.27	6.68	6.75	6.86	6.97	7.34	7.34	7.79	7.75	6.73	6.50	7.15	6.98	7.64	7.66
DENS	2.57	2.59	2.59	2.58	2.57	2.58	2.57	2.55	2.56	2.55	2.57	2.58	2.59	2.58	2.57
DEPTH	505.36	506.58	512.37	512.37	513.59	513.59	519.08	520.90	527.61	527.61	535.23	541.94	550.78	550.78	558.09
COND	7.32	7.80	8.06	7.19	8.13	7.85	7.22	7.06	7.19	6.81	7.05	6.59	6.27	6.16	6.71
DENS	2.56	2.56	2.58	2.57	2.57	2.57	2.58	2.62	2.60	2.59	2.59	2.58	2.50	2.54	2.55
DEPTH	559.31	566.02	567.54	573.64	580.65	582.78	588.57	588.57	594.06	595.58	601.98	601.98	603.51	603.51	608.08
COND	6.20	6.40	6.55	6.52	7.03	8.39	5.71	6.17	6.53	6.76	7.29	7.48	7.28	7.27	6.77
DENS	2.59	2.59	2.57	2.57	2.48	2.43	2.53	2.55	2.57	2.59	2.58	2.59	2.59	2.60	2.58
DEPTH	608.08	608.69	608.69												
COND	6.90	7.06	7.27												
DENS	2.58	2.59	2.59												

DIP ANGLE

DEPTH	0	304	609
ANGLE	90.0	86.4	83.5

TERRAIN DATA

RADIUS	0	4760	9520	15880	23800	32400	42360	55000	72720	100960	155200	211400	317120
ELEV	2148	2148	2133	2148	2164	2176	2206	2285	2285	2331	2255	2244	2181

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	ROCK VALLEY	TW-5	36 38	116 18	931	61-244	8	6.3	31.1	1.96	2.0
								ERROR	0.4	0.6	0.13	

COMPLETED ON OR BEFORE: 7/ 9/62 MEASURED: 1/ 2/63 STATIC WATER LEVEL: 205.7

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-49, ALLUVIUM. 49-122, LIMESTONE. 122-172, SANDY LIMESTONE AND ARGILLITE. 172-201, SANDY SHALE AND LIMESTONE. 201-226, SANDY LIMESTONE. 226-244, ARGILLITE WITH DOLOMITE. 244-282, SHALE, LOCALLY LIMY.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88
TEMP	22.994	23.736	24.119	24.270	24.613	25.095	25.659	26.180	27.028	27.181	27.658	28.127

DEPTH	198.12	213.36	228.60	243.84
TEMP	28.542	28.972	29.370	29.904

CONDUCTIVITY AND DENSITY

DEPTH	92.96	129.54	189.28	221.29	250.85	269.75	280.72	281.94
COND	5.87	6.66	5.88	8.04	7.15	6.41	6.19	4.20
DENS	2.66	2.70	2.57	2.67	2.69	2.72	2.71	2.74

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	930	930	975	960	938	942	926	925	916	933	933	926	905	934

RADIUS	15875
ELEV	937

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SAND SPRINGS		39 12	118 22			143	6.86	(22.9)	1.57	
								ERROR	0.04			

CONDUCTIVITY AND DENSITY

DEPTH	79.25	79.25	90.83	90.83	167.03	178.92	195.68	195.68	220.07	220.07	236.83	236.83	249.33	249.33	259.99
COND	7.55	7.07	6.20	6.12	6.29	6.30	5.88	6.35	5.74	6.28	6.08	6.25	6.71	6.58	6.56
DENS	2.65	2.67	2.55	2.59	2.56	2.59	2.64	2.63	2.59	2.61	2.65	2.65	2.64	2.66	2.61
DEPTH	270.66	281.64	281.64	291.69	291.69	303.58	303.58	313.03	313.03	324.61	324.61	336.80	336.80	348.08	348.08
COND	5.86	6.83	6.79	6.72	6.30	5.92	5.79	6.88	6.81	6.16	6.57	6.17	6.28	6.46	6.38
DENS	2.59	2.62	2.64	2.63	2.64	2.58	2.58	2.64	2.64	2.61	2.63	2.63	2.64	2.62	2.63
DEPTH	364.85	364.85	376.43	376.43	386.33	386.33	393.80	393.80	408.89	93.88	95.25	98.45	98.45	102.41	102.41
COND	6.20	6.36	6.26	6.30	7.15	6.95	6.43	6.43	6.83	7.01	7.04	7.21	6.67	7.35	7.00
DENS	2.61	2.62	2.62	2.62	2.64	2.63	2.60	2.62	2.64	2.63	2.63	2.62	2.62	2.63	2.63
DEPTH	102.41	102.41	104.24	104.24	107.90	110.95	110.95	114.00	114.00	114.00	114.00	118.26	118.26	123.75	123.75
COND	6.70	7.21	7.04	7.17	7.20	7.41	7.37	6.47	7.09	6.69	6.95	7.44	6.68	7.20	6.79
DENS	2.63	2.63	2.64	2.63	2.63	2.64	2.64	2.64	2.62	2.63	2.63	2.64	2.63	2.63	2.61
DEPTH	127.10	131.06	131.06	131.06	131.06	135.33	135.33	139.29	139.29	146.00	146.00	153.01	153.01	153.01	160.02
COND	7.06	7.84	6.88	7.40	7.15	6.68	6.89	7.56	7.00	7.60	7.50	7.42	7.44	6.94	7.03
DENS	2.62	2.63	2.61	2.62	2.63	2.63	2.59	2.61	2.63	2.62	2.62	2.62	2.63	2.64	2.62
DEPTH	160.02	170.69	170.69	178.61	186.23	186.23	186.23	193.85	193.85	203.91	203.91	216.10	216.10	224.94	224.94
COND	7.00	7.52	7.31	6.66	7.00	7.28	7.30	7.11	7.85	7.17	7.28	7.24	6.60	6.14	6.94
DENS	2.62	2.62	2.61	2.59	2.63	2.63	2.64	2.59	2.62	2.62	2.61	2.64	2.62	2.61	2.63
DEPTH	224.94	224.94	235.61	235.61	251.76	251.76	256.64	256.64	268.53	268.53	268.53	268.53	280.72	280.72	296.57
COND	6.42	6.31	7.44	7.21	7.48	7.35	6.96	7.00	6.56	7.32	7.20	7.41	7.23	6.87	6.15
DENS	2.64	2.63	2.64	2.64	2.63	2.62	2.62	2.62	2.62	2.63	2.64	2.64	2.64	2.63	2.62
DEPTH	296.57	302.67	302.67	312.42	312.42	312.42	312.42	321.26	321.26	330.40	330.40	335.28	335.28	342.90	342.90
COND	6.79	6.91	6.44	6.27	6.61	7.13	6.85	6.78	6.62	7.30	6.96	6.74	6.91	7.33	7.79
DENS	2.62	2.58	2.60	2.62	2.63	2.64	2.63	2.63	2.63	2.63	2.63	2.62	2.62	2.62	2.61
DEPTH	342.90	342.90	351.43	351.43											
COND	7.30	6.20	6.66	6.73											
DENS	2.64	2.60	2.63	2.62											

COMMENTS: THERMAL CONDUCTIVITIES FOR SAND SPRINGS ECH-A ARE LISTED AS A FUNCTION OF DEPTH FOLLOWED BY THOSE FROM SAND SPRINGS ECH-D. NO TEMPERATURES WERE OBTAINED FROM THESE HOLES, BUT CONDUCTIVITIES WERE COMBINED WITH THOSE FROM PM-1 AND PM-3 TO OBTAIN A MEAN CONDUCTIVITY WHICH, IN TURN, WAS USED TO ESTIMATE HEAT FLOW IN PM-2 AND USBM-1. THE HEAT FLOW IS THE MEAN (WEIGHTED FOR DEPTH INTERVAL) OF INDIVIDUAL VALUES FROM THE FOUR HOLES. SEE SAND SPRINGS PM-1, PM-2, PM-3 AND USBM-1. THE INFLUENCE ON THE HEAT FLOW OF THE SAND SPRINGS AREA OF THE TRANSIENT EFFECTS OF UPLIFT AND EROSION OF THE SAND SPRINGS RANGE AND THE EVOLUTION OF THE VALLEY WERE CONSIDERED. THEY ARE OPPOSITE IN SIGN AND OF THE SAME ORDER OF MAGNITUDE SO THAT THEY TEND TO CANCEL ONE ANOTHER.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SAND SPRINGS	PM-1	39 12	118 22	1633	180-320	8	7.04	22.5	1.58	1.58
								ERROR	0.03	0.1	0.01	

COMPLETED ON OR BEFORE: 3/25/63 MEASURED: 2/15/66 STATIC WATER LEVEL: ABOUT 244.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-407, CRETACEOUS GRANITE.

TEMPERATURE

DEPTH	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00
TEMP	13.693	13.794	13.849	13.891	13.928	13.962	14.011	14.073	14.139	14.209	14.289	14.367
DEPTH	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00
TEMP	14.457	14.547	14.633	14.713	14.814	14.907	14.997	15.096	15.194	15.293	15.406	15.498
DEPTH	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00
TEMP	15.604	15.704	15.806	15.914	16.020	16.128	16.236	16.347	16.451	16.567	16.683	16.795
DEPTH	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00	255.00
TEMP	16.903	17.015	17.127	17.243	17.349	17.457	17.561	17.678	17.787	17.901	18.011	18.122
DEPTH	260.00	265.00	270.00	275.00	280.00	285.00	290.00	295.00	300.00	305.00	310.00	315.00
TEMP	18.237	18.349	18.459	18.575	18.693	18.797	18.913	19.027	19.144	19.260	19.378	19.485
DEPTH	320.00	325.00	330.00	335.00	340.00	345.00	350.00	355.00	360.00	365.00	370.00	375.00
TEMP	19.595	19.709	19.778	19.957	20.123	20.180	20.271	20.364	20.459	20.548	20.633	20.734
DEPTH	380.00	382.10										
TEMP	20.798	20.828										

CONDUCTIVITY AND DENSITY

DEPTH	235.92	235.92	235.92	235.92	406.60	406.60	406.60	406.60
COND	7.21	6.58	6.88	7.33	6.89	7.26	7.02	7.15
DENS	2.65	2.63	2.64	2.64	2.63	2.62	2.62	2.62

COMMENTS: A TWO DIMENSIONAL CORRECTION WAS MADE FOR THE STEADY STATE TOPOGRAPHY AFFECTING THE HEAT FLOW IN SAND SPRINGS PM-1. THE CORRECTION FOR THE POSITIVE TOPOGRAPHY IS +10% AND FOR THE VALLEY IS -10%. THE WATER LEVEL IS INSIDE CASING.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SAND SPRINGS	PM-2	39 12	118 22	1621	180-265	0	6.86	18.8	1.29	1.26
								ERROR		0.2		

COMPLETED ON OR BEFORE: 4/12/63 MEASURED: 2/15/66 STATIC WATER LEVEL: ABOUT 244.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-352, CRETACEOUS GRANITE.

TEMPERATURE

DEPTH	20.00	25.00	30.00	35.00	40.00	45.00	45.00	50.00	55.00	60.00	65.00	70.00
TEMP	14.246	14.358	14.425	14.471	14.516	14.561	14.561	14.610	14.656	14.715	14.777	14.848
DEPTH	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00
TEMP	14.909	14.978	15.049	15.124	15.198	15.280	15.353	15.436	15.517	15.601	15.680	15.768
DEPTH	135.00	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00
TEMP	15.850	15.941	16.025	16.110	16.200	16.289	16.374	16.467	16.552	16.649	16.739	16.828
DEPTH	195.00	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00
TEMP	16.923	17.017	17.110	17.207	17.296	17.392	17.480	17.576	17.667	17.765	17.855	17.954
DEPTH	255.00	260.00	265.00	270.00	275.00	280.00	285.00	290.00	295.00	300.00	305.00	310.00
TEMP	18.044	18.142	18.240	18.386	18.443	18.520	18.607	18.704	18.786	18.877	18.962	18.921
DEPTH	315.00	320.00	325.00	330.00	335.00	340.00	345.00	350.00	351.80			
TEMP	19.117	19.187	19.354	19.460	19.553	19.651	19.747	19.846	19.865			

COMMENTS: THERMAL CONDUCTIVITY ASSUMED TO BE THAT OF 143 SAMPLES OF ROCK FROM SAND SPRINGS ECH-A, ECH-D, PM-1 AND PM-3 WHICH ARE LOCATED WITHIN 1 KM. OF PM-2. A TWO DIMENSIONAL CORRECTION WAS MADE FOR THE STEADY STATE TOPOGRAPHY AFFECTING THE HEAT FLOW IN SAND SPRINGS PM-2. THE CORRECTION FOR THE POSITIVE TOPOGRAPHY IS +10% AND FOR THE VALLEY IS -12%.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SAND SPRINGS	PM-3	39 12	118 22	1561	70-250	11	6.87	30.8	2.12	1.69
								ERROR	0.15	0.1	0.05	

COMPLETED ON OR BEFORE: 4/25/63 MEASURED: 2/15/66 STATIC WATER LEVEL: ABOUT 244.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-336, CRETACEOUS GRANITE.

TEMPERATURE

DEPTH	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00
TEMP	14.458	14.666	14.833	14.984	15.140	15.282	15.428	15.570	15.725	15.861	16.018	16.170
DEPTH	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00
TEMP	16.325	16.479	16.620	16.784	16.931	17.088	17.246	17.397	17.554	17.705	17.878	18.015
DEPTH	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00
TEMP	18.169	18.329	18.488	18.640	18.787	18.952	19.102	19.255	19.411	19.565	19.721	19.883
DEPTH	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00	255.00
TEMP	20.027	20.190	20.338	20.498	20.644	20.803	20.949	21.103	21.255	21.411	21.557	21.699
DEPTH	257.80											
TEMP	21.796											

CONDUCTIVITY AND DENSITY

DEPTH	169.16	169.16	169.16	331.93	331.93	331.93	331.93	335.58	335.58	335.58	335.58
COND	5.72	6.89	6.55	7.01	7.48	7.21	6.44	6.93	6.99	7.62	6.75
DENS	2.63	2.64	2.64	2.63	2.63	2.65	2.63	2.64	2.64	2.65	2.64

COMMENTS: A TWO DIMENSIONAL CORRECTION WAS MADE FOR THE STEADY STATE TOPOGRAPHY AFFECTING THE HEAT FLOW IN SAND SPRINGS PM-3. THE CORRECTION FOR THE POSITIVE TOPOGRAPHY IS -7% AND FOR THE VALLEY IS -13%. A THREE DIMENSIONAL CORRECTION MADE FOR PM-3 AGREES WITH THE TWO DIMENSIONAL CORRECTION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SAND SPRINGS	USBM-1	39 12	118 22	1585	90-316	0	6.86	24.7	1.69	1.58
								ERROR		0.1		

COMPLETED ON OR BEFORE: 7/8/63 MEASURED: 2/15/66 STATIC WATER LEVEL: ABOUT 244.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-318, CRETACEOUS GRANITE.

TEMPERATURE

DEPTH	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00
TEMP	13.945	14.069	14.166	14.265	14.362	14.457	14.548	14.646	14.749	14.860	14.966	15.076
DEPTH	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00
TEMP	15.185	15.293	15.414	15.529	15.642	15.756	15.878	16.000	16.111	16.234	16.362	16.483
DEPTH	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00
TEMP	16.604	16.719	16.847	16.974	17.101	17.217	17.356	17.468	17.572	17.695	17.816	17.942
DEPTH	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00	255.00
TEMP	18.070	18.201	18.322	18.443	18.587	18.693	18.827	18.957	19.095	19.219	19.342	19.474
DEPTH	260.00	265.00	270.00	275.00	280.00	285.00	290.00	295.00	300.00	305.00	310.00	315.00
TEMP	19.612	19.731	19.848	19.954	20.081	20.193	20.323	20.449	20.575	20.706	20.839	20.962
DEPTH	317.40											
TEMP	21.030											

COMMENTS: THERMAL CONDUCTIVITY ASSUMED TO BE THAT OF 143 SAMPLES OF ROCK FROM SAND SPRINGS ECH-A, ECH-D, PM-1 AND PM-3 WHICH ARE LOCATED WITHIN 1 KM. OF USBM-1. A TWO DIMENSIONAL CORRECTION WAS MADE FOR THE STEADY STATE TOPOGRAPHY AFFECTING THE HEAT FLOW IN SAND SPRINGS USBM-1. THE CORRECTION FOR THE POSITIVE TOPOGRAPHY IS +5% AND FOR THE VALLEY IS -12%.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SILVER CITY	CV-1	39 15	119 40	1585	137-320	26	6.62	27.60	1.83	1.81
								ERROR	0.16	0.04	0.04	
							320-389	8	11.54	17.66	2.04	1.95
								ERROR	0.87	0.21	0.16	
							389-476	9	9.8	22.50	2.20	2.14
								ERROR	1.1	0.36	0.25	
							137-476					1.93

COMPLETED ON OR BEFORE: 2/12/70 MEASURED: 6/16/70 STATIC WATER LEVEL: 9.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-137, ALLUVIUM. 137-320, META-ANDESITE. 320-389, MARBLE. 389-444, META-ANDESITE. 444-476, MARBLE. 476-479, META-ANDESITE.

TEMPERATURE

DEPTH	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68
TEMP	14.883	14.992	15.166	15.324	15.458	15.544	15.643	15.751	15.857	15.969	16.121	16.299
DEPTH	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12
TEMP	16.494	16.695	16.902	17.109	17.328	17.550	17.753	17.976	18.184	18.389	18.592	18.802
DEPTH	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56
TEMP	19.009	19.211	19.425	19.642	19.858	20.077	20.284	20.504	20.720	20.916	21.113	21.317
DEPTH	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38	381.00
TEMP	21.521	21.731	21.957	22.189	22.330	22.475	22.631	22.769	22.889	23.012	23.148	23.275
DEPTH	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20	464.82	472.44
TEMP	23.407	23.595	23.809	24.007	24.184	24.371	24.542	24.667	24.839	25.023	25.168	25.331
DEPTH	477.93											
TEMP	25.429											

CONDUCTIVITY AND DENSITY

DEPTH	134.11	137.77	144.78	144.78	153.92	153.92	159.72	169.47	173.13	179.83	185.93	195.38	204.22	213.36	222.50
COND	6.52	5.25	6.60	7.22	6.42	6.81	5.94	6.37	7.00	7.13	6.07	6.38	7.68	6.14	5.80
DENS	2.73	2.79	2.75		2.81		2.88	2.75	2.83	2.76	2.81	2.71	2.75	2.89	2.69
DEPTH	225.55	234.70	243.84	256.03	265.18	274.93	282.55	294.44	301.75	308.46	312.42	312.42	321.56	330.71	337.41
COND	6.84	7.31	6.65	6.34	7.03	7.42	6.99	2.53	4.39	6.27	6.56	9.07	23.97	13.21	9.66
DENS		2.87	2.80	2.72	2.71	2.73	2.69	2.72	2.69	2.72	2.72	2.72	2.91		
DEPTH	344.12	352.65	361.49	369.72	378.26	387.40	396.55	405.38	414.53	423.67	430.99	435.86	444.40	453.24	462.08
COND	6.49	13.55	13.45	11.99	13.13	10.85	10.82	3.49	8.93	6.80	12.43	14.60	16.39	7.97	6.42
DENS			2.92											2.69	

SILVER CITY CV-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	469.39	478.54
COND	6.33	13.59
DENS		2.93

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1584	1584	1578	1575	1572	1591	1605	1622	1638	1634	1654	1709	1639	1627
RADIUS	15875													
ELEV	1630													

COMMENTS: THE HEAT FLOW IN THE INTERVAL 137-476 IS THE MEAN FOR CV-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SILVERPEAK	LC-1	37 43	117 47	2118	107-228	18	5.44	38.68	2.10	1.85
								ERROR	0.18	0.17	0.07	

COMPLETED ON OR BEFORE: 6/13/69 MEASURED: 6/18/70 STATIC WATER LEVEL: 99.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-15, ALLUVIUM WITH SOME ANDESITE BRECCIA. 15-30, ANDESITE BRECCIA. 30-37, MONZONITE PORPHYRY. 37-228, ANDESITE PORPHYRY AND ANDESITE BRECCIA.

TEMPERATURE

DEPTH	30.48	60.96	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	
TEMP	13.778	13.964	14.133	14.779	15.045	15.305	15.561	15.810	16.071	16.307	16.569	16.841	
DEPTH	175.26	182.88	190.50	198.12	205.74	213.36	220.98	227.69					
TEMP	17.134	17.372	17.639	17.900	18.157	18.378	18.576	18.724					

CONDUCTIVITY AND DENSITY

DEPTH	99.06	106.68	113.84	121.92	128.93	136.86	145.66	151.79	159.26	167.95	175.60	182.58	189.68	198.12	206.20
COND	6.00	7.38	4.65	5.16	4.80	5.58	4.48	6.57	4.81	5.01	4.53	5.39	5.46	5.65	5.20
DENS	2.55	2.52	2.51	2.48	2.55	2.49	2.49	2.54	2.50	2.74	2.69	2.59	2.62	2.65	2.66
DEPTH	213.51	220.37	227.99												
COND	5.50	5.41	6.39												
DENS	2.65	2.69	2.51												

DIP ANGLE

DEPTH	0	227
ANGLE	30.0	30.0

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2142	2142	2170	2194	2243	2259	2268	2282	2291	2289	2218	2102	2018	1958
RADIUS	15875													
ELEV	1851													

COMMENTS: THE MEAN HEAT FLOW FOR SILVERPEAK LC-1 AND LC-4 IS 1.9. THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SILVERPEAK	LC-4	37 43	117 47	2136	172-201	8	5.32	41.47	2.21	1.94
								ERROR	0.15	0.48	0.07	

COMPLETED ON OR BEFORE: 7/31/70 MEASURED: 10/28/70 STATIC WATER LEVEL: 33.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-29, ALLUVIUM. 29-214, ANDESITE AND ANDESITE BRECCIA.

TEMPERATURE

DEPTH	0.0	28.74	35.91	43.10	50.29	57.49	64.65	71.84	79.03	86.23	93.39	100.58
TEMP	15.407	15.778	15.852	15.789	15.704	15.689	15.652	15.574	15.323	15.334	15.315	15.306
DEPTH	107.78	114.97	122.13	129.33	136.52	143.71	150.88	158.07	165.26	172.46	179.62	186.81
TEMP	15.282	15.284	15.287	15.278	15.270	15.278	15.306	15.432	16.378	16.761	17.050	17.369
DEPTH	194.01	200.62										
TEMP	17.662	17.920										

CONDUCTIVITY AND DENSITY

DEPTH	152.40	167.64	175.26	182.88	190.50	198.12	205.13	213.36
COND	4.78	4.84	5.69	5.20	5.36	5.46	6.06	5.18
DENS	2.56	2.61	2.66	2.68	2.52	2.63		2.48

DIP ANGLE

DEPTH	0	200
ANGLE	22.0	22.0

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2097	2097	2127	2164	2203	2200	2202	2203	2243	2263	2218	2102	2018	1958
RADIUS	15875													
ELEV	1851													

COMMENTS: THE MEAN HEAT FLOW FOR SILVERPEAK LC-1 AND LC-4 IS 1.9. THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	STONE CAB. VAL.	UCE-2	38 18	116 35	1890	40-162	6	3.84	45.6	1.75	
								ERROR	0.28	0.6	0.13	
							202-405	9	4.37	25.20	1.10	
								ERROR	0.11	0.07	0.03	
							40-405					1.3

COMPLETED ON OR BEFORE: 1/ 7/67 MEASURED: 9/14/67 STATIC WATER LEVEL: 17.

REFERENCE: MUNROE AND MOSES(1968), SASS ET AL.(1971b).

GEOLOGY: 0-488, WELDED TUFFS OF HOT CREEK RANGE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	13.884	14.342	14.845	15.372	15.839	16.240	16.698	17.269	17.800	18.260	18.683	19.049
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	19.501	19.950	20.327	20.696	21.014	21.321	21.625	21.874	22.127	22.372	22.621	22.882
DEPTH	260.00	270.00	280.00	290.00	300.00	310.00	320.05	330.00	340.00	350.00	360.00	370.00
TEMP	23.131	23.370	23.618	23.879	24.153	24.428	24.690	24.929	25.170	25.411	25.651	25.928
DEPTH	380.00	390.00	400.00	410.05	420.00	430.00	440.00	450.00	460.00	470.00	479.50	
TEMP	26.208	26.475	26.687	26.843	26.984	27.044	27.052	27.210	27.331	27.395	27.513	

CONDUCTIVITY AND DENSITY

DEPTH	14.02	63.40	127.10	183.19	308.15	487.99	14.02	63.40	127.10	183.19	293.22	308.15	404.47	426.11	487.99
COND	2.98	4.12	4.23	3.62	3.27	4.84	3.77	4.32	4.70	4.58	4.31	4.07	4.36	4.35	4.87
DENS	2.01	2.22	2.29	2.03	2.00	2.30	2.19	2.33	2.39	2.20	2.23	2.20	2.22	2.32	2.38

COMMENTS: THE HEAT FLOW IN THE INTERVAL 40-405 IS THE MEAN FOR UCE-2. CONDUCTIVITY VALUES WERE OBTAINED WITH ROCK SPECIMENS BOTH SHELF DRY AND WATER SATURATED. DRY VALUES ARE LISTED IN ORDER OF DEPTH FOLLOWED BY VALUES FOR SATURATED ROCKS. THE FIRST HEAT FLOW INTERVAL IS ABOVE THE WATER TABLE AND THE MEAN OF ALL DRY VALUES WAS USED TO SPECIFY THE MEAN CONDUCTIVITY. SIMILIARLY, THE MEAN OF ALL SATURATED VALUES WAS USED TO DEFINE THE CONDUCTIVITY OF THE LOWER INTERVAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SWALES MT.	SM-2	40 57	116 01	1829	122-152	9	6.68	22.2	1.48	1.7
								ERROR	0.03	0.04	0.01	

COMPLETED ON OR BEFORE: 9/26/6 MEASURED: 8/16/68 STATIC WATER LEVEL: ABOUT 60.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-153, ROBERTS MOUNTAINS FORMATION; LIMESTONE.

TEMPERATURE

DEPTH	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	137.16	152.40
TEMP	10.449	10.429	10.455	10.534	10.616	10.663	10.755	10.887	11.016	11.355	11.692

CONDUCTIVITY AND DENSITY

DEPTH	121.62	123.44	132.59	135.33	137.16	140.21	145.69	147.52	150.57	150.88
COND	6.76	7.04	6.31	6.20	6.53	6.73	6.79	6.84	9.37	6.95
DENS	2.68	2.69	2.69	2.72	2.69	2.68	2.67	2.61	2.68	2.61

COMMENTS: THE TOPOGRAPHY AFFECTING THE HEAT FLOW IN SM-1 IS BRACKETED BY A LEES VALLEY 150 METERS DEEP WITH B/H = 1 AND X/H = 1.9 AND A LEES MONOCLINE 180 METERS HIGH WITH ALPHA = 1.2 AND X/H =+0.92.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	TEMPIUTE	SDH-7	37 38	115 33	2076	447-507	9	8.10	13.03	1.06	1.13
								ERROR	0.95	0.10	0.12	

COMPLETED ON OR BEFORE: 6/69 MEASURED: 7/23/69 STATIC WATER LEVEL: 435.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-6, ALLUVIUM. 6-42, MARBLE. 42-519, LIMESTONE LOCALLY SILICIFIED AND CUT BY SEVERAL THIN LAMPROPHYRE DIKES.

TEMPERATURE

DEPTH	236.22	426.72	434.34	441.96	449.58	457.20	464.82	472.44	480.06	487.68	495.30	502.92
TEMP	13.458	15.102	15.178	15.806	15.928	16.061	16.168	16.263	16.368	16.464	16.556	16.649
DEPTH	510.54	518.16										
TEMP	16.741	16.848										

CONDUCTIVITY AND DENSITY

DEPTH	426.29	434.34	441.96	457.81	463.60	472.44	487.99	502.62	518.16
COND	12.09	3.49	7.98	10.59	4.14	9.59	8.17	7.15	9.77
DENS	3.03	2.62	2.75	3.00	2.73	2.89	2.72		2.96

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2075	2075	2121	2163	2102	2097	2086	2043	1994	1944	1920	1824	1741	1705
RADIUS	15875													
ELEV	1712													

COMMENTS: THE MEAN HEAT FLOW FOR TEMPIUTE SDH-7, SDH-17A AND SDH-18 IS 1.1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	TEMPIUTE	SDH-17A	37 38	115 33	2128	215-288	6	7.76	12.74	0.99	1.05
								ERROR	0.23	0.19	0.03	

COMPLETED ON OR BEFORE: 9/69 MEASURED: 7/24/69 STATIC WATER LEVEL: 236.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-266, LIMESTONE. 266-288, QUARTZITE. 288-327, LIMESTONE LOCALLY ALTERED.

TEMPERATURE

DEPTH	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42	320.04	326.14
TEMP	12.740	12.820	12.888	12.985	13.086	13.155	13.226	13.309	13.397	13.490	13.592	13.683

CONDUCTIVITY AND DENSITY

DEPTH	243.69	259.45	259.45	274.02	289.26	304.80
COND	7.16	7.32	7.43	8.45	7.75	8.44
DENS	2.65	2.87		3.08	2.70	2.76

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112	15875
ELEV	2127	2127	2148	2285	2279	2151	2166	2106	2068	1983	1908	1824	1438	1402	1409

COMMENTS: THE MEAN HEAT FLOW FOR TEMPIUTE SDH-7, SDH-17A AND SDH-18 IS 1.1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	TEMPIUTE	SHD-18	37 39	115 33	1975	182-211	12	8.28	13.19	1.09	1.09
								ERROR	0.31	0.30	0.05	

COMPLETED ON OR BEFORE: 6/69 MEASURED: 7/24/69 STATIC WATER LEVEL: 158.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-171, LIMESTONE. 171-221, SILICATED LIMESTONE.

TEMPERATURE

DEPTH	91.44	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98
TEMP	10.882	13.655	13.847	13.702	13.750	13.810	13.910	14.004	14.089	14.201

CONDUCTIVITY AND DENSITY

DEPTH	91.90	107.90	121.98	129.54	139.39	152.86	167.82	183.00	183.00	198.58	213.36	220.92
COND	7.33	8.08	9.18	7.47	5.93	7.65	9.37	8.99	9.73	8.92	8.78	7.88
DENS	2.79	2.81	3.00	2.72	2.78	2.68	3.00	3.11		3.16	2.72	2.87

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1974	1974	1983	2010	2010	2039	2031	2016	2012	1979	1907	1823	1740	1704

RADIUS	15875
ELEV	1711

COMMENTS: THE MEAN HEAT FLOW FOR TEMPIUTE SDH-7, SDH-17A AND SDH-18 IS 1.1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	TENABO	TN-2	40 18	116 40	1525	76-343	9	11.72	30.7	3.59	3.53
								ERROR	0.48	0.2	0.15	

COMPLETED ON OR BEFORE: 2/20/68 MEASURED: 8/18/68 STATIC WATER LEVEL: 66.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-76, QUATERNARY ALLUVIUM. 76-344, DEVONIAN SLAVEN CHERT AND ARGILLITE.

TEMPERATURE

DEPTH	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54
TEMP	17.020	17.019	16.941	16.721	16.935	17.199	17.482	17.752	18.000	18.276	18.536	18.795
DEPTH	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74	213.36	220.98
TEMP	19.010	19.234	19.463	19.702	19.886	20.077	20.284	20.496	20.727	20.916	21.137	21.321
DEPTH	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18	304.80	312.42
TEMP	21.516	21.761	22.087	22.387	22.616	22.860	23.121	23.369	23.597	23.843	24.098	24.357
DEPTH	320.04	327.66	335.28	342.90								
TEMP	24.581	24.796	25.040	25.269								

CONDUCTIVITY AND DENSITY

DEPTH	256.95	273.71	283.46	288.95	319.74	325.53	328.57	336.80	343.81
COND	12.45	11.16	11.34	14.04	11.03	10.08	9.69	12.26	13.45
DENS	2.61	2.51	2.61	2.08	2.59	2.59	2.62	2.60	2.56

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	1524	1523	1523	1523	1523	1525	1519	1531	1531	1535	1561	1580	1577	1625
RADIUS	15875													
ELEV	1743													

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	VIRGINIA CITY	C-63	39 18	119 39	1920	107-151	4	8.1	87.7	7.1	7.
								ERROR	0.6	3.4	0.6	

COMPLETED ON OR BEFORE: 6/69 MEASURED: 7/16/69 STATIC WATER LEVEL: BELOW 151.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-151, ALTERED ANDESITE.

TEMPERATURE

DEPTH	106.68	121.92	137.16	150.88
TEMP	20.430	21.700	23.230	24.240

CONDUCTIVITY

DEPTH	115.06	121.92	130.30	144.02
COND	7.7	8.2	6.85	9.7

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	WASHINGTON HILL	VC-4	39 28	119 38	1634	61-134	6	4.91	45.8	2.25	2.1
								ERROR	0.23	0.6	0.11	

COMPLETED ON OR BEFORE: 4/21/69 MEASURED: 7/ 2/69 STATIC WATER LEVEL: BELOW 134.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-135, ALTERED ANDESITE AND BRECCIA.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	131.06	134.11
TEMP	14.400	14.881	15.454	16.091	16.778	17.488	18.191	18.608	18.809

CONDUCTIVITY AND DENSITY

DEPTH	83.52	91.44	99.36	107.90	114.30	124.97
COND	4.59	4.43	4.80	5.20	5.94	4.51
DENS		2.40			2.44	

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112	15875
ELEV	1634	1634	1634	1621	1652	1695	1682	1702	1688	1684	1655	1645	1626	1675	1647

COMMENTS: TEMPERATURES MEASURED IN AIR FILLED HOLE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	CLMB. PLAT	WHITE ELEPHANT	EB-1	41 53	115 05	2010	100-366	7	8.68	43.4	3.76	3.3
								ERROR	0.28	0.2	0.12	

COMPLETED ON OR BEFORE: 12/68 MEASURED: 12/ 6/69 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-5, ALLUVIUM. 5-366, LIMESTONE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	19.709	19.777	19.905	19.986	20.062	20.129	20.181	20.202	20.259	20.281	20.307	20.322
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50
TEMP	20.727	20.945	21.264	21.581	21.909	22.278	22.572	22.915	23.254	23.588	23.905	24.187
DEPTH	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94
TEMP	24.433	24.685	24.970	25.198	25.463	25.688	25.894	26.116	26.330	26.525	26.681	26.823
DEPTH	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	
TEMP	27.008	27.199	27.354	27.494	27.615	27.729	27.875	27.986	28.110	28.169	28.245	

CONDUCTIVITY AND DENSITY

DEPTH	153.92	190.50	193.55	259.08	275.84	288.95	297.49
COND	8.69	8.51	8.51	7.96	8.73	8.09	10.24
DENS	2.90	2.82	2.75	2.76	2.81	2.80	2.94

TERRAIN DATA

RADIUS	0	119	238	397	595	810	1059	1375	1818	2524	3880	5285	7928	11112
ELEV	2010	2010	2048	2055	2061	2058	2079	2088	2110	2130	2190	2174	2123	2055
RADIUS	15875													
ELEV	2068													

COMMENTS: 1 GALLON PER MINUTE OF WATER FLOWING FROM EB-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	YERINGTON	L-2	38 55	119 04	1463	137-260	9	8.76	20.52	1.80	
								ERROR	0.41	0.31	0.09	

COMPLETED ON OR BEFORE: 11/11/60 MEASURED: 11/19/61 STATIC WATER LEVEL: BELOW 15.

REFERENCE: ROY(1963), SASS ET AL. (1971b).

GEOLOGY: 0-260, METAMORPHOSED LIMESTONE, GARNETITES, AND FELSITES WITH SOME IGNEOUS INTRUSIVE ROCKS.

TEMPERATURE

DEPTH	137.16	152.40	167.64	182.88	198.12	213.36	228.60	243.84	259.08
TEMP	20.020	20.360	20.650	20.910	21.220	21.570	21.930	22.250	22.490

COMMENTS: THE CONDUCTIVITIES ARE FROM ROY(1963), APPENDIX 2, PAGE 2-9. THE MEAN HEAT FLOW FOR YERINGTON L-2, L-7 AND L-48 IS 1.84.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	YERINGTON	L-7	38 56	119 04	1460	107-350	24	8.29	22.56	1.87	
								ERROR	0.16	0.10	0.04	

COMPLETED ON OR BEFORE: 12/60 MEASURED: 12/ 5/62 STATIC WATER LEVEL: BELOW 15.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-351, METAMORPHOSED LIMESTONE, GARNETITES, AND FELSITES WITH SOME IGNEOUS INTRUSIVE ROCKS.

TEMPERATURE

DEPTH	106.68	137.16	167.64	198.12	228.60	259.08	289.56	320.04	350.52
TEMP	19.739	20.424	21.045	21.783	22.474	23.158	23.868	24.520	25.227

CONDUCTIVITY AND DENSITY

DEPTH	117.35	132.89	134.11	144.78	146.30	149.35	152.40	159.41	164.59	166.73	172.21	192.02	198.12	204.22	219.46
COND	7.25	7.81	9.00	9.37	8.78	9.77	8.27	7.78	7.59	9.28	7.63	7.96	8.60	8.43	7.87
DENS	3.23	3.21	2.99	3.17	3.17	2.84	3.17	3.72	3.34	2.96	2.88	3.49	3.00	3.23	3.14

DEPTH	222.50	240.79	246.89	292.00	294.74	306.93	313.03	318.82	321.56
COND	8.02	8.29	6.52	9.05	7.74	8.25	9.56	7.97	8.22
DENS	3.53	2.92	2.91	3.23	3.35	3.31	3.44	3.12	3.01

COMMENTS: THE MEAN HEAT FLOW FOR YERINGTON L-2, L-7 AND L-48 IS 1.84.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	YERINGTON	L-48	38 56	119 04	1450	107-411	34	8.06	22.80	1.84	
								ERROR	0.27	0.14	0.06	

COMPLETED ON OR BEFORE: 10/ 9/62 MEASURED: 12/ 4/62 STATIC WATER LEVEL: BELOW 15.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-412, METAMORPHOSED LIMESTONE, GARNETITES, AND FELSITES WITH SOME IGNEOUS INTRUSIVE ROCKS.

TEMPERATURE

DEPTH	106.68	137.16	167.64	198.12	228.60	259.08	289.56	320.04	350.52	381.00	411.48
TEMP	19.834	20.442	21.075	21.798	22.471	23.237	23.955	24.631	25.327	26.023	26.684

CONDUCTIVITY AND DENSITY

DEPTH	108.20	121.62	134.72	146.91	158.50	172.82	189.28	213.36	225.55	240.79	243.23	255.73	258.17	261.82	263.35
COND	9.20	10.60	7.90	8.60	8.67	8.94	8.45	8.60	6.47	6.71	4.68	5.62	5.66	6.83	5.03
DENS		3.67	4.08	3.49	3.72	3.59	3.61	3.95	2.84	2.96	2.54	2.86	2.81	3.27	2.90
DEPTH	269.14	278.59	280.42	288.65	297.49	302.06	305.11	314.86	316.99	318.52	320.95	324.92	327.36	353.26	366.98
COND	5.30	10.34	8.82	7.49	7.15	8.70	7.54	8.63	9.79	9.73	8.30	8.18	9.85	6.89	9.23
DENS	2.79	3.62	3.56	3.38	3.55	3.14	3.57	3.86	4.60	4.55	4.80	4.58	4.10	3.25	3.75
DEPTH	379.17	389.23	393.19	406.30											
COND	9.73	9.11	7.94	9.23											
DENS	4.28	3.84	3.39	3.52											

COMMENTS: THE MEAN HEAT FLOW FOR YERINGTON L-2, L-7 AND L-48 IS 1.84.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	YUCCA FLAT	TW-E	37 03	116 00	1272	213-457	9	1.34	48.2	0.65	
								ERROR	0.11	0.7	0.05	
							518-701	11	2.27	33.8	0.77	
								ERROR	0.07	0.5	0.03	
							213-701					0.7

COMPLETED ON OR BEFORE: 6/62 MEASURED: 12/30/62 STATIC WATER LEVEL: 528.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-137, ALLUVIUM. 137-719, UNDIFFERENTIATED TUFF. 719-732,DOLOMITE.

TEMPERATURE

DEPTH	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	365.76	381.00
TEMP	27.785	28.282	29.144	29.991	30.990	31.886	32.520	33.330	34.126	34.688	35.296	35.842
DEPTH	396.24	411.48	426.72	441.96	457.20	518.16	548.64	579.12	609.60	640.08	670.56	701.04
TEMP	36.632	37.502	38.120	38.774	39.506	42.026	43.065	43.983	45.187	46.229	47.211	48.135
DEPTH	731.52											
TEMP	48.762											

CONDUCTIVITY AND DENSITY

DEPTH	295.96	304.80	336.80	350.52	398.07	432.82	432.82	433.73	433.73	457.20	459.03	304.80	304.80	323.39	336.80
COND	2.02	2.55	2.45	2.43	2.45	2.37	2.25	2.22	2.40	2.01	1.78	2.05	1.57	1.14	1.42
DENS	1.87	1.99	1.84	1.77	1.86	1.77	1.77	1.71	1.78	1.63	1.69	1.81	1.63	1.29	1.52
DEPTH	350.52	398.07	415.14	432.82	433.73										
COND	0.96	1.28	1.25	1.32	1.11										
DENS	1.28	1.35	1.39	1.50	1.34										

COMMENTS: THE HEAT FLOW IN THE INTERVAL 213-701 IS THE MEAN OF THE HEAT FLOWS OF THE SMALLER INTERVALS. THERMAL CONDUCTIVITY VALUES WERE OBTAINED WITH ROCK SPECIMENS BOTH SHELF DRY AND WATER SATURATED. DRY VALUES ARE LISTED IN ORDER OF DEPTH FOLLOWED BY VALUES FOR SATURATED ROCKS. THE FIRST HEAT FLOW INTERVAL IS ABOVE THE WATER TABLE, AND THE MEAN OF ALL DRY VALUES WAS USED TO SPECIFY THE MEAN CONDUCTIVITY. SIMILIARLY, THE MEAN OF ALL SATURATED VALUES WAS USED TO DEFINE THE CONDUCTIVITY OF THE LOWER INTERVAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	YUCCA MT.	TW-6	36 48	116 24	1011	61-290	4	4.4	35.4	1.56	1.6
								ERROR	0.2	0.8	0.08	

COMPLETED ON OR BEFORE: 1/63 MEASURED: 7/31/63 STATIC WATER LEVEL: 282.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-128, ALLUVIUM. 128-177, WELDED TUFF. 177-210, CLAYEY TUFF. 210-335, WELDED TUFF.

TEMPERATURE

DEPTH	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12	213.36	228.60
TEMP	22.418	22.910	23.442	23.585	24.560	24.901	25.334	25.719	26.159	27.554	27.723	28.169
DEPTH	243.84	259.08	274.32	289.56								
TEMP	28.728	29.408	29.883	30.291								

CONDUCTIVITY AND DENSITY

DEPTH	97.23	163.68	232.87	281.64	334.98
COND	4.06	4.77	4.04	4.77	2.36
DENS	2.28	2.32	2.27	2.33	1.92

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. M.	COLO. PLAT	GOBERNADOR	GB-1	36 41	107 12	2194	1052-1288	9	6.6	(30.6)	2.02	2.01
								ERROR	0.8		0.08	

COMPLETED ON OR BEFORE: 3/16/67 MEASURED: 4/10/67 STATIC WATER LEVEL: 67.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-1052, SAN JOSE FORMATION; SANDSTONE, ARKOSIC CONGLOMERATE, AND SHALE. 1052-1061, NACIMIENTO FORMATION; SHALE, SILTSTONE, AND SANDSTONE. 1061-1120, OJO ALAMO SANDSTONE. 1120-1193, KIRTLAND SHALE AND FRUITLAND FORMATION; SHALE, SILTSTONE, SANDSTONE, AND SOME COAL BEDS. 1193-1280, PICTURED CLIFFS SANDSTONE. 1280-1288, LEWIS SHALE.

TEMPERATURE

DEPTH	67.06	76.20	92.96	121.92	152.40	182.88	213.36	243.84	275.24	304.80	335.28	365.76
TEMP	12.305	12.517	13.079	14.077	15.247	16.051	17.108	17.940	18.911	19.821	20.970	21.989
DEPTH	396.24	426.72	457.20	487.68	518.16	548.64	579.12	609.60	640.08	670.56	701.04	731.52
TEMP	22.959	24.028	25.055	26.047	26.986	27.886	28.718	29.421	30.236	31.146	32.194	33.250
DEPTH	762.00	792.48	822.96	853.44	883.92	914.40	944.88	975.36	1005.84	1036.63	1066.80	1097.28
TEMP	34.184	35.384	36.226	37.322	38.504	39.657	40.596	41.711	42.625	43.685	44.559	45.296
DEPTH	1127.76	1157.94	1188.42									
TEMP	46.334	47.596	50.804									

CONDUCTIVITY AND DENSITY

DEPTH	1219.96	1235.48	1073.51	1073.51	1212.56	1235.48	1212.56	1197.32	1280.50	1050.71	1173.85	1266.32
COND	8.57	6.21	7.57	8.18	7.77	6.39	7.42	8.00	8.47	4.84	0.65	7.46
DENS	2.50			2.48	2.59	2.63		2.47		2.61	1.37	2.50

COMMENTS: HEAT FLOW IS THE AVERAGE OF EIGHTEEN 7.6-METER INTERVALS. THERMAL CONDUCTIVITY FOR EACH INTERVAL WAS CALCULATED FROM LITHOLOGIC LOGS USING AVERAGE CONDUCTIVITIES FOR EACH ROCK TYPE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S. DAK	INT. PLN	DACY	RTM-1	44 22	103 53	1790	204-334	7	7.3	25.6	1.87	1.9
								ERROR	1.0	0.05	0.26	

COMPLETED ON OR BEFORE: 9/ 7/68 MEASURED: 9/19/68 STATIC WATER LEVEL: 120.

REFERENCE: SASS ET AL.(1971b).

GEOLOGY: 0-334, DOLOMITE WITH SOME SILTSTONE AND SHALE. 334-354, SANDSTONE, SILTSTONE, AND QUARTZITE.

TEMPERATURE

DEPTH	124.00	134.00	144.00	154.00	164.00	174.00	184.00	194.00	204.00	214.00	224.00	234.00
TEMP	6.688	6.333	6.390	6.440	6.563	6.874	7.021	7.302	7.389	7.618	7.785	8.031
DEPTH	244.00	254.00	264.00	274.00	284.00	294.00	304.00	314.00	324.00	334.00	344.00	354.00
TEMP	8.296	8.485	8.723	8.954	9.275	9.590	9.870	10.165	10.355	10.529	10.999	14.495

CONDUCTIVITY AND DENSITY

DEPTH	106.68	121.92	137.16	274.32	304.80	320.04	335.28
COND	8.50	11.02	8.47	4.17	5.10	5.12	8.91
DENS	2.60	2.69	2.29	2.42	2.72	2.57	2.63

COMMENTS: TEMPERATURES MEASURED 10 DAYS AFTER COMPLETION OF RTM-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S. DAK	INT. PLN	MOONSHINE GULCH	NBH-2	44 08	103 43	1695	126-250	13	6.70	7.77	0.52	0.5
								ERROR	0.46	0.04	0.04	

COMPLETED ON OR BEFORE: 8/68 MEASURED: 9/20/68 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-131, PAHASAPA FORMATION; DOLOMITE. 131-145, ENGLEWOOD FORMATION; DOLOMITE. 145-156, WHITEWOOD FORMATION; DOLOMITE. 156-190, WINNIPEG FORMATION; SILTSTONE AND SHALE. 190-300, DEADWOOD FORMATION; SANDSTONE AND SILTSTONE.

TEMPERATURE

DEPTH	1.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00
TEMP	8.465	8.469	8.501	8.513	8.530	8.817	8.851	8.884	8.907	8.928	8.945	8.949
DEPTH	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00
TEMP	9.173	9.449	9.533	9.596	9.676	9.761	9.822	9.888	9.946	10.007	10.064	10.119
DEPTH	240.00	250.00	260.00	270.00	280.00	290.00	300.00					
TEMP	10.168	10.218	10.262	10.304	10.354	10.395	10.419					

CONDUCTIVITY AND DENSITY

DEPTH	120.40	131.67	149.96	162.15	182.27	198.12	216.41	228.60	241.71	258.78	266.70	294.74	298.70
COND	8.95	9.56	8.62	5.89	7.31	7.17	4.27	5.59	4.91	6.80	6.69	5.33	7.89
DENS	2.90	2.73	2.70	2.89	2.19	2.72	2.76	2.75	2.76	2.69	2.72	2.64	2.64

DIP ANGLE

DEPTH	0	152	304	457
ANGLE	85.0	65.0	75.0	75.0

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S. DAK	INT. PLN	WINDY FLATS	NBH-1	44 18	103 40	1652	383-516	7	5.12	9.10	0.47	0.5
								ERROR	0.29	0.07	0.03	

COMPLETED ON OR BEFORE: 9/68 MEASURED: 9/18/68 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-102, PAHASAPA FORMATION; DOLOMITE. 102-118, ENGLEWOOD FORMATION; DOLOMITE. 118-133, WHITEWOOD FORMATION; DOLOMITE. 133-166, WINNIPEG FORMATION; SILTSTONE AND SHALE. 166-350, DEADWOOD FORMATION; SANDSTONE AND SILTSTONE. 350-567, AMPHIBOLITE.

TEMPERATURE

DEPTH	1.00	11.00	21.00	31.00	41.00	51.00	61.00	71.00	81.00	91.00	101.00	111.00
TEMP	10.893	8.283	9.254	9.502	9.399	9.462	9.559	9.636	9.709	9.782	9.858	9.921
DEPTH	121.00	131.00	141.00	151.00	161.00	171.00	181.00	191.00	201.00	211.00	221.00	231.00
TEMP	9.995	10.053	10.110	10.166	10.218	10.268	10.316	10.363	10.405	10.439	10.477	10.509
DEPTH	241.00	251.00	261.00	271.00	281.00	291.00	301.00	311.00	321.00	331.00	341.00	351.00
TEMP	10.544	10.668	10.708	10.741	10.772	10.797	10.819	10.845	10.871	10.893	10.907	10.914
DEPTH	361.00	371.00	381.00	386.00	387.00	388.00	389.00	390.00	391.00	401.00	411.00	421.00
TEMP	10.921	10.916	10.912	10.904	10.904	10.903	10.904	11.147	11.152	11.283	11.356	11.428
DEPTH	431.00	441.00	451.00	461.00	471.00	481.00	491.00	501.00	511.00	521.00	531.00	541.00
TEMP	11.489	11.558	11.628	11.696	11.766	11.842	11.913	11.987	12.062	12.134	12.214	12.286
DEPTH	551.00	561.00	566.80									
TEMP	12.366	12.443	12.480									

CONDUCTIVITY AND DENSITY

DEPTH	402.95	406.91	418.49	421.23	442.27	454.15	457.20
COND	6.15	4.32	4.54	4.83	5.56	5.45	6.47
DENS	2.94	2.89	2.91	2.87	2.79	2.82	2.92

DIP ANGLE

DEPTH	0	152	304	457	609
ANGLE	85.0	74.0	73.0	52.0	52.0

COMMENTS: THE DEPTH RANGE INTERVAL IS CORRECTED DEPTH. THE DEPTH OF THE DEPTH-TEMPERATURE PAIRS AND CONDUCTIVITY IS MEASURED DEPTH. APPROXIMATELY 1 GAL. PER MINUTE OF WATER FLOWING FROM NBH-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY						29	6.70	(28.06)	1.88	1.88
								ERROR	0.09		0.04	

COMMENTS: THE HEAT FLOW IS THE MEAN OF 24 INDIVIDUAL DETERMINATIONS OVER 7.5-METER INTERVALS IN THE HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-104	37 42	113 19	1725	76-274	28	7.08	29.07	2.06	2.06
								ERROR	0.22	0.22	0.07	

COMPLETED ON OR BEFORE: 5/ 8/58 MEASURED: 7/27/64 STATIC WATER LEVEL: 121.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-49, ALLUVIUM. 49-88, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, SHALE, AND CONGLOMERATE. 88-133, TALUS BRECCIA, LIMESTONE, AND SILTSTONE. 133-211, ENTRADA SANDSTONE; SANDSTONE, SILTSTONE, SHALE, AND ARKOSE. 211-275, HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	11.219	12.767	13.150	13.798	14.002	14.513	14.836	15.116	15.241	15.464	15.687	15.898
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	16.068	16.291	16.494	16.601	16.831	17.037	17.390	17.558	17.776	17.963	18.164	18.377
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	18.605	18.819	19.099	19.379	19.660	19.877	20.086	20.298	20.515	20.696	20.911	21.144

CONDUCTIVITY AND DENSITY

DEPTH	67.97	74.07	81.69	86.26	90.83	96.62	102.41	109.42	115.82	121.01	126.80	132.59	138.38	144.17	151.49
COND	7.22	6.93	12.22	9.87	6.92	6.35	7.05	6.69	5.70	5.92	6.75	6.75	7.56	7.74	6.28
DENS	2.60	2.70	2.52	2.35	2.50	2.65	2.66	2.68	2.65	2.69	2.60	2.54	2.58	2.46	2.49
DEPTH	153.01	158.50	164.59	170.69	176.78	182.88	194.77	201.17	217.93	225.55	237.74	243.84	249.94	256.03	273.41
COND	8.21	7.58	10.37	7.03	5.07	6.85	5.73	4.71	6.23	6.48	6.57	6.37	7.40	6.90	6.95
DENS	2.50	2.64	2.51	2.52	2.52	2.46	2.51	2.40	2.69	2.78	2.72	2.73	2.73	2.70	2.70

COMMENTS: EACH HEAT FLOW IS THE AVERAGE OF COMPONENT HEAT FLOWS OVER 61-METER INTERVALS WITHIN THE STATED DEPTH RANGE. THERE IS SOME REDUNDANCY IN THE COMPONENTS IN THAT EACH 61-METER INTERVAL OVERLAPS ITS NEIGHBORS BY 30.5 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-105	37 41	113 19	1744	46-290	34	8.48	25.22	2.14	2.14
								ERROR	0.40	0.15	0.10	

COMPLETED ON OR BEFORE: 5/26/58 MEASURED: 7/31/64 STATIC WATER LEVEL: 141.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-46, ALLUVIUM. 46-183, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, SHALE, AND CONGLOMERATE. 183-209, MARSHALL CREEK BRECCIA. 209-290, ENTRADA SANDSTONE; SANDSTONE, SILTSTONE, SHALE, AND ARKOSE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	12.984	13.281	13.489	14.008	14.320	14.672	14.863	15.054	15.245	15.509	15.695	15.901
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	16.087	16.255	16.374	16.548	16.721	16.940	17.122	17.306	17.470	17.689	17.885	18.054
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	18.218	18.398	18.560	18.864	19.079	19.270	19.464	19.658	19.853	20.063	20.308	20.499
DEPTH	281.94	289.56										
TEMP	20.674	20.944										

CONDUCTIVITY AND DENSITY

DEPTH	48.77	61.57	67.06	80.16	91.44	97.54	103.63	109.73	115.82	122.53	134.11	140.21	146.30	153.31	164.59
COND	11.45	9.46	7.42	12.68	7.06	9.40	10.22	12.58	11.34	12.72	5.56	8.41	8.23	8.27	5.65
DENS	2.35	2.62	2.57	2.60	2.47	2.56	2.54	2.59	2.45	2.62	2.52	2.45	2.64	2.38	2.47
DEPTH	170.69	182.88	188.98	195.07	201.17	207.26	213.36	219.46	225.55	231.65	237.74	244.15	250.24	256.64	262.13
COND	5.87	5.65	7.16	7.11	5.58	4.77	5.04	9.94	11.49	5.46	9.15	6.81	7.66	10.64	7.71
DENS	2.34	2.58	2.72	2.70	2.59	2.46	2.48	2.49	2.48	2.39	2.55	2.41	2.47	2.49	2.58
DEPTH	268.22	274.32	280.42	289.56											
COND	8.74	8.69	9.56	10.27											
DENS	2.58	2.58	2.50	2.55											

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-114	37 41	113 19	1736	53-320	24	6.72	30.39	2.04	2.04
								ERROR	0.29	0.21	0.09	

COMPLETED ON OR BEFORE: 8/13/58 MEASURED: 7/23/64 STATIC WATER LEVEL: 133.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-49, ALLUVIUM. 49-124, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, SHALE, AND CONGLOMERATE. 124-161, MARSHALL CREEK BRECCIA; SEDIMENTARY BRECCIA AND LIMY SANDSTONE, SILTSTONE, AND MUDSTONE. 161-239, ENTRADA SANDSTONE; SANDSTONE, SILTSTONE, SHALE, AND ARKOSE. 239-301, HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION. 301-321, SILTSTONE IN HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	12.292	13.404	13.899	14.335	14.764	15.110	15.298	15.515	15.761	15.966	16.179	16.366
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	16.596	16.800	16.994	17.189	17.474	17.690	17.891	18.121	18.260	18.462	18.696	18.893
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	19.265	19.485	19.736	20.000	20.247	20.534	20.854	21.129	21.337	21.545	21.753	21.954
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04						
TEMP	22.142	22.337	22.591	22.793	23.067	23.287						

CONDUCTIVITY AND DENSITY

DEPTH	134.11	140.21	146.00	170.69	176.78	202.08	207.26	213.36	215.80	220.98	243.84	256.03	262.13	268.22	274.32
COND	7.09	6.52	7.32	4.52	9.86	6.58	5.74	9.10	10.03	9.05	7.51	6.53	6.77	6.73	7.02
DENS	2.70	2.57	2.68	2.50	2.53	2.60	2.49	2.52	2.48	2.46	2.86	2.69	2.68	2.70	2.71
DEPTH	280.42	286.21	292.61	298.70	304.80	310.90	316.99	319.74	320.35						
COND	6.94	7.05	6.74	6.53	4.65	4.36	4.98	5.15	4.62						
DENS	2.70	2.71	2.72	2.72	2.67	2.47	2.54	2.60	2.70						

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-161	37 41	113 19	1743	76-366	25	8.93	26.47	2.36	2.36
								ERROR	0.48	0.40	0.13	

COMPLETED ON OR BEFORE: 9/ 9/59 MEASURED: 7/28/64 STATIC WATER LEVEL: 141.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-47, ALLUVIUM. 47-183, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, AND CONGLOMERATE. 183-222, MARSHALL CREEK BRECCIA; LIMESTONE AND SILTSTONE. 222-336, ENTRADA SANDSTONE; SANDSTONE, SILTSTONE, AND QUARTZITE. 336-427, HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION.

