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A PRELIMINARY STUDY OF THE SUBSURFACE TEMPERATURE DISTRIBUTION IN KANSAS AND ITS RELATIONSHIP TO THE GEOLOGY

by

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Advisory Committee:

For the department

ABSTRACT

A United States Department of Energy sponsored geothermal resource survey for the State of Kansas was undertaken in 1979. This thesis is a partial summary of that survey. The purpose of this study was to investigate the subsurface temperature distribution for the state and to explain any geographic variation observed.

Geothermal gradient values are extrapolated from bottom hole temperatures recorded on oil and gas well logs. These gradients are used to delineate general geothermal trends which were examined in the field by thermal logging. The results of the thermal logging indicate that geothermal gradients for the state range from 25 ^{o}C/Km to 55 ^{o}C/Km.

Variations in the geothermal gradient data for Kansas appear to be controlled by:

1) topography of the crystalline basement surface

2) variations in rates of heat production in the crystalline basement, presumably, but not necessarily, resulting from variations in basement rock type

3) variation in thermal conductivity in the sedimentary section.

4) possible convection eastward and upward from the Denver-Julesberg Basin.

The effects of factor 1 are most evident statewide (ie., thousands of square miles) whereas those for factors 2, 3 and 4 are evident over smaller areas for which factor 1 is essentially invariant.

ACKNOWLEDGEMENTS

This study has been supported by funding from the United States Department of Energy under grant number DE-AS07-79ET27204. Thanks are due the Kansas Geological Survey and my advisor Dr. Don W. Steeples who has provided encouragement and helpful suggestions during this study. Thanks also to my thesis committee: Drs. Marion Bickford, Wakefield Dort, Jr., and George Rothe for suggestions for the manuscript, and to Lance Tomlin for computer programing.

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INTRODUCTION

The differential equation describing the diffusion of thermal energy is:

$$\vec{q} = -K[\vec{\nabla T}] \qquad \text{Eqn. 1}$$

where, $\vec{q}$ is the heat flow (positive when flow is outward from the source (Garland, 1979))

K is the rock thermal conductivity

$\vec{\nabla T}$ is the geothermal gradient (positive when temperature increases with depth (Garland, 1979)).

Geologic processes at depth give rise to observed near-surface heat flow. These processes may include:

1) radioactive decay of uranium, thorium and potassium in crustal and upper mantle rocks

2) conduction of heat away from the core

3) possible convection in the mantle

4) refraction of heat by subsurface topography (eg., buried erosional or structural remnants)

5) convection of thermal waters due to structural, stratigraphic or hydrologic control.

Possible factors affecting the geothermal gradient, in addition to those mentioned for heat flow, include the depth to crystalline basement or heat source and the thermal conductivity of the strata overlying crystalline basement. Conductivity information was used, where available to determine heat flow values for the State of Kansas. Because rocks are inherently poor conductors of heat, any study of heat flow results in informa-

tion about a past geothermal condition as well as the present condition.

The goal of this study was to investigate the subsurface temperature distribution for the State of Kansas and explain any geographic variation observed, by comparing the temperature data with the subsurface geology and available geologic and geophysical information for the Precambrian basement complex. Geothermal gradients computed from data on oil well electric logs and from my own field logging constitute the bulk of the information for this study.

PREVIOUS WORK

A majority of the previous work in geothermal exploration and assessment has been concentrated in areas where there is some surface or near-surface manifestation of a geothermal anomaly (Clark, 1961; Birch et al, 1968; Lachenbruch, 1968; Lachenbruch, Sorey et al, 1976; Lachenbruch, Sass et al, 1976; Nwachukwu, 1975; Stieltjes, 1975). Geothermal studies are lacking for areas such as Kansas with near "normal" but diverse geothermal gradients. Geothermal exploration in these areas must be done in a more systematic way to examine the small gradient differences that may prove critical to low temperature geothermal resource applications.

Several investigators have used bottom hole temperature (BHT) data from oil fields in heat flow studies (Carvalho and Vaquier, 1977; Evans and Coleman, 1974; Nwachukwu, 1975). In these studies, geothermal gradients were usually computed by taking the difference in bottom hole temperature and mean annual temperature (surface) and dividing by the total depth. Reliable geothermal gradients were computed in these investigations using BHT data. In the present study, BHT data from well logs along with geothermal gradient data collected was used.in the field was used.

The approach used in this study is similar to that used by Costain et al (1979) in the geothermal exploration of the Atlantic Coastal Plain. The average geothermal gradient in the Atlantic Coastal Plain is intermediate between that of Kansas and areas with larger geothermal anomalies and associated manifestations like the Long Valley Caldera or the Geysers in California. This study, like that of Costain et al (1979) does not concentrate on specific localities which may be geothermal anomalies, but is a reconnaissance assessment of the entire state.

GEOLOGY

Kansas, located in the Midcontinent of the United States, is geographically part of the "central stable region" (Merriam, 1963, p.14). There have been no major tectonic events in Kansas since Paleozoic time.

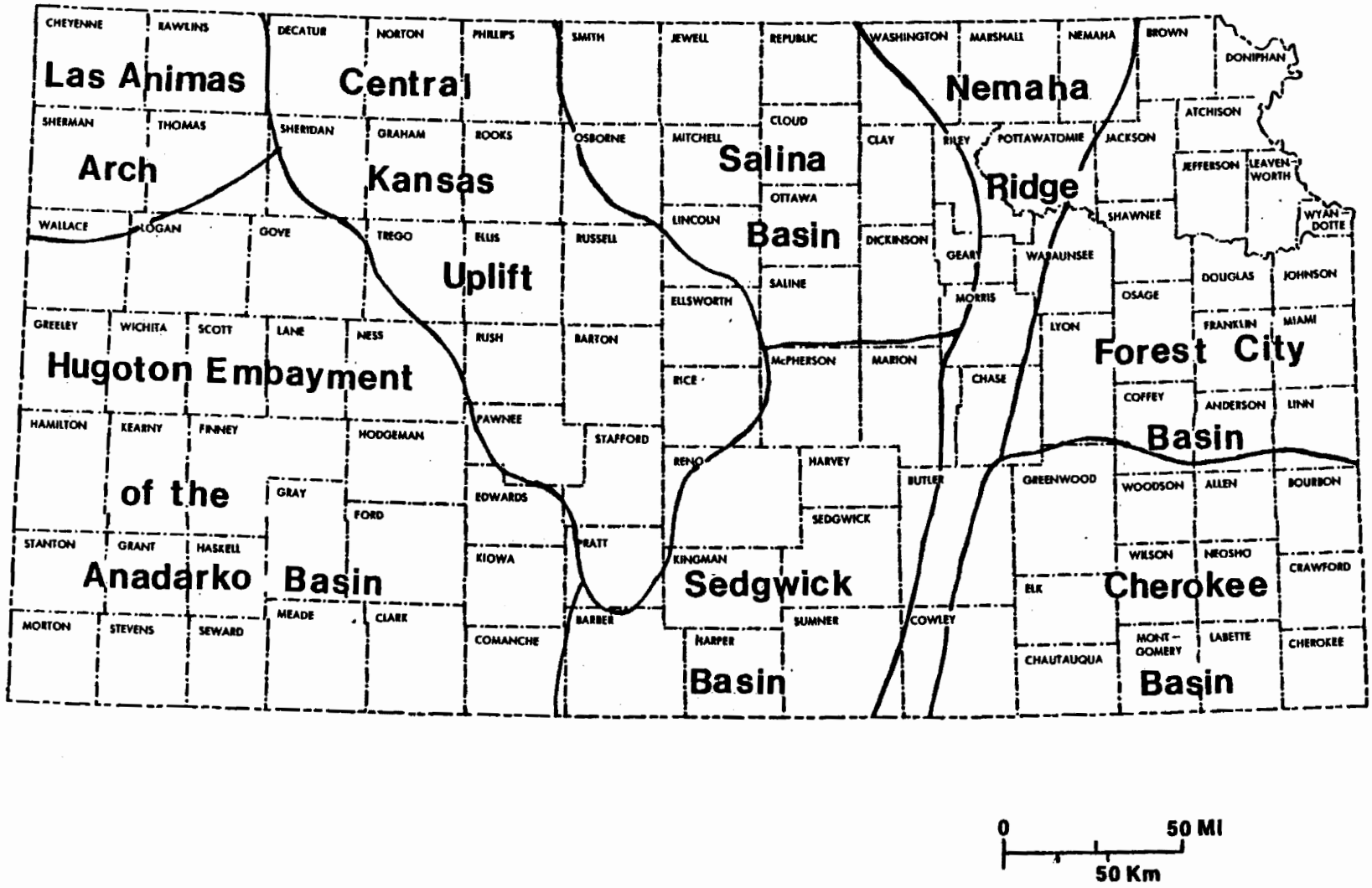
PHANEROZOIC GEOLOGY (after Merriam, 1963)

All Phanerozoic geologic systems are represented in Kansas. However, nowhere in the state is the geologic section complete. Phanerozoic strata reach a maximum thickness of three kilometers in the Hugoton Embayment of the Anadarko Basin in southwestern Kansas (Figure 1). Overall, the Phanerozoic stratigraphic section is relatively thin (several hundreds of meters) and the structure is simple (strata are essentially flat-lying).

Cenozoic deposits occur mainly in the western half of the state. They consist primarily of semi- and unconsolidated terrigenous sediments. Rocks of Mesozoic age are also confined to western Kansas and consist predominantly of shale with some carbonate. A widespread erosional episode prior to deposition of the Ogallala Formation (Tertiary) removed rocks of Mesozoic age from eastern Kansas.

The Permian (western four-fifths of the state) and Pennsylvanian (entire state) systems consist of alternating marine and non-marine carbonate and shale. Mississippian units are present throughout much of eastern Kansas except over basement topographic highs. Silurian and Devonian rocks are confined to northern and northeastern Kansas, whereas Cambro-Ordovician rocks occur everywhere in the subsurface except over

FIGURE 1. Location map of major structural features in Kansas (after Paul et al, 1979).


Las Animas
Central
Nemaha
Arch
Kansas
Salina
Ridge
Basin
Uplift
Hugoton Embayment
Forest City
Basin
of the
Anadarko
Basin
Sedgwick
Cherokee
Basin
Basin
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
JEFFERSON
LEAVEN-WORTH
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
LINCOLN
OTTAWA
DICKINSON
GEARY
WABAUNSEE
SHAWNEE
WYAN-DOTTE
DOUGLAS
JOHNSON
SALINE
MORRIS
OSAGE
ELLSWORTH
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
McPHERSON
MARION
LYON
FRANKLIN
MIAMI
RICE
CHASE
COFFEY
ANDERSON
LINN
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
RENO
HARVEY
BUTLER
GREENWOOD
WOODSON
ALLEN
BOURBON
GRAY
FORD
EDWARDS
SEDGWICK
STANTON
GRANT
HASKELL
KIOWA
PRATT
KINGMAN
WILSON
NEOSHO
CRAWFORD
MEADE
CLARK
BARBER
SUMNER
COWLEY
ELK
MORTON
STEVENS
SEWARD
COMANCHE
HARPER
CHAUTAUQUA
MONT-GOMERY
LABETTE
CHEROKEE
0
50 MI
50 Km

portions of the Nemaha Ridge and Central Kansas Uplift. Pre - Pennsylvanian rocks in Kansas are predominantly carbonate.

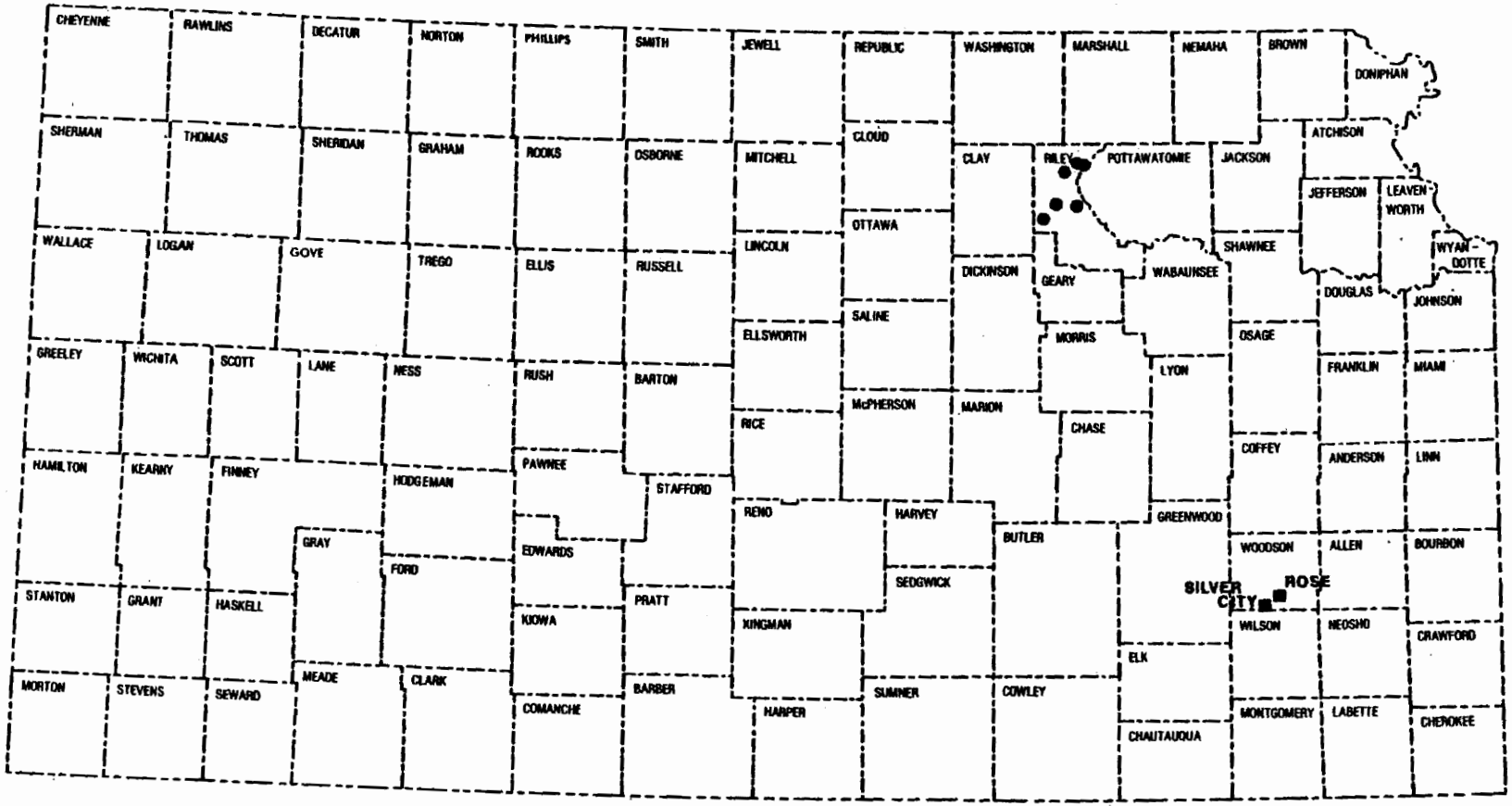
Major unconformities in Kansas occur between the Mesozoic and Paleozoic, Pennsylvanian and Mississippian, Mississippian (following deposition of the Chattanooga Shale) and Devonian, and the Paleozoic and Precambrian.

PHANEROZOIC IGNEOUS ACTIVITY

Phanerozoic igneous activity in Kansas is limited to two possibly related localities. Six kimberlite bodies have been discovered in Riley County in northeastern Kansas (Figure 2). Based on petrologic evidence, geometry (inferred from magnetic and well data) and the presence of xenoliths, Brookins (1970) estimated that final emplacement occurred in post - Dakota/pre - Graneros time (late early Cretaceous - maximum of 120 $\pm$ 10 m.y. ago) at temperatures between 70 and 150 ^{o}C. No high-temperature, contact metamorphic effects have been observed in the lower Permian carbonate (Ft. Riley Limestone - Chase Group) country rocks and xenoliths of Phanerozoic sedimentary rocks show only minor alteration effects from the kimberlite magma. These observations suggest that there was rapid injection into the near-surface locus of final cooling (Brookins and Meyer, 1974).

The second area in which Phanerozoic igneous activity occurred is in southern Woodson County about 200 kilometers southeast of the Riley County kimberlites (Figure 2). Here two alkaline ultramafic (peridotitic) bodies have intruded the local upper Pennsylvanian strata, forming structural features known as the Rose and Silver City domes. Both of these peridotitic bodies, which are probably genetically related, were emplaced in middle Cretaceous

FIGURE 2. Location map of Phanerozoic igneous events in Kansas.



● RILEY COUNTY KIMBERLITES

■ WOODSON COUNTY PERIDOTITES

0 50 MI

50 Km

time, approximately 90 m.y. ago (Zartman et al, 1967). At Rose Dome, granitic xenoliths of Precambrian age (1400 m.y.) were apparently incorporated into the peridotitic magma and eventually brought closer to the surface (Bickford et al, 1981). As a result of inclusion in the magma, the xenoliths were partially melted and retain both high and low temperature phases of feldspars (high-sanidine and microcline; high-albite and low-albite; Franks et al, 1971). Contact metamorphic effects are also present in the country rock (Weston Shale - Douglas Group; Stanton Limestone - upper Kansas City Group). On the basis of this evidence, Franks et al (1971) concluded that the Rose and Silver City Domes were probably emplaced at relatively high temperatures on the order of 800 ^{o}C.

The emplacement mechanisms of the Riley County kimberlites and the Woodson County peridotites were certainly different (Brookins, 1970). However, both the kimberlites and the peridotites are of Cretaceous age, both are ultramafic in composition and probably originated in the upper mantle, and both occur in eastern Kansas and are the only Phanerozoic igneous events known in the state. Because of their age, they are not likely to affect the present geothermal gradient other than in a passive sense, ie., as thermal conductivity anomalies, or by providing fractured pathways to the surface for geothermal fluids.

PRECAMBRIAN BASEMENT COMPLEX

Recent studies of the Precambrian basement complex in Kansas (Muehlberger et al, 1966; Lidiak, 1972; Van Schmus and Bickford, 1981; Bickford et al, 1981; Denison et al, in press) have found it to be a more diverse rock assemblage than imagined by previous investigators. As the data avai-

lable are dependent upon geophysical techniques (aeromagnetic and gravity surveys), obtaining core and cutting samples and attempted correlation with exposed Precambrian rocks outside the state, only major distinctions in basement rock type and structure can be discerned. The Precambrian complex in Kansas can be generally divided into a northern, older (1630 m.y.) terrane (Figure 3) and a younger terrane (Bickford et al, 1981) ranging from 1350 m.y. to 1480 m.y. in age, in the southern one-third of the state (Figure 4).

The dominant rock types in the northern area range in composition from granite to granodiorite and are, at most, moderately foliated. Metamorphic rocks in this area occur either as isolated bodies with diameters on the order of several kilometers or in distinct belts several tens of kilometers long.

The Midcontinent Geophysical Anomaly (MGA), a major magnetic and gravity anomaly in the northern terrane, (Figure 3), trends northeasterly and can be traced to Minnesota. It is inferred that mafic igneous rocks present in the subsurface are responsible for the anomaly and that these rocks are probably related to the Keweenawan basalts which outcrop in Minnesota adjacent to and along the trend of the MGA. The Keweenawan basalts are approximately 1100 m.y. old (Goldich et al, 1961; Silver and Green, 1966; Chaudhuri and Faure, 1967; Van Schmus, 1971). The areal persistence and geometry of the MGA and the subsurface proximity of Precambrian(?) sedimentary rocks (Rice Formation) in Kansas adjacent to the mapped area of the MGA has led most investigators to conclude that this feature represents a failed, late-Proterozoic rift system designated as the Central North American Rift System (CNARS; Ocola and Meyer, 1973).

FIGURE 3. Major features of the Precambrian crystalline basement in the Midcontinent, including the northern terrane in Kansas (after Bickford, et al, 1981).

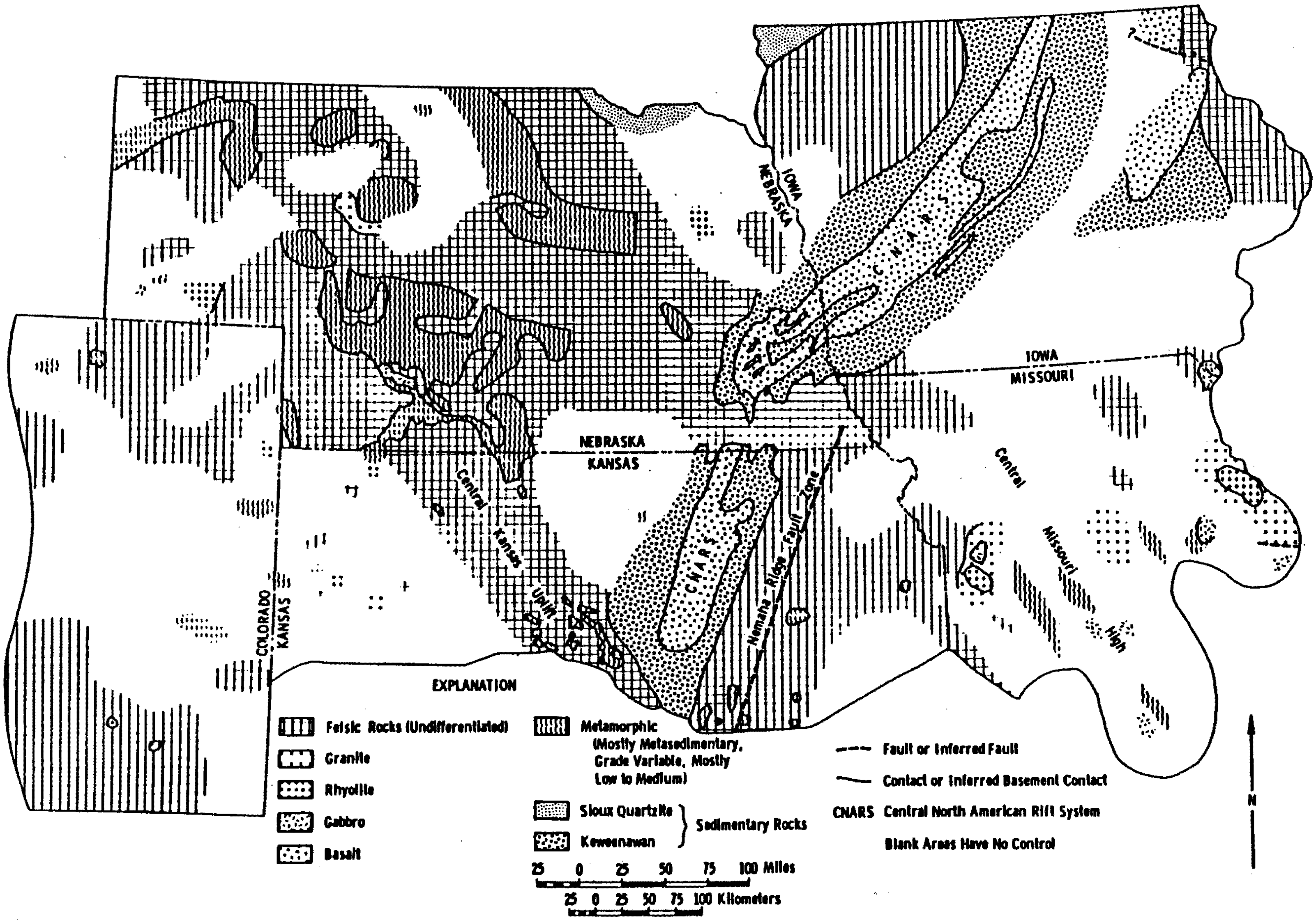
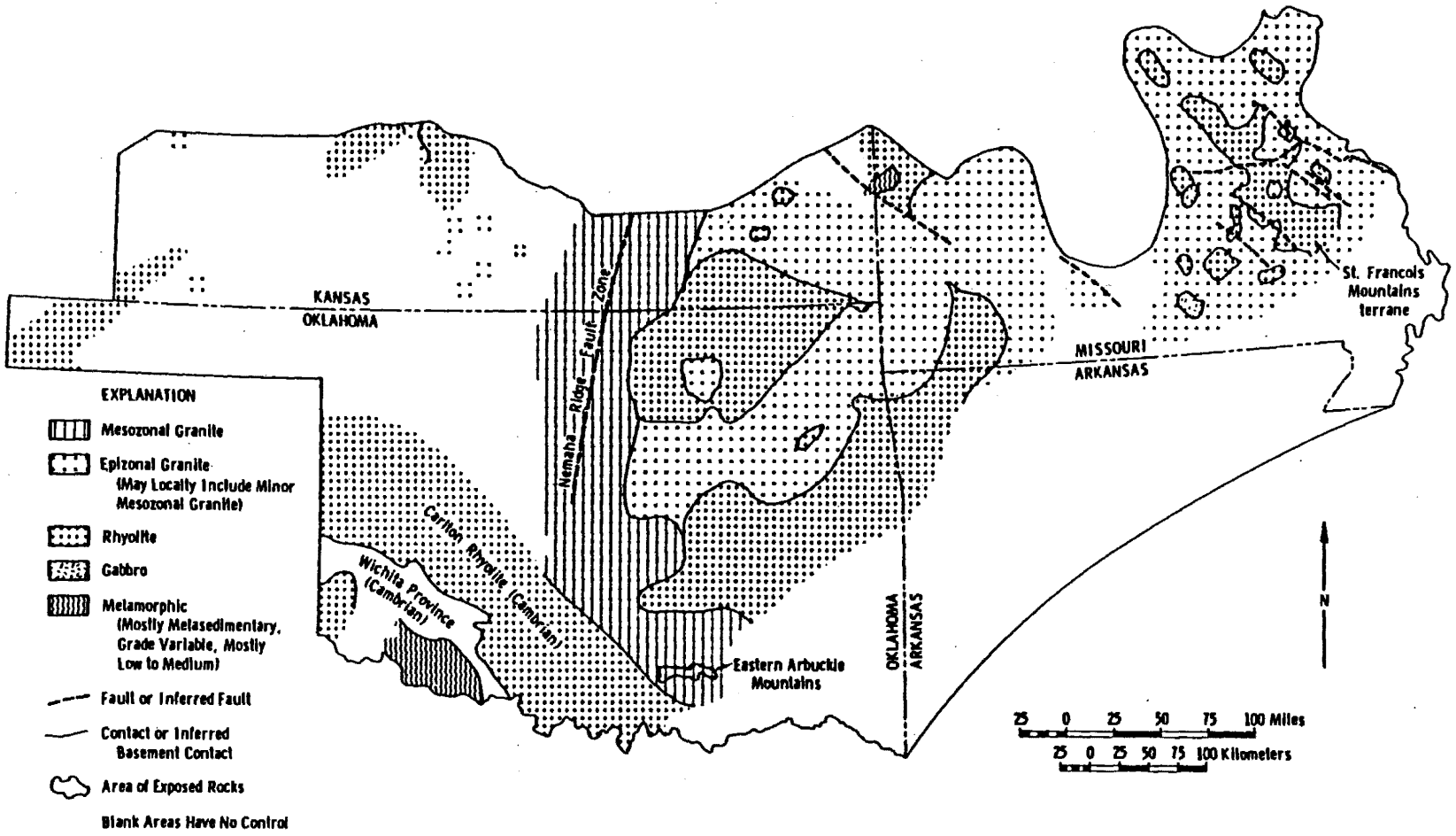

IOWA
NEBRASKA
CNARS
IOWA
MISSOURI
NEBRASKA
KANSAS
Central Kansas Uplift
CNARS
Nemaha Ridge Fault Zone
Central Missouri High
COLORADO
KANSAS
EXPLANATION
Felsic Rocks (Undifferentiated)
Granite
Rhyolite
Gabbro
Basalt
Metamorphic (Mostly Metasedimentary, Grade Variable, Mostly Low to Medium)
Sioux Quartzite
Keweenawan
Sedimentary Rocks
Fault or Inferred Fault
Contact or Inferred Basement Contact
CNARS Central North American Rift System
Blank Areas Have No Control
25 0 25 50 75 100 Miles
25 0 25 50 75 100 Kilometers
N

FIGURE 4. Major features of the Precambrian crystalline basement in the Midcontinent, including the southern terrane in Kansas (after Bickford et al, 1981).


KANSAS
OKLAHOMA
MISSOURI
ARKANSAS
St. Francois Mountains terrane
Nemaha Ridge Fault Zone
Carlton Rhyolite (Cambrian)
Wichita Province (Cambrian)
Eastern Arbuckle Mountains
OKLAHOMA
ARKANSAS
N
EXPLANATION
Mesozonal Granite
Epizonal Granite (May Locally Include Minor Mesozonal Granite)
Rhyolite
Gabbro
Metamorphic (Mostly Metasedimentary, Grade Variable, Mostly Low to Medium)
Fault or Inferred Fault
Contact or Inferred Basement Contact
Area of Exposed Rocks
Blank Areas Have No Control
25 0 25 50 75 100 Miles
25 0 25 50 75 100 Kilometers

The southern terrane consists mostly of rhyolitic to dacitic volcanic rocks which are associated with granitic plutons. U-Pb measurements of zircons indicate that these rocks were formed 1350 m.y. to 1500 m.y. ago (Bickford et al, 1981). Sedimentary rocks are rare and there are almost no mafic igneous rocks in this area.

The Nemaha Ridge, which extends in Kansas from Nemaha County to Sumner County (Figures 3 and 4), consists of granitic rocks that are fault bounded on the east side. These rocks probably represent deeper crustal material that moved up along faults in the basement and was exposed to erosion during Paleozoic time. At present, the Nemaha Ridge comes to within 180 meters of the surface in Nemaha County (Cole, 1976).

DATA AQUISITION AND FIELD WORK

Two data sets were used in this study. The first consists of bottom hole temperature (BHT) values taken from well records subsequently referred to as "bottom hole data". In addition, I have measured temperatures in approximately 175 wells in the field. All field data will be referred to as "thermal logging data".

BOTTOM HOLE DATA

Bottom hole data for the State of Kansas were compiled from 42,521 of 66,765 well records (electric logs) on file in the Oil and Gas Library at the Kansas Geological Survey (a typical well log header is shown in Figure 5). The location of each well from which bottom hole data were obtained is shown in Figure 6.

THERMAL LOGGING DATA

During the 1980 summer field season, an assistant and I thermally logged wells in the northwestern and southeastern quarters of Kansas, an area including 52 counties (Figure 7). Our goal was to obtain at least two temperature logs per county in order to achieve the minimum areal spacing in the time available - approximately one well every 2500 square kilometers. In total, 125 wells were logged of which 93 are considered usable (p.30-36, this thesis).

In 1981, similar field work was done in southwestern and northeastern Kansas (Figure 7). We logged 58 wells of which 51 are considered usable (p.30-36, this thesis). Because most of the 1980 data are from wells

FIGURE 5. An example of a typical well log header used in this study. Information compiled from each log includes:

1) location (section, township, range)
2) elevation when available (feet)
3) depth (feet)
4) bottom hole temperature (degrees Fahrenheit)
5) year drilled
6) "time (hours) since circulation" (interval between last circulation of drilling mud and measurement of bottom hole temperature).

Welex

GAMMA-GUARD
SIDEWALL NEUTRON LOG

COMPANY CHAMPLIN PETROLEUM COMPANY
WELL JOHNSON N-=2
FIELD RIVERVIEW
County ELLIS State KANSAS

COMPANY CHAMPLIN PETROLEUM COMPANY

WELL JOHNSON N-=2

FIELD RIVERVIEW

COUNTY ELLIS STATE KANSAS

Location 1
SE-NE-NW

Sec. 32 Twp. 11S Rge. 18W

Other Services:
CAVL-G-C

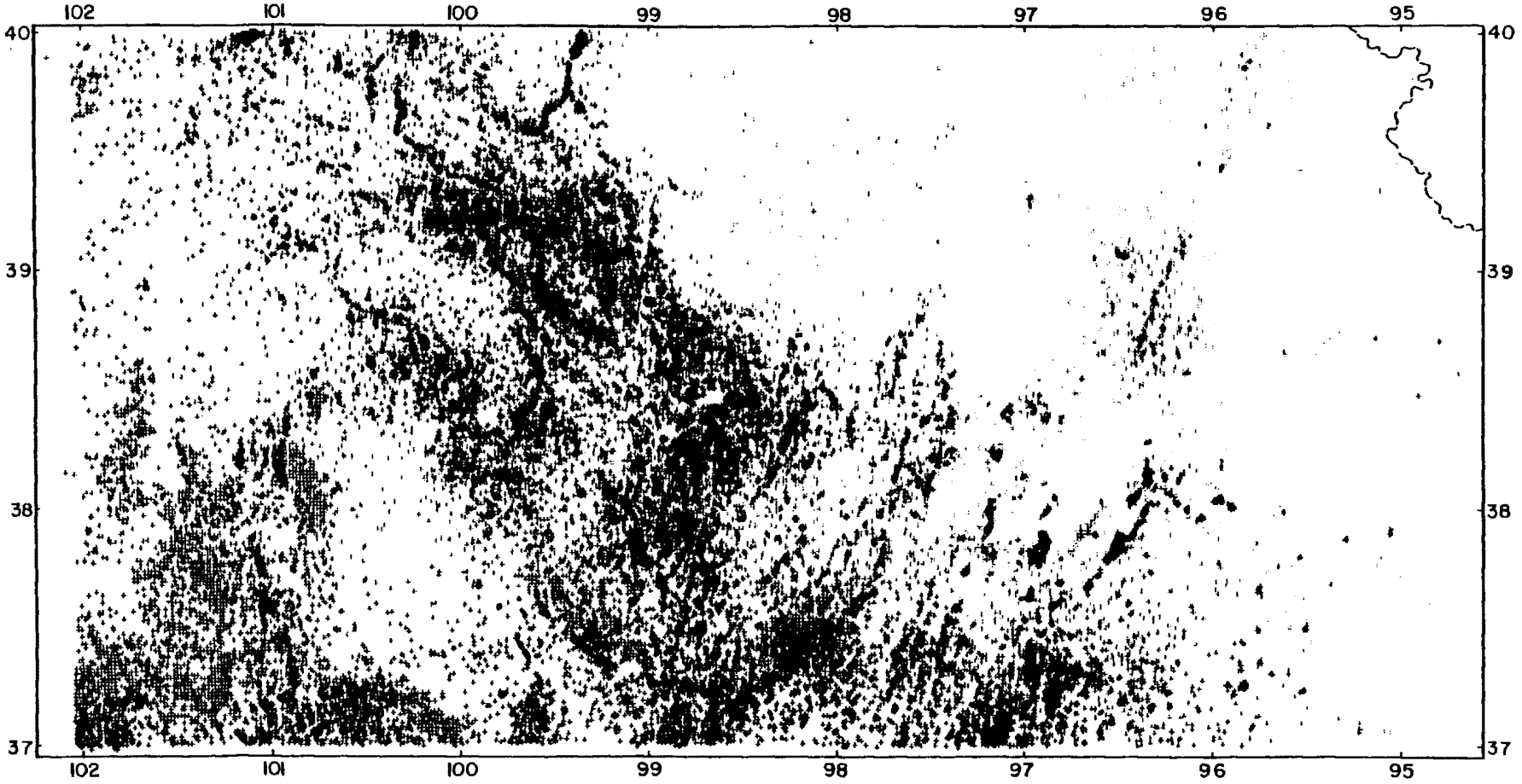
Permanent Datum GROUND LEVEL Elev. 2065'
Log Measured From KELLY BUSHING, 5 Ft. Above Perm. Datum
Drilling Measured From KELLY BUSHING

Elev.: K.B. 2070'
D.F.
2 G.L. 2065'

Date 5	6-17-80	6-17-80	6-17-80	6-17-80
Run No.	GAMMA	NEUTRON	GUARD	CALIPER
Depth—Driller	3800'	3800'	3800'	3800'
Depth—Welex 3	3800'	3800'	3800'	3800'
Btm. Log Inter.	3772.4'	3799'	3786.6'	3799'
Top Log Inter.	1800'	1800'	1800'	1800'
Casing—Driller	8-5/8@ 245'	8-5/8@ 245'	8-5/8@ 245'	8-5/8@ 245'
Casing—Welex	8-5/8"@245'	8-5/8"@245'	8-5/8"@245'	8-5/8"@245'
Bit Size	7-7/8"	7-7/8"	7-7/8"	7-7/8"
Type Fluid in Hole	STARCH	STARCH	STARCH	STARCH
Dens. I Visc.	9.9 143	9.9 143	9.9 143	9.9 143
pH I Fluid Loss	6.6 6.6 ml	6.6 16.6 ml	6.6 16.6ml	6.6 16.6 ml
Source of Sample	FLOW LINE	FLOW LINE	FLOW LINE	FLOW LINE
R_m @ Meas. Temp.	.11 @ 92°F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	.083 @ 92°F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	.165 @ 92°F	@ °F	@ °F	@ °F
Source R_m R_{mc}	MEASURED	I	I	I
R_m @ BHT 4	.092 @112°F	@ °F	@ °F	@ °F
Time Since Circ. 6	2 HOURS	h		
Max. Rec. Temp.	112°F@ T.D.	°F@	°F@	°F@
Equip. I Location	1889 I COLBY	I	I	I
Recorded By	S. DUDLEY			
Witnessed By	MR. PETE STRAUB			

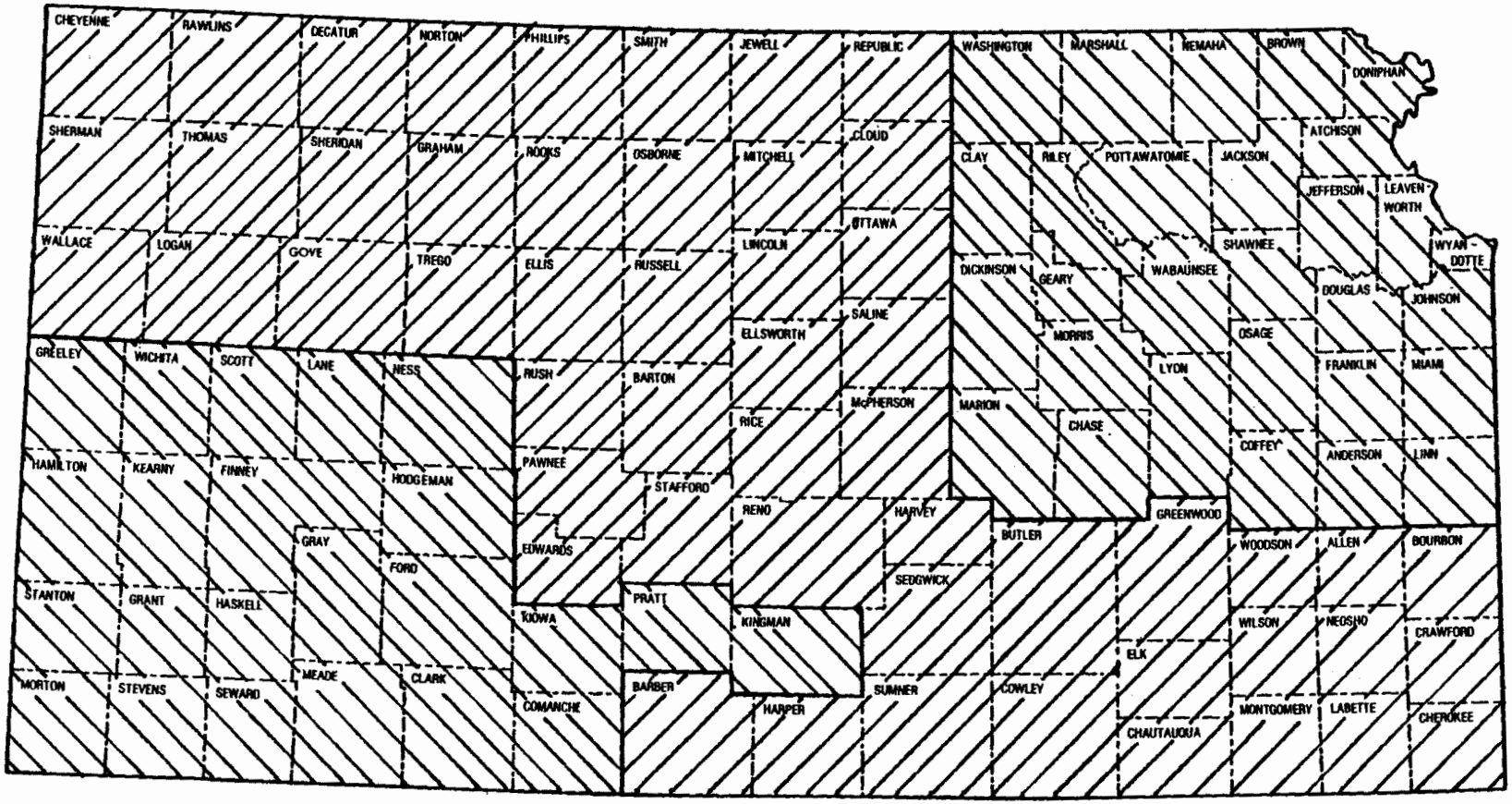
FIGURE 6. Map showing distribution of data points available for the geothermal gradient map of Kansas based on gradients computed from BHT data. These data points represent locations of the wells from which BHT data were obtained.

DATA POINTS FOR GEOTHERMAL GRADIENT MAP OF KANSAS



SOURCE DATA--ALL BHT DATA

FIGURE 7. Location map of the areas covered by the 1980 and 1981 thermal logging work.



FIELD AREAS-SUMMER 1980

FIELD AREAS-SUMMER 1981

0 50MI

50Km

penetrating only Cenozoic deposits, it was decided for 1981 to log only wells deeper than 150 meters. This limited the choice of wells to those drilled for oil and gas and necessarily restricted coverage to oil and gas fields. Only wells that had been temporarily abandoned or recently drilled were logged.

One concern in logging recently drilled wells is that the time interval between completion of the hole and the thermal logging of the well should be long enough for the rock temperatures to reach equilibrium. We selected wells that had been completed at least three weeks prior to our logging date. This restriction eliminated many wells that were put into service almost immediately after completion.

Hydrologic disturbances in the borehole are usually associated with uncased wells or wells with screened intervals (eg., water supply wells; observation wells). All of the thermal logging data used in this study were obtained from cased wells. The bulk of these holes are oil and gas wells and therefore only open to the formation where the casing is perforated (usually near the bottom of the hole).

In 1981, we returned to portions of northwestern and southeastern Kansas and thermally logged several holes to depths between 183 and 366 meters (deeper than the logs obtained from holes in these areas in 1980). Field data are still unavailable for much of north-central and northeastern Kansas because of the lack of suitable wells in those areas.

Thermal Logging Method.

The thermal logging data were obtained by lowering the well probe into

the well and measuring temperatures at regular depth intervals (Figure 22). Selection of the depth intervals used was based either on total depth logged or the depth to water. Shallow holes (less than 125 meters) were logged using a 1.5 meter interval. Medium (125 to 250 meter) and deep (250 to 375 meter) holes were logged using a 3.0 meter interval in most cases.

The heat capacity of water is 1.00 gcal/g (Eschbach, 1936, p.1-124) (where gcal/g are units of gram-calories per gram) whereas that for air at constant volume is 0.173 gcal/g (Eschbach, 1936, p.7-17). The relatively high heat capacity of water allows the logging apparatus to reach an equilibrium temperature faster in water-filled as opposed to air-filled holes. Most researchers believe that temperature measurements in air-filled holes are less reliable because air is less likely to be thermally stable than water in a borehole (Misener and Beck, 1960; Blackwell and Steele, 1981).

We were generally unable to log air-filled holes deeper than 183 meters because the long response time of the thermal logging instrument in air (up to 30 minutes per reading) and extreme surface temperatures caused it's internal circuitry to overheat after three to four hours of continuous use (Appendix I., p.109). In such cases, we used a 4.6 meter depth interval. However, in holes that had water levels less than 183 meters below ground level, we were often able to log to the total depth of the hole or a maximum of 366 meters (total length of logging cable). This was possible because the readings could be taken faster in water (manufacturer specified response time of 10 to 15 seconds; see "Appendix I.", p.109) and the instrument was not operating continuously over long time periods during which individual measurements were taken.

DATA ANALYSIS

BOTTOM HOLE DATA

A geothermal gradient map for the State of Kansas was generated using bottom hole data. The gradients (assumed to be linear) were calculated using the BHT at total depth as recorded from the well logs and a fixed value of 56 ^{o}F at 50 feet below ground level:

$$\nabla T_z = 100[(BHT - 56\ ^{o}F)/(TD - 50\ \text{feet})] \qquad \text{Eqn. 2}$$

where, ∇T_z is the magnitude of the vertical component of the geothermal gradient in ^{o}F/100 feet

BHT is the bottom hole temperature in ^{o}F

TD is the total depth of the well in feet

56 ^{o}F and 50 feet are the temperature and depth intercepts, respectively.

(The conversion factor from ^{o}F/100 feet to ^{o}C/km is 18.23.)

The statewide average annual ambient surface temperature of 12.8 ^{o}C (55 ^{o}F) could not be used for the surface temperature in computing gradients because the thermal logging data obtained for most holes revealed highly variable geothermal gradients in the upper 15 meters. A value of 13.3 ^{o}C (56 ^{o}F) at -15 meters (50 feet) was finally selected because this was the temperature most frequently recorded in the thermal logging, at that depth, throughout the entire state.

42,521 geothermal gradient values were computed from bottom hole data

using Equation 2. In order to generate a geothermal gradient map for Kansas using these data, a selection process had to be devised whereby the "best" data would be used for this map. The best data would obviously be those data calculated from BHTs that were from wells in equilibrium with the surrounding rock.

Previous workers have used information on the time interval between cessation of circulation of drilling mud in the hole (time since circulation) and measurement of the BHT to estimate the true formation temperature at bottom of the hole (Evans and Coleman, 1974; Nwachukwu, 1975). Because times since circulation are recorded on only 40 per cent of the well logs available for Kansas (16,878 data), methods using this information to evaluate all of the bottom hole data are out of the question. When this information is given, it is typically on the order of two to five hours. Because the temperature of the drilling mud (assumption: initial temperature = surface temperature) circulating through the well during drilling is lower than the true formation temperature the BHT values measured after cessation of drilling are generally lower than the equilibrated bottom hole temperatures (Nwachukwu, 1975; Evans and Coleman, 1974; Carvalho and Vaquier, 1977). In Kansas, the mud would act to cool holes that were drilled deeper than approximately 800 meters.

The time required for a hole to reach temperature equilibrium depends upon the length of time it took to drill the hole. Near the bottom of the hole thermal equilibrium with the surrounding formation may be achieved as soon as a day after drilling has ceased. The entire hole, on the other hand, may take months to reach temperature equilibrium as the disturb-

ance due to drilling lasted longer in the upper portions of the hole (Bullard, 1947). Bullard suggested that a multiple of 10 to 20 times the drilling time is required for the entire hole to equilibrate within one per cent of the true temperature profile. This would require a period of at least one month before logging during which the hole was not disturbed.

In this study, times since circulation on the order of 24 hours were the minimum required for the recorded BHT to be considered a measure of the true formation temperature. Times of this order were found on only seventeen well records (0.1 per cent of bottom hole data with time since circulation information; 0.04 per cent of entire bottom hole data set). Therefore, it is probable that some of the BHT's recorded on the well logs do not represent equilibrium temperatures. However, if it is understood that the bottom hole data can only indicate relative geothermal gradient values over a region, this problem of equilibrium is of minor concern. Also, it is assumed that the quantity of data will compensate for the few extreme values that may be present.

The bottom hole data were analyzed as follows:

1) geothermal gradients computed from bottom hole data were selected from each township and range in the state on the basis of the following six criteria:

   a) well with highest computed geothermal gradient

   b) well with highest geothermal gradient and total depth of at least 380 meters

   c) well with highest geothermal gradient and total depth of at least 760 meters

   d) mean value of geothermal gradient for all wells drilled deeper than 305 meters

e) mean value of geothermal gradient for all wells drilled deeper than 305 meters since 1955

f) mean value of geothermal gradient for all wells

2) separate geothermal gradient maps were generated from each of the above.

Each map was produced by setting up a grid on a base map of the State of Kansas (1:1,000,000; Lambert Projection). The geothermal gradient value at each grid point (point of intersection of two grid lines; every 0.04 degrees latitude and longitude) was computed by selecting data, according to one of the criteria established above (1a-1f), for the eight townships and ranges nearest the grid point and gradients were contoured using computer plotting programs available at the Kansas Geological Survey. To examine areas where data coverage was poor, the location of each well from which bottom hole data were compiled (42,521 data points) was plotted (Figure 6).

The maps generated for each criterion were compared and geothermal gradient trends (highs and lows) that were present on several of the maps were considered to be "real". This was demonstrated to be a valid assumption on the basis of results from the BHT Correction Factor Analysis (p.43, this thesis). In this analysis it was found that bottom hole data from oil and gas wells in six areas (each area 1600 square kilometers) of the state could be fit with a significant regression line (Appendix IV., p.166-168). It follows that, for each area, most of the data would yield a similar geothermal gradient value and this lends credence to the map selec-

tion process discussed above. The geothermal gradient map based on bottom hole data used in the interpretation is the map generated from data for wells drilled to depths in excess of 305 meters (map 1d, above; Plate 1). This data set included 99.6 per cent of the available bottom hole data.

A map of the temperature distribution based on a datum of 300 meters below ground level was prepared (Plate 2) using the BHT data for wells drilled to depths in excess of 305 meters. The temperature at 300 meters below ground level was calculated from the value of the geothermal gradient as follows:

$$T_{300m} = [(\nabla T_z)(1km/1000m)(300m - 15.2m)] + 13.3\ ^{o}C \qquad \text{Eqn. 3}$$

where, ∇T_z is the magnitude of the vertical component of of the geothermal gradient in ^{o}C

300m is the depth datum

15.2m is the value of the minimum depth (see Eqn. 2)

13.3 ^{o}C is the temperature intercept at a depth of 15.2 meters.

The grid was layed out as before on a base map of Kansas (1:1,000,000; Lambert Projection) and temperatures were contoured using the appropriate computer contouring programs. This map will be compared to the similar map prepared from thermal logging data.

THERMAL LOGGING DATA

Well codes referred to in this section and elsewhere were generated by combining the Kansas Department of Transportation's County code, a

prefix of "1" (useable well) or blank (non-useable well) and a numeric suffix indicating the order in which the well was logged.

For example:

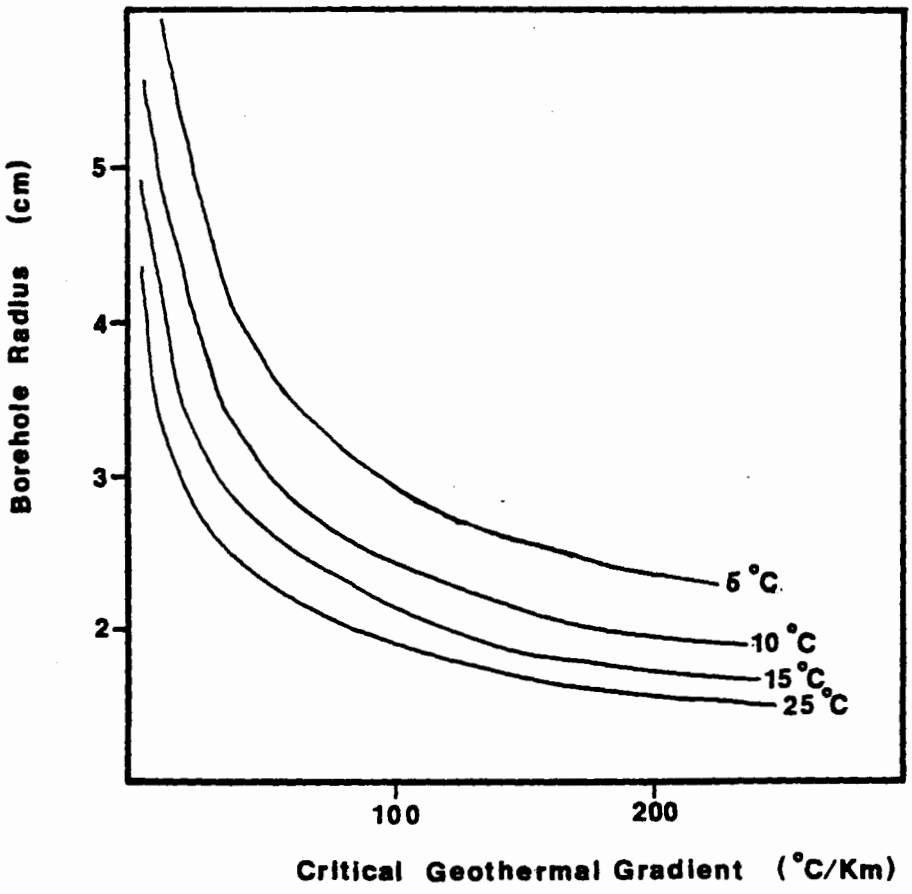
1AN3 - third useable well logged in Anderson County
BB1 - first non-useable well logged in Bourbon County.

Geothermal gradients were calculated for wells that were logged in 1980 and 1981. Temperature data for 144 of these wells were used in this study. It was observed that temperature generally increased linearly with depth in Kansas and linear regression analyses (Appendix IV.) were performed on the data from every well logged. The thermal logging data are classified as useable if they can be fit with a significant linear regression (greater than 95 per cent significance level by t-test) and if the regression coefficient (B) is positive (ie., temperature increased with depth; Appendix IV.).

Some of the thermal logging data showed essentially no increase of temperature with depth. This could be due to movement of fluid in the hole (convection), flow of groundwater, or some recent man-made disturbance in the well (such as recent pumping). To study the potential for convection Misener and Beck (1960) plotted the radius of the borehole compared to the critical geothermal gradient for constant temperatures (Figure 8). These temperature curves represent typical temperatures measured in the hole. If the geothermal gradient computed for a hole exceeds the critical gradient the temperatures measured in the hole may be unstable (Misener and Beck, 1960; Diment, 1967). For a measured temperature of 15 ^{o}C and com-

FIGURE 8. Comparison of borehole radius with critical gradient for constant temperatures of 5, 10 15 and 25 °C (After Misener and Beck, 1960). The borehole is assumed to be full of water.

For a particular temperature (temperatures from 5 to 20 °C are plotted) measured in the borehole, convection may occur if the value of the measured geothermal gradient and the borehole radius are above the temperature curve. For Kansas, this could effect thermal logging data from boreholes exceeding six centimeters in diameter.


Borehole Radius (cm)
5
4
3
2
5 °C
10 °C
15 °C
25 °C
100
200
Critical Geothermal Gradient (°C/Km)

puted geothermal gradient of 30 °C/km, instability may occur if the borehole radius is 3 centimeters or greater. For example, OT1 (Appendix IV., p.221) shows a linear increase of temperature with depth, probably due to movement of water in the hole, resulting in an isothermal temperature profile. Well OT1 has a casing diameter of 0.5 meters. Well CD1 (Appendix IV., p.216) is another example of a well with a low linear geothermal gradient of -1.9 °C/km; there was no net increase in temperature between ten and 35 meters (Appendix IV., p.183). After this well was logged we discovered that the owner had pumped it less than two hours before. Wells that show little or no increase in temperature with increasing depth are classified as non-useable.

Geothermal gradients computed from field data were then contoured using the same computer programs as those used for the bottom hole data. Well locations are designated by a "+" on the map (Plate 3) and gradient values are posted. Only wells logged to at least 122 meters are plotted. As a result, data are lacking for some areas in north-central Kansas where there is little or no oil or gas production. A subset of those data was used to generate geothermal gradient maps for wells logged to at least 183 meters (Plate 4).

A map of the temperature distribution at 300 meters below ground level was also produced using data for wells at least 122 meters deep (Plate 5). On this map temperatures (°C) at a depth of 300 meters are posted. A "+" designates that the well was actually logged to 300 meters, while a "0" indicates that a temperature value was projected for the well from the geothermal gradient.

Temperature profiles (plots of temperature verses depth) were plotted (Appendix III.) for the thermal logging data (on the Hewlett Packard model 7221a plotter at the University of Kansas Academic Computer Center). Generalized stratigraphic columns are included on the profiles for 1980 data. The stratigraphic information was obtained from pertinent KGS and USGS bulletins, referenced in Appendix III. This information was found to be of little use in the analysis because the thermal logging equipment was not calibrated finely enough (to 0.1 degree Fahrenheit or Celcius) to record small scale changes in thermal conductivity (ie., lithology) and because most of the stratigraphic information on the profiles was only presented at the group level.

There are two wells (not included on the geothermal gradient or temperature maps) for which the computed geothermal gradients are approximately half the value of the gradients from surrounding wells. The first well, a temporarily abandoned oil well in southern Russell County (1RS1), yielded a geothermal gradient of 17 ^{o}C/km (Appendix IV., p.206). Because these measurements were taken in air and the hole is located in a large active oil field (Trapp Field) undergoing enhanced oil recovery at the time it was logged (ie., water flooding; Paul and Bahnmaier, 1981), the data are questionable. The second well, in Clark County (1CA1), yielded a geothermal gradient of 13 ^{o}C/km (Appendix IV., p.284). This well was full of water and completed more than a month before we logged it. There is a good possibility that the gradient computed for this well is not spurious but a result of the regional easterly groundwater movement that is controlled by faulting

in the upper Permian strata (principally the "Taloga" and Whitehorse Formations; Frye, 1950). Well 1CA1 is located on the southeastern edge of the Ashland - Englewood lowland: "...the largest solution-subsidence feature in Kansas..." (Frye, 1950, p.7). Downward movement of groundwater along faults and into the Permian strata has resulted in the development of "solution-subsidence depressions" in portions of Meade and Clark Counties due to the dissolution of salt, gypsum and limestone.

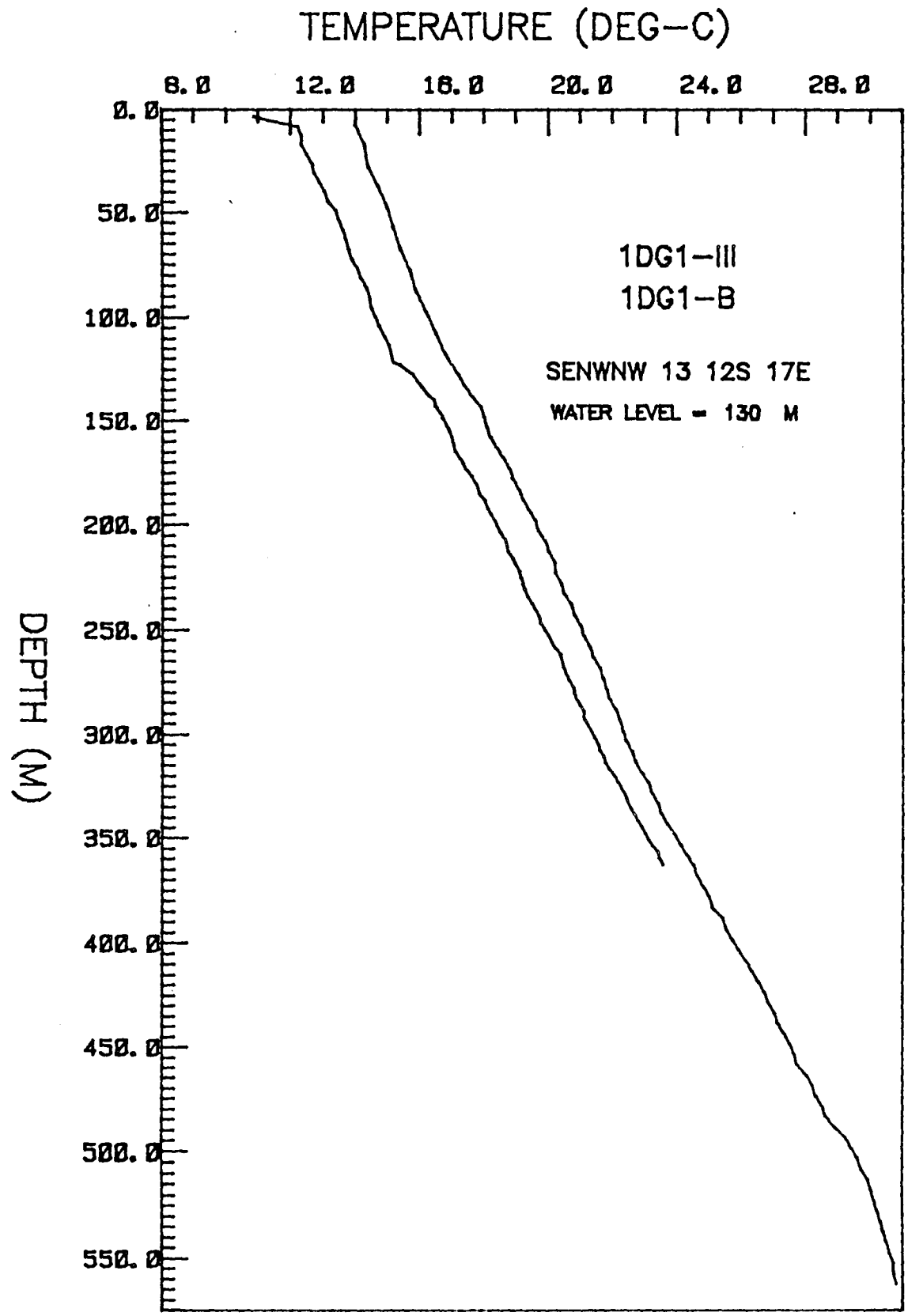
I have thermally logged twenty wells to depths of aproximately 300 meters. Temperature profiles for these wells are included in Appendix III. D.D. Blackwell of Southern Methodist University has subsequently re-logged five of these wells to depths in excess of 500 meters. Figure 9 compares my thermal logging data for the KGS-USGS Big Springs hole located in Douglas County (1DG1-III) to Blackwell's data for the same hole (1DG1-B). Geothermal gradients computed from the data are essentially the same and the temperature profiles are similar over the interval from zero to 366 meters. The actual temperatures measured differ by one degree Celcius because of calibration.

Abnormal Near-surface Geothermal Gradients.

Geothermal gradients computed from thermal logging data in the upper 15 meters of a hole, in most of the holes logged, are different than those computed for the remainder of the hole. These near-surface gradients are classified as non-useable, but as they only occur in the near-surface portions of these holes they will be designated here as abnormal geothermal gradients.

FIGURE 9. Temperature profiles of KGS-USGS Big Springs hole.

Profile 1DG1-III represents data I obtained in January 1981. Profile 1DG1-B represents data obtained by Blackwell in June 1980.


TEMPERATURE (DEG-C)
8.0
12.0
16.0
20.0
24.0
28.0
0.0
50.0
100.0
150.0
200.0
250.0
300.0
350.0
400.0
450.0
500.0
550.0
DEPTH (M)
1DG1-III
1DG1-B
SENWNW 13 12S 17E
WATER LEVEL = 130 M

Several factors were considered to explain these abnormal gradients. The "depth of influence" of these near-surface gradients was compared to thickness of unconsolidated sediments and depth to water table, for the logging data aquired in 1980 (Appendix, IV., p.224-272). In a few instances, abnormal near-surface gradients corresponded to thickness of unconsolidated sediments or depth to water. However, in most cases, neither factor was associated with the abnormal gradients. Other explanations of these abnormal geothermal gradients that have been offered by various authors (Bullard, 1960; Diment and Weaver, 1964; Lachenbruch, 1968; Roy et al, 1972) include:

1) microclimatic effects (eg., slope effects)
2) cultural disturbance of the land surface (eg., farming activities, construction of buildings)
3) vegetation cover (also a result of factor 1)
4) seasonal temperature changes
5) extreme local variation in topography (eg., mountainous regions)

It has also been suggested that metal cased holes may cause errors in the true geothermal gradient for depths less than 50 times the radius of the hole (Misener and Beck, 1960, p.34). For a hole with casing diameter of ten centimeters (four inch casing - most frequently used in wells logged) the effect of a metal casing would cause errors in measurement to depths of 2.5 meters. Because our measurements began at 4.6 meters below ground level, the effect of a metal cased hole should then only be observed when casing diameters are in excess of 25 centimeters. Wells

with casing diameters greater than 25 centimeters were avoided because of the problem of convection in the hole, as discussed above.

According to Lachenbruch (1969, p.E3) the geothermal gradient is not largely affected by variations in surface topography if the height of the topographic variations are "...1) less than the horizontal distance to the measurement point, or 2) less than the depth of measurement." Condition two holds universally for cases where the depth of measurement exceeds several kilometers, whereas condition one is satisfied in areas where large topographic variations are far removed from the point of measurement. Principally because of condition one, the surface topography of Kansas probably has negligible effect on the geothermal gradients computed from logged wells. All other factore mentioned above except the seasonal temperature variation, are of second order. This was evident from the logs obtained in well 1DG1 (Figure 10). The effect of seasonal surface temperature variation is apparent and persists to depths of 30 meters.

Repeatability of Measurements.

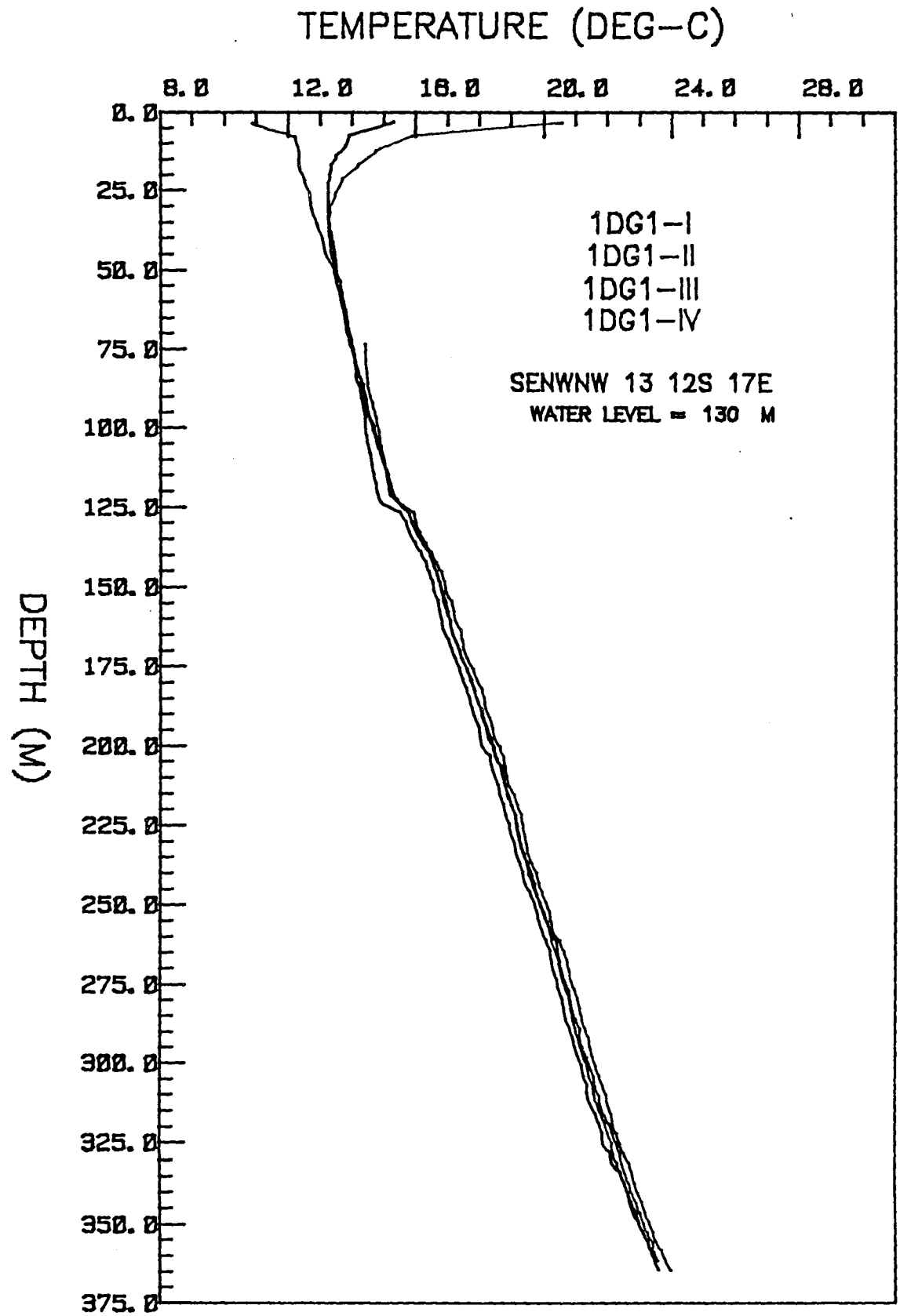
A repeatability study of the logging method was done using the KGS-USGS Big Springs hole located in Douglas County (Figure 10). Regression coefficients in 1DG1-I and 1DG1-III were compared because these two logs are the most dissimilar (Appendix IV., p.309). Because the two regression coefficients are not significantly different from each other I conclude that the thermal logging data obtained are reproducable and also that seasonal variation of surface temperature has little effect on the geothermal gradient below 30 meters.

FIGURE 10. Temperature profiles of control well (1DG1).

Profiles I and II result from summer 1980 logging data.

Profile III results from data obtained in January 1981.

Profile IV results from data obtained in May 1981.


TEMPERATURE (DEG-C)
8.0
12.0
16.0
20.0
24.0
28.0
0.0
25.0
50.0
75.0
100.0
125.0
150.0
175.0
200.0
225.0
250.0
275.0
300.0
325.0
350.0
375.0
DEPTH (M)
1DG1-I
1DG1-II
1DG1-III
1DG1-IV
SENWNW 13 12S 17E
WATER LEVEL = 130 M

BHT CORRECTION FACTOR ANALYSIS

A comparison was made between the bottom hole data from oil and gas wells in the vicinity of holes that were logged to depths in excess of 500 meters and the temperature profile for these holes (Appendix III., p.166-168). The purpose of this comparison was to see whether the BHT's recorded for an area could be corrected to some equilibrium temperature (assuming the temperatures measured in the logged well are representative of the rock temperatures). A circular area of radius 40 kilometers centered on the logged hole was searched for available bottom hole data. In all cases, the bottom hole data from wells for a particular area could be fit with a significant regression line (represented by dashed line on profiles in Appendices III., p.166-168 and IV., p.299-305). The difference between this regression line and the temperature profile of the logged hole, gives an indication of the correction needed for BHT values to be regarded as a measure of the true formation temperature at the bottom of the hole. This approach may be applicable to other investigations in correcting BHT data to true bottom hole temperatures if deep thermal logging data are available for several wells.

The size of the area required for this analysis is at least large enough to include several tens of wells with recorded BHTs (a potential problem in eastern Kansas), but small enough so that subsurface lithologies (and presumably thermal conductivities) do not vary a great deal in the horizontal direction. A 40 kilometer radius was chosen because, in all instances, this radius included at least 15 data points and the bottom hole data for this radius could be fit with a significant regression.