TEMPERATURE

DEPTH	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68
TEMP	13.487	13.667	14.332	14.494	14.914	15.008	15.328	15.392	15.758	15.881	16.150	16.317
DEPTH	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12
TEMP	16.460	16.668	16.841	17.038	17.284	17.450	17.684	17.885	18.159	18.416	18.659	18.843
DEPTH	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56
TEMP	19.061	19.203	19.404	19.536	19.759	19.890	20.054	20.155	20.340	20.438	20.628	20.775
DEPTH	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76	373.38	381.00
TEMP	20.998	21.127	21.172	21.316	21.681	21.859	22.050	22.216	22.579	22.915	23.289	23.587
DEPTH	388.62	396.24	403.86	411.48	419.10	426.72						
TEMP	23.901	24.326	24.600	24.845	25.075	25.333						

CONDUCTIVITY AND DENSITY

DEPTH	60.96	73.15	80.77	98.76	109.73	134.11	140.51	146.30	164.59	170.69	176.78	180.44	185.62	188.98	201.17
COND	10.13	7.54	8.20	11.30	13.41	7.72	12.57	8.20	5.85	7.24	6.36	11.58	8.82	8.92	6.46
DENS	2.43	2.56	2.39	2.56	2.58	2.47	2.54	2.55	2.80	2.41	2.35	2.65	2.83	2.84	2.39
DEPTH	207.26	218.85	224.64	230.43	243.84	256.03	262.13	268.22	274.32	280.72	292.61	341.38			
COND	7.14	6.70	10.89	6.36	10.48	10.94	10.32	12.12	6.06	10.61	6.85	7.02			
DENS	2.53	2.56	2.47	2.62	2.47	2.46	2.48	2.61	2.48	2.50	2.58	2.66			

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-163	37 42	113 17	1703	76-335	42	6.98	28.46	1.99	1.99
								ERROR	0.21	0.18	0.06	

COMPLETED ON OR BEFORE: 9/ 1/59 MEASURED: 7/22/64 STATIC WATER LEVEL: 100.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-58, ALLUVIUM. 58-76, BRECCIA-CONGLOMERATE. 76-124, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, SHALE, AND CONGLOMERATE. 124-153, MARSHALL CREEK BRECCIA; LIMESTONE, SANDSTONE, AND LIMESTONE SEDIMENTARY BRECCIA. 153-161, SILTSTONE. 161-237, ENTRADA SANDSTONE; SANDSTONE AND SILTSTONE. 237-317, HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION. 317-336, SILTSTONE IN THE HOMESTAKE LIMESTONE MEMBER OF THE CARMEL FORMATION.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	11.519	13.315	13.538	14.456	14.644	15.241	15.735	16.139	16.505	16.832	17.054	17.244
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	17.445	17.646	17.836	18.065	18.207	18.392	18.621	18.800	19.066	19.319	19.497	19.669
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	19.854	20.058	20.266	20.453	20.655	20.912	21.231	21.477	21.734	21.945	22.189	22.407
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28				
TEMP	22.632	22.857	23.114	23.264	23.449	23.649	23.900	24.185				

CONDUCTIVITY AND DENSITY

DEPTH	60.96	91.44	97.54	103.63	116.13	121.92	128.02	134.11	140.21	146.30	151.49	153.92	158.50	164.59	170.38
COND	5.24	9.60	8.05	7.38	8.72	7.96	7.49	5.80	6.17	7.34	6.18	5.99	6.63	8.99	5.04
DENS	2.50	2.60	2.50	2.61	2.54	2.56	2.66	2.57	2.48	2.62	2.61	2.54	2.50	2.46	2.46
DEPTH	177.09	183.19	188.06	195.07	201.17	208.18	213.97	225.55	243.84	249.94	256.03	262.13	268.22	274.32	280.42
COND	8.08	9.64	5.96	5.30	9.82	9.93	9.80	6.64	5.28	6.75	6.19	6.06	5.75	6.67	6.80
DENS	2.44	2.44	2.51	2.40	2.50	2.40	2.44	2.56	2.75	2.68	2.73	2.69	2.71	2.64	2.72
DEPTH	286.51	292.61	298.70	304.80	310.90	323.70	329.79	335.28							
COND	6.92	6.22	6.59	7.76	7.22	4.85	4.34	4.82							
DENS	2.71	2.70	2.70	2.70	2.74	2.52	2.63	2.64							

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	DE-175	37 42	113 17	1703	76-206	20	7.88	27.09	2.13	2.13
								ERROR	0.26	0.32	0.07	

COMPLETED ON OR BEFORE: 11/25/59 MEASURED: 7/18/64 STATIC WATER LEVEL: 101.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-56, ALLUVIUM. 56-77, BRECCIA-CONGLOMERATE. 77-152, IRON SPRINGS FORMATION; SANDSTONE, SILTSTONE, SHALE, AND CONGLOMERATE. 152-172, MARSHALL CREEK BRECCIA; LIMESTONE SEDIMENTARY BRECCIA. 172-206, ENTRADA SANDSTONE; SANDSTONE, SILTSTONE, AND SHALE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	11.267	12.917	13.588	14.141	14.685	15.285	16.030	16.225	16.552	16.872	17.169	17.298
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	17.468	17.699	17.938	18.066	18.252	18.422	18.749	18.867	19.065	19.284	19.609	19.784
DEPTH	190.50	198.12	205.74									
TEMP	20.002	20.189	20.418									

CONDUCTIVITY AND DENSITY

DEPTH	56.08	60.96	79.25	85.34	92.35	97.54	102.11	115.82	121.92	128.02	134.72	139.90	146.61	152.40	158.50
COND	4.94	5.06	7.62	8.05	7.84	8.34	7.39	7.32	8.20	9.80	7.96	7.78	9.67	6.24	6.64
DENS	2.52	2.45	2.63	2.56	2.64	2.57	2.58	2.57	2.59	2.58	2.47	2.52	2.56	2.62	2.66
DEPTH	164.59	176.78	182.88	188.98	195.99	201.17	205.74								
COND	6.34	5.77	6.60	8.54	9.68	10.00	7.68								
DENS	2.62	2.58	2.51	2.48	2.46	2.44	2.42								

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	CEDAR CITY	N-6	37 38	113 26	1810	46-107	10	8.97	24.45	2.19	2.19
								ERROR	0.27	0.44	0.08	

COMPLETED ON OR BEFORE: 1/60 MEASURED: 7/16/64 STATIC WATER LEVEL: ?

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-5, ALLUVIUM. 5-109, IRON SPRINGS FORMATION; SANDSTONE AND SHALE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	11.794	12.860	12.942	13.097	13.210	13.359	13.570	13.744	13.912	14.094	14.255	14.444
DEPTH	99.06	106.68										
TEMP	14.684	14.883										

CONDUCTIVITY AND DENSITY

DEPTH	21.64	42.06	46.63	50.90	67.97	72.85	80.77	85.04	98.15	108.20
COND	7.81	7.86	8.41	10.46	9.25	8.65	9.32	10.16	8.98	8.53
DENS	2.63	2.49	2.66	2.57	2.60	2.58	2.60	2.52	2.66	3.31

COMMENTS: SEE COMMENTS CEDAR CITY DE-104.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	OURAY	W-EX-1	39 59	109 36	1520	61-533	11	5.63	25.13	1.42	
								ERROR	0.17	0.06	0.04	
							541-907	51	4.90	32.19	1.60	
								ERROR	0.18	0.28	0.06	
							61-907					1.50

COMPLETED ON OR BEFORE: 7/30/69 MEASURED: 11/27/69 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-478, UINTA FORMATION; SANDSTONE AND SHALE. 478-961, GREEN RIVER FORMATION; OIL SHALE, SANDSTONE, AND SHALE.

TEMPERATURE

DEPTH	15.24	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88
TEMP	14.550	14.930	15.378	15.585	15.941	16.355	16.744	17.140	17.483	17.911	18.287	18.704
DEPTH	198.12	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	365.76
TEMP	19.111	19.462	19.833	20.191	20.573	20.946	21.309	21.666	22.050	22.422	22.789	23.148
DEPTH	381.00	396.24	411.48	426.72	441.96	457.20	472.44	487.68	502.92	518.16	533.40	541.02
TEMP	23.537	23.927	24.344	24.812	25.212	25.602	25.968	26.360	26.734	27.113	27.479	27.684
DEPTH	548.64	556.26	563.88	571.50	579.12	586.74	594.36	601.98	609.60	617.22	624.84	632.46
TEMP	27.891	28.116	28.321	28.511	28.708	28.825	28.985	29.248	29.467	29.732	30.007	30.284
DEPTH	640.08	647.70	655.32	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90
TEMP	30.524	30.782	31.074	31.413	31.688	31.936	32.266	32.513	32.796	33.173	33.491	33.754
DEPTH	731.52	739.14	746.76	754.38	762.00	769.62	777.24	784.86	792.48	800.10	807.72	815.34
TEMP	34.223	34.418	34.496	34.730	35.012	35.160	35.302	35.504	35.714	35.883	36.172	36.393
DEPTH	822.96	830.58	838.20	845.82	853.44	861.06	868.68	876.30	883.92	891.54	899.16	906.78
TEMP	36.591	36.691	36.882	37.105	37.416	37.689	37.963	38.215	38.398	38.626	38.907	39.256
DEPTH	914.40	929.64	944.88	960.12								
TEMP	39.530	40.152	41.033	41.737								

CONDUCTIVITY AND DENSITY

DEPTH	62.48	108.20	153.92	199.64	245.36	291.08	336.80	382.52	428.24	473.05	518.77	544.98	551.69	557.48	564.49
COND	5.30	5.99	5.60	6.19	5.53	5.48	6.75	5.56	4.91	5.76	4.82	4.10	4.34	4.54	5.49
DENS												2.51	2.48	2.49	2.52
DEPTH	571.20	578.21	586.13	594.36	601.07	609.60	617.22	626.67	633.99	639.78	646.18	654.10	660.20	667.21	674.22
COND	6.78	6.93	4.59	5.33	4.86	5.00	5.29	7.12	3.98	2.54	3.76	3.96	4.65	8.29	4.66
DENS	2.57	2.36	2.40	2.47	2.46	2.51	2.46	2.46	2.37	2.16	2.48	2.41	2.44	2.51	2.49

OURAY W-EX-1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	681.53	688.85	695.55	703.17	712.01	720.24	720.85	736.09	737.31	749.81	754.69	763.53	769.93	777.24	784.56
COND	4.47	4.82	3.42	2.90	4.32	6.59	5.60	6.44	5.89	4.80	5.65	4.21	4.48	4.20	4.22
DENS	2.44	2.50	2.38	2.12	2.37	2.61	2.58	2.57	2.61	2.55	2.48	2.57	2.51	2.52	2.52
DEPTH	790.96	797.97	805.59	812.60	819.00	826.01	833.93	840.94	847.35	854.36	862.28	869.29	876.61	884.53	892.15
COND	4.50	6.93	2.69	7.03	6.26	5.96	4.61	7.32	2.78	5.09	4.79	5.52	6.48	3.63	5.17
DENS	2.51	2.56	2.32	2.52	2.51	2.57	2.66	2.34	2.42	2.44	2.63	2.52	2.50	2.49	2.55
DEPTH	897.03	904.65													
COND	3.54	3.32													
DENS	2.49	1.91													

COMMENTS: THE HEAT FLOW IN THE INTERVAL 61-907 IS THE MEAN FOR W-EX-1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. COAST	CHEHALIS		46 32	122 50			77	2.74	(30.3)	0.83	
								ERROR				

CONDUCTIVITY

DEPTH	336.80	336.80	336.80	343.21	343.21	346.86	351.13	355.40	359.97	370.03	370.03	481.89	481.89	490.73	496.52
COND	2.12	2.26	2.36	2.62	2.61	2.52	2.61	2.3	4.07	4.97	4.98	3.45	3.34	2.46	2.40
DEPTH	496.52	501.40	501.40	515.72	515.72	524.26	524.26	537.36	537.36	747.37	747.37	753.47	753.47	762.31	762.31
COND	2.35	2.25	2.29	2.44	2.45	2.29	2.21	2.18	2.72	2.29	2.17	3.65	3.63	3.50	3.85
DEPTH	346.86	351.13	382.52	382.52	387.10	387.10	397.16	397.16	671.32	671.32	550.16	550.16	553.82	553.82	558.70
COND	2.54	2.61	2.3	2.3	3.2	2.9	4.0	3.0	2.3	2.95	2.35	2.35	2.27	2.23	2.34
DEPTH	558.70	559.31	559.31	589.18	589.18	593.45	593.45	599.54	601.98	601.98	470.31	470.31	470.31	482.80	482.80
COND	2.35	2.0	2.1	2.3	2.5	3.06	3.32	3.08	4.25	4.4	2.28	2.26	2.32	2.50	2.47
DEPTH	482.80	490.12	490.12	502.31	509.32	509.32	509.32	524.26	534.01	552.30	559.61	559.61	567.23	567.23	580.65
COND	2.51	2.32	2.31	2.28	2.39	2.33	2.45	1.83	2.12	3.46	3.54	3.90	3.49	3.11	4.27
DEPTH	736.09	743.71	752.55	757.43	773.58	773.58	773.58								
COND	4.30	4.46	4.03	4.08	2.14	2.18	2.60								

COMMENTS: THE 77 CONDUCTIVITIES INCLUDE THE FOLLOWING NUMBER OF CONDUCTIVITIES FROM THE HOLES IN THE CHEHALIS AREA. 32 FROM SU-2, 8 FROM SU-4, 10 FROM SU-5, 5 FROM SU-8 AND 22 FROM GU-1. 59 CONDUCTIVITIES FROM THE LINCOLN CREEK FORMATION AND 5 FROM THE GOBLE VOLCANIC SERIES WERE USED TO DETERMINE HEAT FLOW IN SU-4, SU-11, AND SU-14. THE CONDUCTIVITIES FROM THE LINCOLN CREEK FORMATION INCLUDE 12 SANDSTONE, K = 3.32 AND 47 SILTSTONE, SHALE AND CLAYSTONE, K = 2.43. FROM THE LITHOLOGIC LOGS THE RATIO OF SANDSTONE TO OTHER ROCKS IS APPROXIMATELY 1 TO 4 GIVING AN EFFECTIVE K = 2.74.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. COAST	CHEHALIS	SU-4	46 32	122 50	165	100-380	59	2.58	32.8	0.85	
								ERROR	0.1	0.2	0.03	
							710-760	5	4.23	19.4	0.82	
									0.03	0.6	0.02	

COMPLETED ON OR BEFORE: 10/16/63 MEASURED: 6/12/67 STATIC WATER LEVEL: 70.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-186, LOGAN HILL FORMATION; SAND, GRAVEL, AND CLAY. 186-666, LINCOLN CREEK FORMATION; SHALE, SANDSTONE, AND SILTSTONE. 666-710, SKOOKUMCHUCK FORMATION; SANDSTONE AND SILTSTONE. 710-760, GOBLE VOLCANIC SERIES; BASALT.

TEMPERATURE

DEPTH	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00
TEMP	10.444	10.600	10.832	11.037	11.271	11.560	11.849	12.086	12.483	12.803	13.104	13.384
DEPTH	190.00	200.00	210.05	220.05	230.05	240.05	250.05	260.05	270.15	280.00	290.00	300.00
TEMP	13.691	14.060	14.362	14.671	15.044	15.314	15.605	15.900	16.255	16.641	17.050	17.453
DEPTH	310.00	320.00	330.10	340.00	350.00	360.00	370.00	380.00	390.35	400.00	410.00	420.00
TEMP	17.818	18.122	18.464	18.809	19.127	19.416	19.689	19.965	20.192	20.373	20.549	20.737
DEPTH	430.00	440.00	450.00	460.00	470.00	480.30	490.00	500.00	510.00	520.00	530.00	540.00
TEMP	20.920	21.161	21.414	21.669	21.929	22.204	22.446	22.695	22.955	23.218	23.470	23.733
DEPTH	550.00	560.00	570.00	580.00	590.00	600.00	610.00	620.00	630.00	640.00	650.00	660.00
TEMP	23.988	24.247	24.482	24.744	24.993	25.249	25.505	25.778	26.040	26.303	26.588	26.854
DEPTH	670.00	680.00	690.00	700.00	710.00	720.00	730.00	740.00	750.00	760.00		
TEMP	27.070	27.285	27.474	27.678	27.877	28.061	28.239	28.423	28.611	28.783		

COMMENTS: FOR THE CONDUCTIVITIES SEE COMMENTS FOR THE CHEHALIS AREA. THE CONDUCTIVITY FOR SU-4 IS SLIGHTLY HIGHER THAN THE AVERAGE FOR THE AREA AS THE RATIO OF SANDSTONE TO OTHER ROCKS IS GREATER THAN 4 TO 1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. COAST	CHEHALIS	SU-11	46 32	122 50	157	100-340	59	2.56	34.6	0.89	
								ERROR	0.1	0.2	0.04	

COMPLETED ON OR BEFORE: 6/13/64 MEASURED: 6/12/67 STATIC WATER LEVEL: 100.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-171, LOGAN HILL FORMATION; SAND, GRAVEL, AND CLAY. 171-409, LINCOLN CREEK FORMATION; SHALE, SANDSTONE, AND SILTSTONE.

TEMPERATURE

DEPTH	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00
TEMP	11.227	11.530	11.810	12.151	12.529	12.845	13.091	13.571	13.842	14.368	14.666	14.955
DEPTH	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00
TEMP	15.408	15.669	16.046	16.279	16.706	16.972	17.353	17.689	17.994	18.453	18.802	19.144
DEPTH	340.00	350.00	360.00	370.00	380.00	390.00	400.00	409.00				
TEMP	19.405	19.894	20.168	20.435	20.705	20.970	21.139	21.310				

COMMENTS: FOR CONDUCTIVITIES SEE THE COMMENTS FOR THE CHEHALIS AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. COAST	CHEHALIS	SU-14	46 32	122 50	156	100-400	59	2.56	33.8	0.86	
								ERROR	0.1	0.1	0.03	

COMPLETED ON OR BEFORE: 11/25/64 MEASURED: 6/13/67 STATIC WATER LEVEL: 0.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-121, LOGAN HILL FORMATION; SAND, GRAVEL, AND CLAY. 121-528, LINCOLN CREEK FORMATION; SHALE, SANDSTONE, AND SILTSTONE.528-578, SKOOKUMCHUCK FORMATION; SANDSTONE AND SILTSTONE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	10.065	10.020	10.043	10.108	10.208	10.427	10.625	10.848	11.217	11.542	11.880	12.205
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	12.518	12.820	13.150	13.490	13.864	14.257	14.606	14.949	15.285	15.647	15.987	16.301
DEPTH	260.00	270.00	280.05	290.00	300.00	310.00	320.00	330.00	340.60	350.00	360.00	370.05
TEMP	16.594	16.878	17.185	17.493	17.849	18.225	18.607	18.978	19.355	19.675	20.014	20.351
DEPTH	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.05	490.00
TEMP	20.675	20.963	21.259	21.515	21.696	21.875	22.091	22.375	22.649	22.931	23.211	23.461
DEPTH	500.00	510.00	520.80	530.00	540.00	550.00	560.00	570.00	578.00			
TEMP	23.772	24.053	24.364	24.778	25.225	25.301	25.328	25.456	25.552			

COMMENTS: FOR CONDUCTIVITIES SEE THE COMMENTS FOR THE CHEHALIS AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	CLMB. PLAT	RATTLESNAKE	RS-1	46 26	119 47	875	900-2500	6	3.75	(34.8)	1.31	1.39
								ERROR	0.3		0.1	

COMPLETED ON OR BEFORE: 4/ 4/58 MEASURED: 6/ 7/67 STATIC WATER LEVEL: 110.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-7, ALLUVIUM. 7-2500, BASALT, INTERBEDDED WITH HIGHLY WEATHERED BASALT.

TEMPERATURE

DEPTH	200.00	250.00	300.00	300.00	350.00	350.00	400.00	425.00	450.00	500.00	600.00	700.00
TEMP	22.014	23.360	24.623	24.540	26.237	26.167	27.689	28.118	28.947	30.155	32.978	35.731
DEPTH	800.00	900.00	1000.00	1100.00	1200.00	1300.00	1400.00	1500.00	1600.00	1700.00	1800.00	1900.00
TEMP	38.212	40.729	44.058	47.185	51.293	54.765	58.126	62.165	65.718	69.463	72.680	75.845
DEPTH	2000.00	2054.00	2100.00	2200.00	2300.00	2400.00	2531.30	2500.00				
TEMP	79.297	82.220	83.181	86.525	89.922	93.067	97.660	96.288				

CONDUCTIVITY AND DENSITY

DEPTH	0.0	0.0	0.0	0.0	0.0	0.0
COND	4.11	4.18	3.99	3.98	4.12	4.19
DENS	2.90	2.89	2.87	2.88	2.89	2.88

COMMENTS: THE BASALT SAMPLES WERE COLLECTED FROM EXPOSURES REPRESENTING THE UPPER 200 METERS OF RS-1, AVERAGE K = 4.0. LITHOLOGIC LOGS OF RS-1 INDICATE A RATIO OF BASALT TO LOWER CONDUCTIVITY MATERIAL OF 5 TO 1. ASSUMING K = 3.0 IN THE LATTER MATERIAL GIVES AN EFFECTIVE K = 3.75. HEAT FLOW CORRECTED BY A TWO DIMENSIONAL TOPOGRAPHIC CORRECTION. ACTUAL TOPOGRAPHY BRACKETED BY A LEES HILL, H = 610, B/H = 4, X/H = 0 AND A LEES MONOCLINE, H = 610, ALPHA = 1.2, X/H = +3. THE BEST HEAT FLOW FOR RS-1 AND RS-2 IS 1.4.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	CLMB. PLAT	RATTLESNAKE	RS-2	46 26	119 47	875	58-119	14	4.12	28.0	1.15	1.36
								ERROR	0.10	0.2	0.03	

COMPLETED ON OR BEFORE: 8/69 MEASURED: 1/14/69 STATIC WATER LEVEL: 41.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-125, BASALT, INTERBEDDED WITH HIGHLY WEATHERED BASALT.

TEMPERATURE

DEPTH	45.72	51.82	57.91	64.01	70.10	76.20	82.30	88.39	94.49	100.58	106.68	112.78
TEMP	11.450	11.781	12.034	12.185	12.354	12.542	12.731	12.891	13.053	13.213	13.410	13.558
DEPTH	118.87											
TEMP	13.723											

CONDUCTIVITY AND DENSITY

DEPTH	44.81	52.97	58.22	66.75	73.00	78.49	82.91	88.70	95.71	103.11	109.58	115.06	121.71	124.15
COND	4.46	3.47	3.51	3.97	4.29	3.70	4.58	4.48	4.39	4.36	4.31	4.38	3.99	3.79
DENS	2.90	2.64	2.77	2.71	2.74	2.79	2.77	2.78	2.78	2.80	2.82	2.81		

COMMENTS: HEAT FLOW CORRECTED BY THE TWO DIMENSIONAL TOPOGRAPHIC CORRECTION USED FOR RATTLESNAKE RS-1. THE MEAN HEAT FLOW FOR RS-1 AND RS-2 IS 1.4.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	CLMB. PLAT	RICHLAND	DH-3	46 21	119 17	120	305-608	16	3.95	38.95	1.54	1.54
								ERROR	0.17	0.15	0.07	
							608-1079	15	3.64	34.58	1.26	
								ERROR	0.08	0.28	0.03	
							305-1079					1.5

COMPLETED ON OR BEFORE: 8/70 MEASURED: 8/12/70 STATIC WATER LEVEL: 6.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-9, ALLUVIUM. 9-1079, BASALT INTERBEDDED WITH HIGHLY WEATHERED BASALT.

TEMPERATURE

DEPTH	11.09	18.68	26.37	33.99	41.61	49.23	56.85	64.40	71.75	79.67	87.33	94.64
TEMP	16.494	16.829	16.918	17.044	17.179	17.322	17.502	17.574	17.690	17.837	18.054	18.261
DEPTH	102.54	110.19	117.81	125.43	133.05	140.67	148.29	155.91	163.46	170.99	178.77	186.36
TEMP	18.485	18.806	19.044	19.273	19.528	19.864	20.233	20.506	20.761	21.014	21.271	21.528
DEPTH	193.85	201.63	209.25	216.87	224.49	232.11	239.73	247.35	254.97	262.52	270.21	277.83
TEMP	21.778	22.039	22.390	22.731	23.011	23.307	23.719	24.113	24.521	24.905	25.240	25.550
DEPTH	285.45	293.04	297.49	308.31	315.86	323.52	331.14	338.82	346.38	354.00	358.51	369.21
TEMP	25.848	26.156	26.443	26.702	26.954	27.206	27.473	27.737	28.056	28.412	28.717	28.989
DEPTH	376.52	384.57	392.13	399.75	407.37	414.99	422.61	430.23	437.82	445.50	453.09	460.71
TEMP	29.248	29.537	29.802	30.092	30.413	30.739	31.011	31.261	31.513	31.772	32.106	32.426
DEPTH	468.30	475.95	483.51	491.19	498.50	506.43	513.99	521.64	529.29	536.91	544.53	552.15
TEMP	32.699	33.016	33.356	33.637	33.970	34.308	34.583	34.892	35.174	35.292	35.712	36.159
DEPTH	559.74	567.33	574.98	582.63	590.13	597.87	605.46	613.11	620.70	628.35	635.97	643.59
TEMP	36.484	36.786	37.068	37.320	37.661	37.934	38.146	38.449	38.429	39.115	39.720	40.065
DEPTH	651.21	658.83	666.42	674.07	681.69	689.31	696.93					
TEMP	40.378	40.678	40.994	41.370	41.677	42.000	42.309					

CONDUCTIVITY AND DENSITY

DEPTH	175.41	182.88	213.36	243.84	274.38	304.86	335.43	365.76	397.76	426.75	457.26	487.68	518.16	548.64	579.33
COND	4.18	4.29	2.67	3.14	3.60	4.36	4.47	3.94	5.56	4.30	3.45	3.88	3.98	3.63	4.50
DENS	2.87	2.91			2.78	2.79	2.83	2.80		2.86	2.58	2.83	2.86	2.71	2.88
DEPTH	609.60	641.60	672.09	701.04	731.60	763.86	792.48	823.42	853.47	883.92	914.71	947.93	975.36	1005.92	1041.11
COND	3.30	3.70	3.32	3.82	3.12	3.83	3.98	3.95	3.88	3.48	3.13	3.39	3.38	3.99	3.96
DENS		2.78		2.68				2.86	2.72	2.75	2.42	2.66			2.73

RICHLAND DH-3

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH 1066.80
COND 3.69
DENS 2.77

COMMENTS: TEMPERATURE MEASUREMENTS MADE BY WASHINGTON STATE UNIVERSITY SHORTLY AFTER COMPLETION OF DRILLING. THE HEAT FLOW IN THE INTERVAL 305-1079 IS THE BEST VALUE FOR DH-3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	CLMB. PLAT	WILLA	DH-1	46 35	119 31	168	53-183	19	4.08	37.2	1.52	1.52
								ERROR	0.08	0.3	0.03	

COMPLETED ON OR BEFORE: 6/69 MEASURED: 1/13/70 STATIC WATER LEVEL: 44.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-44, ALLUVIUM. 44-183, BASALT.

TEMPERATURE

DEPTH	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30	121.92	129.54	
TEMP	17.065	17.212	17.437	17.712	17.996	18.289	18.580	18.857	19.135	19.401	19.676	19.965	
DEPTH	137.16	144.78	152.40	160.02	167.64	175.26	182.88						
TEMP	20.283	20.683	20.966	21.199	21.414	21.648	21.891						

CONDUCTIVITY AND DENSITY

DEPTH	52.43	58.37	61.87	72.85	78.64	84.58	90.98	95.71	102.66	106.38	112.62	121.71	127.50	133.72	139.29
COND	4.08	4.40	5.21	5.39	3.51	3.83	4.03	4.09	4.46	4.71	4.29	4.45	4.45	4.05	5.68
DENS	2.91	2.88			2.47	2.69	2.85	2.88	2.89	2.89	2.85	2.91	2.92	2.82	
DEPTH	145.85	151.64	158.10	164.53	170.63	175.72	182.27								
COND	3.62	4.15	3.69	3.67	3.72	4.07	4.21								
DENS	2.61	2.81	2.83	2.83	2.86	2.89	2.87								

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WYO.	ROCKY MTS	GREEN RIVER	GR1-1	41 32	109 25	1890	53-152	7	3.64	44.1	1.61	1.6
								ERROR	0.34	0.8	0.15	

COMPLETED ON OR BEFORE: 4/25/67 MEASURED: 12/ 3/69 STATIC WATER LEVEL: 32.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-50, ALLUVIUM. 50-153, SHALE WITH SMALL INTERBEDS OF SANDSTONE, TUFF, AND LIMESTONE.

TEMPERATURE

DEPTH	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06
TEMP	9.278	9.620	9.832	10.131	10.254	10.478	10.764	11.042	11.378	11.738	12.078	12.447
DEPTH	106.68	114.30	121.92	129.54	137.16	144.78	152.40					
TEMP	12.864	13.306	13.543	13.703	13.979	14.384	14.886					

CONDUCTIVITY AND DENSITY

DEPTH	110.64	117.04	123.44	129.85	136.86	142.65	148.74
COND	2.16	3.29	3.79	5.00	4.45	3.28	3.49
DENS	2.10	2.26	2.28	2.25			

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WYO.	ROCKY MTS	PINEDALE		42 46	109 34	2218	305-1356	27	7.21	19.21	1.38	1.38
								ERROR	0.26	0.04	0.05	
							2088-2996	29	6.79	16.41	1.14	1.25
									0.12	0.03	0.02	
							305-2996					1.3

COMPLETED ON OR BEFORE: 12/31/64 MEASURED: 7/ 1/66 STATIC WATER LEVEL: 55.

REFERENCE: SASS ET AL. (1971b).

GEOLOGY: 0-3048, QUARTZ MONZONITE, QUARTZ MONZONITE GNEISS, AND GRANDIORITE GNEISS.

TEMPERATURE

DEPTH	60.96	76.20	91.44	106.68	121.92	137.16	152.40	168.25	182.88	198.12	213.36	228.60
TEMP	9.311	9.596	9.971	10.356	10.752	11.073	11.411	11.788	12.147	12.514	12.884	13.250
DEPTH	243.84	259.08	274.32	320.04	335.28	350.52	365.76	381.00	396.24	411.48	426.72	441.96
TEMP	13.619	13.979	14.345	15.430	15.769	16.111	16.432	16.758	17.070	17.390	17.708	18.018
DEPTH	453.85	472.44	487.99	502.92	518.16	535.23	548.64	563.88	579.12	594.36	607.77	625.45
TEMP	18.260	18.636	18.943	19.244	19.537	19.886	20.129	20.429	20.731	21.036	21.307	21.656
DEPTH	640.08	655.32	670.56	687.02	701.04	716.28	731.52	749.81	756.52	777.24	792.48	807.72
TEMP	21.945	22.255	22.567	22.890	23.156	23.512	23.808	24.142	24.274	24.672	24.958	25.233
DEPTH	822.96	838.20	853.44	868.68	883.92	913.49	929.64	944.88	960.12	975.36	990.60	1005.84
TEMP	25.511	25.791	26.073	26.354	26.630	27.166	27.466	27.745	28.022	28.304	28.594	28.885
DEPTH	1021.08	1036.63	1051.87	1066.80	1082.04	1097.28	1112.52	1134.16	1143.00	1158.24	1173.48	1188.72
TEMP	29.164	29.449	29.737	30.010	30.299	30.588	30.880	31.295	31.464	31.760	32.048	32.343
DEPTH	1203.96	1219.20	1234.44	1249.68	1265.23	1280.16	1295.40	1310.64	1325.88	1341.12	1356.36	1377.70
TEMP	32.643	32.955	33.255	33.541	33.831	34.120	34.422	34.712	35.004	35.266	35.575	35.943
DEPTH	1386.84	1402.08	1417.32	1432.56	1447.80	1463.04	1478.28	1493.52	1508.76	1524.00	1539.24	1548.08
TEMP	36.083	36.276	36.463	36.675	36.848	36.996	37.112	37.235	37.350	37.468	37.586	37.653
DEPTH	1569.72	1584.97	1598.38	1615.45	1630.69	1645.93	1661.17	1676.41	1691.65	1706.89	1722.43	1737.37
TEMP	37.774	37.842	37.894	37.965	38.034	38.112	38.223	38.379	38.633	38.902	39.191	39.484
DEPTH	1752.61	1767.85	1783.09	1797.41	1813.87	1828.81	1844.05	1859.29	1874.53	1889.77	1905.31	1920.25
TEMP	39.780	40.079	40.446	40.774	41.246	41.577	41.967	42.360	42.725	43.080	43.448	43.788
DEPTH	1935.49	1950.73	1965.97	1975.11	1998.28	2011.69	2027.54	2042.17	2057.41	2072.65	2087.89	2103.13
TEMP	44.112	44.432	44.759	44.944	45.413	45.748	46.142	46.333	46.398	46.700	47.097	47.374
DEPTH	2118.37	2133.61	2148.85	2164.09	2179.63	2197.01	2209.81	2225.05	2240.29	2255.53	2270.77	2286.01
TEMP	47.637	47.897	48.160	48.429	48.696	48.986	49.208	49.472	49.722	49.969	50.213	50.449

PINEDALE

TEMPERATURE (CONTINUED)

DEPTH	2301.55	2316.49	2331.73	2346.97	2365.26	2377.45	2392.69	2408.23	2423.17	2438.41	2453.65	2468.89
TEMP	50.682	50.905	51.143	51.386	51.699	51.896	52.146	52.387	52.680	52.782	53.026	53.243
DEPTH	2484.13	2499.37	2514.61	2529.85	2545.09	2560.33	2575.57	2590.81	2606.05	2621.29	2635.31	2651.77
TEMP	53.515	53.787	54.066	54.352	54.632	54.915	55.216	55.506	55.800	56.100	56.340	56.508
DEPTH	2667.01	2682.25	2696.88	2712.73	2727.97	2743.21	2758.45	2773.69	2788.93	2804.17	2819.41	2834.65
TEMP	56.670	56.890	57.137	57.443	57.712	57.973	58.242	58.502	58.739	58.970	59.195	59.424
DEPTH	2849.89	2863.61	2880.37	2895.91	2911.15	2926.09	2941.33	2956.57	2971.81	2987.05	2996.19	
TEMP	59.648	59.847	60.120	60.377	60.608	60.849	61.104	61.366	61.635	61.887	62.044	

CONDUCTIVITY AND DENSITY

DEPTH	186.60	186.60	186.60	289.30	289.30	453.50	453.50	453.80	454.20	454.20	591.90	591.90	607.20	607.80	608.10
COND	7.32	7.65	7.43	5.02	4.88	6.95	6.96	7.39	7.46	7.16	7.44	7.77	7.68	7.56	7.24
DENS	2.71	2.70	2.71	2.73	2.65	2.68	2.70	2.66	2.71	2.74	2.68	2.68	2.68	2.68	2.68
DEPTH	608.10	608.10	749.80	749.80	756.50	756.50	914.10	914.10	1133.60	1134.80	1377.40	1377.40	1377.40	1377.40	1378.30
COND	7.32	7.54	8.19	8.04	6.52	6.66	7.30	7.24	7.66	9.42	6.77	6.88	6.78	6.70	6.76
DENS	2.68	2.68	2.72	2.72	2.65	2.65	2.67	2.68	2.73	2.64	2.67	2.66	2.67	2.67	2.66
DEPTH	1378.30	1378.30	1548.70	1548.70	1548.70	1548.70	1721.50	1721.50	1797.10	1797.10	1797.10	1797.10	1798.00	1798.00	1975.70
COND	6.69	6.69	8.35	8.64	8.11	8.21	6.31	6.25	6.10	6.51	6.20	6.42	5.67	5.96	6.02
DENS	2.67	2.67	2.63	2.61	2.62	2.62	2.78	2.77	2.68	2.67	2.68	2.68	2.60	2.62	2.73
DEPTH	1975.70	1975.70	2197.00	2197.00	2197.00	2197.00	2197.00	2197.00	2455.50	2455.50	2455.50	2455.50	2456.10	2456.10	2456.10
COND	6.65	6.42	6.49	6.41	5.64	5.97	5.93	6.16	6.34	5.98	6.19	5.98	6.83	6.00	6.14
DENS	2.79	2.73	2.78	2.72	2.72	2.75	2.74	2.71	2.73	2.72	2.75	2.71	2.73	2.76	2.78
DEPTH	2695.00	2695.00	2695.00	2695.00	2695.30	2695.30	2695.30	2695.30	2863.30	2863.30	2863.30	2863.30	2864.20	2864.20	2864.20
COND	7.62	6.67	6.14	6.61	7.25	7.42	6.90	6.67	7.22	7.67	7.22	7.12	8.09	7.94	7.99
DENS	2.70	2.73	2.80	2.79	2.76	2.72	2.77	2.78	2.63	2.64	2.64	2.64	2.63	2.62	2.63
DEPTH	2864.20	3048.00	3048.00												
COND	8.17	6.86	6.70												
DENS	2.63	2.71	2.70												

COMMENTS: HEAT FLOW FOR INTERVAL 305-2996 IS A MEAN VALUE. HEAT FLOW HAS BEEN CORRECTED FOR TWO DIMENSIONAL TOPOGRAPHY AND HEAT GENERATION IN THE ROCKS. THE TWO DIMENSIONAL TOPOGRAPHY IS APPROXIMATED BY A LEES MONOCLINE 800 METERS HIGH WITH ALPHA = 2.0 AND X/H = -1.

Heat Flow at Spor Mountain, Jordan Valley, and La Sal, Utah

by

John K. Costain* and Phillip M. Wright**

Tabulated data are included for 12 holes in Utah in the Basin and Range and Colorado Plateau tectonic provinces. Heat flow values were obtained at Spor Mountain and Jordan Valley near the eastern margin of the Basin and Range province, and near La Sal in the Colorado Plateau Province.

All temperature measurements were made using platinum resistance thermometers. Repeated logging of hole B-1-2 in Jordan Valley established a repeatability of ±0.03°C using probes of different nominal resistances made by different manufacturers, and it is believed that absolute temperatures reported herein are accurate to about ±0.05°C. Details of the method of temperature measurement are reported in Wright (1966), Costain and Wright (1968), and Costain and Wright (1969).

Thermal conductivity measurements were made using a conventional divided-bar apparatus. Details of the procedure are reported in Wright (1966). A thin foil of aluminum (0.001" thick) was bonded to the flat faces of some of the discs using an epoxy cement. Measurements made with the foil-backed discs were reproducible to within 0.5%. Measurements made without the foil were usually reproducible to within 2%.

Corrections to the temperature gradient were considered for all holes. Topographic evolution corrections and steady-state topographic corrections

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were made by digitizing the topography to obtain a terrain matrix after Kane (1962), and then computing corrections after Birch (1950). Details of the computer programming are given in Appendix 3 in Wright (1966). Topographic evolution corrections are noted in the tabulated data where appropriate.

The heat flow value obtained at Jordan Valley (1.8 HFU) is representative of other heat flow values determined for the Basin and Range province. The value obtained at Spor Mountain (2.8 HFU) may not be regionally representative. The heat flow at La Sal was found to be 1.2 HFU. This is very close to the values reported by Spicer (1942) near Salt Valley, Utah.

This research was sponsored by National Science Foundation Grant GP-2625 and by the University of Utah University Research Committee.

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STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	JORDAN VALLEY	B-1-2	40 47	112 04	1285	20 - 63	9		58.72	SEE	BELOW
								ERROR		1.07		

COMPLETED ON OR BEFORE: 1950 MEASURED: 9/15/65 STATIC WATER LEVEL: 5.0

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THIS HOLE WAS DRILLED INTO LAKE BONNEVILLE DEPOSITS COMPOSED OF INTERBEDDED SANDY AND MUDDY LAYERS OF RELATIVELY UNCONSOLIDATED MATERIAL.

TEMPERATURE

DEPTH	20.00	25.00	30.00	35.00	40.00	45.00	50.00	56.30	63.30
TEMP	13.990	14.220	14.480	14.780	15.045	15.315	15.670	16.095	16.500

COMMENTS

NO CORE WAS AVAILABLE FOR CONDUCTIVITY MEASUREMENTS. THE SEDIMENTS IN THE HOLE ARE ASSUMED TO HAVE A CONDUCTIVITY GREATER THAN 2.0 BUT LESS THAN 4.0, THE LATTER BEING A TYPICAL VALUE FOR WELL-CONSOLIDATED SHALES AND SANDY SHALES.
NO TOPOGRAPHIC CORRECTION WAS NECESSARY.
FOR A THERMAL CONDUCTIVITY OF 3.0 MCAL/CM-SEC-DEG C, THE HEAT FLOW WOULD BE ABOUT 1.8 HFU.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	BIN-8-64	38 17	109 19	1984	20 - 134	6		12.13	SEE	BELOW
								ERROR		0.79		

COMPLETED ON OR BEFORE: 7/15/64 MEASURED: 11/3/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.10	134.00
TEMP	11.120	11.490	11.750	12.000	12.270	12.500

COMMENTS

SEE HOLE HR-1-65 FOR THERMAL CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR LA SAL AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	BIN-10-65	38 16	109 18	1981	100 - 170	11		20.99	SEE	BELOW
								ERROR		1.11		

COMPLETED ON OR BEFORE: 5/5/65 MEASURED: 8/27/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	100.00	105.00	110.00	115.00	118.60	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	11.935	11.975	11.930	11.975	12.020	12.145	12.440	12.640	12.845	13.045	13.275

COMMENTS

SEE HOLE HR-1-65 FOR THERMAL CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR LA SAL AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	HR-1-65	38 15	109 17	2104	90 - 180	18		17.19	SEE	BELOW
								ERROR		0.19		

COMPLETED ON OR BEFORE: 8/9/65 MEASURED: 11/4/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	90.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00	150.00
TEMP	11.830	11.945	12.030	12.140	12.210	12.275	12.335	12.445	12.550	12.630	12.740	12.815
DEPTH	155.00	160.00	165.00	170.00	175.00	180.00						
TEMP	12.930	13.005	13.080	13.150	13.230	13.335						

COMMENTS

THERMAL CONDUCTIVITY MEASUREMENTS WERE MADE ON 20 ROCK DISCS FROM THE BIG INDIAN DISTRICT. NO CORE WAS AVAILABLE FOR ANY OF THE HOLES, NOR FOR ANY NEARBY HOLES. BULK ROCK SPECIMENS WERE COLLECTED AND THE 20 DISCS WERE MADE FROM 12 SUCH ROCK SPECIMENS.

SPECIMEN	CONDUCTIVITY	DENSITY	LOCATION	REMARKS
4H66-1	6.88	2.51	ALICE INCLINED SHAFT (ALL H66 SPECIMENS FROM VERTICAL DEPTH OF 400 FEET FROM CHINLE)	CHINLE, 20 PC QTZ, SANDY MUDSTONE
4H66-2	7.16	2.51		SAME
6H66-1	7.40	2.37		CHINLE, 50 PC QTZ, VERY MUDDY SANDSTONE
6H66-2	7.68	2.36		SAME
6H66-3	7.28	2.35		SAME
6H66-4	7.08	2.39		SAME
8H66	8.37	2.58	SAME	SAME
9H66	5.45	2.45	SAME	CHINLE, 80 PC QTZ, SANDSTONE
1L66-1	7.05	2.60	SAME	CHINLE, 10 PC QTZ, MUDSTONE
1L66-2	7.50	2.58	SURFACE	CHINLE, 70 PC QTZ, MUDDY SANDSTONE
2L66	7.98	2.65	SAME	SAME
5L66	6.09	2.60	SAME	CHINLE, 80 PC QTZ, SANDSTONE
6L66	7.98	2.59	SAME	CHINLE, 70 PC QTZ, MUDDY SANDSTONE
7L66	6.42	2.57	SAME	CHINLE, 70 PC QTZ, MUDDY SANDSTONE
9L66-1	5.42	2.34	SAME	CHINLE, 70 PC QTZ, MUDDY SANDSTONE
9L66-2	6.00	2.34	SAME	CHINLE, 40 PC QTZ, SANDY MUDSTONE
11L66-1	11.50	2.60	SAME	SAME
11L66-2	12.19	2.58	SAME	WINGATE, 95 PC QTZ, SANDSTONE
1SJ66-1	11.67	2.43	SAME	SAME
1SJ66-2	12.10	2.44	SAME	WINGATE, 95 PC QTZ, SANDSTONE
				SAME

HOLES WERE DRY WHEN DRILLED BUT WATER-FILLED WHEN LOGGED. CHINLE FORMATION HAS VERY LOW PERMEABILITY. SEE WRIGHT (1966,P. 76). MEAN SAMPLE TEMPERATURE DURING CONDUCTIVITY MEASUREMENTS WAS 23 DEG C. AXIAL PRESSURE ON SAMPLE DURING MEASUREMENT WAS 4500 PSI. SAMPLE WAS IN SHELF-DRIED CONDITION DURING MEASUREMENT.
A TOPOGRAPHIC EVOLUTION CORRECTION WAS COMPUTED FOR THE LA SAL AREA AND FOUND TO BE -3 PERCENT.

THE AVERAGE GEOTHERMAL GRADIENT IN THE CHINLE FORMATION WAS 18 DEG C PER KM. THE AVERAGE CONDUCTIVITY FOR THE CHINLE WAS 6.6. THIS GIVES A HEAT FLOW VALUE OF 1.2 HFU.
THE GRADIENT IN THE WINGATE SANDSTONE WAS 12 DEG C PER KM (HOLE BIN-8-64) AND THE MEASURED THERMAL CONDUCTIVITY OF THE WINGATE WAS ABOUT 12 MCAL/CM-SEC-C. THIS INDICATES A HEAT FLOW OF 1.4 HFU. A HEAT FLOW OF 1.1 HFU IS INDICATED IN THE SANDY LAYERS OF THE CHINLE. THE MORE MUDDY LAYERS HAD A GRADIENT OF ABOUT 22 DEG C PER KM, AND A CONDUCTIVITY OF ABOUT 5.9. THIS GIVES A HEAT FLOW VALUE OF 1.3 HFU.
A VALUE OF 1.2 HFU PLUS OR MINUS 20 PERCENT IS BELIEVED TO BE REPRESENTATIVE OF THE LA SAL, UTAH AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	HR-2-65	38 15	109 17	2099	50 - 210	17		14.90	SEE	BELOW
								ERROR		0.96		

COMPLETED ON OR BEFORE: 8/11/65 MEASURED: 8/24/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00
TEMP	11.950	11.870	11.875	11.895	11.695	12.050	12.220	12.345	12.575	12.720	12.905	13.080
DEPTH	170.00	180.00	190.00	200.00	210.00							
TEMP	13.220	13.460	13.665	13.920	14.070							

COMMENTS

SEE HOLE HR-1-65 FOR THERMAL CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR LA SAL AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	HR-3-65	38 15	109 17	2102	90 - 160	15		17.98	SEE	BELOW
								ERROR		0.23		

COMPLETED ON OR BEFORE: 8/13/65 MEASURED: 8/26/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00
TEMP	11.800	11.870	11.950	12.030	12.145	12.225	12.290	12.355	12.470	12.585	12.675	12.745

DEPTH	150.00	155.00	160.00
TEMP	12.850	12.960	13.055

COMMENTS

SEE HOLE HR-1-65 FOR THERMAL CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR LA SAL AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	COLO. PLAT	LA SAL	HR-4-65	38 15	109 17	2099	100 - 145	10		17.64	SEE	BELOW
								ERROR		0.33		

COMPLETED ON OR BEFORE: 8/13/65 MEASURED: 8/26/65 STATIC WATER LEVEL: 20.0?

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

THE HOLES LOGGED ARE LOCATED IN THE BIG INDIAN MINING DISTRICT, ABOUT 10 MILES SOUTH OF LA SAL, UTAH. THE DISTRICT IS ONE OF SEVERAL URANIUM-BEARING AREAS OF THE COLORADO PLATEAU. PRINCIPAL STRUCTURAL FEATURES ARE THE LISBON VALLEY ANTICLINE AND THE LISBON VALLEY FAULT. MOST OF THE HOLES LOGGED WERE IN THE CHINLE FORMATION, WHICH IS COMPOSED OF ABOUT 400 FT OF FLUVIAL MUDSTONES AND SANDSTONES. THE LITHOLOGY OF THE CHINLE FORMATION IS HIGHLY VARIABLE BOTH VERTICALLY AND LATERALLY. THE CHINLE IS OF TRIASSIC AGE.

TEMPERATURE

DEPTH	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00
TEMP	12.010	12.095	12.205	12.285	12.350	12.415	12.530	12.635	12.730	12.805

COMMENTS

SEE HOLE HR-1-65 FOR THERMAL CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR LA SAL AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	SPOR MOUNTAIN	103	39 43	113 13	1451	50 - 138	10		58.48	SEE	BELOW
								ERROR		0.93		

COMPLETED ON OR BEFORE: NOV 1961 MEASURED: 9/6/65 STATIC WATER LEVEL: BELOW 138.

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

SPOR MOUNTAIN IS A WESTWARD-TILTED AND COMPLEXLY-FAULTED SEQUENCE OF DOLOMITES, DOLOMITIC LIMESTONES AND QUARTZITES OF ORDOVICIAN TO DEVONIAN AGE. THESE UNDERLIE BERYLLIUM-BEARING VOLCANIC ROCKS OF LATE TERTIARY AGE. ALL MEASUREMENTS MADE IN TOPAZ MOUNTAIN RHYOLITE.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	137.50
TEMP	16.040	16.520	17.050	17.615	18.210	18.735	19.310	19.960	20.700	21.130

COMMENTS

THERMAL CONDUCTIVITY VALUES WERE DETERMINED FOR 20 ROCK DISCS CUT FROM 9 SPECIMENS. SPECIMENS 10SM66 THROUGH 14SM66 WERE CORE FROM HOLE 110, TAKEN OVER DEPTH INTERVAL FROM 120 - 127 METERS. TEMPERATURES WERE MEASURED OVER THIS INTERVAL IN HOLE 110. SPECIMENS 15SM66 THROUGH 17SM66 WERE CORE SPECIMENS FROM HOLE 111, FROM A DEPTH INTERVAL DEEPER THAN THE DEEPEST TEMPERATURE MEASUREMENT IN THAT HOLE. SPECIMENS 18SM66 AND 19SM66 WERE BLOCKS TAKEN FROM OUTCROPS NEAR HOLES 110, 113, AND 103. ALL SPECIMENS REPRESENT TOPAZ MOUNTAIN RHYOLITE.

SPECIMEN	CONDUCTIVITY	DENSITY	SPECIMEN	CONDUCTIVITY	DENSITY
10SM66	5.51	2.42	16SM66-1	6.43	2.58
11SM66-1	5.36	2.39	16SM66-2	6.63	2.57
11SM66-2	5.50	2.39	17SM66-1	5.46	2.48
11SM66-3	5.52	2.39	17SM66-2	5.66	2.49
13SM66	3.78	2.10	18SM66-1	4.63	2.37
14SM66-1	5.49	2.44	18SM66-2	4.64	2.35
14SM66-2	5.46	2.42	18SM66-3	4.73	2.37
14SM66-3	5.43	2.40	19SM66-1	5.47	2.55
15SM66-1	6.21	2.57	19SM66-2	5.63	2.56
15SM66-2	6.25	2.56	19SM66-3	5.63	2.55

THE HOLES WERE DRY WHEN DRILLED AND WHEN MEASURED. THERMAL CONDUCTIVITY MEASUREMENTS WERE MADE ON SAMPLES IN SHELF-DRIED CONDITION DURING MEASUREMENT. MEAN SAMPLE TEMPERATURE DURING MEASUREMENT = 23 DEG C. AXIAL PRESSURE ON SAMPLE DURING MEASUREMENT = 4500 PSI.
NO TOPOGRAPHIC CORRECTION WAS NECESSARY FOR THE HOLES IN THE SPOR MOUNTAIN AREA.

THE AVERAGE GRADIENT OF 55 DEG C PER KM OVER THE DEPTH INTERVAL 120 TO 127 METERS IN HOLE 110, MULTIPLIED BY THE CONDUCTIVITY VALUE OF 5.0 MCAL PER CM-SEC-DEG C OVER THIS INTERVAL GIVES A HEAT FLOW OF 2.8 HFU.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	SPOR MOUNTAIN	106	39 43	113 13	1451	30 - 152	4		46.94	SEE	BELOW
								ERROR		0.51		

COMPLETED ON OR BEFORE: DEC 1961 MEASURED: 9/22/65 STATIC WATER LEVEL: BELOW 152.

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

SPOR MOUNTAIN IS A WESTWARD-TILTED AND COMPLEXLY-FAULTED SEQUENCE OF DOLOMITES, DOLOMITIC LIMESTONES AND QUARTZITES OF ORDOVICIAN TO DEVONIAN AGE. THESE UNDERLIE BERYLLIUM-BEARING VOLCANIC ROCKS OF LATE TERTIARY AGE. ALL MEASUREMENTS MADE IN TOPAZ MOUNTAIN RHYOLITE.

TEMPERATURE

DEPTH	30.00	50.00	90.00	151.80
TEMP	15.450	16.350	18.350	21.140

COMMENTS

HOLE 106 IS ABOUT 2000 FEET NORTH OF THE OTHER SPOR MOUNTAIN HOLES AND HAS A LOWER GRADIENT OF 47 C/KM. SEE WRIGHT(1966), PAGE 45. NO CORE WAS AVAILABLE FROM THE AREA OF HOLE 106.

SEE HOLE 103 FOR CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR SPOR MOUNTAIN AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	SPOR MOUNTAIN	110	39 43	113 13	1462	30 - 131	12		59.35	SEE	BELOW
								ERROR		0.70		

COMPLETED ON OR BEFORE: JAN 1963 MEASURED: 9/7/65 STATIC WATER LEVEL: BELOW 131.

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

SPOR MOUNTAIN IS A WESTWARD-TILTED AND COMPLEXLY-FAULTED SEQUENCE OF DOLOMITES, DOLOMITIC LIMESTONES AND QUARTZITES OF ORDOVICIAN TO DEVONIAN AGE. THESE UNDERLIE BERYLLIUM-BEARING VOLCANIC ROCKS OF LATE TERTIARY AGE. ALL MEASUREMENTS MADE IN TOPAZ MOUNTAIN RHYOLITE.

TEMPERATURE

DEPTH	30.00	50.00	60.00	70.00	80.00	90.00	100.00	110.30	115.00	120.00	125.00	131.00
TEMP	14.785	15.810	16.315	16.850	17.520	18.190	18.830	19.435	19.710	20.000	20.270	20.605

COMMENTS

SEE HOLE 103 FOR CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR SPOR MOUNTAIN AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	SPOR MOUNTAIN	111	39 43	113 13	1448	50 - 130	9		54.70	SEE	BELOW
								ERROR		0.56		

COMPLETED ON OR BEFORE: SEP 1961 MEASURED: 9/5/65 STATIC WATER LEVEL: BELOW 130.

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

SPOR MOUNTAIN IS A WESTWARD-TILTED AND COMPLEXLY-FAULTED SEQUENCE OF DOLOMITES, DOLOMITIC LIMESTONES AND QUARTZITES OF ORDOVICIAN TO DEVONIAN AGE. THESE UNDERLIE BERYLLIUM-BEARING VOLCANIC ROCKS OF LATE TERTIARY AGE. ALL MEASUREMENTS MADE IN TOPAZ MOUNTAIN RHYOLITE.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	15.610	16.110	16.645	17.240	17.810	18.435	18.875	19.405	19.930

COMMENTS

SEE HOLE 103 FOR CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR SPOR MOUNTAIN AREA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	SPOR MOUNTAIN	113	39 43	113 13	1457	30 - 118	10		57.95	SEE	BELOW
								ERROR		0.97		

COMPLETED ON OR BEFORE: NOV 1962 MEASURED: 9/20/65 STATIC WATER LEVEL: BELOW 118.

REFERENCE: WRIGHT, 1966, COSTAIN AND WRIGHT, 1968, 1973

GEOLOGY

SPOR MOUNTAIN IS A WESTWARD-TILTED AND COMPLEXLY-FAULTED SEQUENCE OF DOLOMITES, DOLOMITIC LIMESTONES AND QUARTZITES OF ORDOVICIAN TO DEVONIAN AGE. THESE UNDERLIE BERYLLIUM-BEARING VOLCANIC ROCKS OF LATE TERTIARY AGE. ALL MEASUREMENTS MADE IN TOPAZ MOUNTAIN RHYOLITE.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	115.20	117.50
TEMP	14.985	15.445	16.000	16.500	17.040	17.630	18.235	18.880	19.900	19.980

COMMENTS

SEE HOLE 103 FOR CONDUCTIVITY DATA AND HEAT FLOW VALUE FOR SPOR MOUNTAIN AREA.

BASIC DATA FOR COLORADO, NEW MEXICO AND TEXAS

by

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Harvard University's recent field research has led to the acquisition of forty-nine heat flow sites in Colorado, New Mexico and Texas. Considered with nine values obtained in other studies (Birch, 1950; Herrin and Clark, 1956; Spicer, 1964; Warren et al., 1969), these data should lead to reliable correlations between heat flow and regional geology and geophysics in the Southern Rocky Mountain regions and the eastern portions of the Basin and Range province. Detailed discussions and interpretations of Harvard's research will appear elsewhere; the purpose of this chapter is to compile the basic heat flow data for each site for future and general use.

In the compilations, the COND column in the summary lines of the tables refers to the inverse of the arithmetic mean resistivity of the N conductivity measurements and the GRAD column contains the least-squares gradient determined over the DEPTH RANGE specified. The UNC and CORR columns under HEAT FLOW refer to uncorrected and topographically corrected values of heat flow. Uncorrected heat flows were calculated using only observed temperatures and measured thermal conductivities, adjusted to observed mean ambient temperature; corrected heat flows are the

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values obtained after observed temperatures or depths were corrected (after Birch, 1950) for the effects of indefinitely persisting (steady-state) topography. The ERROR line refers to the standard errors of the mean conductivity, gradient and uncorrected heat flow. Standard errors were calculated for zero degrees of freedom by the usual procedures (see, for example, Parratt, 1966; Birch, 1950, p. 593).

The TEMPERATURE section lists the temperatures observed in the drill hole on the date indicated above after MEASURED, and the CONDUCTIVITY AND DENSITY section contains all laboratory measurements of thermal conductivity and bulk density. Bulk densities were not calculated for some conductivity samples because the disks crumbled after measurement under stress ($\sim$ 200 bars) in the divided-bar apparatus and reliable weight determinations could not be made. In the TERRAIN DATA, the number at RADIUS zero refers to the collar elevation of the site; elsewhere the number in the ELEV line is the mean elevation, as estimated from topographic maps, of the ring between the accompanying outer RADIUS and the immediately preceding radius. The COMMENTS section lists information on the present status of the drill hole, the reliability and quality of the heat flow results, and the manner in which the heat flow was calculated. Associated with METHOD, the symbol "GR" denotes a calculation of heat flow as the quotient of least-squares gradient divided by mean resistivity for the indicated DEPTH RANGE, "RI" a

calculation from the resistance integral (after Bullard, 1939), and "I" a calculation as an arithmetic mean of heat flows calculated from gradient and resistivity measurements for several intervals at depth. The methods of calculation, the mechanical details of data acquisition and the absolute accuracy and precision of temperature and conductivity measurements are discussed at length by Roy et al., (1968a).

Financial support for the collection of the data presented in this chapter was provided by National Science Foundation grants GP-701 and GA-416 and the Committee on Experimental Geology and Geophysics, Harvard University. The University of Wyoming allowed free use of its computing facilities for additional checking of calculations and the United States Geological Survey at Menlo Park, California provided computer time for the final compilations of the data. Forty-five of the drill holes presented in this chapter were made available by mining companies; we acknowledge with gratitude their complete and indispensable cooperation.

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STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	APEX	DDH-17BH	39 52	105 33	3171	100- 375	26	5.89	24.8	1.46	1.67
								ERROR	.08	.2	.03	

COMPLETED ON OR BEFORE: 9/67 MEASURED: 11/21/67

REFERENCE

GEOLOGY: TERTIARY(?) QUARTZ MONZONITE, WITH HIGH CONCENTRATION OF BIOTITE.

TEMPERATURE

DEPTH	40.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	230.00	240.00	260.00	280.00
TEMP	2.333	3.243	3.717	4.264	4.758	5.282	5.736	6.318	7.065	7.376	7.862	8.347
DEPTH	300.00	320.00	340.00	360.00	370.00	375.00						
TEMP	8.808	9.290	9.764	10.221	10.466	10.574						

CONDUCTIVITY AND DENSITY

DEPTH	146.30	150.88	157.89	170.99	183.19	195.99	206.35	218.85	221.29	237.74	249.94	262.13	269.14	273.71	287.43
COND	5.43	5.44	5.30	5.80	5.34	5.21	6.05	6.02	5.86	7.48	6.14	6.01	6.01	5.95	6.03
DENS	2.61	2.63	2.60	2.64	2.64	2.64	2.61	2.56	2.55	2.58	2.61	2.54	2.54	2.56	2.51
DEPTH	292.91	304.80	310.59	316.38	335.59	341.38	342.90	347.17	354.18	360.27	365.46				
COND	5.65	5.74	5.91	5.43	6.34	6.37	6.25	5.90	6.52	6.07	5.85				
DENS	2.51	2.62	2.53	2.51	2.53	2.55	2.54	2.57	2.56	2.64	2.60				

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	3171	3176	3178	3186	3194	3196	3180	3165	3118	3106	3088	3077	3049	3023
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	2976	2896	2872	2882	2912	2912	2864	2936	2905	2893	2843	2816	2718	2738
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	2622	2521	2469	2508	2473	2448	2374	2389	2371	2376	2322			

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	CANON CITY	DDH-1	38 30	105 20	1937	380- 410	33	7.58	25.3	1.92	1.84
								ERROR	.17	.3	.06	

COMPLETED ON OR BEFORE: 3/31/67 MEASURED: 7/11/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: 0-380 METERS, NO CORE. 380-408.3 METERS, PIKES PEAK TYPE GRANITE. 408.3-410 METERS, MAFIC DIKE.

TEMPERATURE

DEPTH	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00
TEMP	15.969	16.233	16.467	16.708	16.969	17.203	17.474	17.716	17.989	18.206	18.493	18.740
DEPTH	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	375.00	380.00	385.00
TEMP	18.987	19.260	19.517	19.801	20.069	20.289	20.546	20.817	21.016	21.181	21.302	21.429
DEPTH	390.00	395.00	400.00	405.00	410.00							
TEMP	21.561	21.680	21.800	21.928	22.066							

CONDUCTIVITY AND DENSITY

DEPTH	387.10	387.10	388.62	388.62	390.14	390.14	391.67	391.67	393.19	393.19	394.72	394.72	396.24	396.24	397.76
COND	8.83	7.88	7.72	8.58	8.98	7.71	7.61	7.92	8.05	7.58	8.06	7.21	7.91	7.64	7.57
DENS	2.69	2.67	2.65	2.69	2.73	2.75	2.72	2.72	2.70	2.73	2.66	2.67	2.67	2.69	2.68
DEPTH	397.76	399.29	399.29	400.81	400.81	402.34	402.34	403.86	403.86	405.38	405.38	406.91	406.91	408.13	408.13
COND	7.70	7.23	8.34	7.73	9.04	7.24	8.09	7.85	7.38	7.92	8.19	8.11	6.75	7.26	8.73
DENS	2.67	2.69	2.70	2.70	2.71	2.69	2.70	2.68	2.68	2.66	2.66	2.66	2.64	2.62	2.60
DEPTH	408.28	408.74	408.74	409.96											
COND	6.56	5.70	5.67	5.30											
DENS	2.55	2.82	2.81	2.88											

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	1937	1935	1936	1935	1935	1936	1938	1938	1941	1945	1948	1959	1980	1999
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	2000	2018	1998	1952	1912	1943	1956	2048	2159	2235	2262	2297	2381	2434
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	2500	2580	2493	2392	2392	2401	2409	2425	2423	2389	2379			

COMMENTS: METHOD GR. SAMPLE AT 408.4 METERS IN CONTACT ZONE AND CONDUCTIVITY NOT USED IN HEAT FLOW CALCULATIONS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	CUMBERLAND PASS	DDH-CP2	38 41	106 30	3605	270- 480	71	6.68	25.2	1.68	1.86
								ERROR	.10	.10	.03	

COMPLETED ON OR BEFORE: 1/67 MEASURED: 7/12/67

REFERENCE

GEOLOGY: PRECAMBRIAN GRANITE GNEISS.

TEMPERATURE

DEPTH	20.00	40.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	8.340	9.970	11.430	3.072	3.129	3.213	3.312	3.420	3.545	3.671	3.832	3.984
DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00
TEMP	4.137	4.314	4.492	4.678	4.868	5.061	5.254	5.458	5.661	5.864	6.059	6.271
DEPTH	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00
TEMP	6.500	6.727	6.972	7.194	7.443	7.692	7.920	8.162	8.425	8.667	8.928	9.168
DEPTH	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00			
TEMP	9.448	9.701	9.960	10.229	10.491	10.743	10.992	11.293	11.546			

CONDUCTIVITY AND DENSITY

DEPTH	243.84	254.81	273.10	295.66	327.97	330.71	356.31	356.92	359.05	359.66	361.19	362.71	366.37	366.37	368.81
COND	6.34	5.95	6.72	6.18	6.89	6.50	6.68	6.54	6.12	6.77	4.36	7.04	6.60	6.39	6.24
DENS	2.59	2.62							2.60	2.61	2.63	2.60	2.60	2.60	2.61
DEPTH	368.81	372.77	373.38	377.34	378.26	378.56	379.48	379.78	379.78	383.13	386.18	389.53	390.45	391.36	394.11
COND	8.14	6.31	6.36	6.16	6.73	6.58	6.12	6.31	6.32	5.96	6.38	6.16	6.09	5.70	7.45
DENS	2.61	2.58	2.58	2.60	2.60	2.57	2.60	2.59	2.52	2.57	2.60	2.56	2.59	2.59	2.59
DEPTH	396.55	396.85	397.16	397.46	399.59	401.42	402.64	402.95	405.99	408.74	409.65	410.26	413.31	413.31	416.36
COND	5.89	6.52	6.22	6.02	6.05	7.57	8.70	6.49	5.88	6.88	6.35	6.28	6.08	6.53	7.34
DENS	2.62	2.62	2.61	2.58	2.60	2.57	2.61	2.62	2.53	2.55	2.58	2.60	2.62	2.59	2.56
DEPTH	417.27	418.80	418.80	419.71	422.45	423.06	426.42	429.77	432.51	433.12	437.08	438.30	438.91	442.27	443.18
COND	6.27	6.90	7.60	6.43	6.16	8.96	5.80	7.03	6.88	6.66	7.02	10.4	6.93	8.22	6.81
DENS	2.64	2.61	2.55	2.61	2.61	2.60	2.58	2.61	2.58	2.55	2.58	2.59	2.58	2.58	2.60
DEPTH	446.84	449.58	451.71	453.24	457.51	459.33	463.91	465.13	466.34	468.17	469.39	472.44	476.71		
COND	7.12	7.68	6.61	7.00	7.89	6.43	6.67	8.00	6.76	6.76	7.50	6.90	10.3		
DENS	2.58	2.59	2.56	2.57	2.58	2.60	2.53	2.58	2.62	2.58	2.60	2.56			

TERRAIN DATA

RADIUS	0.	99	199	299	399	500	750	1000	1250	1561	1875	2187	2500	3125
ELEV	3605	3596	3593	3593	3593	3592	3591	3544	3524	3549	3567	3530	3506	3482
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	3491	3492	3472	3423	3377	3360	3357	3389	3362	3254	3214	3148	3023	2898

RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000
ELEV	2907	2937	3060	3008	2910	2897	2807	2737	2705	2699	2640

COMMENTS: CASED WITH ONE INCH PIPE. OBSTRUCTION OR CONSTRICTION NEAR 410 METERS. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	DOVE CREEK	DDH-K1	37 47	108 51	2102	560- 610	14	7.54	37.6	3.05	2.99
								ERROR	.47	.5	.08	

COMPLETED ON OR BEFORE: 11/67 MEASURED: 8/16/68

REFERENCE

GEOLOGY: PALEOZOIC SANDSTONES WITH OCCASIONAL THIN LAYERS OF SHALE.

TEMPERATURE

DEPTH	50.00	100.00	150.00	200.00	250.00	300.00	350.00	400.00	450.00	500.00	550.00	560.00
TEMP	11.780	13.730	15.360	16.920	18.160	19.270	20.360	21.640	23.260	25.180	27.340	27.740
DEPTH	570.00	580.00	590.00	600.00	610.00							
TEMP	28.140	28.540	28.900	29.240	29.640							

CONDUCTIVITY AND DENSITY

DEPTH	563.27	565.71	573.02	576.38	579.12	580.65	584.91	587.05	588.26	596.49	598.93	601.07	604.72	607.16
COND	5.58	6.37	7.95	5.62	9.91	7.54	11.80	9.14	11.5	9.55	6.12	7.70	6.89	6.34
DENS	2.63	2.70	2.65	2.64	2.48	2.70	2.59	2.56	2.35	2.55	2.65	2.68	2.63	2.68

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	2102	2106	2119	2139	2156	2164	2176	2178	2190	2195	2200	2202	2196	2173
RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	2181	2185	2188	2163	2168	2182	2188	2185	2166	2146	2094	2068	2064	2089
RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000				
ELEV	2094	2112	2149	2185	2232	2112	2030	2027	1987	1939				

COMMENTS: CASED WITH 1 1/4 INCH PIPE. NO CORE AVAILABLE FROM ABOVE 560 METERS. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	DOVE CREEK	DDH-8	37 47	108 46	1918	130- 170	6	6.26	69.8	4.23	2.37
								ERROR	.63	1.0	.18	

COMPLETED ON OR BEFORE: 7/66 MEASURED: 9/9/66

REFERENCE

GEOLOGY: INDURATED SANDSTONE AND CONGLOMERITIC SANDSTONE.

TEMPERATURE

DEPTH	50.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	12.080	14.760	15.080	15.440	15.910	16.640	17.380	18.060	18.690

CONDUCTIVITY AND DENSITY

DEPTH	103.33	117.35	120.09	126.80	133.50	136.86	143.26	146.61	163.68	167.95
COND	6.62	7.13	6.09	6.98	6.11	5.63	6.03	4.43	9.37	8.39
DENS	2.66	2.70	2.71	2.64	2.70	2.65	2.67	2.66	2.53	2.65

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	1918	1917	1927	1967	2014	2961	2110	2191	2250	2281	2300	2303	2332	2346
RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	2308	2299	2318	2340	2328	2317	2276	2217	2170	2125	2113	2132	2124	2089
RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000				
ELEV	2094	2112	2149	2185	2232	2112	2030	2027	1987	1939				

COMMENTS: COLLAR PRESENTLY CAVED. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	DOVE CREEK	DDH-9	37 47	108 46	1925	170- 190	10	7.24	44.1	2.90	1.97
								ERROR	.38	1.7	.01	

COMPLETED ON OR BEFORE: 9/2/66 MEASURED: 9/9/66

REFERENCE

GEOLOGY: FINE GRAINED TO CONGLOMERITIC SANDSTONE.

TEMPERATURE

DEPTH	50.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	165.00	170.00	180.00
TEMP	13.330	15.050	15.420	16.160	16.780	17.410	17.950	18.470	19.100	19.380	19.630	20.130
DEPTH	190.00	195.00										
TEMP	20.570	20.720										

CONDUCTIVITY AND DENSITY

DEPTH	178.61	180.44	181.66	182.88	184.71	185.93	187.45	190.50	191.72	193.24
COND	7.33	6.28	7.74	6.34	6.07	7.42	6.01	8.38	8.09	10.97
DENS	2.65	2.66	2.65	2.66	2.66	2.65	2.66	2.66	2.69	2.59

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	1925	1934	1957	1979	2002	2033	2104	2177	2242	2270	2288	2306	2321	2341
RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	2336	2319	2304	2329	2329	2317	2289	2234	2170	2125	2113	2132	2124	2089
RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000				
ELEV	2094	2112	2149	2185	2232	2112	2030	2027	1987	1939				

COMMENTS: COLLAR PRESENTLY CAVED. MEASURED ABOUT ONE WEEK AFTER DRILLING TERMINATED. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	EAGLE COUNTY				3038	440- 530	11	9.93	24.1	2.46	2.38
								ERROR	.51	.3	.03	

COMPLETED ON OR BEFORE: 9/66 MEASURED: 6/13/67

REFERENCE

GEOLOGY: DOLOMITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	4.893	5.430	6.181	7.163	8.077	8.975	9.674	10.300	10.762	11.431	12.201	12.949
DEPTH	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00
TEMP	13.585	14.026	14.377	14.368	14.966	15.333	15.569	15.864	16.112	16.437	16.683	16.991
DEPTH	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00	490.00
TEMP	17.315	17.629	17.988	18.177	18.436	18.833	19.137	19.395	19.655	19.918	20.169	20.411
DEPTH	500.00	510.00	520.00	530.00								
TEMP	20.626	20.869	21.088	21.298								

CONDUCTIVITY AND DENSITY

DEPTH	238.96	250.24	258.78	268.53	276.45	285.29	297.18	301.75	310.90	323.09	332.54	341.38	350.52	360.58	369.11
COND	5.35	5.86	7.32	6.88	3.84	7.57	7.48	7.81	7.01	7.82	7.50	14.2	7.29	14.2	7.86
DENS		2.49	3.01	2.70		2.75	2.71	2.70			2.85	2.95	2.72	2.94	
DEPTH	377.95	388.32	398.07	408.13	417.88	427.03	438.30	448.97	459.18	468.78	478.54	487.68	497.13	506.58	515.72
COND	3.43	8.25	7.24	9.31	5.76	13.7	10.9	7.93	7.83	8.00	12.0	9.21	11.6	11.0	10.2
DENS		2.75		2.78		2.70	2.65	2.71	2.71	2.71	2.67				
DEPTH	524.26	531.88													
COND	12.4	11.1													
DENS	2.82	2.81													

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2181	2500	3125
ELEV	3038	3050	3060	3070	3080	3094	3118	3131	3134	3144	3171	3190	3173	3160
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	3142	3176	3185	3185	3105	2907	2888	3023	2971	2873	2815	2791	2878	2899
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	2910	2845	3001	3042	2957	2820	2788	2673	2528	2434	2397			

COMMENTS: LOCATION AND DETAILED GEOLOGY CAN NOT BE GIVEN. CASED WITH 1 1/4 INCH PIPE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	GEM PARK	DDH-3	38 16	105 32	2446	60- 235	30	7.72	25.49	1.97	2.05
								ERROR	.23	.06	.06	

COMPLETED ON OR BEFORE: 7/67 MEASURED: 10/20/67

REFERENCE

GEOLOGY: CARBONATITE, GABBRO, PYROXENITE.

TEMPERATURE

DEPTH	30.00	50.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	10.268	10.408	10.658	11.185	11.676	11.909	12.159	12.406	12.669	12.938	13.183	13.442
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	235.00					
TEMP	13.697	13.953	14.212	14.465	14.732	14.989	15.124					

CONDUCTIVITY AND DENSITY

DEPTH	65.53	84.73	94.95	103.33	106.68	113.54	116.74	123.44	126.95	133.20	136.55	143.26	146.30	152.86	156.36
COND	5.84	6.38	9.18	7.31	7.94	7.84	8.65	9.44	6.94	9.01	9.06	8.68	9.51	9.15	8.76
DENS	3.17	3.32	2.93	3.35	3.35	3.07	3.01	2.98	3.66		2.97	2.93	2.93	3.00	2.96
DEPTH	163.37	166.73	173.74	177.39	183.19	186.54	193.24	196.90	203.91	207.26	213.36	216.41	223.11	226.77	232.56
COND	8.71	7.99	9.25	8.89	8.06	7.64	7.59	7.63	7.99	7.68	4.96	6.89	6.62	6.42	7.06
DENS	2.95	3.30	2.92	3.20	3.04	3.39	3.39	3.28	3.33	3.21	2.65	3.51	3.36	3.30	3.41

TERRAIN DATA

RADIUS	0	619	929	1250	1559	1869	2189	2500	3125	3750	4375	5000	6250	7500
ELEV	2446	2455	2428	2422	2425	2424	2421	2407	2405	2385	2361	2357	2344	2336
RADIUS	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000	60000	70000	80000
ELEV	2346	2363	2402	2490	2577	2596	2661	2617	2537	2524	2535	2516	2546	2564
RADIUS	90000	100000	110000	120000	130000	140000								
ELEV	2485	2482	2497	2562	2534	2550								

COMMENTS: CASED WITH 3 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	GEM PARK	DDH-4	38 16	105 32	2438	120- 220	23	6.41	26.2	1.68	1.69
								ERROR	.21	.2	.07	

COMPLETED ON OR BEFORE: 9/17/67 MEASURED: 10/20/67

REFERENCE

GEOLOGY: GABBRO AND PYROXENITE, WITH ONE SYENITE PORPHYRY DIKE BETWEEN 208.6 AND 217.1 METERS.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	10.345	10.889	11.327	11.768	12.182	12.413	12.641	12.905	13.128	13.385	13.629	13.907
DEPTH	180.00	190.00	200.00	210.00	220.00							
TEMP	14.151	14.425	14.712	14.994	15.259							

CONDUCTIVITY AND DENSITY

DEPTH	64.62	74.68	85.34	94.95	104.85	115.21	123.44	126.49	133.20	136.55	143.26	146.61	153.31	156.06	163.37
COND	7.62	7.30	7.12	7.04	7.52	5.74	7.54	8.08	6.69	7.52	7.27	8.52	6.93	7.25	5.98
DENS	3.52	3.45	3.24	3.22	3.26	2.90	3.41	3.87	3.37	3.51	3.39	3.10	3.26	3.28	3.31
DEPTH	166.73	173.43	176.78	183.19	186.54	193.85	196.29	196.90	203.30	206.65	210.62	212.75	219.46	222.20	
COND	5.45	6.90	7.41	5.87	5.99	6.32	5.38	6.15	5.82	6.38	4.76	4.82	7.00	6.78	
DENS	2.98	3.39		3.23	3.22	3.29	2.80	3.19	3.13	3.24	2.81	2.59	3.23	3.33	

TERRAIN DATA

RADIUS	0	619	929	1250	1559	1869	2189	2500	3125	3750	4356	5000	6250	7500
ELEV	2438	2446	2465	2464	2452	2438	2416	2398	2377	2346	2343	2333	2340	2362
RADIUS	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000	60000	70000	80000
ELEV	2386	2425	2517	2577	2596	2661	2617	2537	2537	2524	2535	2516	2546	2564
RADIUS	90000	100000	110000	120000	130000	140000								
ELEV	2485	2482	2497	2562	2534	2550								

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	GILMAN	DDH-E324	39 33	106 24	3119	1010-1070	17	8.40	20.4	2.12	2.25
								ERROR	.63		.03	

COMPLETED ON OR BEFORE: 3/31/67 MEASURED: 5/8/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: 0-153 METERS, DOLOMITE, SANDSTONE, QUARTZITES. 153-160 METERS, PRECAMBRIAN GNEISS.

TEMPERATURE

DEPTH	20.00	40.00	50.00	60.00	80.00	100.00	120.00	130.00	140.00	150.00	155.00	160.00
TEMP	38.940	39.270	39.580	39.800	40.210	40.470	40.750	40.890	41.060	41.240	41.390	41.550

CONDUCTIVITY AND DENSITY

DEPTH	79.86	79.86	89.92	89.92	101.80	110.95	120.09	139.90	139.90	149.35	149.38	149.38	153.68	153.65	155.78
COND	6.46	7.30	10.2	9.61	10.9	16.4	14.6	11.5	11.2	12.7	10.95	6.52	9.15	5.73	7.78
DENS	2.75	2.74	2.57	2.55	2.85	2.60	2.59	2.72	2.71	2.67	2.66				2.76
DEPTH	155.78	156.52	95.80	158.59	158.86	158.86									
COND	7.41	8.16	7.46	5.73	5.86	6.36									
DENS	2.75		2.67												

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	3119	3118	3123	3133	3144	3155	3164	3184	3195	3183	3164	3141	3069	2962
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	2871	2887	2924	2953	3099	3106	3083	3082	3228	3280	3269	3247	3087	3015
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	3033	3062	2848	2910	2961	2915	2788	2673	2528	2434	2397			

COMMENTS: VERTICAL HOLE OFF 3000FT. LEVEL OF MINE. DRIFT PRESENTLY FLOODED. DENSITIES NOT MEASURED ON SAMPLES FROM 153.62 METERS AND SAMPLES FROM 159.11-158.65 METERS BECAUSE SPECIMENS HAD BEEN CRUSHED FOR RADIOACTIVITY MEASUREMENTS. CASED WITH 1 1/4 INCH PIPE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	GLADE PARK	DDH-10	38 57	108 37	2089	140- 175	4	5.91	27.04	1.60	1.61
								ERROR	.10	.14	.04	

COMPLETED ON OR BEFORE: 1966 MEASURED: 9/5/67

REFERENCE

GEOLOGY: PRECAMBRIAN GABBRO(HEAT FLOW INTERVAL ONLY).

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	130.00	140.00	150.00	160.00	170.00	175.00
TEMP	9.900	10.202	10.420	10.660	10.967	11.361	11.658	11.956	12.233	12.507	12.772	12.902

CONDUCTIVITY AND DENSITY

DEPTH	163.37	166.73	173.43	176.78
COND	6.05	5.80	5.66	6.15
DENS	2.81	2.75	2.82	2.83

TERRAIN DATA

RADIUS	0	2500	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000
ELEV	2089	2073	2059	2059	2081	2061	2018	2033	1988	1956	1946	1942	1928	1962

RADIUS	35000	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000
ELEV	2026	2018	1908	1902	1994	2169	2173	2161	2179	2208	2241	2254

COMMENTS: NO CORE AVAILABLE FROM ABOVE 160 METERS. CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	GLADE PARK	DDH-11	38 57	108 37	2165	170- 225	9	5.37	25.49	1.37	1.40
								ERROR	.07	.08	.08	

COMPLETED ON OR BEFORE: 1966 MEASURED: 9/5/67

REFERENCE

GEOLOGY: PRECAMBRIAN GABBRO (HEAT FLOW INTERVAL ONLY).

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	170.00	180.00	190.00	200.00
TEMP	8.900	9.100	9.500	9.586	10.185	10.505	10.911	11.392	11.719	11.983	12.239	12.501
DEPTH	210.00	220.00	225.00									
TEMP	12.748	13.002	13.133									

CONDUCTIVITY AND DENSITY

DEPTH	183.19	186.54	193.24	196.60	203.30	206.44	212.87	216.44	222.23
COND	5.68	5.45	5.18	5.32	5.76	5.33	5.28	5.24	5.14
DENS	2.94	2.87	2.87	2.83	2.82	2.85	2.86	2.85	2.84

TERRAIN DATA

RADIUS	0	2500	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000
ELEV	2165	2183	2182	2161	2151	2122	2115	2100	2022	1990	1970	1966	1935	1961
RADIUS	35000	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000		
ELEV	2001	2018	1908	1902	1994	2169	2173	2161	2179	2208	2241	2254		

COMMENTS: NO CORE AVAILABLE FROM ABOVE 180 METERS. CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	GLADE PARK	DDH-16	38 57	108 37	2089	150- 375	34	5.71	23.32	1.33	1.35
								ERROR	.12	.05	.03	

COMPLETED ON OR BEFORE: 1966 MEASURED: 9/5/67
REFERENCE

GEOLOGY: 0-128 METERS, PALEOZOIC SEDIMENTS. 128-375 METERS, PRECAMBRIAN GABBRO.

TEMPERATURE

DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	11.659	11.901	12.156	12.400	12.651	12.895	13.149	13.385	13.611	13.830	14.063	14.313
DEPTH	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	375.00
TEMP	14.546	14.787	15.026	15.259	15.494	15.726	15.956	16.189	16.419	16.646	16.862	16.970

CONDUCTIVITY AND DENSITY

DEPTH	213.67	216.41	223.27	226.47	233.17	236.37	243.23	246.58	253.29	256.79	263.65	266.70	273.41	276.76	283.46
COND	5.79	6.69	5.42	6.74	7.84	8.55	5.64	5.79	5.23	6.56	6.38	6.04	5.46	4.94	5.66
DENS	3.01	2.84	2.72	2.80	2.99	3.00	2.90	2.92	2.90	3.00	3.28	2.99	2.94	2.90	3.00
DEPTH	286.33	293.34	296.57	303.28	306.63	313.33	316.84	323.55	326.75	333.15	336.50	343.21	346.56	352.65	353.57
COND	5.46	7.89	5.16	5.14	6.30	5.03	5.28	5.61	5.36	6.12	5.23	4.72	5.17	5.39	5.53
DENS	2.94	3.26	2.92	2.92	3.07	2.90	2.88	2.95	2.97	3.05	2.88	2.90	2.97	2.95	2.95
DEPTH	356.62	363.78	366.68	372.16											
COND	4.89	5.84	5.69	5.43											
DENS	2.88	3.01	2.98	2.93											

TERRAIN DATA

RADIUS	0	2500	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000
ELEV	2089	2100	2076	2077	2095	2079	2027	2048	1988	1956	1946	1942	1928	1962
RADIUS	35000	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000		
ELEV	2026	2018	1908	1902	1994	2169	2173	2161	2179	2208	2241	2254		

COMMENTS: NO CORE FROM ABOVE 150 METERS. CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	GOLDEN	DDH-1	39 47	105 16	1905	100- 530	32	7.19	22.23	1.60	1.52
								ERROR	.19	.08	.05	

COMPLETED ON OR BEFORE: UNKNOWN MEASURED: 11/17/64

REFERENCE: ROY ET AL. (1968A), DECKER (1966,1969), ADAMS AND STUGARD (1956)

GEOLOGY: PRECAMBRIAN GNEISS AND SCHIST (IDAHO SPRINGS FORMATION).

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	12.580	12.500	12.530	12.630	12.770	12.920	13.090	13.250	13.430	13.620	13.820	14.020
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	14.220	14.440	14.660	14.900	15.120	15.350	15.600	15.830	16.080	16.340	16.560	16.800
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	17.040	17.280	17.520	17.770	17.940	18.200	18.390	18.620	18.810	19.070	19.260	19.450
DEPTH	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00
TEMP	19.600	19.910	20.130	20.360	20.530	20.760	20.960	21.180	21.390	21.620	21.830	22.040
DEPTH	490.00	500.00	510.00	520.00	530.00							
TEMP	22.270	22.480	22.690	22.900	23.070							

CONDUCTIVITY AND DENSITY

DEPTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COND	5.7	8.7	7.0	8.3	7.0	5.4	7.2	8.8	6.7	7.6	8.1	7.2	9.4	9.1	8.2
DENS	3.00	2.90	3.05	2.72	2.97	2.96	2.71	2.70	2.96	2.67	2.66	2.71	2.71	2.70	2.71
DEPTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COND	6.9	6.9	6.6	7.3	5.8	8.1	5.6	6.0	6.4	8.2	6.5	8.1	9.0	6.8	8.3
DENS	2.72	2.96	2.97	2.99	3.01	2.71	2.73	2.91	2.91	2.71	3.01	2.69	2.63	2.99	2.63
DEPTH	0.0	0.0													
COND	7.0	7.5													
DENS	3.03	2.71													

TERRAIN DATA

RADIUS	0	156	315	465	705	936	1410	1866	2367	3550	4740	7094	9887	14896
ELEV	1905	1912	1935	1964	1981	2000	2008	1989	1985	1992	1997	2025	2023	2088
RADIUS	19711	25002	30480											
ELEV	2102	2126	2130											

COMMENTS: DEPTHS OF CONDUCTIVITY SAMPLES UNKNOWN. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	HESPERUS	DDH-1	37 23	108 04	2770	270- 540	24	6.94	37.60	2.61	2.08
								ERROR	.23	.07	.09	

COMPLETED ON OR BEFORE: 1914 MEASURED: 10/8/64

REFERENCE: ROY ET AL. (1968A), DECKER (1966,1969), ECKEL (1949)

GEOLOGY: 0-262.1 METERS, CUTLER FM. 262.1-364.0 METERS, TERTIARY(?) DIORITE MONZONITE SILL. 364.0-443.5 METERS, RICO FM WITH ONE 12.8 METER THICK MONZONITE PORPHRY SILL. 443.5-545.5 METERS, HERMOSA FM WITH ONE 13.4 METER THICK MONZONITE PORPHRY SILL.

TEMPERATURE

DEPTH	50.00	70.00	90.00	110.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	13.730	14.070	14.210	14.330	14.600	14.660	14.710	14.750	15.070	15.120	15.160	15.660
DEPTH	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00
TEMP	15.790	15.850	15.880	15.890	16.400	16.890	17.430	17.940	18.440	18.930	19.400	19.850
DEPTH	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00
TEMP	20.220	20.760	21.210	21.640	22.060	22.460	22.840	23.200	23.540	23.940	24.320	24.660
DEPTH	450.00	460.00	470.00	480.00	490.00	500.00	510.00	520.00	530.00	540.00	545.00	
TEMP	25.050	25.440	25.820	26.180	26.550	26.930	27.300	27.680	28.060	28.440	28.630	

CONDUCTIVITY AND DENSITY

DEPTH	277.40	286.60	300.30	317.10	328.40	414.40	419.20	423.80	431.40	436.30	440.00	446.70	450.60	453.70	456.70
COND	5.4	5.5	5.5	6.1	5.7	6.1	5.6	5.5	9.7	7.9	5.4	8.9	6.0	7.3	5.7
DENS	2.57	2.63	2.58	2.62	2.64	2.65	2.71	2.68	2.59	2.71	2.78	2.69	2.69	2.73	2.53
DEPTH	465.90	469.50	476.90	483.30	493.00	496.30	500.00	513.10	514.70	515.90	526.00	529.90	536.00	540.30	
COND	8.1	6.3	8.2	6.9	6.4	6.7	7.5	7.7	8.2	7.8	6.0	6.9	8.9	7.2	
DENS	2.58	2.68	2.57	2.41	2.69	2.71	2.76	2.71	2.59	2.57	2.77	2.49	2.62	2.74	

TERRAIN DATA

RADIUS	0	412	833	1229	1863	2471	3724	4927	6250	9372	12514	14896	19711	25002
ELEV	2770	2784	2890	2993	3045	3173	3303	3189	3110	3062	2932	2697	2573	2438
RADIUS	30480													
ELEV	2286													

COMMENTS: ARTESIAN FLOW AT COLLAR. TERRAIN CORRECTION AND HEAT FLOW MOST RELIABLE FOR 410-545 METER INTERVAL (SEE DECKER(1969)). METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	KOKOMO	DDH-1201	39 26	106 08	3201	480- 510	7	8.35	38.5	3.2	2.8
								ERROR	.41	.3	.2	

COMPLETED ON OR BEFORE: 7/31/67 MEASURED: 9/1/67

REFERENCE

GEOLOGY: PRECAMBRIAN GRANITE GNEISS (HEAT FLOW INTERVAL).

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	4.633	5.590	6.226	7.019	7.911	8.578	9.432	10.215	10.965	11.656	12.469	13.243
DEPTH	260.00	280.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00
TEMP	14.076	14.978	15.622	16.097	16.529	16.915	17.239	17.562	17.884	18.242	18.608	19.061
DEPTH	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00	490.00	500.00	510.00
TEMP	19.449	19.895	20.212	20.613	21.055	21.442	21.690	22.001	22.337	22.724	23.117	23.493

CONDUCTIVITY AND DENSITY

DEPTH	313.33	316.69	323.09	326.75	353.26	358.14	374.60	383.13	386.49	416.97	444.09	448.36	459.94	462.99	466.34
COND	8.13	6.96	7.58	7.75	7.55	8.06	9.44	8.87	7.92	6.20	6.27	6.74	8.10	10.3	9.42
DENS	2.57	2.54	2.57	2.51	2.59	2.57	2.55	2.60	2.51	2.54	2.52	2.60	2.59	2.69	2.71
DEPTH	473.36	476.71	483.11	486.46	493.17	496.52	496.82	503.53	506.58						
COND	5.49	4.52	7.38	8.20	10.4	6.86	9.51	8.74	8.43						
DENS	3.01	2.83	2.70	2.62	2.69	2.93	2.72	2.71	2.71						

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	3201	3201	3211	3219	3228	3237	3262	3306	3351	3402	3439	3447	3488	3538
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	25000	30000	35000	40000
ELEV	3578	3567	3580	3572	3525	3460	3401	3377	3353	3292	3243	3213	3230	3173
RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000				
ELEV	3142	2990	2822	2721	2742	2690	2660	2577	2551	2513				

COMMENTS: NO GRADIENT-CONDUCTIVITY CORRELATION ABOVE 480 METERS. ARTESIAN FLOW AT COLLAR. CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	OURAY	DDH-1	37 56	107 40	2963	80- 375	25	9.24	55.54	5.1	3.7
								ERROR	.38	.07	.2	

COMPLETED ON OR BEFORE: 1966 MEASURED: 9/6/67

REFERENCE

GEOLOGY: 0-7.9 METERS, OVERBURDEN. 7.9-343.3 METERS, SAN JUAN TUFF. 343.3-378.7 METERS, SILACEOUS SHALE AND DOLOMITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	210.00	220.00
TEMP	8.340	9.970	11.430	12.710	13.820	14.910	15.990	17.146	18.328	19.411	19.949	20.505
DEPTH	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00
TEMP	21.051	21.613	22.174	22.743	23.314	23.878	24.406	24.940	25.467	26.059	26.613	27.153
DEPTH	350.00	360.00	370.00	375.00								
TEMP	27.683	28.233	28.797	29.094								

CONDUCTIVITY AND DENSITY

DEPTH	102.11	134.42	144.78	153.62	164.90	174.96	184.71	195.38	204.83	214.88	224.94	235.31	244.75	254.51	264.87
COND	8.60	7.05	7.42	8.44	7.78	6.43	8.09	8.80	10.00	8.21	9.97	8.86	9.24	7.55	9.92
DENS	2.67	2.78	2.72	2.66	2.70	2.73	2.80	2.78	2.83	2.74	2.78	2.76	2.77	2.72	3.08
DEPTH	274.93	284.99	294.44	304.80	314.86	324.92	334.37	344.73	354.79	364.85	374.90				
COND	9.94	11.40	14.7	11.7	8.35	20.6	8.06	12.3	11.8	14.7	13.0				
DENS	2.69	2.66	3.03	2.64	2.66	3.20	2.87	2.84	3.08	2.75	2.80				

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	2963	2967	2980	2995	3009	3023	3055	3114	3165	3214	3273	3332	3426	3558
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	3606	3590	3525	3492	3500	3508	3510	3519	3352	3350	3326	3261	3179	3113
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	3073	2962	2820	2663	2442	2434	2385	2368	2398	2423	2405			

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR. HEAT FLOW CALCULATION OMITS CONDUCTIVITY AT 325.0 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	PARADISE PASS	DDH-PP2	39 00	107 04	3380	100- 210	33	7.04	26.45	1.86	1.55
								ERROR	.09	.07	.03	

COMPLETED ON OR BEFORE: 9/4/64 MEASURED: 10/25/64

REFERENCE: ROY ET AL. (1968A), DECKER (1966,1969), VANDERWILT (1937)

GEOLOGY: TERTIARY(?) GRANODIORITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	3.710	3.800	4.010	4.220	4.470	4.700	4.950	5.180	5.440	5.680	5.930	6.190
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00			
TEMP	6.450	6.720	7.000	7.260	7.530	7.790	8.050	8.300	8.580			

CONDUCTIVITY AND DENSITY

DEPTH	100.70	106.20	118.90	122.10	125.20	128.10	131.10	134.10	137.40	140.30	143.30	146.40	149.40	152.50	155.60
COND	7.7	7.0	6.6	7.1	7.0	7.4	6.5	7.1	6.5	6.6	7.0	6.6	7.0	6.7	6.8
DENS	2.68	2.64	2.67	2.67	2.66	2.62	2.61	2.65	2.66	2.66	2.65	2.66	2.60	2.63	2.62
DEPTH	158.40	161.60	164.90	170.80	173.80	176.40	178.40	180.00	183.10	186.90	189.00	192.30	195.10	198.20	198.80
COND	6.8	7.6	7.2	6.8	9.6	8.4	6.9	7.0	7.3	7.3	6.6	6.6	7.0	6.6	7.9
DENS	2.63	2.65	2.66	2.66	2.76	2.69	2.64	2.65	2.57	2.65	2.66	2.67	2.66	2.68	2.67
DEPTH	203.10	207.30	208.90												
COND	6.8	6.8	6.7												
DENS	2.66	2.58	2.67												

TERRAIN DATA

RADIUS	0	156	315	465	705	936	1410	1866	2367	3550	4740	7454	9887	14896
ELEV	3380	3368	3393	3434	3475	3524	3520	3403	3376	3408	3378	3356	3317	3252

COMMENTS: POSSIBLE REFRACTION UNCERTAINTY (SEE DECKER(1966,1969)). METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	RIFLE	DDH-14-1	39 57	108 23	1914	280- 420	14	2.09	56.0	1.09	1.06
								ERROR	.25		.02	

COMPLETED ON OR BEFORE: 1965 MEASURED: 10/2/66

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: 0-330 METERS, SANDSTONE. 330-420 METERS, SHALE.

TEMPERATURE

DEPTH	50.00	100.00	120.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	310.00
TEMP	9.012	10.897	11.707	13.345	14.154	14.938	15.791	16.566	17.353	18.114	18.849	19.198
DEPTH	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00	
TEMP	19.789	20.303	20.802	21.306	21.888	22.689	23.424	24.049	24.637	25.156	25.700	

CONDUCTIVITY AND DENSITY

DEPTH	284.93	294.92	304.92	314.92	324.92	334.91	344.91	354.91	364.91	374.90	384.90	394.90	404.90	414.89
COND	3.69	4.03	2.62	3.01	4.16	2.31	1.02	3.70	1.24	1.75	2.13	1.50	1.49	2.74
DENS	2.39	2.38	2.22	2.34	2.26	2.13					2.06			2.20

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	1914	1916	1923	1929	1933	1934	1939	1947	1944	1936	1938	1941	1944	1958
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	1969	1970	1962	1963	1974	1993	2048	2068	2088	2106	2086	2072	2130	2216
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2186	2105	2077	2036	2108	2168	2135	2179	2192					

COMMENTS: CASED TO 420 METERS. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	COLO. PLAT	RIFLE	DDH-28-1	39 57	109 23	1951	100- 220	13	3.89	37.2	1.47	1.43
								ERROR	.09		.02	

COMPLETED ON OR BEFORE: 1965 MEASURED: 10/2/66

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: SANDSTONE.

TEMPERATURE

DEPTH	50.00	100.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00
TEMP	10.141	12.024	13.832	14.127	14.615	14.997	15.344	15.698	16.092	16.459

CONDUCTIVITY AND DENSITY

DEPTH	99.97	109.97	119.97	129.97	139.96	149.96	159.96	169.96	179.95	189.95	199.95	209.95	219.94
COND	3.90	4.62	3.47	3.95	4.06	3.80	4.21	3.58	3.86	4.42	3.76	3.57	3.69
DENS	1.92	2.12	2.10		1.94	2.15	2.00	2.31	1.96	2.31	1.96	2.36	2.35

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	1951	1958	1965	1967	1973	1972	1969	1965	1958	1962	1967	1971	1976	1988
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	1978	1999	2007	2023	2026	2043	2080	2129	2166	2081	2045	2079	2130	2216
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2186	2105	2077	2036	2108	2168	2135	2179	2192					

COMMENTS: CASED TO 220 METERS. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	SUMMITVILLE	DDH-SM31	37 26	106 36	3489	100- 190	15	6.30	41.0	2.58	2.46
								ERROR	.10	.2	.05	

COMPLETED CN OR BEFORE: 1/67 MEASURED: 8/11/68

REFERENCE

GEOLOGY: PORPHYRITIC RHYOLITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	5.100	3.100	3.880	4.620	5.370	5.780	6.180	6.580	7.040	7.420	7.860	8.240

DEPTH	180.00	190.00
TEMP	8.640	9.040

CONDUCTIVITY AND DENSITY

DEPTH	131.10	134.50	139.30	140.20	143.30	146.60	149.40	152.70	155.20	157.30	159.80	163.40	177.70	183.20	186.30
COND	6.16	6.09	6.76	6.02	5.66	6.27	5.92	5.71	6.31	6.82	6.60	6.48	6.82	6.30	6.90
DENS	2.49	2.54	2.43	2.41	2.35	2.37	2.45	2.43	2.42	2.54	2.47	2.42	2.55	2.53	2.57

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	3489	3489	3491	3499	3505	3510	3536	3548	3555	3571	3588	3586	3568	3565

RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	3519	3469	3350	3363	3384	3346	3305	3240	3260	3255	3067	2923	2828	2807

RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000
ELEV	2722	2722	2703	2699	2686	2671	2685	2660	2664	2541

COMMENTS: CASED WITH 1 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	URAD	DDH-CX111	39 46	105 50	3156	100- 670	17	8.06	29.3	2.36	1.98
								ERROR	.18	.3	.08	

COMPLETED ON OR BEFORE: 1965 MEASURED: 9/4/66

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: TERTIARY GRANITE PORPHYRY.

TEMPERATURE

DEPTH	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00
TEMP	14.980	15.630	16.190	16.720	17.220	17.680	18.180	18.540	18.960	19.500	20.290	20.590
DEPTH	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00	560.00	580.00
TEMP	21.090	23.010	23.730	24.260	24.730	25.170	25.560	25.880	26.150	27.190	28.460	28.800
DEPTH	600.00	610.00	620.00	625.00	630.00	635.00	640.00	650.00	660.00	670.00		
TEMP	29.000	29.780	30.060	30.210	30.340	30.490	30.580	30.870	31.200	31.500		

CONDUCTIVITY AND DENSITY

DEPTH	591.31	594.36	601.07	605.03	612.04	615.24	621.79	624.84	631.85	635.20	641.91	644.96	651.97	655.32	661.72
COND	7.66	8.00	7.83	9.48	7.32	7.69	7.70	7.55	7.94	7.30	9.74	8.97	8.41	9.79	8.08
DENS		2.65	2.68	2.67	2.70	2.70	2.69	2.59	2.69	2.68	2.74	2.78	2.60	2.65	2.68
DEPTH	664.77	664.77	672.09	675.13											
COND	7.57	7.51	8.47	6.94											
DENS	2.68	2.68	2.68												

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1561	1875	2187	2500	3125
ELEV	3156	3152	3162	3172	3191	3218	3272	3344	3396	3431	3416	3419	3444	3478
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	3555	3592	3575	3539	3515	3446	3380	3364	3288	3273	3188	3113	3033	3022
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	2952	2868	2751	2632	2602	2540	2499	2465	2484	2458	2388			

COMMENTS: STRONG ARTESIAN FLOW, HEAT FLOW UNCERTAIN DUE TO WATER DISTURBANCE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	URAD	DDH-CX124	39 46	105 50	3440	930-1110	27	8.59	34.7	2.98	3.02
								ERROR	.15	.2	.07	

COMPLETED ON OR BEFORE: 12/67 MEASURED: 8/7/68

REFERENCE

GEOLOGY: TERTIARY GRANITE PORPHYRY.

TEMPERATURE

DEPTH	100.00	150.00	200.00	250.00	300.00	350.00	370.00	390.00	410.00	430.00	450.00	470.00
TEMP	6.200	6.400	7.500	8.600	10.300	11.810	12.420	13.000	13.610	14.220	14.830	15.160
DEPTH	490.00	510.00	530.00	550.00	570.00	590.00	610.00	630.00	650.00	670.00	690.00	710.00
TEMP	15.500	15.760	16.130	16.560	16.950	17.340	17.840	18.320	18.840	19.500	20.000	20.550
DEPTH	730.00	750.00	770.00	790.00	810.00	830.00	850.00	870.00	890.00	910.00	930.00	950.00
TEMP	21.170	21.660	22.170	22.520	22.920	23.420	23.910	24.580	25.060	26.110	27.190	27.940
DEPTH	970.00	990.00	1010.00	1030.00	1050.00	1070.00	1090.00	1110.00				
TEMP	28.690	29.390	30.000	30.640	31.370	32.110	32.780	33.500				

CONDUCTIVITY AND DENSITY

DEPTH	938.79	943.97	950.98	955.55	969.27	981.46	984.51	989.69	993.65	1005.84	1011.94	1018.03	1024.13	1030.23	1039.37
COND	8.61	8.17	8.34	8.21	7.83	8.48	9.61	8.28	8.51	9.11	8.93	8.39	8.22	8.75	9.69
DENS	2.57	2.58	2.51	2.54	2.48	2.59	2.61	2.52	2.50	2.84	2.59	2.57	2.53	2.55	2.58
DEPTH	1042.42	1048.51	1057.66	1060.71	1072.90	1078.99	1085.09	1085.09	1091.19	1097.28	1103.38	1109.47			
COND	12.8	7.99	7.93	9.71	8.45	7.56	8.82	7.84	8.60	7.98	7.97	9.68			
DENS	2.69	2.58	2.58	2.61	2.60	2.60	2.52	2.57	2.60	2.59	2.58	2.70			

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	3440	3442	3465	3498	3525	3538	3516	3439	3341	3289	3306	3348	3428	3687
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	3607	3631	3615	3535	3485	3472	3432	3394	3303	3266	3114	3077	3052	3029
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	2952	2868	2751	2632	2602	2540	2499	2465	2484	2458	2388			

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	WESTCLIFFE	DDH-3	38 08	105 27	2418	100- 155	8	4.10	42.9	1.74	1.65
								ERROR	.07	.8	.01	

COMPLETED ON OR BEFORE: 9/2/66 MEASURED: 11/21/66

REFERENCE: SIEMS (1965,1967,1968)

GEOLOGY: TERTIARY RHYOLITE TUFFS, BRECCIAS AND CONGLOMERATES.

TEMPERATURE

DEPTH	20.00	40.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	9.290	9.650	10.570	11.030	11.530	12.010	12.580	13.060	13.520	13.970	14.380	14.770
DEPTH	155.00											
TEMP	14.930											

CONDUCTIVITY AND DENSITY

DEPTH	103.94	114.91	124.97	135.03	145.09	150.57	152.40	154.84	164.90	174.96
COND	3.26	3.88	3.87	4.46	4.35	4.77	4.36	4.29	4.91	4.55
DENS		1.87	1.98	1.96					2.25	

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	2418	2415	2420	2421	2423	2424	2428	2431	2429	2431	2432	2436	2435	2432
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	2442	2447	2461	2485	2517	2562	2657	2801	2870	2915	2737	2563	2328	2335
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2381	2411	2412	2455	2465	2482	2493	2520	2482					

COMMENTS: SITE PRESENTLY INACCESABLE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	WESTCLIFFE	DDH-4	38 08	105 27	2439	100- 245	28	4.55	35.6	1.59	1.58
								ERROR	.09	.5	.01	

COMPLETED ON OR BEFORE: 7/67 MEASURED: 10/21/67

REFERENCE: SIEMS (1965,1967,1968)

GEOLOGY: TERTIARY RHYOLITE TUFFS, BRECCIAS AND CONGLOMERATES.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	8.123	9.157	10.265	11.256	12.034	12.424	12.908	13.304	13.665	14.049	14.462	14.788
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	245.00				
TEMP	15.129	15.467	15.815	16.139	16.475	16.761	17.089	17.256				

CONDUCTIVITY AND DENSITY

DEPTH	102.72	106.38	113.69	116.74	118.87	124.05	133.20	136.25	143.10	146.15	153.31	157.28	172.21	176.78	183.49
COND	5.30	4.84	3.25	3.58	3.41	5.42	4.43	4.43	6.38	4.60	3.43	3.88	5.09	5.52	3.90
DENS	2.25	2.15	1.82	2.23	2.19	2.28	2.06	1.79	2.44	2.04	2.18	1.98	2.14	2.17	
DEPTH	186.54	196.60	203.30	207.57	213.67	217.02	223.72	226.47	230.89	231.04	233.78	237.13	243.38	245.97	
COND	4.55	4.04	4.03	5.02	4.19	5.96	5.33	5.14	5.44	5.39	5.19	5.10	4.57	5.30	
DENS	1.99	2.16		2.09	2.09	2.52	2.34	2.19	2.28	2.19	2.18	2.09	2.05	2.23	

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	2439	2461	2460	2458	2459	2459	2460	2467	2469	2457	2453	2450	2447	2432
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	2442	2447	2461	2485	2517	2562	2657	2801	2870	2915	2737	2481	2328	2335
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2381	2411	2412	2455	2465	2482	2493	2520	2482					

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	WESTCLIFFE	DDH-9	38 09	105 26	2467	100- 250	22	5.49	30.2	1.66	1.63
								ERROR	.19	.1	.06	

COMPLETED ON OR BEFORE: 9/25/67 MEASURED: 11/1/67

REFERENCE: SIEMS (1965,1967,1968)

GEOLOGY: 0 TO 200 METERS, TERTIARY RHYOLITE TUFFS,BRECCIAS AND CONLOMERATES. 200 TO 245 METERS, PRECAMBRIAN GNEISS.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	
TEMP	10.100	10.744	11.288	11.860	12.481	12.800	13.113	13.425	13.719	14.023	14.331	14.639	
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00					
TEMP	14.932	15.245	15.554	15.863	16.161	16.446	16.710	16.976					

CONDUCTIVITY AND DENSITY

DEPTH	104.85	114.91	125.27	133.20	136.55	143.56	147.22	151.49	157.28	163.68	166.42	174.96	185.01	206.05	214.88
COND	5.65	4.42	5.46	5.85	5.51	7.58	7.65	6.55	5.37	5.82	5.23	5.55	4.78	6.82	5.24
DENS	2.11		2.14	2.38		2.35	2.31	2.44						2.54	2.93
DEPTH	223.14	227.05	229.85	232.84	243.23	246.55	249.94	252.04							
COND	7.27	6.04	4.89	5.13	4.84	4.04	4.59	4.60							
DENS	2.67	2.75	2.99	2.68	2.91	2.82	2.81	2.86							

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	2467	2468	2468	2471	2476	2483	2487	2478	2459	2458	2456	2456	2453	2455
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	2453	2457	2473	2494	2516	2543	2602	2706	2824	2880	2693	2481	2328	2335
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2381	2411	2412	2455	2465	2482	2493	2520	2482					

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
COLO.	ROCKY MTS	WESTCLIFFE	DDH-10	38 09	105 26	2461	120- 160	8	5.15	31.3	1.61	1.60
								ERROR	.12	.2	.05	

COMPLETED ON OR BEFORE: 8/25/66 MEASURED: 9/3/66

REFERENCE: SIEMS (1965,1967,1968)

GEOLOGY: TERTIARY RHYOLITE TUFFS, BRECCIAS AND CONGLOMERATES.

TEMPERATURE

DEPTH	40.00	60.00	80.00	90.00	100.00	110.00	115.00	120.00	130.00	140.00	150.00	160.00
TEMP	10.370	10.980	11.630	11.960	12.340	12.670	12.670	12.820	13.140	13.450	13.770	14.070

CONDUCTIVITY AND DENSITY

DEPTH	123.44	126.49	133.50	136.70	143.26	146.61	153.31	156.52
COND	5.54	5.27	4.78	5.04	5.24	4.66	5.69	5.14
DENS	2.12	2.13			2.11	2.06	2.22	2.20

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	2461	2461	2460	2458	2459	2459	2460	2467	2469	2457	2453	2450	2447	2455
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	2453	2457	2473	2494	2516	2543	2602	2706	2824	2880	2693	2481	2328	2335
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000					
ELEV	2381	2411	2412	2455	2465	2482	2493	2520	2482					

COMMENTS: HOLE PRESENTLY INACCESSIBLE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
MINN.	INT. PLN	ELY	DDH-3	47 49	91 43	463	520- 767	26	4.42	18.18	0.80	0.81
								ERROR	.07	.05	.01	

COMPLETED ON OR BEFORE: EARLY 67 MEASURED: 6/29/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: ALTERED GABBRO.

TEMPERATURE

DEPTH	15.20	30.50	45.70	61.00	76.20	91.50	106.70	122.00	137.20	152.40	167.70	182.90
TEMP	5.553	5.721	5.861	5.974	6.092	6.274	6.471	6.712	6.924	7.242	7.451	7.712
DEPTH	198.20	213.40	228.70	243.90	259.20	274.40	289.60	304.90	320.10	335.40	350.60	365.90
TEMP	7.974	8.253	8.532	8.824	9.100	9.391	9.691	9.963	10.243	10.593	10.913	11.251
DEPTH	381.10	396.40	411.60	426.90	442.10	457.40	472.60	487.80	503.10	518.30	533.60	548.80
TEMP	11.501	11.721	11.944	12.201	12.472	12.725	12.991	13.263	13.532	13.743	14.045	14.321
DEPTH	564.10	579.30	594.60	609.80	625.00	640.30	655.50	670.80	686.00	701.30	716.50	731.80
TEMP	14.584	14.855	15.151	15.443	15.744	15.977	16.263	16.542	16.798	17.084	17.383	17.654
DEPTH	747.00	762.20										
TEMP	17.911	18.180										

CONDUCTIVITY AND DENSITY

DEPTH	172.52	177.70	203.00	208.18	233.48	238.66	263.96	269.14	294.44	299.62	324.92	330.10	355.40	360.58	385.88
COND	5.28	5.89	5.28	5.00	5.10	4.88	5.00	4.37	4.76	4.86	4.15	4.16	4.37	4.90	4.05
DENS	3.16	3.26	3.26	2.88	3.07	3.06	3.04	2.98	3.03	3.04	2.82	2.87	3.36	3.04	2.85
DEPTH	391.06	416.36	421.54	446.84	452.02	477.32	482.50	497.74	507.80	512.98	538.28	543.46	568.76	573.94	584.00
COND	4.02	4.73	4.32	4.98	4.45	4.88	4.90	3.98	4.58	5.36	4.68	4.60	5.14	4.97	4.34
DENS	2.78	2.98	2.67	3.15	2.96	3.15	3.15	2.77	2.99	3.24	3.00	3.00	3.27	3.10	2.88
DEPTH	589.18	599.24	604.42	614.48	619.66	629.72	634.90	644.96	650.14	660.20	665.38	675.44	680.62	690.68	695.86
COND	4.42	5.10	4.77	4.10	4.22	4.20	4.77	4.56	4.48	4.50	4.64	4.07	4.60	4.60	4.16
DENS	2.80	2.99	3.06	2.77	2.78	2.80	2.95	2.91	2.90	2.81	2.87	2.75	2.72	2.89	2.78
DEPTH	705.92	711.10	721.16	726.34	736.40	741.58	751.64	756.82							
COND	3.58	4.14	4.45	4.47	8.98	4.05	4.11	4.19							
DENS	2.74	2.79	2.77	2.81	2.98	2.75	2.84	2.78							

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	463	462	462	462	463	462	463	463	463	462	461	462	462	458
RADIUS	3750	4375	5000	6250	7500	8750								
ELEV	456	455	457	460	463	459								

COMMENTS: METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
MINN.	INT. PLN	ELY	DDH-4	47 49	91 43	456	90-1235	114	4.67	18.9	0.88	0.87
								ERROR	.06	.3	.02	

COMPLETED ON OR BEFORE: EARLY 67 MEASURED: 6/27/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: ALTERED GABBRO.