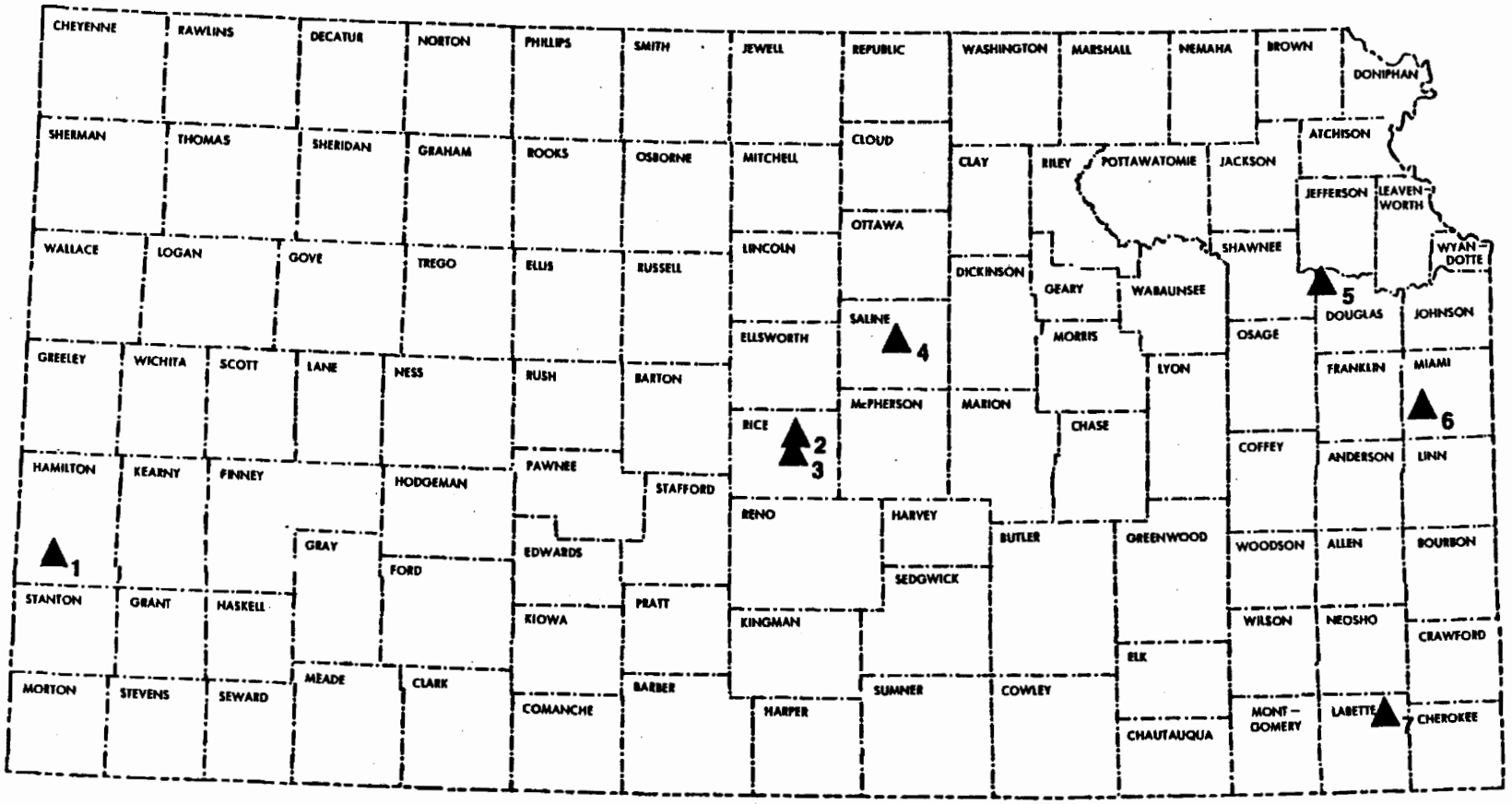
CONDUCTIVITY AND HEAT FLOW DATA FOR KANSAS

This study generated geothermal gradient data from temperature measurements in wells in Kansas. In most studies, this type of data is used with thermal conductivity data to compute heat flow values. Thermal conductivity data available for Kansas are limited to only seven locations (Figure 11). Birch (1947) estimated the thermal conductivity of rocks penetrated by a well in Hamilton County (in which a geothermal gradient had been computed, see Bass, 1926) and derived a heat flow value for that location. Sass et al (1971), determined heat flow values for two wells in Rice County on the basis of measured thermal conductivities. Blackwell and Steele (1981) have done the most recent work in the state, measuring thermal conductivities in core and cutting samples from four KGS-USGS holes drilled into the Arbuckle Group. They found that conductivity ratios for limestone to shale to dolomite are approximately 2.5 to 1 to 4. Their measurements (Blackwell and Steele, 1981) are the most detailed to date but are still incomplete regarding the entire geologic succession in Kansas and are specifically restricted to eastern Kansas.

I have thermally logged three of these KGS-USGS holes to 366 meters (1DG1-I (Figure 10); 1SA3, 1MI1: Appendix III., p.164, 165). For holes 1DG1-I and 1MI1, Blackwell and Steele (1981) have continuous thermal conductivity data from approximately 100 meters to depths exceeding 366 meters. Geothermal gradients were computed for both 1DG1-I and 1MI1. "Interval gradients" for both holes were also computed on the basis of slight changes in slope observed on the temperature profiles (Figures 12 and 13). There appears to be an inverse relationship between the interval gradients for

FIGURE 11. Location map for wells that have been assigned heat flow values in Kansas.

1) 59+ mW/m^2 (Birch, 1947)
2) 65 mW/m^2 (Sass *et al*, 1971)
3) 63 mW/m^2 (Sass *et al*, 1971)
4) 57 mW/m^2 (Blackwell and Steele, 1981)
5) 48 mW/m^2 (Blackwell and Steele, 1981)
6) 60 mW/m^2 (Blackwell and Steele, 1981)
7) 62 mW/m^2 (BLackwell and Steele, 1981)



▲3 Well Locations of Published Heat Flow Data

0 50 MI

50 Km

FIGURE 12. Temperature profile of 1DG1-I, showing interval gradients, thermal conductivity values (Blackwell and Steele, 1981) and resultant interval heat flow values.

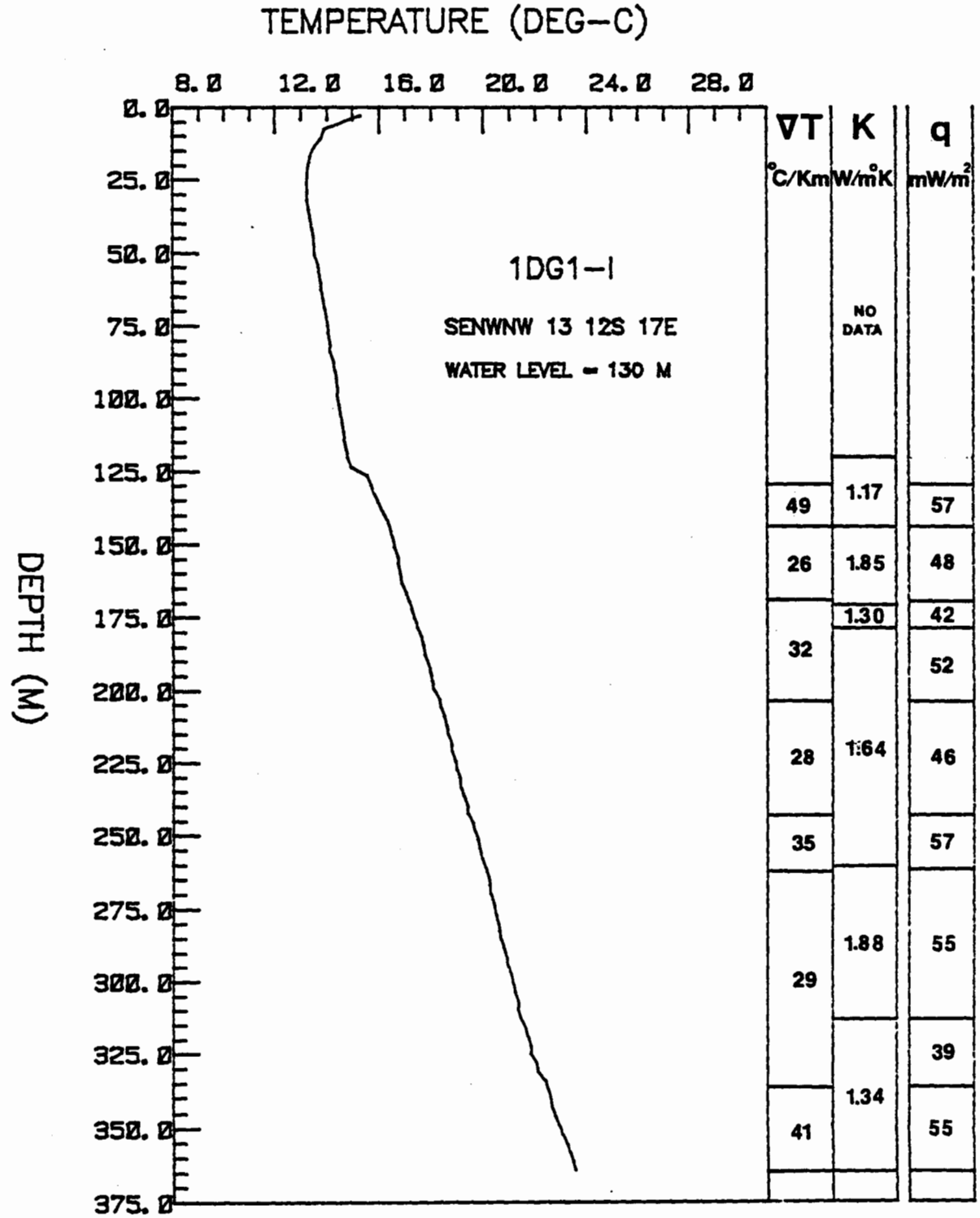
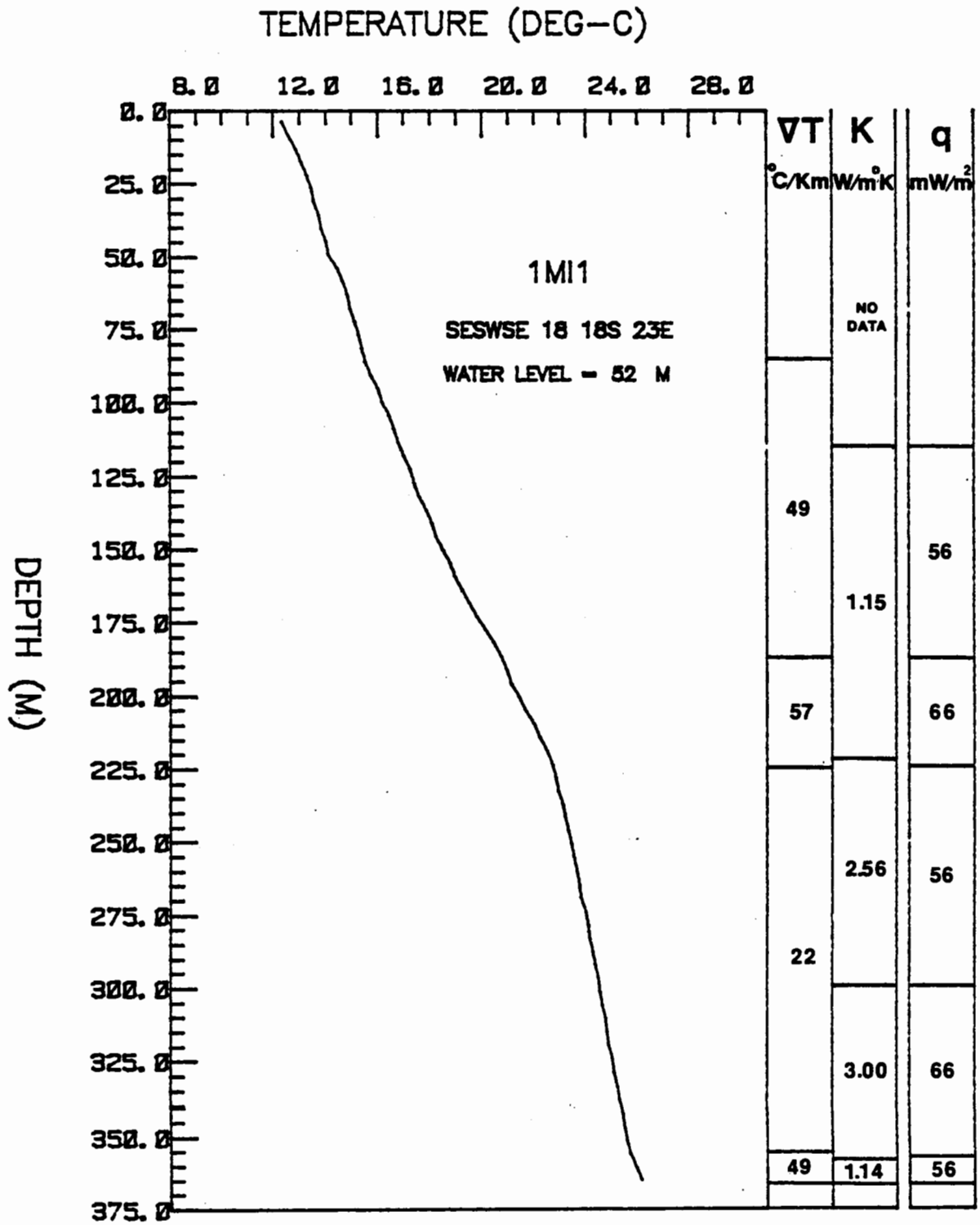

TEMPERATURE (DEG-C)
8.0
12.0
16.0
20.0
24.0
28.0
0.0
25.0
50.0
75.0
100.0
125.0
150.0
175.0
200.0
225.0
250.0
275.0
300.0
325.0
350.0
375.0
DEPTH (M)
1DG1-I
SENWNW 13 12S 17E
WATER LEVEL = 130 M
∇T
°C/Km
K
W/m°K
q
mW/m²
NO DATA
49
1.17
57
26
1.85
48
1.30
42
32
52
28
1.64
46
35
57
29
1.88
55
39
41
1.34
55

FIGURE 13. Temperature profile of 1MI1, showing interval gradients, thermal conductivity values (Blackwell and Steele, 1981) and resultant interval heat flow values.


TEMPERATURE (DEG-C)
8.0
12.0
16.0
20.0
24.0
28.0
0.0
25.0
50.0
75.0
100.0
125.0
150.0
175.0
200.0
225.0
250.0
275.0
300.0
325.0
350.0
375.0
DEPTH (M)
1MI1
SESWSE 18 18S 23E
WATER LEVEL = 52 M
∇T
°C/Km
K
W/m°K
q
mW/m²
NO DATA
49
1.15
56
57
66
22
2.56
56
3.00
66
49
1.14
56

each well and Blackwell and Steele's conductivity data. Intervals with higher geothermal gradients correspond to intervals of lower thermal conductivity. This suggests that variations in the geothermal gradient for a single well may be related to variations in thermal conductivity for corresponding intervals in the same well, as Blackwell and Steele have stated (1981). This presumes that heat flow is constant in the well. However, even if thermal conductivity data were available for all geologic formations in Kansas, an analysis of heat flow using the concept of interval gradients would require a thermal logging apparatus that measured temperature to at least a hundredth of a degree. Even though conductivity data are not explicitly used in the final interpretation, there is the implicit assumption that conductivity in particular rock units is laterally constant. Since rock units for the most part are continuous across the state, Black well and Steele's conductivity data are probably valid for a large area.

INTERPRETATION

Because there have been no known major Phanerozoic intrusive events of geothermal significance in Kansas the basement complex seems to be the most likely place to look for an explanation of observed regional differences in heat flow. In this context, the Phanerozoic rocks should act as thermal insulators, in which individual lithologic units differentially transmit heat produced in the crust and upper mantle. If there are no hydrologic disturbances affecting temperatures measured in a borehole (ie., movement of groundwater, artesian flow) then any vertical variations observed in the geothermal gradient, in the borehole, must be related to variations in subsurface lithology (ie., conductivity; p.44-51, this thesis); assuming that heat flow is constant in the vicinity of the borehole. None of the geothermal gradients computed from the thermal logging data and used to generate maps for the state (Plates 3, 4 and 5), indicate hydrologic disturbance. In the absence of hydrologic disturbance, variations in heat flow values over a region should be related to lateral variation in radiogenic heat production in the crystalline basement (Roy et al, 1968), and possibly to lateral variation in thermal conductivity of the basement rocks.

In Kansas, the effects of thermal conductivity variation in basement rocks would be most apparent between the CNARS rocks and the adjacent felsic rocks. No specific conductivity values are available for any basement rocks for Kansas, and conductivity data for igneous and metamorphic rocks in general is limited. However, Birch and Clark (1940, p.549-550) have measured thermal conductivity in several gabbros and granites and have found that thermal

conductivity values for gabbros range from 1.88 to 2.30 W/m^{o}K, whereas values for granites range from 2.09 to 2.93 W/m^{o}K. Basement rocks, in Kansas, of gabbroic and granitic composition would have thermal conductivities similar to those found by Birch and Clark (1940) and therefore, would probably be of less importance in causing variation in heat flow than rates of heat production (which, for granite, differ by a factor of two at two different localities in eastern Kansas; Blackwell and Steele, 1981; p.61, this thesis).

LIMITATIONS IN THE INTERPRETATION OF BOTTOM HOLE DATA

Most investigators believe that geothermal gradients based on BHT records from oil and gas wells can reveal trends in the lateral variation of temperature with depth attributable to subsurface geology (Schoeppel and Gilarranz, 1966; Harper, 1971; Evans and Coleman, 1973; Gosnold, personal communication, 1981). On the geothermal gradient map for Kansas generated from BHT data (Plate 1), relatively high gradients are indicated over the Nemaha Ridge and these continue from Nemaha County to northern Butler County. Relatively high geothermal gradients are also apparent in the southeastern quarter of Kansas, in the Cherokee Basin area. The trends may reflect real variation in basement rock type and presumably radiogenic heat production coupled with depth to basement and basement topographic variation.

Because the source data for this map (Plate 1) come exclusively from oil and gas well records the quantity and distribution of the data is dependent upon the locations of the oil and gas wells. Also, BHT's measured in holes drilled deeper than 800 meters are probably lower than the true

bottom hole temperature, whereas BHT's for holes only a few hundred meters deep are probably higher than the equilibrium temperatures, due to the effect of the drilling mud (p.27, this thesis).

COMPARISON OF THERMAL LOGGING AND BOTTOM HOLE DATA

In light of the previous discussion, the good correspondence between the geothermal gradients computed for data obtained in the field, in eastern Kansas, and those computed from BHT records is remarkable. In eastern Kansas, the average depth logged in the field (several hundred meters) is approximately equivalent to the total depth of oil and gas wells, whereas oil and gas wells in western Kansas are 1000 to 2000 meters deep. In extreme northwestern Kansas, in particular, the bottom hole data are not valid for estimating temperatures at depths of 200 to 400 meters because of variations in thermal conductivity in Cretaceous rocks and possible near-surface convection in waters of the Dakota Group.

Both data sets indicate relatively high geothermal gradients along the Nemaha Ridge from the Nemaha to northern Butler Counties (Plates 1 and 3). Relatively high gradients are present in the Cherokee Basin in southeastern Kansas (Figure 1; Plates 1 and 3). In northwestern Kansas (principally, Cheyenne and Sherman Counties), the high gradients computed from the thermal logging data (Plate 3) are probably enhanced by the low conductivity of the Pierre Shale (Appendix III., p.154 (1CN2), 159 (1SH4) and 160 (1TH3)). The bottom hole data also show a relatively high geothermal gradient trend in these same counties (Plate 1). Bottom hole temperatures responsible for this trend were measured in gas wells producing from the Niobrara

Formation. (Correspondence between the two data sets is indicated for other areas of the state, but only the most obvious have been deliniated here.)

GEOTHERMAL GRADIENTS AND STRUCTURAL PROVINCES

The following discussion of the geothermal gradient data is restricted to those gradients computed from the thermal logging data, unless otherwise noted. It should be kept in mind that the total range of geothermal gradients from the thermal logging data for Kansas is only 25 to 55 ^{o}C/km.

To analyze the geothermal gradient data thoroughly on a regional scale it would be best to have corresponding conductivity data. Because of the paucity of thermal conductivity information for Kansas, the gradient data are treated in the analysis as most investigators treat heat flow data. This is a valid treatment because lithologic units in the Pennsylvanian section are continuous over the state and therefore conductivity should not vary much from place to place in that part of the section.

I have divided the State of Kansas into eight "structural provinces" (Figure 1; after Merriam's (1963, p.178-179) "structural features" or "major structural elements"). These areas are structurally distinct from one another as they essentially represent major basement structural features, but are not necessarily dominated by one basement rock type. Heat flow is the product of thermal conductivity and geothermal gradient over a particular lithologic interval (Eqn. 1). The assumptions for the structural province analysis of th geothermal gradient data are as follows:

1) Phanerozoic strata are:

   a) laterally continuous

   b) essentially uniform in thickness

   c) draped over the Precambrian surface

2) wells in a structural province will penetrate similar sequences of rock units.

Under these assumptions, the thermal conductivity of the Phanerozoic rock units can be considered laterally uniform in a particular province. Any variation observed in the geothermal gradient would then either be directly related to variation in heat flow in the area (ie., conductivity is treated as a constant (Eqn. 1)) or indicative of local convective aquifer systems. There is no evidence in the thermal logging data to support a convective geothermal model for any portion of the state.

Hugoton Embayment of the Anadarko Basin.

Geothermal gradients in the Kansas part of the Anadarko Basin are relatively uniform, averaging approximately 30 ^{o}C/km (Plate 3). However, in the northern portions of the basin the gradients tend to be somewhat higher (35 to 45 ^{o}C/km).

Las Animas Arch.

In this area of northwestern Kansas, extremely high (50 to 60 ^{o}C/km), uniform geothermal gradients were computed from thermal logging data (Plate 3). Geothermal gradients were computed for the portion of the thermal logging data that penetrated the Pierre Shale. As previously mentioned, Blackwell et al (1981) found thermal conductivities for shales in the Mid-continent (specifically in Kansas) to be much lower than reported by pre-

vious workers (Garland and Lennox, 1962; Combs and Simmons, 1973; Scattolini, 1978). They believe that thermal conductivity values for shales in the Midcontinent have been overestimated by as much as 60 per cent (Blackwell et al, 1981). This means that the high gradients present over the Las Animas Arch are very likely the result of the low thermal conductivity of the Pierre Shale in an area of normal heat flow.

That these gradients are maintained in the units below the Pierre Shale is unlikely, even though a similar trend is observed in the bottom hole data from gas wells which were drilled into the Niobrara Formation in this area (Plate 1). These wells were drilled to a maximum of several tens of meters into the Niobrara Formation. Although the thermal conductivity of the Niobrara has not been measured it is probable that the Niobrara Formation is a better thermal conductor than the Pierre Shale because it consists primarily of limestone and chalk. An alternative interpretation of the high geothermal gradients is that heat derived from the Denver-Julesberg Basin is causing convection in the waters of the Dakota Group upward and eastward into Kansas and Nebraska (Gosnold, personal communication, 1981). Because I was unable to obtain any thermal logging data for rocks of the Dakota Group the thermal conductivity effect of the Pierre Shale is the preferred explanation for the high geothermal gradients computed or this portion of the state.

Central Kansas Uplift.

Over the Central Kansas Uplift (Plate 3) the geothermal gradients from the logging data are, for the most most part, high (37 to 47 ^{o}C/km) but

decrease to 30 to 35 °C/km over the southeastern portions of the structural province (Plate 3). A low gradient trend encompasses all of Pawnee County over the southwestern flank of the uplift, and extends into the Anadarko Basin. This trend is misleading, as the lowest computed gradient is 27 °C/km, while the contour trend indicates that there are geothermal gradients lower than 24 °C/km in this area. This trend is probably enhanced by the computer contouring program and is caused by a lack of data.

Salina Basin.

Because of the paucity of logging data in the Salina Basin, not much can be said about the geothermal gradients in this area. However, the two geothermal gradient values in the southern part of the basin are essentially equivalent (Plate 3) and can be considered normal (30 °C/km) for an area in geothermal equilibrium (ie., a tectonically stable area).

Sedgwick Basin.

Geothermal gradients from the logging data in the Sedgwick Basin show considerable diversity ranging from 36 to 40 °C/km (Plate 3). The north-south high that occurs in Kingman and Harper Counties, intersects a trend of similar magnitude that is present from western Marion County to central Stafford County. In the southeastern corners of the basin, normal to low gradients (24 to 30 °C/km) are observed.

Nemaha Ridge.

The northeast-southwest trend of the Nemaha Ridge is indicated fairly well by the geothermal gradients from the logging data. Geothermal

gradients ranging from 35 to 45 °C/km are indicated along the northern half of the Nemaha Ridge from northern Morris to Nemaha and Marshall Counties (Plate 3). Unfortunately, no data were obtained for Nemaha, Marshall or Pottawatomie Counties (as stated previously), so the higher gradients indicated in these counties should be considered with caution. Geothermal gradients along the southern half of the Nemaha Ridge are generally uniform with values of 35 °C/km.

Forest City Basin.

The Forest City Basin exhibits the most diverse geothermal gradients found in any of the structural provinces in Kansas. Although logging data are lacking for the northern portion of the basin, high gradients (45 to 50 °C/km) are indicated in the eastern part of the basin along the Missouri border (Plate 3). In the center of the basin, including southern Leavenworth, Douglas, Shawnee and Osage Counties, normal gradients are observed (30 to 33 °C/km). Geothermal gradients in the range of 40 to 50 °C/km are again present in the southeastern and southern portions of the Forest City Basin adjacent to the Bourbon Arch.

Cherokee Basin.

This structural province has the best coverage, in terms of thermal logging data, in the entire state (Plate 3). Geothermal gradients in the Cherokee Basin are relatively high and increase gradually southward from approximately 40 to 50 °C/km.

Discussion.

It appears that three types of geothermal response may be observed in particular structural provinces. In the first type, the geothermal gradients are essentially uniform, or constant, as is seen in the Anadarko Basin and, where data are available, in the Salina Basin. The second, occurs over the Central Kansas Uplift and Nemaha Ridge, and in the Cherokee Basin. Geothermal gradients decrease systematically: north to south in the first two areas and south to north in the Cherokee Basin. This suggests the some type of regional control is operative in these areas. The third type of response occurs in the Sedgwick and Forest City Basins, where the geothermal gradient values are very diverse.

On a statewide scale, areas of relatively high geothermal gradients correspond to areas of low magnetic field intensity. This inverse relationship occurs both in provinces where geothermal gradients show what I have called regional variation (eg., the Central Kansas Uplift and Nemaha Ridge) and where the gradient trends are very irregular (eg., Forest City Basin). In southwestern Kansas, aeromagnetic data are obscured by the thick succession of Phanerozoic strata (Vaquier et al, 1951, p.5). In this area, both geothermal gradients and aeromagnetic data are uniform, but uniformity in the aeromagnetic data may result from the thick sedimentary cover rather than a relatively homogeneous crystalline basement (in terms of its magnetic response). As the aeromagnetic data theoretically represent a picture of the Precambrian crystalline rocks (if downward continued to the basement surface), its correspondence with the geothermal gradients tends to support the idea that variations in geothermal gradients are related to

variations in basement rock type. Mafic rocks generally have high magnetic susceptibility and produce less heat due to radiogenic decay of uranium, thorium, and potassium than felsic rocks (Roy, et al, 1968). One would then expect that the inverse relationship between aeromagnetic and heat flow (geothermal gradient) data might result from compositional differences in the basement.

In Kansas, the crystalline basement complex is dominated by felsic rocks (except in the area of the MGA). The Precambrian complex in Kansas has been divided, on the basis of age and petrography, into a southern terrane and a northern terrane (p.10-16, this thesis), in which further compositional differences have been observed (Bickford et al, 1981; Van Schmus and Bickford, 1981). The regional southerly decrease in the geothermal gradient along the Central Kansas Uplift and Nemaha Ridge may be related to this division. It could also be due to increasing sedimentary thickness to the south.

A series of highly positive circular magnetic anomalies, averaging 15 kilometers in diameter are present in the Forest City Basin in northeastern Kansas. Two of these anomalies were drilled by the KGS-USGS (1DG1 and 1 MI1). Prior to drilling, it was believed that these anomalies were probably caused by Precambrian intrusives that were genetically related and mafic in composition. However the basement rock in both holes was found to be granite with a higher than normal magnetite content, and this is apparently responsible for the magnetic anomalies observed. Calculated heat production values for granite samples from these two holes are surprising as they are not equivalent but differ by a factor of two.

The heat production values for the granite are 4.9 $\mu W/m^3$ in hole 1MI1 and 2.4 $\mu W/m^3$ in 1DG1 (Blackwell and Steele, 1981). The latter is typical for granites in the central stable region, as determined by Roy et al, (1968).

There is no systematic correspondence between geothermal gradients and residual Bouger gravity values (computed by removing the gravity effect attributable to the Phanerozoic strata) for Kansas (Woollard, 1959, Plate 2). One would expect areas of low Bouger gravity to be indicative of less dense crust (eg., predominantly felsic basement rock types), and felsic rocks to be indicative of higher rates of heat production. Except for over the Nemaha Ridge, areas where geothermal gradients are relatively high do not correspond to gravity lows (Wang, 1965; Scheffer, 1963). Considering the different heat production values measured by Blackwell for mineralogically similar basement rock (in holes 1DG1 and 1MI1), it may be unreasonable to expect an inverse relationship between geothermal gradients and gravity.

GEOTHERMAL GRADIENTS AND BASEMENT TOPOGRAPHY

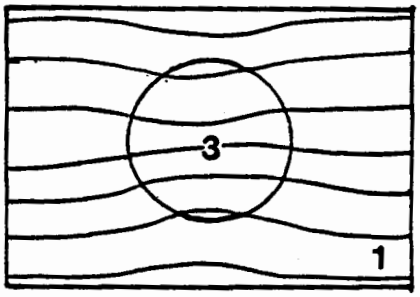
Although the above analysis suggests some possible causes for the diversity in geothermal gradients in Kansas, little further can be said until more is known about thermal conductivity, variation of basement composition, basement radioactivity, or heat production. Even so, I am not satisfied that the causes suggested above can completely explain the diversity observed.

Prior to 1965, a great deal of geothermal gradient data was obtained in an effort to determine if there was a relationship between maturation

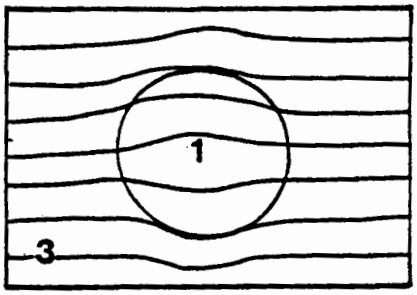
of hydrocarbons and areas of high geothermal gradients. The results, in terms of the petroleum industry were inconclusive, but the investigators all arrived at similar interpretations of the gradient data. They observed a definite direct relationship between the value of geothermal gradients, depth to crystalline basement, and basement structure or topography (Barnes, 1932; Carlson, 1931; Lasky, 1963; McCutchin, 1930; Schoeppel and Gilarranz, 1966; Strong, 1930; Van Orstrand, 1932, 1934 and 1940). To illustrate their findings, they used isotherms. Cross sections and maps of "isothermal surfaces" (surfaces of constant temperature) were compared to geologic cross sections and maps. Generally, isotherms paralleled surface and basement topography, but were smoother. Most of the studies, unlike this one, were done in areas dominated by a single basement feature (eg. dome or anticline) and the basement in each area was essentially uniform in composition.

A combination of factors are probably responsible for the direct relationship between basement topography and geothermal gradients. Basement rocks have been thought of as a heat source in the present study. Displacement of these rocks (especially felsic types) toward the surface essentially brings the heat source closer to the surface. In another sense, crystalline rocks are generally better thermal conductors than sedimentary rocks. A the crust and upper mantle, to the surface (Barnes, 1932). Over areas of extreme variation in basement topography (eg., Nemaha Ridge), one must consider the effects of refraction of heat. Refraction of heat tends to occur in areas where there are extreme differences in thermal conductivity

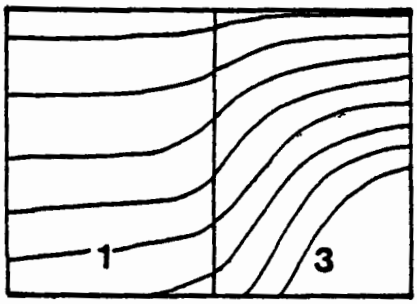
FIGURE 14. Simplified cross sections showing the effects of lateral changes in thermal conductivity on the behavior of isotherms. The upper boundaries on these cross sections represents the ground surface (after Strong, 1930).



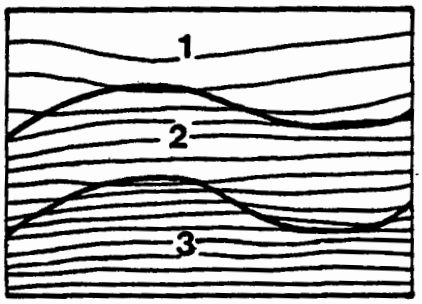
A



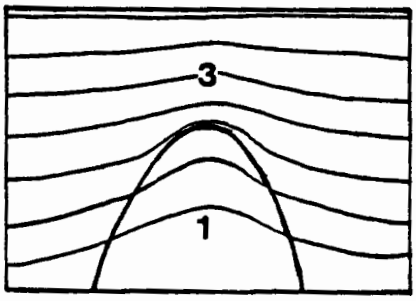
B



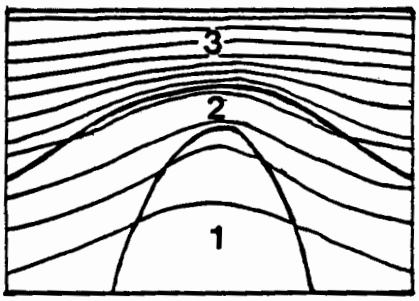
C



D



E



F

1- good

2- medium

3- poor

in a vertical and lateral sense resulting from subsurface structural highs or lows. In Figure 14 (A-E), simplified cross sections show the expected configuration of isotherms in cases of extreme changes in thermal conductivity. Sections E and F in Figure 14, represent a simplistic picture of the patterns one would expect over a buried anticline of good thermal conductivity. The effect of the structure would be more noticeable the closer it is to the surface (eg., Nemaha Ridge in Nemaha, Marshall, Pottawatomie and Riley Counties). In Kansas, one would expect to find higher geothermal gradients (areas where isothermal surfaces are closer together) over the Nemaha Ridge, Central Kansas Uplift and perhaps in eastern Kansas, especially in the Cherokee Basin where the basement complex is within 600 meters of the surface.

W.D. Gosnold (personal communication, 1981) has investigated the effect of refraction on heat flow due to the Nemaha Ridge in southeastern Nebraska. His theoretical model (generated by numerical analysis), which takes into account the refraction effect, predicts higher heat flow values over the ridge that are compatible with observed heat flow in the area. This has already been indicated qualitatively in Figure 14, E and F.

Five generalized geologic cross sections, Figures 17a to 21a, illustrate the configuration of the basement rocks and thickness of overlying sediments in Kansas. The locations of these sections and well locations of the thermal logging data are shown in Figure 15. Geothermal gradients (solid) and subsurface temperatures at 300 meters (dashed) are also plotted along these section lines (Figures 17b to 21b; index map, Figure 16). This information is taken from corresponding maps (Plates 3 and 5) of the thermal

FIGURE 15. Location map for geologic sections and control points of thermal logging data.

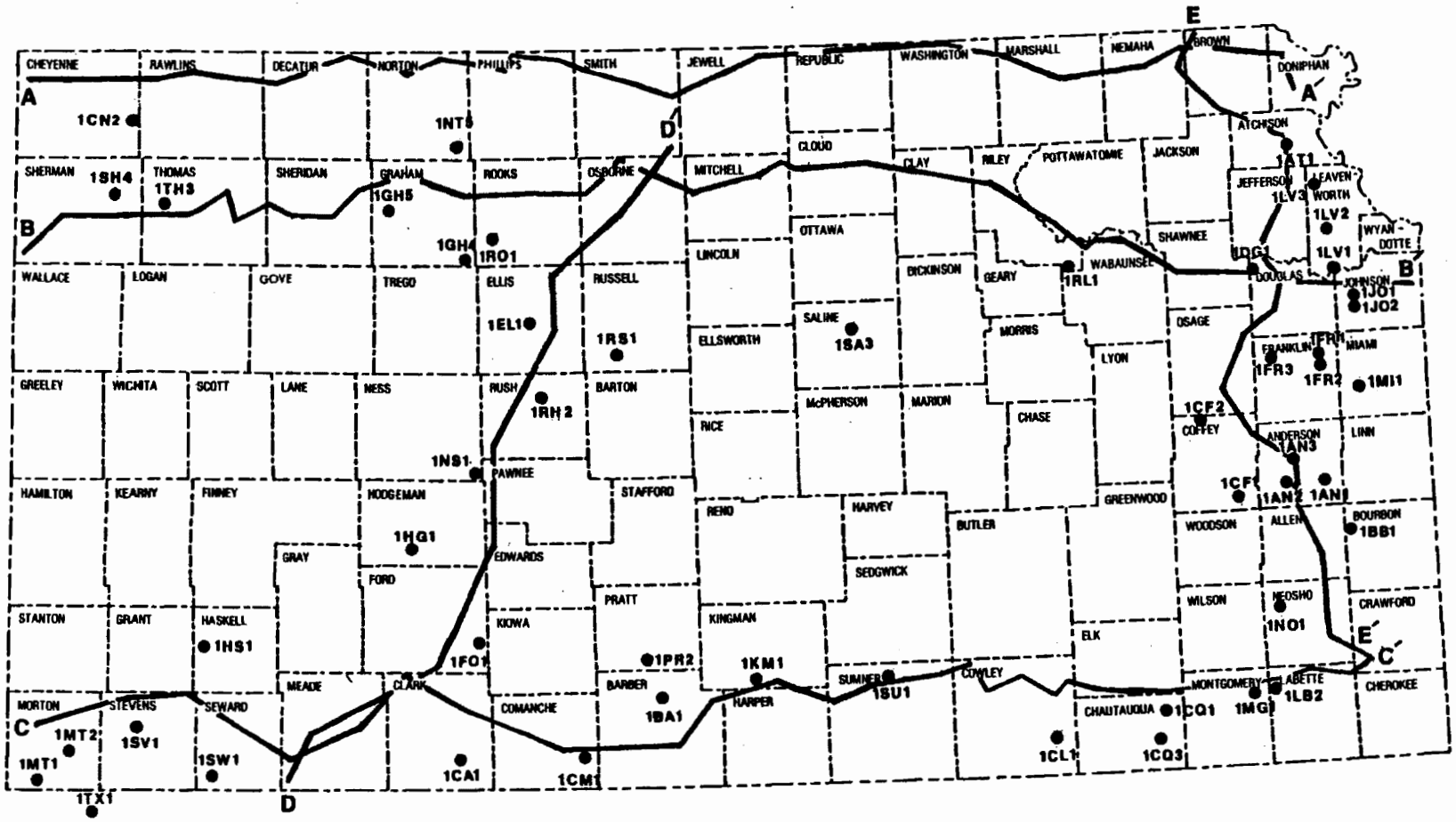
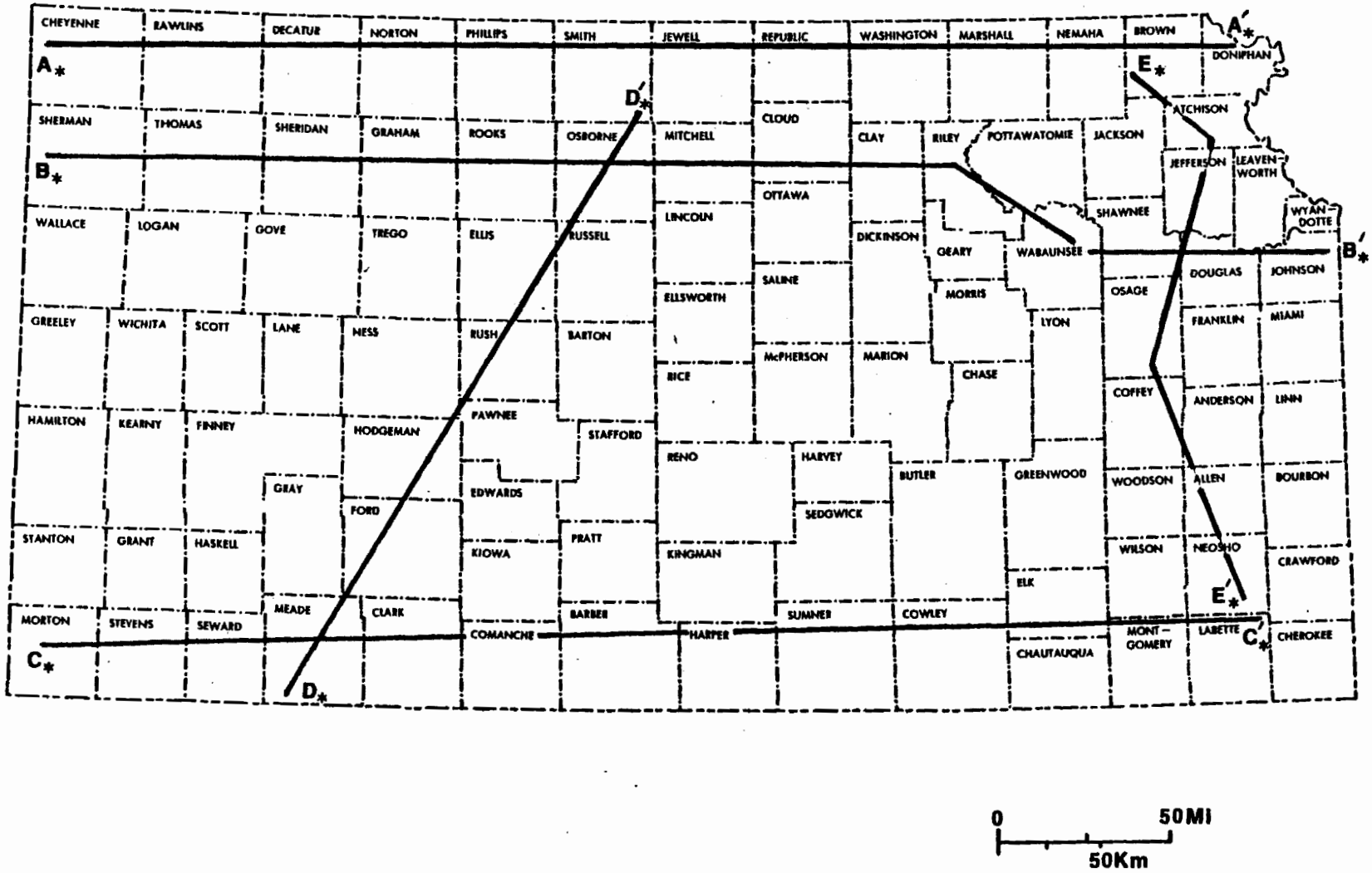

CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
A
A'
1CN2
1NT1
SHERMAN
1SH4
THOMAS
1TH3
SHERIDAN
GRAHAM
1GH5
ROOKS
OSBORNE
MITCHELL
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
1AT1
JEFFERSON
1LV3
LEAVEN-WORTH
1LV2
B
1GH4
1RO1
LINCOLN
OTTAWA
SHAWNEE
1DG1
1LV1
WYAN-DOTTE
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
DICKINSON
GEARY
1RL1
WABAUNSEE
DOUGLAS
JOHNSON
1JO1
1JO2
1EL1
1RS1
SALINE
1SA3
ELLSWORTH
MORRIS
OSAGE
FRANKLIN
1FR1
MIAMI
1FR3
1FR2
1MI1
LYON
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
1RH2
McPHERSON
MARION
CHASE
1CF2
COFFEY
ANDERSON
1AN3
LINN
RICE
1NS1
PAWNEE
1CF1
1AN2
1AN1
HAMILTON
KEARNY
FINNEY
HODGEMAN
STAFFORD
RENO
HARVEY
BUTLER
GREENWOOD
WOODSON
ALLEN
BOURBON
1BB1
1HG1
GRAY
EDWARDS
FORD
SEDGWICK
PRATT
WILSON
NEOSHO
CRAWFORD
STANTON
GRANT
HASKELL
1HS1
KIOWA
KINGMAN
1INO1
E'
C'
1FO1
1PR2
1KM1
ELK
MEADE
CLARK
BARBER
SUMNER
1SU1
COWLEY
MONTGOMERY
LABETTE
1LB2
CHEROKEE
MORTON
STEVENS
SEWARD
COMANCHE
HARPER
1BA1
CHAUTAUQUA
1CQ1
1MG1
C
1MT2
1SV1
1SW1
1CL1
1CQ3
1MT1
1CA1
1CM1
1TX1
D
D'
E
0
50 MI
50 Km

FIGURE 16. Index map for profiles of geothermal gradients and subsurface temperatures.


CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
A
A'
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
E
E'
JEFFERSON
LEAVEN-WORTH
B
B'
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
LINCOLN
OTTAWA
DICKINSON
GEARY
WABAUNSEE
SHAWNEE
WYAN-DOTTE
DOUGLAS
JOHNSON
OSAGE
SALINE
ELLSWORTH
MORRIS
LYON
FRANKLIN
MIAMI
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
McPHERSON
MARION
RICE
CHASE
COFFEY
ANDERSON
LINN
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
RENO
HARVEY
BUTLER
GREENWOOD
WOODSON
ALLEN
BOURBON
GRAY
FORD
EDWARDS
SEDGWICK
STANTON
GRANT
HASKELL
KIOWA
PRATT
KINGMAN
WILSON
NEOSHO
CRAWFORD
ELK
MEADE
CLARK
BARBER
SUMNER
COWLEY
MORTON
STEVENS
SEWARD
COMANCHE
HARPER
MONT-GOMERY
LABETTE
CHEROKEE
C
C'
CHAUTAUQUA
D
D'
0
50MI
50Km

logging data. The locations of thermal logging holes are also plotted to scale (vertical) on the nearest geologic sections to indicate the control for the geothermal data.

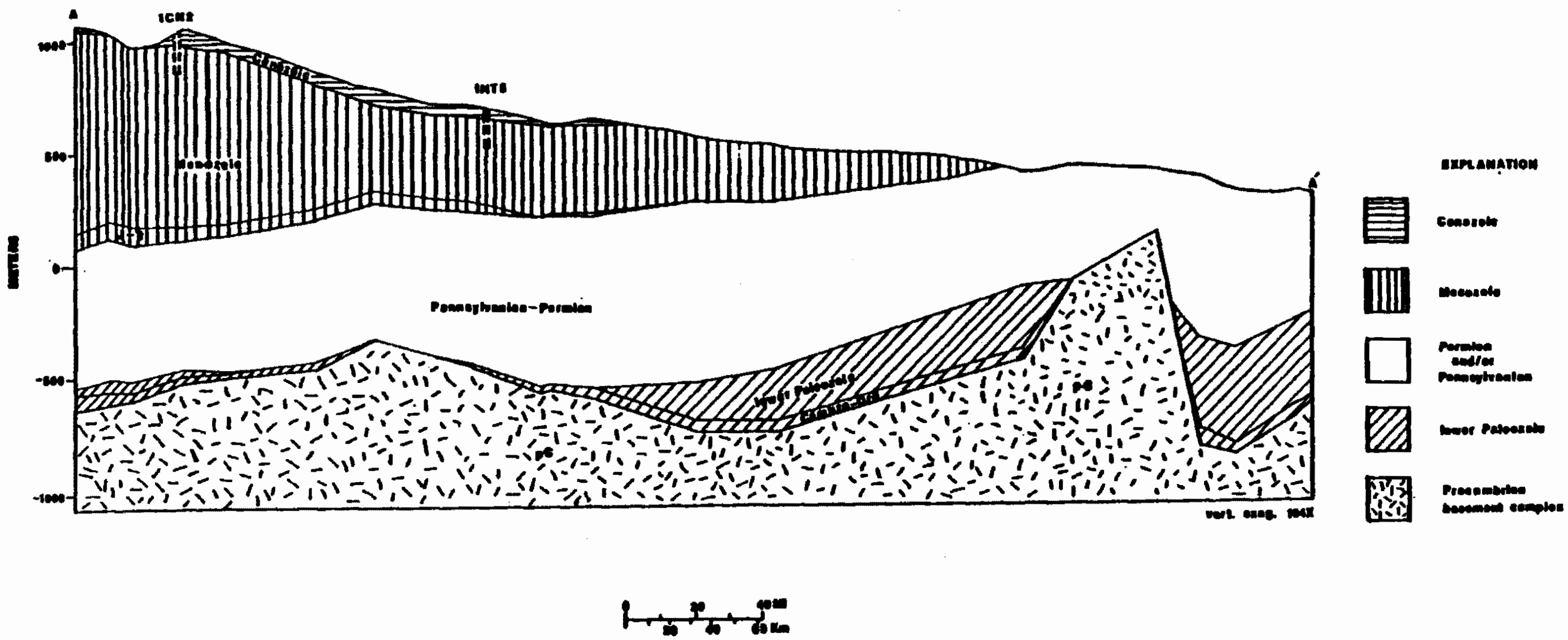
In sections A-A' and A_{*}-A_{*}' (Figure 17, a and b), geothermal data do not mimick the basement structure but, in general, temperatures and gradients over the Salina Basin are relatively low and become higher over the Nemaha Ridge. The high geothermal gradient and temperature values in the western part of the section are probably due to the influence of the Pierre Shale. Because of the lack of control points for geothermal data along line A-A', little more can be said about this portion of the state.

Along sections B-B' and B_{*}-B_{*}' (Figure 18, a and b), there is better control in the geothermal data for the eastern and western areas. Again, the relatively high values observed in the geothermal data in northwestern Kansas (approximately 100 kilometers west of the Central Kansas Uplift) are probably due to the effect of the Pierre Shale as there is no evidence of extreme basement topographic variation (Figure 18a). Relatively high gradient and temperature trends are observed over the Nemaha Ridge and much lower, though diverse, geothermal gradients and subsurface temperatures are observed in the Forest City Basin. The Salina Basin is represented by low gradient and temperature values. The geothermal gradient in the area of the Central Kansas Uplift seems to be offset to the east, while the subsurface temperature is relatively low as in the Salina Basin.

Sections C-C' and C_{*}-C_{*}' transect a portion of the state in which the basement complex is much deeper (Figure 19, a and b). In general, the geo-

FIGURE 17a. Generalized geologic section along line A-A' (after Merriam, 1963, p.17).

17b. Profile of geothermal gradient (solid) and temperature at -300 meters (dashed) along line A_*-A_*'.


A
1CN2
1NT6
Cenozoic
Mesozoic
Pennsylvanian-Permian
pЄ
METERS
1000
500
0
-500
-1000
vert. exag. 104X
EXPLANATION
Cenozoic
Mesozoic
Permian and/or Pennsylvanian
lower Paleozoic
Precambrian basement complex

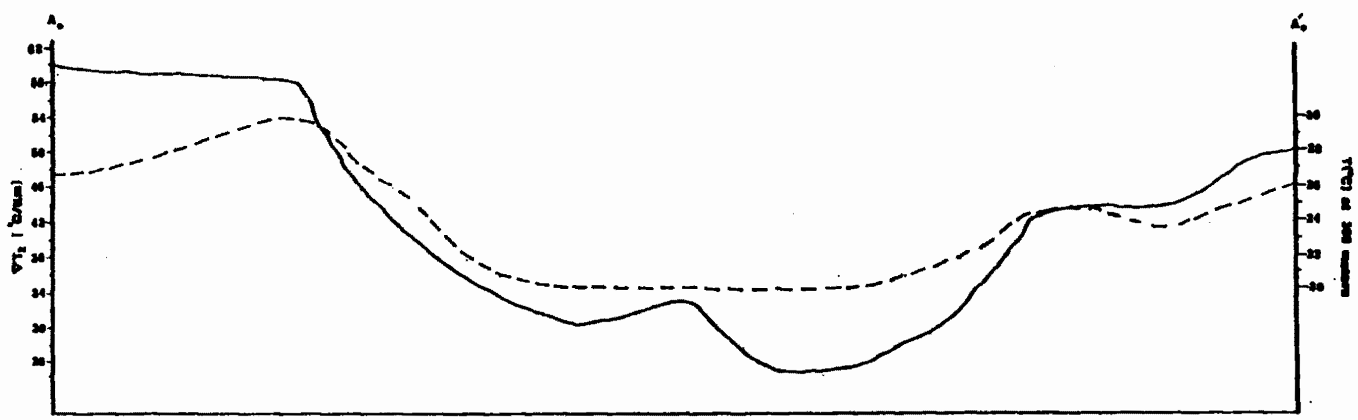
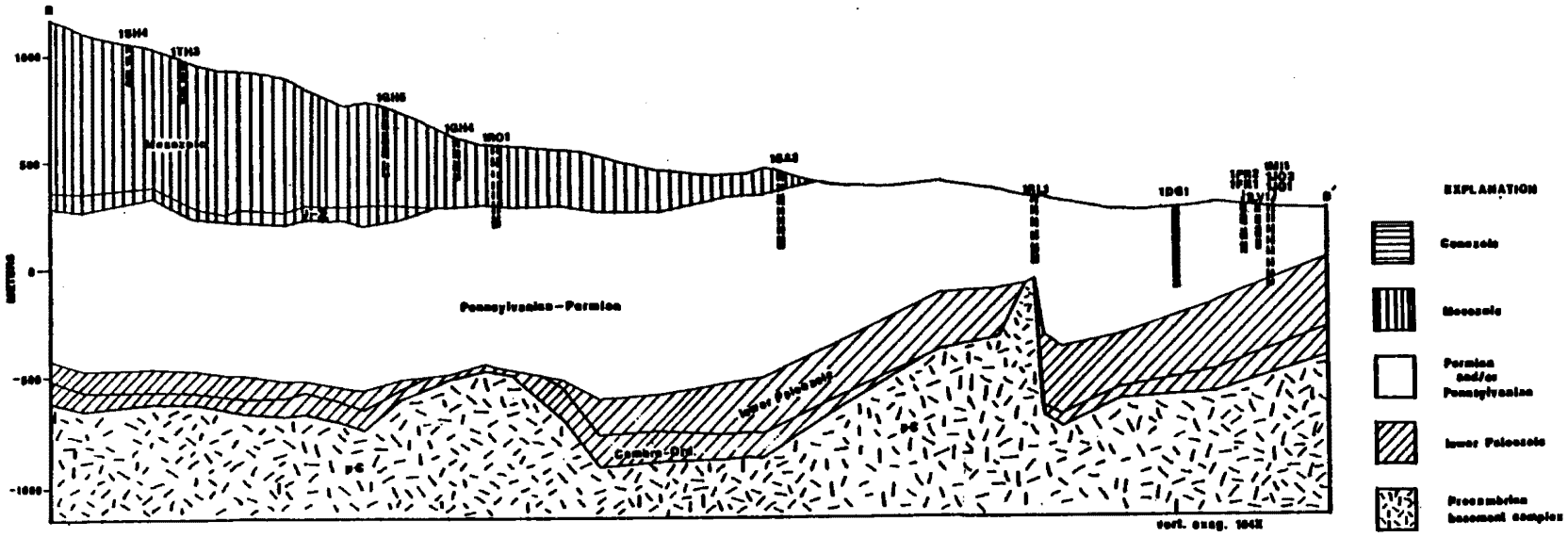
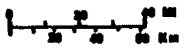


FIGURE 18a. Generalized geologic section along line B-B' (after Merriam, 1963, p.18).

18b. Profile of geothermal gradient (solid) and temperature at -300 meters (dashed) along line B_{*}-B_{*}'.


B
B'
Mesozoic
Pennsylvanian–Permian
Lower Paleozoic
Cambro-Ord.
pC
vert. exag. 10:1
EXPLANATION
Cenozoic
Mesozoic
Permian and/or Pennsylvanian
Lower Paleozoic
Precambrian basement complex


0
20
40
60 Km

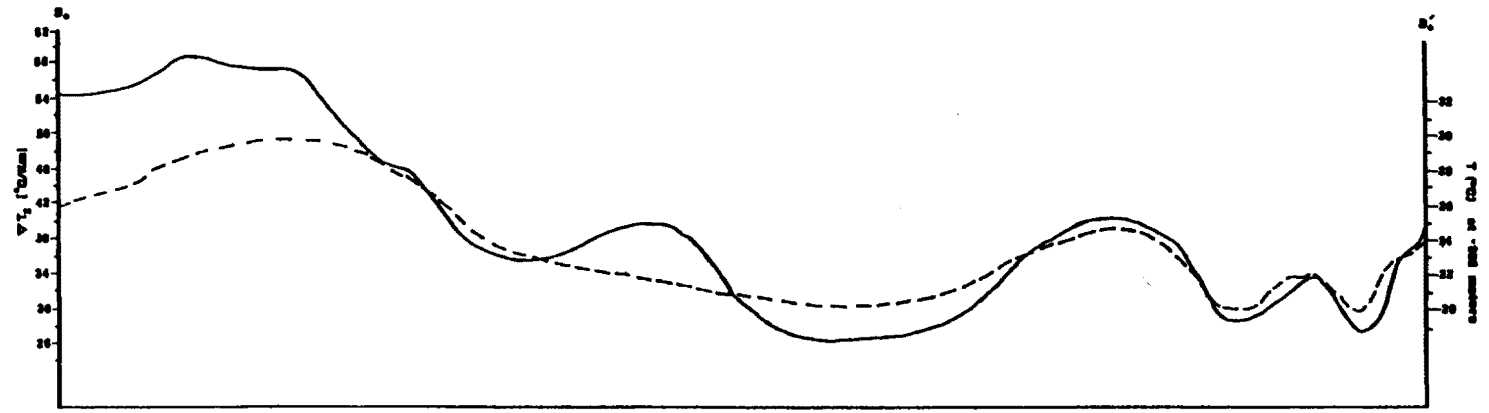
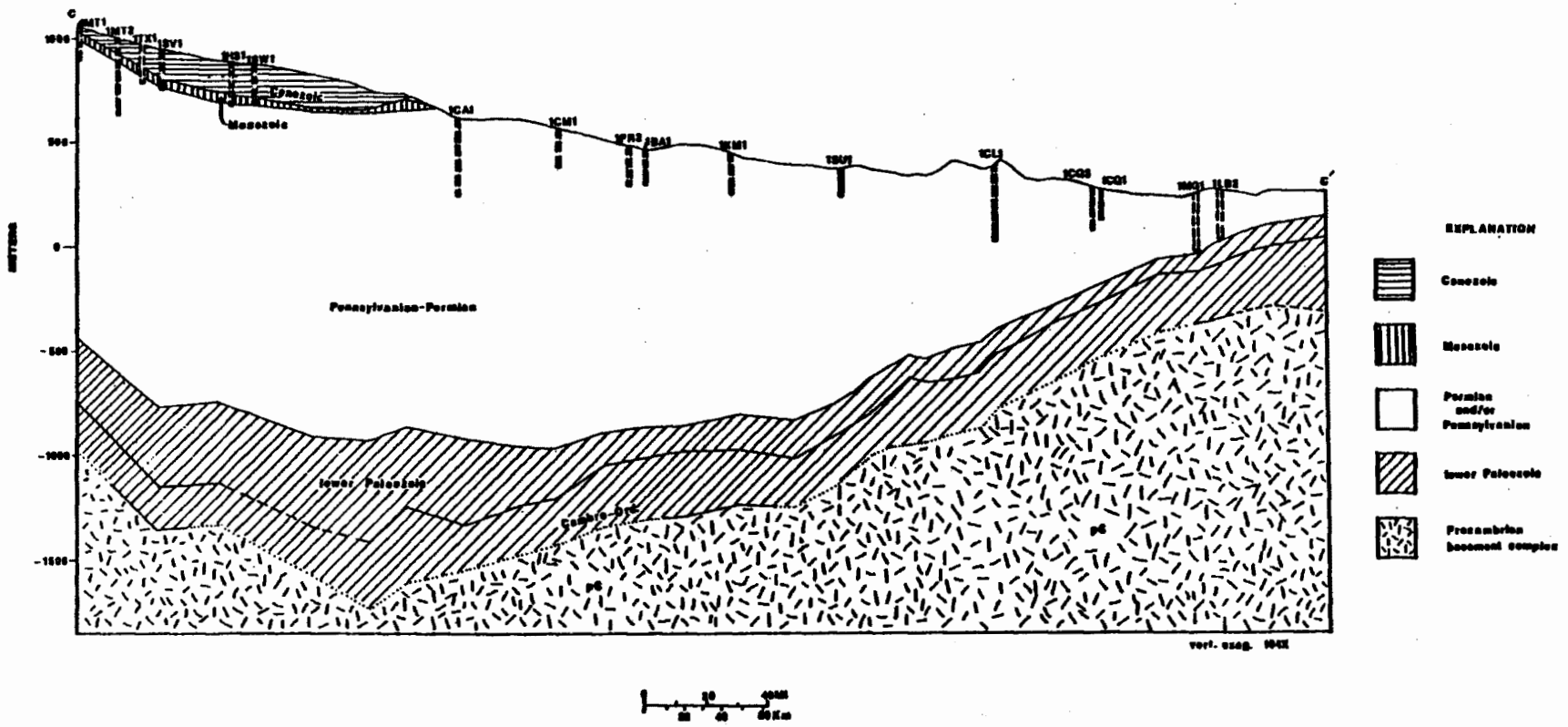
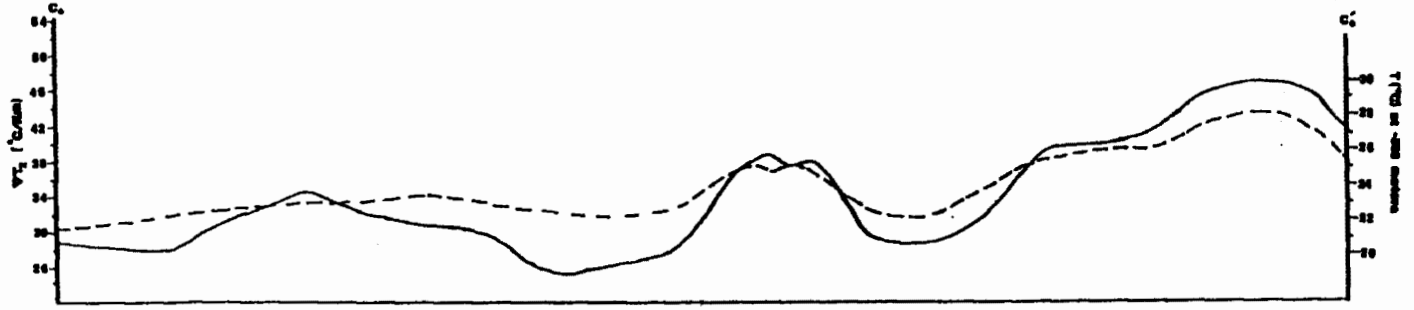

B
B'

FIGURE 19a. Generalized geologic section along line C-C' (after Merriam, 1963, p.19).

19b. Profile of geothermal gradient (solid) and temperature at -300 meters (dashed) along line C_*-C_*'.


C
C'
Cenozoic
Mesozoic
Pennsylvanian-Permian
Lower Paleozoic
Granite Dike
pC
vert. exag. 10X
EXPLANATION
Cenozoic
Mesozoic
Permian and/or Pennsylvanian
Lower Paleozoic
Precambrian basement complex


C
C'

thermal gradients and subsurface temperatures increase from west to east, and there is good control along section C_{*}-C_{*}' (approximately one well every 30 kilometers, Figure 15). A relative high in western Sumner County does not obviously correspond to the position of the Nemaha Ridge in southern Kansas. However, basement topographic variation across the Nemaha Ridge is not extreme in Sumner County; instead, there is a general decrease in depth to the basement complex from eastern Sumner County to the Missouri border. This is indicated by the geothermal data for the area (Figure 19b; Plates 3 and 5).

Sections D-D' and D_{*}-D_{*}' (Figure 20, a and b) are essentially normal to the trend of the Central Kansas Uplift. The subsurface temperatures along D_{*}-D_{*}' are relatively uniform, but the geothermal gradient generally increases as the crest of the Central Kansas Uplift is approached. This may be the result of refraction on the Central Kansas Uplift. The control, for geothermal data, along this section is better than that for section B_{*}-B_{*}' and this suggests that the offset observed on B_{*}-B_{*}' is an effect of the computer contouring program.

Finally, sections E-E' and E_{*}-E_{*}' (Figure 21, a and b) cover eastern Kansas from the Forest City Basin to the Cherokee Basin. Aside from the northern quarters of the sections, where there are no thermal logging data, geothermal gradients and temperatures generally increase as the thickness of the Phanerozoic strata decreases.

It appears that there is a relationship between the major basement structural features in Kansas and available geothermal data (especially

FIGURE 20a. Generalized geologic section along line D-D' (after Lee, 1953, Figure 2G).

20b. Profile of geothermal gradient (solid) and temperature at -300 meters (dashed) along line D_*-D_*'.

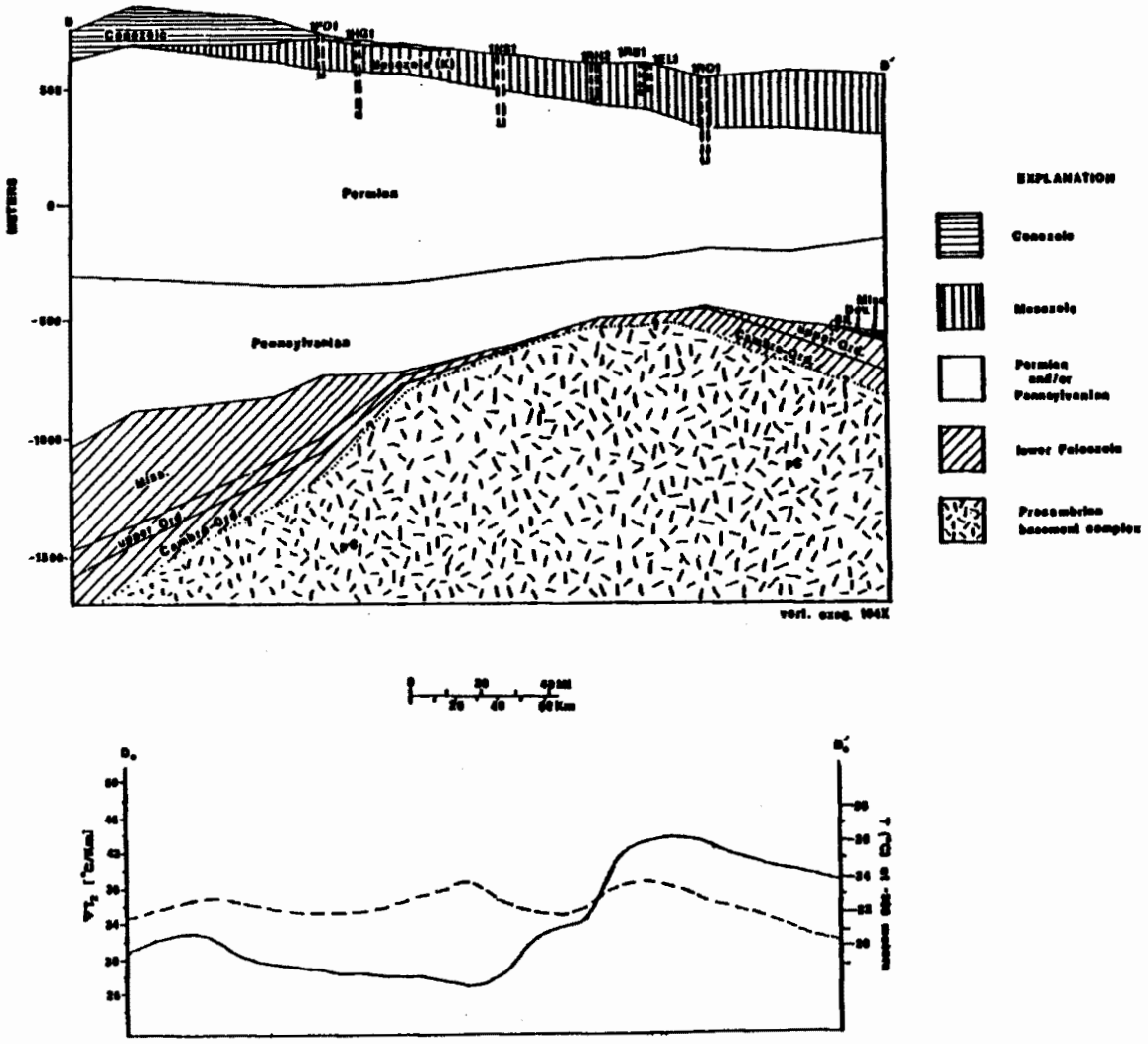
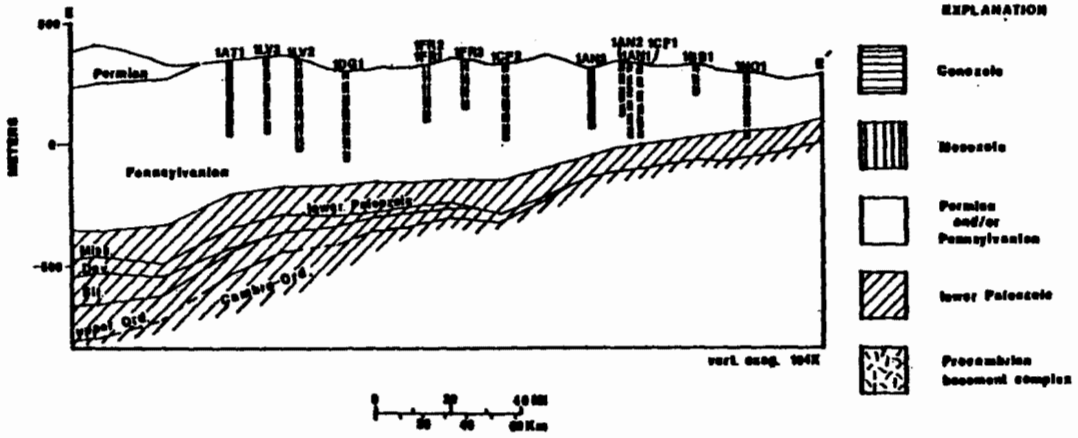
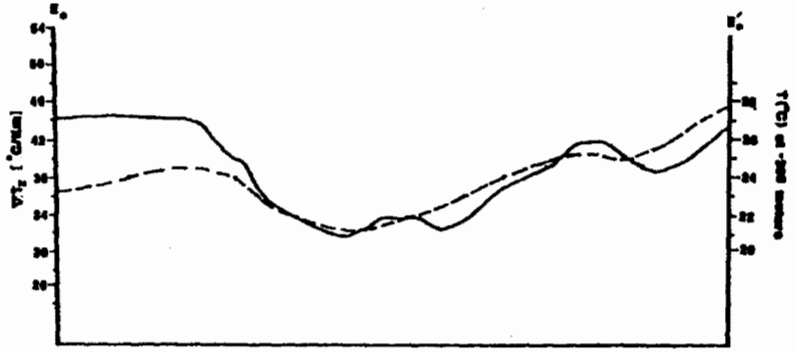

B
B'
Cenozoic
Permian
Pennsylvanian
Miss.
Upper Ord.
Cambro-Ord.
pC
vert. exag. 104X
EXPLANATION
Cenozoic
Mesozoic
Permian and/or Pennsylvanian
Lower Paleozoic
Precambrian basement complex

FIGURE 21a. Generalized geologic section along line E-E' (after Lee and Merriam, 1954, Plate 4).