TEMPERATURE

DEPTH	15.20	30.50	42.70	61.00	76.20	91.50	106.70	122.00	137.20	152.40	167.70	182.90
TEMP	5.341	5.511	5.771	5.785	5.940	6.151	6.391	6.664	6.944	7.243	7.543	7.831
DEPTH	198.20	213.40	228.70	243.90	259.20	274.40	289.60	304.90	320.10	335.40	350.60	365.90
TEMP	8.131	8.432	8.722	9.053	9.324	9.591	9.880	10.170	10.453	10.710	10.945	11.193
DEPTH	381.10	396.40	411.60	426.90	442.10	457.40	472.60	487.80	503.10	518.30	533.60	548.80
TEMP	11.432	11.661	11.911	12.181	12.414	12.651	12.891	13.154	13.415	13.719	13.995	14.300
DEPTH	564.10	579.30	594.60	609.80	625.00	640.30	655.50	670.80	686.00	701.30	716.50	731.80
TEMP	14.591	14.884	15.151	15.432	15.623	15.983	16.263	16.563	16.822	17.081	17.365	17.654
DEPTH	747.00	762.20	777.50	792.70	808.00	823.20	838.50	853.70	869.00	884.20	899.40	914.70
TEMP	17.935	18.233	18.535	18.831	19.133	19.423	19.730	20.031	20.361	20.673	20.981	21.302
DEPTH	929.90	945.20	960.40	975.70	990.90	1006.20	1021.40	1036.70	1051.90	1067.20	1082.40	1097.60
TEMP	21.594	21.892	22.190	22.517	22.813	23.111	23.430	23.745	24.064	24.391	24.723	25.040
DEPTH	1112.90	1128.10	1143.40	1158.60	1173.90	1189.10	1204.40	1219.60	1234.80			
TEMP	25.383	25.707	26.043	26.394	26.721	26.030	27.354	27.663	27.963			

CONDUCTIVITY AND DENSITY

DEPTH	111.56	116.74	142.04	147.22	172.52	177.70	203.00	208.18	238.66	263.96	269.14	294.44	299.62	324.92	330.10
COND	5.22	4.90	4.69	4.44	4.86	4.33	4.73	4.56	4.75	4.84	4.91	4.18	4.84	4.26	6.52
DENS	3.07	2.99	2.92	2.90	2.96	2.93	2.95	2.92	3.00	3.01	2.99	2.82	3.01	2.82	3.25
DEPTH	355.40	360.58	385.88	391.06	416.36	421.54	446.84	452.02	477.32	482.50	507.80	512.98	538.28	543.46	568.76
COND	5.17	5.84	5.96	5.52	5.44	5.30	5.88	7.42	5.79	5.28	4.44	3.97	4.34	4.21	4.54
DENS	3.38	3.47	3.26	3.21	3.03	3.18			3.00	3.15	3.17	2.81	2.86	2.86	2.97
DEPTH	573.94	599.24	604.42	614.48	619.66	629.72	634.90	644.96	650.14	660.20	665.38	675.44	680.62	690.68	695.86
COND	5.18	5.98	4.89	7.69	4.24	4.31	5.22	4.50	4.47	4.41	4.13	4.75	4.71	4.64	5.48
DENS		3.22	3.03	3.02	2.82	2.89	3.18		2.89	2.89	2.89	3.00	3.08	2.89	3.26
DEPTH	705.92	711.10	721.16	726.34	736.40	741.58	751.64	756.82	766.88	772.06	782.12	787.30	797.36	802.54	812.60
COND	4.77	5.09	5.27	4.51	4.99	5.13	4.44	4.54	5.13	4.94	5.00	4.40	4.75	3.90	16.1
DENS	3.17	3.14	3.36	2.91	3.12	3.17	2.84	3.17	3.13	3.15	2.90	2.84	2.74	2.74	

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CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	817.78	827.84	833.02	843.08	848.26	858.32	863.50	873.56	878.74	888.80	893.98	904.04	909.22	919.28	924.46
COND	5.70	5.46	6.07	5.57	4.80	4.00	3.97	3.69	4.15	4.12	4.08	4.14	5.60	5.41	3.92
DENS			2.84	3.12	3.00	2.75	2.76	2.75	2.77	2.77	2.78	2.75	2.75		2.74
DEPTH	934.52	939.70	949.76	954.94	965.00	970.18	980.24	985.42	995.48	1000.66	1010.72	1015.90	1025.96	1031.14	1041.20
COND	4.34	4.11	4.50	4.47	6.02	4.48	6.23	4.42	4.17	4.67	4.37	4.51	6.50	4.32	4.29
DENS	2.86	2.81	3.09		2.93	2.83	2.81	2.78	2.79	3.03	2.81	2.81		2.75	2.78
DEPTH	1046.38	1056.44	1061.62	1071.68	1076.86	1086.92	1092.10	1102.16	1107.34	1117.40	1122.58	1132.64	1137.82	1147.88	1153.06
COND	5.28	4.47	3.98	3.94	4.37	4.07	4.27	4.20	4.13	4.02	4.39	3.92	4.09	4.00	4.07
DENS		2.80	2.75	2.76	2.79	2.79	2.80	2.80	2.77	2.77	2.85	2.76	2.73	2.75	2.75
DEPTH	1163.12	1168.30	1178.36	1183.54	1193.60	1198.78	1208.84	1214.02	1224.08	1229.26					
COND	3.90	3.90	4.53	4.34	4.41	5.17	4.45	4.23	4.62	4.36					
DENS	2.72	2.74	2.86	2.82	2.85	3.02	2.87	2.81	2.80	2.85					

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	456	459	460	461	463	464	462	462	460	458	457	456	456	453
RADIUS	3750	4375	5000	6250	7500	8750								
ELEV	451	454	455	457	463	463								

COMMENTS: METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	BITTER CREEK	DDH-1	32 54	109 02	1463	240- 390	16	6.71	45.7	3.07	2.77
								ERROR	.09	.7	.09	

COMPLETED ON OR BEFORE: 1960 MEASURED: 2/27/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: TERTIARY(?) RHYOLITE AND ANDESITE.

TEMPERATURE

DEPTH	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	290.00	300.00	310.00	320.00
TEMP	25.276	26.422	27.605	28.721	29.822	30.845	31.784	32.715	33.255	33.654	34.163	34.564
DEPTH	330.00	340.00	350.00	360.00	370.00	380.00	390.00					
TEMP	35.043	35.435	35.870	36.264	36.716	37.081	37.498					

CONDUCTIVITY AND DENSITY

DEPTH	104.55	114.91	124.36	134.72	144.48	154.23	164.59	174.65	184.71	194.77	204.52	218.08	228.60	238.05	248.11
COND	7.74	6.36	6.1	6.1	6.1	6.18	6.60	6.6	5.83	6.14	6.5	6.44	6.76	7.16	7.42
DENS	2.58	2.59				2.55	2.63		2.61			2.50	2.47	2.58	2.66
DEPTH	258.17	268.07	288.34	297.49	304.80	308.15	314.86	317.30	324.92	334.67	344.12	354.79	364.54	374.60	381.00
COND	7.13	6.59	6.29	6.34	6.53	6.64	6.54	6.40	6.94	6.74	6.31	7.24	7.53	6.83	6.66
DENS	2.58		2.60	2.69				2.71	2.72	2.58		2.61	2.58	2.63	2.70

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3125
ELEV	1463	1466	1467	1472	1482	1494	1512	1542	1570	1583	1573	1552	1543	1514
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	1518	1520	1533	1562	1553	1549	1551	1556	1542	1514	1509	1497	1509	1453
RADIUS	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000			
ELEV	1380	1472	1571	1650	1697	1774	1782	1767	1863	1815	1718			

COMMENTS: CASED WITH 1 1/4 INCH PIPE. CORE PRESENTLY AT U.S.BUREAU OF MINES, DENVER, COLORADO. GRADIENT CALCULATED USING TEMPERATURES AT EVEN DEPTHS TO 380 METERS, PLUS TEMPERATURE AT 390 METERS. TEMPERATURES AT ODD DEPTHS WERE LOGGED ON WAY OUT OF HOLE ON SAME DAY. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	CERRILLOS	DDH-3	35 28	106 07	1880	90- 280	42	4.98	24.45	1.22	1.22
								ERROR	.08	.07	.02	

COMPLETED ON OR BEFORE: 2/20/60 MEASURED: 11/25/64

REFERENCE: ROY ET AL. (1968A),DECKER(1966,1969),DISBROW ET AL.(1956),STEARNS(1953)

GEOLOGY: TERTIARY(?) SYENITE.

TEMPERATURE

DEPTH	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	15.986	16.218	16.449	16.683	16.922	17.161	17.402	17.639	17.884	18.132	18.379	18.628
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	
TEMP	18.870	19.108	19.354	19.601	19.842	20.090	20.335	20.583	20.829	21.078	21.323	

CONDUCTIVITY AND DENSITY

DEPTH	94.50	97.60	122.00	128.10	131.10	134.20	143.30	152.50	156.10	158.50	161.00	164.60	167.70	170.70	176.80
COND	5.5	5.4	5.3	5.3	5.4	5.3	4.8	4.6	5.3	4.8	4.9	4.9	7.8	4.4	4.5
DENS	2.53	2.53	2.58	2.60	2.59	2.62	2.60	2.63	2.64	2.63	2.66	2.63	2.53	2.54	2.68
DEPTH	179.90	182.90	186.00	192.10	195.10	198.20	201.20	204.30	207.30	210.40	213.40	216.50	219.50	228.70	231.70
COND	4.7	4.9	5.0	4.5	4.5	4.7	4.6	4.5	5.0	4.6	4.6	4.6	4.7	4.7	4.9
DENS	2.62	2.64	2.61	2.66	2.64	2.63	2.63	2.63	2.63	2.61	2.65	2.60	2.61	2.58	2.68
DEPTH	234.80	237.80	240.90	243.90	247.00	253.10	256.10	262.20	265.30	268.30	274.40	277.50			
COND	5.0	4.7	6.0	4.8	5.8	5.7	5.7	4.7	4.7	5.8	4.7	5.0			
DENS	2.63	2.69	2.59	2.68	2.59	2.53	2.62	2.65	2.63	2.54	2.62	2.67			

TERRAIN DATA

RADIUS	0	125	220	374	568	753	1135	1502	1905	2856	3814	7454	9887	14896
ELEV	1880	1874	1878	1895	1868	1850	1825	1824	1823	1821	1822	1816	1844	1866
RADIUS	25002													
ELEV	1905													

COMMENTS: METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	CLIFFE	DDH-1	33 03	108 30	1540	360- 395	8	6.25	44.5	2.78	2.56
								ERROR	.05	.3	.04	

COMPLETED ON OR BEFORE: 1966 MEASURED: 3/3/67

REFERENCE: ROY ET AL.(1968A)

GEOLOGY: TERTIARY(?) VOLCANICS.

TEMPERATURE

DEPTH	160.00	180.00	200.00	220.00	240.00	260.00	280.00	290.00	300.00	310.00	320.00	330.00
TEMP	28.217	29.845	31.557	33.207	35.034	36.960	39.011	39.996	40.773	41.596	42.818	43.444
DEPTH	340.00	350.00	360.00	365.00	370.00	375.00	380.00	385.00	390.00	395.00		
TEMP	44.222	44.874	45.403	45.640	45.873	46.097	46.317	46.531	46.749	46.955		

CONDUCTIVITY AND DENSITY

DEPTH	137.77	152.40	219.46	329.18	344.42	354.18	366.37	369.42	384.66
COND	7.52	6.36	6.27	6.16	6.24	5.96	6.59	6.24	6.24
DENS	2.56	2.53	2.61	2.52	2.51	2.52	2.49	2.51	2.49

TERRAIN DATA

RADIUS	0	199	399	625	937	1250	1561	1875	2187	2500	3125	3750	4375	5000
ELEV	1540	1559	1582	1596	1601	1607	1597	1581	1594	1615	1635	1668	1655	1688
RADIUS	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000	60000
ELEV	1701	1701	1716	1733	1771	1791	1840	1863	1922	1985	2014	1989	1972	1919
RADIUS	70000	80000	90000	100000	110000	120000	130000	140000						
ELEV	1866	1777	1769	1730	1724	1750	1757	1776						

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	CORNUDAS	DDH-1	32 01	105 29	1410	320- 370	33	9.56	22.0	2.04	2.02
								ERROR	.39	.5	.04	

COMPLETED ON OR BEFORE: 9/1/67 MEASURED: 10/26/67

REFERENCE

GEOLOGY: DOLOMITIC LIMESTONE WITH A FEW THIN LAYERS OF SHALE. ONE RHYOLITE PORPHYRY SILL.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	19.430	19.640	19.910	20.180	20.550	20.910	21.300	21.820	22.340	22.740	23.320	23.760
DEPTH	260.00	280.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00		
TEMP	24.120	24.450	24.810	25.030	25.350	25.560	25.820	26.040	26.250	26.430		

CONDUCTIVITY AND DENSITY

DEPTH	315.47	316.99	318.52	320.04	321.56	323.09	324.61	326.14	327.66	329.18	330.71	332.23	333.76	335.28	336.50
COND	8.95	7.80	9.59	10.5	11.2	11.0	12.2	10.3	9.72	9.08	9.85	10.2	11.2	7.63	10.1
DENS	2.68	2.59	2.67	2.71	2.77	2.78	2.68	2.69	2.75	2.75	2.64		2.74	2.64	
DEPTH	338.33	339.85	341.38	342.90	344.42	345.95	347.47	349.00	350.52	352.04	353.57	355.09	356.62	358.14	359.66
COND	11.2	10.8	12.0	11.5	12.5	5.85	5.76	6.07	6.75	10.3	9.31	11.1	10.1	11.2	12.4
DENS	2.74	2.56		2.78	2.79	2.35	2.31	2.25	2.55	2.73	2.68	2.79	2.68	2.73	2.79
DEPTH	361.34	362.71	363.93	365.76	367.28	368.81	370.33								
COND	8.43	11.4	9.66	10.4	10.2	2.06	9.30								
DENS	2.32	2.79	2.63	2.71	2.73	2.20	2.68								

TERRAIN DATA

RADIUS	0	1599	2500	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000
ELEV	1410	1436	1460	1515	1483	1456	1447	1442	1434	1426	1424	1399	1375	1361
RADIUS	30000	35000												
ELEV	1355	1372												

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	COLO. PLAT	GALLUP	DDH-1	35 39	108 31	2169	500- 570	8	7.04	22.81	1.61	1.61
								ERROR	.73	.09	.17	

COMPLETED CN OR BEFORE: 1/67 MEASURED: 9/19/67

REFERENCE

GEOLOGY: FRIABLE SANDSTONE, ONE THIN LAYER OF SHALE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	11.268	11.529	11.717	11.994	12.297	12.584	12.840	13.136	13.531	13.959	14.381	14.866
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	15.380	15.668	15.891	16.269	16.569	16.842	17.324	17.644	18.087	18.482	18.732	18.957
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	19.269	19.721	20.328	20.804	21.485	22.004	22.521	23.110	23.676	24.233	24.788	25.383
DEPTH	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00
TEMP	25.970	26.455	26.960	27.416	27.711	27.922	28.263	28.611	28.961	29.293	29.654	29.966
DEPTH	490.00	500.00	510.00	520.00	530.00	540.00	550.00	560.00	570.00			
TEMP	30.237	30.491	30.715	30.940	31.183	31.413	31.636	31.857	32.081			

CONDUCTIVITY AND DENSITY

DEPTH	498.35	505.97	518.77	520.90	522.28	555.96
COND	9.02	8.96	8.78	8.16	6.90	7.89
DENS	2.49	2.14	2.45			

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	2169	2173	2180	2183	2182	2182	2184	2193	2201	2203	2188	2187	2187	2189
RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	2183	2163	2147	2138	2136	2136	2125	2098	2066	2036	2049	2075	2111	2140
RADIUS	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000				
ELEV	2123	2126	2120	2096	2064	2055	2020	1961	1917	1933				

COMMENTS: SAMPLES FROM SAME UNITS IN A DRILL HOLE LESS THAN 5000 FEET DISTANT. CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	HACHITA	AZ-1	31 51	108 18	1430	140- 380	11	6.99	30.69	2.15	2.09
								ERROR	.12	.06	.04	

COMPLETED ON OR BEFORE: FALL 66 MEASURED: 3/4/67

REFERENCE: ROY ET AL. (1968A), STRONGIN (1957)

GEOLOGY: TERTIARY(?) RHYOLITE PORPHYRY.

TEMPERATURE

DEPTH	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	290.00	300.00	310.00	320.00
TEMP	23.277	23.858	24.443	25.083	25.710	26.304	26.879	27.532	27.837	28.169	28.453	28.753
DEPTH	330.00	340.00	350.00	360.00	370.00	380.00						
TEMP	29.059	29.367	39.677	29.995	30.317	30.634						

CONDUCTIVITY AND DENSITY

DEPTH	111.25	174.04	174.96	198.43	199.34	245.67	246.58	295.96	296.88	335.59	336.50
COND	6.48	7.15	6.59	7.16	6.64	7.26	7.74	6.50	7.02	7.36	7.21
DENS	2.48	2.52	2.53	2.63	2.60	2.60	2.60	2.66	2.63	2.65	2.69

TERRAIN DATA

RADIUS	0	199	299	500	625	937	1250	1561	1875	2187	2500	3125	3750	4375
ELEV	1430	1443	1445	1445	1445	1444	1445	1445	1446	1449	1456	1462	1462	1456
RADIUS	5000	6250	7500	8750										
ELEV	1439	1430	1420	1414										

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	HACHITA	DDH-1	31 51	108 18	1450	160- 210	22	8.33	32.2	2.7	2.7
								ERROR	.56	.2	.2	

COMPLETED ON OR BEFORE: 6/20/60 MEASURED: 11/28/64

REFERENCE: ROY ET AL. (1968A), DECKER(1966,1969), STRONGIN (1957)

GEOLOGY: HIGHLY VARIABLE METAMORPHOSED CRETACEOUS SEDIMENTS.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	20.120	20.560	20.850	21.080	21.310	21.620	21.930	22.240	22.490	22.730	23.060	23.340
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00			
TEMP	23.670	23.960	24.270	24.630	25.000	25.330	25.660	25.960	26.240			

CONDUCTIVITY AND DENSITY

DEPTH	166.20	175.40	176.20	177.50	179.10	180.70	183.20	183.50	184.50	185.30	186.00	190.90	192.30	193.60	194.80
COND	8.3	6.9	7.5	8.4	5.6	8.9	10.4	11.2	10.7	5.4	12.0	8.4	8.6	11.0	10.9
DENS	2.64	2.64	2.66	2.64	2.61	2.63	2.84	2.61	2.63	2.59	2.58	2.59	2.63	2.62	2.66
DEPTH	195.70	196.70	201.50	202.70	203.60	203.90	209.30								
COND	5.3	6.1	11.8	13.4	12.0	13.2	5.1								
DENS	2.49	2.58	2.65	2.61	2.64	2.59	2.35								

TERRAIN DATA

RADIUS	0	125	220	374	568	753	1135	1502	1905	2856	3550	4740	7454	9887
ELEV	1450	1459	1470	1467	1462	1463	1448	1433	1422	1411	1423	1432	1447	1463

COMMENTS: METHOD GR. SEE DECKER (1969) FOR BRIEF DISCUSSION OF RELIABILITY OF HEAT FLOW DETERMINATION.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	HACHITA	DDH-H1	31 51	108 18	1443	120- 280	11	6.99	33.5	2.34	2.32
								ERROR	.12	.3	.	

COMPLETED ON OR BEFORE: FALL 66 MEASURED: 3/4/67

REFERENCE: STRONGIN (1957)

GEOLOGY: TERTIARY(?) RHYOLITE PORPHYRY.

TEMPERATURE

DEPTH	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00
TEMP	22.750	23.030	23.403	23.702	24.061	24.381	24.717	25.017	25.354	25.693	26.010	26.316
DEPTH	240.00	250.00	260.00	270.00	280.00							
TEMP	26.673	26.983	27.268	27.841	28.205							

CONDUCTIVITY AND DENSITY

DEPTH	111.25	174.04	174.96	198.43	199.34	245.67	246.58	295.96	296.88	335.59	336.50
COND	6.48	7.15	6.59	7.16	6.64	7.26	7.74	6.50	7.02	7.36	7.21
DENS	2.48	2.52	2.53	2.63	2.60	2.60	2.60	2.66	2.63	2.65	2.69

TERRAIN DATA

RADIUS	0	199	299	500	625	937	1250	1561	1875	2187	2500	3125	3750	4375
ELEV	1443	1443	1445	1445	1445	1444	1445	1445	1446	1449	1456	1462	1462	1456
RADIUS	5000	6250	7500	8750										
ELEV	1439	1430	1420	1414										

COMMENTS: CORE NOT AVAILABLE FOR THIS DRILL HOLE. CONDUCTIVITIES AND DENSITIES LISTED ARE THOSE OBTAINED FOR DDH-AZ-1, HACHITA (SEE ABOVE AND ROY ET AL.(1968A)) ABOUT 5000 FEET DISTANT IN SAME UNITS. METHOD GR. CASED WITH 1 1/4 INCH PIPE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	LAKE VALLEY	DDH-1	32 43	107 35	1695	120- 365	57	6.25	41.1	2.58	2.59
								ERROR	.20	.3	.10	

COMPLETED ON OR BEFORE: 10/1/67 MEASURED: 11/14/67

REFERENCE

GEOLOGY: 0-240 METERS, RHYOLITE. 240-284 METERS, SILICIFIED LIMESTONES. 284-305 METERS, RHYOLITE. 305-365 METERS, HIGHLY SILICIFIED LIMESTONES WITH A FEW THIN LAYERS OF SHALE.

TEMPERATURE

DEPTH	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00
TEMP	23.345	23.801	24.271	24.730	25.177	25.615	26.057	26.488	26.911	27.337	27.767	28.189
DEPTH	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00
TEMP	28.631	28.995	29.419	29.829	30.230	30.561	30.984	31.398	31.834	32.169	32.492	32.875
DEPTH	360.00	365.00										
TEMP	33.256	33.444										

CONDUCTIVITY AND DENSITY

DEPTH	103.33	113.08	117.96	122.83	127.71	137.47	142.34	147.22	152.10	154.53	156.97	161.85	164.29	166.73	174.04
COND	6.33	5.58	5.80	5.34	4.93	7.04	6.23	5.04	5.14	5.36	4.86	6.24	4.41	5.09	5.54
DENS	2.46		2.35	2.34		2.96	2.48		2.22	2.26	2.29	2.36	2.33	2.30	2.45
DEPTH	176.48	183.79	186.23	188.67	191.11	193.55	207.26	213.36	216.41	222.50	225.55	228.60	234.70	241.10	243.84
COND	4.49	4.87	5.49	5.07	4.82	4.20	5.72	4.42	5.75	6.03	5.32	4.82	4.31	5.58	6.07
DENS		2.33		2.34	2.34			2.24	2.34	2.28	2.33	2.38		2.66	2.54
DEPTH	249.94	252.98	256.03	259.08	262.13	265.18	268.22	271.27	274.32	277.37	280.42	283.46	284.99	286.51	289.56
COND	7.58	7.41	7.61	5.55	6.31	6.37	6.60	6.79	6.36	7.54	6.46	6.47	4.92	5.28	5.91
DENS			2.57	2.58	2.57	2.64	2.65	2.61	2.65	2.60	2.58	2.56			2.66
DEPTH	292.61	295.66	298.70	301.75	304.80	316.99	320.04	323.09	326.14	329.18	332.23	335.28	338.33	341.38	344.42
COND	5.49	5.41	5.59	5.34	4.45	3.11	6.34	9.19	8.45	10.4	10.9	12.9	11.1	14.2	8.08
DENS	2.62			2.67	2.64		2.37	2.44	2.49	2.58	2.71	2.59	2.76	2.45	2.64
DEPTH	347.47	350.52	353.57	356.62	359.66	362.71	365.76								
COND	9.62	10.0	8.43	7.41	6.48	8.75	7.43								
DENS	2.71	2.72	2.62	2.70		2.54	2.65								

TERRAIN DATA

RADIUS	0	253	523	777	1047	1301	1952	2603	3254	3905	4556	5207	6509	7811
ELEV	1695	1712	1721	1733	1751	1739	1707	1685	1681	1661	1649	1652	1651	1641
RADIUS	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000	60000	70000	80000
ELEV	1635	1653	1660	1663	1665	1635	1641	1613	1612	1628	1667	1605	1605	1610
RADIUS	90000	100000												
ELEV	1641	1670												

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD I.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	LORDSBURG	DDH-4	32 20	108 47	1357	130- 200	6	5.10	33.8	1.72	1.78
								ERROR	.09	.2	.04	

COMPLETED ON OR BEFORE: SPRING66 MEASURED: 11/16/67

REFERENCE

GEOLOGY: INTRUSIVE ANDESITIC AND BASALTIC BRECCIA.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	20.972	21.330	21.705	22.142	22.623	22.856	23.149	23.431	23.771	24.093	24.422	24.769
DEPTH	180.00	190.00	200.00									
TEMP	25.126	25.469	25.783									

CONDUCTIVITY AND DENSITY

DEPTH	105.16	114.76	124.05	135.03	145.39	154.23	165.81	174.96	185.93	194.77	205.74
COND	5.99	6.44	4.56	5.30	5.33	4.93	4.95	4.82	5.31	7.98	8.19
DENS	2.43	2.38			2.70	2.37	2.76	2.73			2.43

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	1357	1353	1346	1340	1338	1335	1332	1334	1336	1338	1339	1338	1337	1338
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	1327	1317	1310	1305	1305	1317	1321	1327	1329	1377	1424	1392	1377	1405
RADIUS	60000	70000	80000											
ELEV	1445	1516	1555											

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR. HIGH CONDUCTIVITIES AT 194.8 AND 205.8 METERS NOT USED IN FLUX CALCULATIONS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	LORDSBURG	DDH-5	32 20	108 47	1343	140- 245	10	4.48	37.6	1.69	1.68
								ERROR	.10	.1	.05	

COMPLETED ON OR BEFORE: SPRING66 MEASURED: 11/16/67

REFERENCE: ROY ET AL.(1968A)

GEOLOGY: INTRUSIVE ANDESITIC BRECCIA.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	20.593	21.037	21.521	22.103	22.746	23.083	23.429	23.783	24.132	24.492	24.851	25.215
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	245.00				
TEMP	25.581	25.958	26.343	26.741	27.125	27.492	27.867	28.055				

CONDUCTIVITY AND DENSITY

DEPTH	104.85	114.91	124.66	134.72	145.09	154.84	162.46	174.96	184.71	195.07	204.52	215.19	224.03	234.70	244.75
COND	4.04	4.29	4.04	4.59	4.30	3.98	5.72	4.61	4.08	4.24	4.58	4.67	4.68	4.97	4.93
DENS	2.70	2.60	2.72	2.62		2.55	2.50	2.74	2.52	2.75	2.51	2.85	2.72	2.90	2.88

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	1343	1344	1347	1343	1343	1345	1349	1352	1350	1353	1352	1349	1346	1350
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	1336	1318	1309	1304	1310	1317	1321	1327	1329	1377	1424	1392	1377	1405
RADIUS	60000	70000	80000											
ELEV	1445	1516	1555											

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR. INCORRECT ELEVATION OF 1357 METERS REPORTED BY ROY ET AL.(1968A).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	ORGAN	DDH-1	32 27	106 36	1558	40- 190	32	9.54	29.1	2.78	2.76
								ERROR	.28	.2	.10	

COMPLETED ON OR BEFORE: 11/12/67 MEASURED: 8/14/68

REFERENCE

GEOLOGY: ALTERED LATE CRETACEOUS(?) OR EARLY TERTIARY(?) QUARTZ MONZANITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	20.409	20.931	21.465	21.735	22.004	22.278	22.564	22.837	23.111	23.434	23.753	24.060
DEPTH	160.00	170.00	180.00	190.00								
TEMP	24.398	24.696	24.944	25.201								

CONDUCTIVITY AND DENSITY

DEPTH	31.09	37.49	46.63	49.68	65.53	67.97	71.32	74.37	76.81	79.86	86.26	89.49	89.82	92.96	95.55
COND	10.16	11.25	8.75	7.29	9.71	9.65	8.86	8.92	8.71	8.84	10.3	9.93	10.12	9.08	11.5
DENS	2.60	2.62		2.37	2.58	2.61	2.47	2.54	2.51	2.52	2.57	2.67	2.68	2.63	2.57
DEPTH	104.85	105.40	111.25	112.17	115.21	116.43	127.10	131.37	133.50	145.69	145.94	150.57	161.54	167.95	177.39
COND	12.0	12.3	12.4	9.88	9.82	9.28	7.05	7.21	7.11	8.56	8.40	8.24	10.7	3.14	11.8
DENS	2.58	2.49	2.56	2.40	2.40		2.68		2.59	2.55	2.51	2.65	2.63	2.30	2.73
DEPTH	184.10	186.84	190.20	193.24	195.68										
COND	11.4	10.2	12.2	11.7	11.9										
DENS	2.62	2.68	2.72	2.73											

TERRAIN DATA

RADIUS	0	299	625	939	1250	1559	1875	2189	2500	3125	3750	4375	5000	6250
ELEV	1558	1558	1558	1559	1536	1560	1571	1598	1598	1622	1628	1608	1603	1578
RADIUS	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000				
ELEV	1550	1539	1514	1512	1523	1466	1414	1345	1310	1299				

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR. CONDUCTIVITY OF SAMPLE FROM 168 METERS NOT USED IN HEAT FLOW CALCULATIONS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	OROGRANDE	DDH-5	32 24	108 07	1366	300- 360	40	7.25	22.8	2.95	3.08
								ERROR	.23	.4	.06	

COMPLETED ON OR BEFORE: 11/9/67 MEASURED: 8/14/68

REFERENCE

GEOLOGY: TERTIARY(?) QUARTZ MONZONITE AND MAGNITITE RICH LIMESTONE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	24.300	22.800	23.500	24.300	26.000	26.300	27.310	28.270	29.240	30.180	31.110	32.010
DEPTH	260.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00		
TEMP	32.900	33.760	34.170	34.600	35.020	35.450	35.830	36.210	36.600	36.980		

CONDUCTIVITY AND DENSITY

DEPTH	301.75	303.28	304.80	306.63	307.54	309.37	310.90	312.42	313.79	315.77	316.84	316.99	318.52	320.04	323.09
COND	6.65	5.76	6.26	5.81	5.84	6.36	6.02	5.77	5.80	5.76	5.78	6.29	7.18	6.15	9.19
DENS	2.65	2.60	2.61	2.64	2.64	2.61	2.62	2.63	2.62	2.64	2.61	2.62	2.61		3.06
DEPTH	324.61	326.14	327.66	329.49	330.71	330.86	332.23	334.98	336.80	338.63	339.85	341.38	342.90	344.42	345.95
COND	9.90	10.4	8.02	6.73	6.47	7.37	6.52	7.28	6.94	6.52	7.17	6.75	8.05	7.26	8.99
DENS	3.77	3.99	3.04	2.71	2.64	2.73	2.63	2.76	2.68	2.67	2.68	2.64	3.22	2.80	2.80
DEPTH	347.47	349.00	350.52	352.65	353.57	355.09	356.62	358.14	359.66	361.19					
COND	10.3	9.57	11.03	8.03	8.86	8.81	9.97	10.2	11.8	8.52					
DENS	2.64	3.39	3.13	3.28	3.07	3.16	3.86	2.95	3.12	3.27					

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	1366	1365	1372	1378	1381	1374	1365	1354	1352	1349	1343	1339	1333	1322
RADIUS	3750	4375	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000
ELEV	1317	1307	1289	1274	1259	1254	1252	1252	1252	1260	1268	1294	1318	1342

COMMENTS: NO CORE FROM 0-360 METER INTERVAL. CASED WITH 1 1/4 INCH PIPE. METHOD RI.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	ROCKY MTS	QUESTA	DDH-R120	36 42	105 31	2770	190- 240	14	7.30	23.11	1.69	1.53
								ERROR	.08	.05	.02	

COMPLETED ON OR BEFORE: 10/10/64 MEASURED: 12/14/64

REFERENCE: ROY ET AL. (1968A), DECKER (1966,1969), SCHILLING (1956)

GEOLOGY: 0-190 METERS, VOLCANICS. 190-240 METERS, TERTIARY(?) GRANITE.

TEMPERATURE

DEPTH	10.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	170.00	180.00	190.00
TEMP	7.900	7.800	8.200	8.530	8.850	9.190	9.720	10.250	10.760	11.010	11.290	11.530

DEPTH	200.00	210.00	220.00	230.00	240.00
TEMP	11.760	11.990	12.210	12.450	12.690

CONDUCTIVITY AND DENSITY

DEPTH	193.70	199.30	206.10	207.50	213.40	216.80	217.70	219.80	223.20	225.50	226.60	228.70	230.20	232.60
COND	7.6	7.4	6.7	7.6	7.2	7.0	7.4	7.8	7.3	7.1	7.4	7.5	7.0	7.4
DENS	2.47	2.50	2.43	2.47	2.46	2.50	2.50	2.51	2.42	2.45	2.50	2.51	2.42	2.45

TERRAIN DATA

RADIUS	0	156	315	465	705	936	1667	2459	3727	4943	7448	9855	14896
ELEV	2770	2770	2795	2854	2897	2902	2893	2774	2673	2823	2937	2966	3002

COMMENTS: NC CORE FROM 0-190 METER INTERVAL. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	ROCKY MTS	RED RIVER	DDH-1	36 43	105 24	2695	280- 580	42	6.80	29.7	2.02	1.90
								ERROR	.10	.3	.05	

COMPLETED ON OR BEFORE: 1/67 MEASURED: 11/19/67

REFERENCE

GEOLOGY: TERTIARY(?) GRANITE.

TEMPERATURE

DEPTH	50.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00
TEMP	9.300	10.118	10.363	10.647	10.952	11.315	11.627	11.952	12.285	12.613	12.965	13.332
DEPTH	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00
TEMP	13.711	14.083	14.463	14.865	15.261	15.661	16.079	16.517	16.900	17.304	17.736	18.150
DEPTH	560.00	580.00										
TEMP	18.585	19.030										

CONDUCTIVITY AND DENSITY

DEPTH	105.16	110.34	115.82	125.58	129.85	135.33	145.09	148.44	154.53	164.59	169.47	175.26	185.01	191.11	195.99
COND	7.07	6.12	6.40	7.01	6.71	6.70	7.15	8.34	7.05	6.71	6.36	6.90	7.30	6.80	7.11
DENS	2.57	2.41	2.69	2.64	2.60	2.65	2.59	2.64	2.64	2.63	2.68	2.58	2.60	2.64	2.60
DEPTH	204.83	210.01	214.88	225.55	228.60	235.61	239.57	244.75	250.55	255.12	264.87	274.93	286.21	289.87	295.66
COND	6.64	6.39	7.31	7.04	9.78	6.98	6.76	8.99	6.04	7.58	6.30	7.94	7.08	6.78	6.65
DENS	2.68	2.68	2.56	2.66	2.58	2.58	2.58	2.66	2.54	2.46	2.48	2.59	2.56	2.57	2.59
DEPTH	301.14	306.63	309.98	314.86	325.53	334.98	344.73	348.39	355.40	364.54	369.11	375.82	385.27	389.53	394.72
COND	7.44	6.37	6.62	6.53	7.25	6.05	6.69	6.56	6.76	6.50	7.41	6.64	6.49	9.16	6.94
DENS	2.62	2.60	2.57	2.59	2.63	2.67	2.53	2.59	2.56	2.56	2.62	2.55	2.55	2.74	2.58
DEPTH	404.78	409.96	414.83	423.98	429.46	434.65	445.01	454.76	466.65	470.31	484.63	489.81	494.39	505.05	509.32
COND	6.31	6.77	8.23	6.80	6.42	5.90	6.17	6.94	6.48	8.26	8.54	6.48	6.72	6.76	6.86
DENS	2.61	2.99	2.55	2.66	2.65	2.62	2.62	2.63	2.60	2.59	3.00	2.61	2.59	2.64	2.62
DEPTH	515.11	522.73	527.30	528.22	545.59	548.64	558.70	569.98	574.55						
COND	7.12	6.47	8.74	6.36	6.35	6.51	7.35	6.04	6.16						
DENS	2.33	2.64	2.55	2.60	2.66	2.63	2.60	2.62	2.63						

TERRAIN DATA

RADIUS	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000	3750
ELEV	2718	2728	2739	2731	2739	2762	2804	2827	2827	2852	2877	2901	2933	2958
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	3031	3076	3082	3155	3107	3049	3034	3034	2957	2776	2621	2560	2524	2535
RADIUS	60000	70000	80000	90000	100000	110000	120000	130000	140000	99	199	299	399	500
ELEV	2509	2431	2414	2405	2345	2277	2256	2264	2218	2737	2732	2724	2724	2721

RADIUS	750	1000	1250	1500	1750	2000	2500	3000	3750	5000	6250	7500	8750	10000
ELEV	2748	2799	2836	2826	2846	2875	2901	2933	2958	3031	3076	3082	3155	3107
RADIUS	12500	15000	17500	20000	25000	30000	35000	40000	50000	60000	70000	80000	90000	100000
ELEV	3049	3034	3034	2957	2776	2621	2560	2524	2535	2509	2431	2414	2405	2345
RADIUS	110000	120000	130000	140000	99	199	299	399	500	750	1000	1250	1500	1750
ELEV	2277	2256	2264	2218	2740	2722	2711	2705	2711	2738	2783	2820	2827	2844
RADIUS	2000	2500	3000	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000
ELEV	2865	2901	2933	2958	3031	3076	3082	3155	3107	3049	3034	3034	2957	2776
RADIUS	30000	35000	40000	50000	60000	70000	80000	90000	100000	110000	120000	130000	140000	
ELEV	2621	2560	2524	2535	2509	2431	2414	2405	2345	2277	2256	2264	2218	

COMMENTS: CASING AT COLLAR. ANGLE HOLE - 51DEG 0 TO 320 METERS,55DEG 320 TO 580 METERS. METHOD GR. DETAILED TERRAIN CORRECTIONS MADE FOR TWO POINTS (1,3) NEAR ENDS OF HOLE AND ONE POINT (2) IN CENTER. RADII AND ELEVATIONS IN TERRAIN DATA ARE IN 1,2,3 ORDER.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	SANTA RITA	DDH-1	32 48	108 04		225- 280	28	7.25	22.7	1.64	1.80
								ERROR	.06	.2	.03	

COMPLETED ON OR BEFORE: 1956 MEASURED: 12/6/64

REFERENCE: ROY ET AL.(1968A), DECKER(1966,1969), ORDONNEZ ET AL.(1955)

GEOLOGY: PALEOZOIC LIMESTONE WITH TWO THIN CRETACEOUS(?) QUARTZ DIORITE SILLS. LOCAL DIP ABOUT 10DEG.

TEMPERATURE

DEPTH	10.00	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00
TEMP	10.800	13.800	15.200	15.600	16.220	16.250	16.360	16.500	16.660	16.780	16.900	17.040
DEPTH	170.00	180.00	190.00	200.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00
TEMP	17.230	17.380	17.570	17.720	18.130	18.210	18.420	18.570	18.700	18.810	18.910	19.030
DEPTH	250.00	255.00	260.00	265.00	270.00	275.00	280.00					
TEMP	19.140	19.240	19.380	19.490	19.600	19.710	19.820					

CONDUCTIVITY AND DENSITY

DEPTH	225.90	229.00	230.20	231.70	233.60	236.30	238.10	239.70	242.10	243.80	246.10	247.30	248.80	251.10	252.80
COND	6.9	7.0	7.4	7.5	7.2	7.4	6.8	7.2	7.0	6.8	7.4	6.7	6.4	7.3	7.3
DENS	2.71	2.72	2.70	2.70	2.71	2.71	2.72	2.71	2.72	2.72	2.70	2.64	2.66	2.70	2.72
DEPTH	254.20	256.10	259.50	261.30	263.70	267.10	268.30	270.10	271.20	273.20	274.40	276.20	277.50		
COND	7.5	7.2	7.4	7.3	7.7	7.7	7.3	7.3	7.3	7.5	7.3	7.8	7.7		
DENS	2.71	2.72	2.69	2.68	2.70	2.66	2.70	2.69	2.67	2.74	2.72	2.74	2.77		

TERRAIN DATA

RADIUS	156	315	465	705	936	1410	1866	2367	3550	4740	7454	9887	14896
ELEV	2162	2153	2132	2108	2091	2079	2051	2052	2050	2046	2039	1986	1975

COMMENTS: GRADIENT VERY IRREGULAR ABOVE 220 METERS. UNSTABLE MEASUREMENT OF TEMPERATURE AT 220 METERS. METHOD GR. COLLAR ELEVATION AND EXACT HOLE NUMBERS NOT GIVEN AT REQUEST OF MINING COMPANY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	SANTA RITA	DDH-2	32 48	108 04		180- 240	25	3.80	48.1	2.00	2.00
								ERROR	.17		.02	

COMPLETED ON OR BEFORE: 1963 MEASURED: 12/5/64

REFERENCE: ROY ET AL.(1968A), DECKER(1966,1969), ORDONNEZ ET AL.(1955)

GEOLOGY: PALEOZOIC LIMESTONE AND SHALE. LOCAL DIP ABOUT 10DEG.

TEMPERATURE

DEPTH	10.00	50.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00
TEMP	12.500	13.200	14.050	14.100	14.600	15.160	15.350	15.510	15.800	16.050	16.320	16.660
DEPTH	200.00	210.00	220.00	230.00	240.00							
TEMP	17.080	17.540	18.050	18.610	19.190							

CONDUCTIVITY AND DENSITY

DEPTH	182.00	183.00	187.00	191.00	193.00	198.00	202.00	205.00	208.00	211.00	212.00	214.00	216.00	217.00	217.00
COND	5.8	5.4	5.1	5.0	5.2	3.3	3.6	3.7	5.0	4.0	3.3	5.3	3.2	3.8	5.6
DENS	2.68	2.70	2.69	2.70	2.65	2.70	2.70	2.72	2.71	2.71	2.69	2.71	2.69	2.71	2.71
DEPTH	217.00	219.00	223.00	225.00	226.00	226.00	232.00	233.00	236.00	237.00					
COND	3.6	3.6	3.1	3.7	3.7	3.5	3.0	2.8	3.3	2.6					
DENS	2.71	2.72		2.71	2.72		2.64	2.70	2.69						

TERRAIN DATA

RADIUS	156	315	465	705	936	1410	1866	2367	3550	4740	7454	9887	14896
ELEV	2092	2096	2108	2114	2121	2079	2101	2088	2060	2017	2011	1993	1975

COMMENTS: METHOD RI. COLLAR ELEVATION AND EXACT HOLE NUMBER NOT GIVEN AT REQUEST OF MINING COMPANY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	SANTA RITA	DDH-1977	32 48	108 04	1924	100- 300	39	6.59	25.01	1.65	1.58
								ERROR	.11	.05	.03	

COMPLETED ON OR BEFORE: 9/30/67 MEASURED: 11/15/67

REFERENCE

GEOLOGY: LATE CRETACEOUS(?) GRANODIORITE.

TEMPERATURE

DEPTH	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00
TEMP	18.025	18.261	18.498	18.732	18.983	19.230	19.483	19.738	19.994	20.255	20.503	20.770
DEPTH	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00			
TEMP	21.010	21.255	21.510	21.769	22.007	22.259	22.490	22.738	22.985			

CONDUCTIVITY AND DENSITY

DEPTH	103.02	106.68	113.39	116.28	123.75	126.80	133.81	136.55	143.56	146.61	152.71	156.67	163.68	167.03	173.43
COND	7.18	7.20	5.87	8.28	6.91	6.67	7.32	6.16	6.13	7.35	6.02	6.62	5.28	8.10	5.96
DENS	2.54	2.51	2.43	2.55	2.45		2.48	2.44	2.49	2.54	2.44	2.54		2.56	2.52
DEPTH	176.78	183.49	186.84	193.24	196.60	203.30	206.65	213.06	216.71	223.42	226.47	232.87	236.22	242.93	253.29
COND	6.31	7.75	6.23	5.61	6.14	6.99	6.39	5.95	6.07	6.44	6.42	6.14	7.50	6.02	7.88
DENS	2.52	2.46	2.41	2.45	2.48	2.53	2.42	2.60	2.54	2.57	2.54	2.52	2.55	2.50	2.45
DEPTH	256.64	263.04	267.01	273.10	276.45	283.16	286.21	293.52	295.66						
COND	6.30	7.26	7.89	6.33	6.68	6.31	6.16	7.69	6.31						
DENS	2.42	2.46	2.50	2.39	2.48	2.62	2.60	2.59	2.60						

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3000
ELEV	1924	1919	1910	1889	1878	1880	1896	1941	1967	1988	2001	2010	2024	2015
RADIUS	3750	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000
ELEV	2015	2009	1990	1966	1941	1936	1919	1920	1941	1920	1911	1953	1946	1896
RADIUS	50000	60000	70000	80000	90000	100000	110000							
ELEV	1815	1697	1644	1640	1691	1637	1628							

COMMENTS: METHOD GR. SITE MINED OUT.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
N. M.	BASIN RGE	WHITE SIGNAL	DDH-10	32 32	108 21	1813	180- 205	9	10.95	17.1	2.03	2.06
								ERROR	.14		.02	

COMPLETED ON OR BEFORE: SPRING66 MEASURED: 2/26/67

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: QUARTZ RICH TERTIARY(?) RHYOLITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	18.063	18.544	19.071	19.306	19.412	19.531	19.626	19.702	19.780	19.861	19.977	20.116
DEPTH	180.00	190.00	200.00	205.00								
TEMP	20.269	20.443	20.629	20.729								

CONDUCTIVITY AND DENSITY

DEPTH	182.58	185.01	187.45	189.89	192.33	195.07	197.51	199.95	202.39
COND	11.2	11.9	11.2	11.2	10.5	10.6	10.8	10.7	10.5
DENS	2.62	2.67	2.60	2.61	2.51	2.53	2.52	2.51	2.57

TERRAIN DATA

RADIUS	0	99	199	299	399	500	750	1000	1250	1500	1750	2000	2500	3750
ELEV	1813	1810	1810	1813	1813	1816	1814	1809	1797	1781	1781	1782	1783	1789
RADIUS	5000	6250	7500	8750	10000	12500	15000	17500	20000	25000	30000	35000	40000	50000
ELEV	1791	1797	1801	1805	1805	1787	1751	1725	1707	1668	1607	1547	1523	1545
RADIUS	60000	70000	80000	90000										
ELEV	1560	1733	1625	1594										

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD RI. ROY ET AL.(1968A) REPORT THAT FLUX WAS CALCULATED OVER DEPTH-RANGE OF 170-205 METERS. HEAT FLOW OVER THIS INTERVAL IS 1.99 NOT 2.03.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
TEX.	BASIN RGE	SHAFTER	DDH-AM1	29 48	104 24	1250	620- 880	49	8.91	16.91	1.51	1.51
								ERROR	.21	.08	.04	

COMPLETED ON OR BEFORE: 1/67 MEASURED: 6/24/67

REFERENCE

GEOLOGY: ALTERED RHYOLITE, LATITE, AND FELSITE PORPHRY AT SURFACE. CONDUCTIVITY SAMPLES ARE MONZONITE PORPHRY. HOLE IN TERTIARY PLUG SURROUNDED BY SEDIMENTS THAT ARE PREDOMINANTLY LIMESTONES AND SILTSTONES.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	23.770	24.430	24.930	25.390	25.860	26.390	26.880	27.390	27.880	28.430	28.930	29.460
DEPTH	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00
TEMP	29.970	30.500	31.020	31.540	32.050	32.540	33.030	33.530	34.020	34.510	34.990	34.460
DEPTH	500.00	520.00	540.00	560.00	580.00	600.00	620.00	640.00	660.00	680.00	700.00	720.00
TEMP	35.930	36.410	36.860	37.320	37.750	38.170	38.580	38.960	39.340	39.710	40.060	40.380
DEPTH	740.00	760.00	780.00	790.00	800.00	810.00	820.00	830.00	840.00	850.00	860.00	870.00
TEMP	40.670	41.010	41.360	41.530	41.710	41.870	42.040	42.200	42.360	42.530	42.690	42.860
DEPTH	880.00											
TEMP	43.050											

CONDUCTIVITY AND DENSITY

DEPTH	124.97	129.97	134.97	139.96	144.96	149.96	154.96	159.96	164.96	169.96	174.96	179.95	184.95	204.95	209.95
COND	8.36	7.93	7.37	8.41	7.87	11.1	10.4	7.29	6.98	6.68	9.70	9.00	6.42	6.38	6.77
DENS	2.48	2.44	2.45		2.47	2.61	2.53	2.49	2.49	2.42	2.56	2.55	2.38		2.45
DEPTH	214.95	219.94	224.94	229.94	234.94	239.94	244.94	254.94	259.93	264.93	269.93	279.93	284.93	289.93	294.92
COND	8.16	9.51	8.44	6.73	7.06	7.14	10.7	9.82	9.44	6.68	7.18	9.33	7.34	10.0	6.96
DENS	2.57	2.45	2.50	2.50	2.64	2.51		2.54	2.54		2.51	2.52	2.51	2.58	2.49
DEPTH	299.92	304.92	309.92	314.92	319.92	324.92	329.92	334.91	339.91	349.91	354.91	359.91	364.91	369.91	374.90
COND	8.01	8.59	7.44	9.31	6.39	9.63	8.06	8.31	8.26	9.82	8.11	10.2	9.45	7.82	7.47
DENS	2.55	2.52	2.53	2.58	2.42	2.50	2.58	2.48	2.52		2.63	2.76	2.54	2.61	2.50
DEPTH	379.90	381.85	389.90	394.90	399.90	404.90	409.90	414.89	419.89	424.89	429.89	434.89	439.89	447.93	455.19
COND	9.07	7.62	7.53	8.44	8.71	6.61	7.52	7.47	6.84	7.61	9.53	6.92	8.39	9.31	7.58
DENS	2.60	2.58	2.54	2.55			2.56	2.60	2.55	2.53	2.58	2.50	2.56	2.58	2.54
DEPTH	463.24	464.88	469.88	474.88	479.88	484.88	489.88	494.87	499.87	504.87	506.82	514.87	519.87	524.87	529.87
COND	8.54	9.74	7.46	8.20	7.96	7.76	7.91	7.67	11.1	8.70	9.68	9.10	7.58	11.2	8.49
DENS	2.61		2.62		2.56	2.61	2.59		2.75	2.60	2.59			2.70	2.55

SHAFTER DDH-AM1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	534.86	549.86	554.86	559.86	564.86	569.85	574.85	579.85	584.85	589.85	594.85	599.85	604.85	609.84	619.84
COND	13.7	7.56	6.91	12.5	9.63	7.52	10.8	10.1	8.68	8.88	7.98	6.67	9.49	14.1	10.5
DENS		2.58	2.56	2.85		2.59	2.57	2.62	2.56	2.56	2.53	2.47	2.54	2.58	
DEPTH	624.84	629.84	639.84	644.84	649.83	654.83	659.83	664.83	674.89	679.83	684.83	689.82	694.82	699.82	704.82
COND	9.42	10.3	8.28	12.4	8.44	8.81	12.6	10.2	7.43	10.7	9.77	10.3	8.66	10.0	8.70
DENS	2.60	2.55	2.60	2.60		2.59	2.57		2.54			2.39	2.59	2.56	2.25
DEPTH	709.82	714.82	719.82	724.82	729.81	734.81	739.81	744.81	749.81	754.81	759.81	764.81	769.80	774.80	779.80
COND	12.4	8.83	9.63	7.06	8.99	9.09	10.9	11.0	8.05	11.1	9.06	8.59	11.5	9.34	8.54
DENS	2.58	2.56	2.56	2.54		2.55	2.64	2.68	2.51			2.54	2.65	2.57	
DEPTH	784.80	789.80	794.80	799.80	804.80	809.79	811.74	819.79	824.79	829.79	834.79	839.79	844.79	849.78	854.78
COND	7.06	9.48	8.76	9.25	10.3	11.1	12.2	8.84	6.79	8.18	7.24	6.99	7.07	7.08	7.60
DENS	2.55	2.66	2.68	2.69	2.55	2.56	2.58		2.63	2.65	2.63	2.62		2.63	
DEPTH	864.78	869.78	874.78	879.78											
COND	6.89	7.61	8.05	8.83											
DENS		2.66	2.56	2.54											

TERRAIN DATA

RADIUS	0	520	1041	1561	2082	2500	3125	3750	4375	5000	6250	7500	8750	10000
ELEV	1250	1238	1221	1225	1217	1204	1211	1222	1224	1264	1290	1273	1208	1163
RADIUS	12500	15000	17500											
ELEV	1157	1115	1153											

COMMENTS: CASED WITH 1 1/4 INCH PIPE. MOST RELIABLE HEAT FLOW IS CONSIDERED TO BE 1.5. METHOD GR.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT	W LONG	ELEV	DEPTH	N	COND	GRAD	HEAT FLOW	
				DEG MIN	DEG MIN	M	RANGE				UNC	CORR
TEX.	BASIN RGE	VAN HORN	DDH-B15	31 27	104 53	1319	330- 400	8	6.81	15.05	1.03	0.99
								ERROR	.13	.09	.02	

COMPLETED ON OR BEFORE: 12/66 MEASURED: 7/28/67

REFERENCE

GEOLOGY: MONZONITE PORPHYRY.

TEMPERATURE

DEPTH	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	19.336	19.432	19.521	19.640	19.778	19.919	20.069	20.216	20.377	20.680	20.783	20.924
DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00
TEMP	21.084	21.258	21.435	21.606	21.777	21.944	22.116	22.295	22.470	22.640	22.816	22.984
DEPTH	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00
TEMP	23.159	23.311	23.402	23.504	23.718	23.922	24.093	24.240	24.387	24.534	24.683	24.836
DEPTH	400.00											
TEMP	24.986											

CONDUCTIVITY AND DENSITY

DEPTH	59.44	99.06	113.84	123.75	133.66	143.56	153.47	163.37	173.28	183.19	193.09	203.00	212.90	222.81	232.72
COND	5.68	9.09	6.67	6.65	5.75	6.57	6.30	6.57	6.62	7.02	6.50	6.22	7.05	6.53	6.60
DENS															
DEPTH	242.62	262.43	272.34	282.25	292.15	302.06	311.96	321.87	331.78	341.68	351.59	361.49	371.40	381.31	391.21
COND	6.47	6.64	6.09	6.92	6.22	6.49	6.55	6.62	6.46	6.38	6.69	7.70	6.89	6.86	6.87
DENS															
DEPTH	401.12														
COND	6.81														
DENS															

TERRAIN DATA

RADIUS	0	6	15	22	34	46	69	92	117	177	250	524	778	1048
ELEV	1319	1318	1318	1319	1319	1321	1325	1329	1330	1326	1318	1308	1303	1306
RADIUS	1303	1561	1875	2187	2500	3125	3750	4375	5000	6250	7500	8750	10000	12500
ELEV	1322	1350	1378	1407	1420	1449	1460	1442	1434	1419	1387	1379	1384	1346
RADIUS	15000	17500	20000	25000	30000	35000								
ELEV	1329	1321	1344	1376	1409	1370								

COMMENTS: CASED WITH 1 1/4 INCH PIPE. METHOD GR.

INTRODUCTION

This report contains tabulations of temperatures, thermal conductivity, and heat-flow data for 19 sites (59 holes) in eastern United States and two sites in Puerto Rico. Analyses of the data have been published elsewhere or about to be published. Although the work has been conducted over the period 1961-1970, there has been little modification in technique, which in general is quite similar to that employed by others in the United States.

Temperature Measurements

Most of the measurements were made with a glass encapsuled bead thermistor sealed in a protective steel probe. A three lead (copper-clad steel) neoprene jacketed cable was used so that the resistance of the cable could be subtracted from the circuit. A 5-dial bridge and electronic null detector permitted measurements to a precision of 0.1 ohm (about 0.001 deg C). An absolute accuracy of about 0.02 deg C was achieved by calibration of the thermistor (while attached to the logging cable) against a platinum thermometer or a quartz thermometer which ultimately owe their calibration to the National Bureau of Standards. Temperatures were measured at discrete intervals, usually 7.6 meters. Cable stretch resulted in an uncertainty in depth of about 0.2 percent. Although many of the holes were logged more than once, to ascertain the drilling disturbance, only the last set of temperature measurements are reported here.

Conductivity Measurements

Thermal conductivity was measured using a modification of Birch's (1950) divided bar apparatus. Most samples (2.54 x 0.64 or 3.8 x 0.64 cm) were measured after vacuum saturation at a temperature of about 30 deg C and under axial pressures ranging from 20-100 bars. Corning Industrial grade 7940 fused silica glass was used as standard and Ratcliffe's (1959) values for silica glass were assigned. The apparatus was calibrated with quartz, glass, and calcite using Ratcliff's (1959) and Birch and Clark's (1940) values. The conductivities tabulated are not corrected for the difference in temperature between 30 deg C and the in situ temperature in the bore holes.

For certain holes we report estimated conductivities. Some of these are based on cores from adjacent holes and knowledge of local stratigraphy. Others are based on a study of the ratio of the thermal gradients in contrasting rock types and a knowledge of the stratigraphy. These conductivities may be in error by as much as 20 percent.