21b. Profile of geothermal gradient (solid) and temperature at -300 meters (dashed) along line E_*-E_*'.


EXPLANATION
Cenozoic
Mesozoic
Permian and/or Pennsylvanian
lower Paleozoic
Precambrian basement complex
Permian
Pennsylvanian
lower Paleozoic
vert. exag. 10:1K
METERS



gradient data). It also is notable that, as these features become deeper and less pronounced (structurally), their effects on the geothermal gradient are reduced. In addition, the relatively high geothermal gradients observed in the Cherokee Basin may be the result of a general decrease in depth to the basement complex in this area.

CONCLUSIONS AND RECOMMENDATIONS

Geothermal gradients computed for data from four separate thermal loggings of control well 1DG1 show no statistically significant difference, indicating a high degree of confidence in the repeatability of the measurements. Additionally, data obtained by D.D. Blackwell (using his own logging equipment) for this well, yield a geothermal gradient not significantly different than those obtained by me. I conclude that my method of thermal logging is repeatable and that my logging equipment will yield results comparable to those from more sophisticated instruments.

It has also been found that holes that are full of fluid with casing diameters on the order of 15 centimeters or less can be logged from the top-down or the bottom-up with no significant difference in the thermal logging data obtained (Appendix II.).

Bottom hole data, taken from oil and gas well records, were found to be useful in delineating geographic trends in the geothermal gradient in eastern Kansas. Because of variations in thermal conductivity or near-surface water convection, the bottom hole data are not valid for estimating temperatures at depths of several hundred meters in the extreme northwestern part of Kansas. Also, because these oil and gas records are restricted to areas of oil and gas production or exploration, they cannot be used with any degree of confidence to create a data base for the entire state.

Geothermal gradient data for Kansas range from 25 ^{o}C/km to 55 ^{o}C/km in the upper 300 meters as determined from the thermal logging data. The following geologic factors are proposed to explain the variation observed

in the geothermal gradient data for Kansas:

1) topography of the crystalline basement surface

2) variation in rates of heat production in the crystalline basement, presumably, but not necessarily, resulting from variation in basement rock type

3) variation in thermal conductivity in the sedimentary section

4) possible convection upward and eastward from the Denver-Julesberg Basin.

The effects of factor 1 seem to be statewide but are most apparent over the Nemaha Ridge, the Central Kansas Uplift and in the Cherokee Basin in southeastern Kansas. Factors 2 and 3 also probably effect geothermal gradient data statewide. However, to isolate these effects from factor 1 smaller areas (structural provinces), for which depth to crystalline basement is relatively constant and topographic variation on the basement surface is not extreme, were examined in detail. The effects of factor 2 are most evident in the Forest City Basin, Cherokee Basin, and over the Central Kansas Uplift. Factors 3 or 4 may be responsible for the high geothermal gradients observed over the Las Animas Arch in northwestern Kansas.

This is a preliminary geothermal study of the State of Kansas. Any future studies, from an academic standpoint, should concentrate on obtaining more thermal conductivity data, especially in western Kansas, and heat production values or radiogenic information for rocks in the crystalline basement complex of the Midcontinent. Reliable heat flow determinations could then be made, and should result in greater knowledge of

the geothermal processes operative in a tectonically stable region. It would also be useful to have thermal logging data for rocks of the Dakota Group in northwestern Kansas to determine if the high gradients are due to low thermal conductivity or convective waters.

On the practical side, geothermal data collected during this study will contribute to the "GEOTHERMAL RESOURCES MAP OF KANSAS" (Stavnes and Steeples, in press). Public distribution of this map may stimulate drilling activity for heat pump or other applications in areas of indicated geothermal potential. Feedback from this drilling will, in turn, help in an assessment of the reliability of the resources map which may then promote further geothermal research in the state, if it is warranted.

Preliminary results from the COCORP (Consortium for Continental Reflection Profiling) data for Kansas indicate that there may be several kilometers of Precambrian(?) Rice Formation (Scott, 1966) in northeastern Kansas (Steeples, personal communication). Although little is known of the Rice Formation, because of its depth and thickness (suggested by the COCORP data; modeled by Yarger (1980) from gravity and aeromagnetic data) it is considered to be a potential geothermal resource (Stavnes and Steeples, in press). It is also likely that the Rice Formation is a good aquifer (moderately well sorted feldspathic to arkosic sandstone with interbedded shales; Scott, 1966) and therefore the heated water, presumably present in the formation, may be retrievable. More information on the Rice Formation is definitely needed to evaluate its geothermal potential.

PLATE 1. Geothermal gradient map of Kansas.

Source data: bottom hole data for

wells deeper than 305 meters.

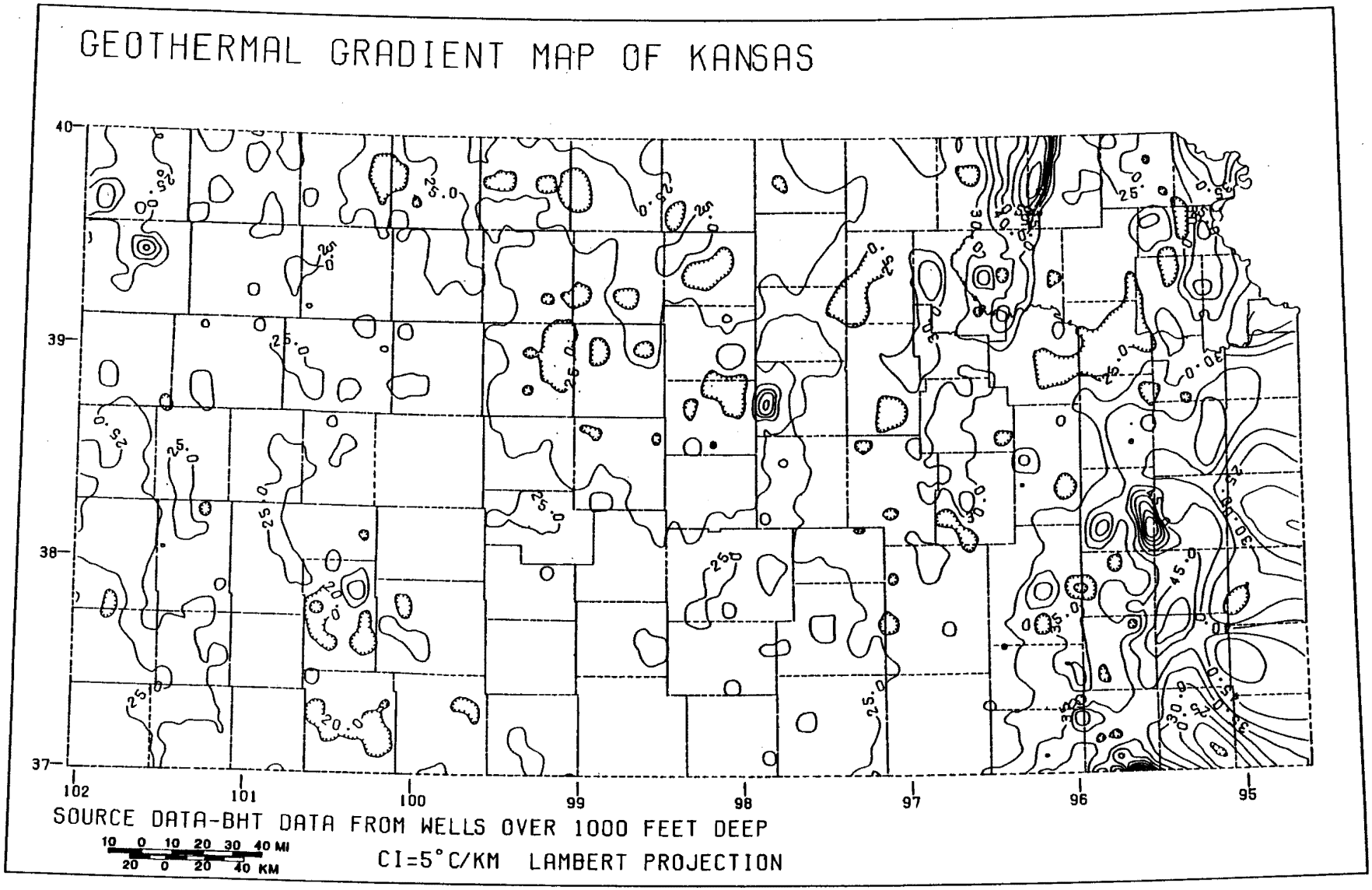
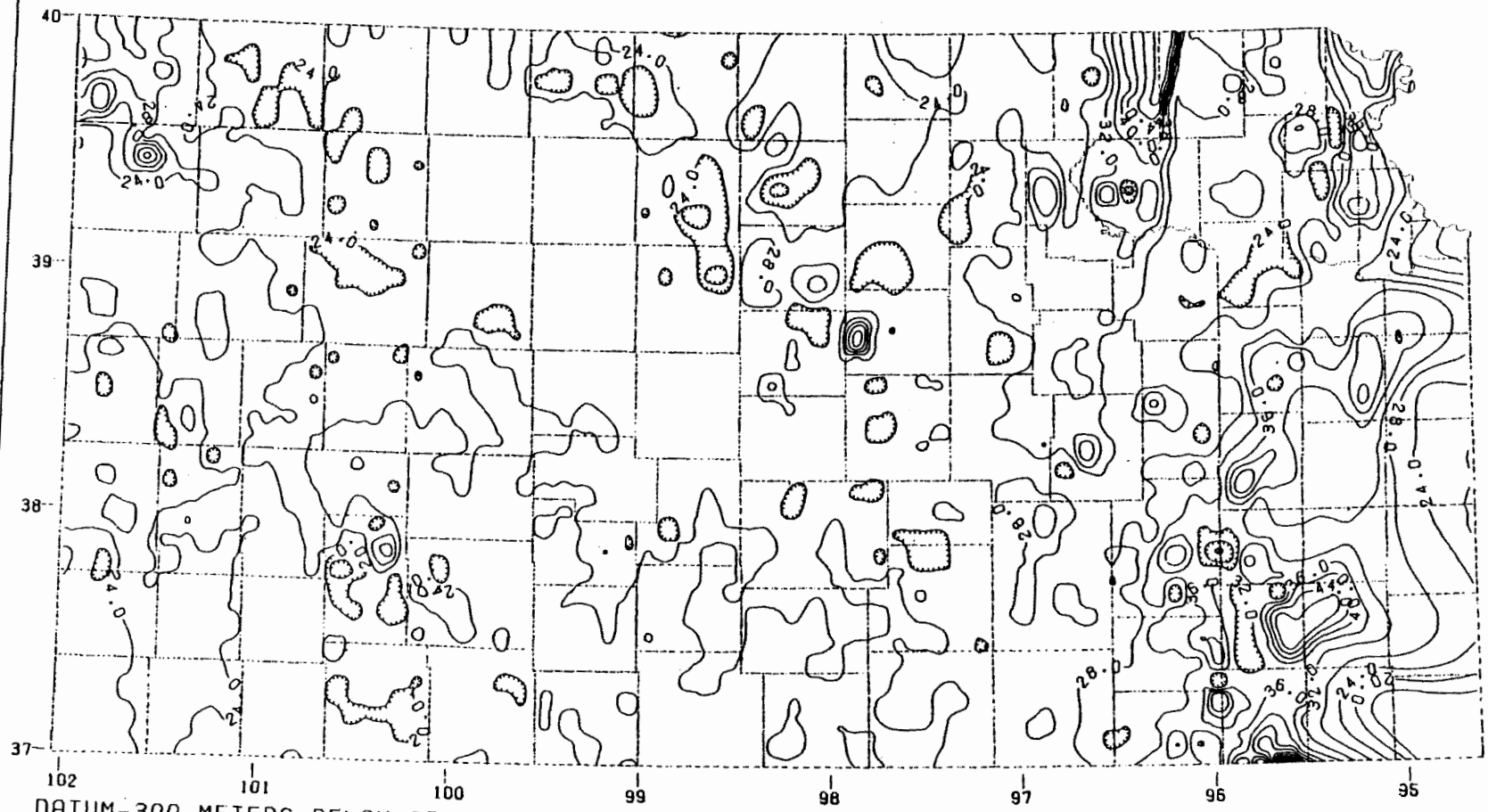

GEOTHERMAL GRADIENT MAP OF KANSAS
40
39
38
37
102
101
100
99
98
97
96
95
SOURCE DATA-BHT DATA FROM WELLS OVER 1000 FEET DEEP
10 0 10 20 30 40 MI
20 0 20 40 KM
CI=5°C/KM LAMBERT PROJECTION

PLATE 2. Subsurface temperature distribution in Kansas.

Source data: bottom hole data for wells deeper than 305 meters.

Datum: 300 meters below ground level.

SUBSURFACE TEMERATURE DISTRIBUTION IN KANSAS



DATUM-300 METERS BELOW GROUND LEVEL SOURCE DATA-BHT DATA

10 0 10 20 30 40 MI
20 0 20 40 KM

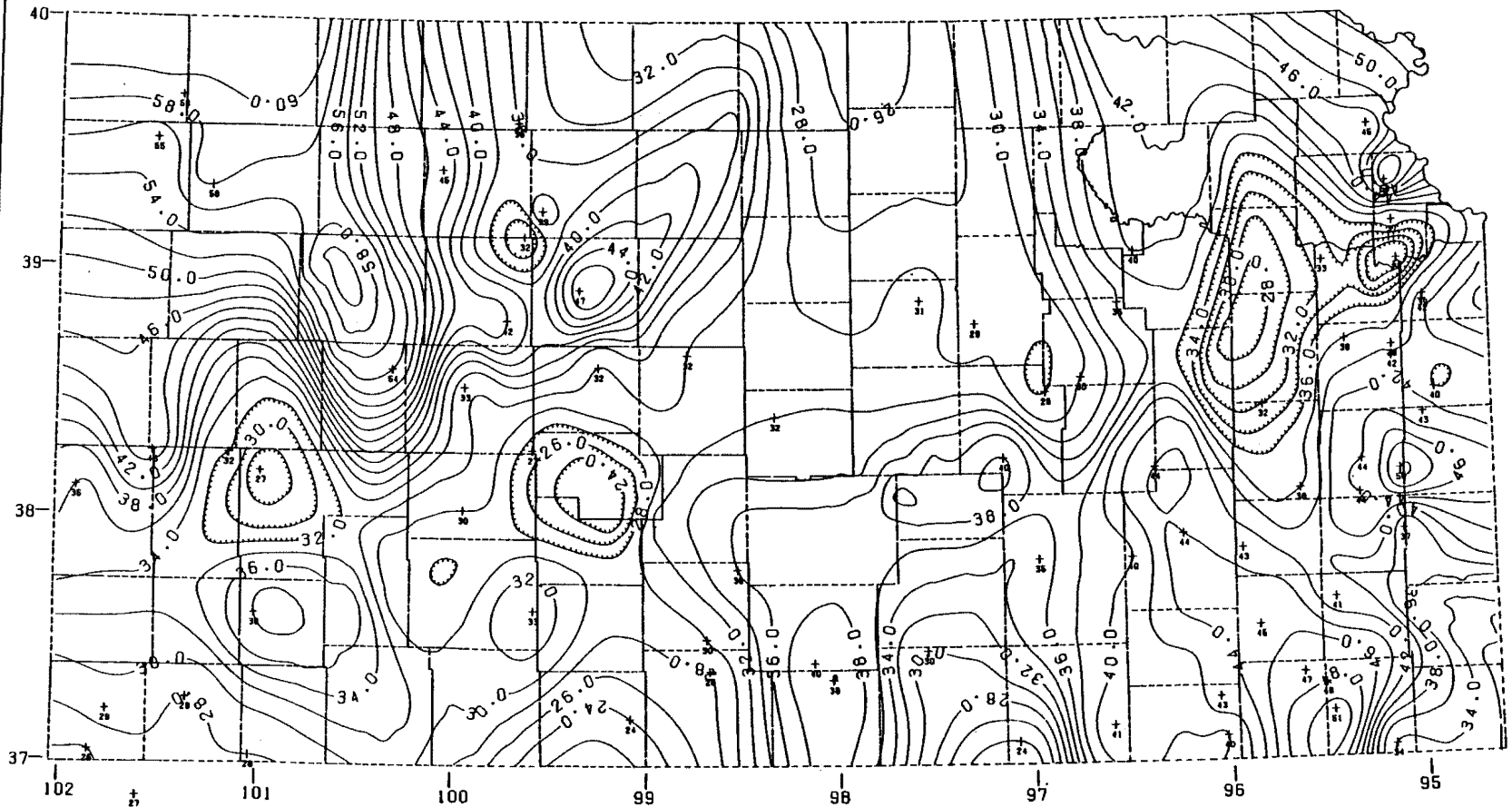
CI=4° C LAMBERT PROJECTION

PLATE 3. Geothermal gradient map of Kansas.

Source data: thermal logging data

for wells deeper than 122 meters.

GEOTHERMAL GRADIENT MAP OF KANSAS



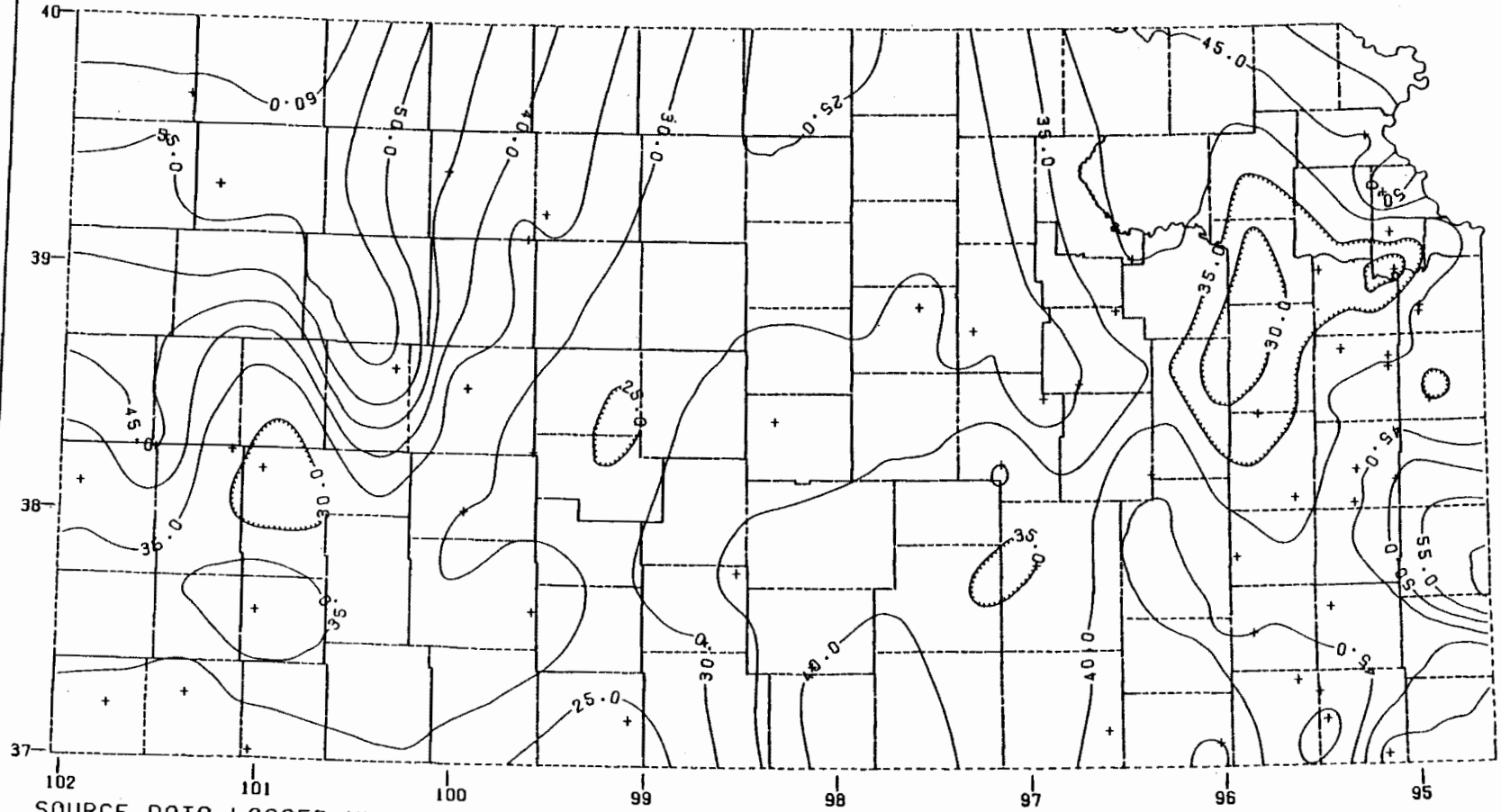
SOURCE DATA-LOGGED WELLS PENETRATING 400 FEET OF SUBSURFACE

10 0 10 20 30 40 MI
20 0 20 40 KM

CI=2° C/KM LAMBERT PROJECTION

PLATE 4. Geothermal gradient map of Kansas.
Source data: thermal logging data
for wells deeper than 183 meters.

GEOTHERMAL GRADIENT MAP OF KANSAS



SOURCE DATA-LOGGED WELLS OVER 600 FEET DEEP

10 0 10 20 30 40 MI
20 0 20 40 KM

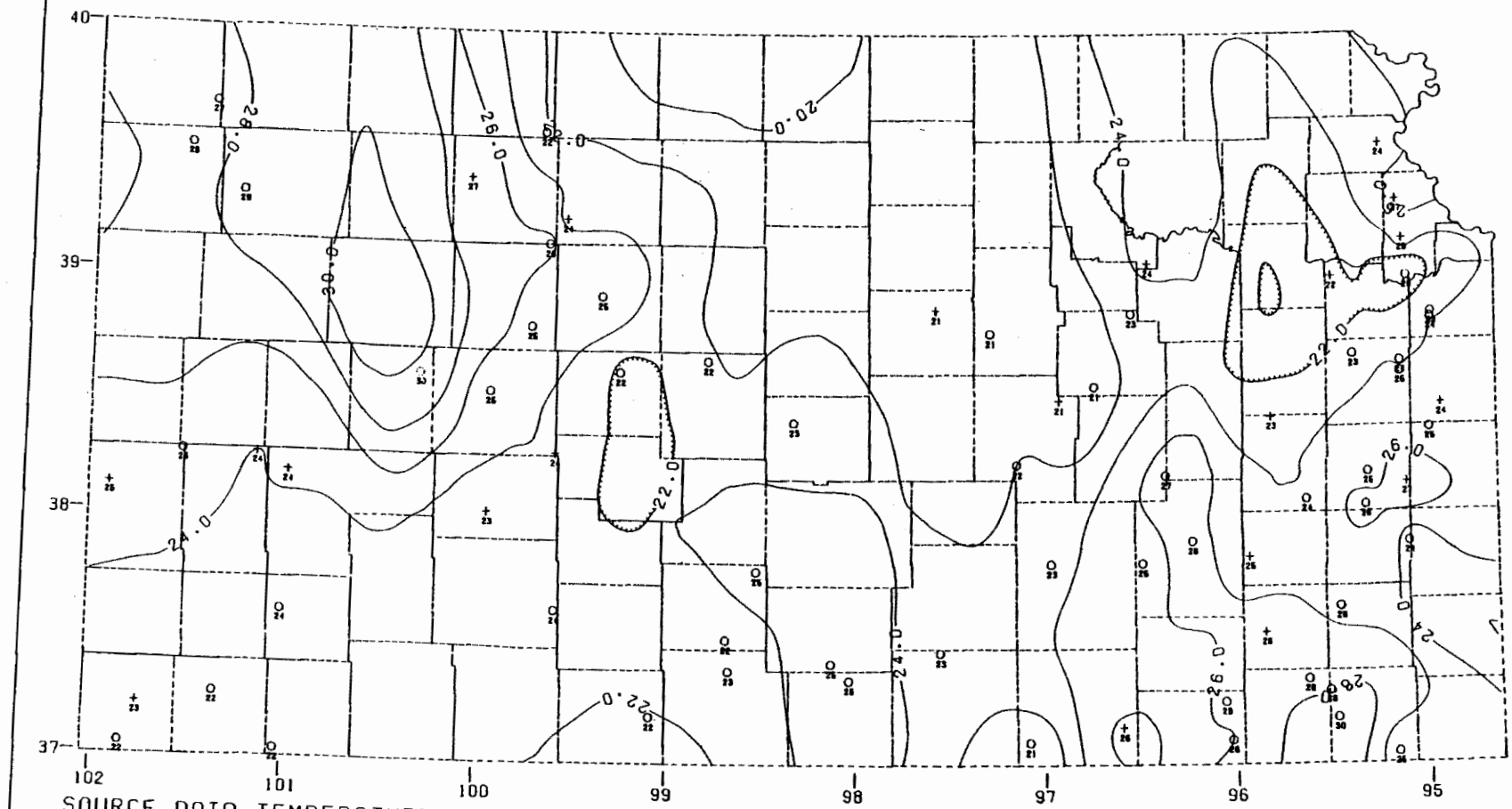
CI=5°C/KM LAMBERT PROJECTION

PLATE 5. Subsurface temperature distribution in Kansas.

Source data: thermal logging data for wells deeper than 122 meters.

Datum: 300 meters below ground level.

SUBSURFACE TEMPERATURE DISTRIBUTION IN KANSAS



SOURCE DATA-TEMPERATURE AT 300 METERS IN LOGGED WELLS

10 0 10 20 30 40 MI
20 0 20 40 KM

CI=2°C LAMBERT PROJECTION

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APPENDIX I.

TECHNICAL DATA ON THERMAL LOGGING APPARATUS

The thermal logging apparatus used in this study consists of a DR-789 digital temperature meter and well probe, or thermistor (Plate 6a and b), manufactured by GISCO (Geophysical Instrument and Supply Company - 4665 Joliet Street; Denver, Colorado 80239).

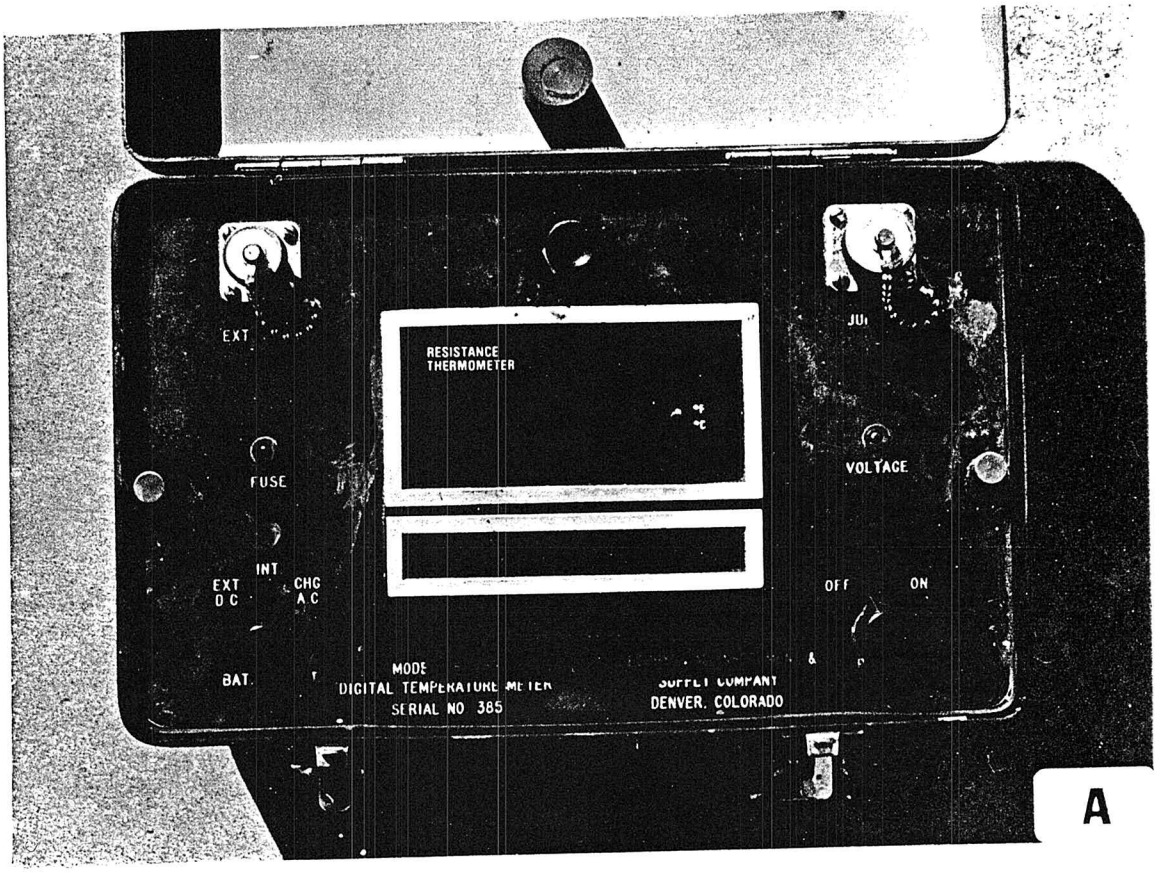
The thermistor (thermo-resistor) technique involves comparison between a temperature varying resistor (temperature dependent) and a control resistor (temperature independent). The difference, in resistance, between the temperature dependent resistor and the control, as measured in the well probe, is converted to absolute temperature by the digital temperature meter at the surface and displayed numerically in degrees Celcius or Fahrenheit to the nearest tenth. The thermistor is contained in an aluminium sheath which is a GISCO design (Plate 6b).

Company specifications maintain a total response time for the probe and meter of 10 to 15 seconds and instrument accuracy to greater than $\pm$0.2 degrees for both temperature scales. This relationship between actual temperature and time of response of the instrument is a logarithmic one. In other words, the final temperature reached varies logarithmically with total time of measurement. The temperature scales range from 0.0 to 100.0^{o}C and -22.0 to 212.0 ^{o}F.

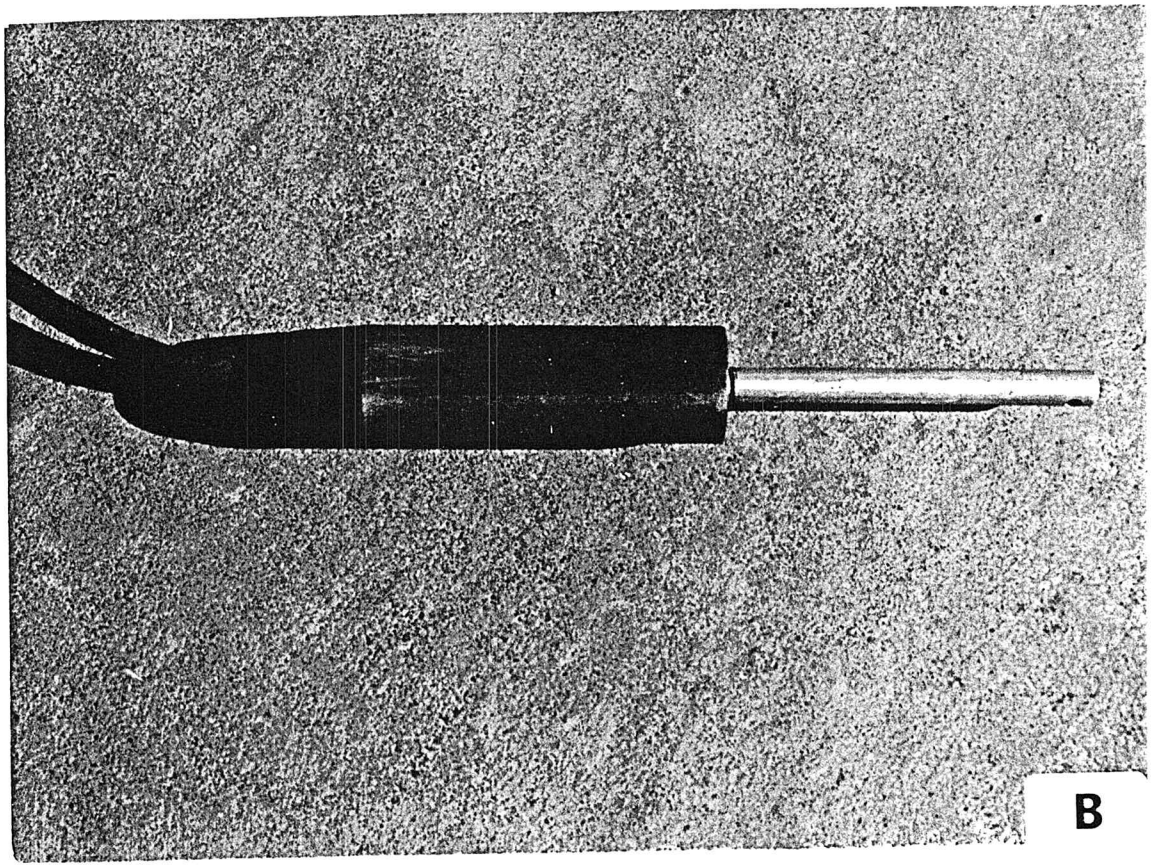
During operation, the well probe is attached to a 183 meter (600 foot; marked off in feet) reel of 1/4 inch cable. This cable is steel armored (breaking strength of 320 pounds), four conductor, elec-

PLATE 6a. The thermal logging apparatus used in this study.

6b. Thermistor or temperature probe. Probe is 17.3 cm long.


EXT
RESISTANCE
THERMOMETER
FUSE
VOLTAGE
INT
EXT
DC
CHG
AC
OFF
ON
BAT.
MODE
DIGITAL TEMPERATURE METER
SERIAL NO 385
DENVER, COLORADO

A



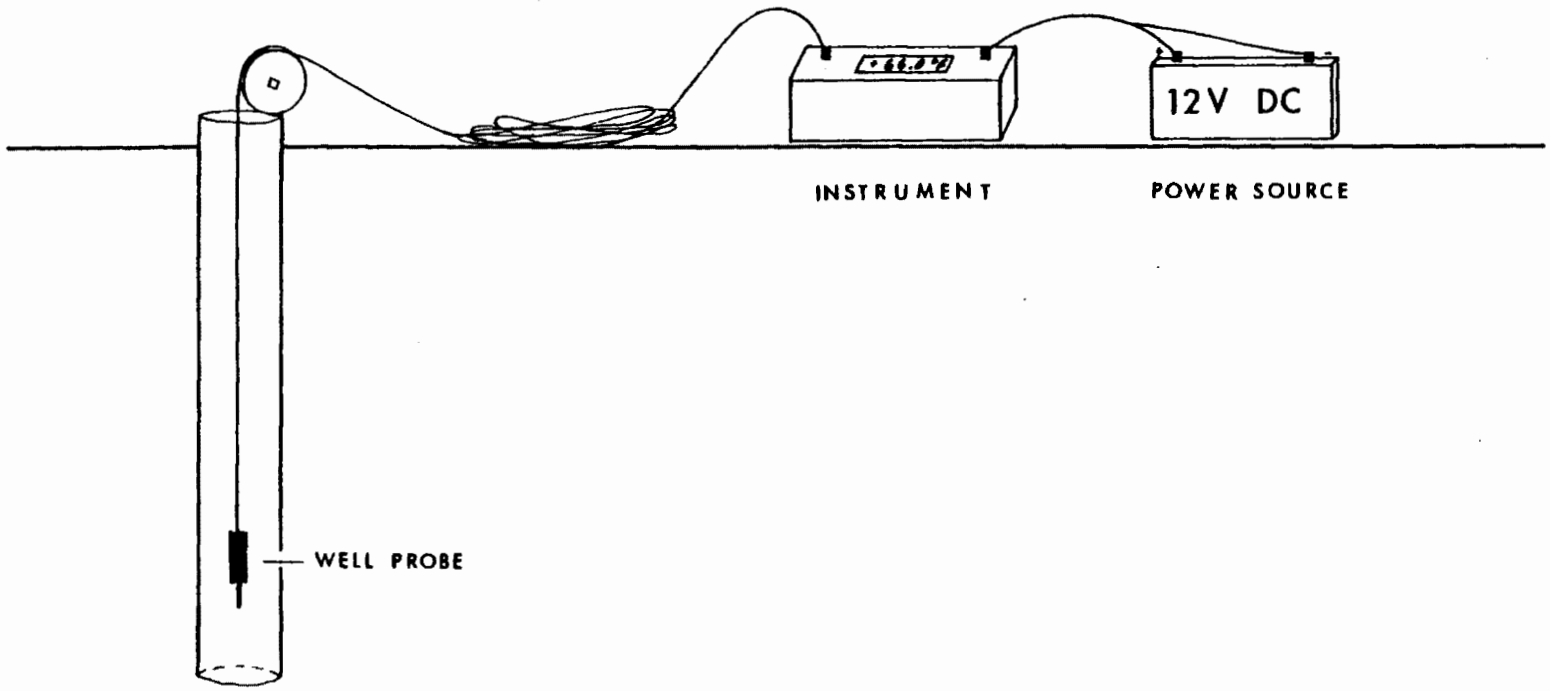
B

trical cable with a neoprene outer coating that is resistant to water and oil. A second reel of cable was provided so that wells could be logged to a total depth of 366 meters. The apparatus was designed to operate from an internal 12 volt DC source. However, because the current requirement (1400 milliamps) exceeded company specifications of 400 milliamps, it was necessary to use an external source (eg., car battery) in the field.

BASIC OPERATION

The well probe and cable were lowered by hand into a well and temperature measurements were taken at the predetermined depth intervals. A pulley system was designed to guide the probe into the exact center of the well (Figure 22). The digital meter was turned off between temperature readings (ie., as the probe was lowered to the next interval) to prevent overheating. In air-filled holes at depths less than 30 meters the meter was often in continous operation for as much as 30 minutes at each depth interval before a stabilized temperature reading could be taken (a response time of 10 to 15 seconds does not apply to air-filled holes). Due to extreme surface temperatures of the 1980 summer field season, we discovered that our instrument overheated after approximately three hours of continous use (ie., the integrated circuits used in the meter reached temperatures exceeding their range of reliable operation which was 32 to 95 ^{o}F). Because we began to have trouble with the meter overheating in air filled holes, we modified our technique, exploiting the logarithmic relationship between temperature and response time.

FIGURE 22. Schematic diagram of the basic operation of the thermal logging apparatus.


12V DC
INSTRUMENT
POWER SOURCE
WELL PROBE

We took five temperature readings at two minute intervals for each depth (usually 4.6 meters (15 feet)) and estimated the actual temperature graph ically. At depths greater than 30 meters, in air-filled holes temperature ature readings were taken directly and a stabilized reading was usually obtained in three to six minutes.

APPENDIX II.

LOGGING METHOD: TOP-DOWN VERSES BOTTOM-UP

Misener and Beck (1960, p.13) suggest that logging from the top-down is preferable to logging from the bottom-up to "avoid stirring up the fluid at the point of measurement".

In the following simplified situation (Figure 23) the disturbance caused by logging a hole from the top-down verses the bottom-up is analyzed (data in Table 1). In all cases it is assumed that:

1) the effect of the cable is negligible

2) the probe is lowered into position in the well instantaneously

3) in the mass transfer situation (Case 3; Figure 24) the volume of water displaced by the probe is transferred to the new position instantaneously

4) specific heat of bakelite and density of resin are used for the insulated portion of the probe

5) casing diameter of the well equals four inches

6) temperatures based on a geothermal gradient of 35 ^{o}C/Km

7) surface temperature of 35 ^{o}C (95 ^{o}F) (extreme condition)

8) water level is 15 meters below surface at a temperature of 13.3 ^{o}C.

In each case the effect of the probe on the water column will be examined for:

a) a volume of water equivalent to the volume displaced by the probe (greatest disturbance)

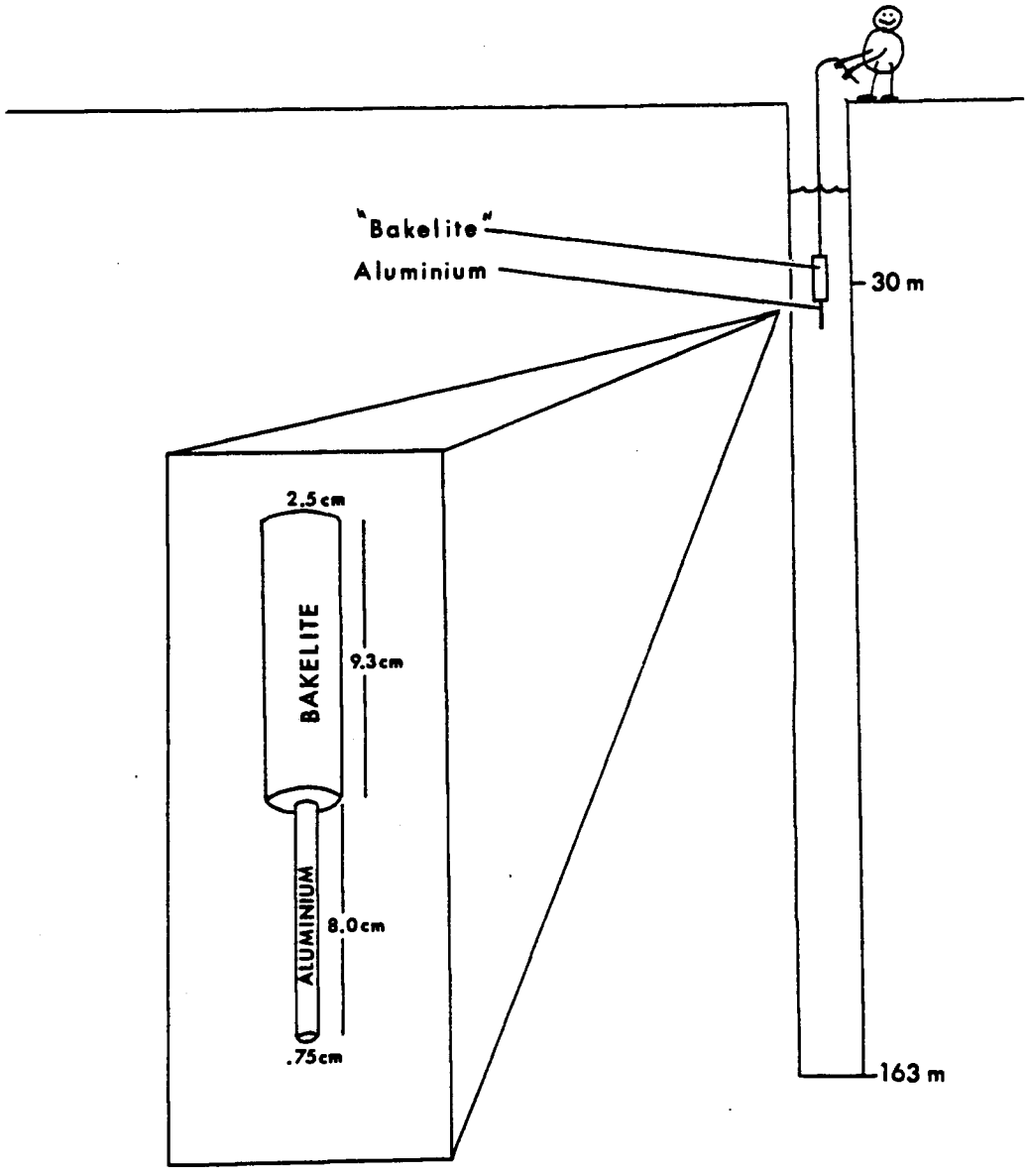
TABLE 1.

DATA FOR ANALYSIS OF THERMAL LOGGING METHOD

Specific Heat (gcal/g)	Density (g/cm^3)	Volume (cm^3)	Mass (g)
$c_{bakelite} = 0.350$	$\rho_{resin} = 1.07$	$V_{bakelite} = 45.7$	$m_{bakelite} = 48.9$
$c_{Aluminium} = 0.266$	$\rho_{Al} = 2.70$	$V_{Al} = 3.5$	$m_{Al} = 9.5$
$c_{probe} = 0.341$		$V_{probe} = 49.2$	$m_{probe} = 58.4$
$c_{water} = 1.000$	$\rho_{water} = 1.00$	$V_{water(a)} = 49.2$	$m_{water(a)} = 49.2$
		$V_{water(b)} = 1197937.6$	$m_{water(b)} = 1197937.6$
		$V_{water(c)} = 8107.3$	$m_{water(c)} = 8107.3$

Values for specific heat and density obtained from Eschbach, 1936, p.1-124, 1-128, 1-129 and 11-59.

FIGURE 23. Schematic diagram of thermal logging situation as it applies to Cases 1 and 2 in text. Insert shows dimensions and physical characteristics used in analysis of logging method.


"Bakelite"
Aluminium
30 m
2.5cm
BAKELITE
9.3cm
ALUMINIUM
8.0cm
.75cm
163 m

b) a volume of water equivalent to the entire volume of water in the well (least disturbance)

c) a volume equivalent to a one meter column of water surrounding the probe (best approximation to real situation, in my opinion).

In Cases 1 and 2 the steady state situation is analyzed using Equation 4 (Sears and Zemansky, 1967) below. Mass transfer is analyzed in Case 3 with Equations 4 and 5 (Sears and Zemansky, 1967). In the following formulation a dot is used to denote scalar multiplication:

$$m_p \cdot c_p \cdot (T_1 - T_{2p'}) = mw \cdot cw \cdot (T_{2w'} - T_2) \qquad \text{(Eqn. 4)}$$

$$m_{w2} \cdot c_{w2} \cdot (T_2 - T_{1w2'}) = m_{w1} \cdot c_{w1} \cdot (T_{1w1'} - T_1) \qquad \text{(Eqn. 5)}$$

where, m_p and c_p are the mass and specific heat of the probe

mw and cw are the mass and specific heat of the water

m_{w2} and c_{w2} are the mass of water displaced by the probe at z_2 and the specific heat of the water displaced

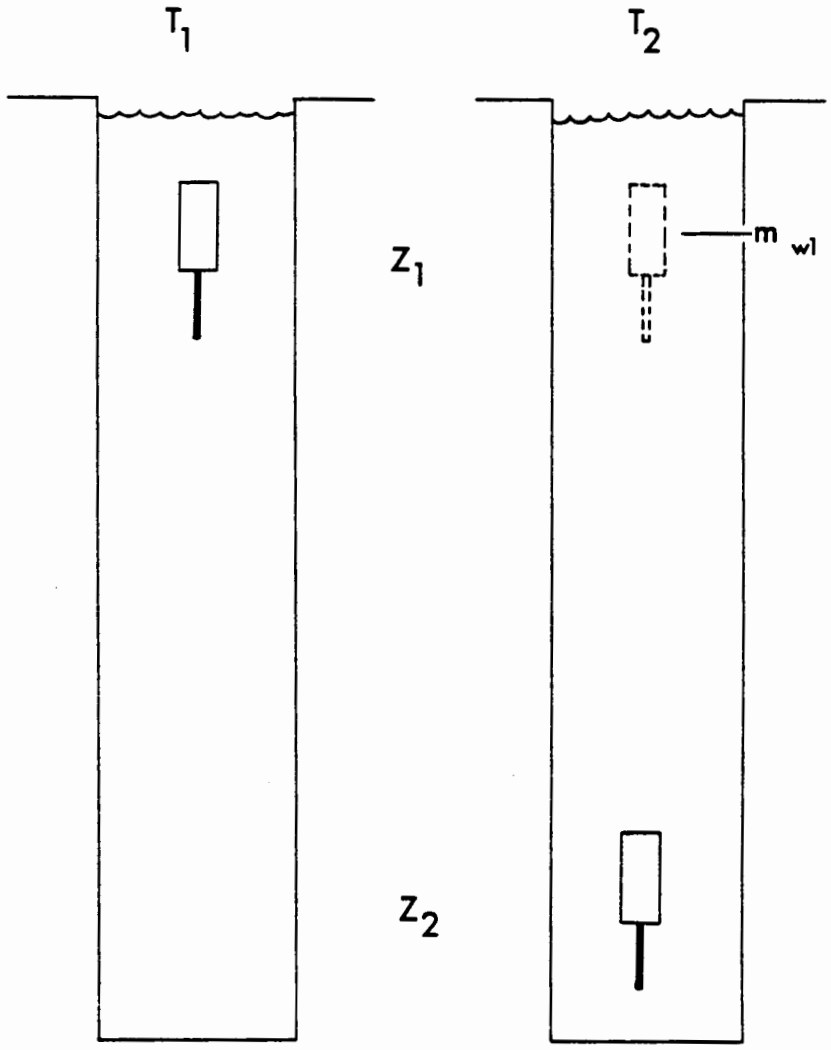
m_{w1} and c_{w1} are the mass computed from a volume specified by a, b or c, above minus the volume equivalent to the probe's volume in its initial position, and the specific heat of the water

T_1 and T_2 are the initial and final temperatures of the probe, respectively

$T_{2p'}$ and $T_{2w'}$ are the final temperatures of the probe and water specified by a, b or c, above

$T_{1w1'}$ and $T_{1w2'}$ are the final temperatures of the water at depth z_1 surrounding the volume initially occupied by the probe (as specified by a, b or c, above) and the temperature of the water occupying the initial position of the probe.

FIGURE 24. Schematic diagram of mass transfer situation (Case 3, in text), where z_1 and z_2 are the initial and final positions of the probe, respectively and m_{w1} is the volume specified by a, b or c (in text) minus the volume equivalent to the probe.


T1
T2
Z1
m
wl
Z2

Equation 4 relates the probe to the water being heated by the probe after it is lowered to some depth z_2. Equation 5 relates the mass of water displaced by the probe at z_2 to the mass of water at z_1 (Figure 24).

Case 1: TOP-DOWN - probe is lowered from surface (T_1 = 35 °C, z_1 = 0m) to depth 2 (T_2 = 13.8 °C, z_2 = 30m), instantaneously.

a. $58.4 \cdot 0.341 \cdot (35-T_{2p'}) = 49.2 \cdot 1.000 \cdot (T_{2w'}-13.8)$ (Eqn. 4)

$$1376.0 = 19.9T_{2p'} + 49.2T_{2w'}$$

let $T_{2p'} = T_{2w'} = T_{eq} = 19.9$ °C.

b. $58.4 \cdot 0.341 \cdot (35-T_{2p'}) = 1197937.6 \cdot 1.000 \cdot (T_{2w'}-13.8)$ (Eqn. 4)

$$16532235.9 = 19.9T_{2p'} + 1197937.6T_{2w'}$$

let $T_{2p'} = T_{2w'} = T_{eq} = 13.8$ °C.

c. $58.4 \cdot 0.341 \cdot (35-T_{2p'}) = 8107.3 \cdot 1.000 \cdot (T_{2w'}-13.8)$ (Eqn. 4)

$$112577.7 = 19.9T_{2p'} + 8107.3T_{2w'}$$

let $T_{2p'} = T_{2w'} = T_{eq} = 13.9$ °C.

Case 2: BOTTOM-UP - probe is lowered from surface (T_1 = 35 °C, z_1 = 0m) to bottom of hole (T_2 = 18.5 °C, z_2 = 163m), instantaneously.

a. $1607.2 = 19.9T_{2p'} + 49.2\ T_{2w'}$ (Eqn. 4)

let $T_{2p'} = T_{2w'} = T_{eq} = 23.3$ °C.

b. $22162542.6 = 19.9T_{2p'} + 1197937.6T_{2w'}$ (Eqn. 4)

let $T_{2p'} = T_{2w'} = T_{eq} = 18.5\ ^{o}C$

c. $150682.1 = 19.9T_{2p'} + 8107.3T_{2w'}$ (Eqn. 4)

let $T_{2p'} = T_{2w'} = T_{eq} = 18.5\ ^{o}C$

Case 3: Probe is lowered from depth 1 ($T_1 = 13.6\ ^{o}C$, $z_1 = 25m$) to depth 2 ($T_2 = 13.8\ ^{o}C$, $z_2 = 30m$) and mass of water displaced by probe is transferred to initial position of the probe, instantaneously (Figure 24).

a. $949.8 = 19.9T_{2p'} + 49.2T_{2w'}$ (Eqn. 4)

let $T_{2p'} = T_{2w'} = T_{eq} = 13.7\ ^{o}C$

$49.2 \cdot 1.000 \cdot (13.8-T_{1w2'}) = 49.2 \cdot 1.000 \cdot (T_{1w1'}-13.6)$ (Eqn. 5)

$1348.1 = 49.2T_{1w2'} + 49.2T_{1w1'}$

let $T_{1w1'} = T_{1w2'} = T_{eq} = 13.7\ ^{o}C$

b. $16531809.7 = 19.9T_{2p'} + 1197937.6T_{2w'}$ (Eqn. 4)

let $T_{2p'} = T_{2w'} = T_{eq} = 13.8\ ^{o}C$

$49.2 \cdot 1.000 \cdot (13.8-T_{1w2'}) = 1197888.4$ " $1.000 \cdot (T_{1w1'}-13.6)$ (Eqn. 5)

$16291961.2 = 49.2T_{1w2'} + 1197888.4T_{1w1'}$

where, $1197888.4 = 1197937.6 - 49.2$

let $T_{1w1'} = T_{1w2'} = T_{eq} = 13.6\ ^{o}C$

c. $$112151.6 = 19.9T_{2p'} + 8107.3T_{2w'} \quad \text{(Eqn. 4)}$$

let $T_{2p'} = T_{2w'} = T_{eq} = 13.8\ ^{o}C$

$$49.2 \cdot 1.000 \cdot (13.8-T_{1w2'}) = 8058.1 \cdot 1.000 \cdot (T_{1w1'}-13.6) \quad \text{(Eqn. 5)}$$

$$110269.1 = 49.2T_{1w2'} + 8058.1T_{1w1'}$$

where, $8058.1 = 8107.3 - 49.2$

let $T_{1w1'} = T_{1w2'} = T_{eq} = 13.6\ ^{o}C$

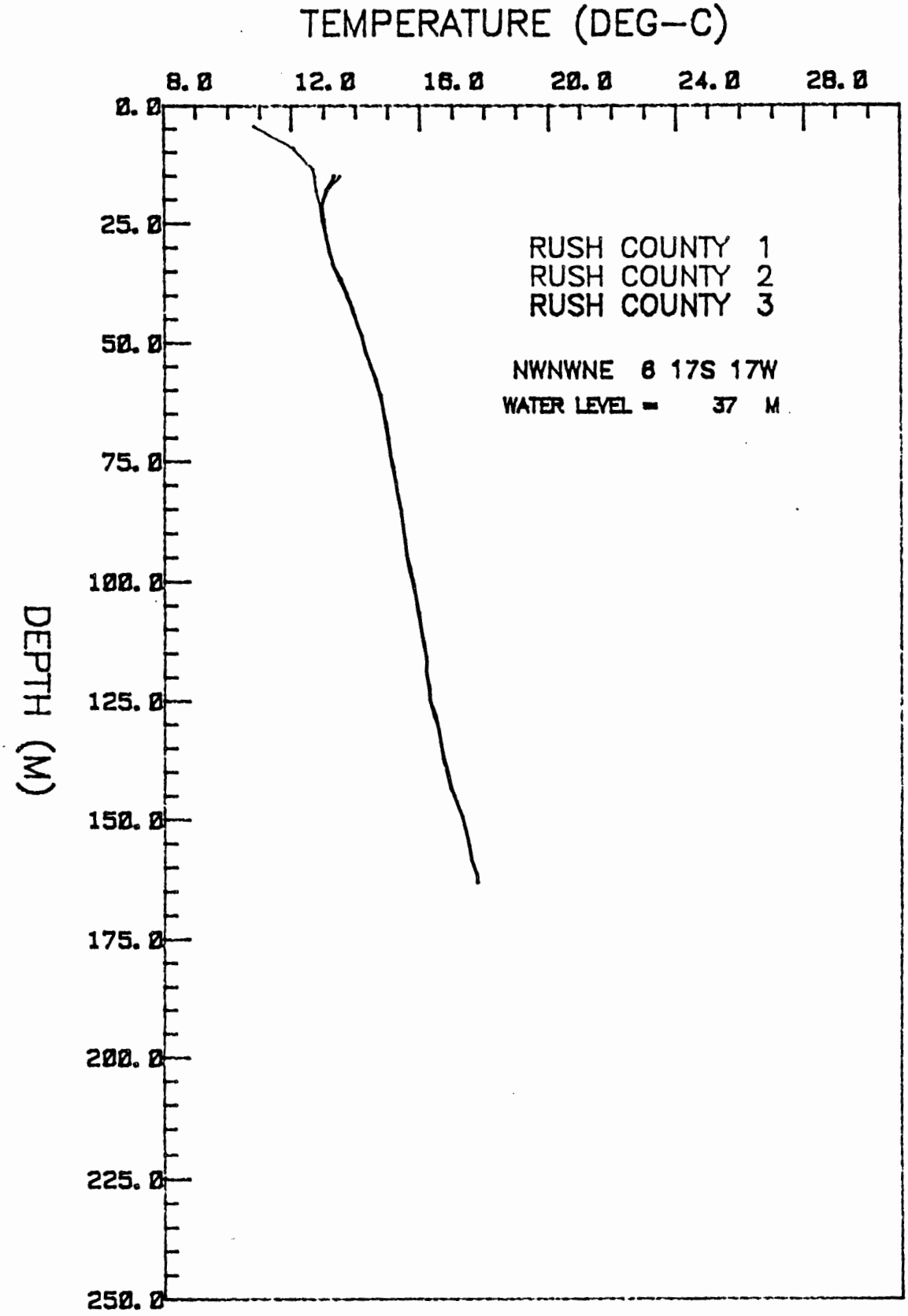
All of the holes were logged from the top down, as suggested by Misener and Beck (1960). The effect of taking measurements from the bottom-up was examined in the Rush County hole: 1RH2 - NWNWNE 6, T17S, R17E. Measurements were restricted to the water-filled interval (15 meters to 163 meters). Three logs of the well were aquired over a one and one-half hour time period The first two logs were obtained from the top of the water column to the bottom of the hole; the third log was obtained from bottom to the top of the water column (Figure 25). In each case the measurement interval was 1.5 meters. Comparison of the regression coefficients using the t-test method (Appendix IV., p.311) indicates that there is no significant difference between the geothermal gradient computed for each log.

Cases 1c, 2c and 3c, from the hypothetical analysis of the logging method, are the most acceptable in my opinion, and are compatible with the field results. Therefore, the logging method (that is: top-down verses bottom-up), in holes that are water-filled, does not significantly effect the thermal logging data obtained.

FIGURE 25. Temperature profiles of thermal logging data for hole 1RH2, obtained over 1.5 hours.

RUSH COUNTY 1 and 2 represents data obtained from logging top - down.

RUSH COUNTY 3 represents data obtained from logging bottom - up.


TEMPERATURE (DEG-C)
8.0
12.0
16.0
20.0
24.0
28.0
0.0
25.0
50.0
75.0
100.0
125.0
150.0
175.0
200.0
225.0
250.0
DEPTH (M)
RUSH COUNTY 1
RUSH COUNTY 2
RUSH COUNTY 3
NWNWNE 6 17S 17W
WATER LEVEL = 37 M

APPENDIX III.

TEMPERATURE PROFILES OF THERMAL LOGGING DATA

TABLE OF CONTENTS Page

The following references were used to construct stratigraphic columns that are presented with some of the temperature profiles:

1AL1-(Miller, 1969)
1AL2-(Miller, 1969)
1BT1-(Latta, 1950)
1BU1-(Adkinson, 1963; Zeller, 1968)
1BU2-(Adkinson, 1963; Zeller, 1968)
1CQ2-(Moore, 1937)
1CN1-(Keene et al, 1969)
1CD1-(Bayne and Walters, 1959)
1CD2-(Bayne and Walters, 1959)
1CR1-(Abernathy, 1941; Pierce, 1938)
1CR2-(Abernathy, 1941; Pierce, 1938)
1DC1-(Hodson, 1969; Keene et al, 1969)
1DC2-(Hodson, 1969; Keene et al, 1969)
1DC3-(Hodson, 1969; Keene et al, 1969)
1DC4-(Hodson, 1969; Keene et al, 1969)
1ED1-(McLaughlin, 1949)
1ED2-(McLaughlin, 1949)
1EL2-(Leonard and Berry, 1961)
1EK1-(Bayne, 1958)
1EW1-(Bayne et al, 1971)
1GO1-(Hodson and Wahl, 1960; Keene and Pabst, 1971)
1GO2-(Hodson and Wahl, 1960; Keene and Pabst, 1971)
1GH1-(Prescott, 1955)
1GH2-(Prescott, 1955)
1GH3-(Prescott, 1955)
1HV1-(Lohman, 1940)
1HV2-(Lohman, 1940)
1JW1-(Fishel, 1955)
1LB3-(Abernathy, 1941)
1LC1-(Berry, 1952)
1LG1-(Johnson,1958; Keene and Pabst, 1971)
1LG2-(Johnson,1958; Keene and Pabst, 1971)
1MP1-(Lohman, 1940; Zeller, 1968)
1MC1-(Hodson, 1959)
1NT1-(Frye and Leonard, 1949)
1NT2-(Frye and Leonard, 1949)
1NT3-(Frye and Leonard, 1949)
1NT4-(Frye and Leonard, 1949)
1OB1-(Landes, 1930; Leonard, 1952)
1OT1-(Mack, 1962)
1PN1-(McLaughlin, 1949)
1RA1-(Walters, 1956; Keene et al, 1969)
1RA2-(Walters, 1956; Keene et al, 1969)
1RA3-(Walters, 1956; Keene et al, 1969)
1RN1-(Cobb, 1980, pers. comm.)
1RN2-(Cobb, 1980, pers. comm.)
1RP1-(Wing, 1930; Zeller, 1968)
1RH1-(McNellis, 1973)
1RH3-(McNellis, 1973)
1SA1-(Lee, 1949; Zeller, 1968)
1SA2-(Lee, 1949; Zeller, 1968)
1SG1-(Lane, 1965)
1SD1-(Bayne, 1956; Keene et al, 1969)
1SD2-(Bayne, 1956; Keene et al, 1969)
1SH1-(Prescott, 1953; Keene et al, 1969)
1SH2-(Prescott, 1953; Keene et al, 1969)
1SH3-(Prescott, 1953; Keene et al, 1969)
1SM1-(Leonard, 1952)
1SF1-(Cobb, 1980, pers. comm.)
1SF2-(Cobb, 1980, pers. comm.)
1SF3-(Cobb, 1980, pers. comm.)
1SF4-(Cobb, 1980, pers. comm.)
1TH1-(Frye and Stoltenberg, 1945; Keene et al, 1969)
1TH2-(Frye and Stoltenberg, 1945; Keene et al, 1969)
1TR1-(Hodson, 1965)
1TR2-(Hodson, 1965)
1WA1-(Hodson, 1963; Keene and Pabst, 1971)
1WA2-(Hodson, 1963; Keene and Pabst, 1971)

1CL1-(Bayne, 1962)
1NO1-(Jungman, 1966)
1WL1-(Wagner, 1954; Zeller, 1968)
1BA1-(Lee, 1949)
1BB1-(Abernathy, 1941)
1CQ1-(Moore, 1937)
1EL1-(Leonard and Berry, 1961)

1GW2-(Haworth and Piatt, 1894; Zeller, 1968)
1LB1-(Abernathy, 1941)
1NT5-(Frye and Leonard, 1949)
1RH2-(McNellis, 1973)
1SU1-(Walters, 1961)
1WO2-(Bennett, 1896; Zeller, 1968)

1MG1-(O'Connor, 1974)
1RO1-(Byrne et al, 1949; Zeller, 1968)
1WO1-(Bennett, 1896; Zeller, 1968)
1BT2-(Latta, 1950)
1BU3-(Adkinson, 1963; Zeller, 1968)
1CL1-(Bayne, 1962)
1GW1-(Haworth and Piatt, 1894; Zeller, 1968)
1HP1-(Bayne, 1960)

1LB2-(Abernathy, 1941)
1RC1-(Bayne and Ward, 1974)
1RS1-(Bass, 1925; Zeller, 1968)
1TR3-(Hodson, 1965)

EXPLANATION

STRATIGRAPHIC SYMBOLS

Qu - Quaternary undifferentiated
To - Tertiary Ogallala Formation

CRETACEOUS
- Kp - Pierre Shale
- Kn - Niobrara Formation
- Kc - Carlisle Shale
- Kgh - Greenhorn Limestone
- Kg - Graneros Shale
- Kd - Dakota Formation
- Kk - Kiowa Formation
- Kcn - Cheyenne Sandstone
- lKu - lower Cretaceous undiff.

PERMIAN
- uPu - upper Permian undiff.
- Pn - Nipewalla Group
- Ps - Sumner Group
  - Pw - Wellington Formation
- Pc - Chase Group
- Pcg - Council Grove Group
- Pa - Admire Group

PENNSYLVANIAN
- IPw - Wabaunsee Group
- IPs - Shawnee Group
- IPd - Douglas Group
- IPl - Lansing Group
- IPkc - Kansas City Group
- IPp - Pleasanton Group
- IPm - Marmaton Group
- IPc - Cherokee Group

LITHOLOGIC SYMBOLS


sandstone


shale


limestone


dolomite


chalk


cross-bedded sandstone


siltstone


gravel


sandy shale


calcareous shale

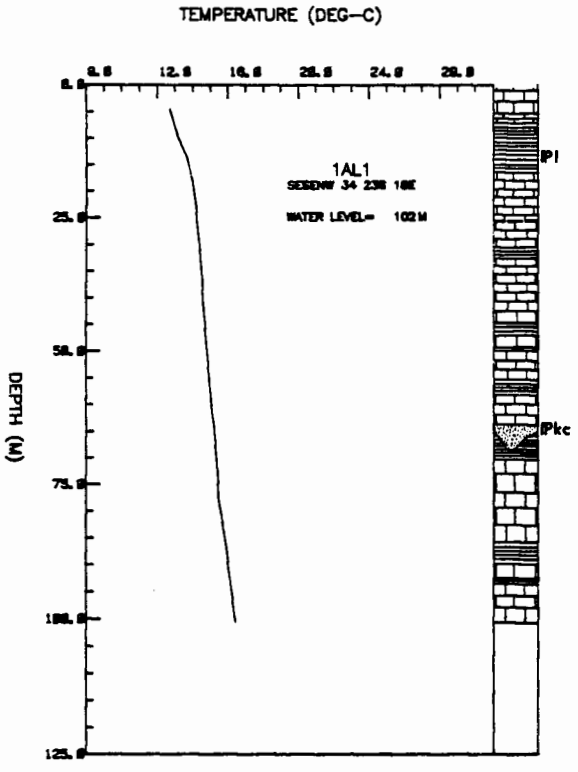

coal

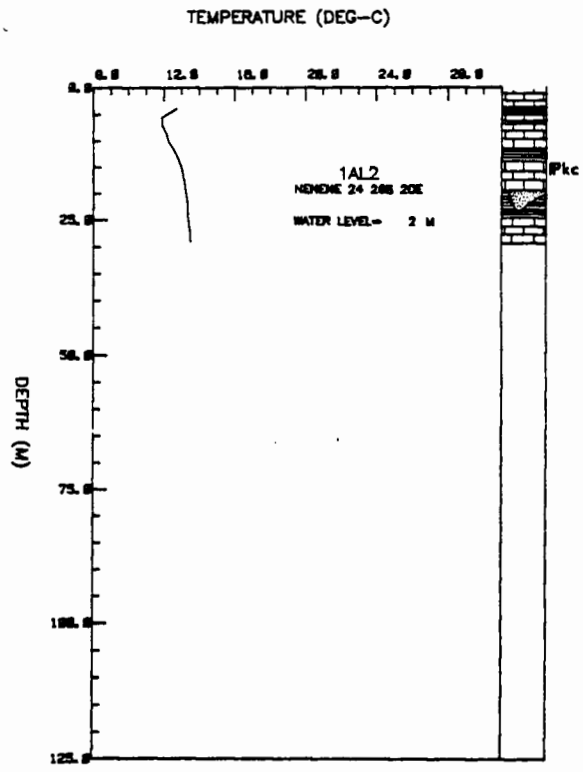

chert

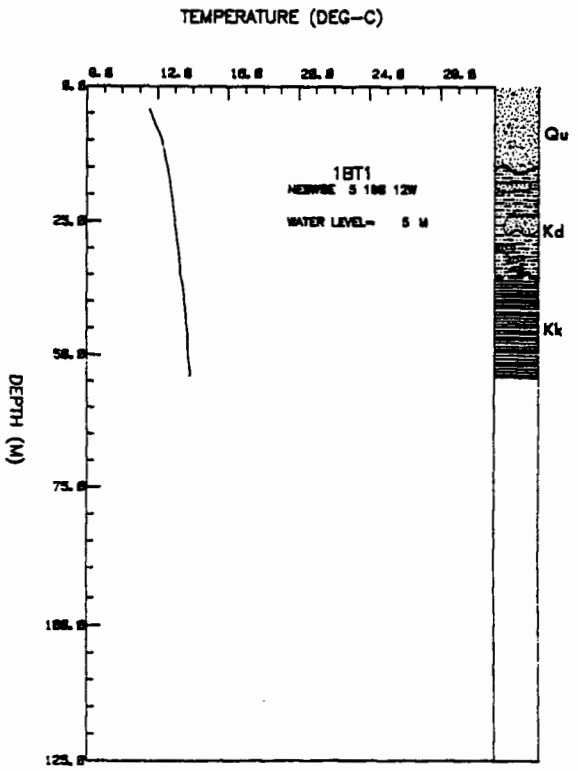

salt

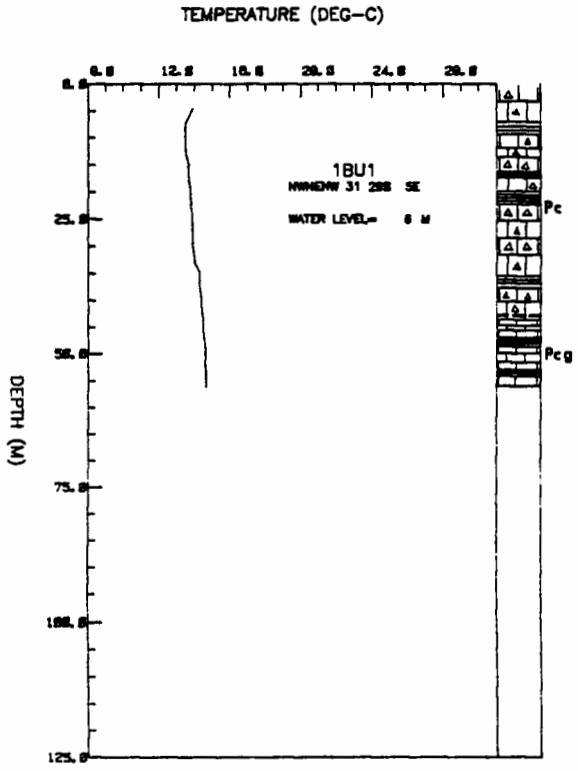

unconformity

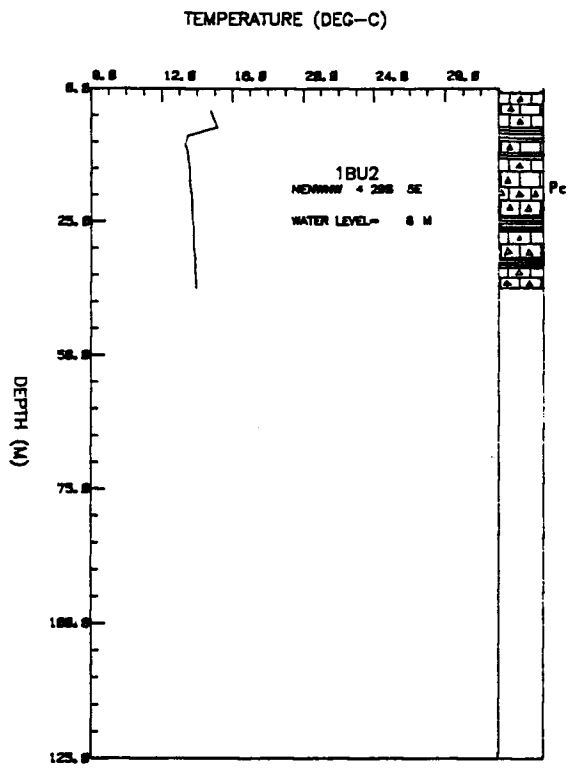
possible contact

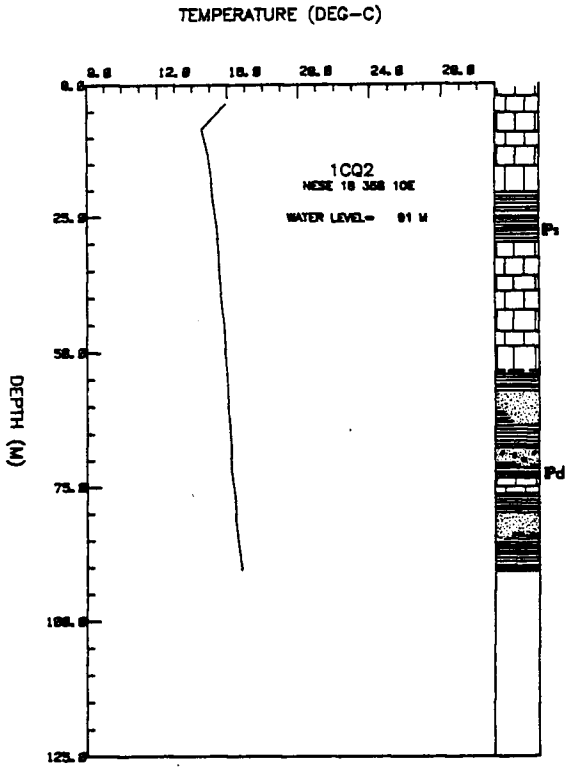

TEMPERATURE (DEG-C)
DEPTH (M)
1AL1
WATER LEVEL= 102 M
Pl
Pkc

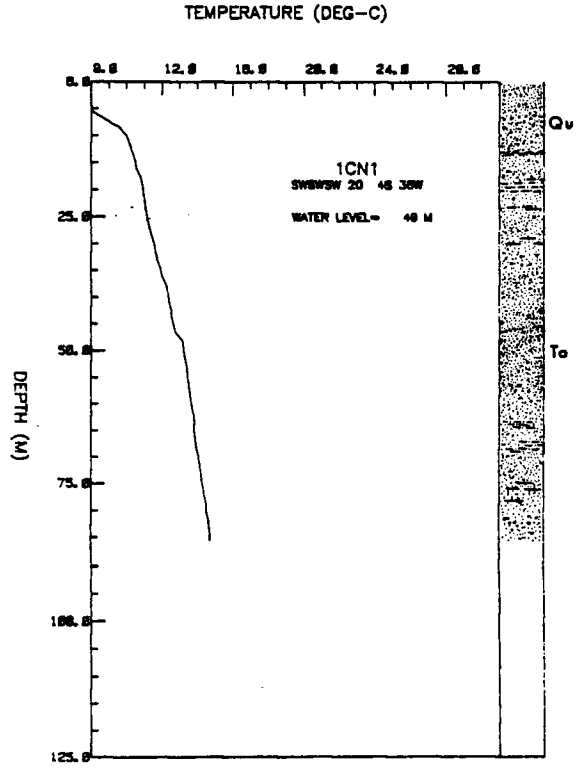

TEMPERATURE (DEG-C)
DEPTH (M)
1AL2
WATER LEVEL= 2 M
Pkc

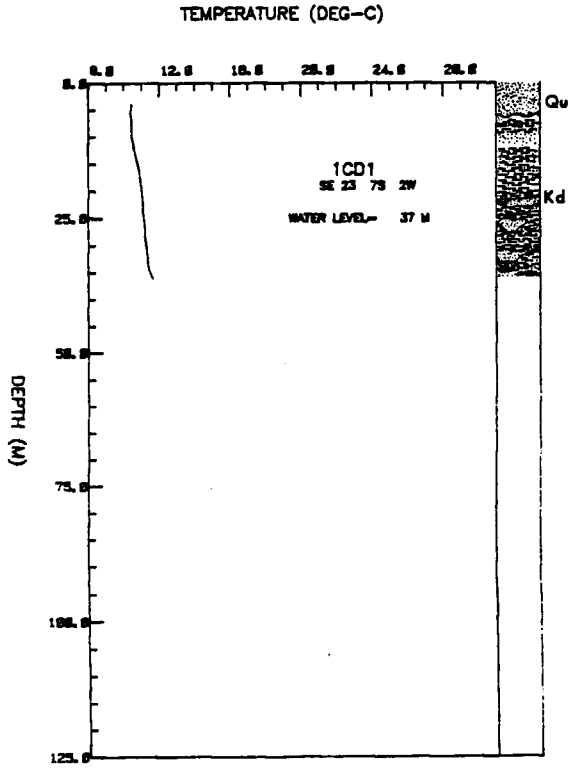

TEMPERATURE (DEG-C)
DEPTH (M)
1BT1
WATER LEVEL= 5 M
Qu
Kd
Kk

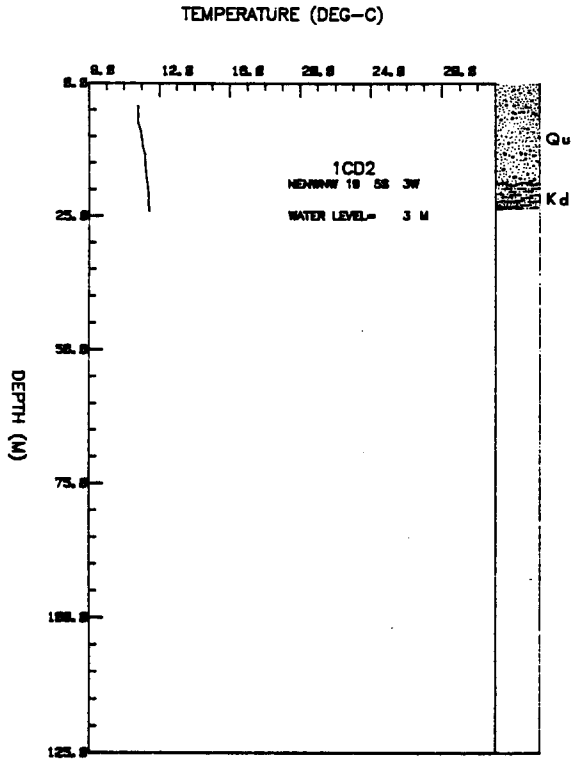

TEMPERATURE (DEG-C)
DEPTH (M)
1BU1
WATER LEVEL= 6 M
Pc
Pcg

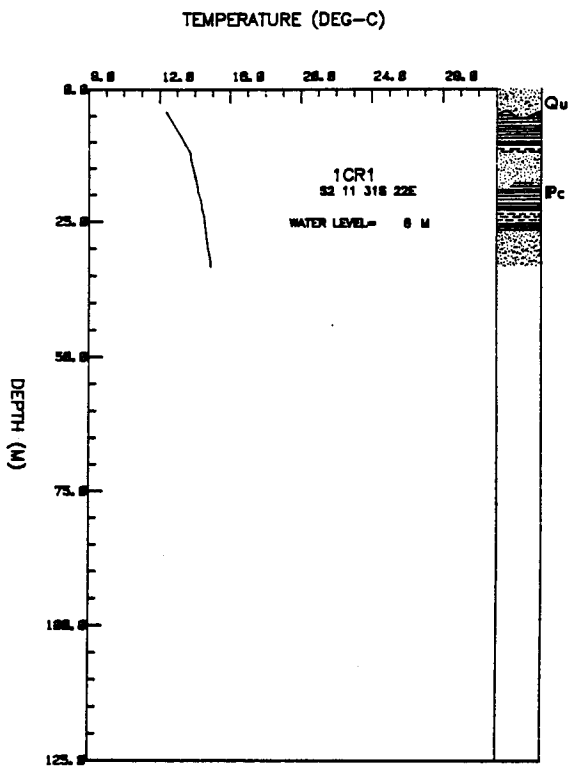

TEMPERATURE (DEG-C)
1BU2
WATER LEVEL= 8 M
Pc
DEPTH (M)

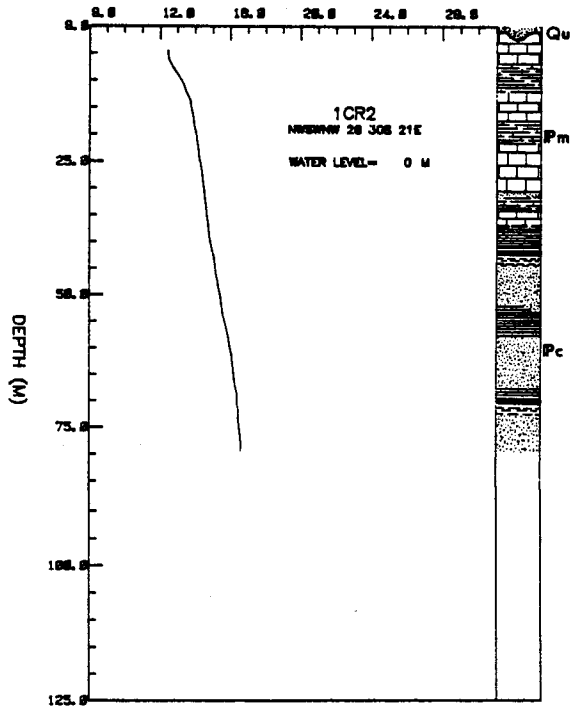

TEMPERATURE (DEG-C)
1CQ2
WATER LEVEL= 91 M
Ps
Pd
DEPTH (M)

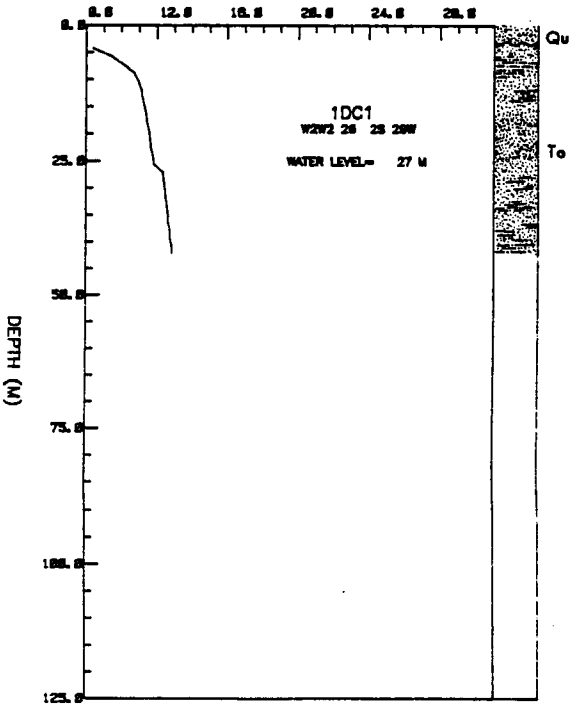

TEMPERATURE (DEG-C)
1CN1
WATER LEVEL= 40 M
Qv
To
DEPTH (M)

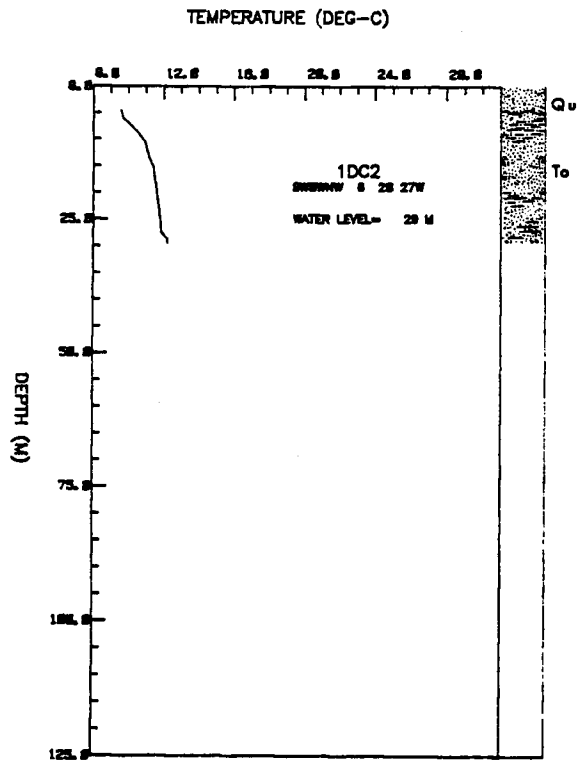

TEMPERATURE (DEG-C)
1CD1
WATER LEVEL= 37 M
Qu
Kd
DEPTH (M)

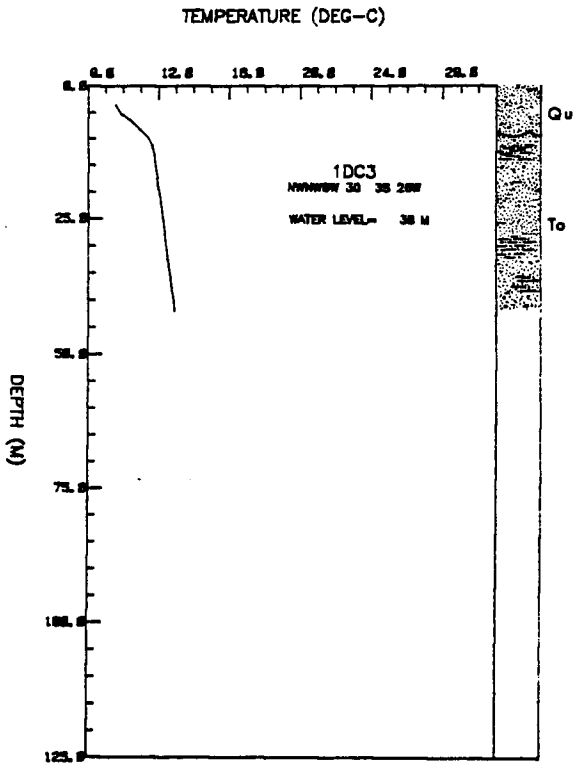

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1CD2
WATER LEVEL= 3 M
Qu
Kd
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

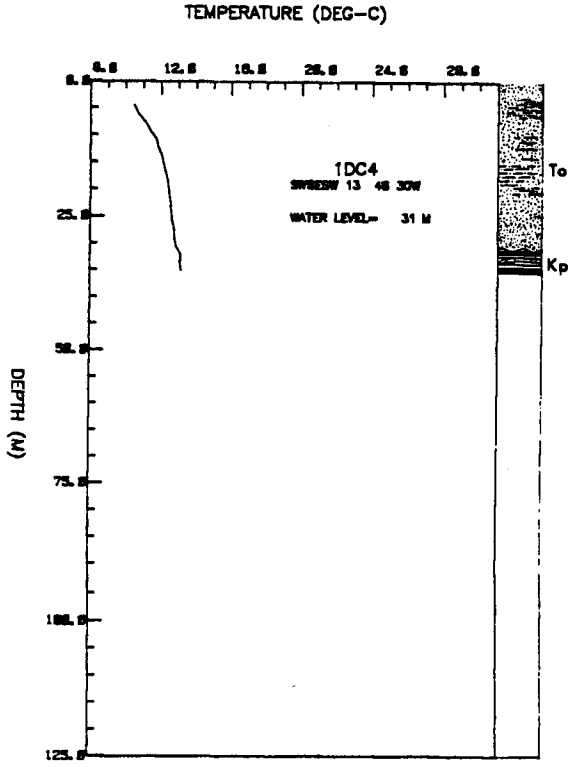

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1CR1
WATER LEVEL= 8 M
Qu
Pc
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

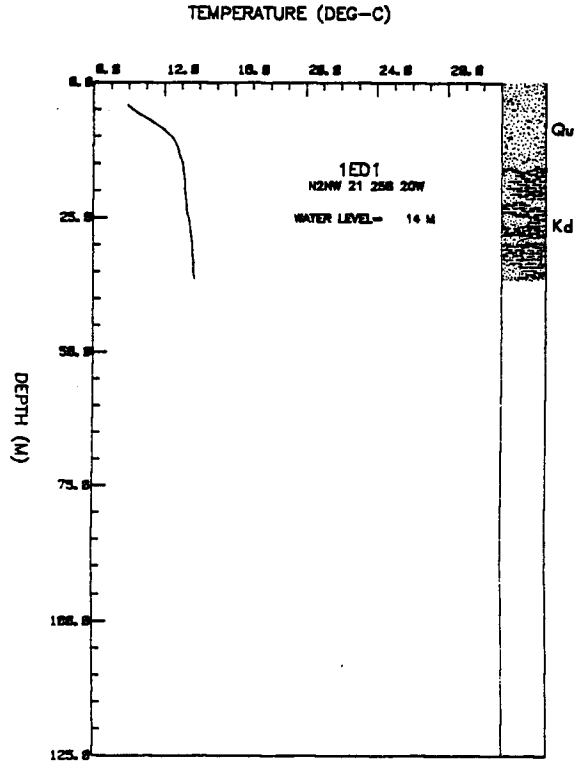

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1CR2
WATER LEVEL= 0 M
Qu
Pm
Pc
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

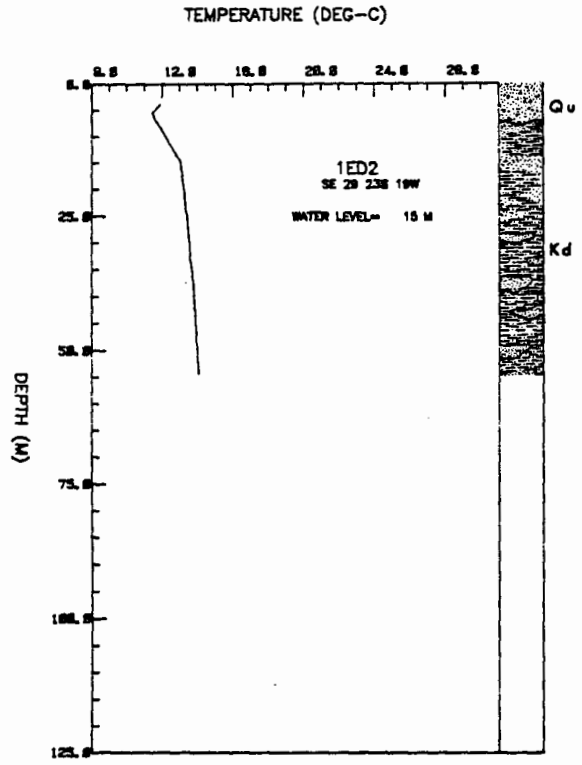

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1DC1
WATER LEVEL= 27 M
Qu
To
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

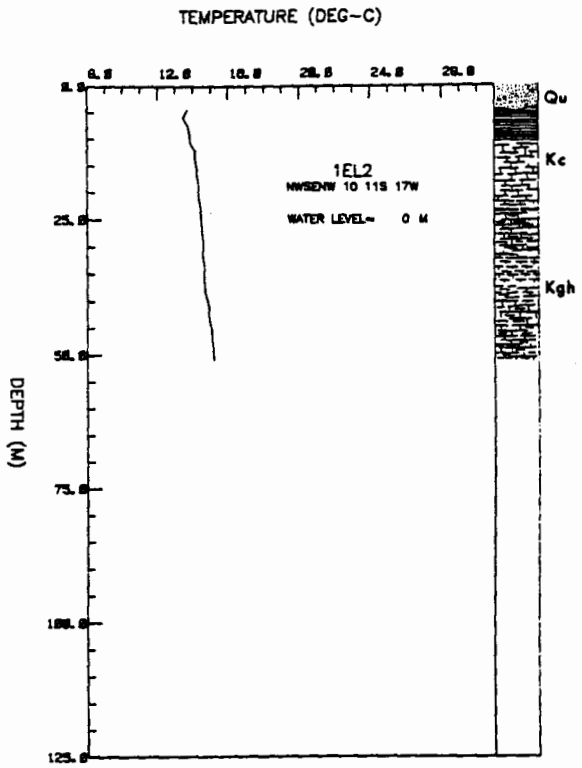

TEMPERATURE (DEG-C)
1DC2
WATER LEVEL= 29 M
Qu
To
DEPTH (M)

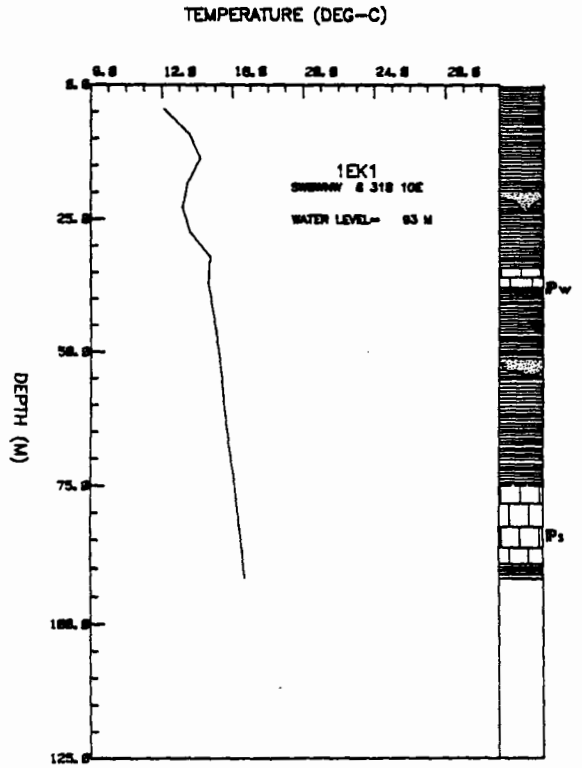

TEMPERATURE (DEG-C)
1DC3
WATER LEVEL= 38 M
Qu
To
DEPTH (M)

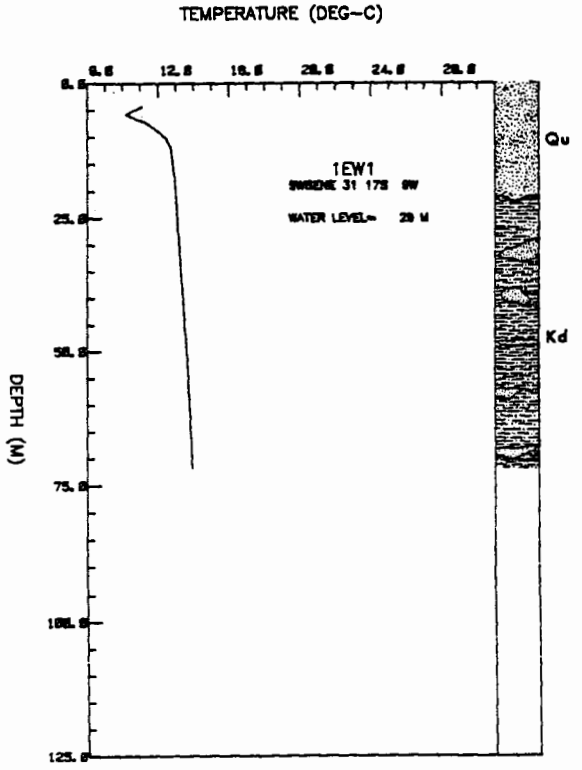

TEMPERATURE (DEG-C)
1DC4
WATER LEVEL= 31 M
To
Kp
DEPTH (M)

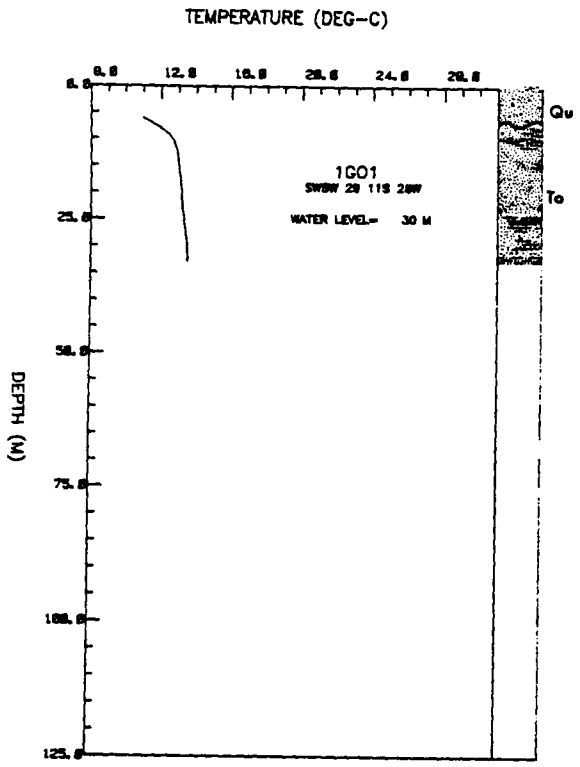

TEMPERATURE (DEG-C)
1ED1
WATER LEVEL= 14 M
Qu
Kd
DEPTH (M)

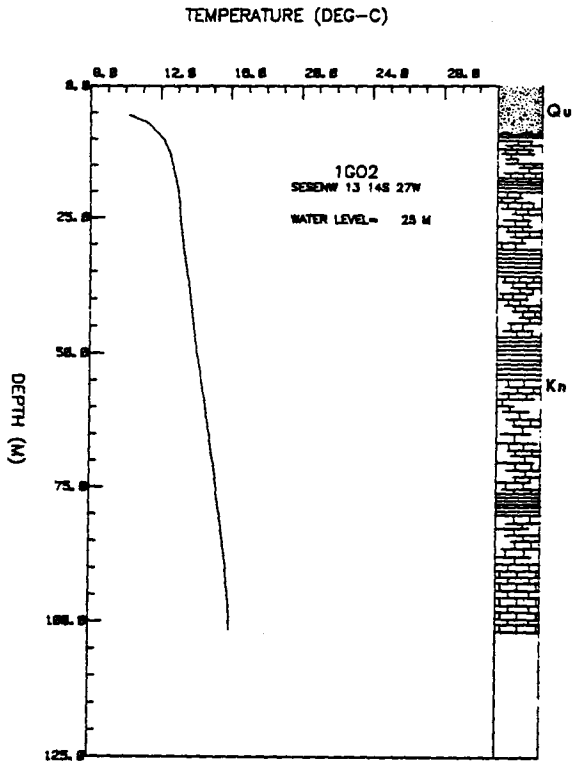

TEMPERATURE (DEG-C)
1ED2
SE 29 23S 19W
WATER LEVEL= 15 M
Qu
Kd
DEPTH (M)

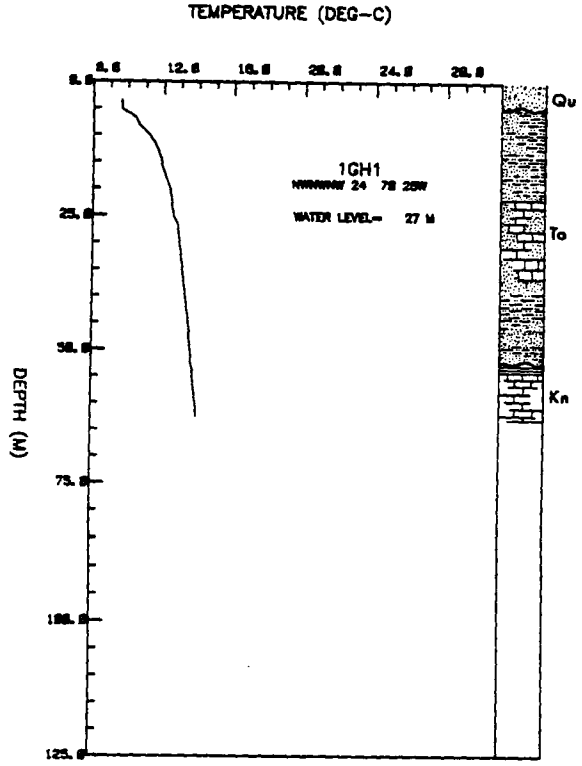

TEMPERATURE (DEG-C)
1EL2
NWSENW 10 11S 17W
WATER LEVEL= 0 M
Qu
Kc
Kgh
DEPTH (M)

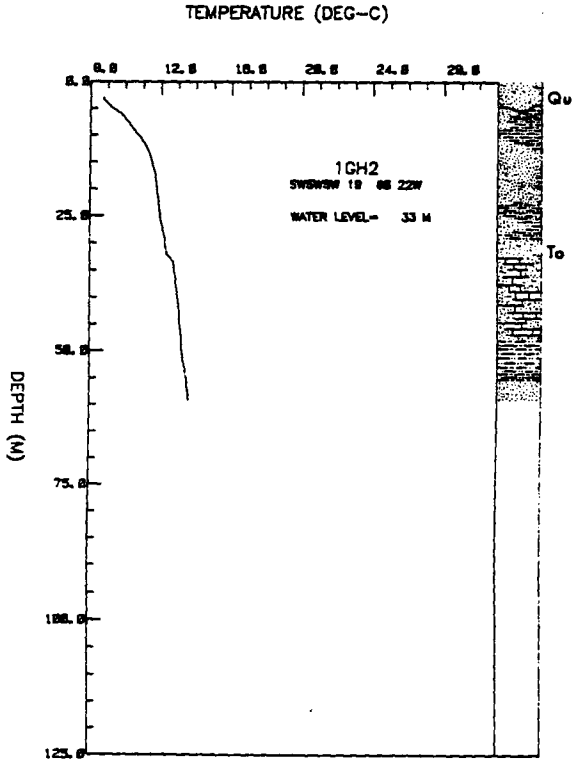

TEMPERATURE (DEG-C)
1EK1
WATER LEVEL= 83 M
Pw
Ps
DEPTH (M)

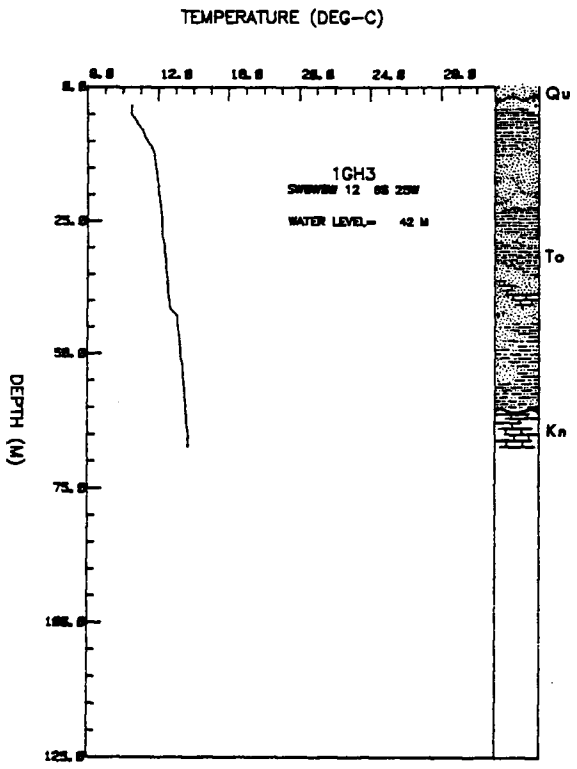

TEMPERATURE (DEG-C)
1EW1
WATER LEVEL= 29 M
Qu
Kd
DEPTH (M)

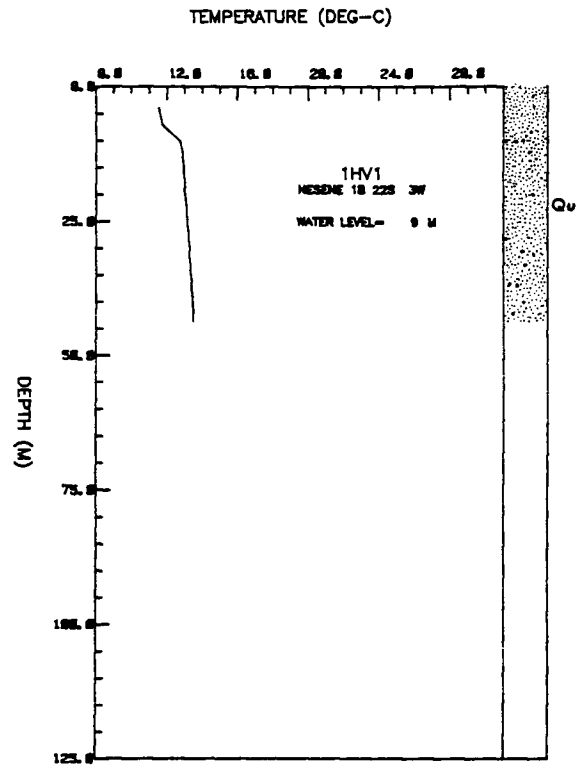

TEMPERATURE (DEG-C)
1GO1
WATER LEVEL= 30 M
Qu
To
DEPTH (M)

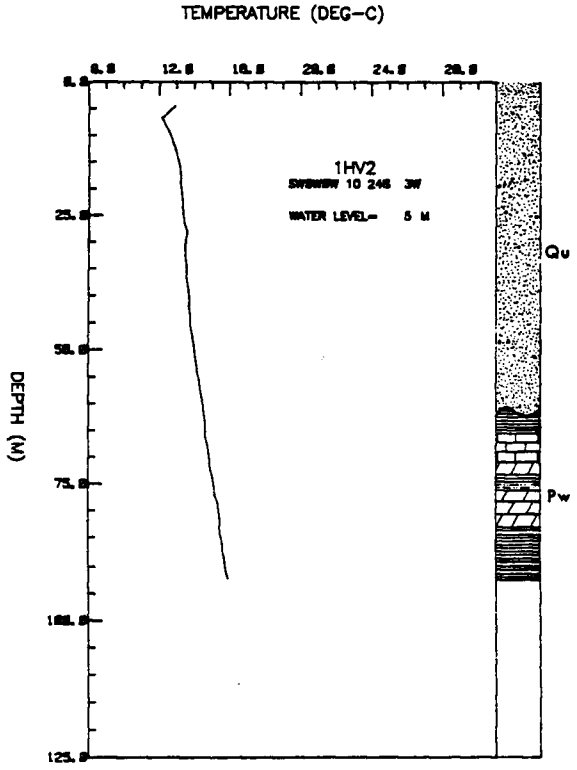

TEMPERATURE (DEG-C)
1GO2
WATER LEVEL= 25 M
Qu
Kn
DEPTH (M)

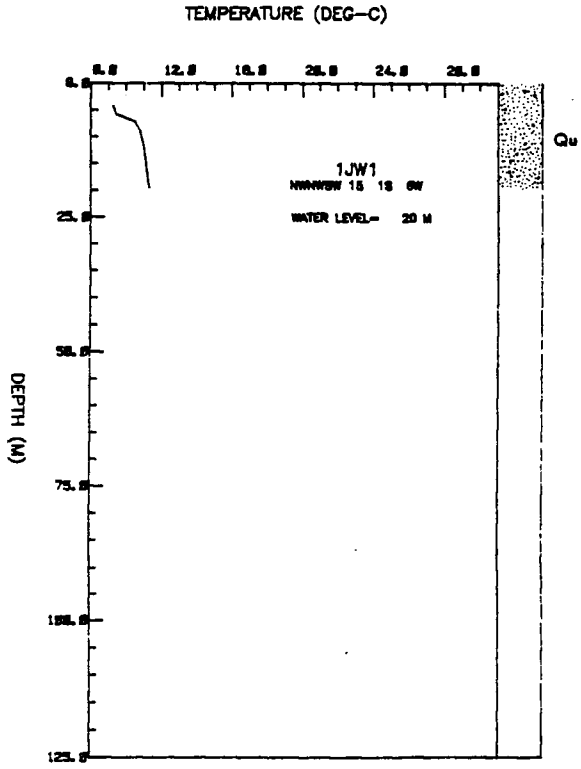

TEMPERATURE (DEG-C)
1GH1
WATER LEVEL= 27 M
Qu
To
Kn
DEPTH (M)

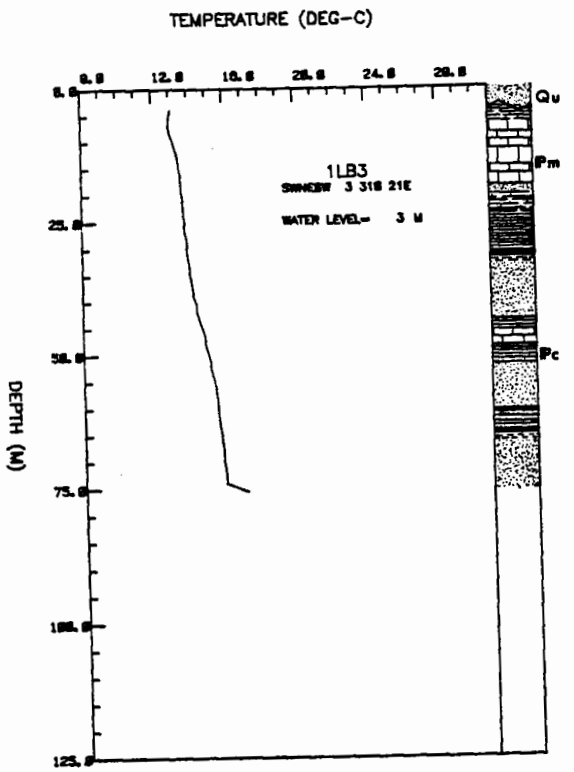

TEMPERATURE (DEG-C)
1GH2
WATER LEVEL= 33 M
Qu
To
DEPTH (M)

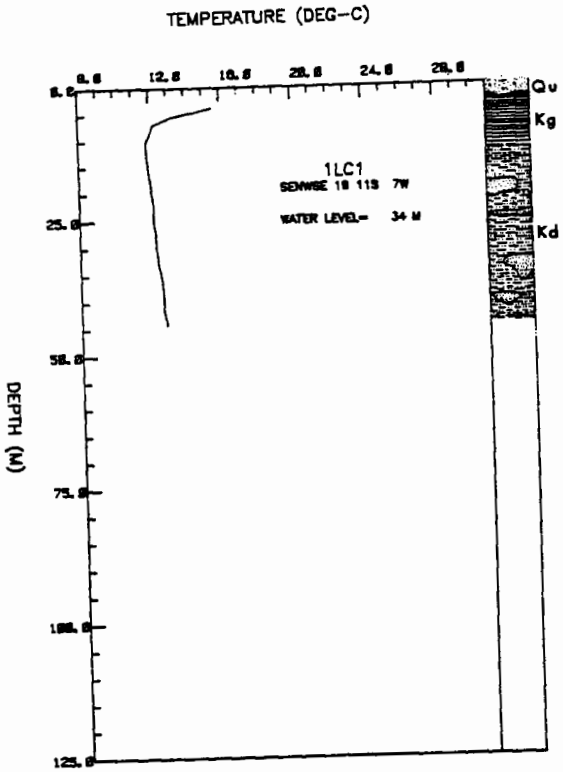

TEMPERATURE (DEG-C)
1GH3
WATER LEVEL= 42 M
DEPTH (M)
Qu
To
Kn

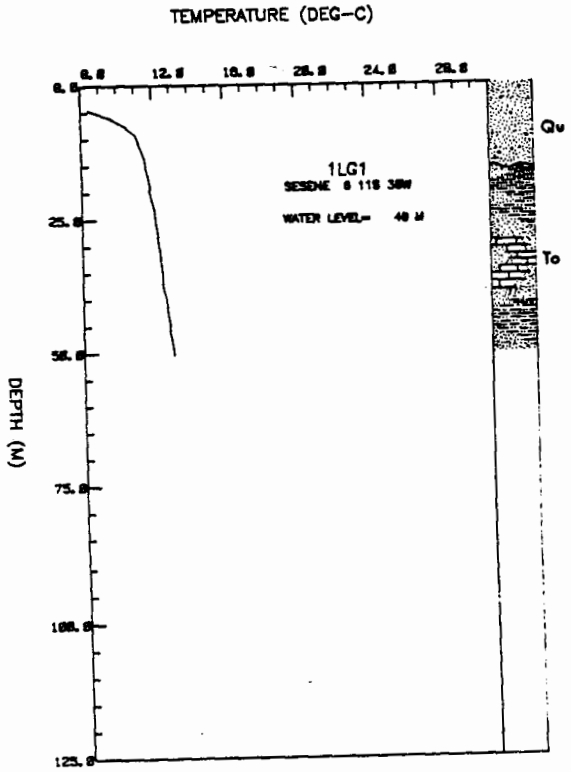

TEMPERATURE (DEG-C)
1HV1
WATER LEVEL= 9 M
DEPTH (M)
Qu

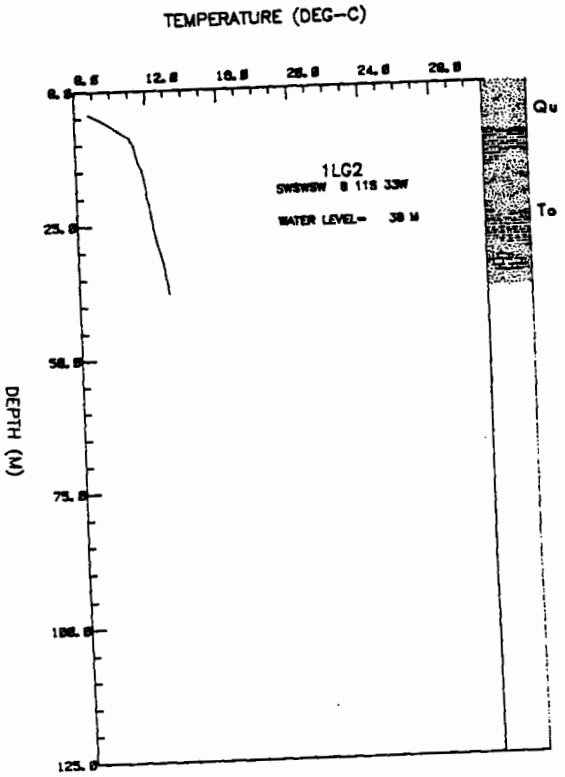

TEMPERATURE (DEG-C)
1HV2
WATER LEVEL= 5 M
DEPTH (M)
Qu
Pw

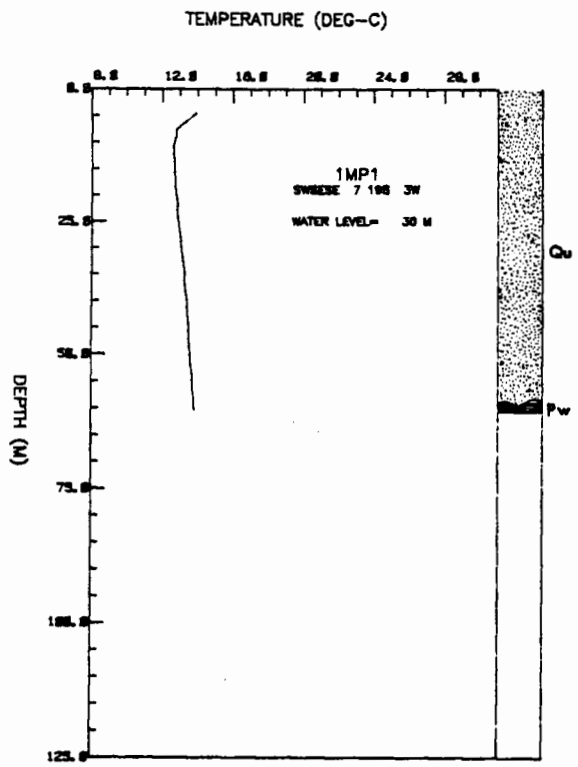

TEMPERATURE (DEG-C)
1JW1
WATER LEVEL= 20 M
DEPTH (M)
Qu

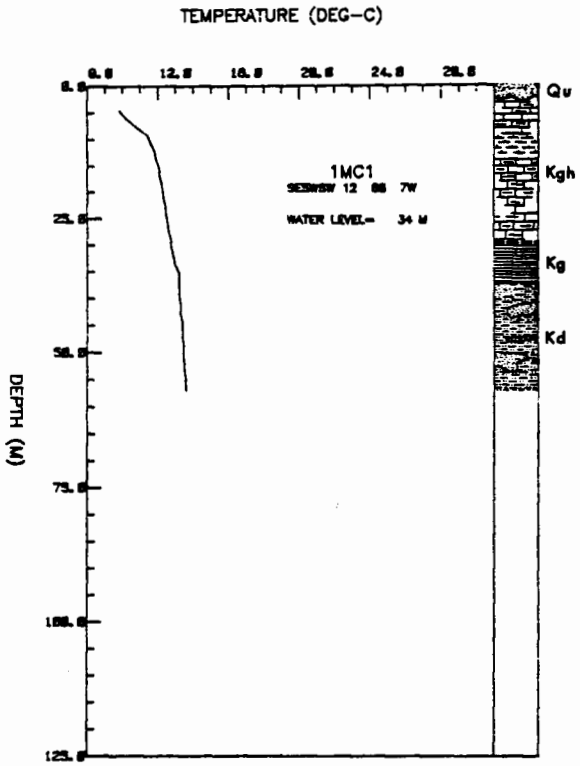

TEMPERATURE (DEG-C)
1LB3
Qu
Pm
Pc
DEPTH (M)

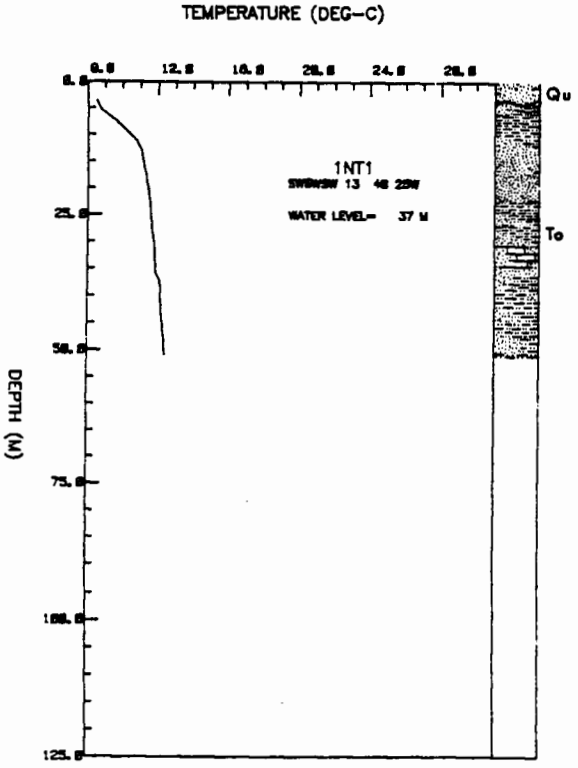

TEMPERATURE (DEG-C)
1LC1
Qu
Kg
Kd
DEPTH (M)

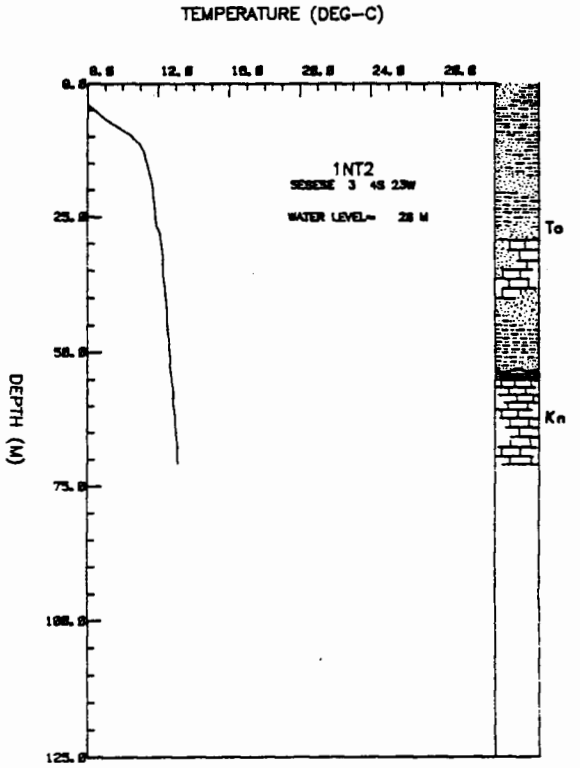

TEMPERATURE (DEG-C)
1LG1
Qu
To
DEPTH (M)

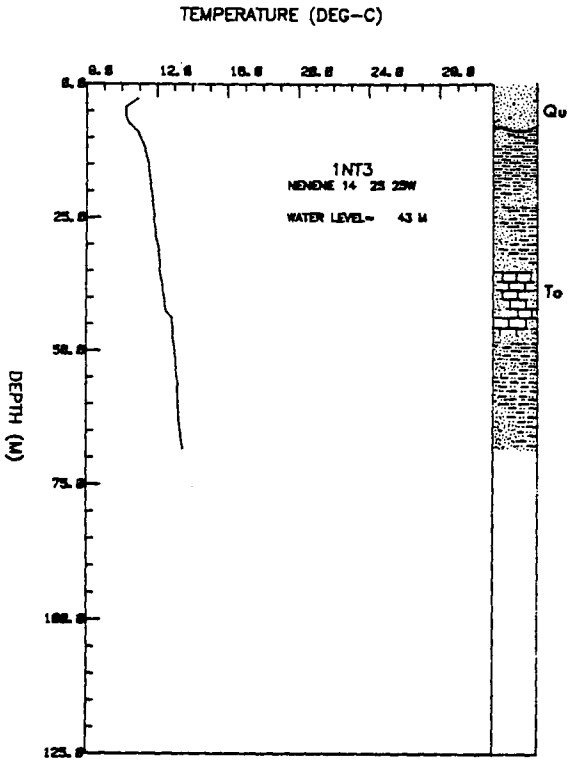

TEMPERATURE (DEG-C)
1LG2
Qu
To
DEPTH (M)

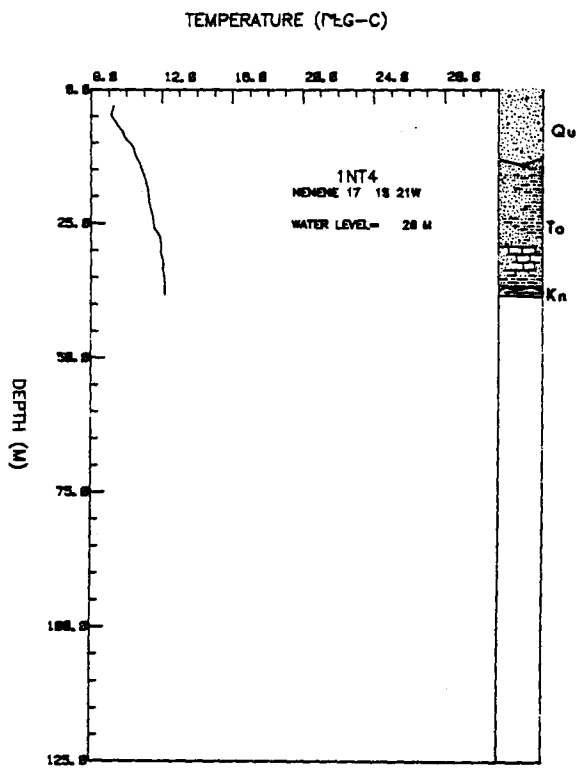

TEMPERATURE (DEG-C)
1MP1
WATER LEVEL= 30 M
DEPTH (M)
Qu
Pw

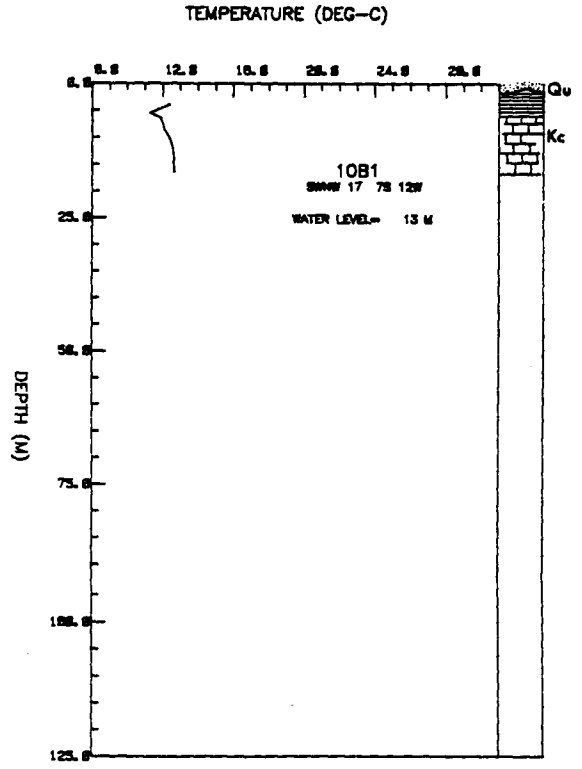

TEMPERATURE (DEG-C)
1MC1
WATER LEVEL= 34 M
DEPTH (M)
Qu
Kgh
Kg
Kd

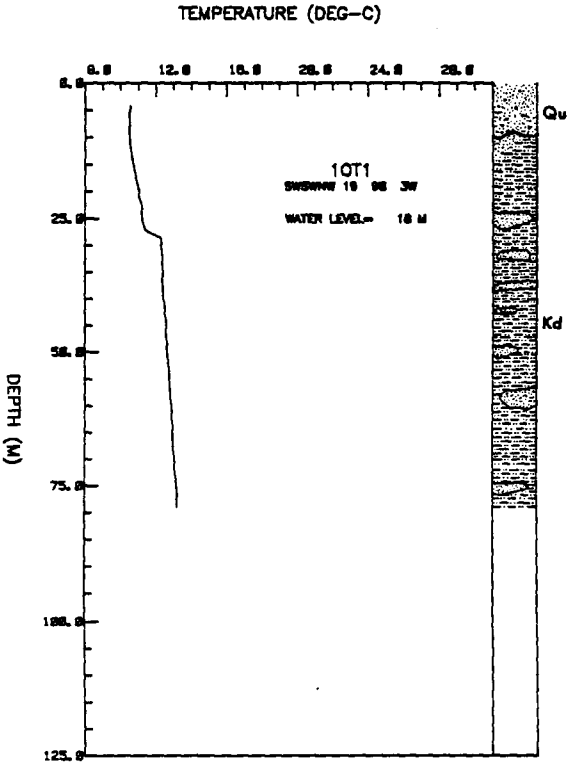

TEMPERATURE (DEG-C)
1NT1
WATER LEVEL= 37 M
DEPTH (M)
Qu
To

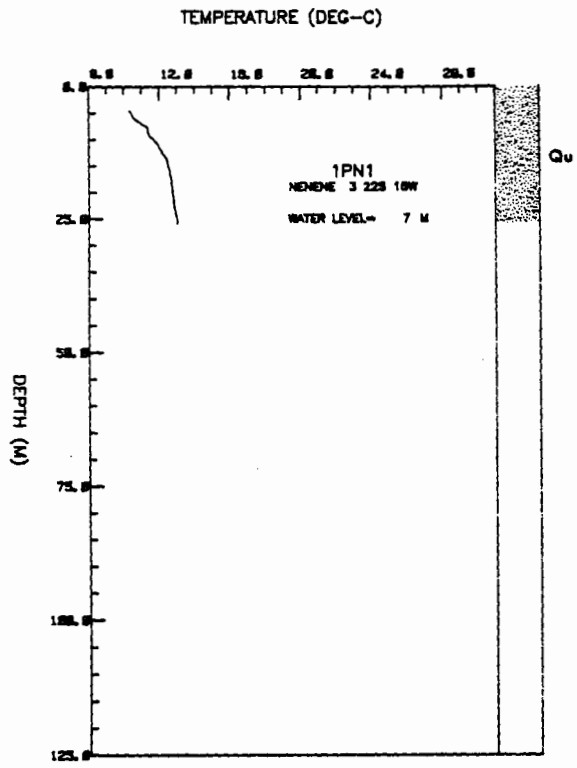

TEMPERATURE (DEG-C)
1NT2
WATER LEVEL= 28 M
DEPTH (M)
To
Kn

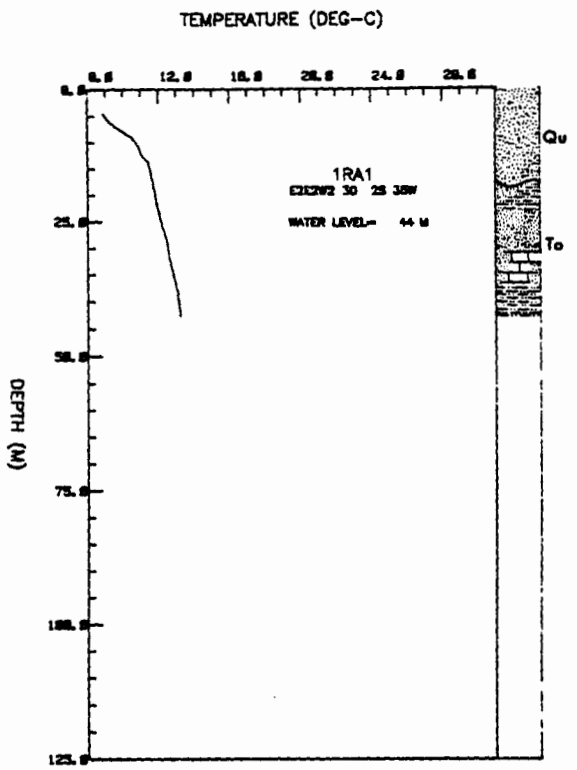

TEMPERATURE (DEG-C)
1NT3
NENENE 14 2S 2SW
WATER LEVEL= 43 M
Qu
To
DEPTH (M)

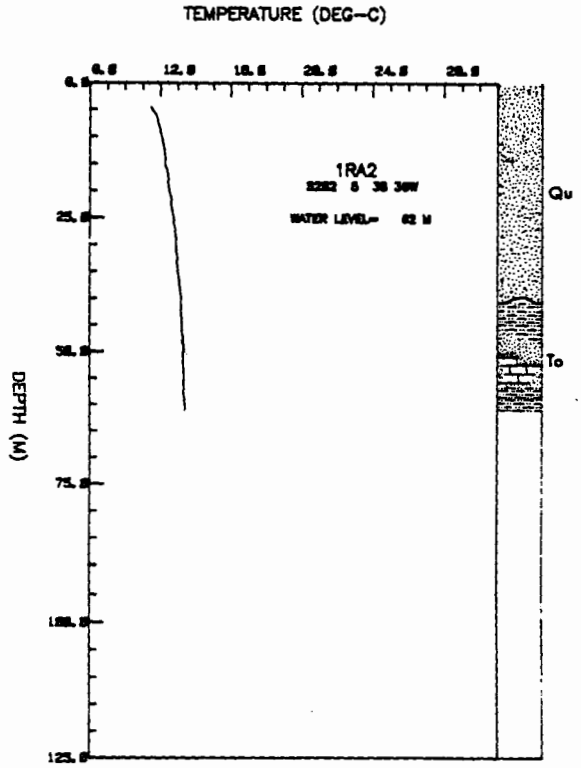

TEMPERATURE (DEG-C)
1NT4
NENENE 17 1S 21W
WATER LEVEL= 28 M
Qu
To
Kn
DEPTH (M)

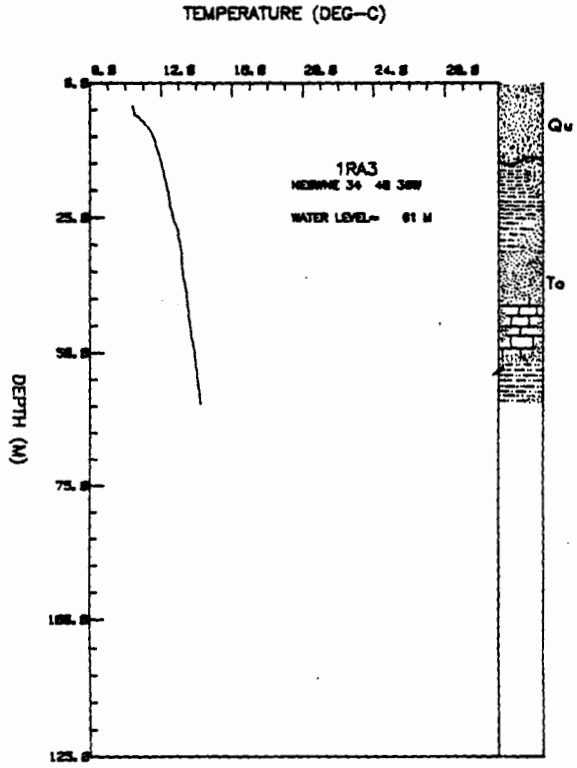

TEMPERATURE (DEG-C)
10B1
SWNW 17 7S 12W
WATER LEVEL= 13 M
Qu
Kc
DEPTH (M)

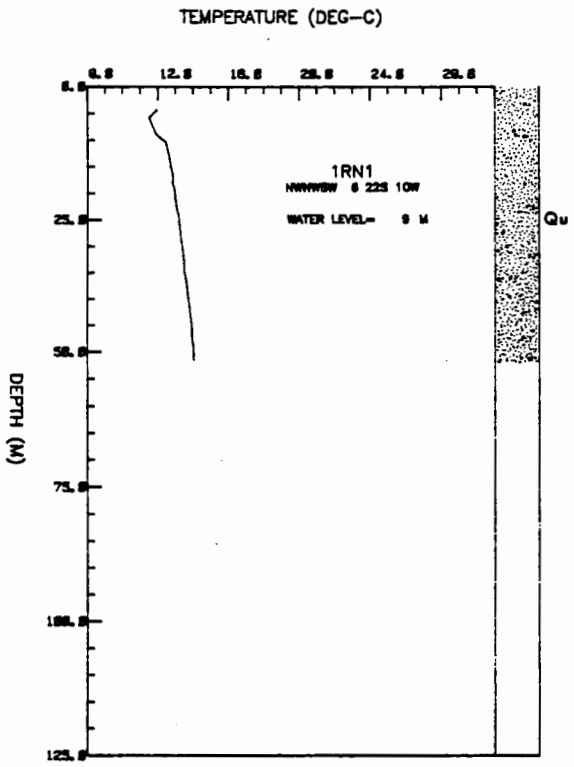

TEMPERATURE (DEG-C)
1QT1
WATER LEVEL= 18 M
Qu
Kd
DEPTH (M)

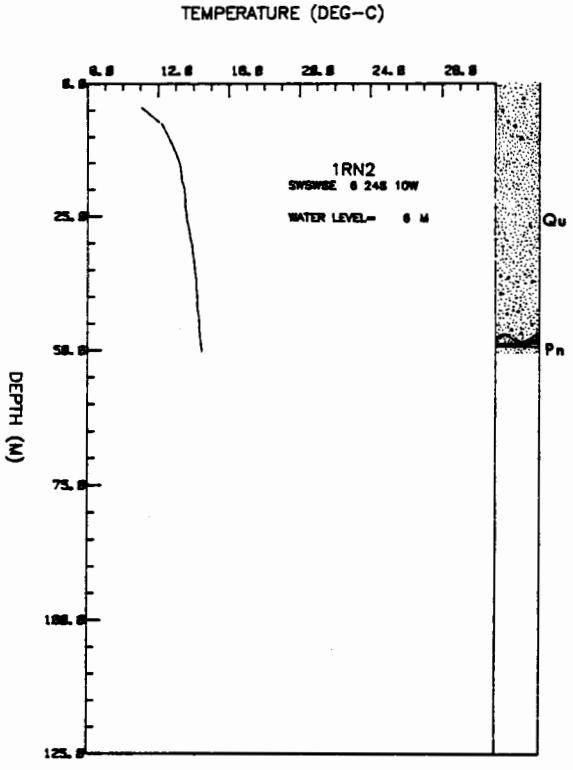

TEMPERATURE (DEG-C)
1PN1
WATER LEVEL= 7 M
Qu
DEPTH (M)

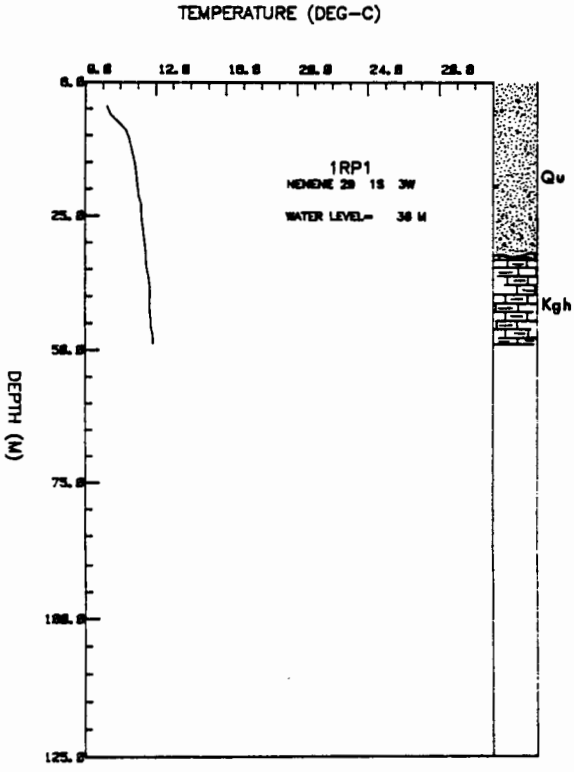

TEMPERATURE (DEG-C)
1RA1
WATER LEVEL= 44 M
Qu
To
DEPTH (M)

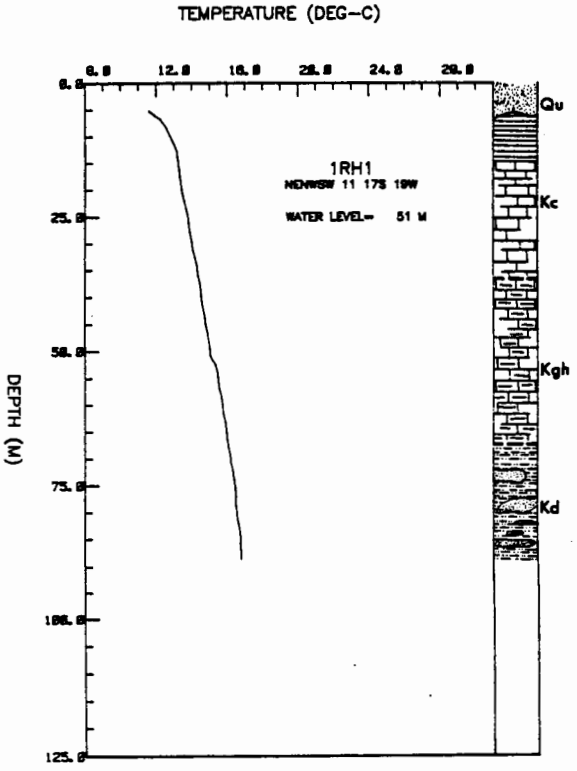

TEMPERATURE (DEG-C)
1RA2
WATER LEVEL= 62 M
Qu
To
DEPTH (M)

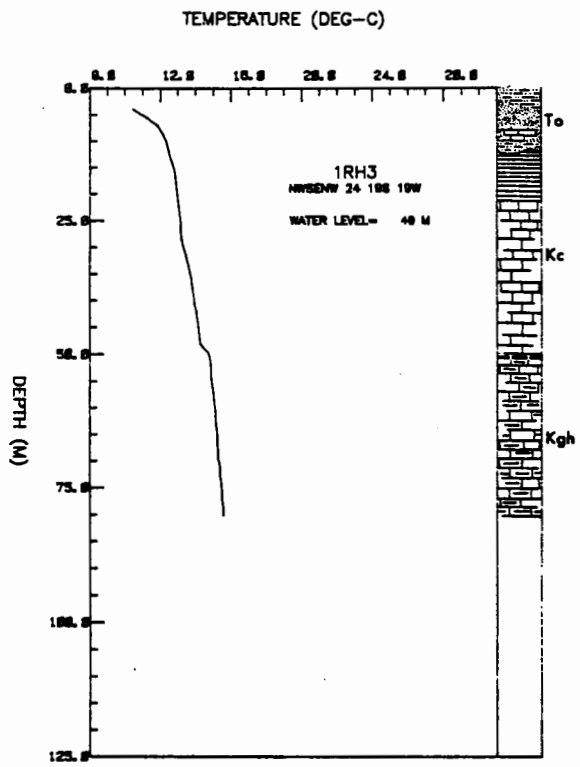

TEMPERATURE (DEG-C)
1RA3
WATER LEVEL= 61 M
Qu
To
DEPTH (M)

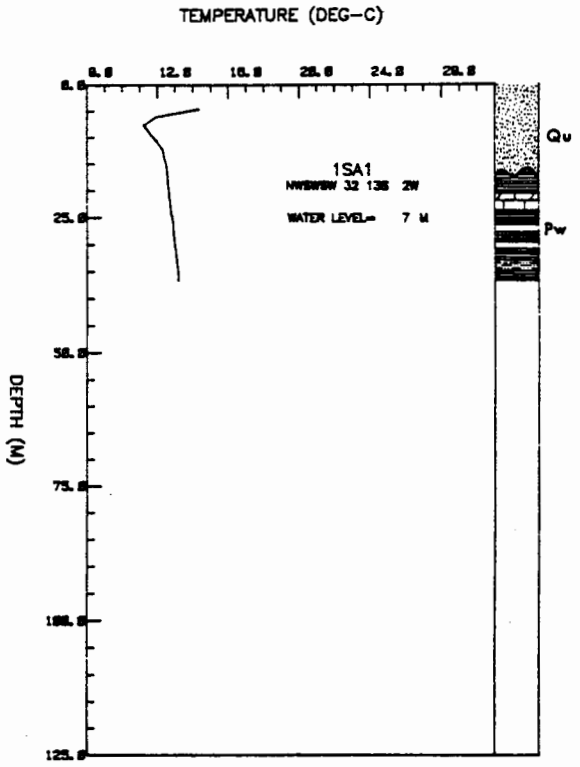

TEMPERATURE (DEG-C)
1RN1
WATER LEVEL= 9 M
Qu
DEPTH (M)