Corrections

Two or three-dimensional terrain corrections (Birch, 1950, 1954) were applied where topography was significant. Corrections for lakes (Lachenbruch, 1957) were

Corrections (Continued)

applied at several localities. The more complex corrections required at certain localities are discussed in those papers dealing with the individual sites..

Heat Flow

The heat flows tabulated were usually computed by averaging the heat flows over 30.5 meter intervals in the lower parts of the holes. The error reported is the standard deviation of an interval determination from the mean.

Acknowledgements

The program was initiated (1961-1965) under the auspices of the U. S. Geological Survey which continued its support through a generous equipment loan. The latter part of the program was supported by parts of NSF grants GA-947, GA-1539, GP-5225, GA-27547, and GJ-828. Those organizations who provided logistical support and permission to utilize holes and core samples and who were not previously acknowledged are: Bethlehem Steel Corporation, FMC Corporation, Hooker Chemical Company, International Salt Company, Morton Salt Company, New Jersey Zinc Company, New York State Atomic and Space Development Authority, New York State Power Authority, and St. Joseph Lead Company.

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STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.J.	APPALACH.	FRANKLIN	136	41 07	74 35	182	610-1036	53	7.12	12.92	0.92	0.91
								ERROR			0.13	0.10

COMPLETED ON OR BEFORE: 1950 MEASURED: 10/16/69 STATIC WATER LEVEL: 30.0

REFERENCE: URBAN (1970), DIMENT, UREAN & REVETTA (1971)

GEOLOGY: 0-1067 METERS FRANKLIN MARBLE

TEMPERATURE

DEPTH	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	121.90	152.40
TEMP	11.130	11.068	11.064	11.064	11.058	11.054	11.020	11.007	11.020	11.020	11.040	11.167
DEPTH	160.00	167.60	175.30	182.90	190.50	198.10	205.70	213.40	221.00	228.60	236.20	243.80
TEMP	11.241	11.293	11.334	11.403	11.507	11.564	11.604	11.639	11.731	11.785	11.889	11.950
DEPTH	251.50	259.10	266.70	274.30	281.90	289.60	297.20	304.80	312.40	320.00	327.70	335.30
TEMP	12.024	12.088	12.159	12.225	12.304	12.368	12.425	12.503	12.742	12.882	12.992	13.142
DEPTH	342.90	350.50	358.10	365.80	373.40	381.00	388.60	396.20	403.90	411.50	419.10	426.70
TEMP	13.251	13.377	13.471	13.571	13.654	13.727	13.809	13.903	14.002	14.097	14.165	14.248
DEPTH	434.30	442.00	449.60	457.20	464.80	472.40	480.10	487.70	495.30	502.90	510.50	518.20
TEMP	14.339	14.414	14.490	14.588	14.683	14.762	14.861	14.941	15.054	15.165	15.278	15.366
DEPTH	525.80	533.40	541.00	548.60	556.30	563.90	571.50	579.10	586.70	594.40	602.00	609.60
TEMP	15.489	15.584	15.672	15.755	15.838	15.930	16.035	16.135	16.235	16.327	16.422	16.526
DEPTH	617.20	624.80	632.50	640.10	647.70	655.30	662.90	670.60	678.20	685.80	693.40	701.00
TEMP	16.617	16.774	16.882	16.983	17.097	17.186	17.280	17.382	17.471	17.566	17.656	17.749
DEPTH	708.70	716.30	723.90	731.50	739.10	746.80	754.40	762.00	769.60	777.20	784.90	792.50
TEMP	17.842	17.945	18.035	18.133	18.227	18.323	18.416	18.502	18.602	18.696	18.788	18.882
DEPTH	800.10	807.70	815.30	823.00	830.60	838.20	845.80	853.40	861.10	868.70	876.30	883.90
TEMP	18.986	19.089	19.187	19.272	19.365	19.459	19.573	19.666	19.764	19.863	19.959	20.045
DEPTH	891.50	899.20	906.80	914.40	922.00	929.60	937.30	944.90	952.50	960.10	967.70	975.40
TEMP	20.137	20.217	20.315	20.420	20.514	20.607	20.710	20.802	20.900	21.000	21.105	21.203
DEPTH	983.00	990.60	998.20	1005.80	1013.50	1021.10	1028.70	1036.30	1043.90	1051.60	1059.20	1066.80
TEMP	21.311	21.420	21.526	21.626	21.736	21.834	21.941	22.038	22.157	22.260	22.368	22.478

CONDUCTIVITY AND DENSITY

DEPTH	614.00	622.00	629.00	634.00	644.00	649.00	659.00	665.00	675.00	680.00	690.00	695.00	704.00	711.00	718.00
COND	12.11	4.83	6.70	6.89	7.83	7.66	12.45	7.33	7.59	6.75	7.53	6.77	6.66	6.52	7.14
DEPTH	719.00	726.00	735.00	742.00	751.00	757.00	765.00	773.00	781.00	787.00	795.00	818.00	828.00	832.00	847.00
COND	6.95	6.82	6.22	5.96	6.45	6.51	5.59	6.70	5.92	5.65	6.64	7.12	6.61	6.02	6.00

FRANKLIN 136

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	858.00	864.00	871.00	879.00	889.00	895.00	903.00	909.00	919.00	925.00	934.00	940.00	948.00	955.00	963.00
COND	6.42	12.20	10.56	6.60	9.00	10.63	8.31	10.96	6.04	5.96	10.01	10.83	5.94	6.59	5.60
DEPTH	970.00	980.00	986.00	997.00	1000.00	1010.00	1016.00	1030.00	1040.00	1046.00					
COND	6.40	6.17	6.03	6.04	5.82	6.85	6.28	10.76	6.28	6.56					

COMMENTS: CORED FROM SURFACE. POSSIBLE WATER DISTURBANCE AT 310 METERS. DRILL HOLE: AX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.J.	APPALACH.	FRANKLIN	143	41 06	74 35	165	335-915	132	6.92	12.96	0.89	0.87
								ERROR			0.08	0.05

COMPLETED ON OR BEFORE: 1950 MEASURED: 10/16/69 STATIC WATER LEVEL: 7.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-1067 METERS FRANKLIN MARBLE

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	9.711	9.923	10.072	10.182	10.278	10.372	10.455	10.538	10.613	10.677	10.761	10.839
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	10.915	10.994	11.071	11.145	11.234	11.313	11.394	11.481	11.564	11.648	11.732	11.819
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	11.914	11.994	12.071	12.137	12.217	12.295	12.370	12.456	12.532	12.640	12.721	12.813
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.40
TEMP	12.893	12.990	13.082	13.171	13.252	13.330	13.434	13.522	13.601	13.698	13.791	13.880
DEPTH	381.00	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	457.20	464.80
TEMP	13.977	14.070	14.156	14.258	14.357	14.442	14.537	14.650	14.762	14.842	14.936	15.024
DEPTH	472.40	480.10	487.70	495.30	502.90	510.50	518.20	525.80	533.40	541.00	548.60	556.30
TEMP	15.127	15.217	15.314	15.414	15.518	15.591	15.687	15.791	15.889	15.992	16.094	16.200
DEPTH	563.90	571.50	579.10	586.70	594.40	602.00	609.60	617.20	624.80	632.50	640.10	647.70
TEMP	16.313	16.406	16.508	16.607	16.693	16.792	16.885	16.992	17.105	17.201	17.310	17.425
DEPTH	655.30	662.90	670.60	678.20	685.80	693.40	701.00	708.70	716.30	723.90	731.50	739.10
TEMP	17.515	17.624	17.714	17.815	17.918	18.018	18.129	18.230	18.341	18.438	18.545	18.659
DEPTH	746.80	754.40	762.00	769.60	777.20	784.90	792.50	800.10	807.70	815.30	823.00	830.60
TEMP	18.741	18.833	18.934	19.042	19.121	19.208	19.314	19.414	19.512	19.616	19.735	19.837
DEPTH	838.20	845.80	853.40	861.10	868.70	876.30	883.90	891.50	899.20	906.80	914.40	922.00
TEMP	19.970	20.063	20.161	20.264	20.360	20.458	20.543	20.590	20.642	20.842	20.944	21.068
DEPTH	929.60	937.30	944.90	952.50	960.10	967.70	975.40	983.00	990.60	998.20	1005.80	1013.50
TEMP	21.174	21.284	21.371	21.461	21.565	21.657	21.787	21.909	22.007	22.112	22.205	22.283
DEPTH	1021.10	1028.70	1036.30	1043.90	1051.60	1059.20	1066.80					
TEMP	22.368	22.465	22.562	22.652	22.766	22.885	22.981					

CONDUCTIVITY AND DENSITY

DEPTH	51.00	57.00	65.00	85.00	96.00	103.00	111.00	117.00	125.00	132.00	141.00	148.00	156.00	171.00	178.00
COND	6.67	6.30	6.53	10.88	6.29	6.66	6.90	6.85	6.78	6.60	6.89	7.33	6.72	6.74	6.54

FRANKLIN 143

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	185.00	189.00	191.00	193.00	195.00	202.00	208.00	219.00	224.00	231.00	238.00	248.00	254.00	256.00	261.00
COND	9.09	6.85	5.11	5.14	6.71	13.11	11.68	11.87	11.30	12.74	6.77	7.32	11.57	5.30	5.10
DEPTH	268.00	284.00	294.00	300.00	309.00	315.00	324.00	339.00	345.00	355.00	361.00	370.00	377.00	385.00	392.00
COND	7.45	6.50	6.24	8.33	13.01	12.01	13.14	7.63	7.22	7.11	6.80	10.86	6.63	10.92	6.78
DEPTH	400.00	405.00	415.00	421.00	429.00	436.00	445.00	453.00	460.00	467.00	476.00	482.00	491.00	497.00	508.00
COND	6.55	11.11	7.36	6.60	6.27	6.54	6.57	6.48	6.03	7.22	6.44	6.54	6.75	13.35	6.75
DEPTH	513.00	523.00	528.00	538.00	544.00	551.00	558.00	569.00	572.00	583.00	589.00	598.00	605.00	615.00	620.00
COND	6.22	7.47	7.42	6.90	6.78	7.95	6.17	6.36	6.14	6.50	6.69	6.16	5.98	5.88	6.04
DEPTH	629.00	636.00	649.00	658.00	665.00	674.00	680.00	690.00	696.00	704.00	711.00	722.00	726.00	736.00	741.00
COND	6.57	6.30	6.00	7.62	6.56	6.20	6.04	7.07	6.82	6.07	6.29	6.34	6.34	13.02	6.35
DEPTH	750.00	756.00	767.00	773.00	782.00	789.00	798.00	812.00	827.00	832.00	841.00	849.00	855.00	864.00	872.00
COND	6.24	6.61	12.49	7.48	6.05	5.72	6.32	6.31	6.04	6.15	6.28	5.81	6.36	13.04	10.95
DEPTH	888.00	894.00	903.00	910.00	916.00	918.00	925.00	932.00	939.00	950.00	954.00	964.00	970.00	976.00	986.00
COND	7.03	5.57	5.65	6.35	8.08	12.38	12.96	6.68	6.43	13.18	12.94	10.79	7.11	12.09	10.82
DEPTH	993.00	999.00	1010.00	1016.00	1024.00	1030.00	1042.00	1046.00	1050.00	1053.00	1057.00	1061.00			
COND	11.32	12.04	11.47	6.50	6.26	6.64	12.03	9.19	11.63	6.46	6.51	7.57			

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	173	184	184	183	188	200	211	224	236	239	243	243	255

COMMENTS: HOLE CORED FROM SURFACE. DRILL HOLE: AX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.J.	APPALACH.	OGDENSBURG	STERLING	41 05	74 36		613-1535	11	6.90	13.66	0.94	0.94
								ERROR			0.21	0.21

COMPLETED ON OR BEFORE: 1941 MEASURED: 12/2/60 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-2000 METERS FRANKLIN MARBLE

TEMPERATURE

DEPTH	0.0	15.20	30.50	61.00	91.40	121.90	152.40	182.90	213.40	243.80	274.30	304.80
TEMP	16.540	16.330	16.470	16.870	17.230	17.630	17.980	18.350	18.750	19.160	19.570	19.940
DEPTH	335.30	365.80	396.20	426.70	457.20	487.70	518.20	548.60	579.10	609.60	640.10	670.60
TEMP	20.360	20.770	21.170	21.570	22.040	22.400	22.860	23.300	23.740	24.120	24.620	25.080
DEPTH	701.00	731.50	762.00	792.50	823.00	853.40	883.90	914.40	944.90	975.40	1005.80	1036.30
TEMP	25.530	25.990	26.450	26.850	27.310	27.800	28.280	28.750	29.220	29.710	30.150	30.610
DEPTH	1066.80	1097.30	1127.80	1158.20	1188.70	1219.20	1249.70	1280.20	1310.60	1341.10	1371.60	1402.10
TEMP	31.060	31.560	32.010	32.570	33.050	33.490	34.020	34.530	35.010	35.470	36.000	36.460
DEPTH	1432.60											
TEMP	36.900											

CONDUCTIVITY AND DENSITY

DEPTH	48.00	107.00	155.00	306.00	338.00	359.00	457.00	603.00	705.00	860.00	970.00
COND	5.31	9.88	6.57	5.51	6.47	9.29	6.47	7.31	6.86	6.10	6.23

COMMENTS: HOLE IN STERLING MINE WITH COLLAR AT 564-METER LEVEL. TEMPERATURES LOGGED BY LAMONT-DOHERTY GEOLOGICAL OBSERVATORY.
DRILL HOLE: AX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	609	44 15	75 25	207	31-335	12	9.61	12.72	1.22	1.29
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 1930 MEASURED: 8/20/69 STATIC WATER LEVEL: 14.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-335 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	14.50	22.20	29.80	37.40	45.00	52.60	60.30	67.90	75.50	83.10	90.70	98.40
TEMP	7.038	7.287	7.312	7.239	7.162	7.122	7.117	7.135	7.172	7.229	7.298	7.361
DEPTH	106.00	113.60	121.20	128.80	136.50	144.10	151.70	159.30	166.90	174.60	182.20	189.80
TEMP	7.437	7.512	7.594	7.661	7.753	7.867	7.989	8.083	8.190	8.286	8.371	8.477
DEPTH	197.40	205.00	212.70	220.30	227.90	235.50	243.10	250.80	258.40	266.00	273.60	281.20
TEMP	8.599	8.727	8.833	8.925	9.023	9.117	9.214	9.304	9.390	9.481	9.576	9.658
DEPTH	288.90	296.50	304.10	311.70	319.30	327.00	334.60					
TEMP	9.748	9.842	9.929	10.013	10.091	10.188	10.278					

CONDUCTIVITY

DEPTH	28.00	77.00	125.00	139.00	167.00	195.00	238.00	252.00	274.00	283.00	298.00	312.00
COND	10.28	7.90	7.76	11.08	12.59	12.14	9.68	7.07	7.43	11.46	12.01	10.50

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	204	204	204	207	210	212	208	206	205	202	204	205	205

COMMENTS: HOLE ABOUT 20 METERS FROM SYLVIA LAKE (CORRECTION INCLUDED). DRILL HOLE ALSO LOGGED BY LAMONT-DOHERTY GEOLOGICAL OBSERVATORY ON 3 AUGUST 1961. COMPARISON OF TWO SETS OF DATA SHOWS A FORMER WATER DISTURBANCE BETWEEN 75 AND 190 METERS. DRILL HOLE: AX(?).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	984	44 17	75 24	193	150-410			9.46		
								ERROR		2.10		

COMPLETED ON OR BEFORE: 9/21/64 MEASURED: 5/13/65 STATIC WATER LEVEL: 50.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 130-410 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	50.00	60.00	70.00	150.00	160.00	170.00	180.00	230.00	240.00	250.00	310.00	320.00
TEMP	8.746	8.750	8.757	8.997	9.065	9.134	9.206	9.588	9.674	9.762	10.328	10.434
DEPTH	330.00	340.00	390.00	400.00	410.00							
TEMP	10.535	10.635	11.282	11.412	11.528							

DIP ANGLE

DEPTH	91	335	515
ANGLE	2.0	11.0	12.0

COMMENTS: TEMPERATURE DATA TAKEN BY HARVARD UNIVERSITY. DRILL HOLE: AX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	993	44 16	75 24	201	99-312		11.9	8.05	0.96	0.96
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 6/15/64 MEASURED: 9/3/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-62 METERS QUARTZITE; 62-335 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	8.136	7.876	7.853	7.913	7.967	8.022	8.168	8.289	8.389	8.486	8.553	8.634
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	8.699	8.746	8.798	8.850	8.917	8.965	9.018	9.068	9.121	9.180	9.241	9.298
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	9.363	9.428	9.499	9.554	9.611	9.673	9.736	9.800	9.869	9.930	9.998	10.074
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30					
TEMP	10.144	10.220	10.276	10.352	10.466	10.553	10.617					

COMMENTS: CONDUCTIVITY ESTIMATED FROM THAT OF NEARBY DDH # 1057. DRILL HOLE: AX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	995	44 16	75 24	198	198-297		11.9	7.54	0.90	0.91
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 7/6/64 MEASURED: 8/12/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-128 METERS QUARTZITE; 128-351 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	8.733	8.743	8.744	8.748	8.755	8.766	8.776	8.784	8.793	8.809	8.818	8.840
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	8.864	8.884	8.902	8.935	8.963	9.000	9.030	9.051	9.109	9.125	9.165	9.215
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	9.248	9.318	9.371	9.423	9.474	9.526	9.580	9.628	9.681	9.742	9.792	9.854
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50			
TEMP	9.928	9.994	10.082	10.131	10.198	10.270	10.325	10.560	10.961			

DIP ANGLE

DEPTH	30	396
ANGLE	3.0	6.0

COMMENTS: CONDUCTIVITY ESTIMATED FROM NEARBY DDH # 1057. WATER DISTURBANCE ABOVE 250 METERS. HOLE ALSO LOGGED BY HARVARD UNIVERSITY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	995	44 16	75 24	198						
								ERROR				

COMPLETED ON OR BEFORE: 7/16/64 MEASURED: 5/13/65 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-128 METERS QUARTZITE; 128-390 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	80.00	100.00	120.00	140.00	180.00	190.00	195.00	200.00	210.00	220.00	230.00	280.00
TEMP	8.798	8.835	8.896	8.971	9.174	9.228	9.291	9.346	9.416	9.437	9.566	10.099
DEPTH	290.00	300.00	310.00	360.00	370.00	380.00	390.00					
TEMP	10.243	10.370	10.466	11.138	11.253	11.358	11.464					

COMMENTS: TEMPERATURES MEASURED BY HARVARD UNIVERSITY. SEE ALSO MEASUREMENTS BY THE UNIVERSITY OF ROCHESTER IN THIS DRILL HOLE.
DRILL HOLE: AX WIRELINE

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1003	44 16	75 24	207	190-320			8.2		
								ERROR				

COMPLETED ON OR BEFORE: 9/28/64 MEASURED: 5/14/65 STATIC WATER LEVEL: 60.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-75 METERS QUARTZITE; 75-320 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	70.00	90.00	110.00	130.00	140.00	160.00	170.00	180.00	190.00	200.00	220.00	240.00
TEMP	9.016	9.012	9.021	9.057	9.073	9.123	9.143	9.277	9.462	9.554	9.700	9.873
DEPTH	260.00	280.00	300.00	320.00								
TEMP	10.038	10.195	10.339	10.533								

COMMENTS: TEMPERATURES LOGGED BY HARVARD UNIVERSITY. WATER DISTURBANCE: 180-190 METER INTERVAL. DRILL HOLE: AX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1037	44 16	75 26	205	228-342		11.4	10.22	1.16	1.18
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 6/2/66 MEASURED: 8/26/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-347 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	14.20	21.90	29.50	37.10	44.70	52.30	60.00	67.60	75.20	82.80	90.40	98.10
TEMP	8.346	8.613	8.703	8.761	8.832	8.894	8.920	8.951	8.973	8.996	9.027	9.056
DEPTH	105.70	113.30	120.90	128.50	136.20	143.80	151.40	159.00	166.60	174.30	181.90	189.50
TEMP	9.085	9.108	9.141	9.187	9.234	9.290	9.353	9.425	9.479	9.568	9.645	9.719
DEPTH	197.10	204.70	212.40	220.00	227.60	235.20	242.80	250.50	258.10	265.70	273.30	280.90
TEMP	9.791	9.854	9.920	9.981	10.045	10.125	10.201	10.280	10.352	10.429	10.507	10.583
DEPTH	288.60	296.20	303.80	311.40	319.00	326.70	334.30	341.90				
TEMP	10.664	10.736	10.817	10.898	10.981	11.050	11.128	11.213				

COMMENTS: CONDUCTIVITY ESTIMATED FROM NEARBY DDH # 1040. DRILL HOLE: BX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1040	44 16	75 25	203	335-488	27	11.75	10.42	1.22	1.23
								ERROR			0.05	0.05

COMPLETED ON OR BEFORE: 8/1/66 MEASURED: 9/3/69 STATIC WATER LEVEL: 15.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-511 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	8.457	8.586	8.745	8.799	8.854	8.898	8.935	8.961	8.989	9.018	9.049	9.078
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	9.107	9.129	9.147	9.178	9.223	9.268	9.343	9.420	9.484	9.559	9.641	9.721
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	9.796	9.854	9.910	9.976	10.049	10.121	10.190	10.257	10.319	10.388	10.452	10.533
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.40
TEMP	10.612	10.697	10.768	10.841	10.932	10.998	11.063	11.148	11.232	11.315	11.395	11.477
DEPTH	381.00	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	457.20	464.80
TEMP	11.555	11.636	11.716	11.799	11.874	11.956	12.031	12.111	12.192	12.262	12.335	12.415
DEPTH	472.40	480.10	487.70	495.30	502.90	510.50						
TEMP	12.499	12.576	12.654	12.730	12.817	12.908						

CONDUCTIVITY

DEPTH	339.00	354.00	358.00	364.00	369.00	376.00	382.00	384.00	389.00	402.00	406.00	414.00	422.00	428.00	436.00
COND	10.13	11.30	11.04	11.69	11.09	11.45	11.48	11.75	11.58	12.56	11.53	15.57	11.00	10.50	13.25
DEPTH	447.00	452.00	461.00	465.00	470.00	475.00	480.00	484.00	488.00	494.00	499.00	505.00			
COND	10.76	11.81	7.98	12.53	12.87	14.18	14.45	11.29	15.07	8.01	8.89	8.81			

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	204	202	198	196	195	195	195	194	194	193	193	193	197

COMMENTS: HEAT FLOW CORRECTED FOR TERRAIN AND LAKE EFFECTS. DRILL HOLE: BX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1056	44 16	75 24	199	290-380		11.9	10.05	1.20	1.20
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 5/13/67 MEASURED: 8/12/69 STATIC WATER LEVEL: 20.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-30 METERS QUARTZITE; 30-390 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	106.70
TEMP	8.425	8.719	8.774	8.839	8.884	8.908	8.923	8.940	8.958	8.979	8.992	9.011
DEPTH	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50	198.10
TEMP	9.036	9.062	9.087	9.112	9.142	9.173	9.203	9.231	9.269	9.316	9.357	9.401
DEPTH	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90	289.60
TEMP	9.451	9.491	9.549	9.593	9.652	9.712	9.770	9.840	9.903	9.962	10.167	10.325
DEPTH	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.10	379.80
TEMP	10.408	10.487	10.568	10.645	10.716	10.786	10.863	10.938	11.012	11.088	11.165	11.232

DIP ANGLE

DEPTH	76	228	381
ANGLE	0.0	8.0	10.0

COMMENTS: CONDUCTIVITY ESTIMATED FROM NEARBY DDH # 1057. LINEAR VELOCITY OF FLUID FLOW: 0.7 CM/SEC IN THE SECTION ABOVE 275 METERS. DRILL HOLE: BQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1057	44 17	75 24	198	366-495	9	11.86	11.10	1.32	1.32
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 5/31/67 MEASURED: 8/12/69 STATIC WATER LEVEL: 15.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-120 METERS QUARTZITE; 120-495 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	15.20	22.60	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	8.440	8.803	8.818	8.852	8.863	8.879	8.885	8.892	8.902	8.916	8.927	8.942
DEPTH	106.70	114.30	121.90	137.20	152.40	160.00	167.60	175.30	182.90	190.50	198.10	205.70
TEMP	8.956	8.977	8.998	9.048	9.115	9.165	9.204	9.245	9.281	9.340	9.379	9.436
DEPTH	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90	289.60	297.20
TEMP	9.484	9.535	9.584	9.650	9.710	9.756	9.814	9.881	9.957	10.007	10.095	10.167
DEPTH	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.40	381.00	388.60
TEMP	10.222	10.298	10.406	10.499	10.535	10.604	10.830	11.073	11.188	11.282	11.362	11.442
DEPTH	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	457.20	464.80	472.40	480.10
TEMP	11.520	11.602	11.688	11.765	11.842	11.920	12.015	12.105	12.197	12.283	12.366	12.453
DEPTH	487.70	495.30										
TEMP	12.541	12.627										

CONDUCTIVITY

DEPTH	377.00	384.00	399.00	416.00	431.00	461.00	466.00	476.00	494.00
COND	11.61	12.45	10.87	12.24	12.64	11.81	11.16	12.15	12.01

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	197	195	192	191	195	199	199	200	197	197	199	200	203

COMMENTS: WATER DISTURBANCE IN HOLE ABOVE 345 METERS. DRILL HOLE: BQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1069	44 16	75 24	201	320-373		9.38	11.96	1.12	1.13
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 6/24/67 MEASURED: 8/13/69 STATIC WATER LEVEL: 15.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-457 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	106.70
TEMP	8.407	8.600	8.695	8.775	8.824	8.851	8.864	8.873	8.879	8.887	8.897	8.909
DEPTH	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50	198.10
TEMP	8.927	8.946	8.970	9.027	9.091	9.157	9.220	9.286	9.343	9.406	9.469	9.539
DEPTH	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90	289.60
TEMP	9.595	9.664	9.724	9.784	9.847	9.915	9.979	10.054	10.126	10.193	10.266	10.347
DEPTH	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.40	381.00
TEMP	10.421	10.492	10.565	10.640	10.732	10.803	10.889	10.978	11.072	11.185	11.278	11.357
DEPTH	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	457.20		
TEMP	11.427	11.506	11.569	11.636	11.702	11.763	11.828	11.895	11.967	12.025		

DIP ANGLE

DEPTH	15	134	341	457
ANGLE	0.0	1.0	6.0	10.0

COMMENTS: CONDUCTIVITY ESTIMATED FROM NEARBY DDH # 1070. SEVERAL DISTURBANCES WERE NOTED ABOVE AND BELOW THE 320-373 METER INTERVAL
DRILL HOLE: BQ WIRELINE

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1070	44 16	75 24	208	427-488	13	12.05	9.38	1.13	1.13
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 10/17/67 MEASURED: 8/13/69 STATIC WATER LEVEL: 15.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-90 METERS QUARTZITE; 90-506 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	8.791	8.680	8.802	8.856	8.868	8.876	8.882	8.891	8.909	8.943	8.981	9.001
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	9.017	9.033	9.050	9.079	9.104	9.173	9.216	9.268	9.321	9.375	9.438	9.484
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	9.535	9.591	9.635	9.683	9.722	9.785	9.868	9.953	10.030	10.104	10.178	10.253
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80	373.40
TEMP	10.321	10.396	10.466	10.544	10.620	10.703	10.780	10.858	10.932	11.010	11.086	11.178
DEPTH	381.00	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	457.20	464.80
TEMP	11.253	11.335	11.417	11.523	11.627	11.714	11.794	11.867	11.937	12.012	12.086	12.161
DEPTH	472.40	480.10	487.70	495.30	502.90	506.40						
TEMP	12.229	12.298	12.366	12.434	12.505	12.533						

CONDUCTIVITY

DEPTH	311.00	316.00	332.00	338.00	347.00	356.00	363.00	429.00	437.00	446.00	454.00	460.00	469.00
COND	11.34	9.52	7.22	9.29	11.30	9.84	10.98	12.17	11.20	12.49	11.94	14.72	10.51

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	202	205	206	209	208	206	207	204	203	206	205	204	200

COMMENTS: UPPER 200 METERS OF THE HOLE ARE DISTURBED. DRILL HOLE: BQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1072	44 15	75 25	215	140-420		11.35	10.2	1.16	1.21
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 6/6/68 MEASURED: 8/29/69 STATIC WATER LEVEL: 22.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-527 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	22.20	29.80	37.40	45.00	52.60	60.30	67.90	75.50	83.10	90.70	98.40	106.00
TEMP	7.521	7.428	7.479	7.531	7.583	7.634	7.678	7.723	7.754	7.801	7.842	7.866
DEPTH	113.60	121.20	128.80	136.50	144.10	151.70	159.30	166.90	174.60	182.20	189.80	197.40
TEMP	7.967	8.100	8.178	8.255	8.330	8.409	8.474	8.539	8.612	8.696	8.761	8.851
DEPTH	205.00	212.70	220.30	227.90	235.50	243.10	250.80	258.40	266.00	273.60	281.20	288.90
TEMP	8.920	9.000	9.070	9.145	9.225	9.303	9.386	9.453	9.536	9.623	9.711	9.792
DEPTH	296.50	304.10	311.70	319.30	327.00	334.60	342.20	349.80	357.40	365.10	372.70	380.30
TEMP	9.852	9.955	10.034	10.132	10.203	10.272	10.348	10.428	10.466	10.548	10.646	10.716
DEPTH	387.90	395.50	403.20	410.80	418.40	426.00	433.60	441.30	448.90	456.50	464.10	471.70
TEMP	10.770	10.833	10.908	10.987	11.048	11.177	11.325	11.399	11.465	11.531	11.592	11.670
DEPTH	479.40	487.00	494.60	502.20	509.80	517.50	525.10	526.60				
TEMP	11.727	11.790	11.857	11.926	11.988	12.054	12.132	12.136				

DIP ANGLE

DEPTH	10	86	228	356	455	533
ANGLE	0.0	2.0	7.0	13.0	13.0	13.0

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # 1075. DRILL HOLE: AQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1073	44 15	75 25	217	152-213		11.35	9.30	1.06	1.13
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 7/9/68 MEASURED: 8/19/69 STATIC WATER LEVEL: 30.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-236 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	30.10	37.70	45.00	52.60	60.30	67.90	75.50	83.10	90.70	98.40	106.00	113.60
TEMP	7.785	7.813	7.977	7.997	8.008	8.018	8.036	8.058	8.086	8.118	8.153	8.203
DEPTH	121.20	128.80	136.50	144.10	151.70	159.30	166.90	174.60	182.20	189.80	197.40	205.00
TEMP	8.229	8.274	8.318	8.363	8.459	8.537	8.614	8.685	8.764	8.826	8.900	8.958
DEPTH	212.70	220.30	227.90	235.50								
TEMP	9.027	9.132	9.329	9.420								

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # 1075. DRILL HOLE: AQ WIRELINE. HOLE BLOCKED AT 236 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1074	44 15	75 24	223	105-530		11.35	9.58	1.09	1.14
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 7/20/68 MEASURED: 8/19/69 STATIC WATER LEVEL: 25.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-530 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	29.80	37.40	45.00	52.60	60.30	67.90	75.50	83.10	90.70	98.40	106.00	113.60
TEMP	8.108	8.007	8.015	8.058	8.093	8.118	8.138	8.148	8.176	8.206	8.233	8.280
DEPTH	121.20	128.80	136.50	144.10	151.70	159.30	166.90	174.60	182.20	189.80	197.40	205.00
TEMP	8.340	8.395	8.457	8.560	8.640	8.715	8.793	8.862	8.910	8.978	9.068	9.122
DEPTH	212.70	220.30	227.90	235.50	243.10	250.80	258.40	266.00	273.60	281.20	288.90	296.50
TEMP	9.206	9.262	9.331	9.404	9.483	9.568	9.627	9.692	9.773	9.968	10.053	10.130
DEPTH	304.10	311.70	319.30	327.00	334.60	342.20	349.80	357.40	365.10	372.70	380.30	388.00
TEMP	10.223	10.307	10.379	10.462	10.538	10.613	10.685	10.746	10.720	10.802	10.852	10.935
DEPTH	395.50	403.20	410.80	418.40	426.00	433.60	441.30	448.90	456.50	464.10	471.70	479.40
TEMP	11.004	11.068	11.138	11.222	11.307	11.393	11.465	11.550	11.629	11.702	11.779	11.847
DEPTH	487.00	494.60	502.20	509.80	517.30	525.10	530.00					
TEMP	11.944	11.979	12.048	12.121	12.192	12.263	12.302					

COMMENTS: CONDUCTIVITY ESTIMATED FROM NEARBY DDH # 1075. DRILL HOLE: AQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	CAN. SHLD	BALMAT	1075	44 15	75 24	224	220-632	19	11.35	9.48	1.06	1.08
								ERROR			0.11	0.11

COMPLETED ON OR BEFORE: 8/7/68 MEASURED: 8/19/69 STATIC WATER LEVEL: 30.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-639 METERS DOLOMITIC MARBLE

TEMPERATURE

DEPTH	30.10	37.70	45.00	52.60	60.30	67.90	75.50	83.10	90.70	98.40	105.70	113.60
TEMP	7.790	7.762	7.809	7.838	7.887	7.962	8.029	8.088	8.141	8.191	8.241	8.296
DEPTH	121.20	128.80	136.50	144.10	151.70	159.30	166.90	174.60	182.20	189.60	197.20	205.00
TEMP	8.365	8.419	8.476	8.730	8.825	8.896	8.965	9.030	9.107	9.197	9.286	9.408
DEPTH	212.80	220.30	227.90	235.50	243.10	250.80	258.40	266.00	273.60	281.20	288.90	296.50
TEMP	9.523	9.567	9.639	9.705	9.786	9.863	9.930	10.010	10.092	10.165	10.245	10.314
DEPTH	304.10	311.70	319.30	327.00	334.60	342.20	349.80	357.40	365.10	372.50	380.10	387.90
TEMP	10.374	10.450	10.513	10.590	10.671	10.735	10.799	10.871	10.941	11.010	11.076	11.184
DEPTH	395.50	403.20	410.80	418.40	426.00	433.60	441.30	448.90	456.50	464.10	471.70	479.40
TEMP	11.256	11.331	11.419	11.480	11.546	11.620	11.688	11.759	11.836	11.905	11.972	12.031
DEPTH	487.00	494.40	502.20	509.80	517.50	524.90	532.70	540.30	547.90	555.60	563.20	570.80
TEMP	12.107	12.176	12.273	12.352	12.407	12.474	12.584	12.640	12.707	12.770	12.831	12.912
DEPTH	578.40	586.00	593.70	601.30	608.90	616.50	624.10	631.80	639.40			
TEMP	12.986	13.057	13.130	13.194	13.273	13.350	13.406	13.470	13.511			

CONDUCTIVITY

DEPTH	237.00	247.00	254.00	262.00	271.00	279.00	283.00	291.00	341.00	344.00	355.00	362.00	371.00	374.00	582.00
COND	11.23	12.25	12.86	13.93	12.35	12.30	8.09	10.12	11.33	11.33	10.71	12.39	10.18	10.92	11.33
DEPTH	589.00	598.00	608.00	612.00											
COND	7.14	13.05	10.86	11.01											

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	214	210	206	208	208	211	213	210	213	210	208	206	208

COMMENTS: WATER DISTURBANCE AT 137 METERS. DRILL HOLE: AQ WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	SILBOA	B-1	42 27	74 26	600	183-365	70	7.18	13.95	0.87	1.01
								ERROR			0.14	0.14

COMPLETED ON OR BEFORE: 7/29/68 MEASURED: 12/23/68 STATIC WATER LEVEL: 20.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-382 METERS ONEONTA FORMATION, MOSCOW FORMATION AND PANTHER MOUNTAIN FORMATION

TEMPERATURE

DEPTH	22.50	30.10	37.70	45.40	53.00	60.60	68.20	75.80	83.50	91.10	98.70	106.30
TEMP	8.411	8.232	8.136	8.073	8.017	7.999	8.004	8.021	8.051	8.100	8.152	8.207
DEPTH	113.90	121.60	129.20	136.80	144.40	152.00	159.70	167.30	174.90	182.50	190.10	197.80
TEMP	8.274	8.350	8.417	8.512	8.637	8.715	8.739	8.744	8.765	8.798	8.849	8.916
DEPTH	205.40	213.00	220.60	228.20	235.90	243.50	251.10	258.70	266.30	274.00	281.60	289.20
TEMP	9.020	9.156	9.230	9.348	9.455	9.541	9.657	9.755	9.899	10.008	10.091	10.243
DEPTH	296.80	304.40	312.10	319.70	327.30	334.90	342.50	350.20	357.80	365.40	373.00	380.60
TEMP	10.292	10.387	10.483	10.546	10.692	10.803	10.874	10.961	11.045	11.148	11.263	11.414
DEPTH	382.20											
TEMP	11.422											

CONDUCTIVITY AND DENSITY

DEPTH	30.00	67.00	94.00	152.00	197.00	201.00	205.00	207.00	213.00	217.00	227.00	231.00	236.00	238.00	242.00
COND	7.47	4.31	9.84	5.77	10.87	11.43	4.06	12.30	10.34	4.48	7.47	8.69	11.97	3.82	4.75
DENS	2.711	2.771	2.712	2.729	2.683	2.563	2.754	2.611	2.668	2.734	2.716	2.677	2.631	2.735	2.833
DEPTH	247.00	249.00	254.00	259.00	264.00	267.00	269.00	271.00	272.00	273.00	276.00	277.00	280.00	283.00	286.00
COND	4.35	4.56	4.53	7.59	5.85	5.27	6.50	7.42	11.59	12.75	3.28	4.96	8.22	7.32	11.67
DENS	2.743	2.739	2.739	2.741	2.716	2.729	2.717	2.722	2.716	2.587	2.721	2.736	2.730	2.700	2.592
DEPTH	289.00	291.00	292.00	299.00	304.00	306.00	307.00	309.00	313.00	314.00	318.00	320.00	323.00	325.00	329.00
COND	10.64	8.28	11.72	7.53	6.18	6.36	5.02	4.49	11.50	12.53	4.44	11.57	8.14	8.05	6.15
DENS	2.565	2.692	2.592	2.699	2.700	2.725	2.756	2.729	2.618	2.663	2.731	2.700	2.714	2.703	2.702
DEPTH	331.00	335.00	338.00	341.00	342.00	343.00	345.00	347.00	356.00	359.00	362.00	364.00	365.00	366.00	368.00
COND	11.95	13.45	4.49	4.67	8.10	4.85	6.42	7.45	3.56	7.49	12.90	10.35	6.68	6.56	7.85
DENS	2.648	2.656	2.700	2.722	2.698	2.744	2.736	2.702	2.706	2.697	2.618	2.627	2.694	2.685	2.671
DEPTH	370.00	372.00	373.00	374.00	376.00	380.00									
COND	7.79	7.13	7.93	6.06	6.08	9.14									
DENS	2.701	2.704	2.702	2.709	2.739	2.679									

GILBOA 8-1

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	595	574	532	502	483	473	462	461	450	435	435	442	448

COMMENTS: WATER DISTURBANCE ABOVE 183 METERS. CONDUCTIVITIES ARE ALMOST RANDOMLY DISTRIBUTED AS A FUNCTION OF DEPTH. DRILL HOLE IS NX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	GILBOA	B-2	42 27	74 27	436	107-229	25	5.93	14.26	0.85	0.99
								ERROR			0.15	0.15

COMPLETED ON OR BEFORE: 9/17/68 MEASURED: 12/23/68 STATIC WATER LEVEL: 30.0

REFERENCE: URBAN (1970), DIMENT, UREAN & REVETTA (1971)

GEOLOGY: 0-230 METERS MOSCOW AND PANTHER MOUNTAIN FORMATIONS

TEMPERATURE

DEPTH	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	106.70	114.30
TEMP	6.832	7.065	8.109	8.409	8.499	8.558	8.637	8.702	8.799	8.909	9.015	9.124
DEPTH	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50	198.10	205.70
TEMP	9.233	9.342	9.429	9.528	9.637	9.742	9.857	9.972	10.079	10.197	10.307	10.434
DEPTH	213.40	221.00	228.60	230.10								
TEMP	10.541	10.633	10.753	10.781								

CONDUCTIVITY AND DENSITY

DEPTH	107.00	109.00	113.00	116.00	117.00	125.00	128.00	133.00	140.00	149.00	156.00	162.00	168.00	173.00	173.00
COND	4.48	7.32	3.63	6.70	3.85	3.87	7.24	7.08	6.88	9.09	3.35	11.30	6.15	3.22	6.61
DEPTH	176.00	186.00	189.00	195.00	207.00	213.00	220.00	223.00	225.00	228.00					
COND	3.44	6.48	7.76	5.45	11.80	7.52	4.59	7.38	7.77	8.67					

COMMENTS: TEMPERATURE MEASUREMENTS VERY STEADY. NO WATER DISTURBANCE. DRILL HOLE: NX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	GILBOA	B-3	42 27	74 27	323						

ERROR

COMPLETED CN CR BEFORE: 8/68 MEASURED: 1/24/69 STATIC WATER LEVEL: 20.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	22.90	30.50	38.10	45.70	46.60
TEMP	9.216	9.414	9.768	9.917	9.928

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	GILBOA	B-4	42 27	74 27	308						

ERROR

COMPLETED ON OR BEFORE: 8/15/68 MEASURED: 1/24/69 STATIC WATER LEVEL: 5.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	7.60	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	90.50
TEMP	8.331	8.616	9.122	8.960	9.601	9.298	9.322	9.736	9.681	10.266	10.644	11.153

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	GILBOA	U-3	42 27	74 26	594						
								ERROR				

COMPLETED ON OR BEFORE: 8/14/69 MEASURED: 1/24/69 STATIC WATER LEVEL: 40.0

REFERENCE: UREAN (1970), DIMENT, UREAN & REVETTA (1971)

TEMPERATURE

DEPTH	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	106.70	114.30	121.90	123.70
TEMP	7.471	7.573	7.683	7.729	7.787	7.831	7.946	8.014	8.100	8.148	8.256	8.281

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH	HIMROD	H-7	42 34	76 57	256	200-300	8	4.79	37.54	1.80	1.79
								ERROR	1.30	3.79	0.40	0.40

COMPLETED ON OR BEFORE: 8/25/67 MEASURED: 7/23/67 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10
TEMP	11.950	11.971	12.051	11.454	11.567	11.747	11.805	11.956	12.016	12.071	12.207	12.264
DEPTH	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50
TEMP	12.375	12.469	12.629	12.764	12.925	12.978	13.230	13.454	13.522	13.790	13.963	14.082
DEPTH	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30	281.90
TEMP	14.494	14.728	14.970	15.252	15.567	15.892	16.186	16.456	16.720	17.032	17.276	17.571
DEPTH	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	349.00			
TEMP	17.901	18.213	18.473	18.907	19.599	20.053	20.468	21.020	21.197			

CONDUCTIVITY AND DENSITY

DEPTH	115.21	320.04	337.41	396.24	396.55	434.95	435.26	441.96
COND	6.12	3.46	3.63	5.65	6.53	7.56	7.24	6.71

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	257	257	257	258	260	260	259	259	259	261	260	262	270

COMMENTS: TEMPERATURES WERE MEASURED TWO DAYS AFTER DRILLING CEASED FOR THE WEEKEND AS THE HOLE WAS BEING DRILLED. THE HOLE WAS PLUGGED SHORTLY AFTER 8/25/67. THIS SET OF TEMPERATURE MEASUREMENTS WAS THE LAST GOOD ONE OBTAINED BEFORE THE HOLE LOST WATER AND BECAME ESSENTIALLY ISOTHERMAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	HIMROD	M-8	42 35	76 58	313	518-648		4.79	27.59	1.32	1.31
								ERROR			0.20	0.20

COMPLETED ON OR BEFORE: 9/8/67 MEASURED: 9/10/67 STATIC WATER LEVEL: 15.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	15.20	30.50	45.70	61.00	76.20	91.40	106.70	121.90	137.20	152.40	167.60	182.90
TEMP	18.100	16.816	16.070	15.156	14.201	13.962	12.603	11.130	11.185	11.228	11.235	11.335
DEPTH	198.10	213.40	228.60	243.80	259.10	274.30	289.60	304.80	320.00	335.30	350.50	365.80
TEMP	11.380	11.391	11.450	11.649	11.905	12.071	12.162	12.276	12.398	12.676	12.800	12.844
DEPTH	381.00	396.20	411.50	426.70	442.00	457.20	464.80	472.40	480.10	487.70	495.30	502.90
TEMP	13.017	13.205	13.331	14.265	14.510	14.594	14.705	14.724	14.793	14.823	14.972	19.496
DEPTH	510.50	518.20	525.80	533.40	541.00	548.60	556.30	563.90	571.50	579.10	586.70	594.40
TEMP	22.306	23.845	24.358	24.626	24.731	25.144	25.339	25.511	25.585	25.896	26.084	26.326
DEPTH	602.00	609.60	617.20	624.80	632.50	640.10	647.70					
TEMP	26.488	26.626	26.830	26.942	27.029	27.278	27.420					

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	310	316	317	317	319	310	314	316	315	314	314	314	326

COMMENTS: TEMPERATURES TAKEN TWO DAYS AFTER DRILLING CEASED. HOLE PLUGGED WITH CEMENT SHORTLY THEREAFTER. CONDUCTIVITY ESTIMATED FROM HIMROD # M-7.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	LACKAWANNA	BUFFALO	42 48	78 51	178	608-1058				1.20	1.20
								ERROR			0.12	0.12

COMPLETED ON OR BEFORE: 1967 MEASURED: 7/24/69 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 608-767 METERS LORRAIN GROUP; 767-875 METERS UTICA FORMATION; AND 875-1058 METERS TRENTON - ALL DEPTHS ARE QUESTIONABLE AND WERE DETERMINED FROM TEMPERATURE LOGS.

TEMPERATURE

DEPTH	6.10	13.70	21.30	28.90	36.50	44.20	51.80	59.40	67.00	74.60	82.30	89.90
TEMP	11.220	11.183	11.182	11.180	11.191	11.230	11.276	11.340	11.409	11.499	11.589	11.684
DEPTH	97.50	105.10	112.70	120.40	128.00	135.60	143.20	150.80	158.50	166.10	173.70	181.30
TEMP	11.781	11.882	11.981	12.075	12.176	12.283	12.404	12.556	12.680	12.829	12.973	13.128
DEPTH	188.90	196.60	204.20	211.80	219.40	227.00	234.70	242.30	249.90	257.50	265.10	272.80
TEMP	13.290	13.411	13.544	13.642	13.753	13.849	13.938	14.039	14.158	14.297	14.469	14.641
DEPTH	280.40	288.00	295.60	303.20	310.90	318.50	326.10	333.70	341.30	349.00	356.60	364.20
TEMP	14.793	14.968	15.126	15.289	15.449	15.611	15.790	15.966	16.137	16.316	16.527	16.696
DEPTH	371.80	379.40	387.10	394.70	402.30	409.90	417.50	425.20	432.80	440.40	448.00	455.60
TEMP	16.891	17.109	17.309	17.482	17.689	17.886	18.053	18.251	18.428	18.594	18.794	18.959
DEPTH	463.30	470.90	478.50	486.10	493.70	501.40	509.00	516.60	524.20	531.80	539.50	547.10
TEMP	19.145	19.309	19.469	19.648	19.822	19.965	20.127	20.292	20.441	20.595	20.761	20.897
DEPTH	554.70	562.30	569.90	577.60	585.20	592.80	600.40	608.00	615.70	623.30	630.90	638.50
TEMP	21.069	21.224	21.363	21.527	21.694	21.859	22.029	22.182	22.373	22.565	22.786	23.005
DEPTH	646.10	653.80	661.40	669.00	676.60	684.20	691.90	699.50	707.10	714.70	722.30	730.00
TEMP	23.243	23.478	23.740	24.020	24.295	24.593	24.881	25.178	25.442	25.726	26.014	26.256
DEPTH	737.60	745.20	752.80	760.40	768.10	775.70	783.30	790.90	798.50	806.20	813.80	821.40
TEMP	26.524	26.800	27.052	27.307	27.560	27.855	28.116	28.413	28.724	29.013	29.282	29.563
DEPTH	829.00	836.60	844.30	851.90	859.50	867.10	874.70	882.40	890.00	897.60	905.20	912.80
TEMP	29.878	30.200	30.492	30.798	31.095	31.369	31.622	31.855	32.107	32.341	32.549	32.786
DEPTH	920.50	928.10	935.70	943.30	950.90	958.60	966.20	973.80	981.40	989.00	996.70	1004.30
TEMP	32.983	33.179	33.364	33.551	33.733	33.934	34.137	34.322	34.508	34.703	34.880	35.041
DEPTH	1011.90	1019.50	1027.10	1034.80	1042.40	1050.00	1057.60	1065.20	1072.90	1080.50	1088.10	1095.70
TEMP	35.212	35.387	35.573	35.739	35.904	36.055	36.216	36.312	36.596	36.639	36.777	36.945
DEPTH	1103.30	1111.00	1118.60	1126.20	1133.80	1141.40	1149.10	1156.70				
TEMP	37.019	37.121	37.211	37.284	37.360	37.419	37.461	37.486				

LACKAWANNA BUFFALO

COMMENTS: ESTIMATED CONDUCTIVITIES FROM GRADIENT RATIOS: 3.39 LORRAIN-UTICA, AND 4.8 TRENTON.
OBSERVED MEAN GRADIENTS: 35.39 LORRAIN-UTICA; 25.12 TRENTON. HOLE LOGGED TO 1498 METERS.
HOLE IS SLIGHTLY ARTESIAN WITH SOME GAS. DRILL HOLE WAS CASED AND CEMENTED TO THE CAMBRIAN AND DRILLED INTO THE PRECAMBRIAN.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	MIDDLEPORT	FMC # 1	43 12	78 28	164	352-750				1.18	1.18
								ERROR			0.12	0.12

COMPLETED CN CR BEFORE: 5/68 MEASURED: 8/8/69 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 352-502 METERS LORRAIN GROUP; 502-561 METERS UTICA FORMATION; AND 561-750 METERS TRENTON FORMATION.