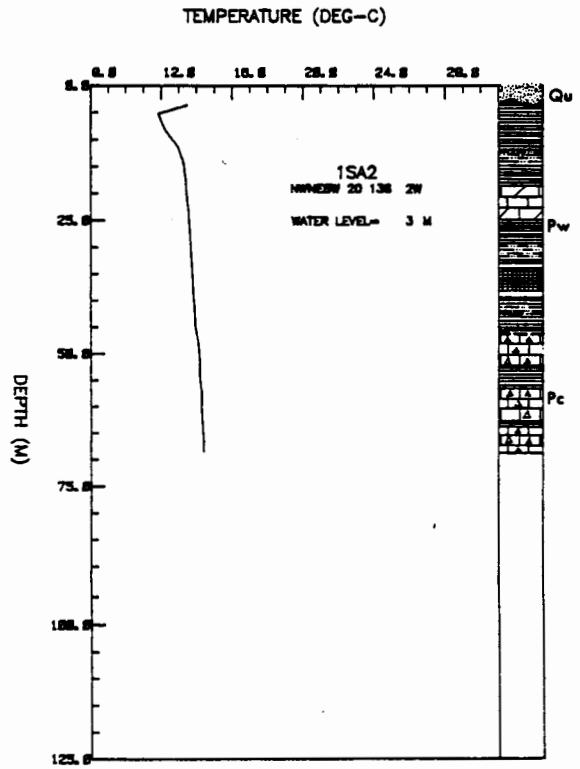

TEMPERATURE (DEG-C)
1RN2
WATER LEVEL= 6 M
Qu
Pn
DEPTH (M)

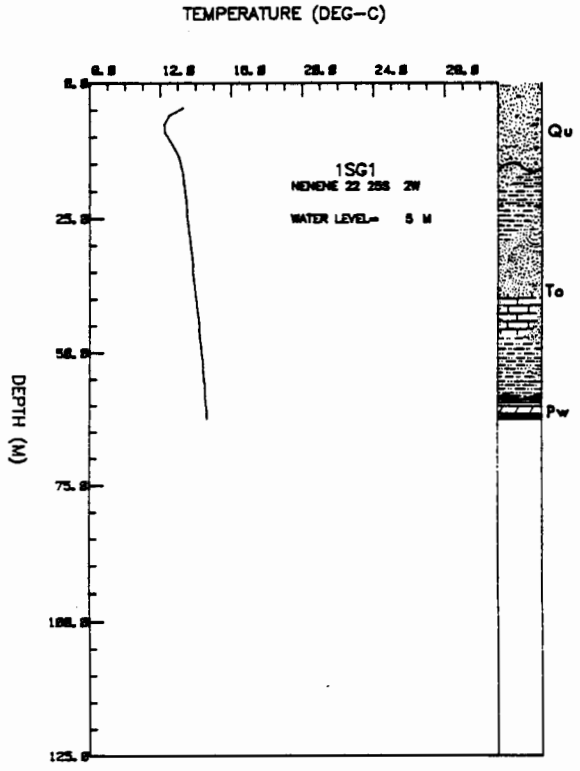

TEMPERATURE (DEG-C)
1RP1
WATER LEVEL= 36 M
Qu
Kgh
DEPTH (M)

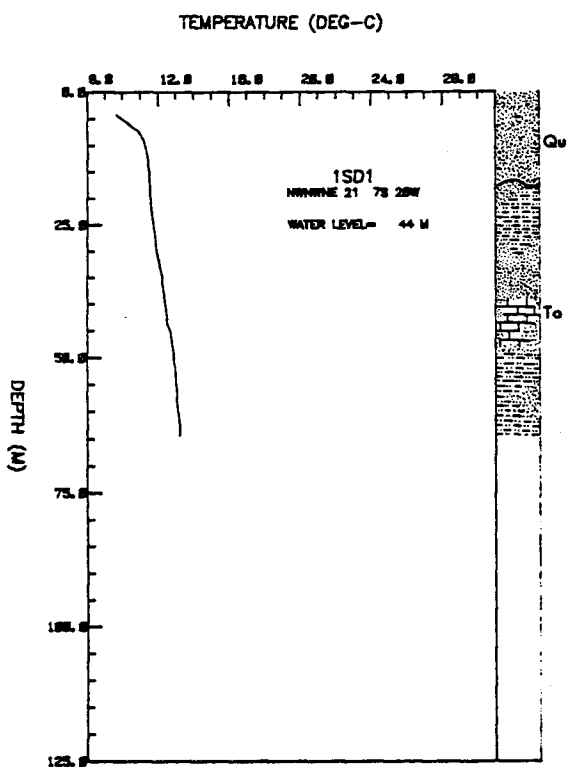

TEMPERATURE (DEG-C)
1RH1
WATER LEVEL= 51 M
Qu
Kc
Kgh
Kd
DEPTH (M)

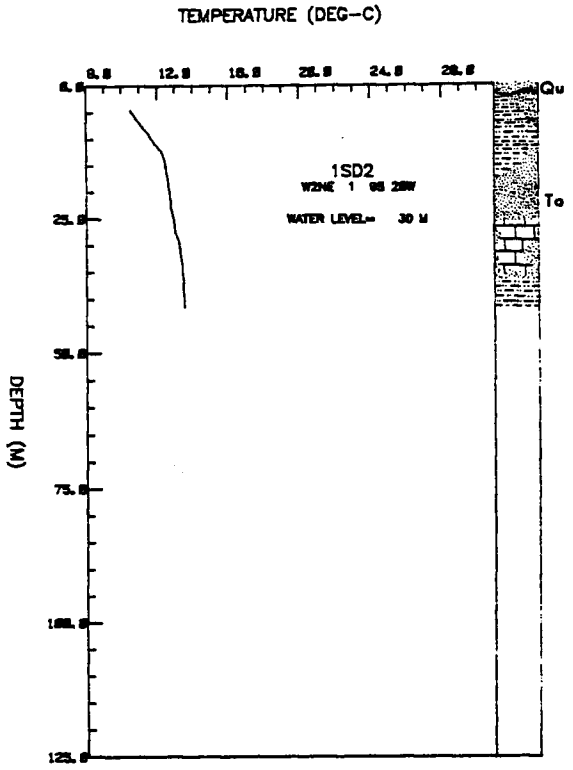

TEMPERATURE (DEG-C)
1RH3
WATER LEVEL= 40 M
DEPTH (M)
To
Kc
Kgh

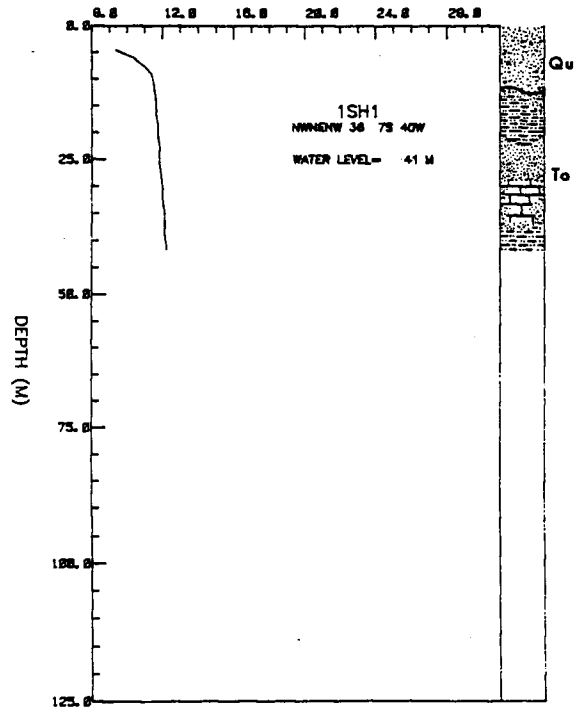

TEMPERATURE (DEG-C)
1SA1
WATER LEVEL= 7 M
DEPTH (M)
Qu
Pw

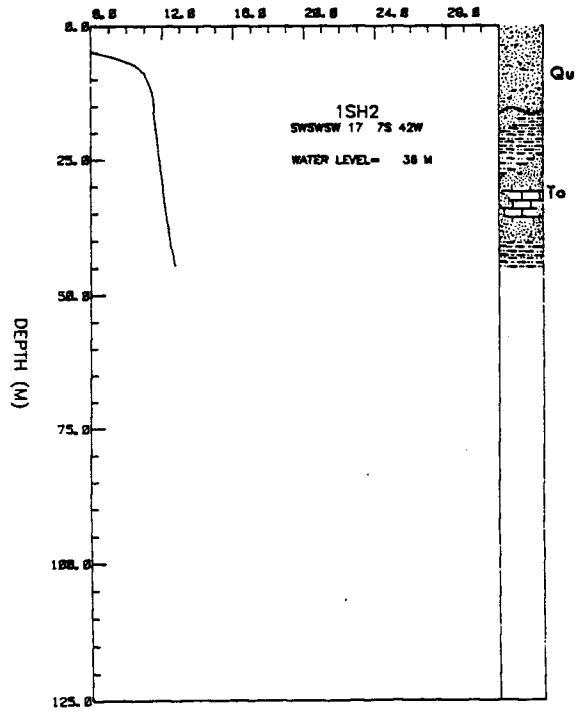

TEMPERATURE (DEG-C)
1SA2
WATER LEVEL= 3 M
DEPTH (M)
Qu
Pw
Pc

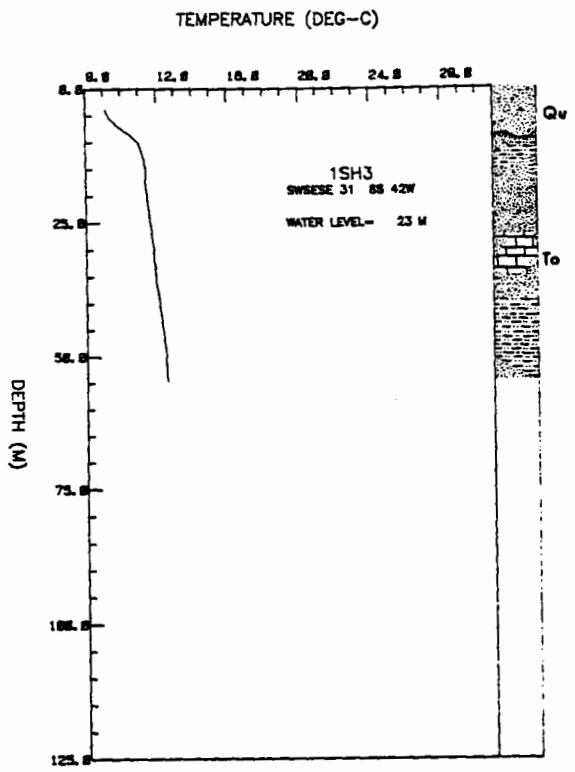

TEMPERATURE (DEG-C)
1SG1
WATER LEVEL= 5 M
DEPTH (M)
Qu
To
Pw

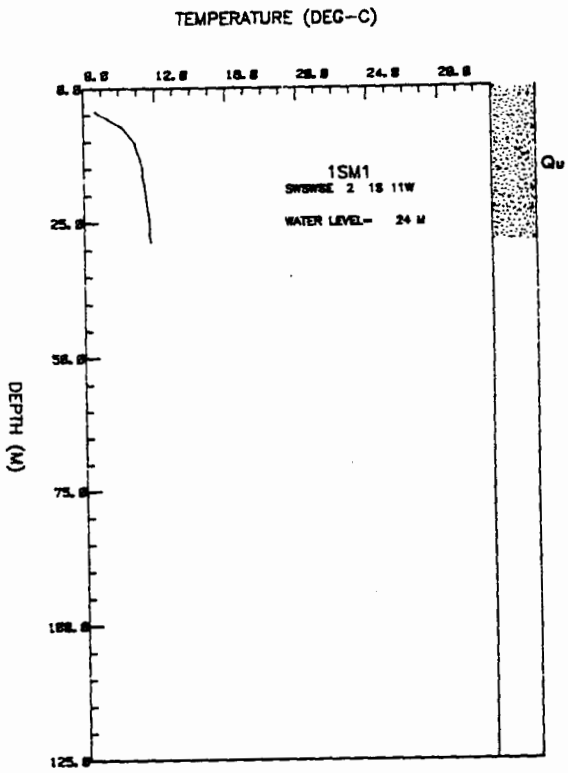

TEMPERATURE (DEG-C)
1SD1
WATER LEVEL= 44 M
Qu
To
DEPTH (M)

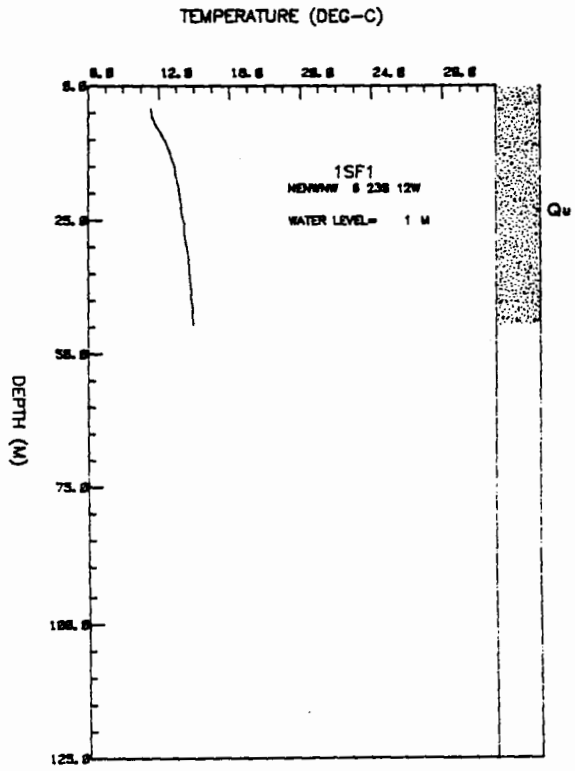

TEMPERATURE (DEG-C)
1SD2
WATER LEVEL= 30 M
Qu
To
DEPTH (M)

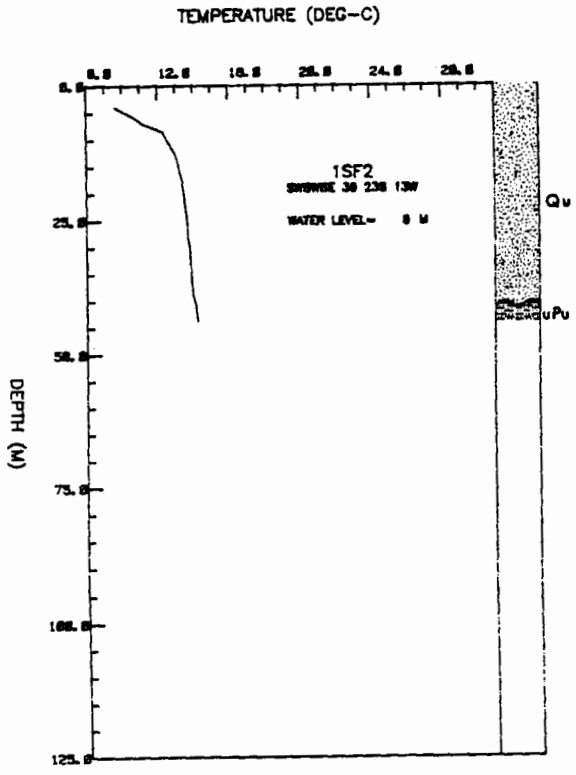

TEMPERATURE (DEG-C)
1SH1
WATER LEVEL= 41 M
Qu
To
DEPTH (M)

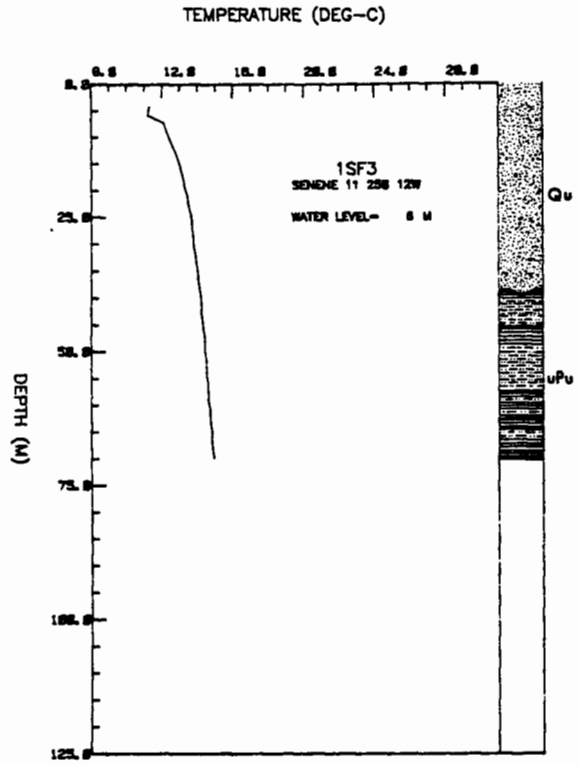

TEMPERATURE (DEG-C)
1SH2
WATER LEVEL= 38 M
Qu
To
DEPTH (M)

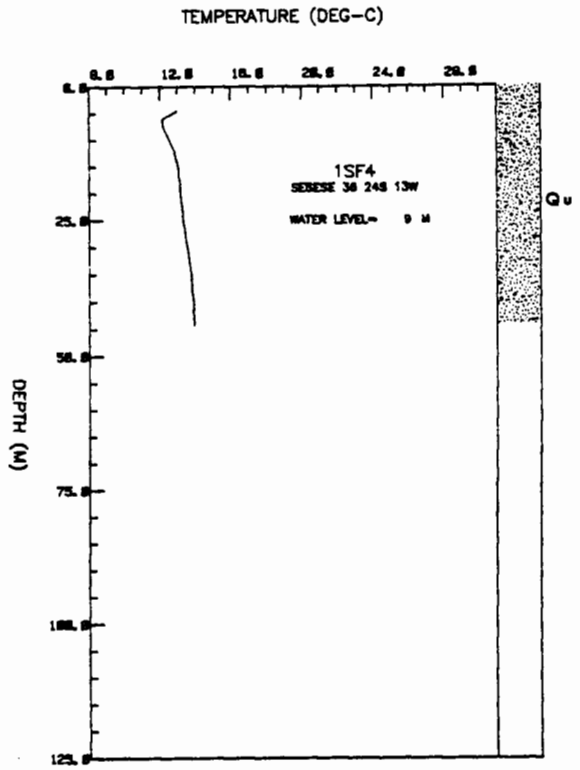

TEMPERATURE (DEG-C)
1SH3
SWSESE 31 8S 42W
WATER LEVEL= 23 M
Qu
To
DEPTH (M)

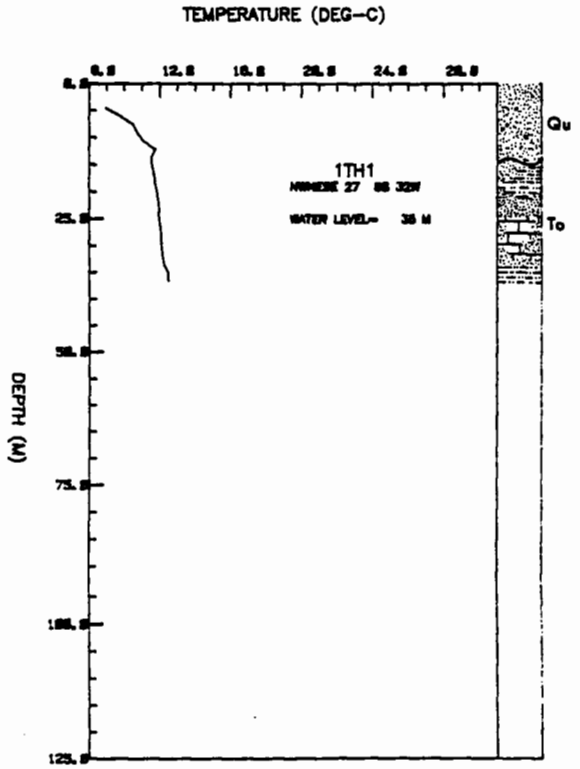

TEMPERATURE (DEG-C)
1SM1
SWSWSE 2 1S 11W
WATER LEVEL= 24 M
Qu
DEPTH (M)

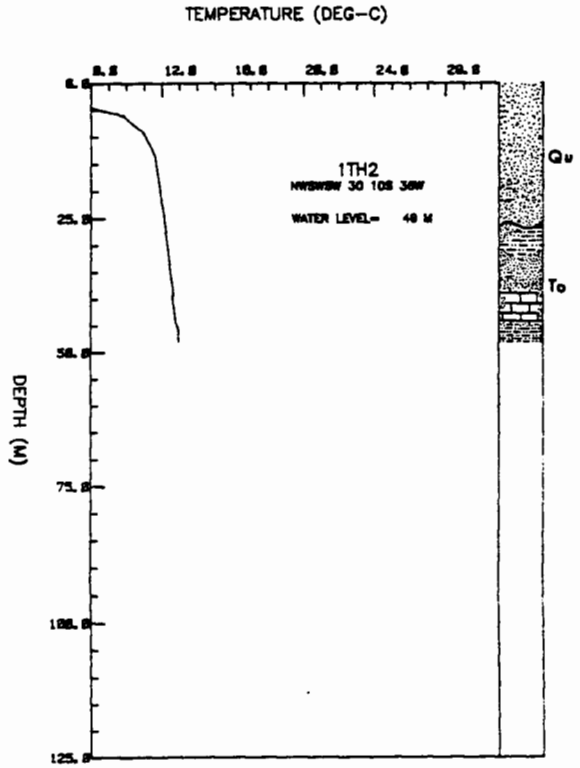

TEMPERATURE (DEG-C)
1SF1
NENWNW 8 23S 12W
WATER LEVEL= 1 M
Qu
DEPTH (M)

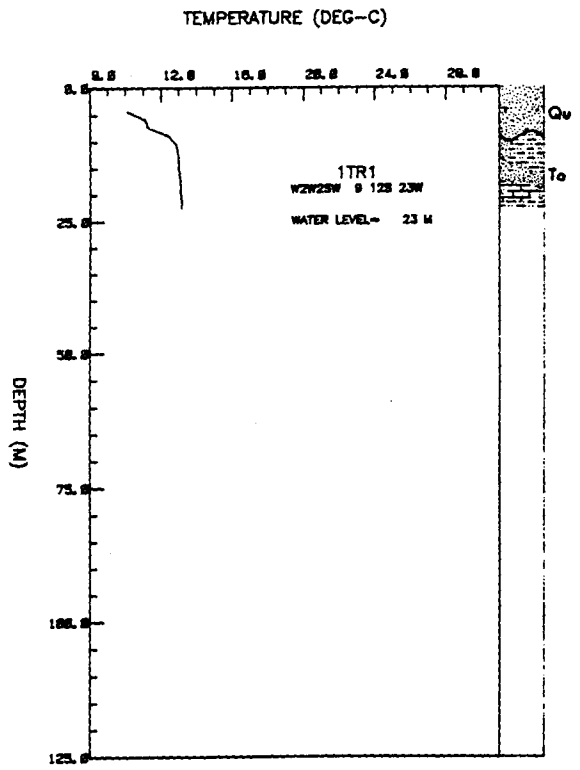

TEMPERATURE (DEG-C)
1SF2
SWSWSE 30 23S 13W
WATER LEVEL= 8 M
Qu
uPu
DEPTH (M)

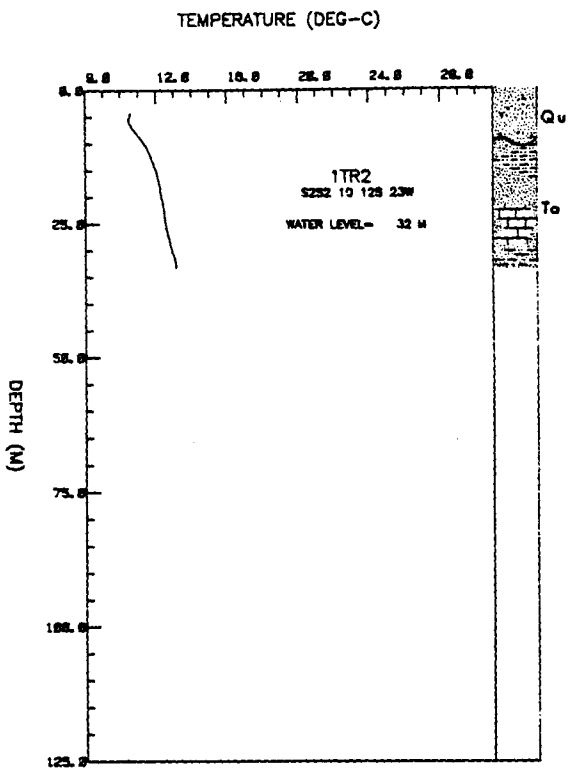

TEMPERATURE (DEG-C)
1SF3
SENENE 11 25S 12W
WATER LEVEL= 8 M
Qu
uPu
DEPTH (M)

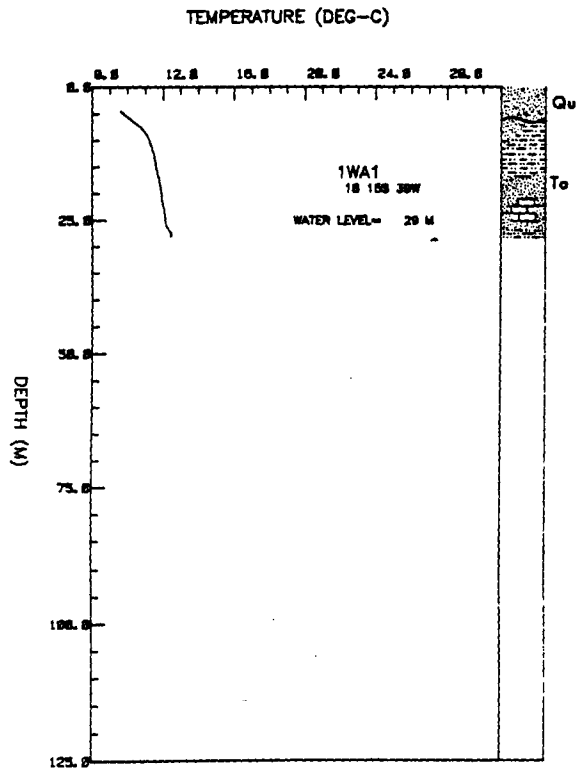

TEMPERATURE (DEG-C)
1SF4
SESESE 36 24S 13W
WATER LEVEL= 9 M
Qu
DEPTH (M)

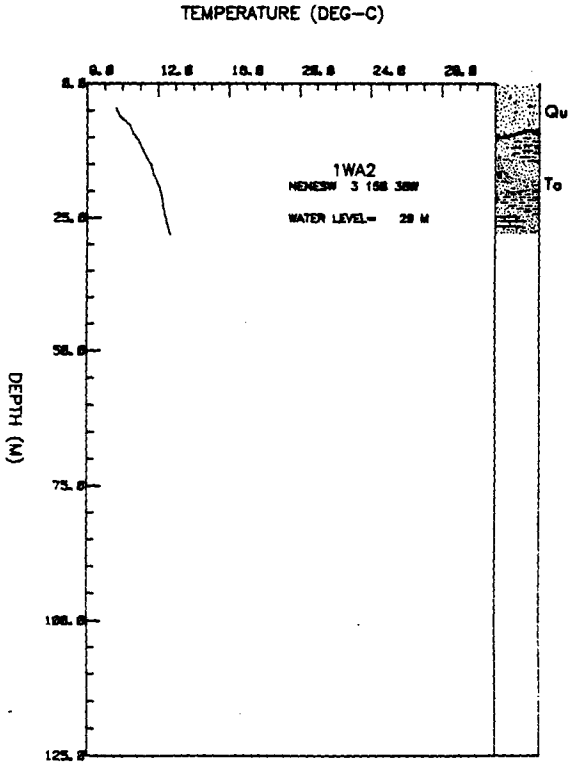

TEMPERATURE (DEG-C)
1TH1
NWNESW 27 8S 32W
WATER LEVEL= 38 M
Qu
To
DEPTH (M)

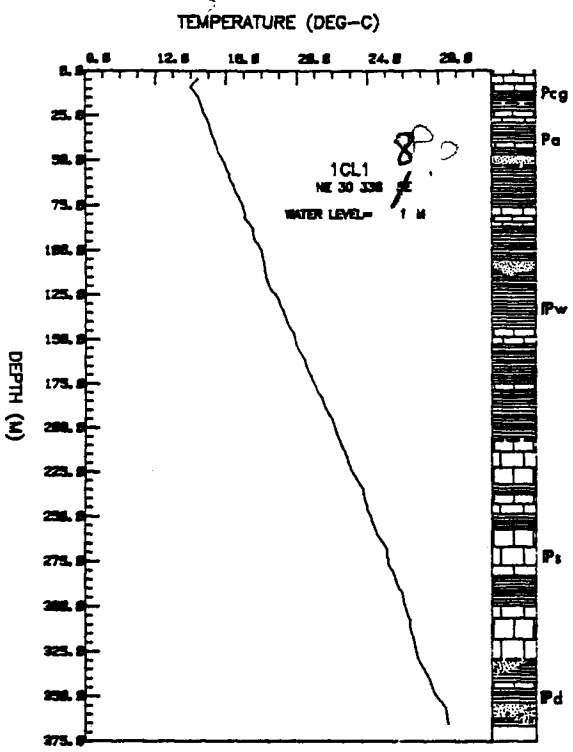

TEMPERATURE (DEG-C)
1TH2
NWSWSW 30 10S 36W
WATER LEVEL= 40 M
Qu
To
DEPTH (M)

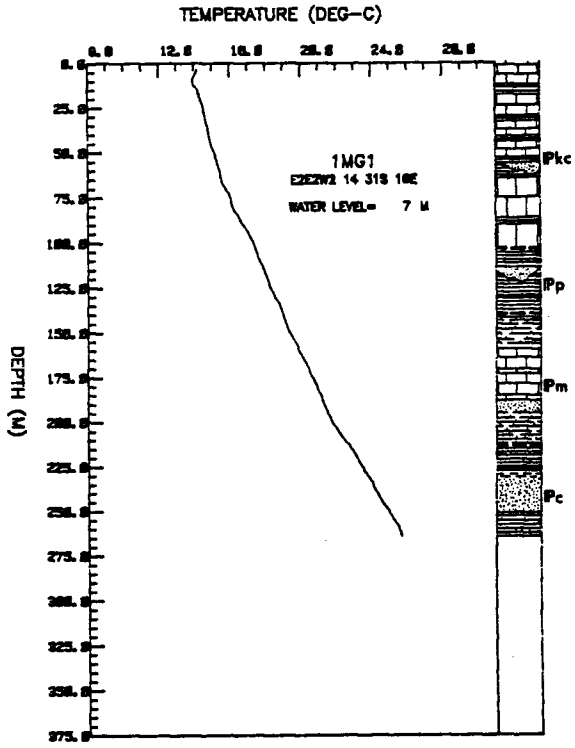

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1TR1
W2W2SW 9 12S 23W
WATER LEVEL= 23 M
Qu
To
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

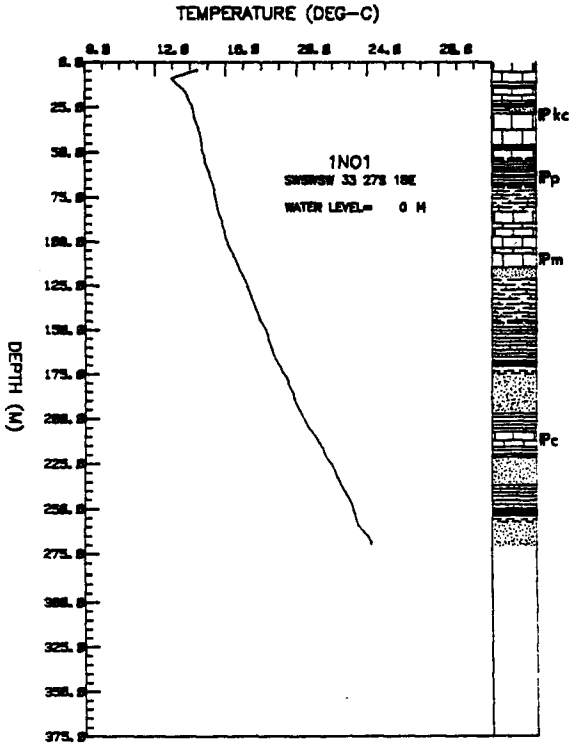

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1TR2
S2S2 10 12S 23W
WATER LEVEL= 32 M
Qu
To
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

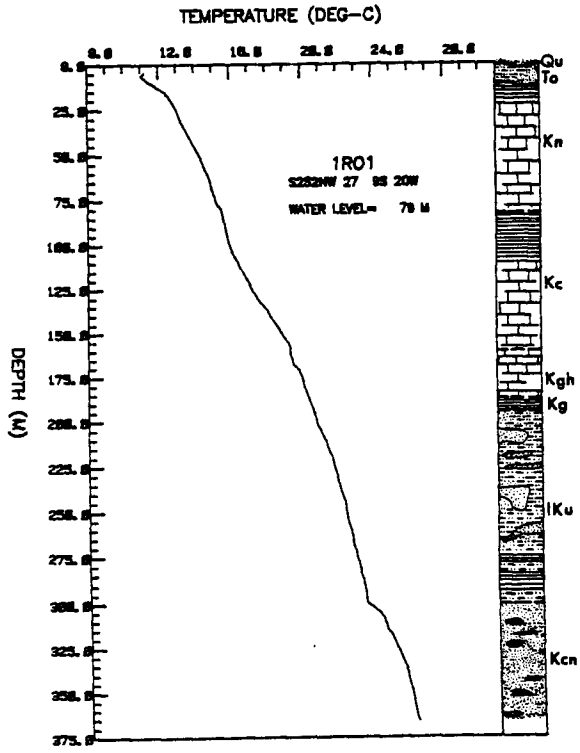

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1WA1
18 15S 38W
WATER LEVEL= 29 M
Qu
To
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

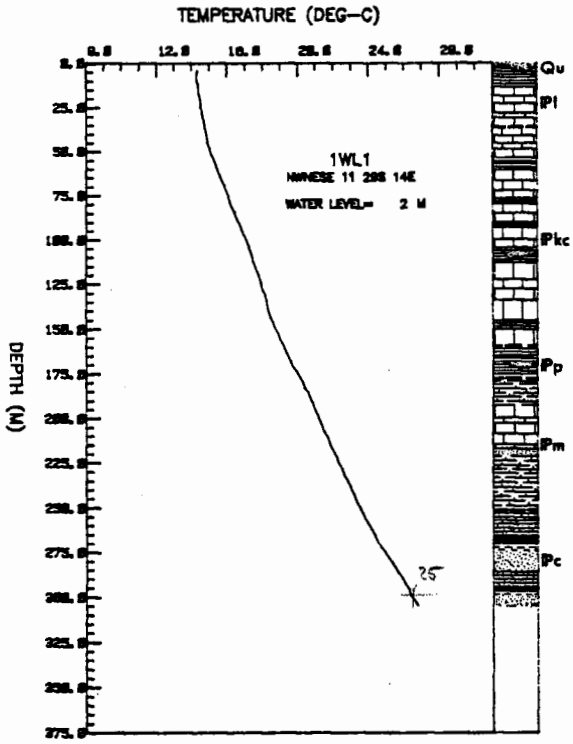

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1WA2
NENESW 3 15S 38W
WATER LEVEL= 29 M
Qu
To
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8

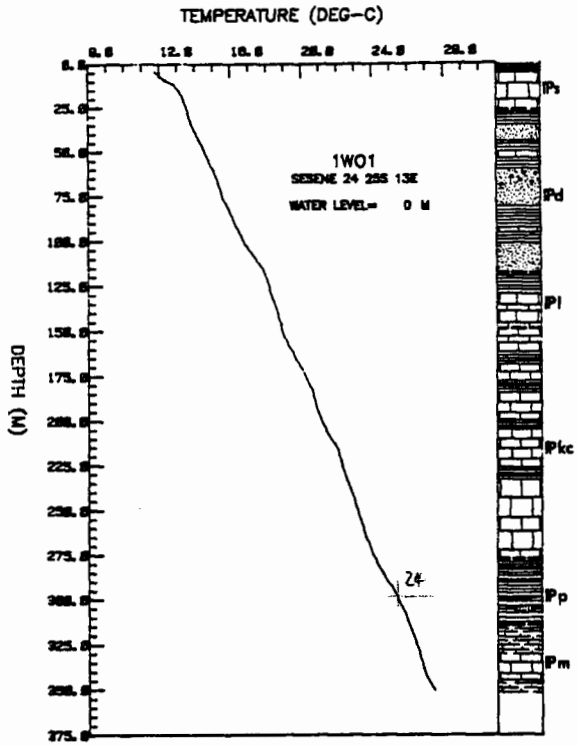

TEMPERATURE (DEG-C)
DEPTH (M)
1CL1
WATER LEVEL= 1 M
Pcg
Pa
Pw
Ps
Pd

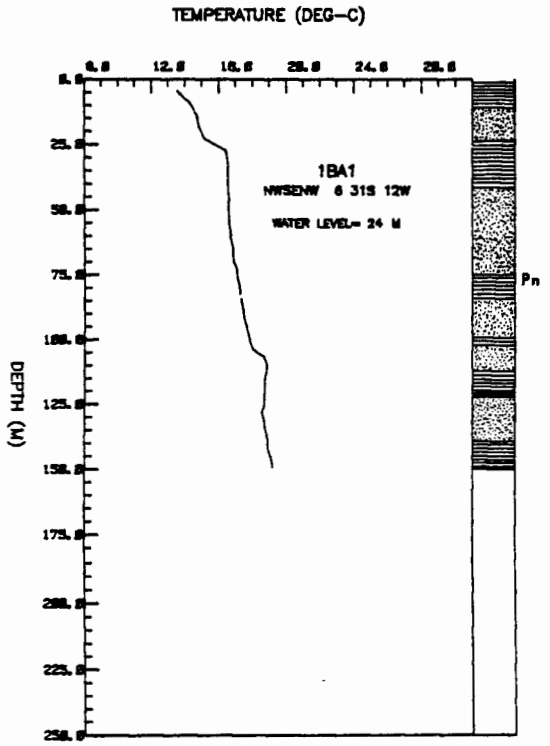

TEMPERATURE (DEG-C)
DEPTH (M)
1MG1
WATER LEVEL= 7 M
Pkc
Pp
Pm
Pc

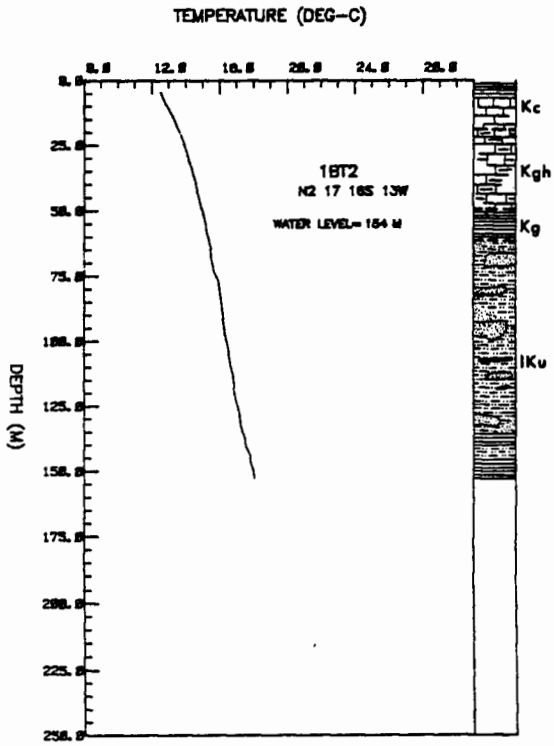

TEMPERATURE (DEG-C)
DEPTH (M)
1NO1
WATER LEVEL= 0 M
Pkc
Pp
Pm
Pc

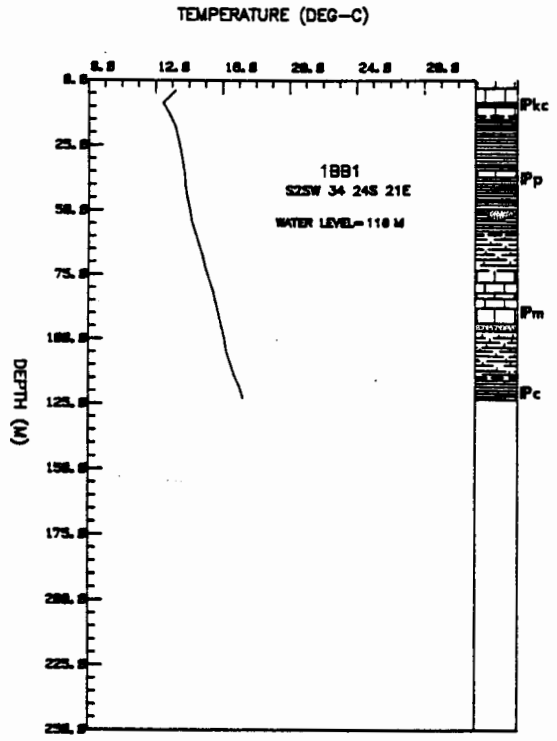

TEMPERATURE (DEG-C)
DEPTH (M)
1RO1
WATER LEVEL= 78 M
Qu
To
Kn
Kc
Kgh
Kg
lKu
Kcn

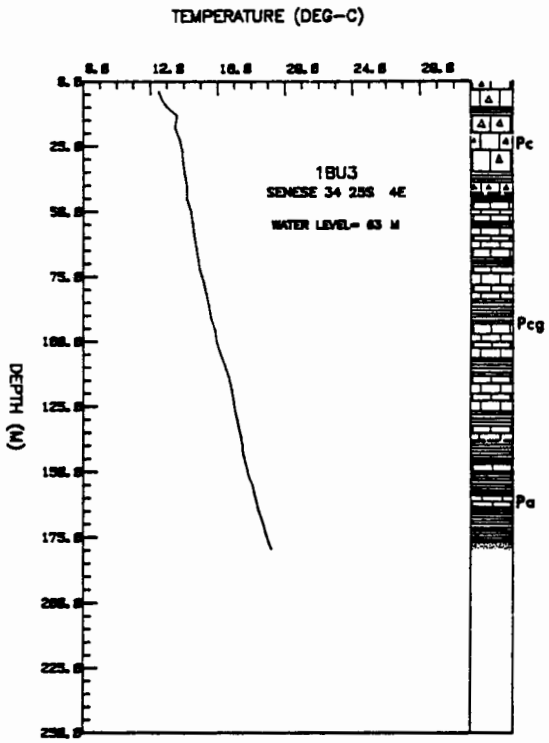

TEMPERATURE (DEG-C)
DEPTH (M)
1WL1
NWNESE 11 29S 14E
WATER LEVEL= 2 M
Qu
Pl
Pkc
Pp
Pm
Pc

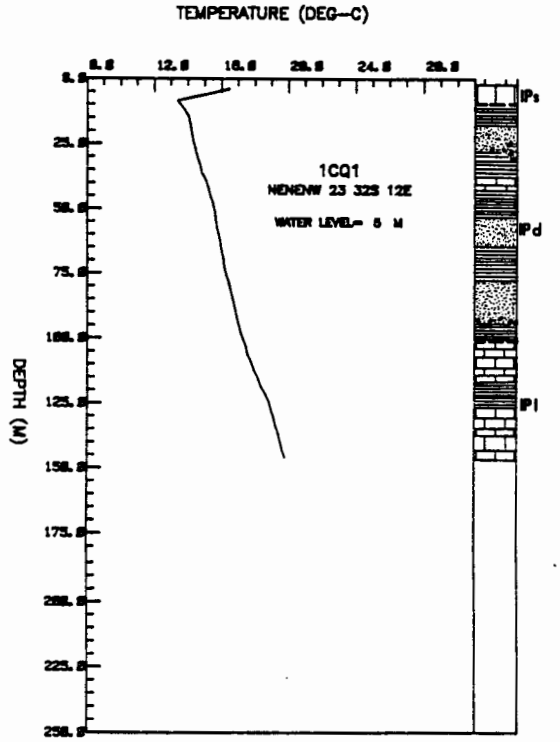

TEMPERATURE (DEG-C)
DEPTH (M)
1WO1
SESENE 24 25S 13E
WATER LEVEL= 0 M
Ps
Pd
Pl
Pkc
Pp
Pm

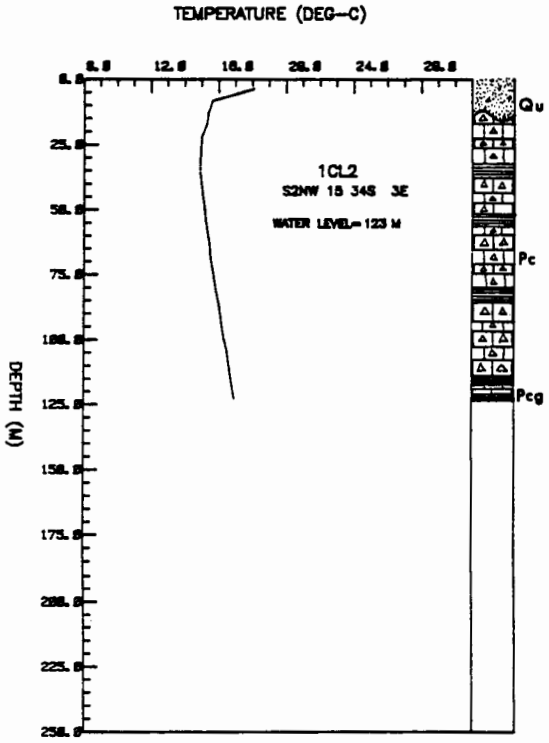

TEMPERATURE (DEG-C)
DEPTH (M)
1BA1
NWSENW 6 31S 12W
WATER LEVEL= 24 M
Pn

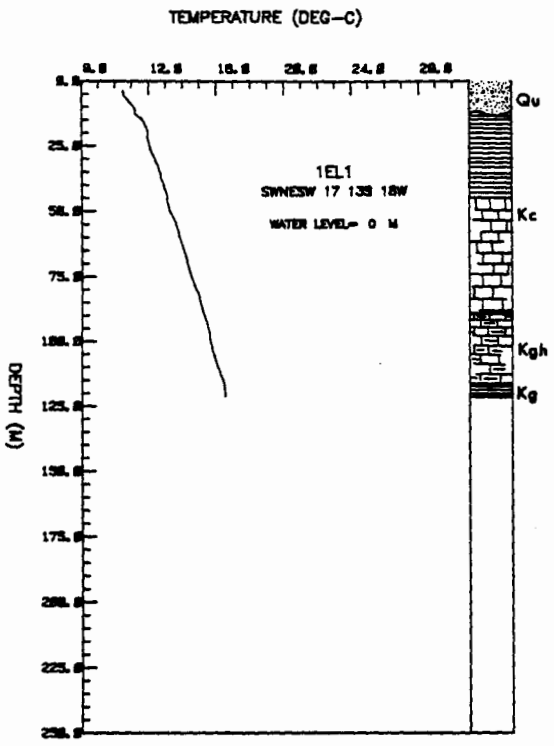

TEMPERATURE (DEG-C)
DEPTH (M)
1BT2
N2 17 16S 13W
WATER LEVEL= 164 M
Kc
Kgh
Kg
IKu

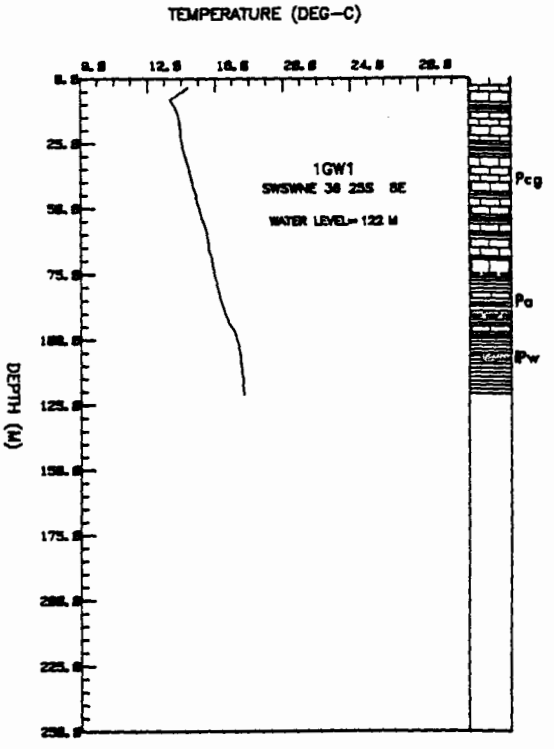

TEMPERATURE (DEG-C)
1BB1
S2SW 34 24S 21E
WATER LEVEL= 110 M
DEPTH (M)
Pkc
Pp
Pm
Pc

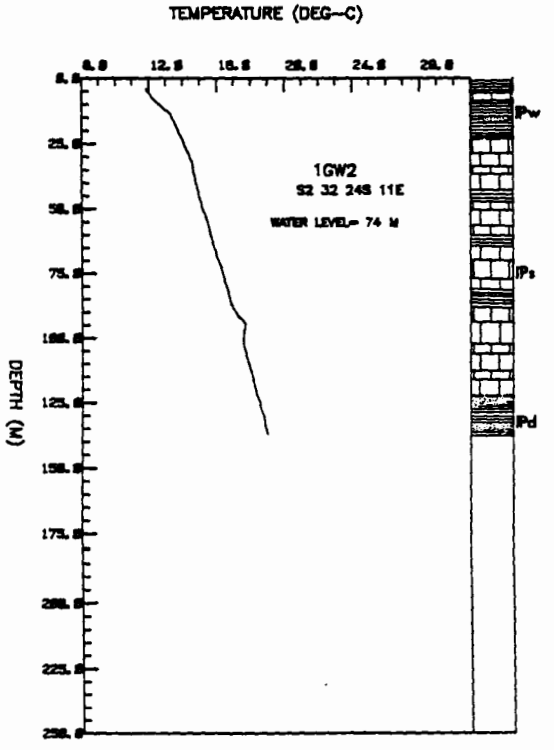

TEMPERATURE (DEG-C)
1BU3
SENESE 34 25S 4E
WATER LEVEL= 63 M
DEPTH (M)
Pc
Pcg
Pa

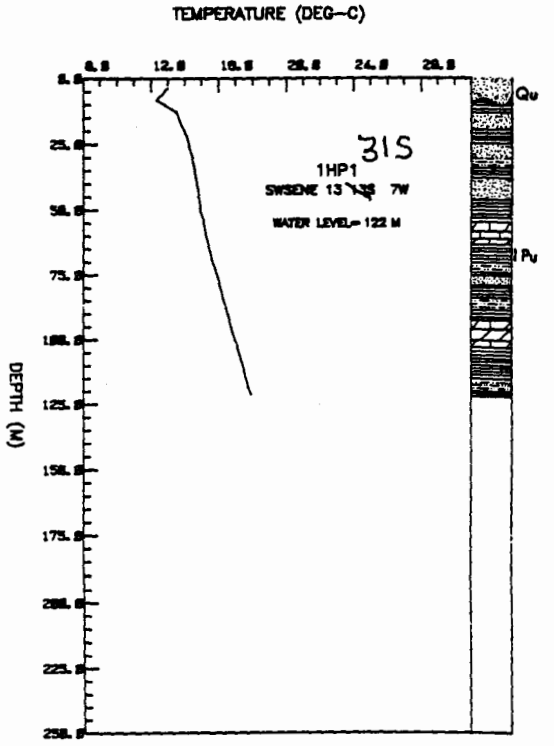

TEMPERATURE (DEG-C)
1CQ1
NENENW 23 32S 12E
WATER LEVEL= 5 M
DEPTH (M)
IPs
IPd
IPl

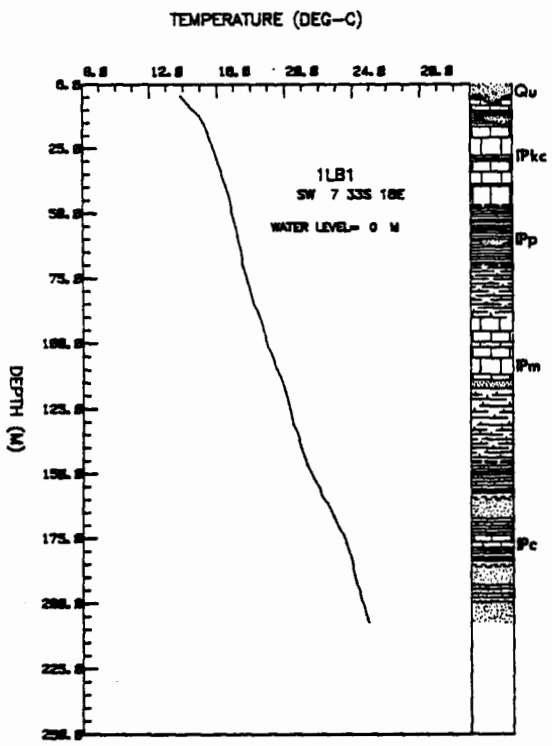

TEMPERATURE (DEG-C)
1CL2
S2NW 15 34S 3E
WATER LEVEL= 123 M
DEPTH (M)
Qu
Pc
Pcg

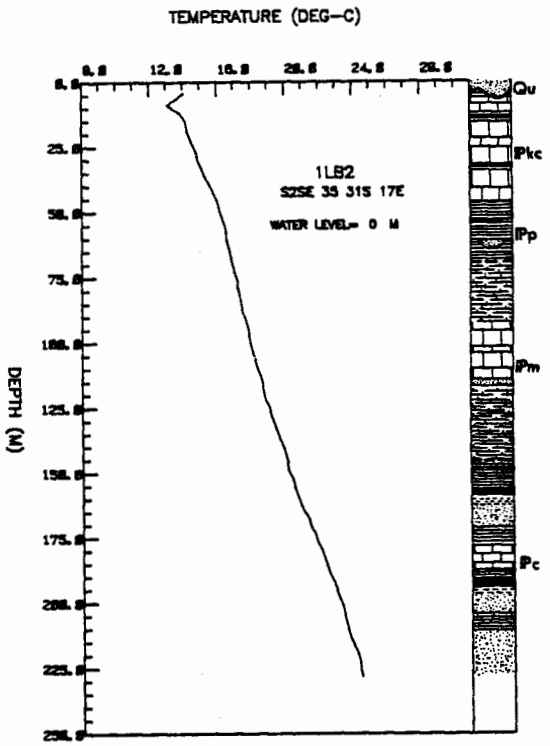

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
DEPTH (M)
1EL1
SWNESW 17 13S 18W
WATER LEVEL= 0 M
Qu
Kc
Kgh
Kg

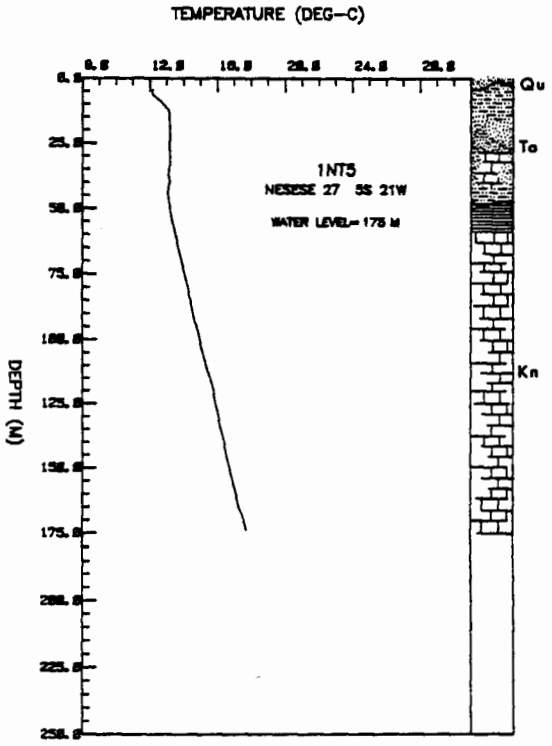

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
DEPTH (M)
1GW1
SWSWNE 36 25S 8E
WATER LEVEL= 122 M
Pcg
Pa
IPw

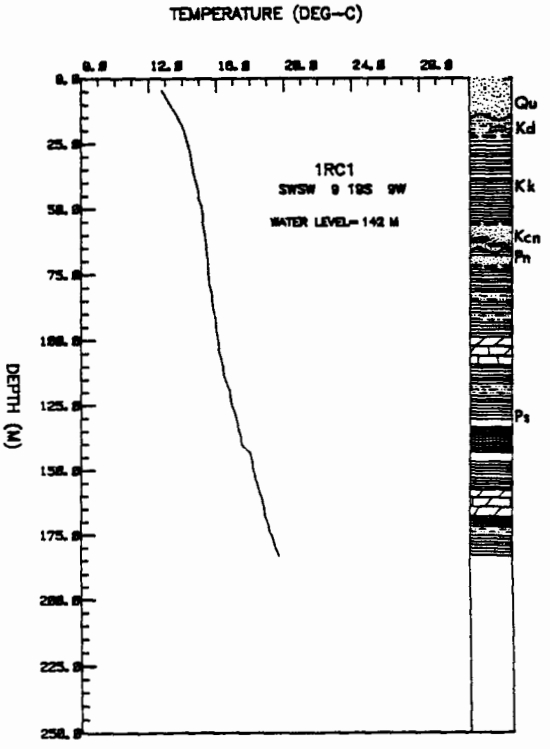

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
DEPTH (M)
1GW2
S2 32 24S 11E
WATER LEVEL= 74 M
IPw
IPs
IPd

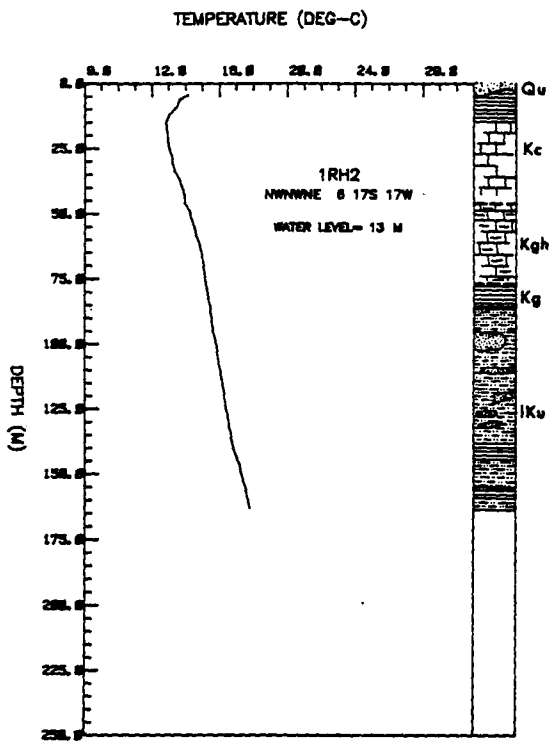

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
DEPTH (M)
31S
1HP1
SWSENE 13
7W
WATER LEVEL= 122 M
Qu
IPu

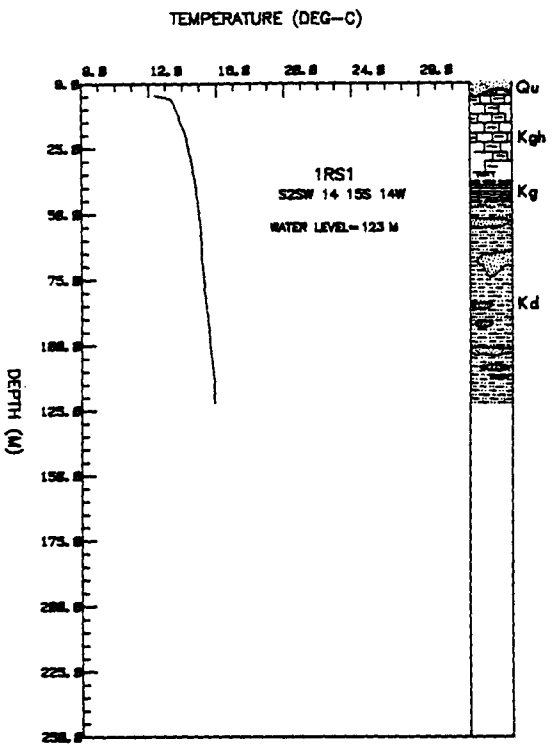

TEMPERATURE (DEG-C)
1LB1
SW 7 33S 18E
WATER LEVEL= 0 M
DEPTH (M)
Qu
Pkc
Pp
Pm
Pc

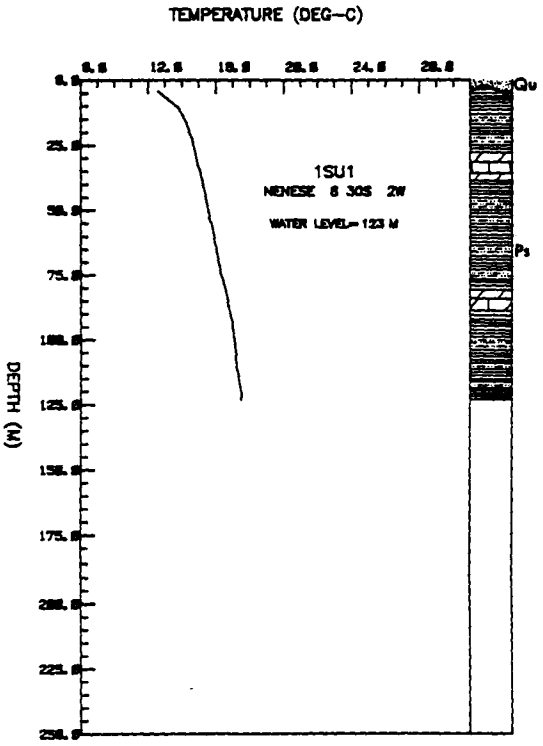

TEMPERATURE (DEG-C)
1LB2
S2SE 35 31S 17E
WATER LEVEL= 0 M
DEPTH (M)
Qu
Pkc
Pp
Pm
Pc

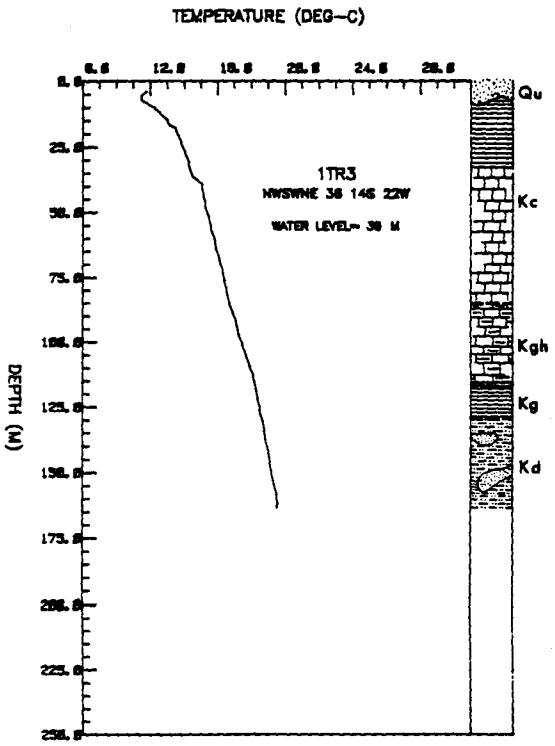

TEMPERATURE (DEG-C)
1NT5
NESESE 27 5S 21W
WATER LEVEL= 175 M
DEPTH (M)
Qu
Ta
Kn

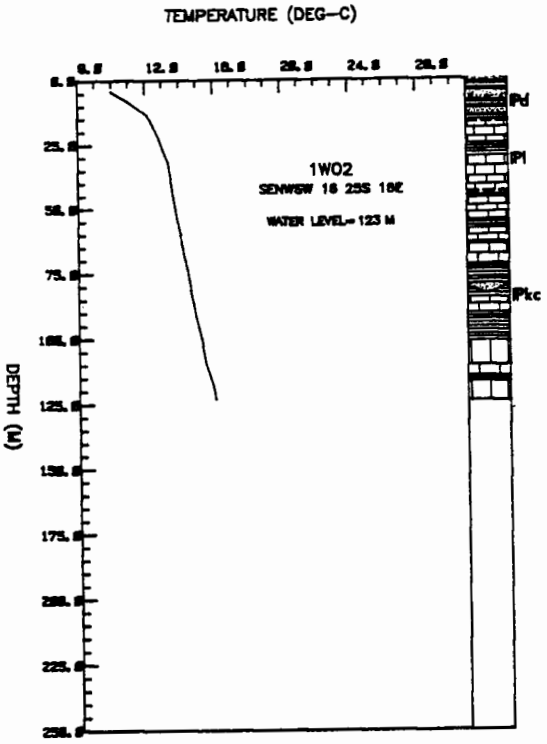

TEMPERATURE (DEG-C)
1RC1
SWSW 9 19S 9W
WATER LEVEL= 142 M
DEPTH (M)
Qu
Kd
Kk
Kcn
Pn
Ps

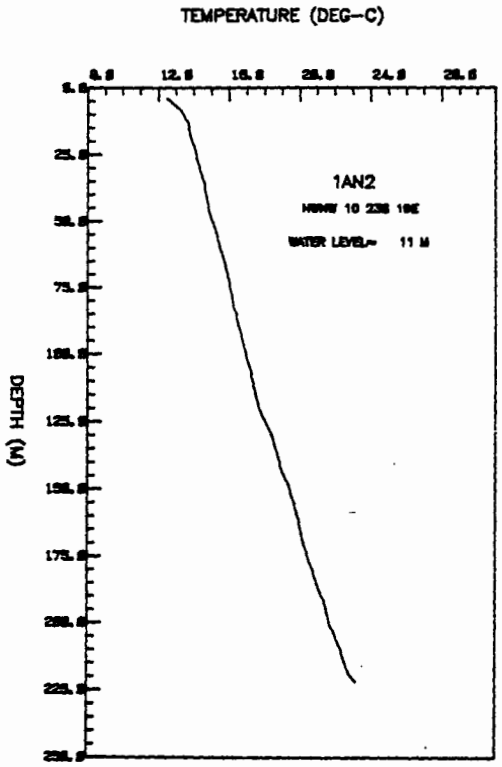

TEMPERATURE (DEG-C)
1RH2
NWNWNE 6 17S 17W
WATER LEVEL= 13 M
DEPTH (M)
Qu
Kc
Kgh
Kg
Kd
Ku

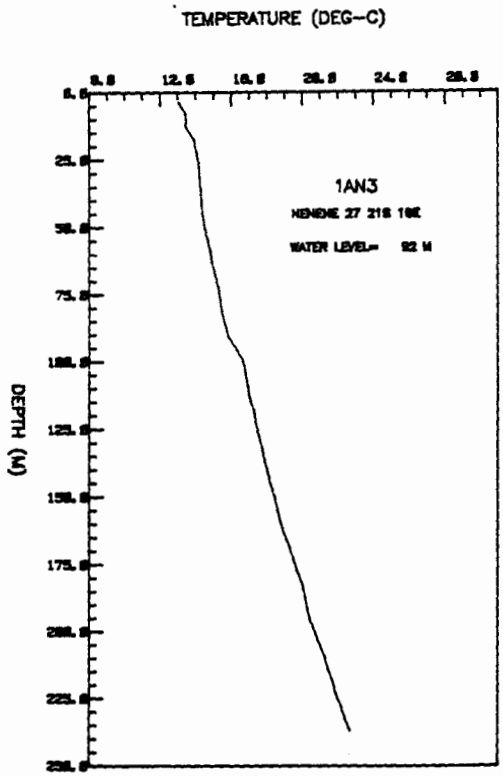

TEMPERATURE (DEG-C)
1RS1
S2SW 14 15S 14W
WATER LEVEL= 123 M
DEPTH (M)
Qu
Kgh
Kg
Kd

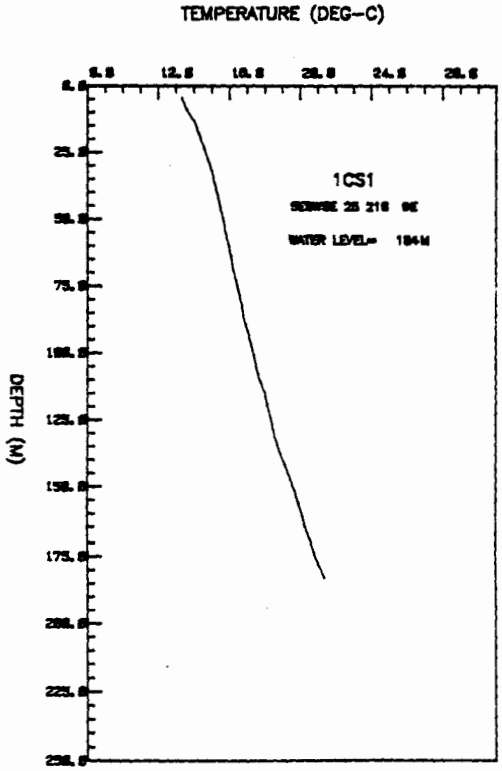

TEMPERATURE (DEG-C)
1SU1
NENESE 6 30S 2W
WATER LEVEL= 123 M
DEPTH (M)
Qu
Ps

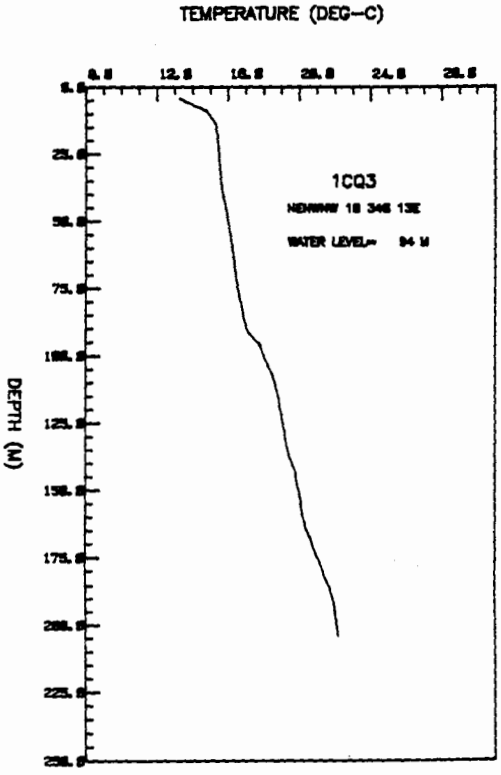

TEMPERATURE (DEG-C)
1TR3
NWSWNE 36 14S 22W
WATER LEVEL= 39 M
DEPTH (M)
Qu
Kc
Kgh
Kg
Kd

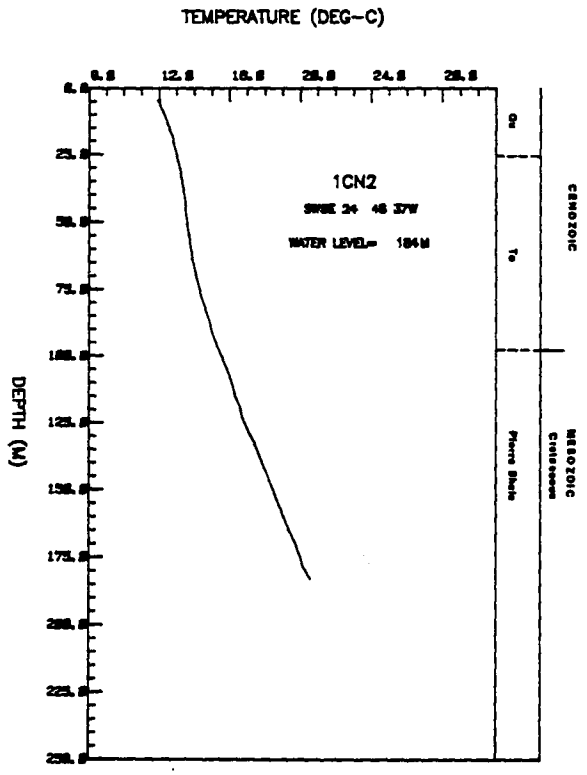

TEMPERATURE (DEG-C)
6.0
12.0
18.0
24.0
30.0
0.0
25.0
50.0
75.0
100.0
125.0
150.0
175.0
200.0
225.0
250.0
DEPTH (M)
1WO2
SENWSW 16 25S 18E
WATER LEVEL= 123 M
Pd
Pl
Pkc