TEMPERATURE

DEPTH	14.50	22.10	29.70	37.30	45.00	52.60	60.20	67.80	75.40	83.10	90.70	98.30
TEMP	9.749	9.907	9.980	10.030	10.130	10.261	10.336	10.442	10.543	10.670	10.777	10.910
DEPTH	105.90	113.50	121.20	128.80	136.40	144.00	151.60	159.30	166.90	174.50	182.10	189.70
TEMP	11.050	11.181	11.340	11.504	11.649	11.815	11.951	12.115	12.277	12.464	12.599	12.765
DEPTH	197.40	205.00	212.60	220.20	227.80	235.50	243.10	250.70	258.30	265.90	273.60	281.20
TEMP	12.932	13.093	13.272	13.404	13.534	13.657	13.866	14.030	14.170	14.325	14.479	14.645
DEPTH	288.80	296.40	304.00	311.70	319.30	326.90	334.50	342.10	349.80	357.40	365.00	372.60
TEMP	14.876	15.028	15.198	15.405	15.574	15.788	15.984	16.185	16.375	16.646	16.854	17.232
DEPTH	380.20	387.90	395.50	403.10	410.70	418.30	426.00	433.60	441.20	448.80	456.40	464.10
TEMP	17.495	17.708	17.887	18.147	18.399	18.634	18.906	19.157	19.445	19.653	19.869	20.162
DEPTH	471.70	479.30	486.90	494.50	502.20	509.80	517.40	525.00	532.60	540.30	547.90	555.50
TEMP	20.349	20.582	20.887	21.156	21.393	21.675	21.976	22.277	22.600	22.893	23.204	23.540
DEPTH	563.10	570.70	578.40	586.00	593.60	601.20	608.80	616.50	624.10	631.70	639.30	646.90
TEMP	23.840	24.041	24.204	24.343	24.526	24.708	24.856	25.026	25.186	25.387	25.588	25.785
DEPTH	654.60	662.20	669.80	677.40	685.00	692.70	700.30	707.90	715.50	723.10	730.80	738.40
TEMP	25.968	26.185	26.323	26.489	26.651	26.818	26.974	27.179	27.369	27.533	27.653	27.802
DEPTH	746.00	753.60	761.20	768.90	776.50	784.10	791.70	799.30	807.00	814.60	822.20	829.80
TEMP	27.965	28.102	28.346	28.449	28.584	28.729	28.866	29.019	29.185	29.360	29.452	29.544
DEPTH	837.40	845.10	852.70	860.30	867.90	875.50	878.60					
TEMP	29.636	29.776	29.916	30.053	30.188	30.320	30.361					

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	161	161	162	162	162	162	162	162	162	162	161	161	160

COMMENTS: ESTIMATED CONDUCTIVITIES BASED ON THAT OF THE DH AT NIAGARA FALLS: 3.39-LORRAIN-UTICA AND 5.2-TRENTON. OBSERVED MEAN GRADIENTS: 34.63-LORRAIN-UTICA AND 22.56-TRENTON. HOLE DRILLED MAINLY BY CABLE TOOL METHOD. HOLE LOGGED TO 879 METERS. DRILL HOLE WAS CASED AND CEMENTED TO THE CAMBRIAN AND DRILLED INTO THE PRECAMBRIAN.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	NIAGARA FALLS	WPL # 1	43 05	79 00	175	410-776				1.16	1.16
								ERROR			0.12	0.12

COMPLETED CN CR BEFORE: 1967 MEASURED: 7/28/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 410-578 METERS LORRAIN GROUP, 578-644 METERS UTICA FORMATION, 644-784 METERS TRENTON FORMATION

TEMPERATURE

DEPTH	13.90	21.50	29.20	36.80	44.40	52.00	59.60	67.30	74.90	82.50	90.10	97.70
TEMP	12.550	12.687	12.647	12.559	12.478	12.357	12.265	12.080	11.861	11.728	11.567	11.555
DEPTH	105.40	120.60	128.20	135.80	143.50	151.10	158.70	166.30	173.90	181.60	189.20	196.80
TEMP	11.575	11.628	11.768	11.883	12.006	12.161	12.325	12.478	12.637	12.801	12.956	13.137
DEPTH	204.40	212.00	219.70	227.30	234.90	242.50	250.10	257.80	265.40	273.00	280.60	288.20
TEMP	13.319	13.500	13.662	13.829	14.005	14.162	14.324	14.503	14.675	14.834	14.988	15.142
DEPTH	295.90	303.50	311.10	318.70	326.30	334.00	341.60	349.20	356.80	364.40	372.10	379.70
TEMP	15.294	15.448	15.600	15.783	15.942	16.107	16.285	16.472	16.673	16.880	17.082	17.275
DEPTH	387.30	394.90	402.50	410.20	417.80	425.40	433.00	440.60	448.30	455.90	463.50	471.10
TEMP	17.472	17.669	17.861	18.085	18.325	18.557	18.825	19.088	19.341	19.593	19.856	20.114
DEPTH	478.70	486.40	494.00	501.60	509.20	516.80	524.50	532.10	539.70	547.30	554.90	562.60
TEMP	20.358	20.606	20.840	21.080	21.313	21.569	21.783	22.026	22.261	22.495	22.755	22.992
DEPTH	570.20	577.80	585.40	593.00	600.70	608.30	615.90	623.50	631.10	638.80	646.40	654.00
TEMP	23.248	23.514	23.813	24.102	24.415	24.701	24.998	25.288	25.594	25.880	26.173	26.357
DEPTH	661.60	669.20	676.90	684.50	692.10	699.70	707.30	715.00	722.60	730.20	737.80	745.40
TEMP	26.540	26.694	26.850	26.998	27.151	27.323	27.512	27.703	27.884	28.079	28.231	28.388
DEPTH	753.10	760.70	768.30	775.90	783.50	791.20	798.80	806.40	814.00	821.60	829.30	836.90
TEMP	28.544	28.704	28.879	29.047	29.219	29.373	29.530	29.667	29.808	29.953	30.077	30.195
DEPTH	844.50	852.10	859.70	867.40	875.00	882.60	890.20	897.80	905.50	913.10	920.70	928.30
TEMP	30.320	30.441	30.531	30.528	30.451	30.407	30.415	30.549	30.861	31.176	31.451	31.676
DEPTH	935.90											
TEMP	31.821											

COMMENTS: ESTIMATED CONDUCTIVITIES BASED ON OBSERVED GRADIENTS: 3.0-UTICA; 3.6-LORRAIN; AND 5.2-TRENTON.
OBSERVED MEAN GRADIENTS: 38.77-UTICA; 32.38-LORRAIN; AND 22.21-TRENTON.
HOLE DRILLED MAINLY BY CABLE TOOL METHOD. HOLE LOGGED TO 936 METERS. DRILL HOLE WAS CASED AND CEMENTED TO THE CAMBRIAN AND DRILLED INTO THE PRECAMBRIAN.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	7A	42 34	76 54	139						

ERROR

COMPLETED CN OR BEFORE: MEASURED: 3/4/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	14.60	22.30	29.90	37.50	45.10	52.70	60.40	68.00	75.60	83.20	90.80	98.50
TEMP	9.952	9.848	9.838	9.868	9.924	9.948	10.039	10.206	10.398	10.614	10.860	11.126
DEPTH	106.10	113.70	121.30	128.90								
TEMP	11.363	11.592	11.813	11.955								

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	20	42 25	76 54	137	151-387		4.8	38.02	1.82	1.73
								ERROR			0.20	0.20

COMPLETED ON OR BEFORE: MEASURED: 6/5/69 STATIC WATER LEVEL: 25.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	28.70	36.30	43.90	51.50	59.10	66.80	74.40	82.00	89.60	97.20	104.90	112.50
TEMP	10.058	10.048	10.042	10.048	10.073	10.095	10.193	10.288	10.374	10.462	10.563	10.704
DEPTH	120.10	127.70	135.30	143.00	150.60	158.20	165.80	173.40	181.10	188.70	196.30	203.90
TEMP	10.895	11.127	11.331	11.498	11.612	11.741	12.120	12.352	12.515	12.749	12.965	13.456
DEPTH	211.50	219.20	226.80	234.40	242.00	249.60	257.30	264.90	272.50	280.10	287.70	295.40
TEMP	13.746	13.904	14.122	14.381	14.535	15.116	15.396	15.555	15.667	15.861	16.688	16.902
DEPTH	303.00	310.60	318.20	325.80	333.50	341.10	348.70	356.30	363.90	371.60	379.20	386.80
TEMP	17.101	17.548	17.785	17.989	18.389	18.551	18.806	19.258	19.773	20.023	20.133	20.595
DEPTH	394.40	402.00	409.70	417.30	424.90	432.50	440.10	447.80	455.40	463.00	470.60	478.20
TEMP	20.881	21.064	21.197	21.329	21.418	21.476	21.518	21.543	21.557	21.557	21.542	21.525
DEPTH	485.90	493.50	501.10	508.70	516.30	524.00	531.60	538.60				
TEMP	21.511	21.511	21.518	21.538	21.589	21.694	21.871	22.161				

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # M-7. HOLE DRILLED BY CABLE TOOL METHOD. HOLE LOGGED TO 539 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	22	42 25	76 54	136	205-396		4.8	40.43	1.96	1.84
								ERROR			0.20	0.20

COMPLETED ON OR BEFORE: MEASURED: 2/20/69 STATIC WATER LEVEL: 10.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	14.80	22.40	30.00	37.60	45.30	52.90	60.50	68.10	75.70	83.40	91.00	98.60
TEMP	10.268	10.316	10.333	10.300	10.256	10.204	10.154	10.125	10.133	10.177	10.254	10.404
DEPTH	106.20	113.80	121.50	129.10	136.70	144.30	151.90	159.60	167.20	174.80	182.40	190.00
TEMP	10.585	10.702	10.844	10.934	11.118	11.386	11.611	11.832	12.054	12.335	12.563	12.800
DEPTH	197.70	205.30	212.90	220.50	228.10	235.80	243.40	251.00	258.60	266.20	273.90	281.50
TEMP	13.056	13.260	13.574	13.871	14.227	14.485	14.719	15.066	15.286	15.614	15.874	16.210
DEPTH	289.10	296.70	304.30	312.00	319.60	327.20	334.80	342.40	350.10	357.70	365.30	372.90
TEMP	16.650	16.999	17.145	17.450	17.715	17.973	18.398	18.731	19.032	19.245	19.540	20.073
DEPTH	380.50	388.20	395.80	403.40	411.00	418.60	426.30	433.90	441.50	449.10	456.70	464.40
TEMP	20.344	20.712	20.962	21.176	21.276	21.429	21.571	21.651	21.709	21.751	21.769	21.775
DEPTH	472.00	479.60	487.20	494.80	502.50	510.10	517.70	520.40				
TEMP	21.765	21.743	21.731	21.728	21.728	21.775	21.786	21.800				

TERRAIN DATA

RADIUS	-20000	-7315	-7010	-6705	-6400	-6095	-5791	-5486	-5181	-4876	-4571	-4267	-3962	-3657
ELEV	518	496	496	496	504	512	505	487	472	463	445	432	423	402
RADIUS	-3352	-3047	-2743	-2438	-2133	-1828	-1523	-1219	-914	-609	-457	-304	-152	-76
ELEV	380	365	353	338	326	313	297	274	252	236	219	198	170	155
RADIUS	76	152	304	457	609	761	914	1066	1219	1371	1523	1676	1828	1981
ELEV	135	121	99	70	47	30	21	15	9	12	22	33	83	140
RADIUS	2133	2438	2743	3047	3352	3657	3962	4267	4571	4876	5181	5486	5791	6095
ELEV	176	240	265	280	292	306	309	309	306	310	318	335	371	376
RADIUS	6400	6705	7010	7315	20000									
ELEV	373	376	411	441	487									

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # M-7. HOLE DRILLED BY CABLE TOOL METHOD. HOLE LOGGED TO 520 METERS. TERRAIN DATA IS FOR THE TWO DIMENSIONAL CASE ALONG A LINE PERPENDICULAR (APPROXIMATELY E-W) TO SENECA LAKE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	23	42 25	76 54	149	136-403		4.8	36.95	1.78	1.69
								ERROR			0.20	0.20

COMPLETED ON OR BEFORE: MEASURED: 2/20/69 STATIC WATER LEVEL: 25.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	29.60	37.20	44.80	52.40	60.00	67.70	75.30	82.90	90.50	98.10	105.80	113.40
TEMP	9.698	9.730	9.745	9.773	9.822	9.904	9.972	10.097	10.234	10.390	10.496	10.699
DEPTH	121.00	128.60	136.20	143.90	151.50	159.10	166.70	174.30	182.00	189.60	197.20	204.80
TEMP	10.893	11.035	11.180	11.410	11.744	11.890	12.083	12.223	12.469	12.695	12.971	13.265
DEPTH	212.40	220.10	227.70	235.30	242.90	250.50	258.20	265.80	273.40	281.00	288.60	296.30
TEMP	13.481	13.882	14.182	14.513	14.745	15.030	15.454	15.742	16.030	16.361	16.584	16.900
DEPTH	303.90	311.50	319.10	326.70	334.40	342.00	349.60	357.20	364.80	372.50	380.10	387.70
TEMP	17.162	17.598	17.786	18.138	18.494	18.846	19.136	19.351	19.654	20.020	20.502	20.745
DEPTH	395.30	402.90	410.60	418.20	425.80	433.40	441.00	448.70	456.30	463.90	471.50	479.10
TEMP	21.019	21.315	21.558	21.812	21.995	22.171	22.323	22.454	22.575	22.751	22.859	22.938
DEPTH	486.80	494.40	502.00	509.60	517.20	524.90	532.50	540.10	546.50			
TEMP	22.992	23.021	23.024	23.006	22.970	22.919	22.871	22.821	22.829			

TERRAIN DATA

RADIUS	-20000	-7315	-7010	-6705	-6400	-6095	-5791	-5486	-5181	-4876	-4571	-4267	-3962	-3657
ELEV	518	496	496	496	504	512	505	487	472	463	445	432	417	402
RADIUS	-3352	-3047	-2743	-2438	-2133	-1828	-1523	-1219	-914	-609	-457	-304	-152	-76
ELEV	380	365	353	338	326	313	297	274	252	236	219	198	170	155
RADIUS	76	152	304	457	609	761	914	1066	1219	1371	1523	1676	1828	1981
ELEV	135	121	99	70	47	30	21	15	9	12	22	33	83	140
RADIUS	2133	2438	2743	3047	3352	3657	3962	4267	4571	4876	5181	5486	5791	6095
ELEV	176	240	265	280	292	306	309	309	306	310	318	335	371	376
RADIUS	6400	6705	7010	7315	20000									
ELEV	373	376	411	441	487									

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # M-7. HOLE DRILLED BY CABLE TOOL METHOD. HOLE LOGGED TO 547 METERS. TERRAIN DATA IS FOR THE TWO DIMENSIONAL CASE ALONG A LINE PERPENDICULAR (APPROXIMATELY E-W) TO SENECA LAKE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	25	42 25	76 54	149	137-411		4.8	35.81	1.72	1.63
								ERROR			0.20	0.20

COMPLETED ON OR BEFORE: MEASURED: 3/4/69 STATIC WATER LEVEL: 25.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	30.10	37.70	45.30	52.90	60.60	68.20	75.80	83.40	91.30	98.70	106.30	113.90
TEMP	9.837	9.841	9.882	9.942	10.048	10.178	10.321	10.478	10.628	10.796	10.994	11.226
DEPTH	121.50	129.10	136.80	144.40	152.00	159.60	167.20	174.90	182.50	190.10	197.70	205.30
TEMP	11.421	11.586	11.766	11.991	12.191	12.367	12.562	12.762	12.987	13.231	13.560	13.753
DEPTH	213.00	220.60	228.20	235.80	243.40	251.10	258.70	266.30	273.90	281.50	289.20	296.80
TEMP	14.010	14.290	14.540	14.807	15.134	15.403	15.680	16.013	16.314	16.611	16.936	17.256
DEPTH	304.40	312.00	319.60	327.30	334.90	342.50	350.10	357.70	365.40	373.00	380.60	388.20
TEMP	17.597	17.875	18.200	18.511	18.813	19.115	19.425	19.726	20.008	20.289	20.667	21.005
DEPTH	395.80	403.50	411.10	418.70	426.30	433.90	441.60	449.20	456.80	464.40	472.00	479.70
TEMP	21.320	21.589	21.794	21.977	22.191	22.340	22.492	22.625	22.766	22.889	23.062	23.154
DEPTH	487.30	494.90	502.50	510.10	517.80	525.40	533.00	540.60	548.20	551.00		
TEMP	23.235	23.297	23.329	23.333	23.320	23.294	23.278	23.296	23.412	23.447		

TERRAIN DATA

RADIUS	-20000	-7315	-7010	-6705	-6400	-6095	-5791	-5486	-5181	-4876	-4571	-4267	-3962	-3657
ELEV	518	496	496	496	504	512	505	487	472	463	445	432	417	402
RADIUS	-3352	-3047	-2743	-2438	-2133	-1828	-1523	-1219	-914	-609	-457	-304	-152	-76
ELEV	380	365	353	338	326	313	297	274	252	236	219	198	170	155
RADIUS	76	152	304	457	609	761	914	1066	1219	1371	1523	1676	1828	1981
ELEV	135	121	99	70	47	30	21	15	9	12	22	33	83	140
RADIUS	2133	2438	2743	3047	3352	3657	3962	4267	4571	4876	5181	5486	5791	6095
ELEV	176	240	265	280	292	306	309	309	306	310	318	335	371	376
RADIUS	6400	6705	7010	7315	20000									
ELEV	373	376	411	441	487									

COMMENTS: CONDUCTIVITY ESTIMATED FROM DDH # M-7. HOLE DRILLED BY CABLE TOOL METHOD. HOLE LOGGED TO 551 METERS. TERRAIN DATA IS FOR THE TWO DIMENSIONAL CASE ALONG A LINE PERPENDICULAR (APPROXIMATELY E-W) TO SENECA LAKE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WATKINS GLEN	26	42 25	76 54	167	68-137			25.13		
								ERROR				

COMPLETED ON OR BEFORE: MEASURED: 3/4/69 STATIC WATER LEVEL: 40.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	45.10	52.70	60.40	68.00	75.60	83.20	90.80	98.50	106.10	113.70	121.30	128.90
TEMP	9.994	10.070	10.171	10.293	10.472	10.687	10.854	11.056	11.152	11.404	11.595	11.816
DEPTH	136.60	139.60										
TEMP	12.017	12.056										

COMMENTS: HOLE DRILLED BY CABLE TOOL METHOD. LOGGED TO 140 METERS

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WEST VALLEY	1	42 27	78 38	421	274-366	25			1.29	1.19
								ERROR			0.01	0.02

COMPLETED CN CR BEFORE: 5/69 MEASURED: 4/6/70 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 282-312 METERS SILTSTONE; 312-343 METERS SHALE. BOTH OF CANADAWAY GROUP(?) OF UPPER DEVONIAN AGE.

TEMPERATURE

DEPTH	7.60	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40
TEMP	8.970	9.269	9.334	9.452	9.551	9.698	9.947	10.043	10.128	10.290	10.512	10.750
DEPTH	99.10	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90
TEMP	10.948	11.127	11.291	11.490	11.739	12.012	12.305	12.640	12.910	13.164	13.433	13.702
DEPTH	190.50	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30
TEMP	13.961	14.204	14.423	14.628	14.891	15.138	15.373	15.609	15.781	15.990	16.180	16.460
DEPTH	281.90	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80
TEMP	16.714	16.869	17.013	17.156	17.304	17.484	17.698	17.967	18.200	18.432	18.664	18.939
DEPTH	373.40	381.00	388.60	396.20	403.90	411.50	419.10					
TEMP	19.191	19.460	19.702	19.986	20.269	20.566	20.846					

CONDUCTIVITY AND DENSITY

DEPTH	276.00	284.00	287.00	290.00	293.00	295.00	299.00	302.00	306.00	309.00	313.00	316.00	326.00	330.00	332.00
COND	2.98	5.88	6.54	5.34	7.90	7.00	8.34	7.63	8.25	5.15	7.19	4.46	4.47	2.72	3.83
DENS	2.526	2.712	2.685	2.681	2.650	2.607	2.630	2.627	2.618	2.670	2.692	2.662	2.684	2.693	2.716
DEPTH	334.00	336.00	338.00	340.00	342.00	345.00	348.00	349.00	358.00	361.00					
COND	3.48	6.10	6.20	4.95	3.79	6.22	4.64	8.13	2.84	4.04					
DENS	2.630	2.700	2.691	2.690	2.647	2.686	2.658	2.637	2.626	2.575					

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	423	430	431	433	433	435	439	454	470	477	480	493	493

COMMENTS: MEASURED MEAN CONDUCTIVITY: 6.69 SILTSTONE (282-312 METERS); 4.36 SHALE (312-343 METERS).
OBSERVED MEAN GRADIENTS: 19.36 SILTSTONE (282-312 METERS); 29.40 SHALE (312-343 METERS).
HOLE LOGGED TO 419 METERS. DDH SIZE: NX. CASED AND CEMENTED IN PLACE. OBSERVATION WELL # 1.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WEST VALLEY	2	42 27	78 38	427						

ERROR

COMPLETED CN OR BEFORE: 1969 MEASURED: 4/6/70 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, UREAN & REVETTA (1971)

TEMPERATURE

DEPTH	7.60	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40
TEMP	8.831	9.366	9.480	9.559	9.617	9.659	9.712	9.796	9.915	10.061	10.257	10.479
DEPTH	99.10	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90
TEMP	10.692	10.880	11.075	11.232	11.422	11.664	11.934	12.240	12.568	12.833	13.093	13.388
DEPTH	190.50	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30
TEMP	13.622	13.902	14.160	14.374	14.577	14.833	15.065	15.332	15.542	15.738	15.926	16.145
DEPTH	281.90	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80
TEMP	16.400	16.657	16.824	16.967	17.108	17.270	17.447	17.687	17.920	18.162	18.375	18.634
DEPTH	373.40	381.00	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00	449.60	456.00
TEMP	18.886	19.150	19.413	19.685	19.964	20.235	20.523	20.830	21.119	21.401	21.666	21.826

COMMENTS: HOLE SIMILAR TO WEST VALLEY # 1, BUT COLLAR ELEVATION IS SIX METERS HIGHER. NX HOLE. OBSERVATION WELL # 2.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N.Y.	APPALACH.	WEST VALLEY	3	42 27	78 38	427						
							ERROR					

COMPLETED CN CR BEFORE: 1969 MEASURED: 4/6/70 STATIC WATER LEVEL: 0.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

TEMPERATURE

DEPTH	7.60	15.20	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40
TEMP	8.876	9.402	9.451	9.517	9.559	9.614	9.683	9.780	9.951	10.101	10.276	10.528
DEPTH	99.10	106.70	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90
TEMP	10.733	10.922	11.094	11.254	11.476	11.709	11.979	12.305	12.590	12.872	13.141	13.428
DEPTH	190.50	198.10	205.70	213.40	221.00	228.60	236.20	243.80	251.50	259.10	266.70	274.30
TEMP	13.667	13.941	14.180	14.394	14.596	14.888	15.106	15.392	15.572	15.748	15.968	16.185
DEPTH	281.90	289.60	297.20	304.80	312.40	320.00	327.70	335.30	342.90	350.50	358.10	365.80
TEMP	16.467	16.677	16.840	16.980	17.132	17.286	17.481	17.731	17.976	18.189	18.418	18.699
DEPTH	373.40	381.00	388.60	396.20	403.90	411.50	419.10	426.70	434.30	442.00		
TEMP	18.937	19.190	19.458	19.733	20.017	20.285	20.571	20.881	21.183	21.448		

COMMENTS: HOLE SIMILAR TO WEST VALLEY # 1, BUT COLLAR ELEVATION IS SIX METERS HIGHER. NX HOLE. OBSERVATION WELL # 3.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
PENN.	APPALACH.	MT HOLLY SPRING		40 06	77 11	182	122-213	18	14.75	4.15	0.58	0.57
								ERROR			0.08	0.05

COMPLETED ON OR BEFORE: 7/11/67 MEASURED: 8/16/69 STATIC WATER LEVEL: 2.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 6-230 METERS MONTALTO QUARTZITE OF CAMBRIAN AGE.

TEMPERATURE

DEPTH	8.10	15.20	22.90	30.60	38.10	46.00	53.30	61.10	68.60	76.20	84.30	91.40
TEMP	11.334	11.367	11.412	11.446	11.483	11.511	11.537	11.561	11.582	11.601	11.628	11.650
DEPTH	99.10	107.00	114.30	121.90	129.50	137.20	144.80	152.40	160.00	168.10	175.30	182.90
TEMP	11.753	11.802	11.833	11.857	11.889	11.923	11.953	11.985	12.010	12.049	12.076	12.109
DEPTH	191.00	198.10	205.70	213.40	221.30	228.90						
TEMP	12.140	12.166	12.197	12.224	12.255	12.284						

CONDUCTIVITY AND DENSITY

DEPTH	112.00	116.00	126.00	132.00	140.00	148.00	156.00	163.00	172.00	178.00	185.00	194.00	204.00	210.00	216.00
COND	14.09	13.81	13.99	13.89	15.31	13.99	13.53	13.49	13.38	11.93	13.69	14.91	15.79	13.17	14.39
DEPTH	221.00	225.00	228.00												
COND	12.24	14.36	14.50												

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	214	242	248	251	256	253	257	258	249	238	236	230	228

COMMENTS: CONDUCTIVITIES CORRECTED FOR TEMPERATURE EFFECT. WATER FLOW ABOVE 95 METERS; FLOW RATE: 0.9 CM/SEC.
HOLE SIZE: BX WIRELINE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
PENN.	APPALACH.	READING (OLEY)		40 22	75 50	183	243-274	43	6.79	10.30	0.70	0.70
								ERROR			0.10	0.10

COMPLETED ON OR BEFORE: 12/4/67 MEASURED: 8/29/68 STATIC WATER LEVEL: 10.0

REFERENCE: UREAN (1970), DIMENT, UREAN & REVETTA (1971)

GEOLOGY: 0-300 METERS GRANITE GNEISS WITH INTERLAYERED PEGMATITE.

TEMPERATURE

DEPTH	14.80	18.60	22.40	26.20	30.00	33.80	37.60	41.40	45.20	49.00	52.90	56.70
TEMP	11.309	11.390	11.460	11.490	11.506	11.532	11.546	11.566	11.585	11.603	11.626	11.641
DEPTH	60.50	64.30	68.10	71.90	75.70	79.50	83.30	87.10	91.00	94.80	98.60	102.40
TEMP	11.658	11.670	11.679	11.688	11.695	11.705	11.721	11.733	11.768	11.786	11.795	11.801
DEPTH	106.20	110.00	113.80	117.60	121.40	125.20	129.10	132.90	136.70	140.50	144.30	148.10
TEMP	11.818	11.840	11.857	11.879	11.908	11.928	11.948	11.969	11.999	12.018	12.044	12.077
DEPTH	151.90	155.70	159.50	163.30	167.20	171.00	174.80	178.60	182.40	186.20	190.00	193.80
TEMP	12.103	12.131	12.166	12.192	12.226	12.255	12.284	12.314	12.341	12.373	12.401	12.433
DEPTH	197.60	201.40	205.30	209.10	212.90	216.70	220.50	224.30	228.10	231.90	235.70	239.50
TEMP	12.465	12.494	12.525	12.566	12.598	12.634	12.671	12.705	12.749	12.779	12.816	12.856
DEPTH	243.40	247.20	251.00	254.80	258.60	262.40	266.20	270.00	273.80	277.60	281.50	285.30
TEMP	12.891	12.931	12.967	12.995	13.037	13.078	13.116	13.157	13.199	13.235	13.281	13.318
DEPTH	289.10	292.90	296.70	299.70								
TEMP	13.355	13.394	13.434	13.467								

CONDUCTIVITY AND DENSITY

DEPTH	142.00	146.00	149.00	152.00	155.00	158.00	164.00	167.00	170.00	176.00	179.00	188.00	192.00	195.00	199.00
COND	8.64	6.42	9.83	7.28	8.31	7.87	7.64	5.61	7.95	7.26	6.88	7.24	7.37	8.36	8.50
DEPTH	201.00	207.00	213.00	216.00	222.00	225.00	231.00	234.00	237.00	240.00	243.00	247.00	249.00	252.00	256.00
COND	6.71	7.77	5.57	6.78	6.86	5.64	6.65	8.27	8.01	8.05	7.51	7.22	5.90	7.26	7.38
DEPTH	259.00	262.00	265.00	267.00	271.00	274.00	277.00	280.00	284.00	286.00	290.00	292.00	295.00		
COND	6.08	5.80	8.14	6.75	6.60	5.29	7.16	7.03	5.87	7.47	6.58	7.31	6.89		

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	176	172	169	175	174	178	187	176	174	178	176	180	158

COMMENTS: HOLE CASED AND CEMENTED ON 12/13/67 WITH 1" BLACK IRON PIPE. DDH SIZE: BX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
PENN.	APPALACH.	RIEGELSVILLE		40 34	75 12	145	229-259	36	8.23	10.66	0.88	0.89
								ERROR			0.03	0.03

COMPLETED ON OR BEFORE: 1/24/68 MEASURED: 8/28/68 STATIC WATER LEVEL: 30.0

REFERENCE: UREAN (1970), DIMENT, UREAN & REVETTA (1971)

GEOLOGY: 0-158 METERS HORNBLENDE GRANITE; 158-225 METERS LEITHSVILLE FORMATION: 225-275 METERS AMPHIBOLITE MIGMATITE AND RELATED HYBRID ROCKS.

TEMPERATURE

DEPTH	34.30	38.10	41.90	45.70	49.50	53.30	57.10	61.00	64.80	68.60	72.40	76.20
TEMP	11.062	11.078	11.098	11.114	11.127	11.144	11.160	11.177	11.192	11.208	11.228	11.250
DEPTH	80.00	83.80	87.60	91.40	95.20	99.10	102.90	106.70	110.50	114.30	118.10	121.90
TEMP	11.270	11.293	11.320	11.344	11.365	11.372	11.402	11.433	11.462	11.490	11.523	11.548
DEPTH	125.70	129.50	133.30	137.20	141.00	144.80	148.60	152.40	156.20	160.00	163.80	167.60
TEMP	11.568	11.588	11.610	11.630	11.651	11.675	11.695	11.721	11.751	11.773	11.799	11.824
DEPTH	171.40	175.30	179.10	182.90	186.70	190.50	194.30	198.10	201.90	205.70	209.50	213.40
TEMP	11.845	11.871	11.903	11.931	11.965	12.007	12.053	12.085	12.119	12.147	12.191	12.227
DEPTH	217.20	221.00	224.80	228.60	232.40	236.20	240.00	243.80	247.60	251.50	255.30	259.10
TEMP	12.263	12.296	12.324	12.365	12.403	12.439	12.481	12.519	12.561	12.604	12.644	12.687
DEPTH	262.90	266.70	270.50	274.30								
TEMP	12.730	12.775	12.825	12.860								

CONDUCTIVITY AND DENSITY

DEPTH	158.00	182.00	185.00	188.00	191.00	193.00	195.00	198.00	201.00	204.00	207.00	210.00	212.00	214.00	217.00
COND	11.50	6.85	11.56	6.85	6.71	10.40	11.23	10.69	11.60	10.87	10.70	5.94	10.11	10.59	10.68
DEPTH	219.00	220.00	224.00	225.00	229.00	232.00	233.00	234.00	239.00	241.00	246.00	248.00	253.00	256.00	257.00
COND	10.25	10.56	14.40	6.56	7.96	8.15	7.88	8.76	8.44	8.75	8.03	7.71	8.38	8.27	8.28
DEPTH	260.00	264.00	266.00	271.00	272.00	274.00									
COND	8.40	8.55	8.04	7.66	5.81	6.90									

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	108	97	89	86	88	95	92	97	105	106	108	116	121

COMMENTS: HOLE SIZE - BX. HOLE CASED AND CEMENTED ON 1/30/68. DRILLING HISTORY: 0-145 METERS (8/17/67-9/20/67); 145-274 METERS (12/14/67-1/24/68).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
PENN.	APPALACH.	SABULA	1	41 12	78 39	497	122-213	42	4.86	28.13	1.37	1.31
								ERROR			0.25	0.25

COMPLETED ON OR BEFORE: 6/69 MEASURED: 3/22/70 STATIC WATER LEVEL: 20.0

REFERENCE: URBAN (1970), DIMENT, URBAN & REVETTA (1971)

GEOLOGY: 0-220 METERS ALLEGHENY AND POTTSVILLE GROUPS.

TEMPERATURE

DEPTH	22.90	30.50	38.10	45.70	53.30	61.00	68.60	76.20	83.80	91.40	99.10	106.70
TEMP	9.527	9.396	9.313	9.291	9.310	9.354	9.412	9.462	9.583	9.747	10.562	10.763
DEPTH	114.30	121.90	129.50	137.20	144.80	152.40	160.00	167.60	175.30	182.90	190.50	198.10
TEMP	10.984	11.211	11.393	11.547	11.945	12.142	12.318	12.526	12.698	12.872	13.084	13.345
DEPTH	205.70	213.40	215.80									
TEMP	13.639	13.783	13.815									

CONDUCTIVITY AND DENSITY

DEPTH	106.00	110.00	112.00	114.00	117.00	120.00	122.00	124.00	125.00	126.00	128.00	130.00	132.00	133.00	135.00
COND	4.51	5.76	6.80	7.91	9.53	8.07	4.30	5.34	3.55	6.34	7.33	8.94	6.59	5.80	3.22
DEPTH	146.00	149.00	152.00	156.00	159.00	161.00	162.00	169.00	170.00	177.00	179.00	181.00	185.00	188.00	190.00
COND	7.37	3.80	4.67	8.51	9.69	3.65	3.58	7.04	8.36	5.77	6.11	5.89	4.51	5.40	4.80
DEPTH	195.00	198.00	199.00	201.00	202.00	205.00	206.00	210.00	213.00	214.00	217.00				
COND	8.41	10.16	9.13	2.18	11.39	6.34	10.90	12.48	5.36	10.99	8.45				

TERRAIN DATA

RADIUS	243	487	731	975	1219	1463	1706	1950	2194	2438	2682	2926	10000
ELEV	482	489	497	503	501	499	494	495	487	503	514	529	531

COMMENTS: HOLE SIZE: NX. WATER DISTURBANCE ABOVE 100 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S.C.	CSTL. PLN.	AIKEN	DRB # 2	33 17	81 40	86	427-592	12	6.15	16.05	0.99	0.99
								ERROR			0.1	0.1

COMPLETED GN GR BEFORE: 11/6/61 MEASURED: 7/11/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT, MARINE, NEIHEISEL AND SIPLE (1965)

GEOLOGY: 0-296 METERS SEMICONSOLIDATED SEDIMENTS, 296-604 METERS MIXTURES OF CATACLASTIC-TEXTURED SCHIST, GNEISS, QUARTZITE AND SOME PHYLLITE.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12
TEMP	19.598	19.448	19.429	19.508	19.648	19.853	20.080	20.288	20.529	20.762	21.011	21.274
DEPTH	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	327.66	335.28	342.90	350.52
TEMP	21.493	21.701	21.903	22.143	22.394	22.677	22.949	23.185	23.301	23.418	23.526	23.649
DEPTH	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96
TEMP	23.766	23.888	23.949	24.117	24.229	24.343	24.455	24.573	24.694	24.809	24.928	25.039
DEPTH	449.58	457.20	464.82	472.44	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40
TEMP	25.169	25.288	25.430	25.524	25.643	25.762	25.882	26.000	26.121	26.240	26.352	26.464
DEPTH	541.02	548.64	556.26	563.88	571.50	579.12	586.74	594.36				
TEMP	26.571	26.711	26.829	26.942	27.134	27.214	27.347	27.468				

CONDUCTIVITY AND DENSITY

DEPTH	301.45	315.47	332.23	347.17	361.19	377.65	391.67	408.13	422.45	440.13	451.41	468.48	483.11	498.65	513.59
COND	5.150	5.455	5.245	5.457	5.322	5.297	5.099	5.741	4.940	5.168	4.743	6.332	4.961	5.710	4.674
DENS	2.932	2.794	3.010	2.963	2.791	2.922	2.909	2.723	2.945	2.847	2.836	2.765	2.841	2.805	2.921
DEPTH	529.44	544.07	559.61	575.16	589.79	603.81									
COND	4.892	4.839	4.752	4.688	5.190	5.809									
DENS	2.963	2.768	2.744	2.880	2.724	2.864									

COMMENTS: THERMAL CONDUCTIVITY WAS MEASURED PARALLEL TO THE AXIS OF THE CORE. THE TEMPERATURE GRADIENT IN THE BEDROCK OBTAINED SEVERAL DAYS AFTER DRILLING WAS ABOUT THE SAME AS THAT MEASURED MORE THAN A YEAR AFTER THE COMPLETION OF DRILLING. ROCK TYPES: HORNBLENDE-CHLORITE SCHIST (23%), HORNBLENDE SCHIST (15%), MYLONITE GNEISS (15%), CHLORITE SCHIST (14%), AND MISCELLANEOUS GNEISS, SCHIST AND QUARTZITE (33%). GROUNDWATER VELOCITY IN THE CRETACEOUS SEDIMENTS PROBABLY AVERAGES ABOUT 15 CM/DAY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S.C.	CSTL. PLN.	AIKEN	DRB # 3	33 17	81 40	87						
									ERROR			

COMPLETED ON OR BEFORE: 10/18/61 MEASURED: 7/9/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT, MARINE, NEIHEISEL AND SIPLE (1965)

GEOLOGY: 0-285 METERS SEMICONSOLIDATED SEDIMENTS, 285-592 METERS MIXTURES OF CATACLASTIC-TEXTURED SCHIST, GNEISS, QUARTZITE AND SOME PHYLLITE.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12
TEMP	19.185	19.287	19.396	19.607	19.870	20.135	20.331	20.543	20.767	21.019	21.308	21.558
DEPTH	213.36	228.60	243.84	259.08	274.32	281.94	289.56	297.18	304.80	312.42	320.04	327.66
TEMP	21.805	22.027	22.258	22.499	22.753	22.917	23.066	23.203	23.322	23.435	23.553	23.661

COMMENTS: NO CONDUCTIVITIES WERE MEASURED. ROCK TYPES: HORNBLENDE-CHLORITE SCHIST (48%), CHLORITE-BIOTITE SCHIST (20%), EPIDOTE-CHLORITE SCHIST (16%), AND MISCELLANEOUS SCHIST, GNEISS AND QUARTZITE (16%). GROUNDWATER VELOCITY THROUGH THE CRETACEOUS SEDIMENTS PROBABLY AVERAGES ABOUT 15 CM/DAY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S.C.	CSTL. PLN.	AIKEN	DRB # 4	33 17	81 40	77	427-577	12	8.24	14.62	1.20	1.20
								ERROR			0.1	0.1

COMPLETED ON OR BEFORE: 12/3/61 MEASURED: 3/16/62 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT, MARINE, NEIHEISEL AND SIPLE (1965)

GEOLOGY: 0-282 METERS SEMICONSOLIDATED SEDIMENTS, 282-591 METERS MIXTURES OF CATACLASTIC-TEXTURED SCHIST, GNEISS, QUARTZITE AND SOME PHYLLITE.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	152.40	182.88	198.12	
TEMP	19.110	19.180	19.330	19.680	19.970	20.130	20.360	20.590	20.820	21.090	21.370	21.600	
DEPTH	213.36	228.60	243.84	259.08	274.32	289.56	304.80	320.04	335.28	350.52	358.14	365.76	
TEMP	21.800	22.000	22.380	22.740	23.020	23.270	23.510	23.730	23.920	24.180	24.310	24.360	
DEPTH	388.56	396.15	411.33	426.51	434.10	441.69	449.28	456.87	464.45	472.04	479.63	487.13	
TEMP	24.730	24.880	25.040	25.280	25.350	25.480	25.590	25.690	25.810	25.890	26.020	26.140	
DEPTH	494.63	502.13	509.63	517.12	532.12	547.12	561.99	576.87					
TEMP	26.240	26.320	26.450	26.560	26.800	27.010	27.260	27.480					

CONDUCTIVITY AND DENSITY

DEPTH	295.66	295.66	311.20	311.20	326.75	326.75	341.07	356.62	356.62	368.81	387.71	402.64	418.19	433.73	448.36
COND	10.47	10.51	8.09	8.30	10.39	9.10	7.97	8.84	8.97	8.26	5.28	7.66	11.82	11.25	7.81
DEPTH	463.30	480.06	495.61	509.02	524.56	539.50	552.91	570.59	579.12	587.96					
COND	9.03	7.24	8.28	6.99	6.66	6.92	8.59	6.72	6.41	5.26					

DIP ANGLE

DEPTH	335	365	380	388	396	403	411	418	426	434	441	449	456	464	472	479	487	494
ANGLE	2.5	2.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	10.0	10.0
DEPTH	502	509	517	524	532	539	547	554	561	569	576	584	591	599	606			
ANGLE	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.5	12.5	12.5	12.5	12.7	12.7	12.7	12.7			

COMMENTS: ROCK TYPES: MICACEOUS QUARTZITE AND PHYLLITE (58%), CHLORITE-BICTITE SCHIST (27%). CONDUCTIVITIES ARE ALL CUT PARALLEL TO AXIS OF THE CORE. GROUNDWATER VELOCITY THROUGH THE CRETACEOUS SEDIMENTS PROBABLY AVERAGES ABOUT 15 CM/DAY. ALL DEPTHS ARE ACTUAL VERTICAL DEPTHS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S.C.	CSTL. PLN.	AIKEN	DRB # 5	33 17	81 40	88						
							ERROR					

COMPLETED ON OR BEFORE: 8/28/62 MEASURED: 7/12/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT, MARINE, NEIHEISEL AND SIPLE (1965)

GEOLOGY: 0-284 METERS SEMICONSOLIDATED SEDIMENTS, 284-560 METERS MIXTURES OF CATACLASTIC-TEXTURED SCHIST, GNEISS, QUARTZITE AND SOME PHYLLITE.

TEMPERATURE

DEPTH	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12	213.36
TEMP	19.434	19.422	19.661	19.952	20.211	20.442	20.663	20.905	21.149	21.417	21.640	21.888
DEPTH	228.60	243.84	259.08	274.32	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90
TEMP	22.098	22.322	22.576	22.861	23.175	23.299	23.414	23.529	23.650	23.769	23.882	24.005

COMMENTS: HOLE WAS VERTICAL TO DEPTH TEMPERATURES WERE MEASURED. ROCK TYPES: EPIDOTE-CHLORITE SCHIST (60%), MICACEOUS QUARTZITE (38%) AND QUARTZITE (2%). GROUNDWATER VELOCITY THROUGH THE CRETACEOUS SEDIMENTS PROBABLY AVERAGES 15 CM/DAY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
S.C.	CSTL. PLN.	AIKEN	DRB # 6	33 17	81 40	88	427-562	20	6.26	15.72	0.98	0.98
								ERROR			0.1	0.1

COMPLETED ON OR BEFORE: 6/4/62 MEASURED: 7/9/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT, MARINE, NEIHEISEL AND SIPLE (1965)

GEOLOGY: 0-274 METERS SEMICONSOLIDATED SEDIMENTS, 274-583 METERS MIXTURES OF CATACLASTIC-TEXTURED SCHIST, GNEISS, QUARTZITE AND SOME PHYLLITE.

TEMPERATURE

DEPTH	30.48	45.72	60.96	76.20	91.44	106.68	121.92	137.16	152.40	167.64	182.88	198.12
TEMP	19.321	19.464	19.496	19.702	19.990	20.213	20.399	20.564	20.815	21.063	21.342	21.573
DEPTH	213.36	228.60	243.84	259.08	274.32	281.94	289.56	297.18	304.80	312.42	320.04	327.66
TEMP	21.853	22.040	22.239	22.466	22.756	22.943	23.077	23.188	23.300	23.420	23.544	23.664
DEPTH	335.28	342.90	350.52	358.14	365.76	373.38	381.00	388.62	396.24	403.86	411.48	419.07
TEMP	23.770	23.885	24.001	24.121	24.240	24.360	24.490	24.607	24.722	24.835	24.960	25.067
DEPTH	426.66	434.22	441.78	449.34	456.90	464.45	472.01	479.57	487.10	494.66	502.19	509.72
TEMP	25.198	25.317	25.424	25.544	25.660	25.776	25.895	26.029	26.135	26.252	26.374	26.477
DEPTH	517.25	524.77	532.30	539.83	547.36	554.89	562.42	569.95	577.48			
TEMP	26.605	26.726	26.855	26.979	27.108	27.227	27.334	27.453	27.551			

CONDUCTIVITY AND DENSITY

DEPTH	429.20	441.70	456.60	491.60	504.10	520.60	532.50	545.90	573.60	563.60	429.20	441.70	456.60	491.60	504.10
COND	6.81X	7.32X	6.81X	6.89X	6.89X	5.82X	7.06X	6.93X	9.03X	6.50X	5.47Z	4.18Z	5.25Z	5.08Z	4.18Z
DENS	2.94	2.92	3.01	2.94	2.92	2.93	2.94	2.94	2.79	3.02	2.94	2.90	3.01	2.96	2.91
DEPTH	520.60	532.50	545.90	573.60	563.60										
COND	4.66Z	7.35Z	6.42Z	6.70Z	5.85Z										
DENS	2.96	2.82	2.94	2.78	2.93										

DIP ANGLE

DEPTH	411	426	434	441	449	456	464	472	479	487	494	502	509	517	524	532	539	547
ANGLE	4.0	4.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.5
DEPTH	554	562	569	577														
ANGLE	9.5	9.5	9.5	9.5														

COMMENTS: ROCK TYPES: HORNBLENDE-CHLORITE SCHIST (33%), HORNBLENDE SCHIST (27%), CHLORITE SCHIST (24%), MYLONITE GNEISS (6%), AND EPIDOTITE-CHLORITE SCHIST (5%). GROUNDWATER VELOCITY THROUGH THE CRETACEOUS SEDIMENTS PROBABLY AVERAGES 15 CM/DAY.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
TENN.	APPALACH.	OAK RIDGE	JOY NO. 1	35 55	84 19	232	305-785	87	6.13	11.91	0.73	0.82
								ERROR			0.04	0.04

COMPLETED ON OR BEFORE: 6/20/62 MEASURED: 10/6/62 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT AND ROBERTSON (1963)

GEOLOGY: 0-211 METERS MIDDLE PART OF CONASAUGA SHALE; 211-305 METERS LOWER PART OF CONASAUGA SHALE (PUMPKIN VALLEY MEMBER); 305-415 METERS ROME FORMATION; 415-953 METERS CHICKAMAUGA LIMESTONE; 953-995 METERS KNOX DOLOMITE.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	15.673	14.828	14.797	14.834	14.903	14.997	15.074	15.135	15.196	15.271	15.325	15.403
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	15.467	15.560	15.656	15.792	15.918	16.047	16.195	16.343	16.501	16.656	16.787	16.930
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	17.045	17.210	17.361	17.502	17.652	17.803	17.948	18.131	18.281	18.404	18.547	18.673
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90	350.52	358.14	365.76
TEMP	18.789	18.896	19.020	19.172	19.256	19.317	19.410	19.496	19.569	19.649	19.724	19.794
DEPTH	373.38	381.00	388.62	396.24	403.86	411.48	419.10	426.72	434.34	441.96	449.58	457.20
TEMP	19.859	19.936	20.018	20.095	20.176	20.275	20.367	20.463	20.552	20.654	20.756	20.866
DEPTH	464.82	472.44	480.06	487.68	495.30	502.92	510.54	518.16	525.78	533.40	541.02	548.64
TEMP	20.961	21.082	21.181	21.292	21.386	21.501	21.607	21.720	21.823	21.924	22.023	22.122
DEPTH	556.26	563.88	571.50	579.12	586.74	594.36	601.98	609.60	617.22	624.84	632.46	640.08
TEMP	22.223	22.314	22.401	22.491	22.593	22.683	22.768	22.860	22.954	23.046	23.133	23.235
DEPTH	647.70	655.32	662.94	670.56	678.18	685.80	693.42	701.04	708.66	716.28	723.90	731.52
TEMP	23.339	23.431	23.521	23.625	23.746	23.852	23.945	24.057	24.179	24.318	24.421	24.505
DEPTH	739.14	746.76	754.38	762.00	769.62	777.24	784.86	792.48	800.10	807.72	815.34	822.96
TEMP	24.588	24.681	24.766	24.848	24.930	25.025	25.107	25.209	25.302	25.410	25.521	25.617
DEPTH	830.58	838.20	845.82	853.44	861.06	868.68	876.30					
TEMP	25.722	25.829	25.945	26.158	26.174	26.312	26.403					

CONDUCTIVITY AND DENSITY

DEPTH	9.14	18.29	82.30	91.44	100.58	109.73	118.87	118.87	128.02	137.16	146.30	173.74	192.02	201.17	210.31
COND	6.7	6.6	6.1	6.8	6.7	5.7	6.1	6.4	6.5	5.8	4.8	7.1	5.0	3.9	4.6
DENS	2.67V	2.68V	2.69V	2.68V	2.70V	2.70V	2.68Z	2.71Z	2.69Z	2.67V	2.72V	2.65V	2.71V	2.70V	2.72V
DEPTH	228.60	256.03	280.42	286.51	286.51	316.99	323.09	323.09	338.33	338.33	347.47	347.47	356.62	356.62	362.71
COND	6.0	7.6	4.0	6.7	6.2	8.6	10.3	9.0	8.9	10.1	7.8	7.3	8.1	7.3	7.0
DENS	2.70V	2.70V	V	2.68V	2.69V	2.82V	V	2.72V	2.61V	2.63V	2.65V	2.66V	V	2.63V	2.65V

OAK RIDGE JCY NO. 1

CONDUCTIVITY AND DENSITY (CONTINUED)

DEPTH	368.81	368.81	377.95	377.95	381.00	393.19	393.19	399.29	402.34	411.48	411.48	423.67	423.67	426.72	431.60
COND	10.4	11.1	4.9	5.1	6.4	6.9	8.6	8.3	4.5	8.8	9.4	6.3	6.2	6.8	5.9
DENS	2.62V	2.62V	2.68V	2.69V	2.72V	2.67V	2.66V	2.62V	2.65V	V	2.65V	2.70V	2.69V	2.69V	2.67V
DEPTH	441.96	452.63	457.20	457.20	464.82	472.44	478.54	487.68	487.68	492.25	501.40	501.40	510.54	519.68	528.83
COND	4.1	4.5	5.3	5.7	4.7	4.5	6.4	6.5	5.5	4.5	6.2	3.7	4.1	4.7	5.3
DENS	2.70V	2.72V	2.71V	2.71V	2.70Z	2.68V	2.70V	2.72V	2.73V	2.73V	2.70X	2.72Y	2.73V	2.72V	2.71V
DEPTH	528.83	537.97	547.12	547.12	556.26	565.41	565.41	574.55	574.55	579.12	579.12	583.69	583.69	597.41	601.98
COND	5.6	6.0	5.7	5.6	6.2	6.4	6.3	5.5	6.2	5.3	5.3	6.4	5.6	6.2	6.4
DENS	2.70V	2.71V	2.66V	2.71V	2.72V	2.71V	2.72V	2.70V	2.69V	2.73V	2.73V	2.71V	2.72V	2.68V	2.70V
DEPTH	601.98	611.13	611.13	615.70	615.70	620.27	624.84	624.84	629.41	629.41	633.99	633.99	638.56	638.56	647.70
COND	6.4	6.1	6.1	6.2	6.0	6.4	6.1	6.2	5.4	6.0	6.3	6.1	4.8	4.9	6.0
DENS	2.70V	2.71V	2.70V	2.69X	2.68Z	2.70V	2.70V	2.71V	2.68V	2.70V	2.70V	2.70V	2.72V	2.73V	2.69V
DEPTH	647.70	656.85	656.85	661.42	661.42	665.99	670.56	670.56	679.71	679.71	684.28	693.42	697.99	702.57	702.57
COND	6.0	6.0	6.3	6.0	6.1	6.4	5.4	5.5	6.2	4.7	6.0	6.2	6.0	5.9	6.2
DENS	2.70V	2.70V	2.71X	2.70V	2.70V	2.71V	2.71V	2.70V	2.71X	2.72Z	2.72V	2.71V	2.72V	2.70V	2.70V
DEPTH	707.14	707.14	711.71	711.71	716.28	716.28	719.33	719.33	725.43	725.43	731.52	731.52	737.62	737.62	743.71
COND	6.1	5.4	5.0	4.8	5.8	6.1	5.7	5.9	6.7	6.8	6.4	6.0	6.3	6.8	5.9
DENS	2.72X	2.71V	2.72V	2.71V	2.72V	2.71X	2.71V	2.70V	2.70V	2.71V	2.69V	2.68V	2.69V	2.70V	2.69V
DEPTH	743.71	749.81	755.91	755.91	762.00	762.00	768.10	768.10	774.19	774.19	780.29	780.29	786.39	792.48	792.48
COND	6.5	5.4	6.6	6.1	6.6	6.9	6.5	6.1	4.7	5.3	6.1	6.3	6.0	4.1	5.2
DENS	2.70V	2.66V	2.71V	2.97V	2.67V	2.69V	2.70V	2.70V	V	2.69V	2.70V	2.70V	2.71V	2.71V	2.71V
DEPTH	798.58	804.67	804.67	810.77	810.77	816.87	816.87	822.96	822.96	829.06	829.06	835.15	841.25	841.25	847.35
COND	6.1	6.4	6.4	4.9	4.9	6.0	4.7	4.6	4.6	7.2	4.7	4.4	4.5	4.5	4.2
DENS	2.70V	V	2.70V	2.73V	2.73V	2.73V	2.74V	2.72V	2.72V	2.70V	2.68V	2.74V	2.73V	2.70V	2.71V
DEPTH	847.35	853.44	853.44	859.54	859.54	865.02	871.73	871.73	874.78	874.78	877.83	877.83			
COND	5.2	5.0	5.1	5.1	4.7	4.8	5.6	5.4	4.2	4.8	5.0	5.5			
DENS	2.73V	2.73V	2.73V	2.73V	2.73V	2.73V	2.69V	2.69V	2.68V	2.69V	2.71V	2.70V			

DIP ANGLE

DEPTH	150	300	600	900
ANGLE	1.7	1.5	7.7	11.5

TERRAIN DATA

RADIUS	121	243	365	487	609	731	853	975	1097	1219	1463	1706	1950	2194
ELEV	230	234	240	246	257	265	272	281	284	281	277	277	271	269
RADIUS	2438													
ELEV	271													

COMMENTS: DIP OF ROCKS IN REGION AVERAGES 20-30 DEGREES. POROSITY GENERALLY IS LESS THAN 1%. CONDUCTIVITY: X AFTER THE DENSITY INDICATES THAT THE CONDUCTIVITY WAS MEASURED ALONG THE DIP OF THE BEDDING; Z AFTER THE DENSITY INDICATES THAT THE CONDUCTIVITY WAS MEASURED PERPENDICULAR TO THE BEDDING; AND V AFTER THE DENSITY INDICATES THAT THE CONDUCTIVITY WAS MEASURED ALONG THE AXIS OF THE HOLE. CONDUCTIVITY STANDARDS: CERAMIC DISKS (ISOLANTITE), CALIBRATED AGAINST QUARTZ AND FUSED SILICA GLASS. ALL DEPTHS UNCORRECTED FOR DEVIATION FROM VERTICAL. TOTAL DEPTH: 995 METERS. HOLE SIZE: NX.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
TENN.	APPALACH.	OAK RIDGE	400S	35 55	84 18	238						

ERROR

COMPLETED ON OR BEFORE: 5/7/60 MEASURED: 3/7/62 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT AND ROBERTSON (1963)

TEMPERATURE

DEPTH	7.62	15.24	38.10	45.42	53.04	60.35	82.30	89.61	96.93	104.24	111.56	118.87
TEMP	13.560	13.940	14.740	14.860	15.200	15.240	15.340	15.420	15.470	15.560	15.680	15.780
DEPTH	126.19	133.50	140.51	147.52	154.53	161.54	168.55	175.26	188.98	195.99	209.40	216.10
TEMP	15.910	16.050	16.220	16.350	16.490	16.630	16.790	16.950	17.430	17.600	17.670	17.920
DEPTH	229.82	236.53	243.23	249.94	256.95	263.96	270.97	277.98	284.99	292.00		
TEMP	18.050	18.180	18.320	18.420	18.550	18.650	18.770	18.850	19.010	19.140		

DIP ANGLE

DEPTH	150	300
ANGLE	21.7	23.7

COMMENTS: HOLE DIAMETER: NX. DEPTHS CORRECTED FOR DEVIATION FROM VERTICAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
VA.	APPALACH.	ALBERTA		36 52	77 54	116	150-300	20	7.8	18.0	1.4	1.4
								ERROR			0.1	0.1

COMPLETED CN CR BEFORE: 1910 MEASURED: 9/9/64 STATIC WATER LEVEL: 3.7

REFERENCE: DIMENT, RASPET, MAYHEW AND WERRE (1965)

GEOLOGY: 0-312 METERS PETERSBURG GRANITE (MICROCLINE BIOTITE GRANITE AND CHLORITIC GRANODIORITE).

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	15.411	15.254	15.362	15.430	15.488	15.534	15.580	15.651	15.730	15.820	15.915	16.015
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	16.109	16.216	16.337	16.437	16.541	16.665	16.804	16.925	17.041	17.193	17.316	17.450
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	17.598	17.712	17.849	17.988	18.122	18.250	18.391	18.506	18.678	18.798	18.940	19.067
DEPTH	281.94	289.56	297.18	304.80	312.42							
TEMP	19.197	19.328	19.441	19.578	19.680							

CONDUCTIVITY AND DENSITY

DEPTH	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00
COND	6.7	8.0	5.8	7.3	7.9	8.0	7.9	8.0	7.8	7.7	7.8	7.8	8.4	8.0	8.3
DENS	2.65	2.63	2.64	2.65	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.65	2.58	2.67
DEPTH	51.00	52.00	53.00	54.00	55.00										
COND	7.8	7.9	7.2	6.7	7.3										
DENS	2.65	2.61	2.61	2.60	2.59										

COMMENTS: DEPTHS OF CONDUCTIVITY AND DENSITY VALUES ARE SAMPLE NUMBERS ONLY. VARIABLE GRADIENT IN UPPER HALF OF HOLE IS THOUGHT TO BE DUE TO GROUNDWATER MOVEMENT WITHIN THE HOLE. TOPOGRAPHY IS SUBDUED: RELIEF WITHIN RADIUS OF 1 KM IS LESS THAN 50 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
D.C.	APPALACH.	WASHINGTON	DRB # 1	39	77	35	256-843	11	7.00	16.23	1.12	1.12
								ERROR	0.58		0.1	0.1

COMPLETED ON OR BEFORE: MEASURED: 9/13/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT AND WERRE (1964)

GEOLOGY: HOLE CORED ENTIRELY IN SCHIST.

TEMPERATURE

DEPTH	30.45	60.69	90.62	120.30	149.66	178.70	207.36	235.67	263.26	289.93	315.80	341.07
TEMP	14.501	14.061	14.107	14.377	14.647	15.269	15.689	16.127	16.591	16.971	17.382	17.718
DEPTH	365.94	390.24	414.28	438.15	461.74	485.06	508.10	530.96	553.67	576.32	598.93	621.79
TEMP	18.094	18.446	18.779	19.138	19.497	19.823	20.154	20.573	20.956	21.299	21.657	22.100
DEPTH	644.84	668.06										
TEMP	22.510	22.937										

CONDUCTIVITY AND DENSITY

DEPTH	256.00	325.00	439.00	488.00	552.00	598.00	618.00	716.00	729.00	843.00	256.00	325.00	488.00	552.00	598.00
COND	8.94	8.57	7.88	9.05	9.74	9.12	9.99	8.59	8.14	8.60	8.19	8.33	8.96	8.76	9.00
DENS	2.789	2.805	2.768	2.811	2.820	2.801	2.751	2.787	2.791	2.780	2.774	2.786	2.815	2.781	2.784
DEPTH	618.00	716.00	729.00	762.00	843.00	256.00	325.00	439.00	488.00	552.00	598.00	618.00	716.00	729.00	762.00
COND	8.62	9.65	8.47	8.82	8.70	7.18	6.36	7.52	6.83	5.66	4.95	6.27	6.78	6.24	6.11
DENS	2.776	2.786	2.797	2.750	2.770	2.797	2.767	2.765	2.820	2.854	2.801	2.783	2.753	2.785	2.772
DEPTH	843.00														
COND	7.02														
DENS	2.770														

DIP ANGLE

DEPTH	30	45	60	75	90	105	120	135	149	164	178	193	207	221	235	249	263	276
ANGLE	2.7	6.0	8.5	10.5	11.7	12.7	13.5	15.0	16.2	17.0	18.2	19.2	20.5	21.5	22.7	24.0	26.2	28.0
DEPTH	289	302	315	328	341	353	365	378	390	402	414	426	438	449	461	473	485	496
ANGLE	30.0	31.2	32.5	33.5	34.5	34.7	35.2	36.7	37.5	37.7	38.0	38.2	38.7	39.0	39.5	40.0	40.2	40.7
DEPTH	508	519	530	542	553	564	576	587	598	610	621	633	644	656	668	679		
ANGLE	41.0	41.2	41.5	42.0	41.7	42.0	42.0	42.2	42.0	41.5	41.2	41.0	40.7	40.7	40.0	40.5		

COMMENTS: HOLE SIZE: 2-3/4X3-7/8. CONDUCTIVITIES: FIRST SET ARE CUT TO GIVE THE CONDUCTIVITY ALONG DIP OF FOLIATION. SECOND SET ARE CUT TO GIVE THE CONDUCTIVITY ALONG STRIKE OF FOLIATION. THIRD SET ARE CUT TO GIVE THE CONDUCTIVITY IN DIRECTION PERPENDICULAR TO THE PLANE OF FOLIATION. THE DEPTHS FOR THE ANGLE OF PENETRATION DATA ARE THE ACTUAL VERTICAL DEPTHS. NO TERRAIN CORRECTION WAS MADE DUE TO SUBDUED TOPOGRAPHY. ANGLE OF PENETRATION IS DEVIATION FROM THE VERTICAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
D.C.	APPALACH.	WASHINGTON	DRB # 2	39	77	60	244-875	10	7.42	15.04	1.12	1.12
								ERROR			0.1	0.1

COMPLETED ON OR BEFORE: MEASURED: 9/18/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT AND WERRE (1964)

GEOLOGY: HOLE CORED ENTIRELY IN SCHIST.

TEMPERATURE

DEPTH	30.48	60.96	91.01	120.76	150.30	179.59	208.91	237.96	266.79	295.29	323.55	351.62
TEMP	14.313	14.253	14.355	14.659	15.038	15.425	15.929	16.451	16.716	17.160	17.575	17.972
DEPTH	379.29	406.73	433.97	461.07	487.92	514.69	541.11	567.26	593.32	619.02	644.35	669.28
TEMP	18.369	18.753	19.128	19.512	19.873	20.253	20.666	21.030	21.421	21.859	22.265	22.724
DEPTH	693.85	718.20	742.46	766.60	791.02							
TEMP	23.114	23.486	23.892	24.294	24.667							

CONDUCTIVITY AND DENSITY

DEPTH	244.00	334.00	421.00	455.00	542.00	660.00	709.00	771.00	789.00	875.00	244.00	334.00	421.00	455.00	542.00
COND	9.45	8.91	8.84	9.03	9.32	8.11	9.39	8.89	8.73	7.41	8.00	7.61	7.45	6.96	6.48
DENS	2.78	2.78	2.81	2.81	2.80	2.81	2.815	2.813	2.787	2.776	2.81	2.79	2.82	2.80	2.79
DEPTH	660.00	709.00	771.00	789.00	875.00										
COND	6.32	6.50	7.20	6.98	6.04										
DENS	2.79	2.800	2.785	2.807	2.781										

DIP ANGLE

DEPTH	60	76	91	105	120	135	150	164	179	194	208	223	237	252	266	281	295	309
ANGLE	0.0	8.7	10.2	11.7	13.5	14.0	14.7	15.5	16.2	15.5	16.5	17.2	17.7	18.5	19.2	20.2	21.5	22.0
DEPTH	323	337	351	365	379	393	406	420	433	447	461	474	487	501	514	527	541	554
ANGLE	22.2	22.5	23.2	24.5	25.2	25.5	26.0	26.5	26.7	27.0	27.5	28.0	28.5	28.5	28.7	29.5	30.2	30.7
DEPTH	567	580	593	606	619	631	644	656	669	681	693	706	718	730	742	754	766	778
ANGLE	31.0	31.0	31.5	32.7	32.5	33.2	34.2	34.7	35.5	36.0	36.5	37.0	37.0	37.2	37.2	37.7	37.5	37.0
DEPTH	791	803	815	827	840	852	864	877	889	902	915	928	941					
ANGLE	36.5	36.5	36.5	36.5	36.5	36.2	35.5	35.2	35.0	33.7	32.0	31.2	31.2					

COMMENTS: HOLE SIZE: NX. CONDUCTIVITIES: FIRST SET ARE CUT TO GIVE THE CONDUCTIVITY ALONG STRIKE OF FOLIATION. SECOND SET ARE CUT TO GIVE THE CONDUCTIVITY IN DIRECTION PERPENDICULAR TO PLANE OF THE FOLIATION. ALL DEPTHS ARE THE ACTUAL VERTICAL DEPTHS. NO TERRAIN CORRECTION WAS MADE DUE TO SUBDUED TOPOGRAPHY. ANGLE OF PENETRATION IS THE DEVIATION FROM VERTICAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
D.C.	APPALACH.	WASHINGTON	DRB # 3	39	77	15	228-1058	14	6.97	16.13	1.12	1.12
								ERROR			0.1	0.1

COMPLETED ON OR BEFORE: MEASURED: 6/25/63 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT AND WERRE (1964)

GEOLOGY: HOLE CORED ENTIRELY IN SCHIST.