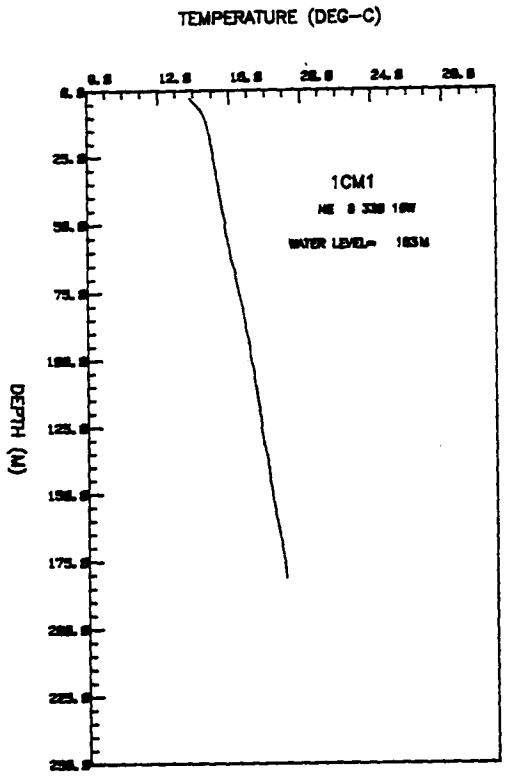

TEMPERATURE (DEG-C)
DEPTH (M)
1AN2
WATER LEVEL= 11 M

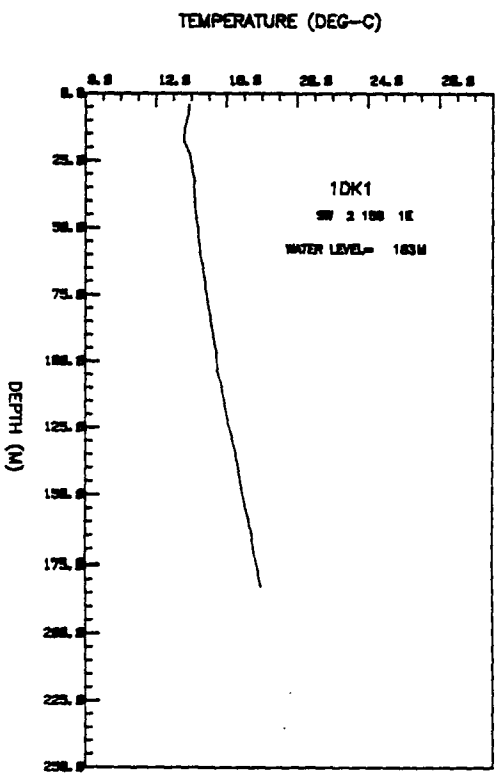

TEMPERATURE (DEG-C)
DEPTH (M)
1AN3
WATER LEVEL= 92 M

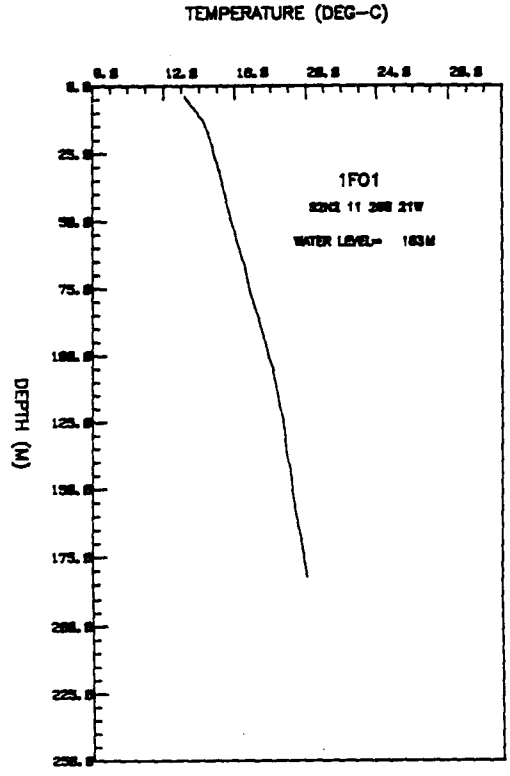

TEMPERATURE (DEG-C)
DEPTH (M)
1CS1
WATER LEVEL= 184M

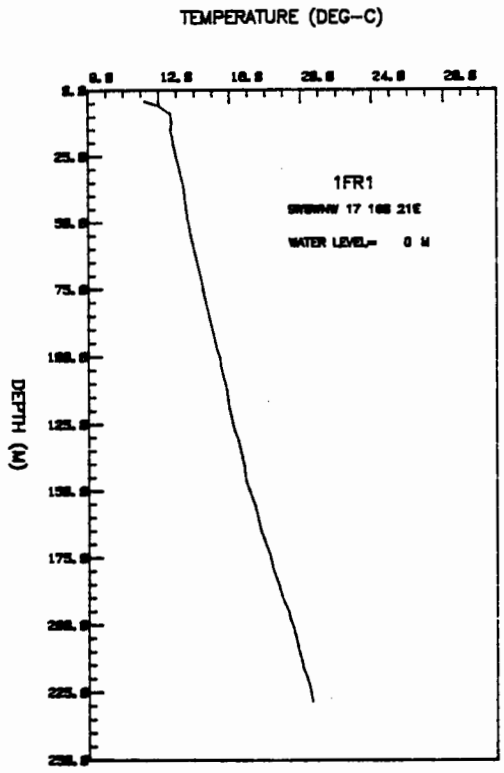

TEMPERATURE (DEG-C)
DEPTH (M)
1CQ3
WATER LEVEL= 94 M

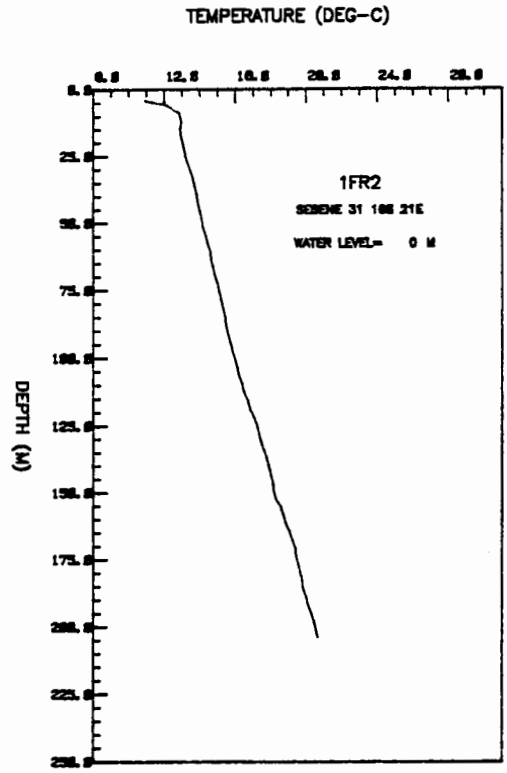

TEMPERATURE (DEG-C)
DEPTH (M)
1CN2
WATER LEVEL= 184M
CENOZOIC
MESOZOIC

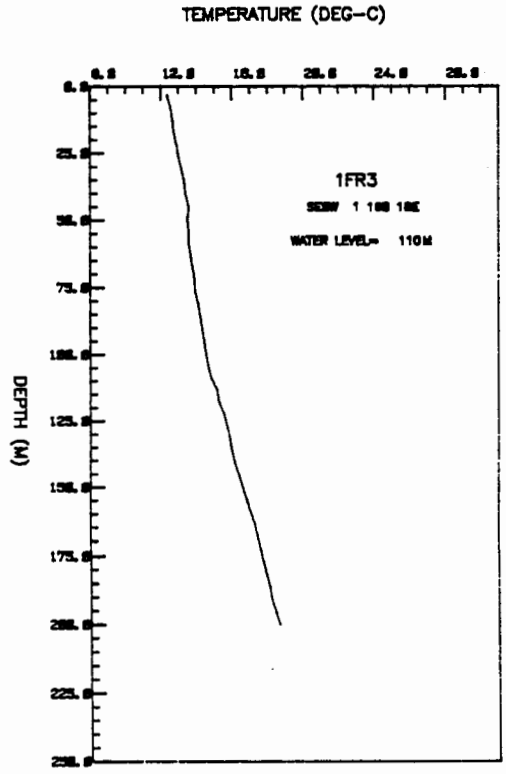

TEMPERATURE (DEG-C)
DEPTH (M)
1CM1
WATER LEVEL= 183M

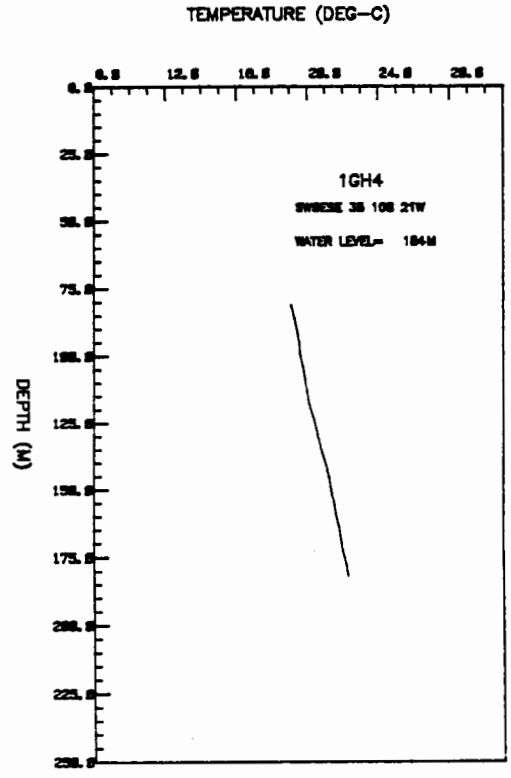

TEMPERATURE (DEG-C)
DEPTH (M)
1DK1
WATER LEVEL= 183M

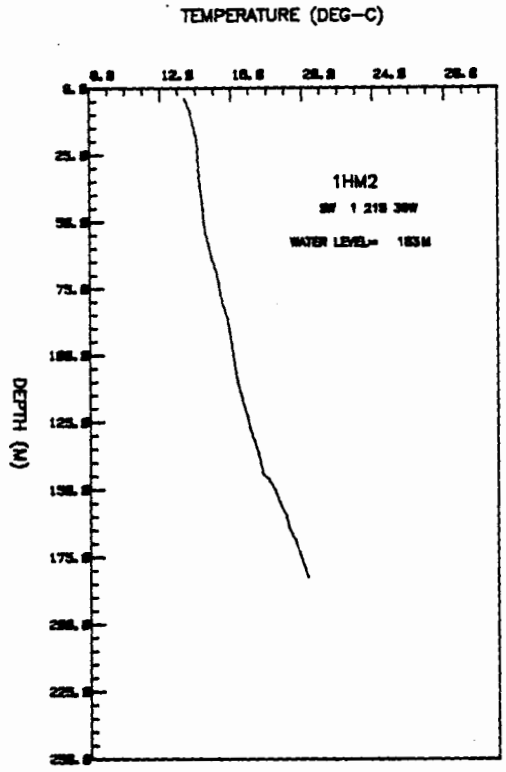

TEMPERATURE (DEG-C)
DEPTH (M)
1FO1
WATER LEVEL= 183M

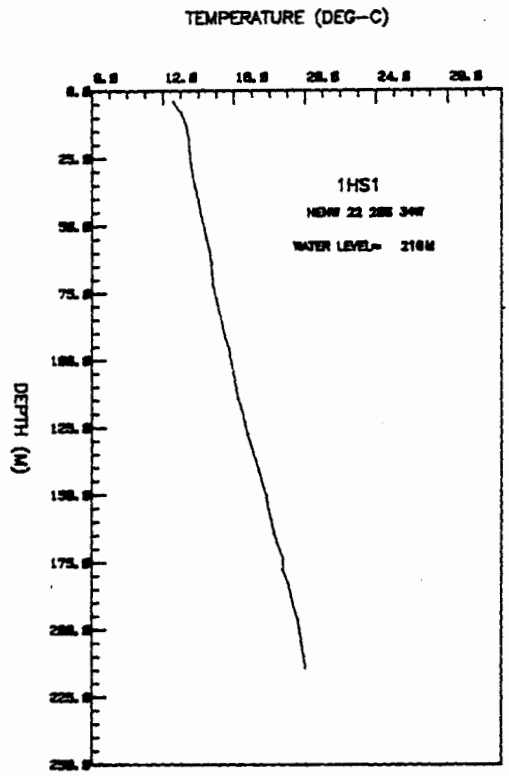

TEMPERATURE (DEG-C)
1FR1
WATER LEVEL= 0 M
DEPTH (M)

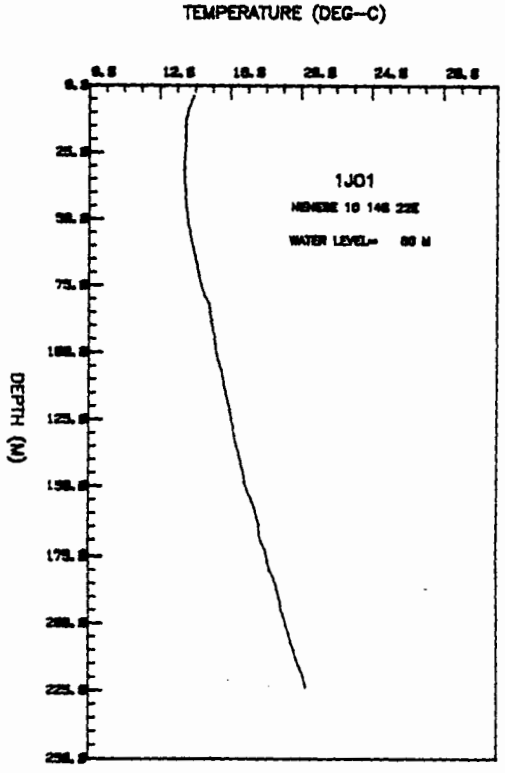

TEMPERATURE (DEG-C)
1FR2
WATER LEVEL= 0 M
DEPTH (M)

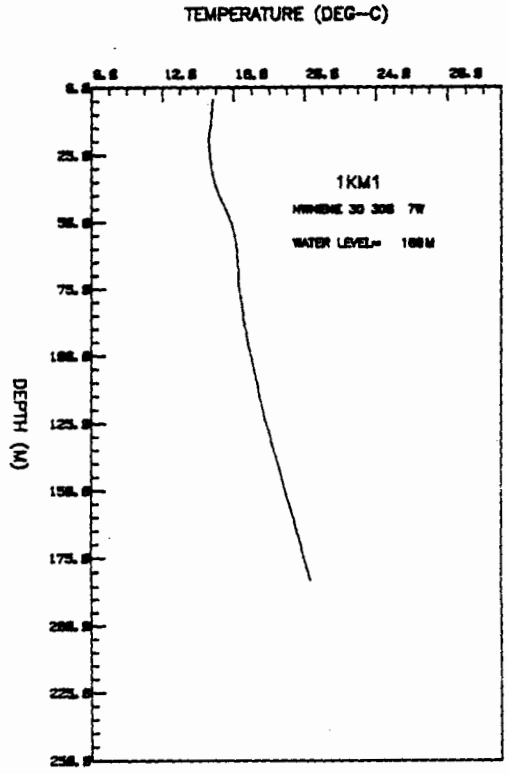

TEMPERATURE (DEG-C)
1FR3
WATER LEVEL= 110M
DEPTH (M)

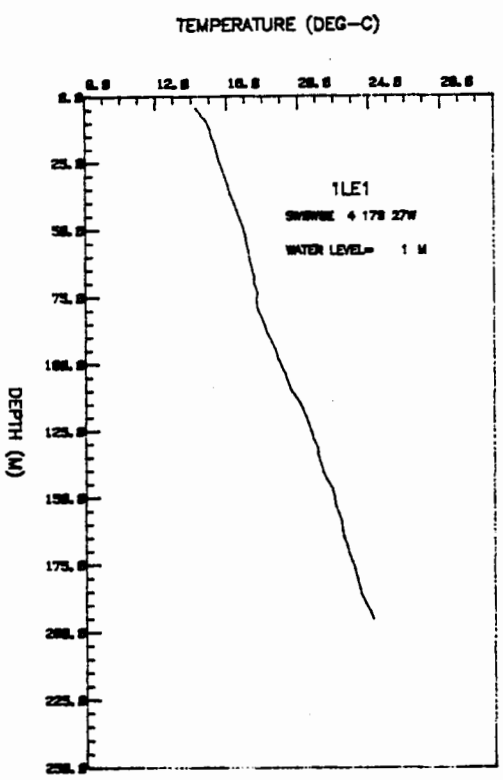

TEMPERATURE (DEG-C)
1GH4
WATER LEVEL= 184M
DEPTH (M)

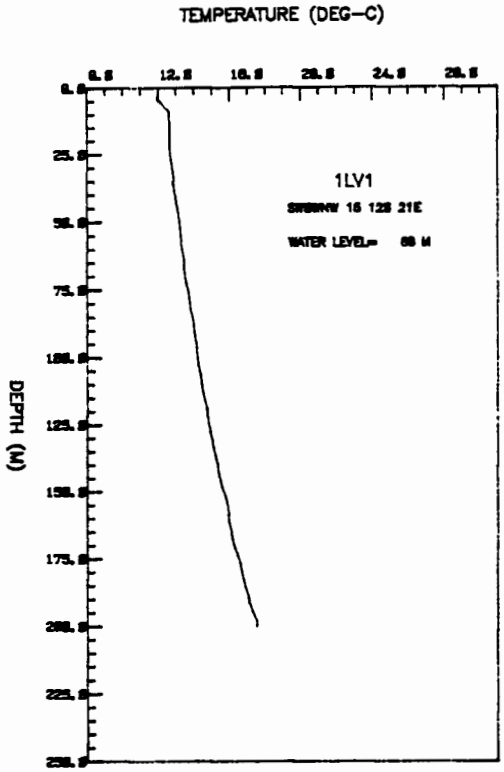

TEMPERATURE (DEG-C)
1HM2
DEPTH (M)

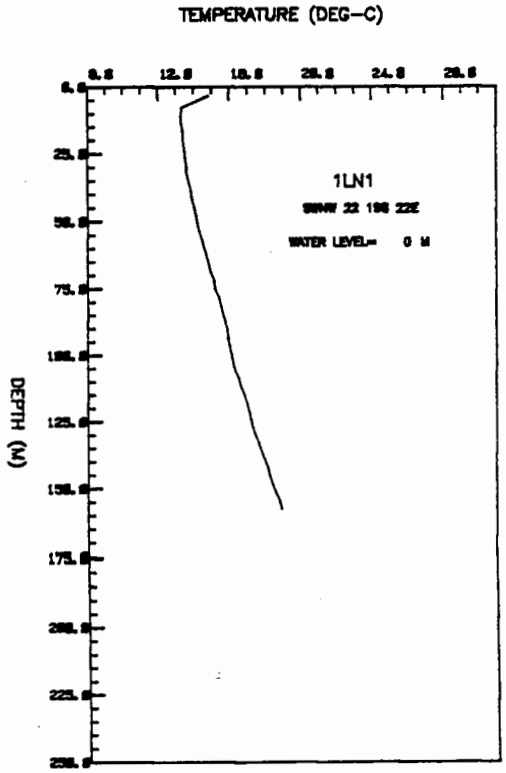

TEMPERATURE (DEG-C)
1HS1
DEPTH (M)

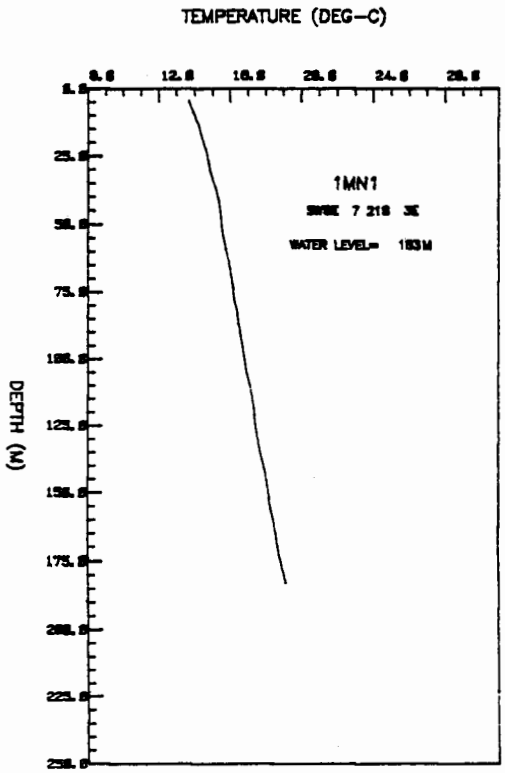

TEMPERATURE (DEG-C)
1JO1
DEPTH (M)

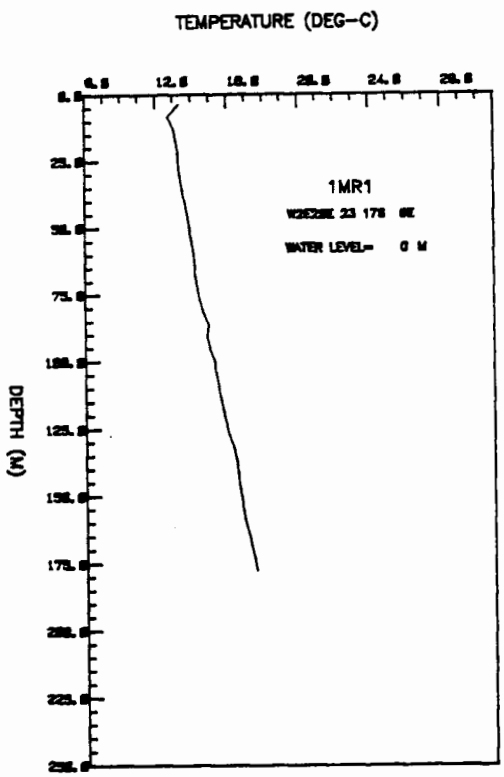

TEMPERATURE (DEG-C)
1KM1
DEPTH (M)

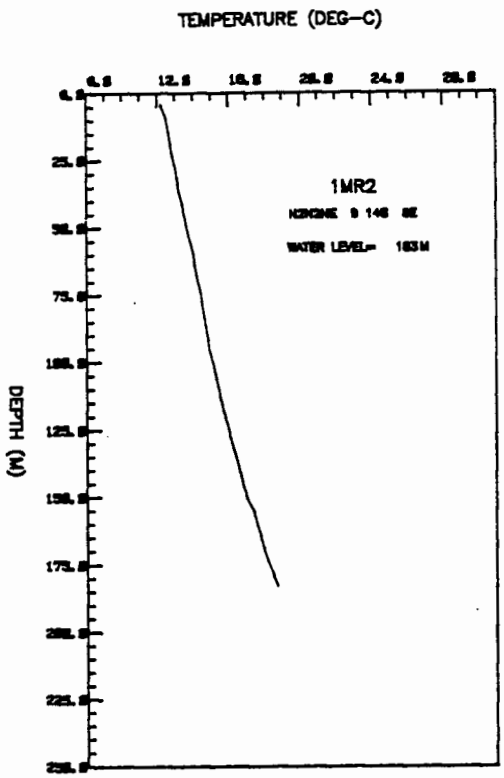

TEMPERATURE (DEG-C)
DEPTH (M)
1LE1
WATER LEVEL= 1 M

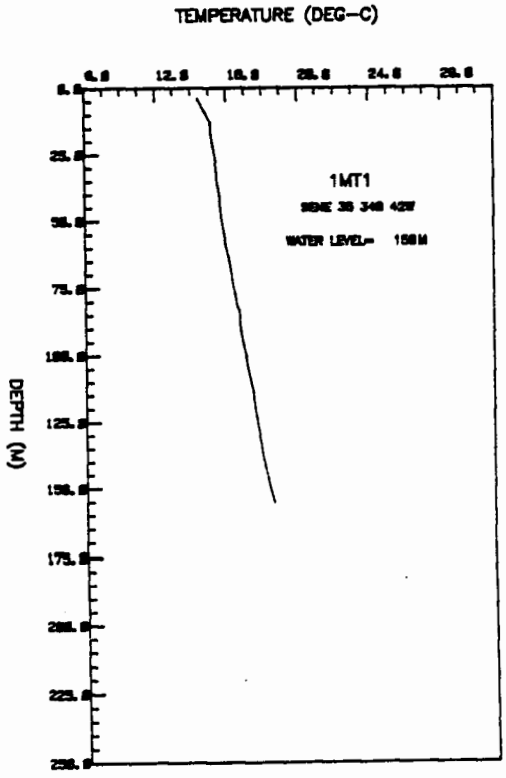

TEMPERATURE (DEG-C)
DEPTH (M)
1LV1

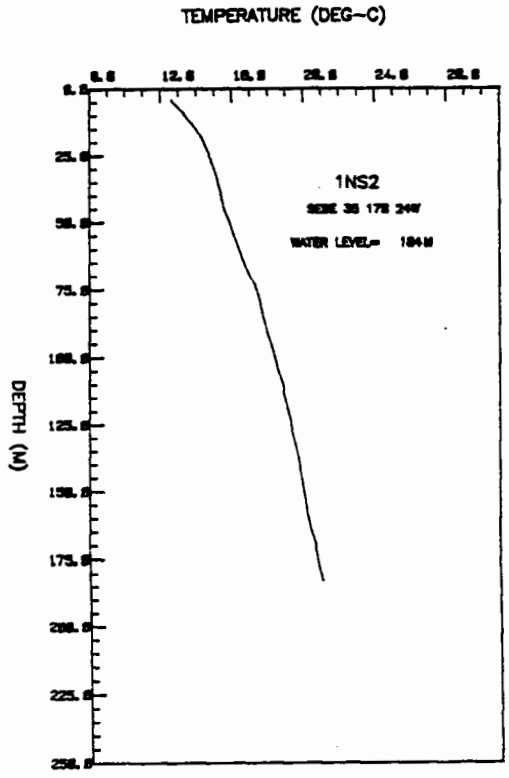

TEMPERATURE (DEG-C)
DEPTH (M)
1LN1
WATER LEVEL= 0 M

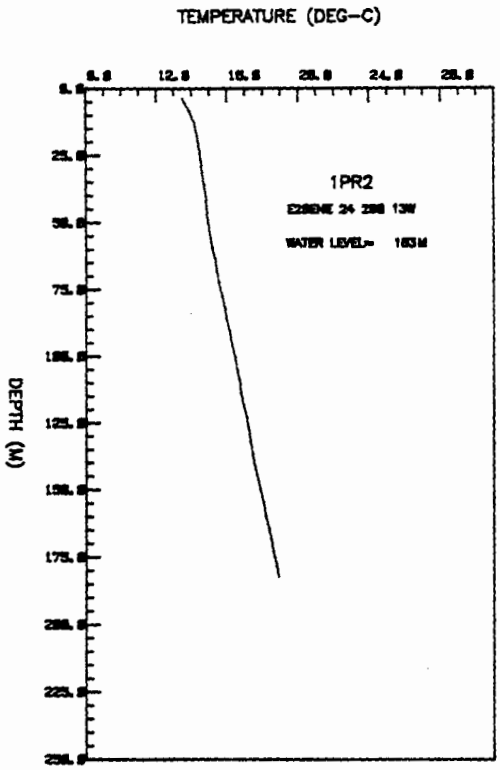

TEMPERATURE (DEG-C)
DEPTH (M)
1MN1

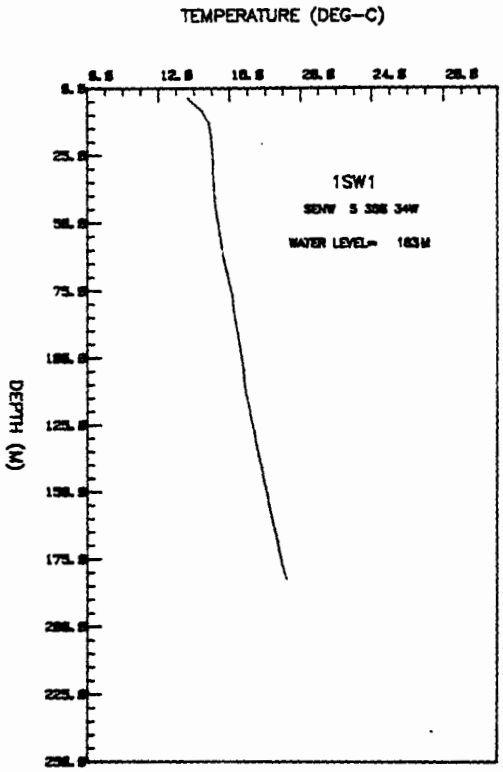

TEMPERATURE (DEG-C)
1MR1
WATER LEVEL= 0 M
DEPTH (M)

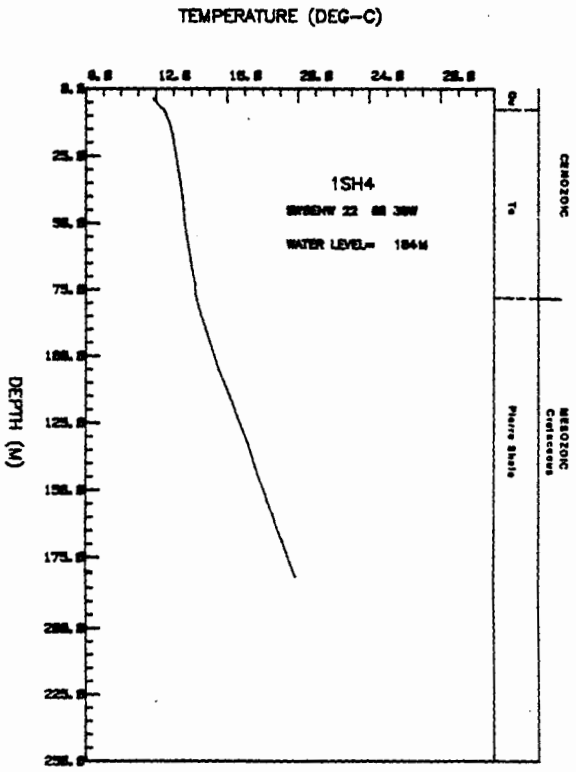

TEMPERATURE (DEG-C)
1MR2
WATER LEVEL= 183M
DEPTH (M)

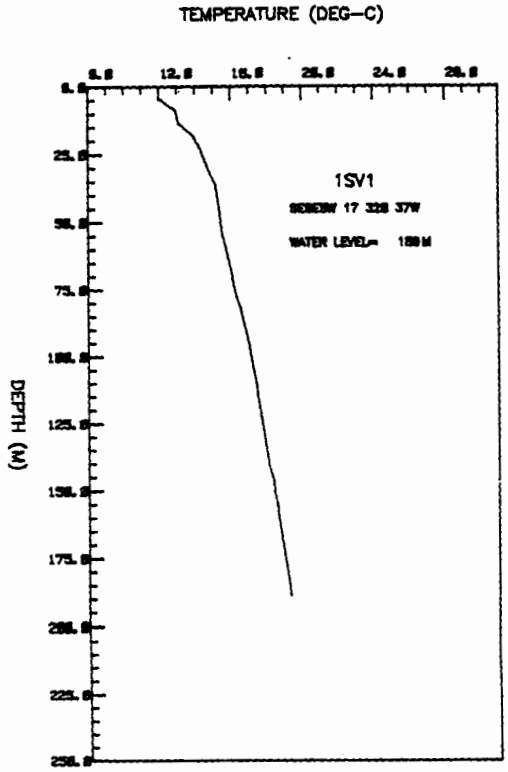

TEMPERATURE (DEG-C)
1MT1
WATER LEVEL= 158M
DEPTH (M)


TEMPERATURE (DEG-C)
1NS2
WATER LEVEL= 184M
DEPTH (M)

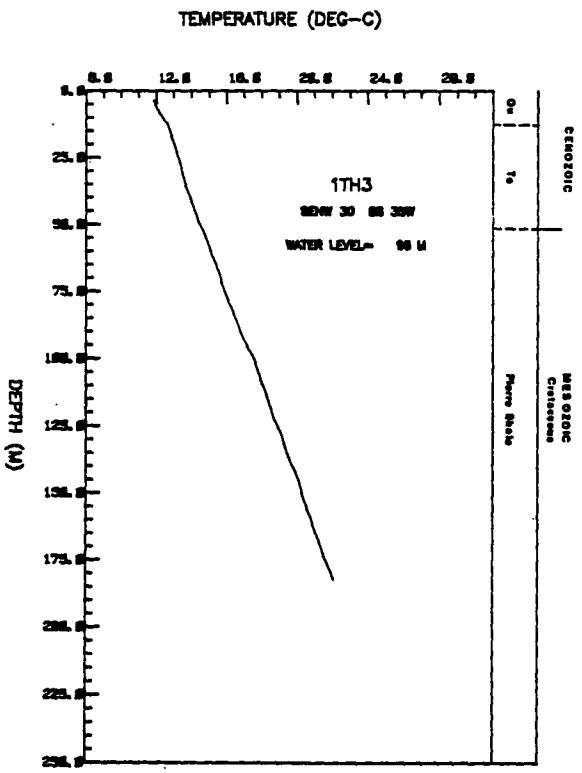

TEMPERATURE (DEG–C)
1PR2
WATER LEVEL= 163M
DEPTH (M)

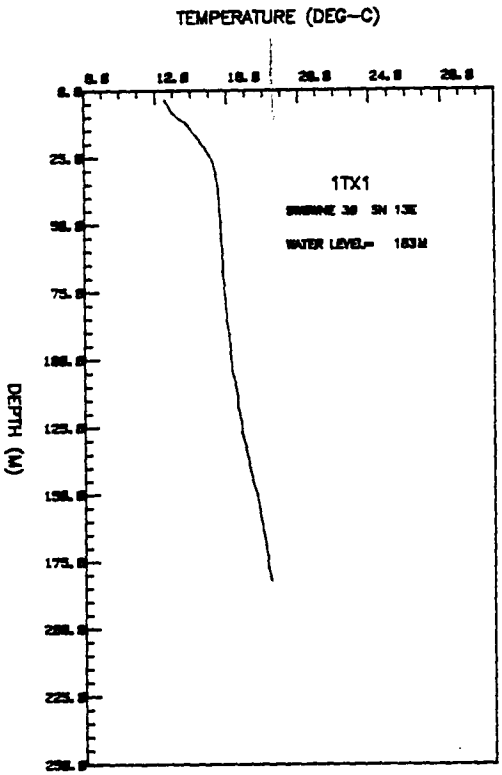

TEMPERATURE (DEG–C)
1SW1
WATER LEVEL= 163M
DEPTH (M)

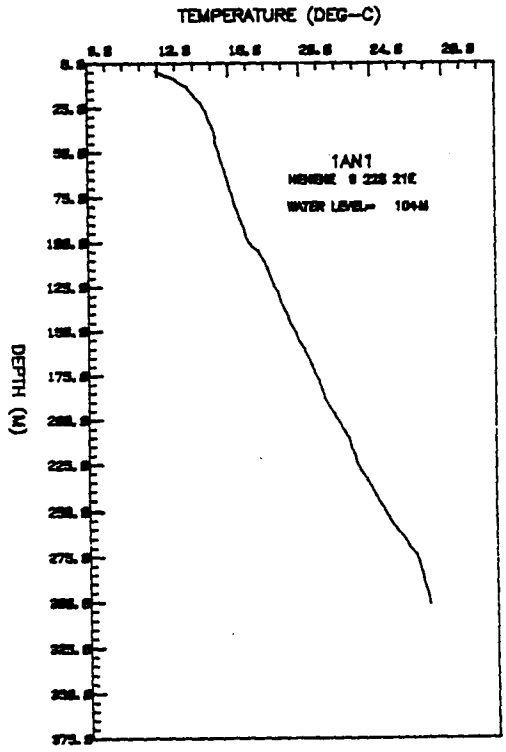

TEMPERATURE (DEG–C)
1SH4
WATER LEVEL= 164M
DEPTH (M)
Qt
Tv
Pierre Shale
CENOZOIC
MESOZOIC
Cretaceous

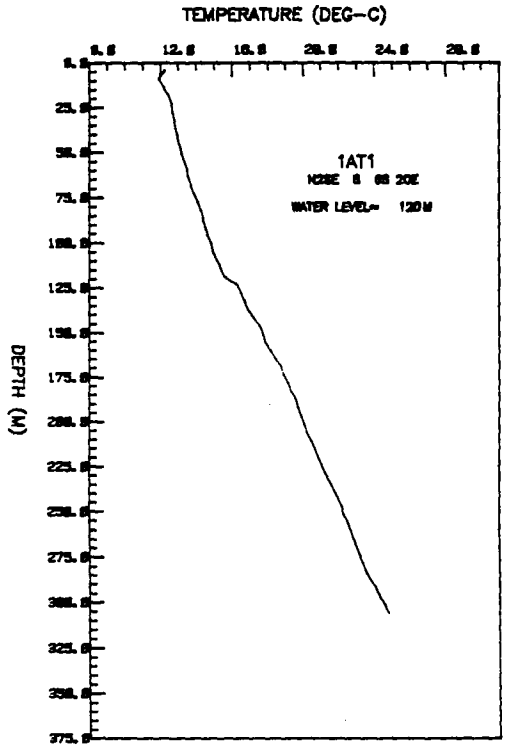

TEMPERATURE (DEG–C)
1SV1
WATER LEVEL= 159M
DEPTH (M)

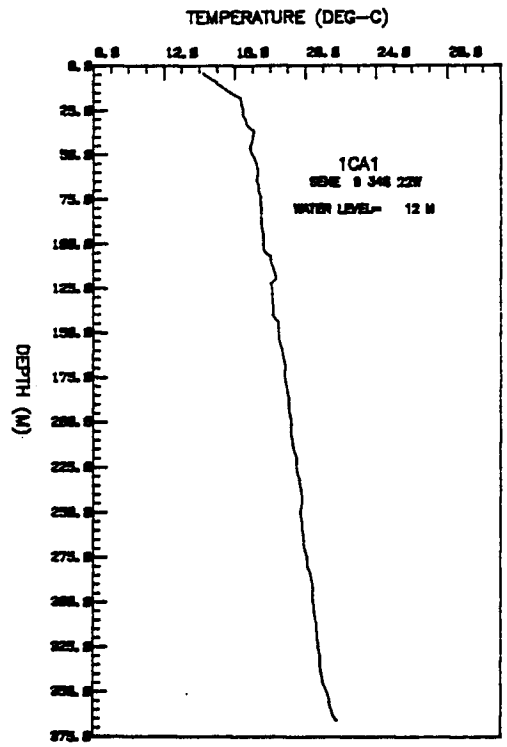
Oklahoma

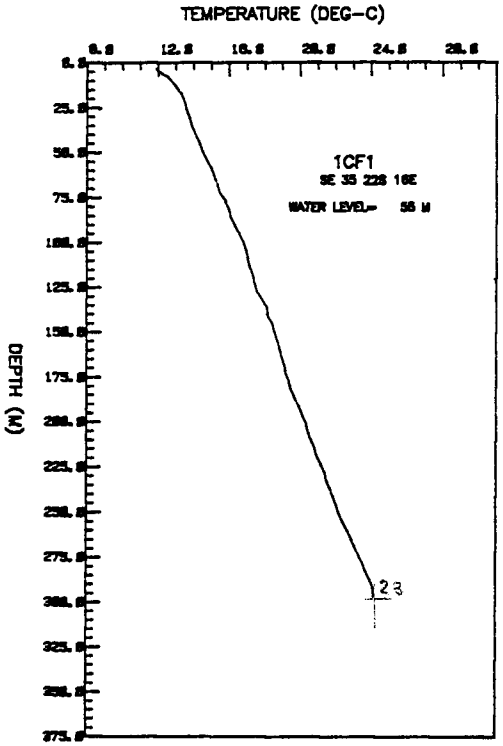

TEMPERATURE (DEG-C)
1TH3
DEPTH (M)
CENOZOIC
MESOZOIC

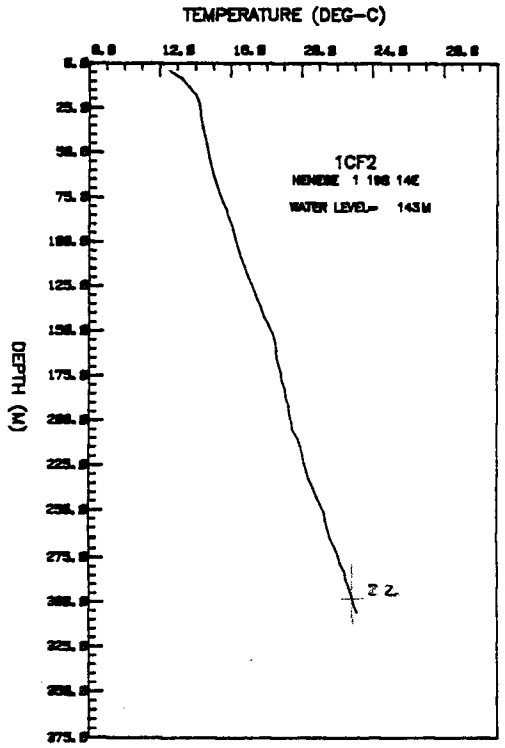

TEMPERATURE (DEG-C)
1TX1
WATER LEVEL= 183M
DEPTH (M)

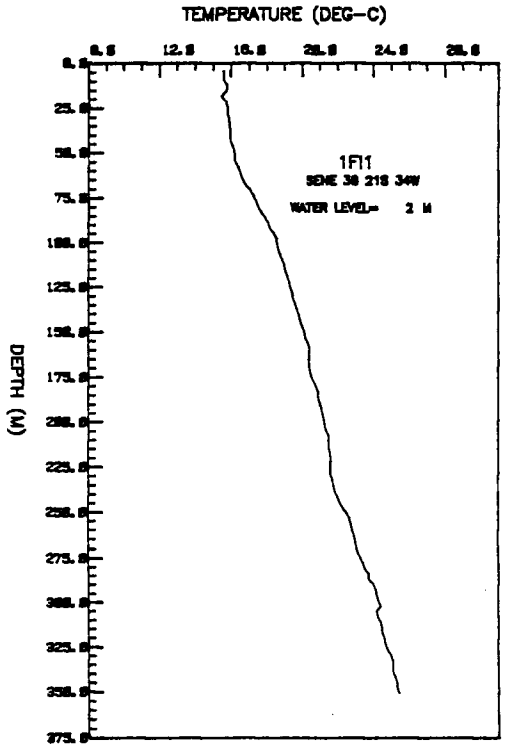

TEMPERATURE (DEG-C)
1AN1
DEPTH (M)

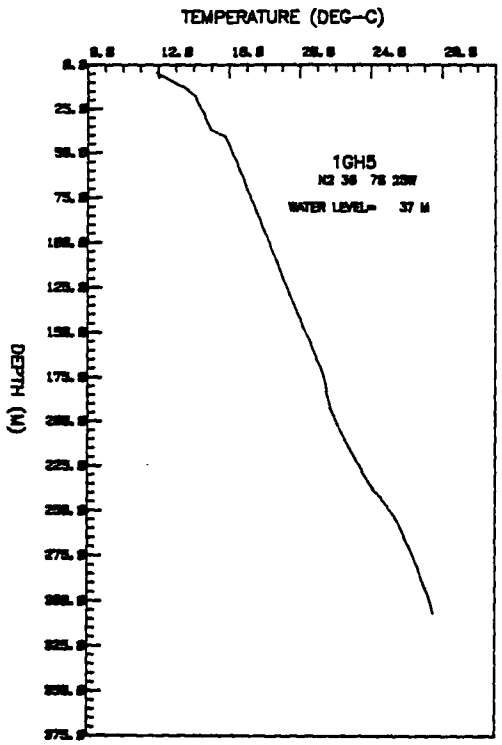

TEMPERATURE (DEG-C)
1AT1
WATER LEVEL= 120M
DEPTH (M)

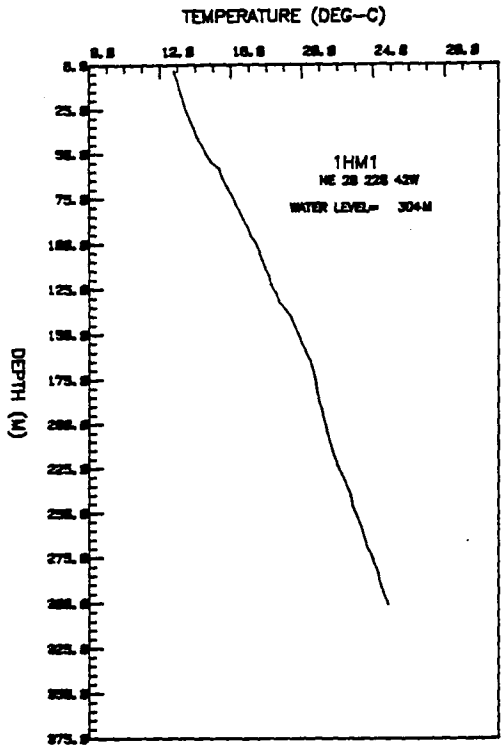

TEMPERATURE (DEG-C)
DEPTH (M)
1CA1

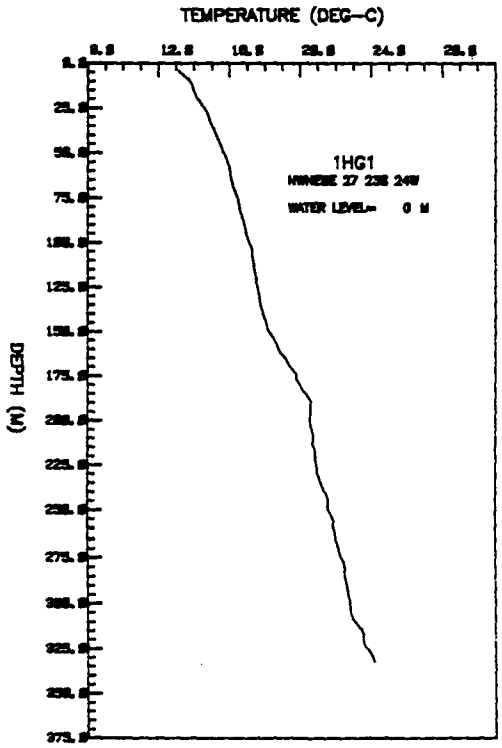

TEMPERATURE (DEG-C)
DEPTH (M)
1CF1

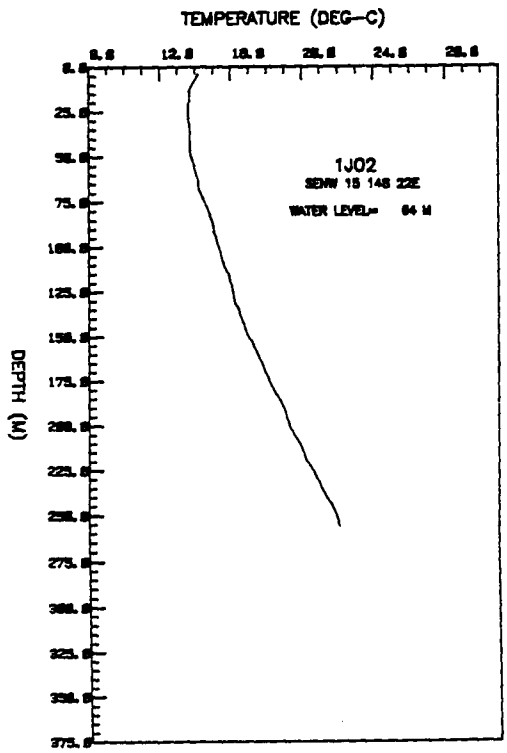

TEMPERATURE (DEG-C)
DEPTH (M)
1CF2

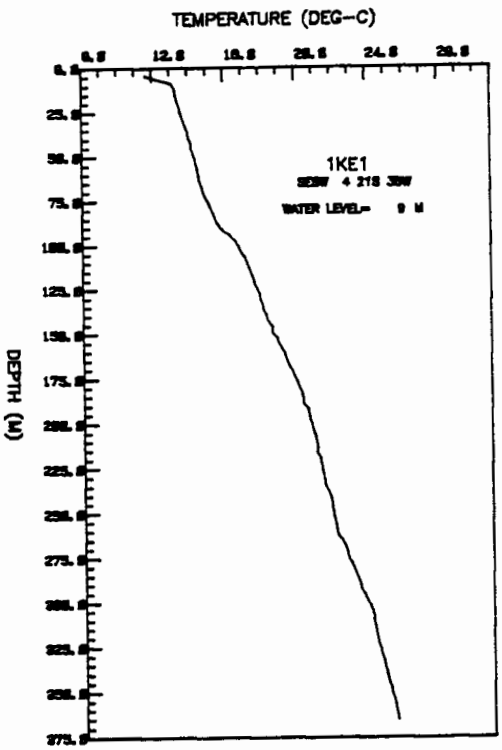

TEMPERATURE (DEG-C)
DEPTH (M)
1FI1

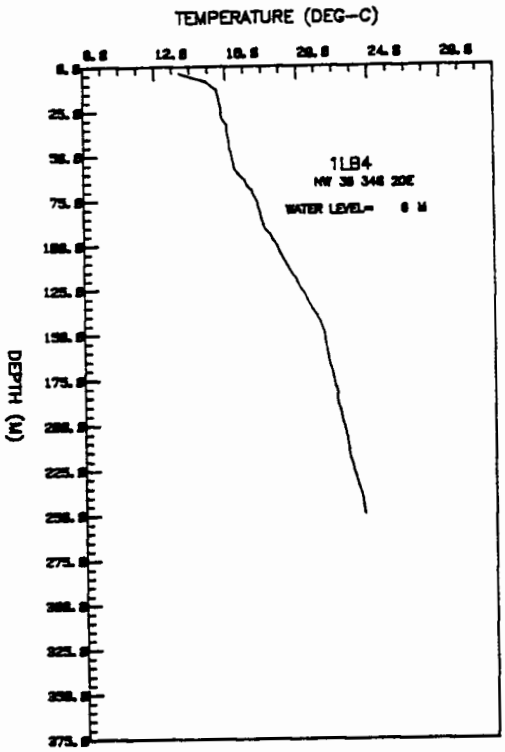

TEMPERATURE (DEG-C)
DEPTH (M)
1GH5
WATER LEVEL= 37 M

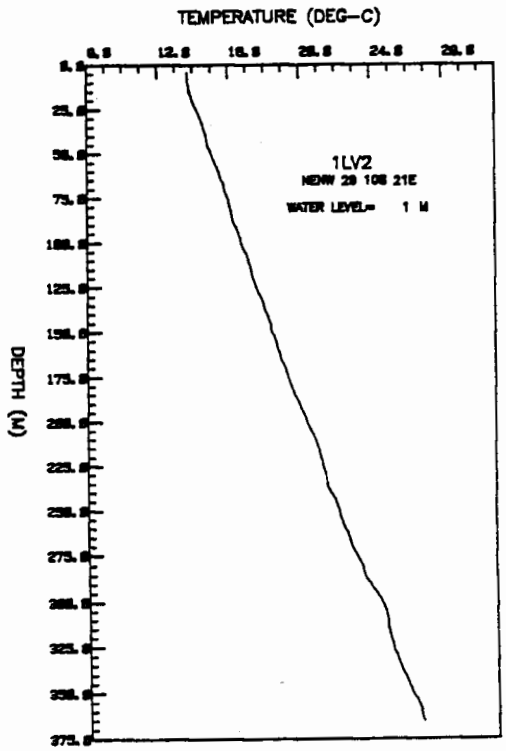

TEMPERATURE (DEG-C)
DEPTH (M)
1HM1
WATER LEVEL= 304 M

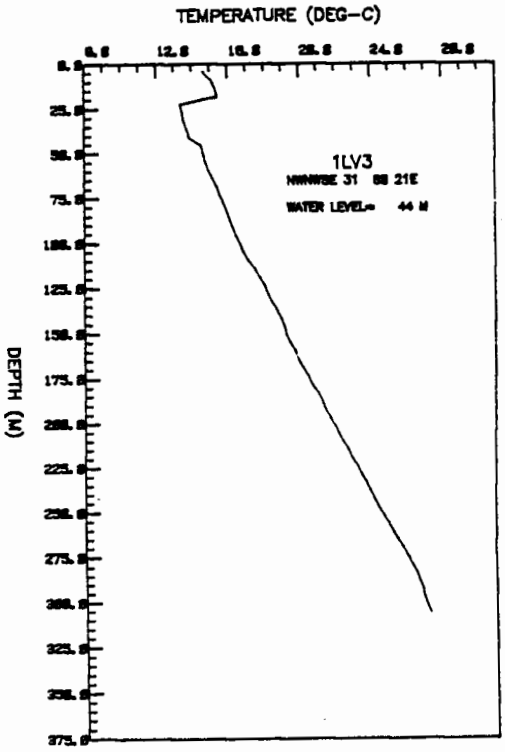

TEMPERATURE (DEG-C)
DEPTH (M)
1HG1
WATER LEVEL= 0 M

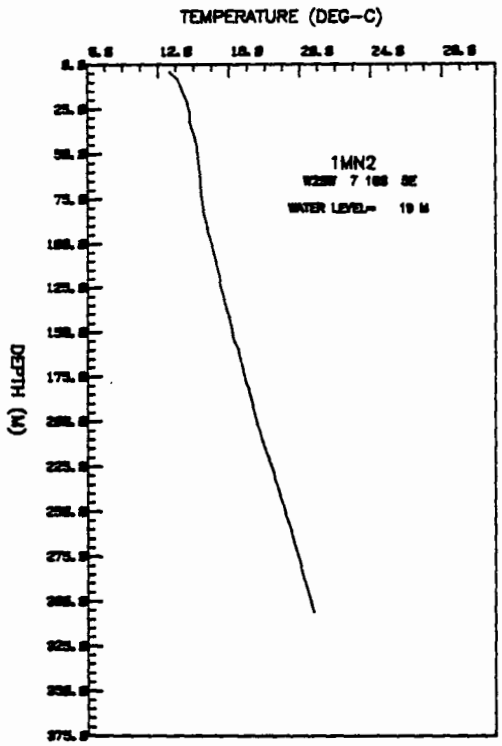

TEMPERATURE (DEG-C)
DEPTH (M)
1J02
WATER LEVEL= 64 M

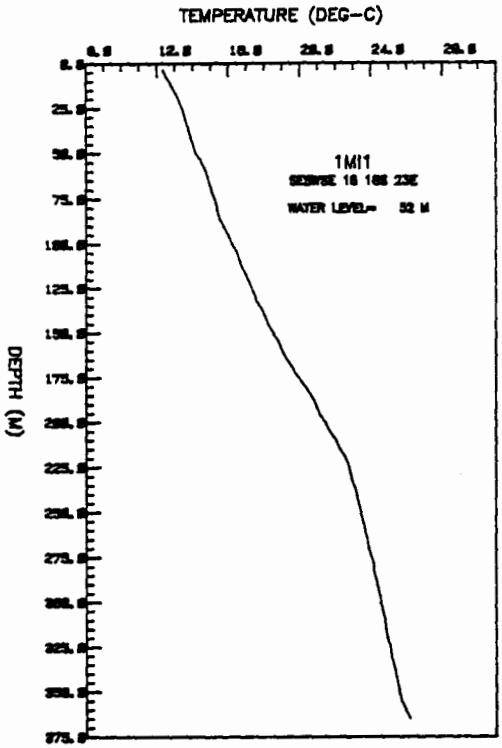

TEMPERATURE (DEG-C)
DEPTH (M)
1KE1

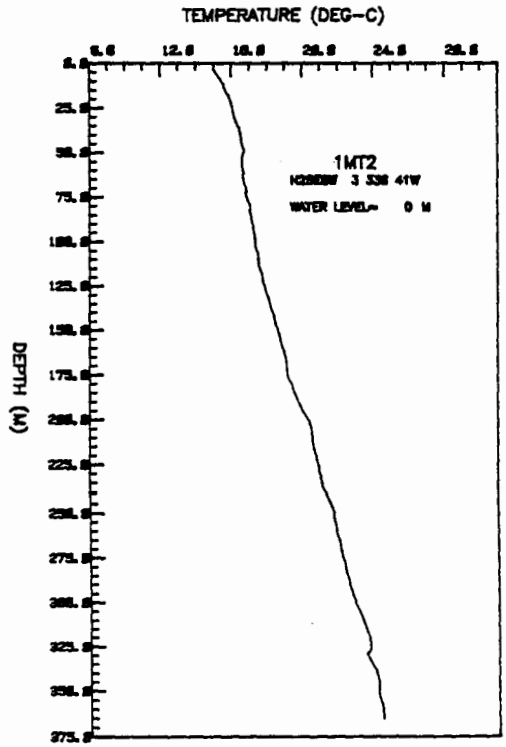

TEMPERATURE (DEG-C)
DEPTH (M)
1LB4

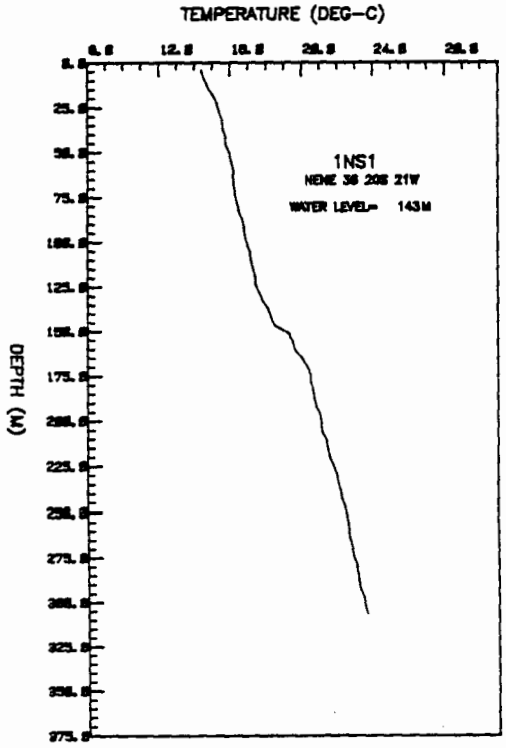

TEMPERATURE (DEG-C)
DEPTH (M)
1LV2

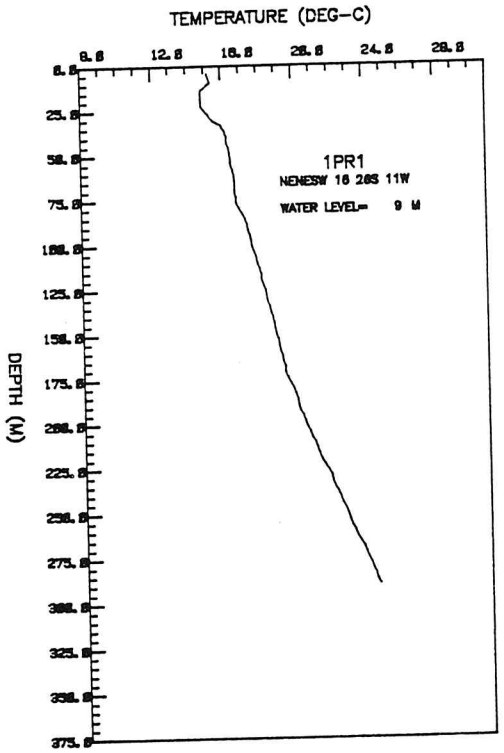

TEMPERATURE (DEG-C)
DEPTH (M)
1LV3

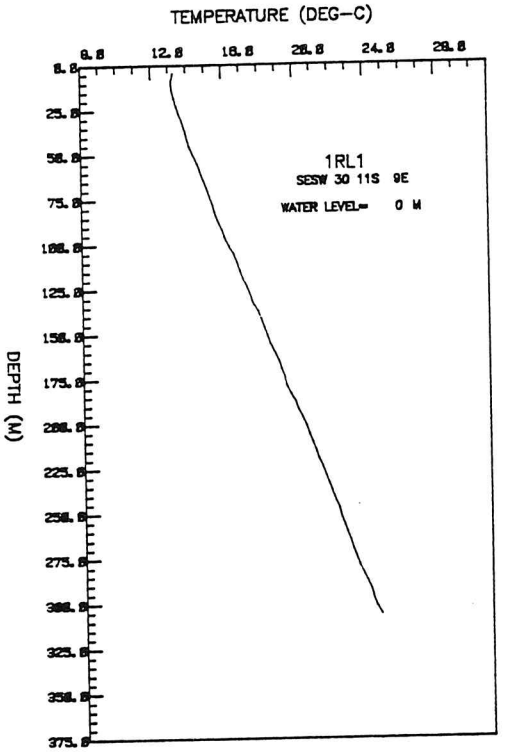

TEMPERATURE (DEG-C)
DEPTH (M)
1MN2
WATER LEVEL= 19 M

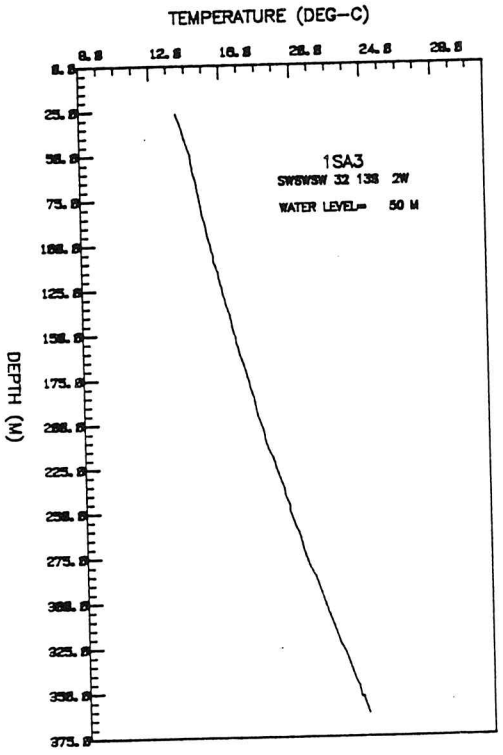

TEMPERATURE (DEG-C)
DEPTH (M)
1MI1
WATER LEVEL= 32 M

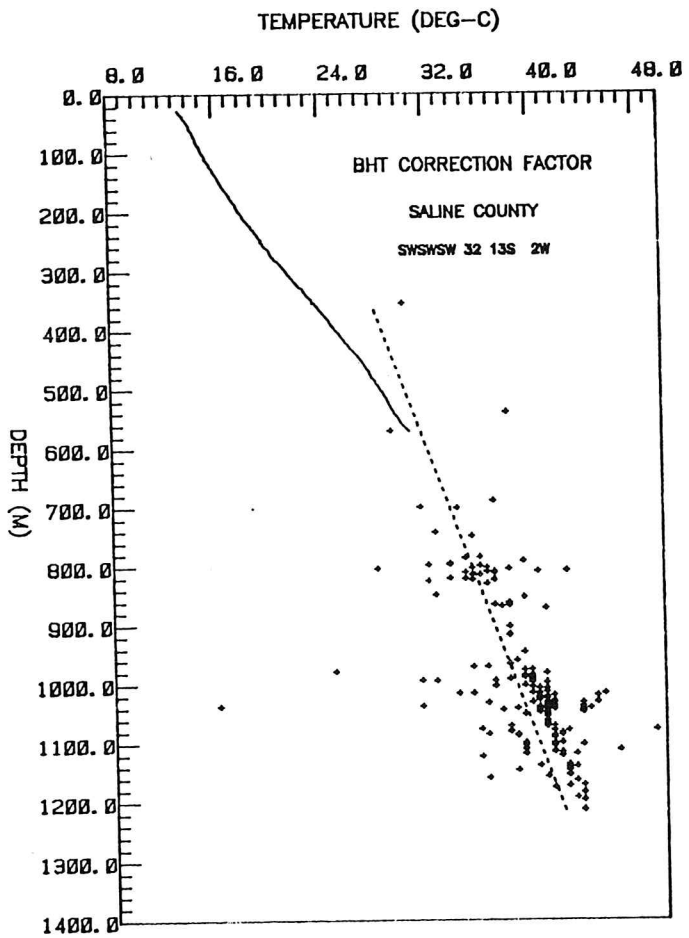

TEMPERATURE (DEG-C)
DEPTH (M)
1MT2
WATER LEVEL= 0 M

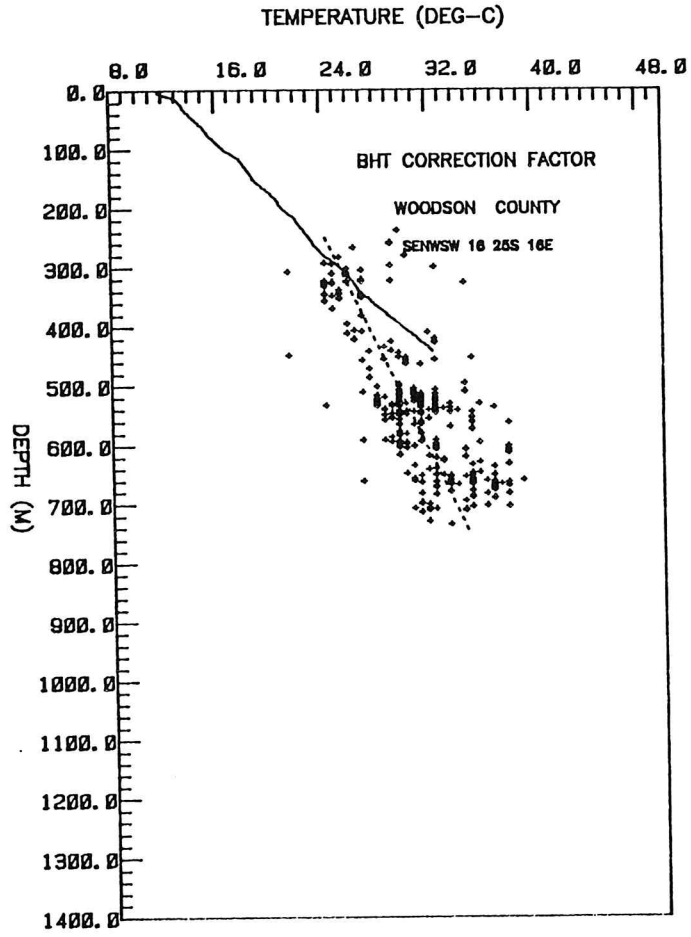

TEMPERATURE (DEG-C)
DEPTH (M)
1NS1
WATER LEVEL= 143M

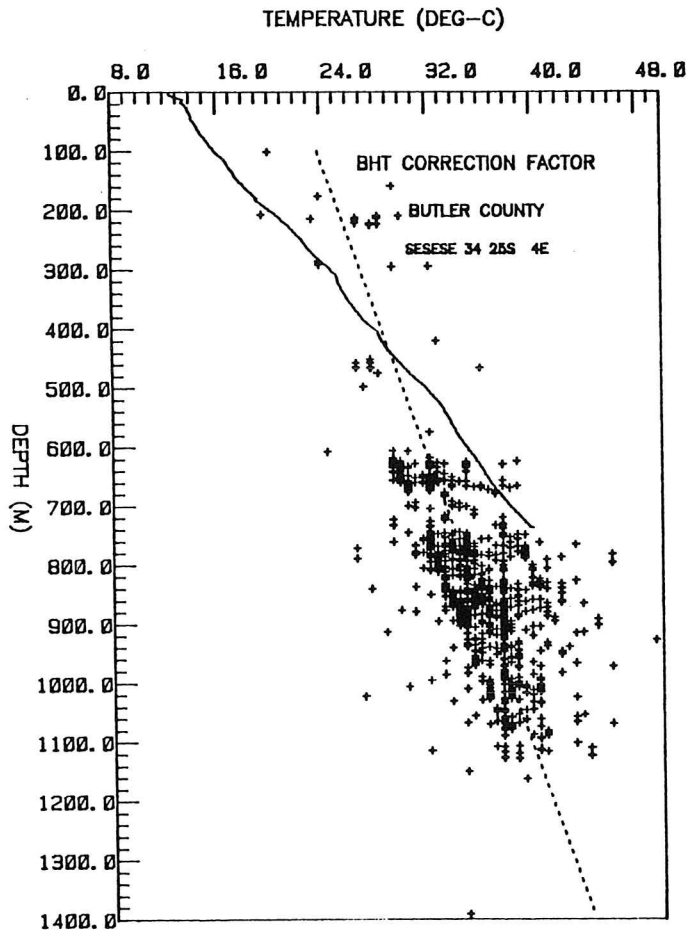

TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1PR1
NENESW 16 26S 11W
WATER LEVEL= 9 M
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8
150.8
175.8
200.8
225.8
250.8
275.8
300.8
325.8
350.8
375.8


TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1RL1
SESW 30 11S 9E
WATER LEVEL= 0 M
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8
150.8
175.8
200.8
225.8
250.8
275.8
300.8
325.8
350.8
375.8


TEMPERATURE (DEG-C)
8.8
12.8
16.8
20.8
24.8
28.8
1SA3
SWSWSW 32 13S 2W
WATER LEVEL= 50 M
DEPTH (M)
8.8
25.8
50.8
75.8
100.8
125.8
150.8
175.8
200.8
225.8
250.8
275.8
300.8
325.8
350.8
375.8


TEMPERATURE (DEG-C)
8.0
16.0
24.0
32.0
40.0
48.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
DEPTH (M)
BHT CORRECTION FACTOR
SALINE COUNTY
SWSWSW 32 13S 2W


TEMPERATURE (DEG-C)
8.0
16.0
24.0
32.0
40.0
48.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
DEPTH (M)
BHT CORRECTION FACTOR
WOODSON COUNTY
SENWSW 16 25S 16E


TEMPERATURE (DEG-C)
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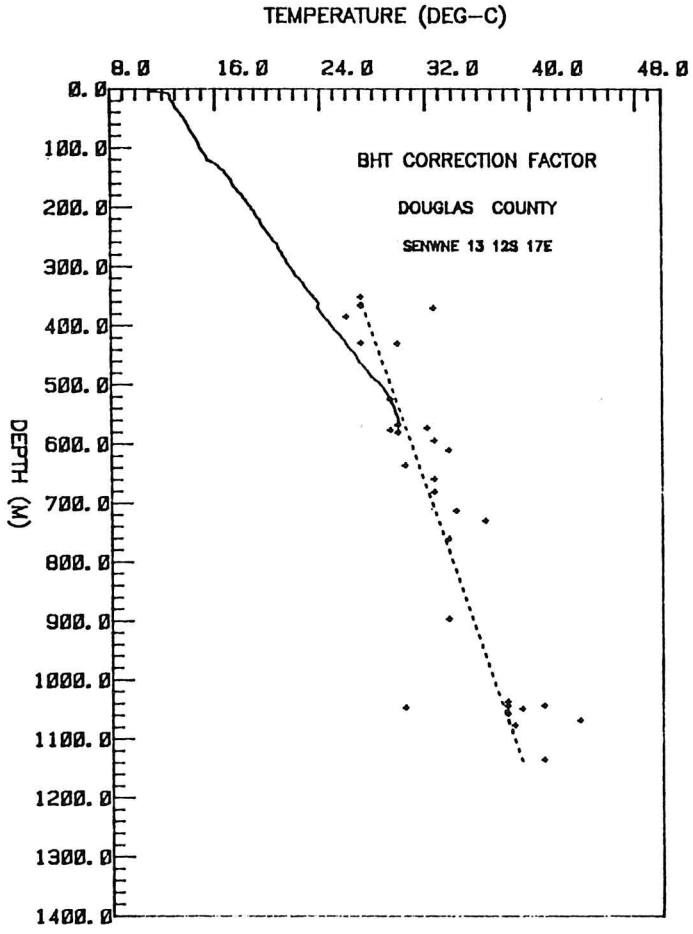
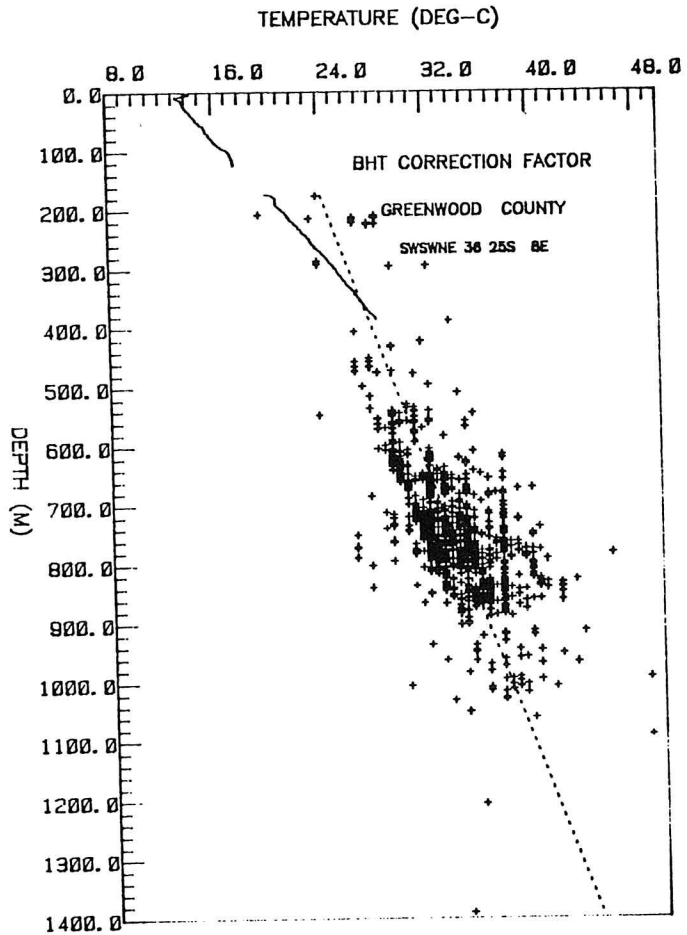
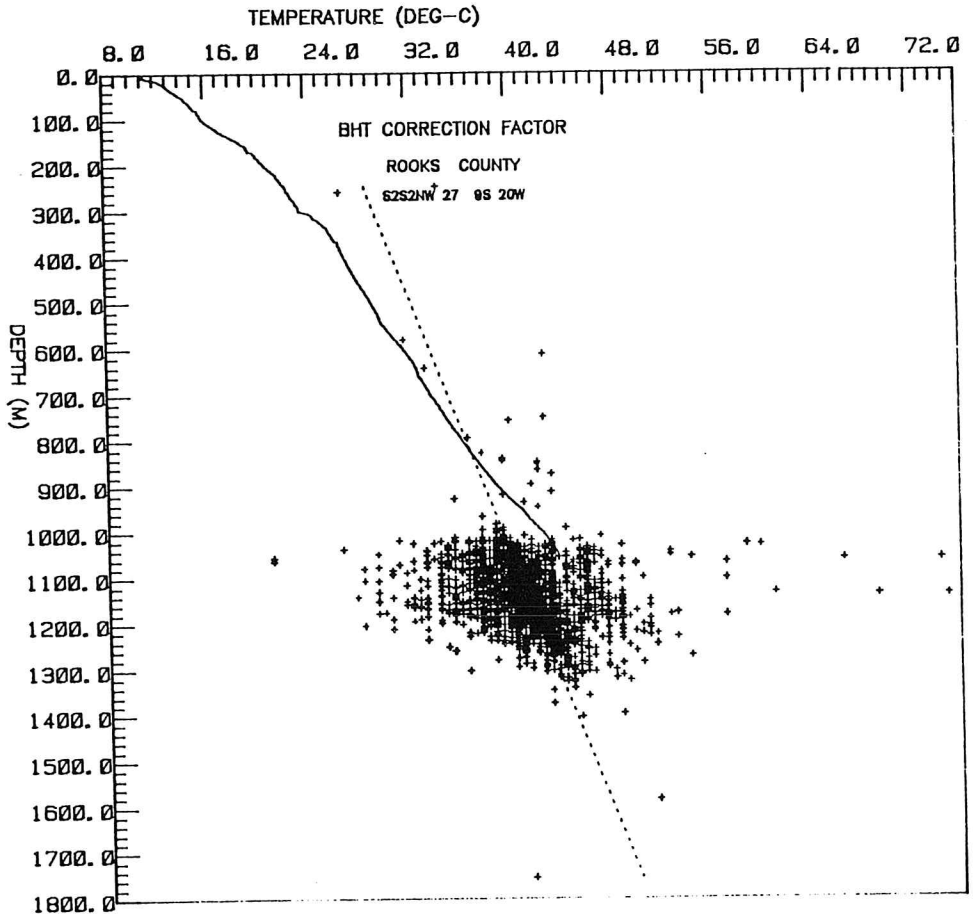
16.0
24.0
32.0
40.0
48.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
DEPTH (M)
BHT CORRECTION FACTOR
BUTLER COUNTY
SESESE 34 25S 4E


TEMPERATURE (DEG-C)
8.0
16.0
24.0
32.0
40.0
48.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
DEPTH (M)
BHT CORRECTION FACTOR
DOUGLAS COUNTY
SENWNE 13 12S 17E


TEMPERATURE (DEG-C)
8.0
16.0
24.0
32.0
40.0
48.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
DEPTH (M)
BHT CORRECTION FACTOR
GREENWOOD COUNTY
SWSWNE 36 25S 8E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24.0
32.0
40.0
48.0
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64.0
72.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
1100.0
1200.0
1300.0
1400.0
1500.0
1600.0
1700.0
1800.0
DEPTH (M)
BHT CORRECTION FACTOR
ROOKS COUNTY
S2S2NW 27 9S 20W

APPENDIX IV.