TEMPERATURE

DEPTH	30.48	60.96	91.44	121.78	152.09	182.39	212.76	243.12	273.46	303.74	333.90	363.93
TEMP	14.884	14.552	14.598	14.949	15.320	15.759	16.224	16.665	17.089	17.553	17.995	18.403
DEPTH	393.84	423.56	453.22	482.62	511.73	540.51	569.17	597.74	626.33	654.93	683.48	711.98
TEMP	18.848	19.303	19.758	20.264	20.735	21.223	21.723	22.189	22.657	23.117	23.588	24.027
DEPTH	740.62	769.33	797.93	826.48	855.03	883.55	912.10	940.67	969.31	998.00	1026.73	1055.26
TEMP	24.501	24.939	25.387	25.861	26.325	26.787	27.244	27.694	28.187	28.673	29.182	29.648
DEPTH	1083.64	1112.00	1140.43	1168.76	1197.22	1225.75	1254.15	1282.73	1311.02	1339.28	1367.52	1395.65
TEMP	30.134	30.642	31.163	31.688	32.204	32.727	33.259	33.830	34.425	35.018	35.598	36.228
DEPTH	1423.65											
TEMP	36.802											

CONDUCTIVITY AND DENSITY

DEPTH	228.00	286.00	336.00	533.00	544.00	592.00	610.00	717.00	756.00	817.00	897.00	919.00	998.00	1058.00	228.00
COND	6.70	8.19	8.57	8.37	8.49	8.78	8.65	8.45	8.53	8.35	8.32	8.49	8.50	8.67	7.20
DENS	2.833	2.773	2.765	2.789	2.783	2.791	2.771	2.781	2.806	2.800	2.802	2.791	2.787	2.781	2.813
DEPTH	286.00	336.00	533.00	544.00	592.00	610.00	717.00	756.00	817.00	897.00	919.00	998.00	1058.00		
COND	7.51	7.76	5.57	5.80	6.98	6.91	6.09	7.19	6.89	6.33	5.05	6.51	5.34		
DENS	2.780	2.785	2.796	2.812	2.795	2.774	2.780	2.795	2.783	2.809	2.826	2.822	2.788		

DIP ANGLE

DEPTH	91	106	121	136	152	167	182	197	212	227	243	258	273	288	303	318	333	348
ANGLE	0.0	5.2	5.7	6.0	6.2	7.0	5.2	4.7	5.0	5.5	4.5	5.2	5.7	6.2	7.0	7.7	8.7	10.0
DEPTH	363	378	393	408	423	438	453	467	482	497	511	526	540	554	569	583	597	612
ANGLE	9.7	10.5	11.7	12.5	13.2	13.2	13.5	14.7	15.7	16.7	17.7	18.7	19.7	19.7	20.0	20.5	20.2	20.5
DEPTH	626	640	654	669	683	697	711	726	740	754	769	783	797	812	826	840	855	869
ANGLE	20.0	20.2	20.2	20.2	20.7	21.0	20.5	20.0	20.0	17.5	19.7	20.2	20.2	20.2	20.7	20.5	20.5	20.7
DEPTH	883	897	912	926	940	954	969	983	997	1012	1026	1041	1055	1069	1083	1097	1111	1126
ANGLE	20.5	20.5	20.5	20.5	20.2	20.0	20.0	19.7	19.7	19.5	19.5	20.2	21.0	21.0	21.7	21.5	21.5	21.2

COMMENTS: HOLE SIZE: NX. CONDUCTIVITIES: FIRST SET ARE CUT TO GIVE THE CONDUCTIVITY ALONG STRIKE OF FOLIATION. SECOND SET ARE CUT TO GIVE THE CONDUCTIVITY IN DIRECTION PERPENDICULAR TO THE PLANE OF THE FOLIATION. ALL DEPTHS ARE ACTUAL VERTICAL DEPTHS. NO TERRAIN CORRECTION WAS MADE DUE TO THE SUBDUED TOPOGRAPHY. ANGLE OF PENETRATION IS THE DEVIATION FROM THE VERTICAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
W.VA.	APPALACH.	MORGANTOWN		39 40	79 59	296	260-280	10	12.4	9.0	1.12	1.12
								ERROR			0.17	0.17

COMPLETED ON OR BEFORE: 1951 MEASURED: 8/64 STATIC WATER LEVEL: 0.0

REFERENCE: DIMENT (1967), URBAN (1970), DIMENT ET AL. (1971)

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	15.298	14.245	13.216	12.840	12.566	12.466	12.492	12.650	12.788	12.981	13.156	13.331
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	13.486	13.633	13.834	13.941	14.014	14.149	14.298	14.720	14.880	15.064	15.306	15.398
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	15.468	15.588	15.855	16.083	16.152	16.489	16.814	16.892	16.964	17.061	17.119	17.184
DEPTH	281.94	289.56	297.18	304.80	312.42	320.04	327.66	335.28	342.90			
TEMP	17.254	17.428	17.581	17.746	17.905	18.076	18.236	18.424	18.649			

CONDUCTIVITY AND DENSITY

DEPTH	121.92	195.07	266.70	274.32	324.61	335.28	335.28	335.28	335.28	350.52
COND	8.12	12.12	12.08	12.64	10.12	8.85	10.41	9.73	8.41	8.58

COMMENTS: CONDUCTIVITY SAMPLES FROM OUTCROPS WITH DEPTHS ESTIMATED IN HOLE FROM DRILLING LOG AND OTHER NEARBY STRATIGRAPHIC SECTIONS
TEMPERATURES ARE EQUILIBRIUM VALUES IN AIRFILLED HOLE FROM 8/20/64-8/26/64. INNER CASING DIAMETER: 25 CM.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
P.R.	IS. ARC	LARES	H-150	18 15	66 48	560	198-290	13	8.5	12.5	1.06	0.98
								ERROR				

COMPLETED ON OR BEFORE: 2/24/65 MEASURED: 4/1/67 STATIC WATER LEVEL: 60.0

REFERENCE:

GEOLOGY: 0-23 METERS CLAY, LIMONITE; 23-327 METERS VARIOUS VOLCANIC ROCKS.

TEMPERATURE

DEPTH	7.62	15.24	22.86	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44
TEMP	28.571	27.096	26.391	25.445	24.792	24.154	22.011	21.727	21.711	21.711	21.722	21.727
DEPTH	99.06	106.68	114.30	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88
TEMP	21.757	21.786	21.823	21.866	21.908	21.960	22.017	22.081	22.152	22.224	22.298	22.379
DEPTH	190.50	198.12	205.74	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32
TEMP	22.464	22.548	22.643	22.729	22.821	22.916	23.012	23.103	23.207	23.315	23.404	23.488
DEPTH	281.94	289.56	292.00									
TEMP	23.571	23.660	23.681									

CONDUCTIVITY AND DENSITY

DEPTH	140.00	154.00	154.00	202.00	202.00	244.00	244.00	258.00	258.00	273.00	273.00	285.00	285.00
COND	7.0	7.4	7.4	4.8	4.5	7.5	7.5	12.6	9.7	9.3	9.0	8.0	9.8
DENS	2.60	2.64	2.65	2.72	2.70	2.60	2.62	2.82	2.85	2.79	2.78	2.73	2.83

TERRAIN DATA

RADIUS	60	121	182	243	304	457	609	762	914	1219
ELEV	550	532	511	523	529	542	554	570	585	596

COMMENTS: HOLE 5 CM. DIAMETER. TOTAL DEPTH: 327 METERS. HOLE CASED WITH 256 METERS OF PLASTIC PIPE. CONDUCTIVITY SAMPLES ARE ALL VOLCANIC ROCKS, ALTERED BY ADDITION OF QUARTZ AND SULFIDES. ROCKS ARE ALL HIGHLY FRACTURED. FAULT ZONE: 58-183 AND 213-256 METERS. POSSIBLE WATER DISTURBANCE NEAR 110 AND 250 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV M	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
P.R.	IS. ARC	MAYAGUEZ	AMSOC	18 09	67 10	30	230-290	20	6.0	9.5	0.57	0.60
								ERROR				

COMPLETED ON OR BEFORE: 11/2/62 MEASURED: 6/21/63 STATIC WATER LEVEL: 20.0

REFERENCE: DIMENT AND WEAVER (1964)

GEOLOGY: 0-305 METERS SERPENTINITES OF BERMEJA COMPLEX

TEMPERATURE

DEPTH	30.48	38.10	45.72	53.34	60.96	68.58	76.20	83.82	91.44	99.06	106.68	114.30
TEMP	24.971	25.038	25.084	25.124	25.154	25.186	25.217	25.245	25.276	25.316	25.360	25.405
DEPTH	121.92	129.54	137.16	144.78	152.40	160.02	167.64	175.26	182.88	190.50	198.12	205.74
TEMP	25.458	25.522	25.581	25.649	25.706	25.771	25.839	25.909	25.982	26.049	26.109	26.171
DEPTH	213.36	220.98	228.60	236.22	243.84	251.46	259.08	266.70	274.32	281.94	289.56	297.18
TEMP	26.233	26.314	26.366	26.444	26.516	26.585	26.658	26.729	26.801	26.872	26.945	27.015
DEPTH	304.80											
TEMP	27.083											

CONDUCTIVITY AND DENSITY

DEPTH	28.18	28.18	31.15	31.15	74.10	94.00	94.00	120.25	146.56	146.56	196.96	196.96	237.60	237.60	273.72
COND	4.06	4.71	5.25	5.37	4.56	5.41	5.36	5.63	5.70	5.76	5.72	5.59	6.42	6.36	5.78
DENS	2.54	2.56	2.66	2.65	2.56	2.51	2.51	2.59	2.74	2.77	2.74	2.72	2.57	2.57	2.72
DEPTH	273.72	300.90	300.90	303.70	303.70										
COND	5.92	5.05	5.11	5.56	5.22										
DENS	2.72	2.60	2.60	2.73	2.71										

TERRAIN DATA

RADIUS	60	121	182	304	426	609	914	1219	1524	1828	2133	2438	2743	3048
ELEV	30	35	35	31	28	24	24	17	14	12	12	8	7	6

COMMENTS: HOLE DIAMETER: NX. 2-5/8 IN. (ID) PIPE IN HOLE 0-305 METERS. ACID BOTTLE TEST: INCLINATION LESS THAN 5 DEGREES AT 305 M. TEMPERATURES ARE EQUILIBRIUM EXTRAPOLATED VALUES, BUT ARE WITHIN 1 PER CENT OF LAST SET OF TEMPERATURE READINGS. CONDUCTIVITY VALUES ARE FOR SHELF DRIED SAMPLES. SATURATION INCREASES THE CONDUCTIVITY BY 3 PER CENT AT MOST.

BASIC HEAT-FLOW DATA FOR THE EASTERN AND WESTERN UNITED STATES

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All of the basic heat-flow data presented in this section are summarized in Roy et al. (1968b). The heat-flow data for the New York and New England areas are also presented in Birch et al. (1968) and, in part, in Roy et al. (1968a). Roy et al. (1968a) also discussed the heat flows at several of the sites in the Sierra Nevada, the Basin and Range province, and the Interior Plains. The mechanical details of data acquisition and the precision and accuracy of the basic heat-flow data are discussed by Roy et al. (1968b).

Most of the symbols and units in our tables are adequately explained in the introduction to this volume. The conventions and symbols in our compilations that require additional explanation are listed below.

COND. GRAD. AND ERROR. The COND column in the tables refers to the inverse of the arithmetic mean resistivity reported by Roy et al. (1968b). The GRAD column contains the least-squares gradient of temperature determined over the DEPTH RANGE specified. The ERROR line contains the standard errors of the mean conductivity and least-squares gradient.

HEAT FLOW. Uncorrected (UNC) heat flows were calculated using only observed temperatures and measured thermal conductivities over the indicated DEPTH RANGE. Three methods were employed to calculate uncorrected heat flows: (1) as the quotient of least-squares gradient divided by mean resistivity; (2) from the resistance integral (Bullard, 1939, p. 481); and (3) as the average value of

several values of flux calculated from several values of gradient and resistivity over several intervals of depth. If the flux was calculated using method (1), the method is not mentioned in the tables; otherwise, the method is given in the COMMENT section of the tables. The ERROR beneath UNC is the standard error of the uncorrected heat flow.

The corrected (CORR) heat flow is the value of flux obtained after the gradient or temperatures were corrected for the effect of three-dimensional, steady-state topography. The corrections were made using the method developed by Birch (1950).

GEOLOGY. Most of the localities are holes that were drilled by private companies for economic purposes. Geologic logs are omitted for many of the sites for obvious reasons.

CONDUCTIVITY. Conductivity data are reported as follows:

1) Individual measurements are listed for those drill holes for which complete, or nearly complete, conductivity data were available at the University of Wyoming. These measurements definitely were used by Roy et al. (1968b). The arithmetic mean of the tabulated conductivities may differ from that shown in the summary line of the table because Roy et al. (1968b) applied average temperature corrections at several sites.

2) Average conductivity (KAVE) values are reported for those holes for which the heat flow was calculated from the resistance integral. Average conductivities were calculated from the expression

$$KAVE = \frac{Z_2 - Z_1}{\sum_{i=1}^{n} \frac{Z_i}{K_i}}$$

where n is the number of conductivity samples taken from the depth interval $Z_2 - Z_1$, and Z_i is the thickness of the zone of influence of each sample conductivity K_i. Normally, Z_i was taken as one-half the distance to adjacent samples. The number n was always ≥ 2 for each interval. The number of samples is not listed herein because it would not fit in the output (A5). In the tables, the KAVE is the average conductivity between the accompanying DEPTH and the adjacent DEPTHS.

3) Individual measurements of conductivity were not available for several holes at the time and place of compilation; therefore, individual values are not tabulated for these sites. These localities were all in uniform igneous rocks, and the measurements showed no significant variation with depth. With the exception of HS-1 at Ajo, Arizona, all of these heat flows were calculated as the quotient of least-squares gradient divided by mean resistivity. The small standard errors of the mean conductivity and least-squares gradient at most of these sites (see below) strongly suggests that the units penetrated are thermally uniform. Therefore it was believed that the subsurface temperatures and average conductivities were the critical part of the basic data and should be presented at this time.

COMMENT. This section lists information on the method of calculation, the reliability and acquisition of data, and summarizes all available density information. The first number in brackets after MEAN DENSITY is the number of density measurements. The numbers in the second set of brackets show the range of the density measurements.

Financial support for the compilation of data presented in this section was provided by National Science Foundation grants GP-701, GA-416, and GA-18450,

the Committee on Experimental Geology and Geophysics at Harvard University, and the Department of Geology at the University of Wyoming. The University of Wyoming also provided free use of its computing facilities for additional checking of calculations and preliminary compilations. The United States Geological Survey at Menlo Park, California, provided computer time for the final tabulations of the data. Sixty of the drill holes presented in this chapter were made available by private companies; we acknowledge with gratitude their complete and indispensable cooperation.

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STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ALA.	APPALACH	TALLADEGA	R-10	33 16	86 01	320	420- 720	25	6.57	14.44	0.95	0.95
								ERROR	0.17	0.04	0.03	

COMPLETED ON OR BEFORE: 11/13/64 MEASURED: 4/ 5/66 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: HILLABEE CHLORITE SCHIST, MAFIC PHASE, AMPHIBOLITE AND GARNET GNEISS.

TEMPERATURE

DEPTH	50.00	100.00	149.20	196.10	243.20	287.00	332.50	379.10	422.70	466.30	511.40	554.10
TEMP	15.840	16.350	16.860	17.480	17.990	18.570	19.270	19.890	20.540	21.190	21.830	22.430
DEPTH	596.80	638.50	681.40	722.20								
TEMP	23.070	23.650	24.290	24.870								

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	320	304	306	308	312	307	307	314	310	307	316	317	280	275
RADIUS	20000	25000	30000	40000	50000									
ELEV	245	240	230	220	210									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	AJO	HS-1	32 06	112 45	613	200- 445	26	6.8	34.00	2.30	2.25
								ERROR	0.16	0.60	0.07	

COMPLETED ON OR BEFORE: ? MEASURED: 8/31/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ MONZONITE. ANDESITE DIKES IN THE FOLLOWING INTERVALS: 230-260, 280-300, AND 320-420. MAIN DIKE DIPS 65 DEGREES.

TEMPERATURE

DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	31.380	31.680	31.970	32.270	32.580	32.900	33.230	33.560	33.870	34.260	34.610	34.960
DEPTH	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00
TEMP	35.310	35.660	36.010	36.410	36.780	37.130	37.450	37.780	38.120	38.460	38.800	39.130
DEPTH	390.00	400.00	410.00	420.00	430.00	440.00	445.00					
TEMP	39.450	39.770	40.100	40.430	40.760	41.100	41.260					

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	613	614	615	616	618	633	678	687	664	654	658	633	628	613
RADIUS	20000	25000	30000	40000	50000									
ELEV	618	563	548	533	503									

COMMENTS: HEAT FLOW CALCULATED USING INTERVAL METHOD.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	AJO	HS-2	32 06	112 45	613	200- 450	58	7.04	35.03	2.47	2.42
								ERROR	0.12	0.04	0.04	

COMPLETED ON OR BEFORE: ? MEASURED: 8/30/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ DIORITE.

TEMPERATURE

DEPTH	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00
TEMP	33.650	33.980	34.330	34.680	35.030	35.380	35.740	36.070	36.440	36.800	37.140	37.490
DEPTH	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00	430.00
TEMP	37.850	38.220	38.560	38.910	39.250	39.610	39.970	40.310	40.640	40.980	41.360	41.700
DEPTH	440.00	450.00										
TEMP	42.020	42.350										

COMMENTS: TERRAIN SAME AS FOR HS-1 AT AJO, ARIZONA.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	BAGDAD	8-62	34 36	113 12	1210	200- 320	25	7.46	18.19	1.36	1.47
								ERROR	0.43	0.09	0.08	

COMPLETED ON OR BEFORE: 2/13/63 MEASURED: 7/25/64 STATIC WATER LEVEL: 190.

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ MONZONITE PORPHYRY.

TEMPERATURE

DEPTH	198.10	213.30	228.60	243.80	259.00	274.30	289.50	304.80	320.00
TEMP	26.130	26.430	26.710	26.990	27.260	27.530	27.800	28.080	28.370

CONDUCTIVITY

DEPTH	156.97	176.78	185.93	187.45	188.98	192.02	195.07	195.07	198.12	201.17	216.41	220.98	225.55	230.12	234.70
COND	8.77	7.43	5.85	11.60	6.35	9.80	10.60	6.67	10.40	7.98	7.87	9.24	10.64	7.40	11.70
DEPTH	240.79	246.89	251.46	262.13	265.18	268.22	272.80	277.37	286.51	292.61	301.75	307.85	315.77	330.71	
COND	6.71	9.26	7.15	12.20	13.20	10.99	11.63	14.50	6.86	13.60	7.52	13.30	5.44	6.39	

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1210	1202	1182	1158	1096	1098	1120	1148	1168	1152	1130	1120	1075	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1135	1150	1175	1180	1190									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	BAGDAD	13-64	34 35	113 11	1225	200- 460	22	6.8	22.93	1.56	1.64
								ERROR	0.09	0.04	0.02	

COMPLETED ON OR BEFORE: 7/26/65 MEASURED: 9/ 9/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ MONZONITE.

TEMPERATURE

DEPTH	50.00	100.00	150.00	200.00	250.00	300.00	350.00	400.00	420.00	440.00	460.00
TEMP	21.140	22.780	24.140	25.410	26.550	27.730	28.900	30.040	30.490	30.950	31.400

CONDUCTIVITY

DEPTH	192.02	198.12	204.22	227.08	278.89	289.56	304.80	320.04	335.28	350.52	358.14	365.76	381.00	396.24	411.48
COND	7.14	6.97	6.70	7.70	6.90	6.17	6.60	6.91	6.24	6.58	6.11	6.93	6.77	6.61	6.98
DEPTH	426.72	441.96	460.25	464.82											
COND	6.59	7.57	6.54	6.72											

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1225	1223	1212	1202	1150	1160	1151	1152	1161	1157	1130	1120	1075	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1135	1150	1175	1180	1190									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	CONTINENTAL	A 972	31 53	111 00	908	370- 600	10	8.55	29.43	2.52	2.47
								ERROR	0.42	0.14	0.13	

COMPLETED ON OR BEFORE: ? MEASURED: 9/19/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	30.00	50.00	70.00	90.00	110.00	130.00	150.00	170.00	190.00	210.00	230.00	250.00
TEMP	23.600	23.930	24.220	24.550	24.820	25.120	25.450	25.750	26.120	26.540	26.950	27.330
DEPTH	270.00	290.00	310.00	330.00	350.00	370.00	390.00	410.00	430.00	450.00	470.00	490.00
TEMP	27.800	28.520	29.620	30.250	30.800	31.460	32.090	32.710	33.310	33.890	34.500	35.100
DEPTH	510.00	530.00	550.00	570.00	590.00	600.00						
TEMP	35.690	36.260	36.830	37.390	37.970	38.250						

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	908	908	908	909	909	910	912	917	923	931	948	968	983	1048
RADIUS	20000	25000	30000	40000	50000									
ELEV	1118	1168	1158	1138	1128									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	HELVETIA	A 729	31 52	110 48	1225	220- 320	9	7.41	24.63	1.82	1.78
								ERROR	0.19	0.05	0.05	

COMPLETED ON OR BEFORE: ? MEASURED: 9/18/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANITE.

TEMPERATURE

DEPTH	30.00	50.00	70.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	21.980	22.190	22.490	22.860	23.070	23.260	23.470	23.720	23.950	24.190	24.420	24.660
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00
TEMP	24.900	25.140	25.380	25.620	25.860	26.110	26.350	26.590	26.840	27.080	27.330	27.580
DEPTH	300.00	310.00	320.00									
TEMP	27.830	28.080	28.320									

CONDUCTIVITY

DEPTH	277.37	286.51	301.75	318.82	335.89	350.52	366.37	377.34	384.05
COND	7.31	6.61	7.92	7.18	7.94	7.53	6.77	8.40	7.09

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1225	1223	1240	1247	1235	1241	1250	1277	1282	1299	1310	1315	1275	1255
RADIUS	20000	25000	30000	40000	50000									
ELEV	1245	1215	1195	1235	1245									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	HUALAPAI MTS.	3	35 08	113 49	1460	160- 260	30	8.06	28.60	2.31	2.14
								ERROR	0.22	0.03	0.06	

COMPLETED ON OR BEFORE: 7/22/64 MEASURED: 6/24/65 STATIC WATER LEVEL: 15.

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ MONZONITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	16.700	17.320	17.890	18.480	19.060	19.350	19.630	19.920	20.210	20.490	20.768	21.054
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00			
TEMP	21.340	21.621	21.907	22.194	22.478	22.765	23.051	23.342	23.630			

CONDUCTIVITY AND DENSITY

DEPTH	147.83	153.92	156.97	160.02	166.12	169.16	175.26	178.31	181.36	184.40	187.45	190.50	193.55	196.60	199.64
COND	8.73	12.05	7.74	7.34	8.14	7.82	10.60	12.31	8.22	8.21	9.41	7.64	9.34	7.71	7.66
DENS	2.58	2.54	2.56	2.52	2.56	2.56	2.60	2.59	2.59	2.52	2.58	2.56	2.51	2.55	2.55
DEPTH	202.69	205.74	208.79	211.84	214.88	217.93	220.98	224.03	227.08	230.12	233.17	236.22	242.32	245.36	251.46
COND	6.15	8.53	7.75	7.59	7.96	9.02	8.35	5.65	7.78	7.80	7.71	7.52	7.34	8.44	9.60
DENS	2.54	2.61	2.54	2.62	2.62	2.61	2.56	2.66	2.54	2.60	2.58	2.66	2.71	2.72	2.72
DEPTH	248.41	257.56	260.60												
COND	8.47	7.89	6.14												
DENS	2.73	2.78	2.78												

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1460	1458	1455	1470	1585	1600	1595	1540	1525	1500	1470	1425	1365	1300
RADIUS	20000	25000	30000	40000	50000									
ELEV	1240	1200	1210	1180	1190									

COMMENTS: CONDUCTIVITIES ALL MEASURED AT 12 DEGREES AND 29 DEGREES CENTIGRADE. AVERAGE TEMPERATURE CORRECTION = -0.16% FOR A 1 DEGREE CENTIGRADE INCREASE IN TEMPERATURE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	MISSION	106	31 59	111 04	1020	330- 420	14	7.87	37.67	2.97	2.98
								ERROR	0.32	0.20	0.12	

COMPLETED ON OR BEFORE: 7/30/64 MEASURED: 8/13/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	150.00	170.00	190.00	210.00	230.00	250.00	270.00	290.00	300.00	310.00	320.00	330.00
TEMP	31.380	32.060	32.810	33.530	34.240	35.070	35.860	36.580	36.990	37.360	37.800	38.060
DEPTH	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00			
TEMP	38.410	38.750	39.150	39.540	39.920	40.300	40.680	41.030	41.430			

CONDUCTIVITY AND DENSITY

DEPTH	153.01	174.96	198.12	212.45	224.94	246.28	262.74	274.63	278.89	291.69	302.06	307.54	312.73	313.94	321.87
COND	9.60	8.14	7.94	7.16	9.13	5.10	4.73	9.24	4.39	6.98	8.14	4.96	12.49	8.85	7.77
DENS	2.67	2.61	2.58	2.54	2.60	2.58	2.64	2.63	2.61	2.53	2.58	2.62	3.07	2.62	2.60
DEPTH	322.78	331.93	336.80	345.95	359.97	370.03	374.60	379.48	385.57	395.94	401.42	406.91	413.61	417.27	422.15
COND	10.4	9.37	6.31	8.68	6.02	7.39	8.59	9.56	8.80	8.34	7.97	8.46	8.06	6.64	8.13
DENS	2.60	2.61	2.55	2.61	2.57	2.68	2.60	2.70	2.62	2.59	2.60	2.61	2.63	2.60	2.71

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1020	1018	1023	1024	1023	1024	1024	1030	1028	1010	990	990	970	960
RADIUS	20000	25000	30000	40000	50000									
ELEV	940	930	950	960	970									

COMMENTS: CONDUCTIVITIES MEASURED AT 40 DEGREES CENTIGRADE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	QUARTZSITE	1	33 38	114 20	373	130- 180	14	7.75	31.97	2.48	2.45
								ERROR	0.54	0.11	0.17	

COMPLETED ON OR BEFORE: 3/30/64 MEASURED: 6/20/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: METAVOLCANIC ROCKS.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00
TEMP	25.430	25.740	26.060	26.380	26.660	26.990	27.290	27.610	27.970	28.240	28.530	28.850

DEPTH	150.00	160.00	170.00	180.00
TEMP	29.170	29.480	29.810	30.130

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	373	374	375	374	383	382	422	436	450	429	383	338	283	273

RADIUS	20000	25000	30000	40000	50000
ELEV	253	303	328	353	358

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	QUARTZSITE	2	33 38	114 20	370	130- 260	20	6.21	36.22	2.25	2.21
								ERROR	0.39	0.08	0.14	

COMPLETED ON OR BEFORE: 3/30/64 MEASURED: 6/21/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: METAVOLCANIC ROCKS.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00
TEMP	25.630	25.870	26.170	26.460	26.760	27.100	27.420	27.720	28.040	28.400	28.720	29.100
DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	29.450	29.790	30.160	30.530	30.880	31.230	31.610	31.970	32.330	32.710	33.070	33.440

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	370	372	373	377	379	390	427	455	450	430	380	335	280	275
RADIUS	20000	25000	30000	40000	50000									
ELEV	255	305	330	355	360									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	QUARTZSITE	3	33 38	114 20	378	130- 410	23	7.94	33.70	2.67	2.63
								ERROR	0.41	0.19	0.14	

COMPLETED ON OR BEFORE: 3/30/64 MEASURED: 6/22/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: METAVOLCANIC ROCKS.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00
TEMP	25.920	26.220	26.480	26.710	27.000	27.280	27.550	27.840	28.110	28.370	28.690	29.010
DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
TEMP	29.310	29.580	29.890	30.170	30.490	30.820	31.150	31.500	31.850	32.190	32.550	32.880
DEPTH	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00
TEMP	33.210	33.540	33.840	34.180	34.520	34.830	35.180	35.520	35.880	36.250	36.640	37.030
DEPTH	390.00	400.00	410.00									
TEMP	37.430	37.770	38.100									

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	378	383	382	386	393	410	436	455	450	428	383	338	283	273
RADIUS	20000	25000	30000	40000	50000									
ELEV	253	303	328	353	358									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	QUARTZSITE	4	33 38	114 20	385	130- 240	11	7.94	32.71	2.60	2.56
								ERROR	0.63	0.13	0.21	

COMPLETED ON OR BEFORE: 3/30/64 MEASURED: 6/22/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A;1968B)

GEOLOGY: METAVOLCANIC ROCKS.

TEMPERATURE

DEPTH	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	25.630	25.900	26.180	26.410	26.720	27.020	27.310	27.600	27.870	28.170	28.480	28.800
DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00			
TEMP	29.150	29.460	29.780	30.090	30.420	30.770	31.100	31.430	31.770			

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	385	389	390	394	401	412	437	445	450	430	385	340	285	280
RADIUS	20000	25000	30000	40000	50000									
ELEV	260	310	335	360	365									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	QUARTZSITE	5	33 38	114 20	387	130- 180	4	6.9	32.97	2.27	2.23
								ERROR	0.43	0.28	0.14	

COMPLETED ON OR BEFORE: 3/30/64 MEASURED: 6/20/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: METAVOLCANIC ROCKS.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00
TEMP	26.740	26.850	27.100	27.360	27.630	27.870	28.120	28.390	28.650	28.930	29.260	29.570

DEPTH	150.00	160.00	170.00	180.00
TEMP	29.890	30.230	30.570	30.900

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	387	386	390	389	398	417	436	456	451	430	382	337	282	272

RADIUS	20000	25000	30000	40000	50000
ELEV	257	307	327	352	357

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SANTA RITA MTS	A 719	31 50	110 45	1555	480- 590	9	8.27	24.54	2.03	2.06
								ERROR	0.64	0.14	0.16	

COMPLETED ON OR BEFORE: ? MEASURED: 9/22/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00
TEMP	19.330	19.490	19.790	20.170	20.580	21.030	21.510	21.990	22.510	23.030	23.540	24.090
DEPTH	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00
TEMP	24.610	25.170	25.690	26.260	26.790	27.310	27.850	28.370	28.900	29.410	30.000	30.470
DEPTH	520.00	540.00	560.00	580.00	590.00							
TEMP	30.940	31.450	31.940	32.440	32.690							

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1555	1547	1539	1537	1577	1613	1597	1567	1511	1463	1385	1315	1275	1255
RADIUS	20000	25000	30000	40000	50000									
ELEV	1245	1215	1195	1235	1245									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SIERRITA MTS.	70	31 53	111 08	1250	100- 180	17	6.14	30.86	1.89	1.85
								ERROR	0.20	0.10	0.06	

COMPLETED ON OR BEFORE: ? MEASURED: 9/21/65 STATIC WATER LEVEL: 20.

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: DIORITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	21.090	21.360	21.660	21.950	22.230	22.510	22.800	23.100	23.399	23.704	24.008	24.312
DEPTH	140.00	150.00	160.00	170.00	180.00							
TEMP	24.623	24.927	25.236	25.552	25.874							

CONDUCTIVITY AND DENSITY

DEPTH	27.80	32.90	38.40	43.90	48.50	60.10	64.90	70.40	80.20	83.60	85.10	90.00	95.20	99.10	103.40
COND	5.97	5.80	5.45	5.64	5.52	5.89	5.92	6.12	5.67	5.71	4.82	5.51	5.50	5.69	6.21
DENS	2.80	2.84	2.81	2.85	2.81	2.83	2.78	2.72	2.84	2.82	2.73	2.83	2.81	2.76	2.77
DEPTH	113.80	118.60	125.40	129.60	135.10	139.40	144.60	149.10	149.10	158.90	162.90	163.80	166.80	171.10	176.90
COND	5.53	5.43	5.73	5.39	5.07	5.72	5.48	6.51	6.45	6.12	6.34	5.44	6.82	7.02	5.55
DENS	2.82	2.80	2.82	2.83	2.85	2.82	2.79	2.81	2.85	2.78	2.77	2.84	2.82	2.78	2.80
DEPTH	181.20														
COND	9.70														
DENS	2.76														

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1250	1244	1246	1260	1268	1286	1285	1290	1308	1258	1220	1180	1135	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1005	970	960	1060	1090									

COMMENTS: CONDUCTIVITIES MEASURED AT 32 DEGREES CENTIGRADE AND CORRECTED 2% TO AVERAGE IN SITU TEMPERATURE OF 24 DEGREES CENTIGRADE. AVERAGE TEMPERATURE COEFFICIENT DETERMINED BY MEASURING 5 SAMPLES AT 13 DEGREES CENTIGRADE AS WELL AS 32 DEGREES CENTIGRADE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SIERRITA MTS.	239	31 53	111 08	1225	110- 210	21	7.14	26.83	1.92	1.86
								ERROR	0.25	0.10	0.07	

COMPLETED ON OR BEFORE: ? MEASURED: 8/16/64 STATIC WATER LEVEL: 20.

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	50.00	70.00	90.00	110.00	130.00	150.00	170.00	190.00	210.00
TEMP	23.660	23.880	24.190	24.561	25.081	25.615	26.156	26.695	27.240

CONDUCTIVITY AND DENSITY

DEPTH	28.10	34.20	39.00	44.50	50.00	61.00	68.90	73.20	78.70	82.40	90.30	93.30	98.20	102.20	107.10
COND	8.50	7.99	8.43	7.24	7.36	10.10	7.59	6.67	7.24	6.99	7.11	7.33	7.15	7.53	7.14
DENS	2.58	2.66	2.66	2.63	2.60	2.71	2.63	2.69	2.65	2.59	2.61	2.64	2.60	2.62	2.60
DEPTH	111.00	117.10	123.20	129.90	131.20	136.60	141.20	146.70	152.50	157.40	158.90	166.50	171.40	177.00	179.90
COND	7.98	6.94	6.90	5.03	4.79	7.18	7.53	6.92	6.73	6.60	7.32	6.89	7.62	7.33	7.55
DENS	2.65	2.63	2.59	2.73	2.69	2.62	2.62	2.61	2.60	2.63	2.60	2.63	2.64	2.62	2.59
DEPTH	184.50	189.40	194.60	199.50	202.80	208.60	216.20								
COND	9.00	8.78	5.46	10.42	7.79	6.89	5.70								
DENS	2.65	2.62	2.62	2.67	2.67	2.62	2.66								

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1225	1223	1229	1243	1250	1252	1273	1281	1293	1255	1220	1185	1135	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1005	970	960	1060	1090									

COMMENTS: CONDUCTIVITIES MEASURED AT 32 DEGREES CENTIGRADE AND CORRECTED TO AVERAGE IN SITU TEMPERATURE OF 25 DEGREES CENTIGRADE. AVERAGE TEMPERATURE COEFFICIENT DETERMINED BY MEASURING 10 SAMPLES AT 13 DEGREES CENTIGRADE AS WELL AS 32 DEGREES CENTIGRADE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SIERRITA MTS.	425	31 53	111 08	1250	110- 450	14	6.85	31.05	2.13	2.10
								ERROR	0.15	0.05	0.05	

COMPLETED ON OR BEFORE: ? MEASURED: 9/19/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	30.00	50.00	70.00	90.00	110.00	130.00	150.00	170.00	190.00	210.00	230.00	250.00
TEMP	21.470	22.170	22.720	23.300	23.900	24.519	25.147	25.778	26.417	27.052	27.683	28.308
DEPTH	270.00	290.00	310.00	330.00	350.00	380.00	400.00	420.00	440.00	450.00		
TEMP	28.935	29.545	30.156	30.766	31.396	32.312	32.928	33.540	34.148	34.453		

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1250	1254	1262	1286	1279	1284	1285	1290	1307	1257	1220	1180	1135	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1005	970	960	1060	1090									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SIERRITA MTS.	432	31 53	111 08	1235	130- 230	12	6.45	31.94	2.06	2.00
								ERROR	0.23	0.06	0.07	

COMPLETED ON OR BEFORE: ? MEASURED: 9/19/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	30.00	50.00	70.00	90.00	110.00	130.00	150.00	170.00	190.00	210.00	230.00
TEMP	22.040	22.440	22.920	23.470	24.050	24.661	25.290	25.926	26.571	27.211	27.851

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1235	1235	1239	1255	1279	1273	1275	1280	1289	1239	1220	1185	1135	1115

RADIUS	20000	25000	30000	40000	50000
ELEV	1005	970	960	1060	1090

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SIERRITA MTS.	433	31 53	111 08	1230	120- 400	7	6.41	31.13	2.00	1.96
								ERROR	0.35	0.07	0.11	

COMPLETED ON OR BEFORE: ? MEASURED: 9/19/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	21.210	21.850	22.400	23.020	23.620	24.287	24.920	25.537	26.162	26.791	27.427	28.039
DEPTH	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00				
TEMP	28.691	29.339	29.940	30.554	31.147	31.749	32.382	32.991				

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1230	1234	1242	1266	1264	1270	1266	1276	1254	1240	1220	1180	1135	1115
RADIUS	20000	25000	30000	40000	50000									
ELEV	1005	970	960	1060	1090									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	SILVER BELL	D-151	32 25	111 32	975	150- 180	20	8.2	25.50	2.09	2.36
								ERROR	0.32	0.39	0.09	

COMPLETED ON OR BEFORE: ? MEASURED: 8/19/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00
TEMP	23.920	24.060	24.240	24.440	24.690	24.860	25.100	25.370	25.620

CONDUCTIVITY

DEPTH	98.76	102.41	103.33	108.81	110.03	114.00	121.01	129.54	131.98	135.64	140.82	141.73	142.04	142.65	149.05
COND	7.69	6.48	8.35	8.34	9.75	6.71	9.14	9.05	9.22	6.69	9.06	10.60	6.78	8.58	7.69

DEPTH	153.31	156.67	158.80	178.00	182.27
COND	7.19	15.70	7.09	8.42	7.32

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	975	951	935	927	923	885	831	803	767	728	700	675	640	620

RADIUS	20000	25000	30000	40000	50000
ELEV	605	590	620	635	705

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
ARIZ.	BASIN RGE	WHITE HILLS		35 43	114 22	908	220- 245	3	7.14	40.77	2.91	2.82
								ERROR	0.32	0.49	0.14	

COMPLETED ON OR BEFORE: ? MEASURED: 6/25/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: QUARTZ MONZONITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	22.910	23.260	23.610	24.030	24.530	24.800	25.080	25.370	25.740	26.100	26.520	26.980

DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	245.00
TEMP	27.460	27.970	28.460	28.902	29.351	29.776	30.172	30.373

CONDUCTIVITY

DEPTH	237.80	239.30	240.80
COND	7.07	6.78	7.61

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	908	906	910	916	920	947	938	936	935	954	968	978	1013	1023

RADIUS	20000	25000	30000	40000	50000
ELEV	1013	948	1028	1008	958

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	BLODGETT		38 52	120 39	1270	250- 350	44	8.85	11.71	1.04	1.06
								ERROR	0.08	0.04	0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 7/31/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	7.190	7.640	7.750	7.810	7.880	7.950	8.030	8.110	8.190	8.280	8.370	8.460
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	8.560	8.650	8.750	8.860	8.970	9.090	9.200	9.320	9.440	9.550	9.670	9.790
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	
TEMP	9.917	10.045	10.162	10.279	10.396	10.511	10.627	10.744	10.864	10.980	11.091	

CONDUCTIVITY

DEPTH	155.45	161.54	167.64	173.74	176.78	179.83	185.93	192.02	198.12	204.22	207.26	213.36	222.50	228.60	231.65
COND	8.30	8.37	9.04	9.21	9.90	8.43	9.10	8.78	8.28	8.94	8.94	8.54	9.55	7.88	8.56
DEPTH	234.70	237.74	240.79	243.84	249.94	256.03	259.08	265.18	268.22	271.27	274.32	280.42	283.46	289.56	292.61
COND	8.51	8.52	9.41	9.98	8.70	8.82	9.22	8.31	8.64	8.57	8.56	8.59	8.53	8.58	8.66
DEPTH	295.66	301.75	307.85	313.94	320.04	326.14	332.23	335.28	338.33	341.38	347.47	350.52			
COND	8.69	8.69	8.63	8.69	8.32	9.33	10.30	9.02	9.63	8.55	9.33	8.66			

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1270	1274	1302	1310	1308	1266	1238	1210	1132	1116	1108	1102	1100	1065
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	1060	1045	1125	1170	1225	1205	1240							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	LOOMIS		38 50	121 10	120	250- 350	38	6.94	9.03	0.63	0.62
								ERROR	0.07	0.02	0.01	

COMPLETED ON OR BEFORE: 12/29/64 MEASURED: 7/31/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ DIORITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	16.350	16.440	16.850	17.030	17.180	17.330	17.460	17.600	17.720	17.850	17.970	18.080
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	18.200	18.310	18.420	18.520	18.630	18.710	18.830	18.920	19.020	19.110	19.210	19.298
DEPTH	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00		
TEMP	19.387	19.480	19.569	19.664	19.753	19.842	19.931	20.020	20.111	20.200		

CONDUCTIVITY AND DENSITY

DEPTH	152.40	155.45	158.50	161.54	163.37	164.59	170.69	176.78	182.88	188.98	195.07	201.17	207.26	213.36	219.43
COND	6.83	7.06	7.06	7.27	6.78	7.15	6.80	7.25	7.04	7.57	6.90	7.29	6.71	7.12	7.02
DENS	2.77	2.77	2.78	2.77	2.77	2.79	2.74	2.78	2.77	2.80	2.79	2.76	2.77	2.77	2.78
DEPTH	219.52	225.55	231.65	237.74	243.84	249.94	256.00	256.12	262.13	268.22	274.32	280.42	292.61	298.70	304.80
COND	6.90	7.10	7.48	7.08	7.28	7.71	7.14	7.33	6.87	7.07	7.50	7.11	7.20	7.59	6.86
DENS	2.78	2.79	2.77	2.78	2.79	2.81	2.78	2.78	2.76	2.76	2.79	2.81	2.81	2.76	2.78
DEPTH	310.90	316.99	323.09	329.18	335.28	341.38	347.47	353.57							
COND	7.95	7.73	6.80	7.14	7.41	7.87	7.66	7.27							
DENS	2.77	2.78	2.77	2.80	2.80	2.82	2.80	2.80							

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	120	121	124	128	136	147	156	162	165	167	167	175	185	220
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	225	220	245	295	350	500	770							

COMMENTS: CONDUCTIVITIES MEASURED AT 12 DEGREES CENTIGRADE AND CORRECTED 2.2% TO AVERAGE IN SITU TEMPERATURE OF 19 DEGREES CENTIGRADE. AVERAGE TEMPERATURE COEFFICIENT DETERMINED BY MEASURING 30 SAMPLES AT 32 DEGREES CENTIGRADE AS WELL AS 12 DEGREES CENTIGRADE. CONDUCTIVITY DISCS WERE ONLY 0.95 CENTIMETERS THICK. SIXTEEN PAIRS OF DISCS (1.90 CENTIMETERS) WERE MEASURED TO ESTIMATE PARALLEL CONDUCTION EFFECT. AVERAGE CONDUCTIVITY OF THE DOUBLE THICKNESS DISCS WAS 1.5% LOWER THAN THE CONDUCTIVITY OF THE SINGLE THICKNESS DISCS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	LOON LAKE		38 59	120 19	1950	100- 365	21	6.85	18.28	1.25	1.25
								ERROR	0.05	0.14	0.01	

COMPLETED ON OR BEFORE: 7/23/65 MEASURED: 8/ 8/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	100.00	150.00	200.00	250.00	300.00	305.00	310.00	315.00	320.00	325.00	330.00	335.00
TEMP	7.480	8.460	9.500	10.290	11.280	11.330	11.400	11.480	11.530	11.640	11.770	11.820
DEPTH	340.00	345.00	350.00	355.00	360.00	365.00						
TEMP	11.940	12.020	12.120	12.210	12.300	12.380						

CONDUCTIVITY

DEPTH	153.31	166.12	183.49	198.12	227.99	243.84	259.08	274.32	288.34	305.71	311.51	314.86	318.21	323.09	329.18
COND	6.44	6.91	6.93	7.01	6.72	6.68	6.87	7.03	7.11	6.68	6.80	6.71	6.86	6.76	6.79
DEPTH	336.19	342.60	347.47	353.57	358.75	365.76									
COND	7.07	6.85	6.88	6.64	6.82	6.62									

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1950	1943	1953	1969	1955	1942	1918	1942	1947	1956	1947	1933	1922	1916
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	1915	1790	1735	1720	1630	1510	1275							

COMMENTS: TEMPERATURES MEASURED 9 AND 16 DAYS AFTER DRILLING STOPPED. EQUILIBRIUM TEMPERATURES ESTIMATED BY LOGARITHMIC EXTRAPOLATION AFTER LACHENBRUCH AND BREWER (1959).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	OMO RANCH		38 33	120 34	1000	170- 270	26	7.19	10.31	0.74	0.72
								ERROR	0.05	0.02	0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 8/10/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: LIMESTONE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	11.800	11.910	12.030	12.130	12.240	12.350	12.460	12.570	12.670	12.770	12.870	12.960
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	13.070	13.170	13.270	13.376	13.479	13.579	13.681	13.787	13.893	13.993	14.097	14.199
DEPTH	260.00	270.00										
TEMP	14.303	14.406										

CONDUCTIVITY

DEPTH	121.92	128.02	134.11	140.21	146.30	152.40	158.50	164.59	170.69	176.78	182.88	188.98	195.07	201.17	207.26
COND	7.36	6.98	6.87	7.40	7.48	7.50	7.30	7.63	7.01	7.25	6.63	6.90	7.23	7.01	7.23
DEPTH	213.36	219.46	225.55	231.65	237.74	243.84	249.94	256.03	262.13	268.22	271.27				
COND	7.10	7.33	6.99	7.51	7.09	7.33	7.34	7.36	7.49	7.34	7.51				

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1000	1012	1040	1064	1050	1029	1046	1040	1036	1030	1017	1010	1002	1015
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	1020	1025	1015	1070	1110	1120	1100							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
CALIF.	SIERRA NEV	WRIGHTS LAKE		38 50	120 15	2040	180- 370	38	7.14	11.66	0.83	0.83
								ERROR	0.08	0.16	0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 8/ 1/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	7.380	7.410	7.510	7.590	7.660	7.800	7.940	8.160	8.210	8.350	8.560	8.630
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	8.680	8.790	8.930	9.220	9.330	9.530	9.640	9.790	9.840	9.970	10.070	10.200
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	10.280	10.380	10.580	10.700	10.800	10.900	10.970	11.030	11.260	11.410	11.520	11.620
DEPTH	370.00											
TEMP	11.760											

CONDUCTIVITY AND DENSITY

DEPTH	152.40	158.50	164.59	170.69	176.78	182.88	188.98	195.07	201.17	207.26	213.36	219.46	225.55	231.65	237.74
COND	6.90	8.04	6.87	6.98	6.69	6.28	7.13	6.96	6.43	6.89	6.91	7.02	7.25	6.63	6.82
DENS	2.62	2.70	2.70	2.69	2.68	2.71	2.71	2.66	2.69	2.72	2.72	2.68	2.69	2.71	2.71
DEPTH	243.84	249.94	256.03	262.13	268.22	274.32	280.42	286.51	292.61	298.70	304.80	310.90	320.04	323.09	329.18
COND	7.06	6.94	6.86	6.94	7.37	6.99	7.14	6.99	7.18	6.95	7.43	7.02	7.00	7.00	6.83
DENS	2.64	2.70	2.65	2.72	2.72	2.72	2.70	2.71	2.70	2.70	2.70	2.73	2.71	2.70	2.72
DEPTH	335.28	341.38	347.47	353.57	359.66	365.76	371.86	377.95							
COND	6.57	7.41	6.54	7.03	6.74	6.72	6.92	7.00							
DENS	2.73	2.74	2.72	2.62	2.70	2.70	2.69	2.69							

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2040	2039	2033	2052	2081	2077	2057	2046	2028	2014	2019	2027	1933	1920
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	1910	1795	1740	1720	1590	1515	1280							

COMMENTS: CONDUCTIVITIES CORRECTED -2.7% FOR TEMPERATURE AND THICKNESS (SEE COMMENT ON LOOMIS, CALIFORNIA).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
IOWA	INT.PLN	SPENCER		43 10	95 11		400- 660	44	5.29	8.30	0.44	0.44
								ERROR			0.01	

COMPLETED ON OR BEFORE: 2/ 5/64 MEASURED: 6/22/67 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: DIORITE. GRANITE DIKE FROM 463 TO 473.

TEMPERATURE

DEPTH	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00
TEMP	8.930	8.750	8.720	8.740	8.820	8.940	9.040	9.180	9.450	9.530	9.620	9.710
DEPTH	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00
TEMP	9.830	9.970	10.260	10.380	10.540	10.740	10.900	11.070	11.230	11.390	11.530	11.690
DEPTH	520.00	540.00	560.00	580.00	600.00	620.00	640.00	660.00	670.00			
TEMP	11.850	12.020	12.190	12.360	12.530	12.700	12.880	13.060	13.150			

CONDUCTIVITY

DEPTH	401.42	405.69	408.13	413.61	416.66	419.71	422.15	426.42	428.85	432.21	436.17	438.00	440.44	459.94	462.08
COND	5.12	5.19	5.10	5.10	5.14	5.09	5.14	5.29	5.12	5.28	5.27	5.22	5.54	5.20	4.92
DEPTH	466.04	467.56	469.70	474.57	477.62	498.35	500.79	504.44	507.49	511.15	513.59	516.64	519.68	559.61	562.36
COND	7.26	7.28	7.58	5.24	4.90	5.25	5.24	5.38	5.13	5.19	5.08	5.41	5.32	5.18	5.36
DEPTH	565.71	568.45	571.50	574.55	577.90	580.04	642.21	645.87	649.53	651.36	655.63	658.67	661.11	664.16	667.82
COND	5.31	5.18	5.25	5.47	5.20	5.27	5.41	4.96	5.15	5.52	5.13	5.10	5.09	4.89	5.20
DEPTH	670.56	673.91													
COND	5.31	5.45													

COMMENTS: NO TERRAIN CORRECTION NEEDED AT THIS SITE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MAINE	APPALACH	BLUE HILL	TCX-12	44 24	68 37	30	150- 350	25	9.35	15.60	1.46	1.44
								ERROR			0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 10/25/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-340, ALLEN AND POND QUARTZITE MEMBERS OF THE ELLSWORTH FORMATION. 340-350, SCHIST.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	7.450	7.260	7.420	7.590	7.750	7.910	8.090	8.270	8.470	8.650	8.840	9.110
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	9.290	9.510	9.750	10.030	10.290	10.520	10.700	10.870	11.050	11.240	11.390	11.530
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	
TEMP	11.660	11.800	11.950	12.080	12.220	12.350	12.490	12.620	12.750	12.880	13.060	

CONDUCTIVITY

DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00
COND	5.650	5.682	5.556	9.524	9.009	8.333	6.494	8.403	11.111	12.048	11.236	11.905	12.048	11.905	10.989
DEPTH	310.00														
COND	9.524														

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	30	32	37	46	49	60	56	44	40	43	46	42	34	17
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	20	28	32	45	32	40	0							

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MAINE	APPALACH	CASCO		44 03	70 37	110	150- 300	27	8.13	22.85	1.86	1.80
								ERROR	0.10	0.08	0.02	

COMPLETED ON OR BEFORE: 9/12/63 MEASURED: 11/ 7/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-300, GRANITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	7.580	8.020	8.310	8.680	8.780	8.980	9.070	9.210	9.390	9.570	9.770	9.970
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	10.170	10.380	10.610	10.830	11.050	11.270	11.490	11.720	11.940	12.180	12.410	12.640
DEPTH	260.00	270.00	280.00	290.00	300.00							
TEMP	12.870	13.100	13.340	13.580	13.810							

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	110	104	107	116	130	140	147	136	128	122	135	143	145	150
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	175	160	160	200	230	215	210							

COMMENTS: MEAN DENSITY(14) = 2.62 (2.59-2.64).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MASS.	APPALACH	BREWSTER		41 45	70 05	20	200- 300	11	7.58	15.06	1.14	1.16
								ERROR	0.13	0.07	0.02	

COMPLETED ON OR BEFORE: ? MEASURED: 4/ 6/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: GRANITE.

TEMPERATURE

DEPTH	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	10.240	10.480	10.720	10.920	11.150	11.380	11.630	11.810	11.970	12.110	12.240	12.380
DEPTH	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00
TEMP	12.510	12.650	12.790	12.930	13.080	13.220	13.370	13.510	13.660	13.820	13.970	14.120
DEPTH	280.00	290.00	300.00									
TEMP	14.270	14.430	14.580									

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	20	18	14	7	2	0	-2	-4	-5	-6	-7	-8	-9	-13
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	-21	-30	-39	-52	-57	-90	-92							

COMMENTS: MEAN DENSITY(15) = 2.69 (2.65-2.77).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MASS.	APPALACH	CAMBRIDGE		42 23	71 07	6	160- 260	76	9.01	13.50	1.21	1.20
								ERROR			0.01	

COMPLETED ON OR BEFORE: 6/17/63 MEASURED: 1/11/66 STATIC WATER LEVEL:

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-260, CAMBRIDGE ARGILLITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	14.270	13.660	12.940	12.360	12.030	11.810	11.670	11.590	11.580	11.620	11.690	11.780
DEPTH	130.00	140.00	150.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00	200.00
TEMP	11.890	12.010	12.140	12.275	12.344	12.415	12.490	12.569	12.649	12.728	12.808	12.868
DEPTH	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00	255.00	260.00
TEMP	12.924	12.984	13.045	13.111	13.170	13.229	13.286	13.342	13.423	13.506	13.594	13.679

CONDUCTIVITY

DEPTH	162.50	167.50	172.50	177.50	182.50	187.50	192.50	197.50	202.50	207.50	212.50	217.50	222.50	227.50	232.50
COND	7.752	7.353	7.874	6.897	7.576	7.092	8.065	10.989	11.364	12.195	10.638	8.065	9.259	9.709	11.628
DEPTH	237.50	242.50	247.50	252.50	257.50										
COND	12.048	6.993	7.299	7.407	6.803										

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	6	6	5	6	7	7	8	9	10	11	26	41	38	41
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	46	41	51	41	41	66	86							

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MASS.	APPALACH	CHELMSFORD		42 38	71 25	24	130- 160	29	9.01	17.87	1.61	1.63
								ERROR	0.04	0.06	0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 4/ 2/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-160, GRANITE-MIGMATITE.

TEMPERATURE

DEPTH	129.54	133.20	137.16	140.82	144.78	148.44	152.40	156.06	160.02	163.68
TEMP	12.081	12.147	12.213	12.279	12.350	12.415	12.486	12.553	12.626	12.690

CONDUCTIVITY

DEPTH	121.01	121.62	123.44	124.05	126.19	127.10	129.24	130.45	132.59	133.81	135.64	136.55	138.68	139.60	142.04
COND	9.25	9.38	8.82	9.10	9.26	8.95	8.96	8.64	8.94	8.89	8.81	8.98	9.89	8.91	9.20
DEPTH	142.65	144.78	146.00	147.83	149.35	150.88	152.40	153.62	155.45	156.67	158.50	159.72	162.46	163.07	
COND	9.17	9.13	9.03	9.21	8.95	9.10	8.83	8.87	9.02	8.75	8.47	8.91	8.80	8.77	

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	24	24	17	18	17	15	14	19	31	36	29	28	21	28
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	14	29	39	74	104	84	94							

COMMENTS: CONDUCTIVITIES AND GRADIENT FROM TWO DRILL HOLES (10 AND 11) IN GRANITE QUARRY. MEAN DENSITY(15) = 2.60(2.55-2.63).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MASS.	APPALACH	MILLERS FALLS		42 37	72 27	310	210- 280	21	6.67	22.70	1.51	1.67
								ERROR			0.01	

COMPLETED ON OR BEFORE: 7/29/65 MEASURED: 5/18/66 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-280, GNEISS.

TEMPERATURE

DEPTH	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00
TEMP	9.520	9.570	9.880	9.930	10.010	10.220	10.420	10.640	10.860	11.130	11.310	11.540
DEPTH	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00		
TEMP	11.770	11.990	12.320	12.510	12.700	12.940	13.180	13.420	13.680	13.870		

CONDUCTIVITY

DEPTH	215.00	225.00	235.00	245.00	255.00	265.00	275.00
COND	8.130	7.407	6.098	6.369	6.536	5.882	8.130

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	310	306	286	265	219	180	181	192	203	209	211	202	196	207
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	215	230	270	300	345	290	219							

COMMENTS: MEAN DENSITY(15) = 2.69 (2.63-2.74). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MICH.	CAN. SHLD	DELAWARE	MB-55	47 24	88 01	390	91- 274	54	5.18	17.00	0.88	0.99
								ERROR			0.01	

COMPLETED ON OR BEFORE: 12/ 1/57 MEASURED: 8/21/60 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963); ROY ET AL (1968B)

GEOLOGY: 0-274, PORTAGE LAKE VOLCANICS.

TEMPERATURE

DEPTH	91.40	106.70	121.90	137.20	152.40	167.60	182.90	198.10	213.40	228.60	243.80	259.10
TEMP	6.820	7.070	7.300	7.550	7.800	8.070	8.320	8.580	8.840	9.110	9.380	9.650
DEPTH	274.30											
TEMP	9.930											

CONDUCTIVITY

DEPTH	99.00	114.30	129.60	144.80	160.00	175.20	190.50	205.80	221.00	236.20	251.40	266.70
COND	4.90	5.81	5.59	5.49	4.81	5.41	5.49	5.41	5.00	4.61	4.61	4.61

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	390	380	369	332	286	262	260	255	265	260	250	240	260	200
RADIUS	20000	25000	30000	40000	50000									
ELEV	240	230	230	220	220									

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MICH.	CAN. SHLD	WHITE PINE	N-55	46 45	89 34	280	91- 678	94	6.54	15.90	1.04	1.04
								ERROR			0.00	

COMPLETED ON OR BEFORE: 1/12/60 MEASURED: 2/23/60 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963), ROY ET AL (1968B)

GEOLOGY: 0-469, FREDA SANDSTONE. 469-655, NONESUCH SHALE. 655-678, COPPER HARBOR CONGLOMERATE.

TEMPERATURE

DEPTH	91.40	121.90	152.40	182.90	213.40	243.80	274.30	304.80	335.30	365.80	396.20	426.70
TEMP	7.650	8.080	8.580	9.080	9.570	10.020	10.440	10.840	11.260	11.670	12.090	12.500
DEPTH	457.20	487.70	518.20	548.60	579.10	609.60	640.10	655.30	678.20			
TEMP	12.960	13.540	14.140	14.710	15.300	15.880	16.510	16.780	17.020			

CONDUCTIVITY

DEPTH	106.68	137.16	167.64	198.12	228.60	259.08	289.56	320.04	350.52	381.00	411.49	441.97	472.45	502.93	533.41
COND	7.58	6.49	6.29	6.10	6.59	7.19	8.13	7.41	7.41	7.69	7.87	6.90	5.41	5.59	5.59
DEPTH	563.89	594.37	624.85	647.71	666.76										
COND	5.29	5.71	5.41	5.81	9.71										

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	280	280	282	285	288	286	283	285	288	293	310	320	290	290
RADIUS	20000	25000	30000	40000	50000									
ELEV	315	305	280	290	320									

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MICH.	CAN. SHLD	WHITE PINE	N-65	46 44	89 34	310	396- 610	48	5.95	17.80	1.06	1.06
								ERROR			0.01	

COMPLETED ON OR BEFORE: 5/ 2/60 MEASURED: 8/19/60 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963), ROY ET AL (1968B)

GEOLOGY: 0-457, FREDA SANDSTONE, 457-610, NONESUCH SHALE.

TEMPERATURE

DEPTH	91.40	121.90	152.40	182.90	213.40	243.80	274.30	304.80	335.30	365.80	396.20	426.70
TEMP	7.630	7.970	8.410	8.890	9.380	9.840	10.290	10.710	11.120	11.510	11.900	12.320
DEPTH	457.20	487.70	518.20	548.60	579.10	609.60						
TEMP	12.740	13.280	13.870	14.440	15.060	15.660						

CONDUCTIVITY

DEPTH	411.49	441.97	472.45	502.93	533.41	563.89	594.37
COND	7.30	7.41	6.21	5.71	5.59	5.10	5.41

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	310	309	307	303	300	299	294	295	294	293	310	320	290	290
RADIUS	20000	25000	30000	40000	50000									
ELEV	315	305	280	290	320									

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MO.	INT.PLN	BOURBON	B-20	38 09	91 15	290	518- 610	6	8.40	14.77	1.24	1.24
								ERROR	0.09	0.08	0.01	

COMPLETED ON OR BEFORE: 7/20/61 MEASURED: 8/ 4/61 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963), ROY ET AL (1968B)

GEOLOGY: 0-20, OVERBURDEN. 20-116, DOLOMITE. 116-227, SANDSTONE. 227-281, DOLOMITE. 281-344, SHALE. 344-425. DOLOMITE. 425-504, SANDSTONE. 504-610, PORPHYRITIC RHYOLITE.

TEMPERATURE

DEPTH	116.00	227.00	281.00	344.00	425.00	457.00	488.00	504.00	518.20	533.40	548.60	563.90
TEMP	14.600	15.000	15.700	17.000	18.500	19.000	19.300	19.500	19.690	19.930	20.150	20.370
DEPTH	579.10	594.40	609.60									
TEMP	20.590	20.820	21.050									

CONDUCTIVITY

DEPTH	533.41	563.89	594.37	624.85	655.33	685.81
COND	8.40	8.77	8.48	8.20	8.33	8.20

COMMENTS: NO TERRAIN CORRECTION NEEDED AT THIS SITE. HEAT FLOW CALCULATED FROM RESISTANCE INTERVAL.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MO.	INT.PLN	IRONTON	K-13	37 30	90 40	365	200- 300	17	7.75	16.21	1.26	1.24
								ERROR	0.31	0.05	0.05	

COMPLETED ON OR BEFORE: 11/23/63 MEASURED: 9/27/65 STATIC WATER LEVEL: 3.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: RHYOLITE.

TEMPERATURE

DEPTH	10.00	30.00	50.00	70.00	90.00	110.00	130.00	150.00	170.00	190.00	200.00	210.00
TEMP	12.870	13.210	13.490	13.720	13.940	14.140	14.330	14.580	14.850	15.130	15.260	15.410
DEPTH	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00			
TEMP	15.570	15.730	15.900	16.060	16.220	16.390	16.550	16.710	16.870			

CONDUCTIVITY

DEPTH	95.00	115.00	135.00	155.00	175.00	195.00	205.00	215.00	225.00	235.00	245.00	255.00	265.00	275.00	285.00
COND	7.47	10.35	6.56	9.88	7.74	8.52	7.63	7.27	6.79	10.03	8.10	9.63	6.72	7.97	7.77
DEPTH	295.00	305.00													
COND	5.58	7.25													

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	365	363	371	397	399	389	355	321	317	333	330	325	320	315
RADIUS	20000	25000	30000	40000	50000									
ELEV	280	280	275	275	275									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
MO.	INT.PLN	LEVASY		39 05	94 10	220	701-1186	33	6.99	16.76	1.17	1.17
								ERROR	0.10	0.05	0.02	

COMPLETED ON OR BEFORE: 5/18/60 MEASURED: 9/26/65 STATIC WATER LEVEL: 5.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-691.9, PALEOZOIC SHALE, LIMESTONE, DOLOMITE AND SANDSTONE. 691.9-701.0, WEATHERED GRANITE. 701.0-1185.7, GRANITE.

TEMPERATURE

DEPTH	33.50	139.30	151.20	207.30	237.70	298.70	323.10	387.10	425.20	481.60	487.70	608.10
TEMP	13.920	16.360	16.610	17.590	18.030	19.070	19.310	20.080	20.520	21.190	21.260	22.580
DEPTH	624.80	640.10	644.60	655.30	691.90	701.00	731.50	762.00	792.50	823.00	853.40	883.90
TEMP	22.760	22.940	22.980	23.070	23.400	23.560	24.050	24.540	25.030	25.530	26.030	26.540
DEPTH	914.40	944.90	975.40	1005.80	1036.30	1066.80	1097.30	1127.80	1158.20	1185.70		
TEMP	27.040	27.550	28.060	28.590	29.100	29.620	30.140	30.670	31.200	31.680		

CONDUCTIVITY

DEPTH	792.48	822.96	838.20	844.30	848.87	853.44	868.68	883.92	899.16	914.40	929.64	944.88	960.12	975.36	975.36
COND	7.11	6.70	7.06	7.07	7.70	7.76	7.20	7.54	8.11	6.79	7.13	6.44	6.31	7.29	7.76
DEPTH	990.60	1005.84	1021.08	1036.32	1036.32	1051.56	1060.71	1066.80	1082.04	1097.28	1112.52	1146.05	1158.24	1158.24	1173.48
COND	6.80	7.08	7.31	8.15	7.94	7.28	7.22	7.85	6.86	6.43	7.44	6.74	8.07	6.71	8.06
DEPTH	1185.67	1188.72	1203.96												
COND	6.62	7.78	6.98												

COMMENTS: NO TERRAIN CORRECTION NEEDED AT THIS SITE. CONDUCTIVITIES MEASURED AT 13 DEGREES CENTIGRADE AND CORRECTED 2.8% TO AN AVERAGE IN SITU TEMPERATURE OF 28 DEGREES CENTIGRADE. TEMPERATURE COEFFICIENT DETERMINED BY MEASURING 12 SAMPLES AT 32 DEGREES CENTIGRADE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	BATTLE MOUNTAIN		40 33	117 14	1650	137- 305	19	11.36	17.90	2.03	2.06
								ERROR			0.02	

COMPLETED ON OR BEFORE: ? MEASURED: 7/ 8/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: QUARTZITE AND SCHIST.

TEMPERATURE

DEPTH	45.70	91.40	106.70	121.90	137.20	152.40	167.60	182.90	198.10	213.40	228.60	243.80
TEMP	16.500	18.600	19.220	19.730	20.200	20.400	20.550	20.750	21.060	21.400	21.750	22.100
DEPTH	259.10	274.30	289.60	304.80								
TEMP	22.310	22.550	22.810	23.030								

CONDUCTIVITY

DEPTH	144.78	160.02	175.26	190.50	205.74	220.98	236.22	251.46	266.70	281.94	297.18
COND	13.16	15.15	13.70	11.63	8.13	10.99	8.55	12.82	13.33	14.08	14.08

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1650	1648	1638	1629	1635	1640	1630	1625	1635	1640	1630	1620	1610	1625
RADIUS	20000	25000	30000	40000	50000									
ELEV	1630	1600	1565	1600	1600									

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CRESCENT PEAK	1	35 28	115 08	1628	180- 315	19	8.33	25.24	2.10	2.33
								ERROR	0.30	0.08	0.08	

COMPLETED ON OR BEFORE: ? MEASURED: 6/23/65 STATIC WATER LEVEL: 50.

REFERENCE: ROY ET AL (1968A;1968B)

GEOLOGY: QUARTZ MONZONITE.

TEMPERATURE

DEPTH	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00
TEMP	17.840	18.180	18.570	19.000	19.450	19.940	20.440	20.940	21.460	21.970	22.470	22.980
DEPTH	300.00	315.00										
TEMP	23.470	23.840										

CONDUCTIVITY

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	180.00	190.00	200.00	210.00	220.00	240.00	250.00
COND	8.69	8.57	6.55	7.38	7.83	7.62	8.27	7.21	9.70	11.70	7.99	7.37	8.37	9.04	10.30
DEPTH	270.00	280.00	290.00	310.00											
COND	9.15	9.46	8.27	12.80											

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1628	1622	1635	1638	1599	1540	1497	1468	1428	1388	1368	1348	1298	1278
RADIUS	20000	25000	30000	40000	50000									
ELEV	1188	1108	1008	1048	978									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CRESCENT PEAK	3	35 28	115 08	1582	180- 300	20	8.70	24.57	2.14	2.33
								ERROR	0.33	0.05	0.08	

COMPLETED ON OR BEFORE: ? MEASURED: 6/23/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: QUARTZ MONZONITE.

TEMPERATURE

DEPTH	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00
TEMP	19.270	19.470	19.790	20.170	20.600	21.050	21.520	21.980	22.470	22.970	23.450	23.940
DEPTH	280.00	300.00										
TEMP	24.440	24.930										

CONDUCTIVITY

DEPTH	100.00	120.00	130.00	140.00	150.00	160.00	170.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00
COND	7.53	9.11	11.80	9.78	8.61	8.89	8.93	13.50	9.50	8.01	10.60	8.92	8.68	10.20	7.21
DEPTH	270.00	280.00	290.00	300.00											
COND	9.07	7.94	9.89	9.53											

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1582	1590	1607	1614	1567	1517	1477	1452	1432	1412	1367	1352	1302	1282
RADIUS	20000	25000	30000	40000	50000									
ELEV	1192	1112	1012	1052	982									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CROW SPRING	2	38 14	117 33	1585	180- 280	12	7.52	30.48	2.29	2.29
								ERROR	0.18	0.09	0.06	

COMPLETED ON OR BEFORE: 11/27/63 MEASURED: 8/17/65 STATIC WATER LEVEL: 50.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: PORPHYRITIC QUARTZ MONZONITE, SHOWING WEAK ARGILLIC ALTERATION.

TEMPERATURE

DEPTH	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	17.950	18.290	18.600	18.870	19.150	19.440	19.720	20.030	20.330	20.630	20.940	21.240
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	
TEMP	21.550	21.860	22.160	22.460	22.780	23.100	23.390	23.690	23.990	24.290	24.600	

CONDUCTIVITY

DEPTH	170.00	185.00	195.00	220.00	230.00	235.00	250.00	260.00	265.00	280.00	290.00
COND	7.51	7.29	7.98	6.90	6.94	7.21	7.83	8.14	7.86	8.47	8.95

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1585	1582	1579	1577	1573	1574	1570	1575	1580	1595	1605	1615	1625	1645
RADIUS	20000	25000	30000	40000	50000									
ELEV	1645	1675	1725	1785	1765									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CROW SPRING	4	38 14	117 33	1575	190- 290	15	7.52	31.82	2.39	2.38
								ERROR	0.19	0.07	0.06	

COMPLETED ON OR BEFORE: 11/27/63 MEASURED: 8/15/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-100.6, TERTIARY VOLCANIC ROCKS. 100.6-290.0, PORPHYRITIC QUARTZ MONZONITE, SHOWING WEAK ARGILLIC ALTERATION.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00
TEMP	18.370	18.780	19.200	19.630	20.060	20.430	20.710	20.980	21.290	21.580	21.900	22.200
DEPTH	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00
TEMP	22.510	22.830	23.150	23.470	23.790	24.110	24.430	24.760	25.050	25.380	25.700	26.010
DEPTH	290.00											
TEMP	26.340											

CONDUCTIVITY

DEPTH	200.00	205.00	210.00	215.00	220.00	225.00	230.00	240.00	245.00	250.00	255.00	265.00	270.00	275.00	280.00
COND	7.46	6.68	9.26	7.57	6.75	7.05	7.45	8.01	7.54	8.55	7.43	7.88	9.56	7.44	7.02

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1575	1579	1567	1563	1575	1580	1585	1595	1605	1615	1625	1635	1625	1645
RADIUS	20000	25000	30000	40000	50000									
ELEV	1645	1675	1725	1785	1765									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CROW SPRING	7	38 14	117 33	1555	110- 210	6	7.52	30.11	2.26	2.24
								ERROR	0.20	0.10	0.06	

COMPLETED ON OR BEFORE: 11/27/63 MEASURED: 8/16/65 STATIC WATER LEVEL: 75.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: PORPHYRITIC QUARTZ MONZONITE, SHOWING WEAK ARGILLIC ALTERATION.

TEMPERATURE

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	18.760	19.080	19.400	19.720	20.030	20.330	20.630	20.940	21.230	21.530	21.820	22.120

DEPTH	210.00
TEMP	22.430

CONDUCTIVITY

DEPTH	120.00	155.00	160.00	170.00	190.00	195.00
COND	6.93	7.09	7.76	7.81	7.42	8.36

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1555	1551	1548	1547	1550	1545	1550	1565	1575	1575	1595	1615	1635	1655

RADIUS	20000	25000	30000	40000	50000
ELEV	1655	1685	1735	1795	1775

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CROW SPRING	8	38 14	117 33	1540	110- 150	6	5.68	33.40	1.90	1.88
								ERROR	0.17	0.20	0.06	

COMPLETED ON OR BEFORE: 11/27/63 MEASURED: 8/15/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-91.4, ALLUVIUM. 91.4-150.0, PORPHYRITIC QUARTZ MONZONITE, SHOWING STRONG ARGILLIC ALTERATION.

TEMPERATURE

DEPTH	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00
TEMP	18.770	19.210	19.660	20.120	20.500	20.870	21.220	21.550	21.890	22.230	22.550

CONDUCTIVITY

DEPTH	115.00	120.00	125.00	132.00	140.00	150.00
COND	5.76	5.28	5.70	5.73	5.32	6.46

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1540	1540	1536	1532	1537	1535	1550	1570	1580	1590	1600	1620	1640	1660

RADIUS	20000	25000	30000	40000	50000
ELEV	1660	1690	1740	1800	1780

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	CROW SPRING	10	38 14	117 33	1570	220- 280	11	8.48	32.36	2.74	2.69
								ERROR	0.22	0.29	0.08	

COMPLETED ON OR BEFORE: 11/27/63 MEASURED: 8/16/65 STATIC WATER LEVEL: 85.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-185.9, TERTIARY VOLCANIC ROCKS. 185.9-280.0, PORPHYRITIC QUARTZ MONZONITE WITH QUARTZ VEINLETS.

TEMPERATURE

DEPTH	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	18.580	19.020	19.510	20.060	20.550	21.110	21.660	22.170	22.550	22.970	23.400	23.850
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	
TEMP	24.270	24.640	25.010	25.360	25.720	26.050	26.390	26.710	27.040	27.360	27.650	

CONDUCTIVITY

DEPTH	195.00	210.00	220.00	240.00	245.00	250.00	260.00	270.00	280.00
COND	7.48	9.68	7.98	8.37	8.37	8.00	8.85	9.56	9.18

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1570	1572	1576	1578	1582	1585	1590	1590	1600	1600	1610	1620	1610	1630
RADIUS	20000	25000	30000	40000	50000									
ELEV	1630	1660	1710	1770	1750									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	GARDNERVILLE		38 51	119 45	1490	280- 310	25	5.81	20.96	1.21	1.14
								ERROR	0.34	0.15	0.01	

COMPLETED ON OR BEFORE: 5/10/65 MEASURED: 2/12/66 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-190.0, DECOMPOSED QUARTZ DIORITE. 190.0-276.0, BADLY WEATHERED QUARTZ DIORITE WITH INTERVALS OF FRESH QUARTZ DIORITE FROM SPHEROIDALLY WEATHERED BOULDERS. 276.0-350.5, CONTINUOUS CORE OF FRESH QUARTZ DIORITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	210.00	220.00
TEMP	12.800	13.610	14.220	14.980	15.900	16.840	17.980	18.910	19.750	20.430	20.740	21.010
DEPTH	230.00	240.00	250.00	260.00	270.00	280.00	285.00	290.00	295.00	300.00	305.00	310.00
TEMP	21.250	21.420	21.580	21.870	22.190	22.425	22.535	22.643	22.740	22.842	22.953	23.058

CONDUCTIVITY

DEPTH	213.36	219.46	225.55	231.65	237.74	243.84	249.94	256.03	262.13	268.22	274.32	277.37	280.42	283.46	286.51
COND	5.69	5.77	5.90	5.82	5.27	5.87	5.63	5.76	5.73	5.61	5.73	5.75	5.64	5.48	5.76
DEPTH	289.56	292.61	295.66	298.70	301.75	304.80	310.90	320.04	335.28	350.52					
COND	5.65	5.56	5.55	5.45	5.11	5.27	5.41	5.56	5.81	5.54					

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1490	1498	1508	1504	1511	1520	1513	1535	1545	1560	1660	1765	1880	1870
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	2060	2110	2070	1995	2010	1855	1620							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	HALL MINE	87	38 19	117 18	1790	150- 330	19	7.58	30.82	2.34	2.26
								ERROR	0.57	0.23	0.18	

COMPLETED ON OR BEFORE: ? MEASURED: 8/18/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: HYDROTHERMALLY ALTERED QUARTZ MONZONITE, INCLUDES MANY VEINS AND MASSES OF QUARTZ.

TEMPERATURE

DEPTH	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	
TEMP	15.870	16.250	16.590	16.950	17.290	17.620	18.090	18.400	18.710	19.060	19.390	19.730	
DEPTH	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	
TEMP	20.060	20.410	20.770	21.110	21.460	21.810	22.110	22.400	22.690	23.000	23.290	23.560	
DEPTH	270.00	280.00	290.00	300.00	310.00	320.00	330.00						
TEMP	23.840	24.160	24.500	24.780	25.070	25.410	25.710						

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1790	1799	1831	1826	1829	1825	1830	1840	1850	1855	1860	1855	1790	1755
RADIUS	20000	25000	30000	40000	50000									
ELEV	1730	1780	1860	1990	1970									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	HALL MINE	90	38 19	117 18	1851	150- 270	8	7.81	35.66	2.79	2.78
								ERROR	0.44	0.11	0.16	

COMPLETED ON OR BEFORE: ? MEASURED: ? STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: HYDROTHERMALLY ALTERED QUARTZ MONZONITE.

TEMPERATURE

DEPTH	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	
TEMP	15.750	16.140	16.480	16.860	17.250	17.700	18.030	18.310	18.640	18.990	19.330	19.700	
DEPTH	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00					
TEMP	20.040	20.420	20.770	21.140	21.480	21.850	22.210	22.570					

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1851	1855	1849	1852	1850	1865	1882	1891	1886	1876	1861	1856	1791	1756
RADIUS	20000	25000	30000	40000	50000									
ELEV	1731	1781	1861	1991	1971									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	LOVELOCK		40 02	118 19	1280	137- 198	5	2.71	91.50	2.50	2.50
								ERROR	0.22	1.40	0.20	

COMPLETED ON OR BEFORE: 9/30/63 MEASURED: 7/11/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: TUFF.

TEMPERATURE

DEPTH	30.50	45.70	61.00	76.20	91.40	106.70	121.90	137.20	152.40	167.60	182.90	198.10
TEMP	20.110	21.370	22.710	23.980	25.090	25.420	25.620	26.740	28.190	29.610	30.860	32.370

CONDUCTIVITY

DEPTH	45.72	82.30	92.66	96.62	142.04
COND	2.72	2.23	3.78	2.64	3.04

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1280	1280	1274	1268	1264	1288	1296	1310	1320	1335	1300	1290	1275	1275

RADIUS	20000	25000	30000	40000	50000
ELEV	1310	1390	1420	1400	1360

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MONTE CRISTO	9	39 14	115 34	2255	160- 720	6	8.27	31.13	2.60	2.50
								ERROR	1.30	0.11	0.40	

COMPLETED ON OR BEFORE: ? MEASURED: 8/29/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: HYDROTHERMALLY ALTERED QUARTZ MONZONITE WITH NUMEROUS QUARTZ VEINS.

TEMPERATURE

DEPTH	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00
TEMP	15.770	16.340	17.060	17.660	18.340	19.040	19.390	19.740	20.020	20.130	20.270	20.490
DEPTH	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	580.00	600.00	620.00
TEMP	20.720	20.980	21.340	21.620	22.010	22.370	22.810	23.370	24.490	25.460	26.440	27.150
DEPTH	640.00	660.00	680.00	700.00	720.00							
TEMP	28.610	29.860	31.270	32.560	33.270							

CONDUCTIVITY

DEPTH	555.00	565.00	595.00	650.00	705.00	730.00
COND	14.80	8.76	9.42	10.40	4.58	7.98

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2255	2263	2271	2275	2307	2326	2316	2355	2325	2230	2175	2135	2115	2140
RADIUS	20000	25000	30000	40000	50000									
ELEV	2105	2030	1990	2050	2090									

COMMENTS: DISTURBANCE BETWEEN 260 AND 700 METERS. GRADIENT DETERMINED USING TEMPERATURES AT 160 THROUGH 260 METERS AND TEMPERATURES AT 700 THROUGH 720 METERS.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	MONTE CRISTO	14	39 14	115 34	2039	685- 740	15	5.44	33.40	1.81	1.77
								ERROR			0.03	

COMPLETED ON OR BEFORE: 5/19/65 MEASURED: 8/21/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: 0-653.8, ALLUVIUM. 653.8-740.0, SHALE WITH SOME MARL AND SANDSTONE.

TEMPERATURE

DEPTH	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00
TEMP	17.280	18.230	19.230	20.060	20.730	21.560	21.590	21.550	22.320	23.300	24.370	25.400
DEPTH	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00
TEMP	26.330	27.200	28.030	28.820	29.570	30.320	31.000	31.610	32.200	32.780	33.300	33.800
DEPTH	580.00	600.00	610.00	620.00	630.00	640.00	650.00	655.00	660.00	665.00	670.00	675.00
TEMP	34.310	34.800	35.070	35.360	35.670	36.060	36.510	36.920	37.320	37.680	37.940	38.130
DEPTH	680.00	685.00	690.00	695.00	700.00	705.00	710.00	715.00	720.00	725.00	730.00	735.00
TEMP	38.340	38.567	38.690	38.831	39.006	39.301	39.479	39.635	39.785	39.918	40.054	40.196
DEPTH	740.00											
TEMP	40.335											

CONDUCTIVITY

DEPTH	687.50	692.50	697.50	702.50	707.50	712.50	717.50	722.50	727.50	732.50	737.50
COND	8.696	6.993	4.329	4.630	5.051	5.405	5.848	6.135	5.495	5.464	6.494

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2039	2040	2042	2043	2048	2050	2057	2079	2124	2189	2174	2134	2114	2139
RADIUS	20000	25000	30000	40000	50000									
ELEV	2104	2029	1989	2049	2089									

COMMENTS: HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PIOCHE	B1	38 05	114 37	2225	500- 630	13	5.78	26.08	1.51	1.67
								ERROR	0.43	0.38	0.12	

COMPLETED ON OR BEFORE: ? MEASURED: 8/24/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00
TEMP	14.990	15.210	15.590	16.070	16.540	17.220	17.640	17.910	18.110	18.260	18.400	18.540
DEPTH	300.00	320.00	340.00	360.00	380.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00
TEMP	18.710	18.970	19.300	19.610	20.030	20.500	20.720	20.990	21.270	21.480	21.680	21.880
DEPTH	470.00	480.00	490.00	500.00	510.00	520.00	530.00	540.00	550.00	560.00	570.00	580.00
TEMP	22.090	22.270	22.500	22.760	23.090	23.340	23.630	23.970	24.190	24.420	24.630	24.830
DEPTH	590.00	600.00	610.00	620.00	630.00							
TEMP	25.080	25.420	25.710	26.010	26.220							

CONDUCTIVITY

DEPTH	505.00	515.00	525.00	535.00	545.00	555.00	565.00	575.00	585.00	595.00	605.00	615.00	625.00
COND	4.00	5.81	5.26	4.39	6.90	7.09	5.52	9.62	6.25	4.24	6.54	5.08	10.31

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2225	2200	2150	2143	2141	2086	2005	1952	1920	1870	1810	1805	1785	1775
RADIUS	20000	25000	30000	40000	50000									
ELEV	1785	1825	1865	1765	1855									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	PIOCHE	B3	38 05	114 37	2176	200- 370	16	8.27	23.27	1.92	2.17
								ERROR	0.34	0.13	0.08	

COMPLETED ON OR BEFORE: ? MEASURED: 8/22/64 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00
TEMP	13.700	13.390	13.470	13.650	13.800	13.930	14.090	14.230	14.380	14.610	14.800	15.030
DEPTH	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00
TEMP	15.320	15.520	15.740	16.020	16.240	16.420	16.630	16.880	17.190	17.410	17.610	17.840
DEPTH	360.00	370.00										
TEMP	18.090	18.330										

CONDUCTIVITY

DEPTH	205.00	215.00	225.00	235.00	245.00	255.00	265.00	275.00	285.00	295.00	305.00	315.00	325.00	335.00	345.00
COND	8.26	7.19	7.63	6.76	6.80	8.70	10.75	8.00	7.46	10.31	7.25	9.35	10.53	7.25	11.36
DEPTH	355.00														
COND	8.06														

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2176	2165	2152	2142	2141	2088	2005	1952	1920	1871	1811	1806	1786	1776
RADIUS	20000	25000	30000	40000	50000									
ELEV	1786	1826	1866	1766	1856									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	ROYSTON	1	38 19	117 31	1645	140- 480	22	6.71	25.06	1.68	1.68
								ERROR	0.22	0.12	0.06	

COMPLETED ON OR BEFORE: ? MEASURED: 8/18/65 STATIC WATER LEVEL: 70.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: HYDROTHERMALLY ALTERED QUARTZ MONZONITE PORPHYRY.

TEMPERATURE

DEPTH	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00
TEMP	18.380	18.960	19.550	20.070	20.610	21.150	21.710	22.210	22.740	23.160	23.700	24.240
DEPTH	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00				
TEMP	24.690	25.150	25.660	26.150	26.650	27.110	27.643	28.131				

CONDUCTIVITY

DEPTH	150.00	202.00	230.00	240.00	243.00	250.00	260.00	280.00	298.00	300.00	310.00	330.00	340.00	350.00	360.00
COND	8.20	7.04	6.25	5.59	7.27	6.01	8.12	6.39	11.60	5.93	6.16	6.96	6.02	6.60	8.42
DEPTH	370.00	380.00	390.00	400.00	420.00	430.00	440.00	450.00							
COND	7.23	6.98	7.28	6.71	8.31	6.11	5.87	6.12							

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1645	1647	1640	1634	1637	1631	1650	1665	1655	1635	1640	1635	1635	1675
RADIUS	20000	25000	30000	40000	50000									
ELEV	1735	1785	1865	1945	1935									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	RUTH	XD-20	39 16	114 59	2147	400- 600	32	6.14	29.62	1.82	1.82
								ERROR	0.13	0.15	0.04	

COMPLETED ON OR BEFORE: ? MEASURED: 8/27/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: GRANODIORITE.

TEMPERATURE

DEPTH	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00
TEMP	16.090	16.380	16.650	16.950	17.360	17.650	17.900	18.250	18.610	18.950	19.270	19.610
DEPTH	420.00	430.00	440.00	450.00	460.00	470.00	480.00	490.00	500.00	510.00	520.00	530.00
TEMP	19.920	20.190	20.480	20.790	21.070	21.370	21.680	22.020	22.340	22.660	22.960	23.250
DEPTH	540.00	550.00	560.00	570.00	580.00	590.00	600.00					
TEMP	23.520	23.790	24.060	24.340	24.630	24.910	25.200					

CONDUCTIVITY

DEPTH	395.94	401.12	409.35	414.53	416.36	420.62	426.72	432.82	434.04	437.08	441.35	446.53	458.72	478.84	481.28
COND	5.35	5.36	5.53	5.34	7.49	6.95	6.92	5.36	7.31	5.58	5.60	5.44	5.56	7.21	5.56
DEPTH	487.07	493.78	499.26	512.98	518.16	524.56	531.57	536.45	543.46	548.64	554.13	560.22	567.23	579.12	585.52
COND	5.79	5.53	5.65	5.56	6.55	5.57	5.96	7.59	7.24	7.20	7.36	7.35	7.71	6.18	6.08
DEPTH	588.87	595.89	601.68												
COND	5.98	7.28	7.13												

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2147	2147	2149	2151	2153	2155	2159	2161	2157	2151	2147	2157	2152	2132
RADIUS	20000	25000	30000	40000	50000									
ELEV	2132	2122	2127	2187	2167									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SCHURZ	H1A	38 57	118 38	1340	260- 315	12	5.85	32.20	1.88	1.88
								ERROR	0.12	0.10	0.04	

COMPLETED ON OR BEFORE: ? MEASURED: 2/ 4/66 STATIC WATER LEVEL: 175.

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: BRECCIATED DIORITE.

TEMPERATURE

DEPTH	50.00	100.00	150.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	
TEMP	18.370	20.510	22.290	23.140	23.420	23.690	23.960	24.250	24.530	24.840	25.150	25.455	
DEPTH	265.00	270.00	275.00	280.00	285.00	290.00	295.00	300.00	305.00	310.00	315.00		
TEMP	25.616	25.776	25.937	26.101	26.267	26.431	26.592	26.752	26.907	27.065	27.216		

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1340	1339	1334	1329	1325	1326	1326	1327	1334	1347	1360	1370	1420	1435
RADIUS	20000	25000	30000	40000	50000									
ELEV	1470	1545	1595	1500	1510									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SINGATSE RANGE		38 58	119 16	1579	155- 215	9	9.62	16.48	1.58	1.56
								ERROR	0.36	0.09	0.06	

COMPLETED ON OR BEFORE: ? MEASURED: 10/26/64 STATIC WATER LEVEL: 150.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: QUARTZ MONZONITE WITH NUMEROUS QUARTZ VEINS.

TEMPERATURE

DEPTH	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00	200.00	205.00	210.00
TEMP	16.806	16.885	16.962	17.043	17.122	17.201	17.282	17.369	17.457	17.542	17.623	17.705
DEPTH	215.00											
TEMP	17.792											

CONDUCTIVITY

DEPTH	161.54	162.46	172.52	177.39	182.88	192.33	197.51	207.57	212.45
COND	9.83	8.89	10.34	10.61	10.71	10.61	10.46	8.27	8.17

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1579	1574	1582	1585	1597	1600	1602	1597	1534	1529	1499	1479	1459	1489
RADIUS	20000	25000	30000	40000	50000									
ELEV	1599	1699	1659	1519	1489									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	SPRING VALLEY		39 17	114 21	1830	130- 230	11	9.01	20.99	1.89	1.83
								ERROR	0.52	0.41	0.12	

COMPLETED ON OR BEFORE: ? MEASURED: 8/28/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00
TEMP	11.650	12.140	12.640	13.050	13.510	13.710	13.980	14.200	14.400	14.610	14.860	15.110
DEPTH	180.00	190.00	200.00	210.00	220.00	230.00						
TEMP	15.350	15.530	15.710	15.890	16.070	16.290						

CONDUCTIVITY

DEPTH	60.96	77.72	89.92	100.58	106.68	121.92	137.16	153.92	163.07	169.16	175.26	179.83	196.60	220.98
COND	7.65	7.74	7.11	12.60	13.10	8.61	8.23	8.16	7.78	7.48	8.35	9.83	10.80	7.42

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	1830	1832	1834	1835	1838	1839	1843	1851	1890	1915	1980	2050	2170	2140
RADIUS	20000	25000	30000	40000	50000									
ELEV	2160	2050	2020	1920	1820									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	TAYLOR CANYON		39 05	114 41	2315	200- 250	16	13.33	39.23	5.23	5.32
								ERROR	0.27	0.39	0.12	

COMPLETED ON OR BEFORE: 6/25/64 MEASURED: 9/ 1/65 STATIC WATER LEVEL: 87.

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
TEMP	13.570	14.010	14.470	14.920	15.350	15.780	16.210	16.660	17.100	17.620	17.900	18.270
DEPTH	210.00	220.00	230.00	240.00	250.00							
TEMP	18.640	19.030	19.450	19.810	20.230							

CONDUCTIVITY

DEPTH	205.74	211.84	214.88	217.93	220.98	224.03	230.12	236.22	239.27	242.32	245.36	248.41	251.46	254.51	257.56
COND	14.11	12.07	12.64	11.55	14.57	12.53	13.91	11.53	13.14	13.50	13.79	12.99	13.64	11.49	14.07
DEPTH	260.60														
COND	14.16														

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2315	2315	2316	2320	2320	2327	2329	2299	2275	2245	2155	2205	2165	2125
RADIUS	20000	25000	30000	40000	50000									
ELEV	2195	2225	2145	2115	2095									

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
NEV.	BASIN RGE	WARD MOUNTAIN		39 04	114 55	2717	250- 350	16	7.87	24.60	1.94	2.05
								ERROR	0.14	0.12	0.04	

COMPLETED ON OR BEFORE: ? MEASURED: 8/31/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL. (1968A)

GEOLOGY: 0-350, LIMESTONE. 350-500, BLACK SHALE.

TEMPERATURE

DEPTH	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00
TEMP	7.000	7.140	7.290	7.460	7.640	7.820	8.010	8.200	8.370	8.570	8.770	8.950
DEPTH	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00
TEMP	9.150	9.360	9.570	9.770	9.990	10.210	10.440	10.680	10.960	11.210	11.450	11.690
DEPTH	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	420.00	440.00	460.00
TEMP	11.930	12.170	12.420	12.660	12.930	13.270	13.700	14.130	14.590	15.490	16.420	17.380
DEPTH	480.00	500.00										
TEMP	18.360	19.340										

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	2717	2722	2735	2758	2790	2804	2745	2665	2427	2367	2237	2167	2107	2067
RADIUS	20000	25000	30000	40000	50000									
ELEV	2047	2187	2167	2177	2127									

COMMENTS: CONDUCTIVITY DISCS COULD NOT BE PREPARED FROM THE DEHYDRATED SAMPLES OF SHALE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	BRADFORD		43 16	71 59	250	200- 260	23	7.09	22.96	1.63	1.59
								ERROR	0.12	0.05	0.03	

COMPLETED ON OR BEFORE: 10/19/63 MEASURED: 4/20/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-260, KINSMAN(?) QUARTZ MONZONITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	8.080	8.380	8.630	8.840	9.020	9.110	9.270	9.440	9.640	9.880	10.090	10.310
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00
TEMP	10.520	10.720	10.950	11.170	11.400	11.770	12.020	12.249	12.476	12.703	12.936	13.167
DEPTH	260.00											
TEMP	13.398											

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	250	254	258	258	262	258	255	280	309	338	383	412	379	345
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	305	309	304	252	259	196	256							

COMMENTS: MEAN DENSITY(15) = 2.76 (2.68-2.81).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	CONCORD		43 12	71 32	85	200- 320	11	8.55	20.54	1.76	1.73
								ERROR	0.13	0.08	0.03	

COMPLETED ON OR BEFORE: 7/12/63 MEASURED: 11/18/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (19688)

GEOLOGY: CONCORD GRANITE.

TEMPERATURE

DEPTH	200.00	210.00	220.00	230.00	240.00	250.00	259.10	274.30	289.60	304.80	320.00		
TEMP	12.260	12.460	12.660	12.860	13.060	13.270	13.450	13.760	14.090	14.410	14.720		

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	85	85	87	89	91	93	97	103	109	115	131	147	150	150
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	175	195	205	215	235	185	160							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	DURHAM		43 07	70 55	6	260- 305	24	6.37	17.19	1.09	1.08
								ERROR	0.14	0.05	0.02	

COMPLETED ON OR BEFORE: 9/23/63 MEASURED: 11/ 7/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-305, EXETER DIORITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	210.00	220.00
TEMP	10.260	10.580	10.830	11.160	11.280	11.520	11.670	11.850	12.060	12.270	12.320	12.370
DEPTH	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	305.00			
TEMP	12.400	12.460	12.650	12.794	12.963	13.135	13.306	13.479	13.568			

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	6	5	12	15	14	13	17	18	18	18	17	18	21	31
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	46	46	41	46	56	51	106							

COMMENTS: MEAN DENSITY (15) = 2.80 (2.72-2.84).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	FITZWILLIAM		42 47	72 08	330	100- 300	24	7.69	21.41	1.65	1.63
								ERROR	0.06	0.03	0.01	

COMPLETED ON OR BEFORE: 7/ 3/63 MEASURED: 4/21/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-300, GRANITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	6.300	7.060	7.360	7.700	7.960	8.220	8.460	8.700	8.920	9.130	9.340	9.550
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	9.770	9.990	10.200	10.420	10.630	10.840	11.060	11.270	11.480	11.690	11.900	12.120
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00						
TEMP	12.320	12.560	12.770	12.980	13.200	13.420						

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	330	333	335	334	340	349	358	356	350	346	346	342	334	325
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	304	310	290	245	250	230	220							

COMMENTS: MEAN DENSITY(12) = 2.63 (2.60-2.64).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	KANCAMAGUS		44 02	71 29	730	168- 305	34	8.85	27.11	2.40	2.27
								ERROR	0.08	0.04	0.02	

COMPLETED ON OR BEFORE: 7/31/63 MEASURED: 9/ 9/63 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-305, CONWAY GRANITE.

TEMPERATURE

DEPTH	15.20	30.50	45.70	61.00	76.20	91.40	106.70	121.90	137.20	152.40	167.64	179.83
TEMP	8.000	7.000	7.500	7.400	7.700	8.100	8.200	8.200	8.500	9.700	10.420	10.760
DEPTH	274.32	289.56	304.80									
TEMP	13.320	13.730	14.140									

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	730	744	758	788	866	835	820	734	708	733	742	694	660	600
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	570	530	520	410	330	230	220							

COMMENTS: MEAN DENSITY(30) = 2.60 (2.54-2.63).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	NORTH CONWAY		44 04	71 10	195	120- 215	19	7.81	26.10	2.04	1.89
								ERROR	0.15	0.03	0.04	

COMPLETED ON OR BEFORE: 8/17/63 MEASURED: 11/ 6/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-216, CONWAY GRANITE.

TEMPERATURE

DEPTH	15.20	30.50	45.70	61.00	76.20	91.40	106.70	121.90	137.20	152.40	167.60	179.80
TEMP	8.400	8.700	9.000	9.400	9.400	9.700	10.100	10.380	10.780	11.180	11.570	11.890
DEPTH	200.00	205.00	210.00	215.00								
TEMP	12.423	12.551	12.680	12.808								

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	195	199	208	219	248	266	247	227	276	335	377	387	350	395
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	420	495	475	385	325	225	215							

COMMENTS: MEAN DENSITY(16) = 2.60 (2.58-2.64).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	NORTH HAVERHILL		44 06	72 00	180	150- 240	27	6.54	21.60	1.41	1.34
								ERROR			0.01	

COMPLETED ON OR BEFORE: 11/ 4/63 MEASURED: 7/ 3/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-240, FRENCH POND GRANITE.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	8.550	8.580	8.670	8.780	8.900	9.020	9.160	9.310	9.460	9.630	9.800	9.980

DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	10.170	10.358	10.548	10.741	10.959	11.177	11.381	11.602	11.817	12.059	12.299

CONDUCTIVITY

DEPTH	155.00	165.00	175.00	185.00	195.00	205.00	215.00	225.00	235.00
COND	6.944	7.143	6.135	6.289	7.519	7.194	6.494	5.650	5.525

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	180	184	190	202	214	225	218	212	232	254	283	322	365	420

RADIUS	20000	25000	30000	40000	50000	70000	100000
ELEV	435	435	475	470	450	330	325

COMMENTS: MEAN DENSITY(15) = 2.66 (2.61-2.81). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. H.	APPALACH	WATERVILLE		43 56	71 32	400	240- 320	27	8.48	29.89	2.53	2.15
								ERROR	0.14	0.11	0.04	

COMPLETED ON OR BEFORE: 8/15/63 MEASURED: 11/ 6/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-320, CONWAY GRANITE.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	210.00	220.00
TEMP	7.000	7.650	7.970	8.370	9.310	10.230	10.820	11.440	12.050	12.650	12.900	13.160
DEPTH	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00		
TEMP	13.430	13.684	13.985	14.288	14.593	14.897	15.196	15.491	15.780	16.069		

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	400	412	440	496	568	624	678	756	744	672	632	614	592	489
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	482	503	515	402	365	235	224							

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. Y.	CAN. SHLD	ELIZABETHTOWN		44 13	73 32	150	400- 600	22	4.55	18.33	0.83	0.81
								ERROR	0.06	0.04	0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 11/ 3/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-600, ANORTHOSITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	8.030	8.340	8.560	8.730	8.880	9.010	9.120	9.230	9.340	9.460	9.580	9.710
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	9.840	9.960	10.040	10.110	10.190	10.300	10.420	10.560	10.700	10.880	11.040	11.230
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	11.390	11.550	11.730	11.890	12.080	12.280	12.440	12.630	12.800	12.970	13.150	13.320
DEPTH	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00
TEMP	13.490	14.160	14.330	14.510	14.690	14.880	15.060	15.240	15.420	15.610	15.800	15.980
DEPTH	490.00	500.00	510.00	520.00	530.00	540.00	550.00	560.00	570.00	580.00	590.00	600.00
TEMP	16.180	16.340	16.510	16.700	16.880	17.060	17.240	17.450	17.630	17.830	17.990	18.180

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	150	158	174	202	206	230	215	193	208	218	233	250	299	342
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	326	272	323	361	394	343	291							

COMMENTS: MEAN DENSITY(12) = 2.79 (2.72-2.89).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. Y.	APPALACH	GLENS FALLS		43 18	73 37	80	220- 265	37	11.04	9.60	1.06	1.05
								ERROR			0.01	

COMPLETED ON OR BEFORE: ? MEASURED: 2/ 6/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-265, LOWER PALEOZOIC SEDIMENTARY ROCKS; CARBONATES, SANDSTONES, AND QUARTZITES.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	11.830	11.220	10.980	11.090	11.140	11.110	11.000	10.910	10.820	10.740	10.660	10.630
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	225.00	230.00
TEMP	10.620	10.630	10.640	10.680	10.730	10.770	10.830	10.890	10.960	11.048	11.098	11.151
DEPTH	235.00	240.00	245.00	250.00	255.00	260.00	265.00					
TEMP	11.198	11.253	11.307	11.351	11.393	11.433	11.478					

CONDUCTIVITY

DEPTH	222.50	227.50	232.50	237.50	242.50	247.50	252.50	257.50	262.50
COND	10.638	9.259	10.989	10.309	10.417	12.821	12.346	12.048	10.638

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	80	80	79	79	78	77	77	82	83	81	79	95	115	140
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	195	225	220	310	330	240	290							

COMMENTS: MEAN DENSITY(12) = 2.74 (2.58-2.83). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. Y.	CAN. SHLD	RIVERVIEW		44 35	73 54	360	260- 330	26	7.94	15.90	1.26	1.22
								ERROR	0.15	0.07	0.02	

COMPLETED ON OR BEFORE: 9/19/63 MEASURED: 7/ 4/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-330, GRANITE GNEISS.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	
TEMP	7.700	7.700	7.800	7.900	7.940	8.190	8.400	8.600	8.840	9.090	9.370	9.660	
DEPTH	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00					
TEMP	9.996	10.152	10.304	10.471	10.637	10.788	10.944	11.107					

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	360	362	368	372	398	402	410	412	434	446	468	464	480	492
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	490	460	435	375	323	250	235							

COMMENTS: MEAN DENSITY(6) = 2.68 (2.64-2.73).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. Y.	CAN. SHLD	SARANAC LAKE		44 20	74 16	490	100- 360	20	4.41	18.49	0.81	0.81
								ERROR	0.06	0.04	0.01	

COMPLETED ON OR BEFORE: 8/19/63 MEASURED: 11/ 4/64 STATIC WATER LEVEL: .?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-360, ANORTHOSITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	7.130	6.750	6.550	6.500	6.480	6.560	6.630	6.710	6.850	7.030	7.200	7.370
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	7.580	7.770	7.940	8.120	8.300	8.500	8.710	8.880	9.080	9.250	9.450	9.630
DEPTH	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00
TEMP	9.810	10.000	10.180	10.370	10.550	10.730	10.910	11.100	11.270	11.450	11.630	11.800

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	490	491	499	495	501	503	508	516	503	493	487	507	527	550

RADIUS	20000	25000	30000	40000	50000	70000	100000
ELEV	585	535	510	420	340	280	220

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
N. Y.	CAN. SHLD	WADHAMS		44 14	73 28	100	210- 260	21	4.51	17.97	0.81	0.79
								ERROR	0.07	0.05	0.01	

COMPLETED ON OR BEFORE: 10/ 4/63 MEASURED: 11/ 2/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968A,1968B)

GEOLOGY: 0-260, ANORTHOSITE.

TEMPERATURE

DEPTH	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00
TEMP	8.900	8.550	8.550	8.580	8.620	8.690	8.770	8.860	8.970	9.080	9.200	9.340
DEPTH	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00
TEMP	9.470	9.620	9.760	9.920	10.080	10.250	10.410	10.550	10.692	10.871	11.056	11.233
DEPTH	250.00	260.00										
TEMP	11.412	11.590										

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	100	105	109	110	120	130	136	142	153	157	171	181	171	191
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	275	271	322	362	397	345	293							

COMMENTS: MEAN DENSITY(12) = 2.77 (2.70-2.80).

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
OKLA.	INT. PLN	PICHER	P-5	36 59	94 52	253	540-640	19	6.37	21.23	1.35	1.35
								ERROR	0.04	0.05	0.01	

COMPLETED ON OR BEFORE: 12/ 8/64 MEASURED: 7/23/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: 0-530, LOWER PALEOZOIC SANDSTONES AND DOLOMITES. 530-640, QUARTZ DIORITE.

TEMPERATURE

DEPTH	100.00	150.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	322.00	340.00	360.00
TEMP	18.260	17.580	17.620	17.700	17.820	18.010	18.320	18.720	19.860	19.870	19.970	20.130
DEPTH	380.00	400.00	404.00	410.00	420.00	440.00	450.00	458.00	460.00	480.00	493.00	500.00
TEMP	20.310	20.480	20.510	20.550	20.670	20.950	21.060	21.160	21.190	21.490	21.680	21.770
DEPTH	514.00	520.00	529.00	530.00	540.00	550.00	560.00	570.00	580.00	590.00	600.00	610.00
TEMP	21.960	22.040	22.170	22.190	22.460	22.670	22.890	23.100	23.310	23.520	23.750	23.950
DEPTH	620.00	630.00	640.00									
TEMP	24.160	24.370	24.580									

COMMENTS: NO TERRAIN CORRECTION NEEDED AT THIS SITE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
OKLA.	INT. PLN	PICHER	43-C	36 59	94 52	255	500- 570	14	7.52	19.43	1.46	1.46
								ERROR	0.03	0.08	0.01	

COMPLETED ON OR BEFORE: 12/ 8/64 MEASURED: 7/22/65 STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968A,1968B)

GEOLOGY: 0-495, LOWER PALEOZOIC SANDSTONES AND DOLOMITES. 495-570, FINE GRAINED GRANITE.

TEMPERATURE

DEPTH	100.00	150.00	200.00	220.00	240.00	260.00	280.00	300.00	305.00	320.00	340.00	360.00
TEMP	17.710	17.840	18.380	18.550	18.770	19.000	19.180	19.440	19.480	19.670	19.930	20.160
DEPTH	380.00	387.00	395.00	400.00	420.00	432.00	440.00	443.00	460.00	479.00	480.00	492.00
TEMP	20.460	20.560	20.670	20.750	21.000	21.160	21.280	21.330	21.600	21.880	21.900	22.090
DEPTH	500.00	510.00	520.00	530.00	540.00	550.00	560.00	570.00				
TEMP	22.270	22.470	22.660	22.850	23.060	23.240	23.440	23.630				

COMMENTS: NO TERRAIN CORRECTION NEEDED AT THIS SITE.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	BINGHAM	KCC124	40 31	112 09	1986	300- 580	22	11.49	17.00	1.96	1.91
								ERROR			0.07	

COMPLETED ON OR BEFORE: ? MEASURED: ? STATIC WATER LEVEL: ?

REFERENCE: ROY ET AL (1968B)

GEOLOGY: ?

TEMPERATURE

DEPTH	100.00	150.00	200.00	250.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00
TEMP	10.500	10.100	11.000	11.000	12.900	13.120	13.330	13.540	13.700	13.840	14.000	14.160
DEPTH	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00	490.00
TEMP	14.350	14.560	14.760	14.900	15.050	15.210	15.370	15.520	15.660	15.820	15.970	16.130
DEPTH	500.00	510.00	520.00	530.00	540.00	550.00	560.00	570.00	580.00			
TEMP	16.320	16.490	16.670	16.860	17.020	17.210	17.440	17.640	17.820			

CONDUCTIVITY

DEPTH	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00
COND	8.850	8.621	5.495	15.152	15.873	16.393	15.152	11.364	15.385	15.625

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
UTAH	BASIN RGE	GOVT. CANYON		39 52	112 04	1865	61-335	5	4.80	43.3	2.08	1.9
								ERROR	0.35	0.7	0.16	0.3

COMPLETED ON OR BEFORE: 58 MEASURED: 8/18/61 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963).

GEOLOGY: 0-335. LAGUNA SPRINGS LATITE.

TEMPERATURE

DEPTH	60.96	91.44	121.92	152.40	182.88	213.36	243.84	274.32	304.80	335.28
TEMP	15.370	16.690	18.030	19.380	20.700	21.890	23.320	24.660	25.950	27.250

CONDUCTIVITY

DEPTH	76.20	106.68	137.16	228.60	320.04
COND	5.01	4.64	4.65	4.11	5.19

COMMENTS: A THREE-DIMENSIONAL TERRAIN CORRECTION WAS CALCULATED TO A RADIUS OF 12,500 FEET. THE CORRECTION IS -14% IN THE 200-300 FOOT INTERVAL AND DECREASES TO -7% IN THE 1000-1100 FOOT INTERVAL. THE AVERAGE CORRECTION OF -9% WAS USED.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
VT.	APPALACH	LONDONDERRY		43 15	72 50	370	160- 240	28	5.92	22.30	1.32	1.23
								ERROR			0.01	

COMPLETED ON OR BEFORE: 10/3/63 MEASURED: 10/10/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-240, GNEISS.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	8.060	8.210	8.360	8.500	8.650	8.800	8.970	9.160	9.340	9.520	9.710	9.920
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	
TEMP	10.120	10.310	10.507	10.719	10.934	11.135	11.366	11.611	11.833	12.054	12.275	

CONDUCTIVITY

DEPTH	165.00	175.00	185.00	195.00	205.00	215.00	225.00	235.00
COND	5.952	6.536	6.494	5.714	5.236	5.525	6.452	6.452

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	370	380	395	413	443	439	435	432	435	452	495	533	560	540
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	505	450	435	385	360	260	220							

COMMENTS: MEAN DENSITY(17) = 2.75 (2.67-2.98). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
VT.	APPALACH	NO. SPRINGFIELD		43 20	72 33	180	160- 240	26	5.56	23.20	1.29	1.20
								ERROR			0.01	

COMPLETED ON OR BEFORE: 11/17/63 MEASURED: 7/ 2/65 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-240, GNEISS.

TEMPERATURE

DEPTH	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00
TEMP	9.300	9.310	9.340	9.380	9.440	9.520	9.630	9.760	9.900	10.070	10.250	10.430
DEPTH	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	
TEMP	10.630	10.830	11.049	11.268	11.493	11.728	11.964	12.205	12.434	12.664	12.890	

CONDUCTIVITY

DEPTH	165.00	175.00	185.00	195.00	205.00	215.00	225.00	235.00
COND	5.618	5.556	5.376	5.348	5.405	5.714	6.024	5.618

TERRAIN DATA

RADIUS	0	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000
ELEV	180	182	196	213	214	218	244	260	289	287	293	312	335	350
RADIUS	20000	25000	30000	40000	50000	70000	100000							
ELEV	375	400	415	410	400	255	215							

COMMENTS: MEAN DENSITY(15) = 2.73 (2.62-2.81). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
VT.	APPALACH	WESTON		43 17	72 49	530	350- 430	27	6.33	19.00	1.20	1.22
								ERROR			0.01	

COMPLETED ON OR BEFORE: 11/13/63 MEASURED: 11/19/64 STATIC WATER LEVEL: ?

REFERENCE: BIRCH ET AL (1968), ROY ET AL (1968B)

GEOLOGY: 0-430, GNEISS.

TEMPERATURE

DEPTH	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00
TEMP	8.340	8.140	8.160	8.230	8.360	8.540	8.750	8.970	9.270	9.540	9.900	10.320
DEPTH	260.00	280.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00
TEMP	10.570	10.950	11.300	11.410	11.540	11.890	12.220	12.450	12.640	12.820	13.000	13.200
DEPTH	400.00	410.00	420.00	430.00								
TEMP	13.390	13.580	13.770	13.970								

CONDUCTIVITY

DEPTH	355.00	365.00	375.00	385.00	395.00	405.00	415.00	425.00
COND	6.098	6.135	6.803	6.369	6.369	6.452	6.329	5.376

TERRAIN DATA

RADIUS	200	500	900	1500	2200	3000	4000	5000	6000	8000	10000	12500	15000	20000
ELEV	527	524	510	502	493	485	481	492	513	553	577	585	539	508
RADIUS	25000	30000	40000	50000	70000	100000								
ELEV	451	436	452	362	259	219								

COMMENTS: MEAN DENSITY(34) = 2.74 (2.59-2.98). HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. NW	METALINE	CS2	48 55	117 20	674	350- 396	14	12.30	25.90	3.20	2.75
								ERROR			0.03	

COMPLETED ON OR BEFORE: 6/11/58 MEASURED: 8/24/61 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963); ROY ET AL (1968B)

GEOLOGY: 0-4, OVERBURDEN. 4-236, METALINE LIMESTONE. 236-336, LEDBETTER SLATE. 336-396, METALINE LIMESTONE.

TEMPERATURE

DEPTH	350.50	365.80	381.00	396.20
TEMP	16.730	17.140	17.540	17.910

CONDUCTIVITY

DEPTH	358.18	373.38	388.58
COND	9.942	12.016	13.126

TERRAIN DATA

RADIUS	2200	3000	4000	5000	6000	8000	10000	12500	15000	20000	25000	30000	40000	50000
ELEV	674	784	839	894	944	1064	1184	1224	1244	1234	1154	1084	1184	1184

COMMENTS: TERRAIN CORRECTION TO 2.2 KM AFTER ROY (1963). ADDITIONAL TERRAIN READ SUBSEQUENTLY. HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.

STATE	TECT UNIT	LOCALITY	HOLE NO	N LAT DEG MIN	W LONG DEG MIN	ELEV	DEPTH RANGE	N	COND	GRAD	HEAT FLOW UNC	HEAT FLOW CORR
WASH.	PAC. NW	METALINE	CS9	48 55	117 20	736	320- 366	5	11.49	22.00	2.53	2.30
								ERROR			0.02	

COMPLETED ON OR BEFORE: 8/27/58 MEASURED: 8/29/61 STATIC WATER LEVEL: ?

REFERENCE: ROY (1963), ROY ET AL (1968B)

GEOLOGY: 0-29, OVERBURDEN. 29-323, LEDBETTER SLATE. 323-366, METALINE LIMESTONE.

TEMPERATURE

DEPTH	312.38	327.68	342.88	358.18
TEMP	15.820	16.210	16.540	16.820

CONDUCTIVITY

DEPTH	335.30	350.50	365.80
COND	11.742	12.677	12.761

TERRAIN DATA

RADIUS	2200	3000	4000	5000	6000	8000	10000	12500	15000	20000	25000	30000	40000	50000
ELEV	736	786	846	896	946	1066	1186	1226	1246	1236	1156	1086	1186	1186

COMMENTS: TERRAIN CORRECTION TO 2.2 KM AFTER ROY (1963). ADDITIONAL TERRAIN READ SUBSEQUENTLY. HEAT FLOW CALCULATED FROM RESISTANCE INTEGRAL. CONDUCTIVITIES ARE THE AVERAGE FOR THE INTERVAL CENTERED ON THE DEPTH.