COMPUTER ANALYSES OF THERMAL LOGGING DATA

TABLE OF CONTENTS

```
7098T 01  03-17-81   12.737

                      CHARACTER*18 IDENT
                      INTEGER N,K,L,D(9),BREAK,J,M
                      REAL T(9),SD,SD2,ST,ST2,SDT,B1,B2,SB1,SB,TEST,BB,SBB,TTEST
                      REAL SDG,SD2G,STG,ST2G,SDTG,B1G,B2G,SB1G,SBG,TESTG
                      REAL SUMINV,FREE,SSB1,SB1G
                      N=93
                      K=0
                      WRITE (6,300)
                150   READ (10,250) IDENT,BREAK
                      DO 5 I=1,9
                      D(I)=0
                      T(I)=0
                5     CONTINUE
                      SDT=0.
                      SD2=0.
                      ST2=0.
                      SD=0.
                      ST=0.
                      SDTG=0.
                      SD2G=0.
                      ST2G=0.
                      SDG=0.
                      STG=0.
                      M=C
                      J=0
                2     READ (10,100) (D(I),T(I),I=1,9)
                      L=0
                      DO 10 I=1,9
                      IF(L.EQ.1)GO TO 10
                      IF(D(I).EQ.-99)GO TO 15
                      IF(D(I).GE.BREAK)GO TO 20
                      SD=SD+(FLOAT(D(I)))
                      SD2=SD2+(FLOAT(D(I)))**2
                      ST=ST+T(I)
                      ST2=ST2+(T(I))**2
                      SDT=SDT+(FLOAT(D(I)))*T(I)
                      J=J+1
                      GO TO 10
                20    SDG=SDG+(FLOAT(D(I)))
                      SD2G=SD2G+(FLOAT(D(I)))**2
                      STG=STG+T(I)
                      ST2G=ST2G+(T(I))**2
                      SDTG=SDTG+(FLOAT(D(I)))*T(I)
                      M=M+1
                      GO TO 10
                15    L=1
                10    CONTINUE
                      IF(L.NE.1)GO TO 2
                300   FORMAT('0','COMPARISON OF REGRESSION LINES ABOVE AND BELOW BREAK I
                     XN TEMPERATURE PROFILE FOR KS THERMAL LOGGING DATA')
                      IF(J.LE.2.AND.M.LE.2)GO TO 1000
                      IF(J.LE.2.AND.M.GT.2)GO TO 2000
                      B1=SDT-SD*ST/J
                      B2=SD2-(SD**2)/J
                      B=B1/B2
                      SB1=ST2-(ST**2)/J
```

```
7098T 01  03-17-81   12.737

                      SB=SQRT(ABS((SB1-(B1**2)/B2)/((J-2)*B2)))
                      TEST=B/SB
                      IF(M.LE.2)GO TO 3001
     2000             B1G=SDTG-SDG*STG/M
                      B2G=SD2G-(SDG**2)/M
                      BG=B1G/B2G
                      SB1G=ST2G-(STG**2)/M
                      SBG=SQRT(ABS((SB1G-(B1G**2)/B2G)/((M-2)*B2G)))
                      TESTG=BG/SBG
                      IF(J.LE.2)GO TO 2001
                      BB=BG-B
                      SSBTG=SB1G-(B1G**2)/B2G
                      SSB1=SB1-(B1**2)/B2
                      SUMINV=(B2+B2G)/(B2*B2G)
                      FREE=J+M-4
                      SBB=SQRT((SSB1G+SSB1)*SUMINV/FREE)
                      TTEST=BB/SBB
     3001             WRITE (6,50) IDENT,BREAK,J,B,SB,TEST,J-2
                      WRITE(6,900) B*100.,B*1823.
                      IF(M.LE.2)GO  TO 3005
     2001             WRITE (6,200) IDENT,BREAK,M,BG,SBG,TESTG,M-2
                      WRITE(6,990) BG*100.,BG*1823.
                      IF(J.LE.2)GO TO 2005
                      WRITE (6,400) TTEST
                      GO TO 1
     1000             WRITE (6,1001) IDENT
                      GO TO 1
     2005             WRITE (6,2002) IDENT
                      GO TO 1
     3005             WRITE (6,3002) IDENT
     1                K=K+1
                      IF(K.LT.N)GO TO 150
       50              FORMAT('0',A18,/,'DEPTH TO BREAK IN TEMPERATURE PROFILE IS ',I3,'F
                     XEET',/,'NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS
                     X ',I4,/,'COEFFICIENT OF LINEAR REGRESSION IS ',F8.5,/,'STANDARD ER
                     XROR OF REGRESSION COEFFICIENT IS ',F8.5,/,'T TEST VALUE FOR DATA A
                     XBOVE BREAK IN TEMPERATURE PROFILE IS ',F10.5,/,'THERE ARE ',I4,'DE
                     XGREES OF FREEDOM')
       200             FORMAT('0',A18,/,'DEPTH TO BREAK IN TEMPERATURE PROFILE IS ',I3,'F
                     XEET',/,'NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS
                     X ',I4,/,'COEFFICIENT OF LINEAR REGRESSION IS ',F8.5,/,'STANDARD ER
                     XROR OF REGRESSION COEFFICIENT IS ',F8.5,/,'T TEST VALUE FOR DATA B
                     XELOW BREAK IN TEMPERATURE PROFILE IS ',F10.5,/,'THERE ARE ',I4,'DE
                     XGREES OF FREEDOM')
       400             FORMAT(/,'T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW
                     XBREAK IN TEMPERATURE PROFILE IS ',F15.12,/)
       100             FORMAT(9(I4,F4.1))
       250             FORMAT(A18,9X,I3)
       1001            FORMAT('0',A18,/,'THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANI
                     XNGFUL T TEST',/)
       2002            FORMAT('0',A18,/,'THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANI
                     XNGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE',/)
       3002            FORMAT('0',A18,/,'THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANI
                     XNGFUL T TEST OF THE DATA BELOW BREAK IN TEMPERATURE PROFILE',/)
       900             FORMAT('THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = ',F6.2,'
                     XDEGREES-F/100 FEET, ',F8.2,'DEGREES-C/KILOMETER')
```

```
7098T 01  03-17-81   12.737

                113       990   FORMAT('THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = ',F6.2,'
                114            XDEGREES-F/100 FEET, ',F8.2,'DEGREES-C/KILOMETER')
                115             STOP
                116             END
******W     7 MEMORY EXPANDED. USE $LIMITS OR CORE= OPTION FOR NEXT RUN


   EDIT DATE   10-30-80 ***D 24.2 ***

ELAPSED TIME (SEC)       .61          LINES/MINUTE 11351

  THERE WERE     1 DIAGNOSTICS IN ABOVE COMPILATION
   31K  WORDS WERE USED FOR THIS COMPILATION
```

USEABLE THERMAL LOGGING DATA FROM 1980 FIELD SEASON

```
1AL1SESENW3423S18E335  4  0 50
  1554.9   3055.6   4556.6   6057.2   7557.5   9057.7  10558.0  12058.2  13558.3
 15058.5  16558.7  18058.9  19559.1  21059.4  22559.6  24059.8  25559.9  27060.3
 28560.7  30061.0  31561.3  33061.6  -9999.9
1AL2NENENE2426S20E   8  4  0 58
  1354.9   1853.4   2353.4   2853.8   3354.1   3854.6   4355.0   4855.3   5355.5
  5855.7   6355.8   6855.9   7356.0   7856.0   8356.1   8856.2   9356.2   9556.3
 -9999.9
1BA1NWSENW 631S12W 80  4  0 40
  1556.4   3057.8   4558.5   6058.7   7559.3   9061.6  10061.7  11061.8  12061.8
 13061.8  14061.8  15061.9  16061.9  17061.9  18061.9  19062.0  20062.1  21062.3
 22062.3  23062.4  24062.7  25062.8  26063.0  27063.1  28063.2  29063.4  30063.5
 31063.7  32063.9  33064.1  34064.4  35065.6  36065.9  37065.8  38065.7  39065.7
 40065.6  41065.6  42065.4  43065.6  44065.7  45065.9  46066.0  47066.1  48066.4
 49066.5  -9999.9
1BI1NESWSE 519S12W 16  5 50 39
  1452.8   1953.1   2453.4   2953.8   3454.1   3954.3   4454.4   4954.6   5454.7
  5954.9   6455.0   6955.1   7455.2   7955.3   8455.4   8955.5   9455.6   9955.7
 10455.8  10955.9  11455.9  11956.1  12456.2  12956.3  13456.4  13956.5  14456.5
 14956.6  15456.7  15956.7  16456.7  16956.8  17456.9  17756.9  -9999.9
1BI2    N2171GS13W505  7  0 20
  1554.5   3055.0   4055.6   5056.0   6056.3   7056.7   8057.0   9057.3  10057.5
 11057.8  12058.0  13058.3  14058.4  15058.6  16058.8  17059.1  18059.3  19059.4
 20059.6  21059.8  22059.9  23060.0  24060.2  25060.6  26060.8  27060.9  28061.0
 29061.1  30061.2  31061.3  32061.4  33061.6  34061.7  35061.9  36062.0  37062.2
 38062.3  39062.4  40062.5  41062.7  42062.9  43063.0  44063.2  45063.5  46063.6
 47064.0  48064.1  49064.4  50064.5  -9999.9
1BB1   S2SW3424S21E380  2  0  0
  1355.7   2854.4   4355.1   5855.7   7356.0   8856.3  10356.5  11856.7  13356.8
 14857.0  16357.3  17857.5  19357.9  20858.3  22358.7  23859.0  25359.4  26859.8
 28360.1  29860.4  31360.7  32861.0  34361.2  35861.6  37362.0  38862.6  40363.0
 -9999.9
1BU1NWNENW3129S 5E 19  5  0 24
  1557.0   2456.3   2956.3   3456.3   3956.3   4456.4   4956.6   5456.6   5956.7
  6456.8   6956.8   7456.9   7957.0   8457.0   8957.0   9457.0   9957.1  10457.2
 10957.3  11457.7  11957.7  12457.8  12957.9  13457.9  13958.0  14458.1  14958.1
 15458.2  15958.3  16458.3  16958.3  17458.4  17958.4  18458.4  -9999.9
1BU2NENWNW 429S 5E 25  5  0 29
  1458.6   2459.2   2956.2   3456.0   3956.2   4456.3   4956.4   5456.4   5956.5
  6456.6   6956.7   7456.7   7956.7   8456.8   8956.8   9456.9   9956.9  10457.0
 10957.0  11457.0  11957.1  12357.1  -9999.9
1BU3SESESE3425S 4E208  7  0 73
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 14857.5  16357.9  17858.1  19358.3  20858.5  22358.7  23858.9  25359.3  26859.6
 28359.9  29860.1  31360.5  32860.7  34361.1  35861.6  37362.0  38862.3  40362.5
 41862.7  42862.9  43863.1  44863.3  45863.4  46863.5  47863.7  48863.9  49864.1
 50864.5  51864.7  52864.9  53865.1  54865.4  55865.7  56865.9  57866.2  58866.5
 -9999.9
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  1361.6   2856.1   3856.8   4857.3   5857.5   6857.6   7857.8   8858.0   9858.2
 10858.5  11858.7  12859.1  13859.4  14859.6  15859.9  16860.1  17860.2  18860.3
 19860.5  20860.7  21860.8  22861.0  23861.1  24861.3  25861.6  26861.8  27862.0
 28862.2  29862.4  30862.6  31862.8  32863.1  33863.4  34863.6  35864.0  36864.3
 37864.7  38865.0  39865.5  40865.9  41866.1  42866.4  43866.6  44866.9  45867.1
 46867.3  47867.6  -9999.9
1CQ2   NESE1835S10E300  7  0 27
```

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28261.9 29762.2 -9999.9
1CN1SWSWSW20 4538W160  2 43 33
 1345.7  1846.5  2347.8  2849.3  3350.0  3850.3  4350.6  4850.9  5351.0
 5851.4  6351.6  6851.7  7351.9  7852.0  8352.1  8852.3  9352.5  9852.8
10352.9 10853.1 11353.4 11853.6 12354.0 12854.2 13354.3 13854.5 14354.6
14854.8 15355.0 15855.7 16355.8 16855.9 17356.1 17856.2 18356.3 18856.4
19356.5 19856.6 20356.8 20856.9 21356.9 21857.0 22357.1 22857.3 23357.4
23857.5 24357.6 24857.8 25357.9 25858.1 26358.1 26858.3 27358.4 27858.5
28158.5 -9999.9
1CD1    SE23 7S 2W120  4 20 55
 1350.5  1850.7  2350.8  2850.8  3350.8  3851.0  4351.2  4851.4  5351.6
 5851.7  6351.8  6851.9  7352.0  7852.0  8352.1  8852.2  9352.2  9852.3
10352.4 10852.5 11352.6 11853.0 -9999.9
1CD2NENWNW19 5S 3W  9 18 62 29
 1451.4  1951.4  2451.4  2951.7  3451.8  3951.9  4452.1  4952.1  5452.2
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19961.2 20961.5 21961.7 22962.0 23962.3 24962.5 25962.7 26962.7 27963.1
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-9999.9
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 6057.1  6557.3  7057.4  7557.5  8057.6  8557.8  9057.9  9558.0 10058.1
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19560.7 20060.9 20561.0 21061.1 21561.2 22061.3 22561.5 23061.5 23561.6
24061.6 24561.7 25061.8 25561.9 26061.9 -9999.9
1DC1  W2W226 2S29W 89  5 10 89
 1447.1  1949.0  2450.2  2951.3  3451.7  3952.0  4452.1  4952.3  5452.5
 5952.6  6452.8  6952.9  7453.0  7953.2  8453.3  8954.2  9454.3  9954.4
10454.5 10954.6 11454.7 11954.7 12454.9 12954.9 13455.1 13855.1 -9999.9
1DC2SWSWNW 6 2S27W 95  5 15 50
 1549.2  2049.4  2550.4  3051.1  3551.7  4051.9  4552.1  5052.5  5552.6
 6052.8  6552.9  7053.0  7553.1  8053.2  8553.3  9053.3 -9999.9
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 1249.2  1749.7  2250.9  2751.7  3252.5  3752.9  4253.1  4753.2  5253.3
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10254.4 10754.5 11254.6 11754.7 12254.8 12755.0 13255.1 13755.2 13855.2
```

```
-9999.9
1DC4SWSESW13 4S30W103  5  0 55
  1550.9  2051.3  2552.0  3052.5  3553.1  4053.3  4553.7  5053.9  5554.1
  6054.3  6554.4  7054.5  7554.6  8054.7  8554.8  9055.0  9555.0 10055.1
-9999.9
1ED1  N2NW2125S20W 47  4 50 44
  1449.9  1950.9  2452.4  2953.6  3454.5  3954.9  4455.2  4955.5  5455.6
  5955.7  6455.7  6955.8  7455.9  7956.0  8456.2  8956.3  9456.4  9956.5
 10456.5 10956.6 11456.6 11956.7 -9999.9
1ED2    SE2923S19W 48  4 25 48
  1353.4  1852.6  2353.0  2853.5  3354.0  3854.5  4354.9  4855.5  5355.6
  5855.7  6355.8  6855.9  7356.0  7856.0  8356.2  8856.2  9356.3  9856.4
 10356.4 10856.5 11356.6 11856.7 12356.8 12856.8 13356.9 13856.9 14357.0
 14857.0 15357.1 15857.1 16357.2 16857.2 17357.3 17857.3 -9999.9
1EK1SWSWNW 831S10E305  4  0105
  1553.9  3056.4  4557.5  6056.2  7555.7  9056.5 10558.5 12058.3 13558.7
 15059.1 16559.4 18059.7 19559.9 21060.2 22560.5 24060.9 25561.2 27061.5
 28561.8 30062.0 -9999.9
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NON-USEABLE THERMAL LOGGING DATA FROM 1980 FIELD SEASON

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LG1NWNWNW2911S37W 50  4 13 38
 1348.9  1849.8  2350.9  2852.1  3353.2  3854.4  4354.4  4854.6 -9999.9
MP1  SESE 120S 4W 77  4100 76
 1155.2  1654.4  2154.5  2654.7  3154.9  3655.0  4155.1  4655.3  5155.3
 5655.5  6155.5  6655.6  7155.8  7655.8  8155.8  8655.8  9155.8  9655.8
10155.8 10655.9 11155.9 11656.0 12156.0 12656.0 13156.1 13656.1 14156.1
14656.2 15156.2 15656.2 16156.2 16656.3 17156.3 17656.3 18156.4 18656.4
19156.4 19656.5 20156.5 20656.5 21156.7 21656.8 -9999.9
MC1S2SWNE36 8S 6W129  5 40 60
 1550.3  2051.3  2552.2  3052.7  3553.0  4053.3  4553.4  5053.5  5553.7
 6053.8  6553.8  7053.9  7553.9  8053.9  8554.0  9054.0  9554.0 10054.0
10554.1 11054.1 11554.1 12054.1 -9999.9
NT1NWNENW16 3S23W 75  1 39 49
 1449.7  1950.4  2451.4  2952.1  3452.6  3952.9  4453.2  4953.5  5453.7
 5953.7  6453.8  6953.9  7454.0 -9999.9
OB1  SWNW 9 7S13W 60  1 70 33
 1351.3  1852.9  2355.7  2857.0  3358.0  3858.5  4358.7  4859.2  5359.4
 5859.9 -9999.9
OT1NWSWSE36 9S 4W 60 32 45 60
 1550.9  2050.7  2550.7  3050.9  3551.2  4051.6  4551.9  5052.8  5552.8
 6052.8  6553.1  7053.1  7553.1  8053.1  8553.1  9053.1  9553.1 10053.1
10553.1 11053.1 11553.1 12053.1 12553.1 13053.1 13553.2 14053.2 14553.2
15053.2 15553.2 16053.2 16553.2 17053.2 17553.2 18053.2 18553.2 19053.2
19553.2 20053.2 20553.2 -9999.9
PN1     SE3421S15W 30  5 40 40
 3854.0  4354.1  4854.4  5354.5  5854.6 -9999.9
RN1SESESE1323S 7W 55  1115 21
 1258.5  2256.5  3256.3  4256.1  5255.9 -9999.9
RN2NENESW2222S 5W 18  5 60 40
 1356.7 -9999.9
RP1SESESE 7 3S 1W      5  1  1
 1549.4  2049.7 -9999.9
RO1  SWNW11 7S16W 39  1 40 40
 1348.4  1849.7  2351.5  2852.6  3353.3  3853.7  4054.1 -9999.9
SA1NWNWNW1113S 3W 46  4 50 40
 1357.7  1855.7  2354.7  2854.6  3354.7  3855.1  4355.1  4855.2  5355.3
 5855.3  6355.3  6855.3  7355.3  7855.2  8355.1 -9999.9
SD1SESESE 810S30W 75  1  8 43
 1550.6  2051.8  2553.0  3053.8  3554.1  3954.3  4454.4  4954.4  5454.5
 5954.5  6454.5  6954.5  7454.5 -9999.9
SM1  NESE34 4S15W 29  1 37 32
 1249.7  1750.2  2250.9  2751.8  3253.3  3753.5  4253.7  4753.8  5254.0
 5754.3 -9999.9
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COMPARISON OF REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE FOR KS THERMAL LOGGING DATA

1AL1SESENW3423S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.05667
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00575
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.85449
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 5.67DEGREES-F/100 FEET, 103.30DEGREES-C/KILOMETER

1AL1SESENW3423S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 19
COEFFICIENT OF LINEAR REGRESSION IS 0.01549
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00040
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 38.58042
THERE ARE 17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.55DEGREES-F/100 FEET, 28.23DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -6.11455482

1AL2NENENE2426S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 58FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.04033
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01592
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 2.53303
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 4.03DEGREES-F/100 FEET, 73.53DEGREES-C/KILOMETER

1AL2NENENE2426S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 58FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.01489
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00089
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 16.68542
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.49DEGREES-F/100 FEET, 27.14DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.56436242

1BA1NWSENW 631S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 44
COEFFICIENT OF LINEAR REGRESSION IS 0.01552
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00069
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 22.42606
THERE ARE 42DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.55DEGREES-F/100 FEET, 28.29DEGREES-C/KILOMETER

1BA1NWSENW 631S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1BT1NESWSE 519S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 39FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 5
COEFFICIENT OF LINEAR REGRESSION IS 0.06600
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00195

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 33.91970
THERE ARE 3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 6.60DEGREES-F/100 FEET, 120.32DEGREES-C/KILOMETER

1BT1NESWSE 519S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 39FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 29
COEFFICIENT OF LINEAR REGRESSION IS 0.01876
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00047
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 40.27206
THERE ARE 27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.88DEGREES-F/100 FEET, 34.20DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -7.46941859

1BT2 N21716S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 20FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 48
COEFFICIENT OF LINEAR REGRESSION IS 0.01776
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00036
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 49.45505
THERE ARE 46DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.78DEGREES-F/100 FEET, 32.38DEGREES-C/KILOMETER

1BT2 N21716S13W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1BB1 S2SW3424S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 0FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.02043
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00054
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 37.63094
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.04DEGREES-F/100 FEET, 37.25DEGREES-C/KILOMETER

1BB1 S2SW3424S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1BU1NWNENW3129S 5E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 24FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.01516
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00041
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 37.34557
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.52DEGREES-F/100 FEET, 27.64DEGREES-C/KILOMETER

1BU1NWNENW3129S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1BU2NENWNW 429S 5E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 29FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.01088
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00054
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 20.06448
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.09DEGREES-F/100 FEET, 19.83DEGREES-C/KILOMETER

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 1BU2NENWNW 429S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1BU3SESESE3425S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  73FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.04267
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01336
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    3.19268
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   4.27DEGREES-F/100 FEET,    77.78DEGREES-C/KILOMETER

 1BU3SESESE3425S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  73FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   41
COEFFICIENT OF LINEAR REGRESSION IS  0.01917
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00026
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   73.81599
THERE ARE   39DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.92DEGREES-F/100 FEET,    34.94DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -2.91602519

 1CQ1NENENW2332S12E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  28FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   46
COEFFICIENT OF LINEAR REGRESSION IS  0.02377
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00037
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   63.65156
THERE ARE   44DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.38DEGREES-F/100 FEET,    43.32DEGREES-C/KILOMETER

 1CQ1NENENW2332S12E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1CQ2  NESE1835S10E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  27FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   19
COEFFICIENT OF LINEAR REGRESSION IS  0.01283
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   29.28677
THERE ARE   17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.28DEGREES-F/100 FEET,    23.39DEGREES-C/KILOMETER

 1CQ2  NESE1835S10E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1CN1SWSWSW20 4S38W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  33FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.24200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02254
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   10.73597
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  24.20DEGREES-F/100 FEET,   441.17DEGREES-C/KILOMETER

 1CN1SWSWSW20 4S38W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  33FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   51
COEFFICIENT OF LINEAR REGRESSION IS  0.03443
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STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00069
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 50.02915
THERE ARE 49DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 3.44DEGREES-F/100 FEET, 62.77DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -6.48571628

1C01 SE23 7S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 55FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.02100
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00374
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 5.61838
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.10DEGREES-F/100 FEET, 38.28DEGREES-C/KILOMETER

1CD1 SE23 7S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 55FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.01769
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00145
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 12.19659
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.77DEGREES-F/100 FEET, 32.25DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.93888149

1C02NENWNW19 5S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 29FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 3
COEFFICIENT OF LINEAR REGRESSION IS -0.00000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00064
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -0.00063
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -0.00DEGREES-F/100 FEET, -0.00DEGREES-C/KILOMETER

1C02NENWNW19 5S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 29FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 11
COEFFICIENT OF LINEAR REGRESSION IS 0.01800
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00086
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 21.00325
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.80DEGREES-F/100 FEET, 32.81DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 2.95689759

1CL1 NE3033S 2E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 30FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 117
COEFFICIENT OF LINEAR REGRESSION IS 0.02237
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00007
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 298.93716
THERE ARE 115DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.24DEGREES-F/100 FEET, 40.78DEGREES-C/KILOMETER

1CL1 NE3033S 2E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1CL2 S2NW1534S 3E

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DEPTH TO BREAK IN TEMPERATURE PROFILE IS 102FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS -0.06000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02275
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -2.63718
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  -6.00DEGREES-F/100 FEET,  -109.38DEGREES-C/KILOMETER

 1CL2  S2NW1534S 3E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 102FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   21
COEFFICIENT OF LINEAR REGRESSION IS  0.01294
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   45.54864
THERE ARE   19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.29DEGREES-F/100 FEET,    23.60DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      7.48106223

 1CR1    S21131S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  29FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.03446
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00169
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   20.43373
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.45DEGREES-F/100 FEET,    62.82DEGREES-C/KILOMETER

 1CR1    S21131S22E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1CR2NWSWNW2630S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.08343
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00709
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   11.76437
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   8.34DEGREES-F/100 FEET,   152.09DEGREES-C/KILOMETER

 1CR2NWSWNW2630S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   44
COEFFICIENT OF LINEAR REGRESSION IS  0.02560
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   91.63385
THERE ARE   42DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.56DEGREES-F/100 FEET,    46.67DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -10.01282597

 1DC1  W2W226 2S29W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  89FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   15
COEFFICIENT OF LINEAR REGRESSION IS  0.06707
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01077
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.22524
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   6.71DEGREES-F/100 FEET,   122.27DEGREES-C/KILOMETER
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 1DC1  W2W22G 2S29W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  89FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   11
COEFFICIENT OF LINEAR REGRESSION IS  0.01854
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00075
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   24.82905
THERE ARE    9DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.85DEGREES-F/100 FEET,    33.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -3.09000790

 1DC2SWSWNW 6 2S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.10714
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01120
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    9.57057
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  10.71DEGREES-F/100 FEET,   195.32DEGREES-C/KILOMETER

 1DC2SWSWNW 6 2S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.02100
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00134
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   15.68898
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.10DEGREES-F/100 FEET,    38.28DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -9.63862693

 1DC3NWNWSW30 3S26W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  37FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.17200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01058
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   16.25907
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  17.20DEGREES-F/100 FEET,   313.56DEGREES-C/KILOMETER

 1DC3NWNWSW30 3S26W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  37FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   22
COEFFICIENT OF LINEAR REGRESSION IS  0.02211
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00024
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   93.39893
THERE ARE   20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.21DEGREES-F/100 FEET,    40.30DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -34.34325266

 1DC4SWSESW13 4S30W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  55FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.08929
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00588
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   15.17529
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   8.93DEGREES-F/100 FEET,   162.77DEGREES-C/KILOMETER
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1DC4SWSESW13 4S30W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 55FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.02170
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00093
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 23.33383
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.17DEGREES-F/100 FEET, 39.55DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -13.83887088

1ED1 N2NW2125S20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 44FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.21143
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01694
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.47860
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 21.14DEGREES-F/100 FEET, 385.43DEGREES-C/KILOMETER

1ED1 N2NW2125S20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 44FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.01912
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00084
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 22.78005
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.91DEGREES-F/100 FEET, 34.85DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -21.73752260

1E02 SE2923S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 48FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.06643
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01613
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 4.11726
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 6.64DEGREES-F/100 FEET, 121.10DEGREES-C/KILOMETER

1E02 SE2923S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 48FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.01389
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00036
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 38.74141
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.39DEGREES-F/100 FEET, 25.33DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -7.39213318

1EK1SWSWNW 831S10E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 105FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.01829
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01932
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 0.94663
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.83DEGREES-F/100 FEET, 33.33DEGREES-C/KILOMETER

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 1EK1SWSWNW 831S1QE
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 105FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  14
COEFFICIENT OF LINEAR REGRESSION IS  0.01965
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00051
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  38.25847
THERE ARE  12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  1.96DEGREES-F/100 FEET,  35.82DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS  0.13411674

 1EL1SWNESW1713S18W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  52FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS  8
COEFFICIENT OF LINEAR REGRESSION IS  0.05452
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00431
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS  12.63619
THERE ARE  6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  5.45DEGREES-F/100 FEET,  99.40DEGREES-C/KILOMETER

 1EL1SWNESW1713S18W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  52FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  50
COEFFICIENT OF LINEAR REGRESSION IS  0.02591
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00017
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  156.66858
THERE ARE  48DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  2.59DEGREES-F/100 FEET,  47.23DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS  -7.73525882

 1EL2NWSENW1011S17W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  20FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  31
COEFFICIENT OF LINEAR REGRESSION IS  0.01701
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00070
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  24.18899
THERE ARE  29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  1.70DEGREES-F/100 FEET,  31.02DEGREES-C/KILOMETER

 1EL2NWSENW1011S17W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1EW1SWSENE3117S 9W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  39FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS  5
COEFFICIENT OF LINEAR REGRESSION IS  0.16600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.06736
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS  2.46447
THERE ARE  3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  16.60DEGREES-F/100 FEET,  302.62DEGREES-C/KILOMETER

 1EW1SWSENE3117S 9W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  39FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  41
COEFFICIENT OF LINEAR REGRESSION IS  0.01083
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00020
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  55.27228
THERE ARE  39DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  1.08DEGREES-F/100 FEET,  19.74DEGREES-C/KILOMETER
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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -8.35399234

1G01 SWSW2911S26W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.20300
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.03176
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 6.54935
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 20.80DEGREES-F/100 FEET, 379.18DEGREES-C/KILOMETER

1G01 SWSW2911S26W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 15
COEFFICIENT OF LINEAR REGRESSION IS 0.01683
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00045
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 37.55271
THERE ARE 13DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.68DEGREES-F/100 FEET, 30.69DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -15.78495979

1G02SESENW1314S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 43FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.22286
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.05444
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 4.09388
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 22.29DEGREES-F/100 FEET, 406.27DEGREES-C/KILOMETER

1G02SESENW1314S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 43FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 30
COEFFICIENT OF LINEAR REGRESSION IS 0.02191
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00026
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 84.88985
THERE ARE 28DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.19DEGREES-F/100 FEET, 39.94DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -13.36119342

1GH1NWNWNW24 7S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 62FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.10618
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00944
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.24858
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 10.62DEGREES-F/100 FEET, 193.57DEGREES-C/KILOMETER

1GH1NWNWNW24 7S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 62FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 30
COEFFICIENT OF LINEAR REGRESSION IS 0.02022
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00058
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 34.65883
THERE ARE 28DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.02DEGREES-F/100 FEET, 36.86DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -16.25436687

1GH2SWSWSW19 6S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.06549
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00704
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.30871
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 6.55DEGREES-F/100 FEET, 119.39DEGREES-C/KILOMETER

1GH2SWSWSW19 6S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.02151
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00136
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 15.86728
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.15DEGREES-F/100 FEET, 39.21DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -6.73422223

1GH3SWSWSW12 6S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 141FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.02762
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00241
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.46101
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.76DEGREES-F/100 FEET, 50.36DEGREES-C/KILOMETER

1GH3SWSWSW12 6S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 141FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 17
COEFFICIENT OF LINEAR REGRESSION IS 0.01466
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00040
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 36.94166
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.47DEGREES-F/100 FEET, 26.72DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -3.19551221

1GW1SWSWNE3625S 8E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 27FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 36
COEFFICIENT OF LINEAR REGRESSION IS 0.02191
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 68.17440
THERE ARE 34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.19DEGREES-F/100 FEET, 39.94DEGREES-C/KILOMETER

1GW1SWSWNE3625S 8E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1GW2 S23224S11E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 74FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.07467
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00864

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T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS     8.63936
THERE ARE     2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =    7.47DEGREES-F/100 FEET,    136.12DEGREES-C/KILOMETER

 1GW2     S23224S11E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  74FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    31
COEFFICIENT OF LINEAR REGRESSION IS  0.02414
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   70.93111
THERE ARE    29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =    2.41DEGREES-F/100 FEET,     44.00DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      -7.73648053

 1HP1SWSENE1331S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  57FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS     3
COEFFICIENT OF LINEAR REGRESSION IS  0.03000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.06351
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    0.47240
THERE ARE     1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =    3.00DEGREES-F/100 FEET,     54.69DEGREES-C/KILOMETER

 1HP1SWSENE1331S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  57FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    34
COEFFICIENT OF LINEAR REGRESSION IS  0.02096
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00033
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   64.38371
THERE ARE    32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =    2.10DEGREES-F/100 FEET,     38.21DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      -0.64178172

 1HV1NESENE1822S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  33FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    23
COEFFICIENT OF LINEAR REGRESSION IS  0.01186
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   34.81571
THERE ARE    21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =    1.19DEGREES-F/100 FEET,     21.62DEGREES-C/KILOMETER

 1HV1NESENE1822S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1HV2SWSWSW1024S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  52FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS     7
COEFFICIENT OF LINEAR REGRESSION IS  0.02788
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01917
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    1.45408
THERE ARE     5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =    2.79DEGREES-F/100 FEET,     50.93DEGREES-C/KILOMETER

 1HV2SWSWSW1024S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  52FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    51
COEFFICIENT OF LINEAR REGRESSION IS  0.01984
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STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   45.16773
THERE ARE   49DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.98DEGREES-F/100 FEET,   36.17DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   -0.81339226

 1JW1NWNWSW15 1S 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 38FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   5
COEFFICIENT OF LINEAR REGRESSION IS 0.16400
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.03233
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   5.07283
THERE ARE   3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 16.40DEGREES-F/100 FEET, 298.97DEGREES-C/KILOMETER

 1JW1NWNWSW15 1S 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 38FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   6
COEFFICIENT OF LINEAR REGRESSION IS 0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   64.30967
THERE ARE   4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.00DEGREES-F/100 FEET,   36.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   -5.42704159

 1LB1   SW 7335182E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   3
COEFFICIENT OF LINEAR REGRESSION IS 0.07947
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00453
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   17.52729
THERE ARE   1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   7.95DEGREES-F/100 FEET, 144.88DEGREES-C/KILOMETER

 1LB1   SW 7335182E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   64
COEFFICIENT OF LINEAR REGRESSION IS 0.02805
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   82.19602
THERE ARE   62DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.80DEGREES-F/100 FEET,   51.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   -1.82898003

 1LB2 S2SE3531S17E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 49FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   3
COEFFICIENT OF LINEAR REGRESSION IS -0.02368
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.06655
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -0.35591
THERE ARE   1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -2.37DEGREES-F/100 FEET,   -43.18DEGREES-C/KILOMETER

 1LB2 S2SE3531S17E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 49FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   71
COEFFICIENT OF LINEAR REGRESSION IS 0.02619

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STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00024
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  109.59067
THERE ARE   69DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.62DEGREES-F/100 FEET,    47.75DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      2.04723075

 1LB3SWNESW 331S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  23FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   46
COEFFICIENT OF LINEAR REGRESSION IS  0.02581
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00076
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   34.00217
THERE ARE   44DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.58DEGREES-F/100 FEET,    47.06DEGREES-C/KILOMETER

 1LB3SWNESW 331S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1LC1SENWSE1911S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS -0.31200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.09185
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -3.39566
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -31.20DEGREES-F/100 FEET,  -568.78DEGREES-C/KILOMETER

 1LC1SENWSE1911S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   23
COEFFICIENT OF LINEAR REGRESSION IS  0.01589
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00040
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   40.01785
THERE ARE   21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.59DEGREES-F/100 FEET,    28.97DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      9.97841632

 1LG1SESENE 611S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.20514
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.03777
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    5.43137
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  20.51DEGREES-F/100 FEET,   373.98DEGREES-C/KILOMETER

 1LG1SESENE 611S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   25
COEFFICIENT OF LINEAR REGRESSION IS  0.02162
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00042
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   51.03011
THERE ARE   23DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.16DEGREES-F/100 FEET,    39.40DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -12.21628165

 1LG2SWSWSW 811S33W
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DEPTH TO BREAK IN TEMPERATURE PROFILE IS  53FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.14333
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02241
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.39643
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  14.33DEGREES-F/100 FEET,   261.30DEGREES-C/KILOMETER

 1LG2SWSWSW 811S33W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  53FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   15
COEFFICIENT OF LINEAR REGRESSION IS  0.03329
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00068
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   49.23848
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.33DEGREES-F/100 FEET,    60.68DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -8.09630692

 1MP1SWSESE 719S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  35FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS -0.14600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.0311B
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -4.68206
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -14.60DEGREES-F/100 FEET,  -266.16DEGREES-C/KILOMETER

 1MP1SWSESE 719S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  35FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   34
COEFFICIENT OF LINEAR REGRESSION IS  0.01418
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00023
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   61.23693
THERE ARE   32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.42DEGREES-F/100 FEET,    25.85DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     16.86212826

 1MC1SESWSW12 8S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 111FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.04770
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00513
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    9.29865
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   4.77DEGREES-F/100 FEET,    86.96DEGREES-C/KILOMETER

 1MC1SESWSW12 8S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 111FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.01096
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00045
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   24.22062
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.10DEGREES-F/100 FEET,    19.98DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -5.49841809

 1MG1E2E2W21431S16E
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DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   84
COEFFICIENT OF LINEAR REGRESSION IS  0.02570
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   92.36831
THERE ARE   82DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.57DEGREES-F/100 FEET,    46.84DEGREES-C/KILOMETER

 1MG1E2E2W21431S16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

 1NO1SWSWSW3327S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  59FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS -0.03907
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04581
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -0.85279
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  -3.91DEGREES-F/100 FEET,   -71.22DEGREES-C/KILOMETER

 1NO1SWSWSW3327S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  59FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   84
COEFFICIENT OF LINEAR REGRESSION IS  0.02270
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00032
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   72.03289
THERE ARE   82DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.27DEGREES-F/100 FEET,    41.39DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      2.23242638

 1NT1SWSWSW13 4S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  42FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.17257
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00842
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   20.50264
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  17.26DEGREES-F/100 FEET,   314.60DEGREES-C/KILOMETER

 1NT1SWSWSW13 4S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  42FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   26
COEFFICIENT OF LINEAR REGRESSION IS  0.01924
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00050
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   38.23471
THERE ARE   24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.92DEGREES-F/100 FEET,    35.08DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -28.67131448

 1NT2SESESE 3 4S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  62FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   10
COEFFICIENT OF LINEAR REGRESSION IS  0.15297
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01550
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    9.87141
THERE ARE    8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  15.30DEGREES-F/100 FEET,   278.86DEGREES-C/KILOMETER
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 1NT2SESESE 3 4S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  62FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   35
COEFFICIENT OF LINEAR REGRESSION IS  0.01481
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00042
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   35.53773
THERE ARE   33DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.48DEGREES-F/100 FEET,    27.00DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -18.77848482

 1NT3NENENE14 2S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 144FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.02802
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00200
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   14.01533
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   2.80DEGREES-F/100 FEET,    51.08DEGREES-C/KILOMETER

 1NT3NENENE14 2S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 144FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.01270
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00045
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   27.93239
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.27DEGREES-F/100 FEET,    23.15DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -4.31314665

 1NT4NENENE17 1S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  89FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.06150
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00401
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   15.33142
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   6.15DEGREES-F/100 FEET,   112.11DEGREES-C/KILOMETER

 1NT4NENENE17 1S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  89FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.01524
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00128
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   11.88494
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.52DEGREES-F/100 FEET,    27.78DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -4.55835211

 1NT5NESESE27 5S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.00834
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00273
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    3.05095
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   0.83DEGREES-F/100 FEET,    15.21DEGREES-C/KILOMETER
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 1NT5NESESE27 5S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   41
COEFFICIENT OF LINEAR REGRESSION IS  0.01994
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00010
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  192.53614
THERE ARE   39DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.99DEGREES-F/100 FEET,    36.35DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      7.75924212

 10B1  SWNW17 7S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.03136
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.05736
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    0.54673
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   3.14DEGREES-F/100 FEET,    57.17DEGREES-C/KILOMETER

 10B1  SWNW17 7S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.01192
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00184
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    6.46551
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.19DEGREES-F/100 FEET,    21.74DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -0.31016250

 10T1SWSWNW19 9S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 133FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   24
COEFFICIENT OF LINEAR REGRESSION IS  0.03730
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00271
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   13.77364
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   3.73DEGREES-F/100 FEET,    67.99DEGREES-C/KILOMETER

 10T1SWSWNW19 9S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 133FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   26
COEFFICIENT OF LINEAR REGRESSION IS  0.01115
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00022
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   51.56876
THERE ARE   24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.12DEGREES-F/100 FEET,    20.33DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -10.39998627

 1PN1NENENE 32ZS15W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.13486
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01163
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   11.59889
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  13.49DEGREES-F/100 FEET,   245.84DEGREES-C/KILOMETER
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 1PN1NENENE 32251SW
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.02600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00118
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   21.95346
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.60DEGREES-F/100 FEET,    47.40DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -13.25488532

 1RA1E2E2W230 2S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.17029
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01561
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   10.90580
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  17.03DEGREES-F/100 FEET,   310.43DEGREES-C/KILOMETER

 1RA1E2E2W230 2S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.03507
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   65.31287
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.51DEGREES-F/100 FEET,    63.93DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -18.28383160

 1RA2  S2S2 S 3S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  35FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.06400
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01383
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    4.62776
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   6.40DEGREES-F/100 FEET,   116.67DEGREES-C/KILOMETER

 1RA2  S2S2 S 3S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  35FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   34
COEFFICIENT OF LINEAR REGRESSION IS  0.01352
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00064
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   21.18695
THERE ARE   32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.35DEGREES-F/100 FEET,    24.66DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -3.11438337

 1RA3NESWNE34 4S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.12600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02029
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.21052
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  12.60DEGREES-F/100 FEET,   229.70DEGREES-C/KILOMETER
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 1RA3NESWNE34 45 36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   34
COEFFICIENT OF LINEAR REGRESSION IS  0.02797
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00078
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   36.05478
THERE ARE   32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.80DEGREES-F/100 FEET,    51.00DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -4.94655472

 1RN1NWNWSW 622S10W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.00429
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.05690
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    0.07531
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   0.43DEGREES-F/100 FEET,     7.81DEGREES-C/KILOMETER

 1RN1NWNWSW 622S10W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   28
COEFFICIENT OF LINEAR REGRESSION IS  0.02129
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   48.86308
THERE ARE   26DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.13DEGREES-F/100 FEET,    38.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      1.22704022

 1RN2SWSWSE 624S10W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  90FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.05213
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00721
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.23492
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   5.21DEGREES-F/100 FEET,    95.03DEGREES-C/KILOMETER

 1RN2SWSWSE 624S10W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  90FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.01571
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00071
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   22.02873
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.57DEGREES-F/100 FEET,    28.63DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -5.64491642

 1RP1NENENE29 1S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.09500
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01125
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    8.44592
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   9.50DEGREES-F/100 FEET,   173.18DEGREES-C/KILOMETER
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 1RP1NENENE29 1S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   23
COEFFICIENT OF LINEAR REGRESSION IS  0.01642
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   30.54544
THERE ARE   21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.64DEGREES-F/100 FEET,    29.94DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -13.54046667

 1RC1  SWSW 919S 9W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  70FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.04926
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00140
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   35.14096
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   4.93DEGREES-F/100 FEET,    89.81DEGREES-C/KILOMETER

 1RC1  SWSW 919S 9W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  70FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   54
COEFFICIENT OF LINEAR REGRESSION IS  0.01768
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   39.80556
THERE ARE   52DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.77DEGREES-F/100 FEET,    32.24DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -2.22782561

 1RO1S2S2NW27 9S20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  80FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.06139
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00546
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   11.24922
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   6.14DEGREES-F/100 FEET,   111.91DEGREES-C/KILOMETER

 1RO1S2S2NW27 9S20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  80FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  113
COEFFICIENT OF LINEAR REGRESSION IS  0.02165
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00020
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  109.33337
THERE ARE  111DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.17DEGREES-F/100 FEET,    39.47DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -2.95950249

 1RH1NENWSW1117S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  42FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.12000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01665
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.20542
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  12.00DEGREES-F/100 FEET,   218.76DEGREES-C/KILOMETER
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 1RH1NENWSW1117S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  42FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   51
COEFFICIENT OF LINEAR REGRESSION IS  0.02847
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   93.05932
THERE ARE   49DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.85DEGREES-F/100 FEET,    51.90DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -8.59290612

 1RH2NWNWNE 617S17W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  60FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS -0.06305
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00837
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -7.53173
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  -6.30DEGREES-F/100 FEET,  -114.94DEGREES-C/KILOMETER

 1RH2NWNWNE 617S17W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  60FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   49
COEFFICIENT OF LINEAR REGRESSION IS  0.01750
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   55.91618
THERE ARE   47DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.75DEGREES-F/100 FEET,    31.91DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      7.54050505

 1RH3NWSENW2419S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  53FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.10571
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01709
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.18544
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  10.57DEGREES-F/100 FEET,   192.72DEGREES-C/KILOMETER

 1RH3NWSENW2419S19W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  53FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   43
COEFFICIENT OF LINEAR REGRESSION IS  0.02613
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00069
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   38.06940
THERE ARE   41DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.61DEGREES-F/100 FEET,    47.63DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -7.85454232

 1RS1  S2SW1415S14W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.12571
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.07423
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    1.69352
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  12.57DEGREES-F/100 FEET,   229.18DEGREES-C/KILOMETER
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 1RS1  S2SW1415S14W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   37
COEFFICIENT OF LINEAR REGRESSION IS  0.00912
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00036
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   25.43853
THERE ARE   35DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.91DEGREES-F/100 FEET,    16.62DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -4.74098682

 1SA1NWSWSW3213S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS -0.10229
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.09274
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -1.10294
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -10.23DEGREES-F/100 FEET,  -186.47DEGREES-C/KILOMETER

 1SA1NWSWSW3213S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.01888
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00047
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   40.00501
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.89DEGREES-F/100 FEET,    34.42DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      2.70054486

 1SA2NWNESW2013S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  57FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.02476
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04818
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    0.51387
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   2.48DEGREES-F/100 FEET,    45.13DEGREES-C/KILOMETER

 1SA2NWNESW2013S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  57FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   18
COEFFICIENT OF LINEAR REGRESSION IS  0.01122
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   36.68770
THERE ARE   16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.12DEGREES-F/100 FEET,    20.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -0.69665767

 1SG1NENENE2225S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  55FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.01762
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02326
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    0.75743
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   1.76DEGREES-F/100 FEET,    32.12DEGREES-C/KILOMETER
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 1SG1NENENE22255 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  55FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   31
COEFFICIENT OF LINEAR REGRESSION IS  0.01640
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00017
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   97.29848
THERE ARE   29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.64DEGREES-F/100 FEET,    29.90DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -0.12425808

 1SD1NWNWNE21 7S28W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  29FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.22000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00094
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS  234.66647
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  22.00DEGREES-F/100 FEET,   401.06DEGREES-C/KILOMETER

 1SD1NWNWNE21 7S28W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  29FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   38
COEFFICIENT OF LINEAR REGRESSION IS  0.02128
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   62.27822
THERE ARE   36DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.13DEGREES-F/100 FEET,    38.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -12.35922503

 1SD2  W2NE 1 9S28W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.12343
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00213
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   57.82652
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  12.34DEGREES-F/100 FEET,   225.01DEGREES-C/KILOMETER

 1SD2  W2NE 1 9S28W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.02342
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00098
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   23.89555
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.34DEGREES-F/100 FEET,    42.69DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -18.00965834

 1SH1NWNENW36 7S4OW
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  30FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.29000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04038
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.18105
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  29.00DEGREES-F/100 FEET,   528.67DEGREES-C/KILOMETER
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 1SH1NWNENW36 7S40W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  30FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   23
COEFFICIENT OF LINEAR REGRESSION IS  0.01281
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00033
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   39.20696
THERE ARE   21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.28DEGREES-F/100 FEET,    23.36DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -24.76095319

 1SH2SWSWSW17 7S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.44200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.07285
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.06691
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  44.20DEGREES-F/100 FEET,   805.77DEGREES-C/KILOMETER

 1SH2SWSWSW17 7S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   24
COEFFICIENT OF LINEAR REGRESSION IS  0.02169
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   49.71596
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.17DEGREES-F/100 FEET,    39.54DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -19.10307837

 1SH3SESWSE31 8S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  43FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.15943
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01283
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   12.42796
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  15.94DEGREES-F/100 FEET,   290.64DEGREES-C/KILOMETER

 1SH3SESWSE31 8S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  43FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   29
COEFFICIENT OF LINEAR REGRESSION IS  0.01756
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00025
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   69.37460
THERE ARE   27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.76DEGREES-F/100 FEET,    32.02DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -26.86810517

 1SM1SWSWSE 2 1S11W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  54FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.12857
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01904
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.75407
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  12.86DEGREES-F/100 FEET,   234.39DEGREES-C/KILOMETER
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 1SF3SENENE1125S12W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  54FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   36
COEFFICIENT OF LINEAR REGRESSION IS  0.01714
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00048
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   35.47379
THERE ARE   34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.71DEGREES-F/100 FEET,    31.25DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -11.89709556

 1SF4SESESE3624S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS -0.01400
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04071
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -0.34389
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIFNT ABOVE BREAK IN THERMAL PROFILE =  -1.40DEGREES-F/100 FEET,   -25.52DEGREES-C/KILOMETER

 1SF4SESESE3624S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   22
COEFFICIENT OF LINEAR REGRESSION IS  0.01941
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   36.09139
THERE ARE   20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.94DEGREES-F/100 FEET,    35.39DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      2.15166241

 1SU1NENESE 830S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  54FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.08900
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00931
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    9.55541
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   8.90DEGREES-F/100 FEET,   162.25DEGREES-C/KILOMETER

 1SU1NENESE 830S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  54FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   36
COEFFICIENT OF LINEAR REGRESSION IS  0.01656
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00030
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   55.34632
THERE ARE   34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.66DEGREES-F/100 FEET,    30.18DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -8.62259603

 1TH1NWNESE27 8S32W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.18457
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01827
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   10.10286
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  18.46DEGREES-F/100 FEET,   336.47DEGREES-C/KILOMETER
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 1TH1NWNESE27 8S32W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.0210
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00116
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   18.24961
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.11DEGREES-F/100 FEET,   38.44DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -16.41379666

 1TH2NWSWSW3010S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.26800
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.06004
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    4.46353
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  26.80DEGREES-F/100 FEET,   488.56DEGREES-C/KILOMETER

 1TH2NWSWSW3010S36W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   25
COEFFICIENT OF LINEAR REGRESSION IS  0.02148
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00048
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   45.17936
THERE ARE   23DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.15DEGREES-F/100 FEET,    39.16DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -11.68474054

 1TR1W2W2SW 912S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.25800
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04763
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    5.41714
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  25.80DEGREES-F/100 FEET,   470.33DEGREES-C/KILOMETER

 1TR1W2W2SW 912S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  34FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.01400
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00144
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    9.70398
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   1.40DEGREES-F/100 FEET,    25.52DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -10.24597526

 1TR2  S2S21012S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  44FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.09200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01321
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.96442
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   9.20DEGREES-F/100 FEET,   167.72DEGREES-C/KILOMETER
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 1TR2  S2S21012S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  44FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.03292
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00107
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   30.68112
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.29DEGREES-F/100 FEET,    60.02DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -7.68643522

 1TR3NWSWNE3614S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  58FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.07733
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01013
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.63365
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   7.73DEGREES-F/100 FEET,   140.98DEGREES-C/KILOMETER

 1TR3NWSWNE3614S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  58FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   53
COEFFICIENT OF LINEAR REGRESSION IS  0.02322
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   67.74413
THERE ARE   51DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.32DEGREES-F/100 FEET,    42.33DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -5.63378686

 1WA1      1815S39W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.13200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01797
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.34464
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  13.20DEGREES-F/100 FEET,   240.64DEGREES-C/KILOMETER

 1WA1      1815S39W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.02833
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00102
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   27.81800
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.83DEGREES-F/100 FEET,    51.65DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -8.33649230

 1WA2NEVESW 315S38W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  65FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   10
COEFFICIENT OF LINEAR REGRESSION IS  0.09358
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00464
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   20.15859
THERE ARE    8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   9.36DEGREES-F/100 FEET,   170.59DEGREES-C/KILOMETER
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 1WA2NE4E4SW 31S38W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  65FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.03649
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00138
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   26.49007
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.65DEGREES-F/100 FEET,    66.53DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -7.46411401

 1WL1NW4NE4SE1129S14E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 159FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.00909
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00046
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   19.78546
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   0.91DEGREES-F/100 FEET,    16.56DEGREES-C/KILOMETER

 1WL1NW4NE4SE1129S14E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 159FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   85
COEFFICIENT OF LINEAR REGRESSION IS  0.02457
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00022
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  109.50400
THERE ARE   83DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.46DEGREES-F/100 FEET,    44.79DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      4.97672719

 1WO1SE4SE4NE2425S13E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  49FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.07474
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01094
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.83063
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   7.47DEGREES-F/100 FEET,   136.25DEGREES-C/KILOMETER

 1WO1SE4SE4NE2425S13E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  49FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  111
COEFFICIENT OF LINEAR REGRESSION IS  0.02352
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00008
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  287.14096
THERE ARE  109DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.35DEGREES-F/100 FEET,    42.87DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -3.30404645

 1WO2SE4NW4SW1625S16E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  74FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.10133
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01502
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.74506
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  10.13DEGREES-F/100 FEET,   184.73DEGREES-C/KILOMETER
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1W02SENWSW1625S16E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 74FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.01652
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00023
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 71.53547
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.65DEGREES-F/100 FEET, 30.11DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -15.58420444

COMPARISON OF REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE FOR KS THERMAL LOGGING DATA

AL1SWSWSW 924S19E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.02286
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00258
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 8.87520
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.29DEGREES-F/100 FEET, 41.67DEGREES-C/KILOMETER

AL1SWSWSW 924S19E
DEPTH IO BREAK IN TEMPERATURE PROFILE IS 45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.01086
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00142
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 7.64766
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.09DEGREES-F/100 FEET, 19.79DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.53488052

BB1NENWNE3625S24E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 18FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.00649
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00089
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 7.28957
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.65DEGREES-F/100 FEET, 11.82DEGREES-C/KILOMETER

BB1NENWNE3625S24E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

BU1 2926S 7E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.00368
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00276
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 1.33393
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.37DEGREES-F/100 FEET, 6.72DEGREES-C/KILOMETER

BU1 2926S 7E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

CK1SESWSW3634S24E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS -0.08267
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00620
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -13.33514
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -8.27DEGREES-F/100 FEET, -150.70DEGREES-C/KILOMETER

CK1SESWSW3634S24E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.00045

STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00050
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   0.91026
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.05DEGREES-F/100 FEET,   0.83DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   23.08836055

  CN1NWSWNE37 2S41W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 90FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   15
COEFFICIENT OF LINEAR REGRESSION IS 0.05814
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00369
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   15.75242
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   5.81DEGREES-F/100 FEET,   105.99DEGREES-C/KILOMETER

  CN1NWSWNE32 2S41W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 90FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   36
COEFFICIENT OF LINEAR REGRESSION IS 0.00105
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00015
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   7.12456
THERE ARE   34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.11DEGREES-F/100 FEET,   1.92DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   -27.61195540

  CN2NWSWSE 3 5S40W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 80FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   13
COEFFICIENT OF LINEAR REGRESSION IS 0.04385
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00537
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   8.15814
THERE ARE   11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   4.38DEGREES-F/100 FEET,   79.93DEGREES-C/KILOMETER

  CN2NWSWSE 3 5S40W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 80FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   10
COEFFICIENT OF LINEAR REGRESSION IS 0.00194
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00087
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   2.23637
THERE ARE   8DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.19DEGREES-F/100 FEET,   3.54DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS   -5.69878924

  CD1NWNESE 8 8S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 44FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   6
COEFFICIENT OF LINEAR REGRESSION IS -0.01429
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00328
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -4.35078
THERE ARE   4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -1.43DEGREES-F/100 FEET,   -26.04DEGREES-C/KILOMETER

  CD1NWNESE 8 8S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 44FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   15
COEFFICIENT OF LINEAR REGRESSION IS -0.00107

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STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00062
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   -1.72450
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  -0.11DEGREES-F/100 FEET,    -1.95DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      4.75786555

  CD2    SW34 5S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  25FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.00971
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00202
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   4.81059
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.97DEGREES-F/100 FEET,    17.71DEGREES-C/KILOMETER

  CD2    SW34 5S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

  CD3SESENE15 5S 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  26FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00142
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   14.07744
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   2.00DEGREES-F/100 FEET,    36.46DEGREES-C/KILOMETER

  CD3SESENE15 5S 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  26FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS -0.00171
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00195
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   -0.87971
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  -0.17DEGREES-F/100 FEET,    -3.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -4.01952273

  CL1SWSWSW3531S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    5
COEFFICIENT OF LINEAR REGRESSION IS -0.07000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.06473
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   -1.08135
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  -7.00DEGREES-F/100 FEET,  -127.61DEGREES-C/KILOMETER

  CL1SWSWSW3531S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   24
COEFFICIENT OF LINEAR REGRESSION IS  0.00650
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00135
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    4.80140
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.65DEGREES-F/100 FEET,    11.85DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      2.89080310

  EW1NWSESW1914S 8W
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DEPTH TO BREAK IN TEMPERATURE PROFILE IS  43FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.18200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01636
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   11.12594
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  18.20DEGREES-F/100 FEET,   331.79DEGREES-C/KILOMETER

  EW1NWSESW19145 8W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  43FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   11
COEFFICIENT OF LINEAR REGRESSION IS  0.04545
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00187
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   24.24925
THERE ARE    9DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   4.55DEGREES-F/100 FEET,    82.86DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -12.62446487

  GH1SWSWSW24105 25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.18686
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02216
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    8.43258
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  18.69DEGREES-F/100 FEET,   340.64DEGREES-C/KILOMETER

  GH1SWSWSW24105 25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.04121
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00030
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  136.54964
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   4.12DEGREES-F/100 FEET,    75.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -3.27461624
       DIV CHECK    AT LOCATION     037513

  JW1SWSENE25 4S 8W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.01429
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01277
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    1.11851
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   1.43DEGREES-F/100 FEET,    26.04DEGREES-C/KILOMETER

  JW1SWSENE25 4S 8W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  45FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS .13292E 37
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.  DEGREES-F/100 FEET,     0.  DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -0.40049152
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  JW2SENESE18 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  48FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.13786
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01685
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    8.18065
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  13.79DEGREES-F/100 FEET,   251.31DEGREES-C/KILOMETER

  JW2SENESE18 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  48FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.00674
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00030
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   22.54843
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.67DEGREES-F/100 FEET,    12.29DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -16.12888789

  JW3NWNWNW13 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  69FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   11
COEFFICIENT OF LINEAR REGRESSION IS  0.08636
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01095
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    7.88352
THERE ARE    9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   8.64DEGREES-F/100 FEET,   157.44DEGREES-C/KILOMETER

  JW3NWNWNW13 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  69FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    7
COEFFICIENT OF LINEAR REGRESSION IS -0.05500
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00827
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   -6.65171
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  -5.50DEGREES-F/100 FEET,  -100.27DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -6.97406262

  JW4SESESE28 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  62FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   10
COEFFICIENT OF LINEAR REGRESSION IS  0.08170
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01829
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    4.46751
THERE ARE    8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   8.17DEGREES-F/100 FEET,   148.93DEGREES-C/KILOMETER

  JW4SESESE28 IS 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  62FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.00600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00343
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    1.74705
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.60DEGREES-F/100 FEET,    10.94DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -1.10602131
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  LA1NESWSW3534S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.04000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00769
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    5.20442
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   4.00DEGREES-F/100 FEET,    72.92DEGREES-C/KILOMETER

  LB1NESWSW3534S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

  LC1SWSESW1410S 8W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.07286
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.03216
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    2.26578
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   7.29DEGREES-F/100 FEET,   132.82DEGREES-C/KILOMETER

  LC1SWSESW1410S 8W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00064
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   31.38287
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.00DEGREES-F/100 FEET,    36.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS     -1.84810263

  LG1NWNWNW2911S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.21800
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00599
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS   36.36668
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  21.80DEGREES-F/100 FEET,   397.41DEGREES-C/KILOMETER

  LG1NWNWNW2911S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  38FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    3
COEFFICIENT OF LINEAR REGRESSION IS  0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01160
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    1.72386
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   2.00DEGREES-F/100 FEET,    36.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -13.92808306

  MP1  SESE 120S 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  76FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS   13
COEFFICIENT OF LINEAR REGRESSION IS  0.01879
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00342
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    5.50075
THERE ARE   11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   1.88DEGREES-F/100 FEET,    34.26DEGREES-C/KILOMETER
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MP1 SESE 12DS 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 76FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 29
COEFFICIENT OF LINEAR REGRESSION IS 0.00658
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00026
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 25.64059
THERE ARE 27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.66DEGREES-F/100 FEET, 12.00DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -5.92266011

MC1S2SWNE36 8S 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.07733
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01191
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 6.49419
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 7.73DEGREES-F/100 FEET, 140.98DEGREES-C/KILOMETER

MC1S2SWNE36 8S 6W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.00538
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00048
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 11.27924
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.54DEGREES-F/100 FEET, 9.82DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -8.37026036

NT1NWNENW16 3S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 49FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.11929
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01142
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 10.44615
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 11.93DEGREES-F/100 FEET, 217.46DEGREES-C/KILOMETER

NT1NWNENW16 3S23W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 49FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.01829
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00197
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 9.28500
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.83DEGREES-F/100 FEET, 33.34DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -7.30520117

OB1 SWNW 9 7S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 33FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.41600
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.03888
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 10.69823
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 41.60DEGREES-F/100 FEET, 758.37DEGREES-C/KILOMETER

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  OB1  SWNW 9 7S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  33FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.07257
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00416
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS   17.43822
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   7.26DEGREES-F/100 FEET,   132.30DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -12.98066616

  OT1NWSWSE36 9S 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  60FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.05667
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00886
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    6.39880
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =   5.67DEGREES-F/100 FEET,   103.30DEGREES-C/KILOMETER

  OT1NWSWSE36 9S 4W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  60FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS   30
COEFFICIENT OF LINEAR REGRESSION IS  0.00139
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00024
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    5.84023
THERE ARE   28DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   0.14DEGREES-F/100 FEET,     2.53DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS    -13.08661854

  PN1    SE3421S15W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.03200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00693
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS    4.61599
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =   3.20DEGREES-F/100 FEET,    58.34DEGREES-C/KILOMETER

  PN1    SE3421S15W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

  RN1SESESE1323S 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  21FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS    4
COEFFICIENT OF LINEAR REGRESSION IS -0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  -45.25483
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  -2.00DEGREES-F/100 FEET,   -36.46DEGREES-C/KILOMETER

  RN1SESESE1323S 7W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

  RN2NENESW2222S 5W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST

  RP1SESESE 7 3S 1W
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THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST

R01 SWNW11 7S16W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.21943
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02470
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 8.88255
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 21.94DEGREES-F/100 FEET, 400.02DEGREES-C/KILOMETER

R01 SWNW11 7S16W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW BREAK IN TEMPERATURE PROFILE

SA1NWNWNW1113S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS -0.09200
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.04398
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -2.09177
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -9.20DEGREES-F/100 FEET, -167.72DEGREES-C/KILOMETER

SA1NWNWNW1113S 3W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 40FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.00000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00240
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 0.00004
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.00DEGREES-F/100 FEET, 0.00DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 3.02534157

SD1SESESE 810S30W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 43FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.15516
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02147
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 7.22670
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 15.52DEGREES-F/100 FEET, 282.86DEGREES-C/KILOMETER

SD1SESESE 810S30W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 43FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.00357
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00124
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 2.88325
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.36DEGREES-F/100 FEET, 6.51DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -8.36814117

SM1 NESE34 4S15W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 32FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.14000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01263
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.08626

THERE ARE 20EGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 14.00DEGREES-F/100 FEET, 255.22DEGREES-C/KILOMETER

SM1 NESE34 4S15W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 32FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.02914
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00307
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 9.50319
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.91DEGREES-F/100 FEET, 53.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -11.28161681

COMPARISON OF REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL FOR KS THERMAL LOGGING DATA

1AL1SESENW3423S18E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.01771
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00082
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 21.52603
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.77DEGREES-F/100 FEET, 32.28DEGREES-C/KILOMETER

1AL1SESENW3423S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1ALZNENENE2426S20E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.03357
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00414
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 8.11175
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 3.36DEGREES-F/100 FEET, 61.19DEGREES-C/KILOMETER

1ALZNENENE2426S20E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1BA1NWSENW 631S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 46
COEFFICIENT OF LINEAR REGRESSION IS 0.01691
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00082
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 20.68708
THERE ARE 44DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.69DEGREES-F/100 FEET, 30.83DEGREES-C/KILOMETER

1BA1NWSENW 631S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1BT1NESWSE 519S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 50FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 8
COEFFICIENT OF LINEAR REGRESSION IS 0.05262
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00360
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 14.62364
THERE ARE 6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 5.26DEGREES-F/100 FEET, 95.92DEGREES-C/KILOMETER

1BT1NESWSE 519S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 50FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.01777
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00043
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 41.17731
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.78DEGREES-F/100 FEET, 32.40DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -12.34580982

1BT2 N21716S13W

THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 49
COEFFICIENT OF LINEAR REGRESSION IS 0.01613
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00040
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 45.17974
THERE ARE 47DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.81DEGREES-F/100 FEET, 33.05DEGREES-C/KILOMETER

1812 N21716S13W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1881 S2SW3424S21E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.02043
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00054
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 37.63094
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.04DEGREES-F/100 FEET, 37.25DEGREES-C/KILOMETER

1881 S2SW3424S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1BU1NWNENW3129S 5E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 34
COEFFICIENT OF LINEAR REGRESSION IS 0.01413
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00068
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 20.68743
THERE ARE 32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.41DEGREES-F/100 FEET, 25.76DEGREES-C/KILOMETER

1BU1NWNENW3129S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1BU2NENWNW 429S 5E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 22
COEFFICIENT OF LINEAR REGRESSION IS -0.00224
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00498
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS -0.45049
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = -0.22DEGREES-F/100 FEET, -4.09DEGREES-C/KILOMETER

1BU2NENWNW 429S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1BU3SESESE3425S 4E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 45
COEFFICIENT OF LINEAR REGRESSION IS 0.01907
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00025
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 76.08641
THERE ARE 43DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.91DEGREES-F/100 FEET, 34.77DEGREES-C/KILOMETER

1BU3SESESE3425S 4E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1CQ1NENENW2332S12E

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THICKNESS OF UNCONSOLIDATED MATERIAL IS   0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   47
COEFFICIENT OF LINEAR REGRESSION IS  0.02226
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00091
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   24.38863
THERE ARE   45DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.23DEGREES-F/100 FEET,    40.61DEGREES-C/KILOMETER

 1CQ1NENENW2332S12E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1CQ2  NESE1835S10E
THICKNESS OF UNCONSOLIDATED MATERIAL IS   0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.01081
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00123
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    8.78926
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.08DEGREES-F/100 FEET,    19.71DEGREES-C/KILOMETER

 1CQ2  NESE1835S10E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1CN1SWSWSW20 4S38W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  43FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.20000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01902
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   10.51443
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  20.00DEGREES-F/100 FEET,   364.60DEGREES-C/KILOMETER

 1CN1SWSWSW20 4S38W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  43FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   49
COEFFICIENT OF LINEAR REGRESSION IS  0.03385
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00070
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   48.21833
THERE ARE   47DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.38DEGREES-F/100 FEET,    61.71DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS     -9.88192534

 1CD1    SE23 7S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  20FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.02140
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00095
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   22.45124
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.14DEGREES-F/100 FEET,    39.01DEGREES-C/KILOMETER

 1CD1    SE23 7S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1CD2NENWW19 5S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  62FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS   10
COEFFICIENT OF LINEAR REGRESSION IS  0.02242
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00162
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T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 13.81151
THERE ARE   8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =   2.24DEGREES-F/100 FEET,   40.88DEGREES-C/KILOMETER

 1C02NENWNW19 5S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 62FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   4
COEFFICIENT OF LINEAR REGRESSION IS 0.01200
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00266
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   4.50302
THERE ARE   2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.20DEGREES-F/100 FEET,   21.88DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS   -1.68196271

 1CL1   NE3033S 8E
THICKNESS OF UNCONSOLIDATED MATERIAL IS   0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 119
COEFFICIENT OF LINEAR REGRESSION IS 0.02235
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00007
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 298.82497
THERE ARE 117DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.24DEGREES-F/100 FEET,   40.75DEGREES-C/KILOMETER

 1CL1   NE3033S 8E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1CL2 S2NW1534S 3E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 45FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS   3
COEFFICIENT OF LINEAR REGRESSION IS -0.16000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.07698
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   -2.07851
THERE ARE   1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = -16.00DEGREES-F/100 FEET, -291.68DEGREES-C/KILOMETER

 1CL2 S2NW1534S 3E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 45FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   24
COEFFICIENT OF LINEAR REGRESSION IS 0.01104
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00067
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   16.56905
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.10DEGREES-F/100 FEET,   20.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS   7.62849563

 1CR1   S21131S22E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   17
COEFFICIENT OF LINEAR REGRESSION IS 0.03446
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00169
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   20.43373
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.45DEGREES-F/100 FEET,   62.82DEGREES-C/KILOMETER

 1CR1   S21131S22E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1CR2NWSWNW2630S21E

THICKNESS OF UNCONSOLIDATED MATERIAL IS 5FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.02621
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00067
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 42.38514
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.82DEGREES-F/100 FEET, 51.43DEGREES-C/KILOMETER

1CR2NWSWNW26305216
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1DC1 W2W226 2S29W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.04749
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00423
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 11.22369
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 4.75DEGREES-F/100 FEET, 86.57DEGREES-C/KILOMETER

1DC1 W2W226 2S29W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1DC2SWSWNW 6 2S27W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.05019
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00468
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 10.72181
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 5.02DEGREES-F/100 FEET, 91.49DEGREES-C/KILOMETER

1DC2SWSWNW 6 2S27W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1DC3NWNWSW30 3S26W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.17400
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01821
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 9.55343
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 17.40DEGREES-F/100 FEET, 317.20DEGREES-C/KILOMETER

1DC3NWNWSW30 3S26W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.02291
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00051
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 45.07738
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.29DEGREES-F/100 FEET, 41.77DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -17.31182718

1DC4SWSESW13 4S30W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.04549
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00420

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T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   10.83677
THERE ARE   16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   4.55DEGREES-F/100 FEET,   82.93DEGREES-C/KILOMETER

 1DC4SWSESW13 45S0W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1ED1  N2NW2125S20W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  50FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.10452
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01876
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS    8.77085
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  16.45DEGREES-F/100 FEET,  299.93DEGREES-C/KILOMETER

 1ED1  N2NW2125S20W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  50FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.01624
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00087
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   21.07643
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.82DEGREES-F/100 FEET,   33.25DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS    -12.26943696

 1ED2    SE2923S19W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  25FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    3
COEFFICIENT OF LINEAR REGRESSION IS -0.04000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.06929
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   -0.57727
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  -4.00DEGREES-F/100 FEET,  -72.92DEGREES-C/KILOMETER

 1ED2    SE2923S19W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  25FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   31
COEFFICIENT OF LINEAR REGRESSION IS  0.01942
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00155
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   12.51263
THERE ARE   29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.94DEGREES-F/100 FEET,   35.40DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS       1.07597385

 1EK1SWSWNW 831S10E
THICKNESS OF UNCONSOLIDATED MATERIAL IS   0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.02442
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00174
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   14.06962
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.44DEGREES-F/100 FEET,   44.51DEGREES-C/KILOMETER

 1EK1SWSWNW 831S10E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1EL1SWNESW1713S18W
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THICKNESS OF UNCONSOLIDATED MATERIAL IS  21FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    56
COEFFICIENT OF LINEAR REGRESSION IS  0.02679
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    94.50892
THERE ARE    54DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    2.68DEGREES-F/100 FEET,    48.83DEGREES-C/KILOMETER

 1EL1SWNESW1713S18W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1EL2NWSENW1011S17W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    32
COEFFICIENT OF LINEAR REGRESSION IS  0.01716
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00066
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    25.82285
THERE ARE    30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    1.72DEGREES-F/100 FEET,    31.29DEGREES-C/KILOMETER

 1EL2NWSENW1011S17W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1EW1SWSENE3117S 9W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  70FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    12
COEFFICIENT OF LINEAR REGRESSION IS  0.07937
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01506
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS     5.27052
THERE ARE    10DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =    7.94DEGREES-F/100 FEET,   144.69DEGREES-C/KILOMETER

 1EW1SWSENE3117S 9W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  70FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    34
COEFFICIENT OF LINEAR REGRESSION IS  0.01019
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00020
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    51.18947
THERE ARE    32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    1.02DEGREES-F/100 FEET,    18.57DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS      -9.15642011

 1G01  SWSW2911S26W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  20FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    19
COEFFICIENT OF LINEAR REGRESSION IS  0.03365
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00550
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS     6.11338
THERE ARE    17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    3.37DEGREES-F/100 FEET,    61.35DEGREES-C/KILOMETER

 1G01  SWSW2911S26W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1G02SESENW1314S27W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    31
COEFFICIENT OF LINEAR REGRESSION IS  0.02229
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00033
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T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    68.22371
THERE ARE    29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    2.23DEGREES-F/100 FEET,     40.64DEGREES-C/KILOMETER

 1GO2SESENW1314S27W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1GH1NWNWNW24 7S25W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    39
COEFFICIENT OF LINEAR REGRESSION IS  0.03076
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00208
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    14.80822
THERE ARE    37DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    3.08DEGREES-F/100 FEET,     56.07DEGREES-C/KILOMETER

 1GH1NWNWNW24 7S25W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1GH2SWSWSW19 6S22W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    37
COEFFICIENT OF LINEAR REGRESSION IS  0.03509
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00207
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    16.94411
THERE ARE    35DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    3.51DEGREES-F/100 FEET,     63.97DEGREES-C/KILOMETER

 1GH2SWSWSW19 6S22W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1GH3SWSWSW12 6S25W
THICKNESS OF UNCONSOLIDATED MATERIAL IS    7FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    43
COEFFICIENT OF LINEAR REGRESSION IS  0.02478
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00098
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    25.40370
THERE ARE    41DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    2.48DEGREES-F/100 FEET,     45.17DEGREES-C/KILOMETER

 1GH3SWSWSW12 6S25W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1GW1SWSWNE3625S 8E
THICKNESS OF UNCONSOLIDATED MATERIAL IS    UFEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    37
COEFFICIENT OF LINEAR REGRESSION IS  0.02093
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00059
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    35.20848
THERE ARE    35DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    2.09DEGREES-F/100 FEET,     38.15DEGREES-C/KILOMETER

 1GW1SWSWNE3625S 8E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1GW2    S23224S11E
THICKNESS OF UNCONSOLIDATED MATERIAL IS    UFEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    35
COEFFICIENT OF LINEAR REGRESSION IS  0.02022
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00066
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T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 39.92336
THERE ARE 33DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.62DEGREES-F/100 FEET, 47.79DEGREES-C/KILOMETER

 1GW2 S23224S11E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1HP1SWSENE1331S 7W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 35
COEFFICIENT OF LINEAR REGRESSION IS 0.02106
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00031
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 67.96287
THERE ARE 33DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.11DEGREES-F/100 FEET, 38.40DEGREES-C/KILOMETER

 1HP1SWSENE1331S 7W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1HV1NESENE1822S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 145FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 25
COEFFICIENT OF LINEAR REGRESSION IS 0.01916
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00256
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 7.48425
THERE ARE 23DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 1.92DEGREES-F/100 FEET, 34.93DEGREES-C/KILOMETER

 1HV1NESENE1822S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

 1HV2SWSWSW1024S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 200FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 37
COEFFICIENT OF LINEAR REGRESSION IS 0.01734
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00086
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 20.17560
THERE ARE 35DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 1.73DEGREES-F/100 FEET, 31.60DEGREES-C/KILOMETER

 1HV2SWSWSW1024S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 200FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.02444
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00050
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 49.12795
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.44DEGREES-F/100 FEET, 44.56DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS 3.96543282

 1JW1NWNWSW1S IS 6W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 100FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 11
COEFFICIENT OF LINEAR REGRESSION IS 0.06527
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01292
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 5.05366
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 6.53DEGREES-F/100 FEET, 118.99DEGREES-C/KILOMETER

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 1JW1NWNWSW15 1S 6W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

 1LB1    SW 733S18E
THICKNESS OF UNCONSOLIDATED MATERIAL IS  15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   67
COEFFICIENT OF LINEAR REGRESSION IS  0.02819
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00032
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   87.54436
THERE ARE   65DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.82DEGREES-F/100 FEET,    51.38DEGREES-C/KILOMETER

 1LB1    SW 733S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1LB2  S2SE3531S17E
THICKNESS OF UNCONSOLIDATED MATERIAL IS  15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   73
COEFFICIENT OF LINEAR REGRESSION IS  0.02638
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00024
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS  108.42233
THERE ARE   71DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.64DEGREES-F/100 FEET,    48.10DEGREES-C/KILOMETER

 1LB2  S2SE3531S17E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1LB3SWNESW 331S21E
THICKNESS OF UNCONSOLIDATED MATERIAL IS  13FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   48
COEFFICIENT OF LINEAR REGRESSION IS  0.02544
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00072
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   35.55008
THERE ARE   46DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.54DEGREES-F/100 FEET,    46.37DEGREES-C/KILOMETER

 1LB3SWNESW 331S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1LC1SENWSE1911S 7W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   28
COEFFICIENT OF LINEAR REGRESSION IS -0.00088
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00607
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   -0.14431
THERE ARE   26DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =  -0.09DEGREES-F/100 FEET,    -1.60DEGREES-C/KILOMETER

 1LC1SENWSE1911S 7W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1LG1SESENE 611S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  55FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.14762
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02838
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   5.20177
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  14.76DEGREES-F/100 FEET,   269.11DEGREES-C/KILOMETER
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 1LG1SESENE 611S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  53FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   23
COEFFICIENT OF LINEAR REGRESSION IS  0.02089
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00037
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   56.58900
THERE ARE   21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.09DEGREES-F/100 FEET,   38.08DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS     -9.21694207

 1LG2SWSWSW 811S33W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.27200
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00693
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   39.24385
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  27.20DEGREES-F/100 FEET,  495.86DEGREES-C/KILOMETER

 1LG2SWSWSW 811S33W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   19
COEFFICIENT OF LINEAR REGRESSION IS  0.03481
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00069
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   50.28061
THERE ARE   17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.48DEGREES-F/100 FEET,   63.45DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS    -32.15602207

 1MP1SWSESE 719S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 193FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS   36
COEFFICIENT OF LINEAR REGRESSION IS  0.00997
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00150
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS    6.62606
THERE ARE   34DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =   1.00DEGREES-F/100 FEET,   18.17DEGREES-C/KILOMETER

 1MP1SWSESE 719S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

 1MC1SES4SW12 8S 7W
THICKNESS OF UNCONSOLIDATED MATERIAL IS   5FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   36
COEFFICIENT OF LINEAR REGRESSION IS  0.02981
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00224
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   13.32289
THERE ARE   34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.98DEGREES-F/100 FEET,   54.34DEGREES-C/KILOMETER

 1MC1SESWSW12 8S 7W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1MG1E2E2W21431S16E
THICKNESS OF UNCONSOLIDATED MATERIAL IS   0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   86
COEFFICIENT OF LINEAR REGRESSION IS  0.02540
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00029
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T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 87.08136
THERE ARE 84DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.54DEGREES-F/100 FEET, 46.30DEGREES-C/KILOMETER

 1MG1E2E2W21431S16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1NO1SWSWSW3327S18E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 88
COEFFICIENT OF LINEAR REGRESSION IS 0.02230
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 68.62118
THERE ARE 86DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.23DEGREES-F/100 FEET, 40.64DEGREES-C/KILOMETER

 1NO1SWSWSW3327S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1NT1SWSWSW13 4S25W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 15FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.03069
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00305
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 10.07721
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 3.07DEGREES-F/100 FEET, 55.94DEGREES-C/KILOMETER

 1NT1SWSWSW13 4S25W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1NT2SESESE 3 4S23W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 45
COEFFICIENT OF LINEAR REGRESSION IS 0.02763
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00270
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 10.23109
THERE ARE 43DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.76DEGREES-F/100 FEET, 50.37DEGREES-C/KILOMETER

 1NT2SESESE 3 4S23W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1NT3NENENE14 2S25W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 5
COEFFICIENT OF LINEAR REGRESSION IS 0.00600
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.04476
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 0.13404
THERE ARE 3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 0.60DEGREES-F/100 FEET, 10.94DEGREES-C/KILOMETER

 1NT3NENENE14 2S25W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 39
COEFFICIENT OF LINEAR REGRESSION IS 0.02177
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00050
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 43.28486
THERE ARE 37DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.18DEGREES-F/100 FEET, 39.69DEGREES-C/KILOMETER

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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS      0.96631233

 1NT4NENENE17 1S21W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  40FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    6
COEFFICIENT OF LINEAR REGRESSION IS  0.08343
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01451
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS    5.75111
THERE ARE    4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =   8.34DEGREES-F/100 FEET,   152.09DEGREES-C/KILOMETER

 1NT4NENENE17 1S21W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  40FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   18
COEFFICIENT OF LINEAR REGRESSION IS  0.03523
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00180
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   19.58872
THERE ARE   16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.52DEGREES-F/100 FEET,    64.23DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS     -4.43974352

 1NT5NESESE27 5S21W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   57
COEFFICIENT OF LINEAR REGRESSION IS  0.01700
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00040
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS   42.96463
THERE ARE   55DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.70DEGREES-F/100 FEET,    30.99DEGREES-C/KILOMETER

 1NT5NESESE27 5S21W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 10B1  SWNW17 7S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS   5FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   10
COEFFICIENT OF LINEAR REGRESSION IS  0.03990
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01315
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    3.03371
THERE ARE    8DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.99DEGREES-F/100 FEET,    72.75DEGREES-C/KILOMETER

 10B1  SWNW17 7S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 10T1SWSWNW19 9S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS    4
COEFFICIENT OF LINEAR REGRESSION IS -0.00600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00343
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS   -1.74777
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  -0.60DEGREES-F/100 FEET,   -10.94DEGREES-C/KILOMETER

 10T1SWSWNW19 9S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS   46
COEFFICIENT OF LINEAR REGRESSION IS  0.02127
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STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00129
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 16.42701
THERE ARE 44DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.13DEGREES-F/100 FEET, 38.77DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS 0.53456783

1PN1NENENE 32S15W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 100FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 15
COEFFICIENT OF LINEAR REGRESSION IS 0.06521
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00729
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 8.94297
THERE ARE 13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 6.52DEGREES-F/100 FEET, 118.89DEGREES-C/KILOMETER

1PN1NENENE 32S15W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

1RA1E2E2W23O 2S35W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 57FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.13100
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01263
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 10.37559
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 13.10DEGREES-F/100 FEET, 238.81DEGREES-C/KILOMETER

1RA1E2E2W23O 2S35W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 57FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 17
COEFFICIENT OF LINEAR REGRESSION IS 0.03520
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00075
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 46.99169
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 3.52DEGREES-F/100 FEET, 64.16DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -12.24998105

1RA2 S2S2 5 3S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 132FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 24
COEFFICIENT OF LINEAR REGRESSION IS 0.02284
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00116
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 19.71257
THERE ARE 22DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 2.28DEGREES-F/100 FEET, 41.64DEGREES-C/KILOMETER

1RA2 S2S2 5 3S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 132FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.00585
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00065
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 8.93042
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 0.58DEGREES-F/100 FEET, 10.66DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -7.28590119

1RA3NESWNE34 4S36W

THICKNESS OF UNCONSOLIDATED MATERIAL IS 46FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.09714
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00960
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 10.11624
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 9.71DEGREES-F/100 FEET, 177.09DEGREES-C/KILOMETER

1RA3NESWNE34 4S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 46FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.02635
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00070
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 37.43561
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.64DEGREES-F/100 FEET, 48.04DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -9.89208841

1RN1NWNWSW 622S10W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 210FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.02521
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00132
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 19.05761
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 2.52DEGREES-F/100 FEET, 45.96DEGREES-C/KILOMETER

1RN1NWNWSW 622S10W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

1RN2SWSWSE 624S10W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 155FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.03045
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00272
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 11.18568
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 3.05DEGREES-F/100 FEET, 55.51DEGREES-C/KILOMETER

1RN2SWSWSE 624S10W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 155FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00110
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 18.17592
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.00DEGREES-F/100 FEET, 36.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -0.13561299

1RP1NENENE29 1S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 105FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.03878
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00436
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 8.93424
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 3.88DEGREES-F/100 FEET, 70.70DEGREES-C/KILOMETER

1RP1NENENE29 1S 3W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 105FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 12
COEFFICIENT OF LINEAR REGRESSION IS 0.01245
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00121
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 10.28299
THERE ARE 10DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.24DEGREES-F/100 FEET, 22.69DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -3.66565198

1RC1 SWSW 919S 9W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 50FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.05211
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00096
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 54.49326
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 5.21DEGREES-F/100 FEET, 94.99DEGREES-C/KILOMETER

1RC1 SWSW 919S 9W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 50FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 56
COEFFICIENT OF LINEAR REGRESSION IS 0.01762
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00041
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 42.58003
THERE ARE 54DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.76DEGREES-F/100 FEET, 32.13DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -1.23682131

1R01S2S2NW27 9S20W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 5FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 120
COEFFICIENT OF LINEAR REGRESSION IS 0.02218
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00021
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 104.48712
THERE ARE 118DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.22DEGREES-F/100 FEET, 40.44DEGREES-C/KILOMETER

1R01S2S2NW27 9S20W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1RH1NENWSW1117S19W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 20FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 55
COEFFICIENT OF LINEAR REGRESSION IS 0.02952
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00038
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 76.27854
THERE ARE 53DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.93DEGREES-F/100 FEET, 53.45DEGREES-C/KILOMETER

1RH1NENWSW1117S19W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1RH2NWNWNE 617S17W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 54
COEFFICIENT OF LINEAR REGRESSION IS 0.01651
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00044

T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 37.27012
THERE ARE 52DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.65DEGREES-F/100 FEET, 30.10DEGREES-C/KILOMETER

 1RH2NWNWNE 617S17W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1RH3NWSENW2419S19W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 51
COEFFICIENT OF LINEAR REGRESSION IS 0.02942
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00105
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 28.03103
THERE ARE 49DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.94DEGREES-F/100 FEET, 53.63DEGREES-C/KILOMETER

 1RH3NWSENW2419S19W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1RS1 S2SW1415S14W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 13FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 40
COEFFICIENT OF LINEAR REGRESSION IS 0.01100
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00074
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 14.80397
THERE ARE 38DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.10DEGREES-F/100 FEET, 20.05DEGREES-C/KILOMETER

 1RS1 S2SW1415S14W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1SA1NWSWSW3213S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 60FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 9
COEFFICIENT OF LINEAR REGRESSION IS -0.01433
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.04346
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS -0.32979
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = -1.43DEGREES-F/100 FEET, -26.13DEGREES-C/KILOMETER

 1SA1NWSWSW3213S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 60FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.01923
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00059
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 32.80119
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.92DEGREES-F/100 FEET, 35.06DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS 1.07347016

 1SA2NWNESW2013S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.01526
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00187
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 8.15297
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.53DEGREES-F/100 FEET, 27.82DEGREES-C/KILOMETER

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 1SA2NWNESW2013S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1SG1NENENE2225S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  50FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     7
COEFFICIENT OF LINEAR REGRESSION IS  0.00429
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02945
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS     0.14553
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =    0.43DEGREES-F/100 FEET,      7.81DEGREES-C/KILOMETER

 1SG1NENENE2225S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  50FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    32
COEFFICIENT OF LINEAR REGRESSION IS  0.01659
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00019
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    86.59261
THERE ARE   30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    1.66DEGREES-F/100 FEET,     30.25DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS       1.08649263

 1SD1NWNWNE21 7S28W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  56FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     9
COEFFICIENT OF LINEAR REGRESSION IS  0.07400
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01500
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS     4.93425
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =    7.40DEGREES-F/100 FEET,    134.90DEGREES-C/KILOMETER

 1SD1NWNWNE21 7S28W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  58FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    32
COEFFICIENT OF LINEAR REGRESSION IS  0.02182
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    49.24732
THERE ARE   30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    2.18DEGREES-F/100 FEET,     39.77DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS      -7.31885087

 1SD2  W2NE 1 9S28W
THICKNESS OF UNCONSOLIDATED MATERIAL IS   5FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    26
COEFFICIENT OF LINEAR REGRESSION IS  0.03739
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00314
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    11.89404
THERE ARE   24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =    3.74DEGREES-F/100 FEET,     68.16DEGREES-C/KILOMETER

 1SD2  W2NE 1 9S28W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

 1SH1NWNENW36 7S40W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  40FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     5
COEFFICIENT OF LINEAR REGRESSION IS  0.16600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.03525
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T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 5.33363
THERE ARE 3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 18.80DEGREES-F/100 FEET, 342.72DEGREES-C/KILOMETER

1SH1NWNENW36 7S40W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 40FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.01228
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00025
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 48.22973
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.23DEGREES-F/100 FEET, 22.38DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -13.24714005

1SH2SWSWSW17 7S42W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 52FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 8
COEFFICIENT OF LINEAR REGRESSION IS 0.18976
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.04418
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 4.29492
THERE ARE 6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 18.98DEGREES-F/100 FEET, 345.94DEGREES-C/KILOMETER

1SH2SWSWSW17 7S42W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 52FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.02220
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00042
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 52.86095
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.22DEGREES-F/100 FEET, 40.47DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -7.33703035

1SH3SESWSE31 8S42W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 29FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.16000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02530
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 6.32484
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 16.00DEGREES-F/100 FEET, 291.68DEGREES-C/KILOMETER

1SH3SESWSE31 8S42W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 29FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.01808
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 56.49822
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.81DEGREES-F/100 FEET, 32.96DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -15.08386266

1SH1SWSWSE 2 1S11W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 130FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 17
COEFFICIENT OF LINEAR REGRESSION IS 0.05275
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00814

T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 6.47797
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 5.27DEGREES-F/100 FEET, 96.15DEGREES-C/KILOMETER

1SM1SWSWSE 2 1S11W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

1SF1NENWNW 623S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 160FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 28
COEFFICIENT OF LINEAR REGRESSION IS 0.02997
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00207
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 14.45923
THERE ARE 26DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 3.00DEGREES-F/100 FEET, 54.63DEGREES-C/KILOMETER

1SF1NENWNW 623S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

1SF2SWSWSE3623S13W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 133FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 24
COEFFICIENT OF LINEAR REGRESSION IS 0.04680
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00712
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 6.57377
THERE ARE 22DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 4.68DEGREES-F/100 FEET, 85.32DEGREES-C/KILOMETER

1SF2SWSWSE3623S13W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 133FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.02000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00063
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 32.00000
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.00DEGREES-F/100 FEET, 36.46DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -0.16037795

1SF3SENENE1125S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 127FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.04194
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00349
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 12.02345
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 4.19DEGREES-F/100 FEET, 76.45DEGREES-C/KILOMETER

1SF3SENENE1125S12W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 127FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.01348
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00029
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 46.72929
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.35DEGREES-F/100 FEET, 24.58DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -7.38419044

1SF4SESESE3624S13W

THICKNESS OF UNCONSOLIDATED MATERIAL IS 167FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.02249
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00148
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 15.20694
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 2.25DEGREES-F/100 FEET, 41.00DEGREES-C/KILOMETER

1SF4SESESE3624S13W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW UNCONSOLIDATED MATERIAL

1SU1NENESE 830S 2W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 40
COEFFICIENT OF LINEAR REGRESSION IS 0.01875
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00071
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 26.38447
THERE ARE 38DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.87DEGREES-F/100 FEET, 34.18DEGREES-C/KILOMETER

1SU1NENESE 830S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1TH1NWNESE27 8S32W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 45FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.18457
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01827
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 10.10286
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 18.46DEGREES-F/100 FEET, 336.47DEGREES-C/KILOMETER

1TH1NWNESE27 8S32W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 45FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.02109
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00116
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 18.24961
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.11DEGREES-F/100 FEET, 38.44DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -16.41379666

1TH2NWSWSW3010S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 85FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.0618D
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01533
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 5.33714
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 8.18DEGREES-F/100 FEET, 149.13DEGREES-C/KILOMETER

1TH2NWSWSW3010S36W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 85FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.01943
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00059
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 32.98036
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 1.94DEGREES-F/100 FEET, 35.43DEGREES-C/KILOMETER

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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS      -4.60634923

 1TR1W2W2SW 912S23W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     4
COEFFICIENT OF LINEAR REGRESSION IS  0.25800
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04763
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS     5.41714
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  25.80DEGREES-F/100 FEET,   470.33DEGREES-C/KILOMETER

 1TR1W2W2SW 912S23W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS     9
COEFFICIENT OF LINEAR REGRESSION IS  0.01400
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00144
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS     9.70398
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   1.40DEGREES-F/100 FEET,    25.52DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS     -10.24597526

 1TR2  S2S21012S23W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     4
COEFFICIENT OF LINEAR REGRESSION IS  0.07000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02933
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS     2.38690
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =   7.00DEGREES-F/100 FEET,   127.61DEGREES-C/KILOMETER

 1TR2  S2S21012S23W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    16
COEFFICIENT OF LINEAR REGRESSION IS  0.03597
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00147
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    24.52767
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   3.60DEGREES-F/100 FEET,    65.57DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS     -2.20147267

 1TR3NWSWNE3614S22W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  28FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS     3
COEFFICIENT OF LINEAR REGRESSION IS -0.05000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.04042
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS    -1.23688
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL =  -5.00DEGREES-F/100 FEET,   -91.15DEGREES-C/KILOMETER

 1TR3NWSWNE3614S22W
THICKNESS OF UNCONSOLIDATED MATERIAL IS  28FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS    59
COEFFICIENT OF LINEAR REGRESSION IS  0.02493
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS    46.21062
THERE ARE   57DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL =   2.49DEGREES-F/100 FEET,    45.44DEGREES-C/KILOMETER
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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS 0.81547941

1WA1 1815S39W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 20FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.04510
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00512
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 8.80683
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 4.51DEGREES-F/100 FEET, 82.22DEGREES-C/KILOMETER

1WA1 1815S39W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1WA2NENESW 315S38W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS ABOVE UNCONSOLIDATED MATERIAL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.14000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.03461
T TEST VALUE FOR DATA ABOVE UNCONSOLIDATED MATERIAL IS 4.04493
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE UNCONSOLIDATED MATERIAL = 14.00DEGREES-F/100 FEET, 255.22DEGREES-C/KILOMETER

1WA2NENESW 315S38W
THICKNESS OF UNCONSOLIDATED MATERIAL IS 30FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.05751
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00334
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 17.20359
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 5.75DEGREES-F/100 FEET, 104.84DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW UNCONSOLIDATED MATERIAL IS -2.34425604

1WL1NWNESE1129S14E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 10FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 99
COEFFICIENT OF LINEAR REGRESSION IS 0.02319
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00025
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 90.95675
THERE ARE 97DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.32DEGREES-F/100 FEET, 42.28DEGREES-C/KILOMETER

1WL1NWNESE1129S14E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1WO1SESENE2425S13E
THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 114
COEFFICIENT OF LINEAR REGRESSION IS 0.02366
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00009
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 252.39213
THERE ARE 112DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.37DEGREES-F/100 FEET, 43.13DEGREES-C/KILOMETER

1WO1SESENE2425S13E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

1WO2SENWSW1625S16E

THICKNESS OF UNCONSOLIDATED MATERIAL IS 0FEET
NUMBER OF DATA PAIRS BELOW UNCONSOLIDATED MATERIAL IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.02066
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00137
T TEST VALUE FOR DATA BELOW UNCONSOLIDATED MATERIAL IS 15.11502
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW UNCONSOLIDATED MATERIAL = 2.07DEGREES-F/100 FEET, 37.67DEGREES-C/KILOMETER

1W02SENWSW1625S16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE UNCONSOLIDATED MATERIAL

COMPARISON OF REGRESSION LINES ABOVE AND BELOW WATER TABLE FOR KS THERMAL LOGGING DATA

1AL1SESENW3423S18E
DEPTH TO WATER IS 335FEET
CASING DIAMETER IS 41NCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.01771
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00082
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 21.52603
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 1.77DEGREES-F/100 FEET, 32.28DEGREES-C/KILOMETER

1AL1SESENW3423S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1AL2NENENE2426S20E
DEPTH TO WATER IS 8FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.03357
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00414
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 8.11175
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 3.36DEGREES-F/100 FEET, 61.19DEGREES-C/KILOMETER

1AL2NENENE2426S20E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

1BA1NWSENW 631S12W
DEPTH TO WATER IS 80FEET
CASING DIAMETER IS 41NCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 5
COEFFICIENT OF LINEAR REGRESSION IS 0.04467
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00810
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 5.51399
THERE ARE 3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 4.47DEGREES-F/100 FEET, 81.43DEGREES-C/KILOMETER

1BA1NWSENW 631S12W
DEPTH TO WATER IS 80FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 41
COEFFICIENT OF LINEAR REGRESSION IS 0.01398
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00059
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 23.57445
THERE ARE 39DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.40DEGREES-F/100 FEET, 25.48DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -3.26581371

1BT1NESWSE 519S12W
DEPTH TO WATER IS 16FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.02144
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00084
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 25.50654
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.14DEGREES-F/100 FEET, 39.08DEGREES-C/KILOMETER

1BT1NESWSE 519S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

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 1BT2    N21716S13W
DEPTH TO WATER IS 505FEET
CASING DIAMETER IS   7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   49
COEFFICIENT OF LINEAR REGRESSION IS  0.01813
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00040
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   45.17974
THERE ARE   47DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.81DEGREES-F/100 FEET,    33.05DEGREES-C/KILOMETER

 1BT2    N21716S13W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1BB1   S2SW3424S21E
DEPTH TO WATER IS 380FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   25
COEFFICIENT OF LINEAR REGRESSION IS  0.01984
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00057
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   34.53087
THERE ARE   23DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.98DEGREES-F/100 FEET,    36.17DEGREES-C/KILOMETER

 1BB1   S2SW3424S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1BU1NWNENW3129S 5E
DEPTH TO WATER IS  19FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   33
COEFFICIENT OF LINEAR REGRESSION IS  0.01516
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00041
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   37.34557
THERE ARE   31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.52DEGREES-F/100 FEET,    27.64DEGREES-C/KILOMETER

 1BU1NWNENW3129S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1BU2NENWNW 429S 5E
DEPTH TO WATER IS  25FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.01088
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   20.06448
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.09DEGREES-F/100 FEET,    19.83DEGREES-C/KILOMETER

 1BU2NENWNW 429S 5E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1BU3SESESE3425S 4E
DEPTH TO WATER IS 208FEET
CASING DIAMETER IS   7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   13
COEFFICIENT OF LINEAR REGRESSION IS  0.01817
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00188
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    9.66704
THERE ARE   11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.82DEGREES-F/100 FEET,    33.12DEGREES-C/KILOMETER
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 1BU3SESESE3425S 4E
DEPTH TO WATER IS 208FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   32
COEFFICIENT OF LINEAR REGRESSION IS  0.02066
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00022
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   92.23411
THERE ARE   30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.07DEGREES-F/100 FEET,    37.66DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS      2.07323599

 1CQ1NENENW2332S12E
DEPTH TO WATER IS  16FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   46
COEFFICIENT OF LINEAR REGRESSION IS  0.02377
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00037
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   63.65156
THERE ARE   44DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.38DEGREES-F/100 FEET,    43.32DEGREES-C/KILOMETER

 1CQ1NENENW2332S12E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1CQ2  NESE1835S10E
DEPTH TO WATER IS 300FEET
CASING DIAMETER IS   7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.01081
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00123
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    8.78926
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.08DEGREES-F/100 FEET,    19.71DEGREES-C/KILOMETER

 1CQ2  NESE1835S10E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1CN1SWSWSW20 4S38W
DEPTH TO WATER IS 160FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   30
COEFFICIENT OF LINEAR REGRESSION IS  0.05244
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00331
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   15.83513
THERE ARE   28DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   5.24DEGREES-F/100 FEET,    95.59DEGREES-C/KILOMETER

 1CN1SWSWSW20 4S38W
DEPTH TO WATER IS 160FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   25
COEFFICIENT OF LINEAR REGRESSION IS  0.02315
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   83.02100
THERE ARE   23DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.31DEGREES-F/100 FEET,    42.20DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -7.19690698

 1CD1    SE23 7S 2W
DEPTH TO WATER IS 120FEET
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CASING DIAMETER IS   4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   22
COEFFICIENT OF LINEAR REGRESSION IS  0.02087
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00084
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   24.96751
THERE ARE   20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   2.09DEGREES-F/100 FEET,    38.05DEGREES-C/KILOMETER

 1CD1    SE23 7S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1CD2NENWNW19 5S 3W
DEPTH TO WATER IS   9FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.02018
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00100
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   20.18475
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.02DEGREES-F/100 FEET,    36.78DEGREES-C/KILOMETER

 1CD2NENWNW19 5S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1CL1    NE3033S 8E
DEPTH TO WATER IS   3FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS  119
COEFFICIENT OF LINEAR REGRESSION IS  0.02235
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00007
T TEST VALUE FOR DATA BELOW WATER LEVEL IS  298.82497
THERE ARE  117DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.24DEGREES-F/100 FEET,    40.75DEGREES-C/KILOMETER

 1CL1    NE3033S 8E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1CL2  S2NW1534S 3E
DEPTH TO WATER IS 405FEET
CASING DIAMETER IS   7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.00588
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00206
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    2.85572
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   0.59DEGREES-F/100 FEET,    10.71DEGREES-C/KILOMETER

 1CL2  S2NW1534S 3E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1CR1    S21131S22E
DEPTH TO WATER IS  27FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.03446
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00169
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   20.43373
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   3.45DEGREES-F/100 FEET,    62.82DEGREES-C/KILOMETER

 1CR1    S21131S22E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL
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 1CR2NWSWNW2630S21E
DEPTH TO WATER IS    1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    50
COEFFICIENT OF LINEAR REGRESSION IS  0.02821
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00067
T TEST VALUE FOR DATA BELOW WATER LEVEL IS    42.38514
THERE ARE    48DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    2.82DEGREES-F/100 FEET,    51.43DEGREES-C/KILOMETER

 1CR2NWSWNW2630S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1DC1  W2W226 2S29W
DEPTH TO WATER IS  89FEET
CASING DIAMETER IS    5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    15
COEFFICIENT OF LINEAR REGRESSION IS  0.06707
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01077
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    6.22524
THERE ARE    13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =    6.71DEGREES-F/100 FEET,    122.27DEGREES-C/KILOMETER

 1DC1  W2W226 2S29W
DEPTH TO WATER IS  89FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    11
COEFFICIENT OF LINEAR REGRESSION IS  0.01854
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00075
T TEST VALUE FOR DATA BELOW WATER LEVEL IS    24.82905
THERE ARE    9DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    1.85DEGREES-F/100 FEET,    33.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS      -3.09000790

 1DC2SWSWNW 6 2S27W
DEPTH TO WATER IS  95FEET
CASING DIAMETER IS    5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    16
COEFFICIENT OF LINEAR REGRESSION IS  0.05215
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00583
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    8.94966
THERE ARE    14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =    5.21DEGREES-F/100 FEET,    95.06DEGREES-C/KILOMETER

 1DC2SWSWNW 6 2S27W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1DC3NWNWSW30 3S26W
DEPTH TO WATER IS 125FEET
CASING DIAMETER IS    11INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    23
COEFFICIENT OF LINEAR REGRESSION IS  0.03962
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00456
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    8.73945
THERE ARE    21DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =    3.98DEGREES-F/100 FEET,    72.60DEGREES-C/KILOMETER

 1DC3NWNWSW30 3S26W
DEPTH TO WATER IS 125FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.01882
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STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00062
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   30.46920
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.88DEGREES-F/100 FEET,    34.32DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -0.26565263

 1DC4SWSESW13 4S30W
DEPTH TO WATER IS 103FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.04549
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00420
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   10.83677
THERE ARE   16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   4.55DEGREES-F/100 FEET,    82.93DEGREES-C/KILOMETER

 1DC4SWSESW13 4S30W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1ED1  N2NW2125S20W
DEPTH TO WATER IS  47FEET
CASING DIAMETER IS   4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.18571
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01908
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    9.73519
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =  18.57DEGREES-F/100 FEET,   338.56DEGREES-C/KILOMETER

 1ED1  N2NW2125S20W
DEPTH TO WATER IS  47FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   15
COEFFICIENT OF LINEAR REGRESSION IS  0.01821
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00075
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   24.29488
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.82DEGREES-F/100 FEET,    33.20DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS    -15.57467806

 1ED2    SE2923S19W
DEPTH TO WATER IS  48FEET
CASING DIAMETER IS   4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    7
COEFFICIENT OF LINEAR REGRESSION IS  0.06643
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01613
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    4.11726
THERE ARE    5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   6.64DEGREES-F/100 FEET,   121.10DEGREES-C/KILOMETER

 1ED2    SE2923S19W
DEPTH TO WATER IS  48FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.01389
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00036
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   38.74141
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.39DEGREES-F/100 FEET,    25.33DEGREES-C/KILOMETER
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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -7.39213318

1EK1SWSWNW 831S10E
DEPTH TO WATER IS 305FEET
CASING DIAMETER IS 4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.02442
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00174
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 14.06962
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 2.44DEGREES-F/100 FEET, 44.51DEGREES-C/KILOMETER

1EK1SWSWNW 831S10E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1EL1SWNESW1713S18W
DEPTH TO WATER IS 1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 58
COEFFICIENT OF LINEAR REGRESSION IS 0.02725
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00035
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 78.56425
THERE ARE 56DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.73DEGREES-F/100 FEET, 49.68DEGREES-C/KILOMETER

1EL1SWNESW1713S18W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

1EL2NWSENW1011S17W
DEPTH TO WATER IS 1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 32
COEFFICIENT OF LINEAR REGRESSION IS 0.01716
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00066
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 25.82285
THERE ARE 30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.72DEGREES-F/100 FEET, 31.29DEGREES-C/KILOMETER

1EL2NWSENW1011S17W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

1EW1SWSENE3117S 9W
DEPTH TO WATER IS 96FEET
CASING DIAMETER IS 4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 17
COEFFICIENT OF LINEAR REGRESSION IS 0.04995
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00923
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 5.41378
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 5.00DEGREES-F/100 FEET, 91.06DEGREES-C/KILOMETER

1EW1SWSENE3117S 9W
DEPTH TO WATER IS 96FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 29
COEFFICIENT OF LINEAR REGRESSION IS 0.00971
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00023
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 41.98247
THERE ARE 27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 0.97DEGREES-F/100 FEET, 17.71DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -6.63444555

1G01 SWSW2911S26W
DEPTH TO WATER IS 98FEET
CASING DIAMETER IS 5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.04006
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00731
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 5.48357
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 4.01DEGREES-F/100 FEET, 73.03DEGREES-C/KILOMETER

1G01 SWSW2911S26W
DEPTH TO WATER IS 98FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 3
COEFFICIENT OF LINEAR REGRESSION IS -0.00001
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00158
T TEST VALUE FOR DATA BELOW WATER LEVEL IS -0.00632
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = -0.00DEGREES-F/100 FEET, -0.02DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -0.35128968

1G02SESENW1314S27W
DEPTH TO WATER IS 83FEET
CASING DIAMETER IS 6INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.08161
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01782
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 4.58080
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 8.16DEGREES-F/100 FEET, 148.78DEGREES-C/KILOMETER

1G02SESENW1314S27W
DEPTH TO WATER IS 83FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.02186
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00033
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 67.25373
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.19DEGREES-F/100 FEET, 39.86DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -7.66081655

1GH1NWNWNW24 7S25W
DEPTH TO WATER IS 87FEET
CASING DIAMETER IS 2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 15
COEFFICIENT OF LINEAR REGRESSION IS 0.07729
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00687
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 11.25325
THERE ARE 13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 7.73DEGREES-F/100 FEET, 140.89DEGREES-C/KILOMETER

1GH1NWNWNW24 7S25W
DEPTH TO WATER IS 87FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 25
COEFFICIENT OF LINEAR REGRESSION IS 0.01775
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00025
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 71.50422
THERE ARE 23DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.77DEGREES-F/100 FEET, 32.35DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -13.00853431

1GH2SWSWSW19 6S22W
DEPTH TO WATER IS 107FEET
CASING DIAMETER IS 2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.05916
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00617
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 9.58950
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 5.92DEGREES-F/100 FEET, 107.84DEGREES-C/KILOMETER

1GH2SWSWSW19 6S22W
DEPTH TO WATER IS 107FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.01816
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00051
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 35.64475
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.82DEGREES-F/100 FEET, 33.10DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -5.90509802

1GH3SWSWSW12 6S25W
DEPTH TO WATER IS 137FEET
CASING DIAMETER IS 2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.02762
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00241
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 11.46101
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 2.76DEGREES-F/100 FEET, 50.36DEGREES-C/KILOMETER

1GH3SWSWSW12 6S25W
DEPTH TO WATER IS 137FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 17
COEFFICIENT OF LINEAR REGRESSION IS 0.01466
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00040
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 36.94166
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.47DEGREES-F/100 FEET, 26.72DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -3.19551221

1GW1SWSWNE3625S 8E
DEPTH TO WATER IS 400FEET
CASING DIAMETER IS 7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 37
COEFFICIENT OF LINEAR REGRESSION IS 0.02093
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00059
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 35.20848
THERE ARE 35DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 2.09DEGREES-F/100 FEET, 38.15DEGREES-C/KILOMETER

1GW1SWSWNE3625S 8E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1GW2 S23224S11E
DEPTH TO WATER IS 244FEET

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CASING DIAMETER IS   7INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.03110
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00212
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   14.69224
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   3.11DEGREES-F/100 FEET,   56.70DEGREES-C/KILOMETER

 1GW2    S23224S11E
DEPTH TO WATER IS 244FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   19
COEFFICIENT OF LINEAR REGRESSION IS  0.02209
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00092
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   24.14592
THERE ARE   17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.21DEGREES-F/100 FEET,   40.28DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -3.90102321

 1HP1SWSENE1331S 7W
DEPTH TO WATER IS 400FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   37
COEFFICIENT OF LINEAR REGRESSION IS  0.02209
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00054
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   40.79850
THERE ARE   35DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   2.21DEGREES-F/100 FEET,   40.27DEGREES-C/KILOMETER

 1HP1SWSENE1331S 7W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1HV1NESENE1822S 3W
DEPTH TO WATER IS  31FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   23
COEFFICIENT OF LINEAR REGRESSION IS  0.01186
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00034
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   34.81571
THERE ARE   21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.19DEGREES-F/100 FEET,   21.62DEGREES-C/KILOMETER

 1HV1NESENE1822S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1HV2SWSWSW1C24S 3W
DEPTH TO WATER IS  15FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   58
COEFFICIENT OF LINEAR REGRESSION IS  0.01998
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00042
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   47.20288
THERE ARE   56DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.00DEGREES-F/100 FEET,   36.42DEGREES-C/KILOMETER

 1HV2SWSWSW1C24S 3W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1JW1NWNWSW15 1S 6W
DEPTH TO WATER IS  65FEET
CASING DIAMETER IS  11INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   11
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COEFFICIENT OF LINEAR REGRESSION IS  0.06527
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01292
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    5.05366
THERE ARE    9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   6.53DEGREES-F/100 FEET,   118.99DEGREES-C/KILOMETER

 1JW1NWNWSW15 1S 6W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1LB1    SW 733S18E
DEPTH TO WATER IS   1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   67
COEFFICIENT OF LINEAR REGRESSION IS  0.02819
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00032
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   87.54436
THERE ARE   65DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.82DEGREES-F/100 FEET,    51.38DEGREES-C/KILOMETER

 1LB1    SW 733S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1LB2  S2SE3531S17E
DEPTH TO WATER IS   1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   74
COEFFICIENT OF LINEAR REGRESSION IS  0.02630
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00024
T TEST VALUE FOR DATA BELOW WATER LEVEL IS  106.69592
THERE ARE   72DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.63DEGREES-F/100 FEET,    47.94DEGREES-C/KILOMETER

 1LB2  S2SE3531S17E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1LB3SWNESW 331S21E
DEPTH TO WATER IS  10FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   48
COEFFICIENT OF LINEAR REGRESSION IS  0.02544
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00072
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   35.55008
THERE ARE   46DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.54DEGREES-F/100 FEET,    46.37DEGREES-C/KILOMETER

 1LB3SWNESW 331S21E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1LC1SENWSE1911S 7W
DEPTH TO WATER IS 113FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   20
COEFFICIENT OF LINEAR REGRESSION IS -0.01650
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01111
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   -1.48426
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =  -1.65DEGREES-F/100 FEET,   -30.07DEGREES-C/KILOMETER

 1LC1SENWSE1911S 7W
DEPTH TO WATER IS 113FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    0
COEFFICIENT OF LINEAR REGRESSION IS -0.01443
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00194
```

T TEST VALUE FOR DATA BELOW WATER LEVEL IS 7.43115
THERE ARE 6DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.44DEGREES-F/100 FEET, 26.31DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS 0.74787405

1LG1SESENE 611S36W
DEPTH TO WATER IS 160FEET
CASING DIAMETER IS 1INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.03609
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00415
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 8.69070
THERE ARE 27DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 3.61DEGREES-F/100 FEET, 65.79DEGREES-C/KILOMETER

1LG1SESENE 611S36W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1LG2SWSWSW 811S33W
DEPTH TO WATER IS 125FEET
CASING DIAMETER IS 18INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.05174
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00522
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 9.91724
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 5.17DEGREES-F/100 FEET, 94.32DEGREES-C/KILOMETER

1LG2SWSWSW 811S33W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1MP1SWSESE 719S 3W
DEPTH TO WATER IS 97FEET
CASING DIAMETER IS 1INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 17
COEFFICIENT OF LINEAR REGRESSION IS -0.00471
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00571
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS -0.82454
THERE ARE 15DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = -0.47DEGREES-F/100 FEET, -8.58DEGREES-C/KILOMETER

1MP1SWSESE 719S 3W
DEPTH TO WATER IS 97FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.01240
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00029
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 43.34910
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.24DEGREES-F/100 FEET, 22.61DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS 3.63115546

1MC1SESWSW12 8S 7W
DEPTH TO WATER IS 112FEET
CASING DIAMETER IS 5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.04770
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00513
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 9.29865

THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 4.77DEGREES-F/100 FEET, 86.96DEGREES-C/KILOMETER

 1MC1SESWSW12 8S 7W
DEPTH TO WATER IS 112FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.01096
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00045
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 24.22062
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.10DEGREES-F/100 FEET, 19.98DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -5.49841809

 1MG1E2E2W21431S16E
DEPTH TO WATER IS 22FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 85
COEFFICIENT OF LINEAR REGRESSION IS 0.02558
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00028
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 91.22884
THERE ARE 83DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.56DEGREES-F/100 FEET, 46.62DEGREES-C/KILOMETER

 1MG1E2E2W21431S16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1NO1SWSWSW3327S18E
DEPTH TO WATER IS 1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 88
COEFFICIENT OF LINEAR REGRESSION IS 0.02230
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 66.62118
THERE ARE 86DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.23DEGREES-F/100 FEET, 40.64DEGREES-C/KILOMETER

 1NO1SWSWSW3327S18E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1NT1SWSWSW13 4S25W
DEPTH TO WATER IS 120FEET
CASING DIAMETER IS 41NCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.04841
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00614
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 7.88046
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 4.84DEGREES-F/100 FEET, 88.26DEGREES-C/KILOMETER

 1NT1SWSWSW13 4S25W
DEPTH TO WATER IS 120FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.01321
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00072
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 18.27162
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.32DEGREES-F/100 FEET, 24.09DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -1.97873043

 1NT2SESESE 3 4S25W

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DEPTH TO WATER IS  91FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.08832
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01182
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    7.47238
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   8.83DEGREES-F/100 FEET,   161.01DEGREES-C/KILOMETER

 1NT2SESESE 3 4S23W
DEPTH TO WATER IS  91FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   29
COEFFICIENT OF LINEAR REGRESSION IS  0.01285
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00019
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   66.61940
THERE ARE   27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.28DEGREES-F/100 FEET,    23.42DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS    -10.09788656

 1NT3NENENE14 2S25W
DEPTH TO WATER IS 142FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.02802
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00200
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   14.01533
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   2.80DEGREES-F/100 FEET,    51.08DEGREES-C/KILOMETER

 1NT3NENENE14 2S25W
DEPTH TO WATER IS 142FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.01270
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00045
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   27.93239
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.27DEGREES-F/100 FEET,    23.15DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -4.31314665

 1NT4NENENE17 1S21W
DEPTH TO WATER IS  86FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   16
COEFFICIENT OF LINEAR REGRESSION IS  0.06150
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00401
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   15.33142
THERE ARE   14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   6.15DEGREES-F/100 FEET,   112.11DEGREES-C/KILOMETER

 1NT4NENENE17 1S21W
DEPTH TO WATER IS  86FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    8
COEFFICIENT OF LINEAR REGRESSION IS  0.01524
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00128
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   11.88494
THERE ARE    6DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.52DEGREES-F/100 FEET,    27.78DEGREES-C/KILOMETER
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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -4.55835211

1NT5NESESE27 5S21W
DEPTH TO WATER IS 575FEET
CASING DIAMETER IS 5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 57
COEFFICIENT OF LINEAR REGRESSION IS 0.01700
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00040
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 42.96463
THERE ARE 55DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 1.70DEGREES-F/100 FEET, 30.99DEGREES-C/KILOMETER

1NT5NESESE27 5S21W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1081 SWNW17 7S12W
DEPTH TO WATER IS 44FEET
CASING DIAMETER IS 1INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.04773
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02692
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 1.77324
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 4.77DEGREES-F/100 FEET, 87.01DEGREES-C/KILOMETER

1081 SWNW17 7S12W
DEPTH TO WATER IS 44FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.01774
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00156
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 11.34547
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.77DEGREES-F/100 FEET, 32.33DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -0.20343069

1OT1SWSWNW19 9S 3W
DEPTH TO WATER IS 60FEET
CASING DIAMETER IS 6INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.01406
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00304
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 4.62638
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 1.41DEGREES-F/100 FEET, 25.63DEGREES-C/KILOMETER

1OT1SWSWNW19 9S 3W
DEPTH TO WATER IS 60FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 40
COEFFICIENT OF LINEAR REGRESSION IS 0.01752
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00137
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 12.80547
THERE ARE 38DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.75DEGREES-F/100 FEET, 31.94DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS 0.34072051

1PN1NENENE 32S15W
DEPTH TO WATER IS 23FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 13

COEFFICIENT OF LINEAR REGRESSION IS 0.04934
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00559
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 8.82759
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 4.93DEGREES-F/100 FEET, 89.95DEGREES-C/KILOMETER

 1PN1NENENE 32S15W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1RA1E2E2W23O 2S35W
DEPTH TO WATER IS 145FEET
CASING DIAMETER IS 4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.05201
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00401
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 12.96812
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 5.20DEGREES-F/100 FEET, 94.81DEGREES-C/KILOMETER

 1RA1E2E2W23O 2S35W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1RA2 S2S2 5 3S36W
DEPTH TO WATER IS 205FEET
CASING DIAMETER IS 4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 38
COEFFICIENT OF LINEAR REGRESSION IS 0.01597
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00086
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 18.50466
THERE ARE 36DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 1.60DEGREES-F/100 FEET, 29.12DEGREES-C/KILOMETER

 1RA2 S2S2 5 3S36W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1RA3NESWNE34 4S36W
DEPTH TO WATER IS 200FEET
CASING DIAMETER IS 4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 38
COEFFICIENT OF LINEAR REGRESSION IS 0.03274
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00148
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 22.11014
THERE ARE 36DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 3.27DEGREES-F/100 FEET, 59.68DEGREES-C/KILOMETER

 1RA3NESWNE34 4S36W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1RN1NWNWSW 22S1OW
DEPTH TO WATER IS 31FEET
CASING DIAMETER IS 5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.00429
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.05690
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 0.07531
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 0.43DEGREES-F/100 FEET, 7.81DEGREES-C/KILOMETER

 1RN1NWNWSW 22S1OW
DEPTH TO WATER IS 31FEET

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NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   28
COEFFICIENT OF LINEAR REGRESSION IS  0.02129
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00044
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   48.86308
THERE ARE   26DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.13DEGREES-F/100 FEET,    38.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS      1.22704022

 1RN2SWSWSE 624S10W
DEPTH TO WATER IS  19FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   29
COEFFICIENT OF LINEAR REGRESSION IS  0.02434
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00136
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   17.93713
THERE ARE   27DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.43DEGREES-F/100 FEET,    44.38DEGREES-C/KILOMETER

 1RN2SWSWSE 624S10W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1RP1NENENE29 1S 3W
DEPTH TO WATER IS 117FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   21
COEFFICIENT OF LINEAR REGRESSION IS  0.03374
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00351
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    9.62406
THERE ARE   19DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   3.37DEGREES-F/100 FEET,    61.51DEGREES-C/KILOMETER

 1RP1NENENE29 1S 3W
DEPTH TO WATER IS 117FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.00933
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00156
T TEST VALUE FOR DATA BELOW WATER LEVEL IS    5.97611
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   0.93DEGREES-F/100 FEET,    17.01DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -2.18341470

 1RC1  SWSW 919S 9W
DEPTH TO WATER IS 465FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   45
COEFFICIENT OF LINEAR REGRESSION IS  0.01546
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00043
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   35.99875
THERE ARE   43DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.55DEGREES-F/100 FEET,    28.18DEGREES-C/KILOMETER

 1RC1  SWSW 919S 9W
DEPTH TO WATER IS 465FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.02336
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00064
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   36.60259
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.34DEGREES-F/100 FEET,    42.59DEGREES-C/KILOMETER
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T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS 3.51455313

1R01S2S2NW27 9S2DW
DEPTH TO WATER IS 260FEET
CASING DIAMETER IS 5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 25
COEFFICIENT OF LINEAR REGRESSION IS 0.03065
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00132
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 23.16433
THERE ARE 23DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 3.06DEGREES-F/100 FEET, 55.87DEGREES-C/KILOMETER

1R01S2S2NW27 9S2DW
DEPTH TO WATER IS 260FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 95
COEFFICIENT OF LINEAR REGRESSION IS 0.02097
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00026
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 81.88520
THERE ARE 93DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.10DEGREES-F/100 FEET, 38.23DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -5.30958945

1RH1NENWSW1117S19W
DEPTH TO WATER IS 167FEET
CASING DIAMETER IS 2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 30
COEFFICIENT OF LINEAR REGRESSION IS 0.03364
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00152
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 22.06470
THERE ARE 28DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 3.36DEGREES-F/100 FEET, 61.32DEGREES-C/KILOMETER

1RH1NENWSW1117S19W
DEPTH TO WATER IS 167FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.02415
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00069
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 35.17489
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.42DEGREES-F/100 FEET, 44.03DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -5.04259515

1RH2NWNWNE 617S17W
DEPTH TO WATER IS 42FEET
CASING DIAMETER IS 2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 4
COEFFICIENT OF LINEAR REGRESSION IS -0.07322
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01182
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS -6.19555
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = -7.32DEGREES-F/100 FEET, -133.48DEGREES-C/KILOMETER

1RH2NWNWNE 617S17W
DEPTH TO WATER IS 42FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01759
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00030

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T TEST VALUE FOR DATA BELOW WATER LEVEL IS    57.76195
THERE ARE    48DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    1.76DEGREES-F/100 FEET,     32.07DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS       5.67052114

 1RH3NWSENW2419S19W
DEPTH TO WATER IS 160FEET
CASING DIAMETER IS    5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    30
COEFFICIENT OF LINEAR REGRESSION IS  0.03456
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00241
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    14.35243
THERE ARE    28DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =    3.46DEGREES-F/100 FEET,     63.01DEGREES-C/KILOMETER

 1RH3NWSENW2419S19W
DEPTH TO WATER IS 160FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    21
COEFFICIENT OF LINEAR REGRESSION IS  0.01457
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00035
T TEST VALUE FOR DATA BELOW WATER LEVEL IS    41.06458
THERE ARE    19DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    1.46DEGREES-F/100 FEET,     26.56DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS      -5.41856658

 1RS1  S2SW1415S14W
DEPTH TO WATER IS 405FEET
CASING DIAMETER IS    5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    40
COEFFICIENT OF LINEAR REGRESSION IS  0.01100
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00074
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    14.80397
THERE ARE    38DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =    1.10DEGREES-F/100 FEET,     20.05DEGREES-C/KILOMETER

 1RS1  S2SW1415S14W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1SA1NWSWSW3213S 2W
DEPTH TO WATER IS  24FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    20
COEFFICIENT OF LINEAR REGRESSION IS  0.02902
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00306
T TEST VALUE FOR DATA BELOW WATER LEVEL IS     9.47266
THERE ARE    18DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    2.90DEGREES-F/100 FEET,     52.91DEGREES-C/KILOMETER

 1SA1NWSWSW3213S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1SA2NWNESW2013S 2W
DEPTH TO WATER IS  10FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    23
COEFFICIENT OF LINEAR REGRESSION IS  0.01526
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00187
T TEST VALUE FOR DATA BELOW WATER LEVEL IS     8.15297
THERE ARE    21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =    1.53DEGREES-F/100 FEET,     27.82DEGREES-C/KILOMETER
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 1SA2NWNESW2013S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1SG1NENENE2225S 2W
DEPTH TO WATER IS  18FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   3o
COEFFICIENT CF LINEAR REGRESSION IS  0.02059
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00094
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   21.98875
THERE ARE   36DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.06DEGREES-F/100 FEET,    37.54DEGREES-C/KILOMETER

 1SG1NENENE2225S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1SD1NWNWNE21 7S28W
DEPTH TO WATER IS 145FEET
CASING DIAMETER IS   1INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.02751
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00240
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   11.44682
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   2.75DEGREES-F/100 FEET,    50.15DEGREES-C/KILOMETER

 1SD1NWNWNE21 7S28W
DEPTH TO WATER IS 145FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   14
COEFFICIENT OF LINEAR REGRESSION IS  0.01443
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00058
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   24.98625
THERE ARE   12DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.44DEGREES-F/100 FEET,    26.31DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -2.27392498

 1SD2  W2NE 1 9S28W
DEPTH TO WATER IS 100FEET
CASING DIAMETER IS   4INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.05275
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00547
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    9.63584
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   5.27DEGREES-F/100 FEET,    96.15DEGREES-C/KILOMETER

 1SD2  W2NE 1 9S28W
DEPTH TO WATER IS 100FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    9
COEFFICIENT OF LINEAR REGRESSION IS  0.01005
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00095
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   11.23631
THERE ARE    7DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   1.06DEGREES-F/100 FEET,    19.41DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -3.18550622

 1SH1NWNENW36 7S40W
DEPTH TO WATER IS 136FEET
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CASING DIAMETER IS 11INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 25
COEFFICIENT OF LINEAR REGRESSION IS 0.02374
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00389
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 6.10557
THERE ARE 23DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 2.37DEGREES-F/100 FEET, 43.28DEGREES-C/KILOMETER

1SH1NWNENW36 7S4OW
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

1SH2SWSWSW17 7S42W
DEPTH TO WATER IS 117FEET
CASING DIAMETER IS 11INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.05003
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01005
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 4.97977
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 5.00DEGREES-F/100 FEET, 91.20DEGREES-C/KILOMETER

1SH2SWSWSW17 7S42W
DEPTH TO WATER IS 117FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.02815
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00126
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 22.31137
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 2.81DEGREES-F/100 FEET, 51.31DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -0.43161164

1SH3SESWSE31 8S42W
DEPTH TO WATER IS 76FEET
CASING DIAMETER IS 11INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.06923
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01093
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 6.33619
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = 6.92DEGREES-F/100 FEET, 126.21DEGREES-C/KILOMETER

1SH3SESWSE31 8S42W
DEPTH TO WATER IS 76FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.01759
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00039
T TEST VALUE FOR DATA BELOW WATER LEVEL IS 45.22444
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER = 1.76DEGREES-F/100 FEET, 32.06DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS -7.17616618

1SM1SWSWSE 2 1S11W
DEPTH TO WATER IS 78FEET
CASING DIAMETER IS 8INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.07231
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01172
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS 6.16991

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THERE ARE   11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   7.23DEGREES-F/100 FEET,   131.82DEGREES-C/KILOMETER

 1SM1SW54SE 2 1S11W
DEPTH TO WATER IS  78FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS    4
COEFFICIENT OF LINEAR REGRESSION IS  0.00600
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00343
T TEST VALUE FOR DATA BELOW WATER LEVEL IS    1.74633
THERE ARE    2DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   0.60DEGREES-F/100 FEET,    10.93DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -1.00558265

 1SF1NENWNW 623S12W
DEPTH TO WATER IS   3FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   28
COEFFICIENT OF LINEAR REGRESSION IS  0.02997
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00207
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   14.45923
THERE ARE   26DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   3.00DEGREES-F/100 FEET,    54.63DEGREES-C/KILOMETER

 1SF1NENWNW 623S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1SF2SWSWSE3623S13W
DEPTH TO WATER IS  25FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS    5
COEFFICIENT OF LINEAR REGRESSION IS  0.29000
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.02887
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   10.04383
THERE ARE    1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =  29.00DEGREES-F/100 FEET,   528.67DEGREES-C/KILOMETER

 1SF2SWSWSE3623S13W
DEPTH TO WATER IS  25FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   24
COEFFICIENT OF LINEAR REGRESSION IS  0.02548
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00176
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   13.37354
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.35DEGREES-F/100 FEET,    42.80DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS     -6.39971089

 1SF3SENENE1125S12W
DEPTH TO WATER IS  21FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   42
COEFFICIENT OF LINEAR REGRESSION IS  0.02133
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00098
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   21.71119
THERE ARE   40DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.13DEGREES-F/100 FEET,    38.89DEGREES-C/KILOMETER

 1SF3SENENE1125S12W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1SF4SESESE3624S13W
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DEPTH TO WATER IS 29FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   5
COEFFICIENT OF LINEAR REGRESSION IS -0.13000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.08660
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   -1.50117
THERE ARE   1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER = -13.00DEGREES-F/100 FEET, -236.99DEGREES-C/KILOMETER

 1SF4SESESE3624S13W
DEPTH TO WATER IS 29FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   24
COEFFICIENT OF LINEAR REGRESSION IS 0.02151
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00095
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   22.70404
THERE ARE   22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.15DEGREES-F/100 FEET,   39.22DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS   5.28688353

 1SU1NENESE 830S 2W
DEPTH TO WATER IS 405FEET
CASING DIAMETER IS 12INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   40
COEFFICIENT OF LINEAR REGRESSION IS 0.01875
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00071
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   26.38447
THERE ARE   38DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   1.87DEGREES-F/100 FEET,   34.18DEGREES-C/KILOMETER

 1SU1NENESE 830S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1TH1NWNESE27 8S32W
DEPTH TO WATER IS 115FEET
CASING DIAMETER IS   8INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   20
COEFFICIENT OF LINEAR REGRESSION IS 0.04432
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00674
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   6.57370
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   4.43DEGREES-F/100 FEET,   80.79DEGREES-C/KILOMETER

 1TH1NWNESE27 8S32W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1TH2NWSWSW3010S36W
DEPTH TO WATER IS 160FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   30
COEFFICIENT OF LINEAR REGRESSION IS 0.03617
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00443
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   8.17120
THERE ARE   28DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   3.62DEGREES-F/100 FEET,   65.93DEGREES-C/KILOMETER

 1TH2NWSWSW3010S36W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1TR1W2W2SW 912S23W

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DEPTH TO WATER IS  75FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   15
COEFFICIENT OF LINEAR REGRESSION IS  0.07604
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.01561
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    4.87227
THERE ARE   11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   7.60DEGREES-F/100 FEET,   138.63DEGREES-C/KILOMETER

 1TR1W2W2SW 9T2S23W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1TR2  S2S21012S23W
DEPTH TO WATER IS 104FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   18
COEFFICIENT OF LINEAR REGRESSION IS  0.04997
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00370
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   13.49047
THERE ARE   16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   5.00DEGREES-F/100 FEET,    91.09DEGREES-C/KILOMETER

 1TR2  S2S21012S23W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1TR3NWSWNE3614S22W
DEPTH TO WATER IS 128FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   20
COEFFICIENT OF LINEAR REGRESSION IS  0.05606
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00358
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   15.67759
THERE ARE   18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   5.61DEGREES-F/100 FEET,   102.20DEGREES-C/KILOMETER

 1TR3NWSWNE3614S22W
DEPTH TO WATER IS 128FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   42
COEFFICIENT OF LINEAR REGRESSION IS  0.02130
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00028
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   76.69261
THERE ARE   40DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.13DEGREES-F/100 FEET,    38.82DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW WATER LEVEL IS    -14.25760281

 1WA1      1815S39W
DEPTH TO WATER IS  95FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   15
COEFFICIENT OF LINEAR REGRESSION IS  0.05407
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00682
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS    7.92992
THERE ARE   13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   5.41DEGREES-F/100 FEET,    98.57DEGREES-C/KILOMETER

 1WA1      1815S39W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1WA2NENESW 31SS38W
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DEPTH TO WATER IS  95FEET
CASING DIAMETER IS   5INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   17
COEFFICIENT OF LINEAR REGRESSION IS  0.06644
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00404
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   16.95865
THERE ARE   15DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   6.84DEGREES-F/100 FEET,   124.77DEGREES-C/KILOMETER

 1WA2NENESW 31S38W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL

 1WL1NWNESE1129S14E
DEPTH TO WATER IS   5FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS   99
COEFFICIENT OF LINEAR REGRESSION IS  0.02319
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00025
T TEST VALUE FOR DATA BELOW WATER LEVEL IS   90.95675
THERE ARE   97DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.32DEGREES-F/100 FEET,   42.28DEGREES-C/KILOMETER

 1WL1NWNESE1129S14E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1WO1SESENE2425S13E
DEPTH TO WATER IS   1FEET
NUMBER OF DATA PAIRS BELOW WATER LEVEL IS  114
COEFFICIENT OF LINEAR REGRESSION IS  0.02366
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00009
T TEST VALUE FOR DATA BELOW WATER LEVEL IS  252.39213
THERE ARE  112DEGREES OF FREEDOM
THERMAL GRADIENT BELOW WATER =   2.37DEGREES-F/100 FEET,   43.13DEGREES-C/KILOMETER

 1WO1SESENE2425S13E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE WATER LEVEL

 1WO2SENWSW1625S16E
DEPTH TO WATER IS 405FEET
CASING DIAMETER IS   2INCHES
NUMBER OF DATA PAIRS ABOVE WATER LEVEL IS   27
COEFFICIENT OF LINEAR REGRESSION IS  0.02066
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00137
T TEST VALUE FOR DATA ABOVE WATER LEVEL IS   15.11502
THERE ARE   25DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE WATER =   2.27DEGREES-F/100 FEET,   37.67DEGREES-C/KILOMETER

 1WO2SENWSW1625S16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA BELOW WATER LEVEL
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USEABLE THERMAL LOGGING DATA FROM 1981 FIELD SEASON

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 28461.9 29962.3 31462.5 32962.9 34463.8 35964.3 37464.7 38965.0 40465.3
 41965.8 43466.0 44966.4 46466.8 47967.1 49467.6 50967.9 52468.4 53968.8
 55469.2 56969.5 58469.9 59970.2 61470.4 62970.9 64471.4 65971.9 67472.4
 68972.9 70473.1 71975.5 73473.7 74974.1 76474.7 77975.2 79475.6 80976.1
 82476.6 83977.1 85477.7 86978.4 88478.9 89979.6 91479.9 92980.1 94480.3
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 11858.3 12858.4 13858.6 14858.7 15858.9 16859.2 17859.5 18859.7 19859.9
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1MN1  SWSE 721S 3E001  5    80
  1556.6003057.1004557.6006057.9007558.3009058.6010558.9012059.3013559.6
015059.8016559.9018060.1019560.4021060.7022560.9024061.1025561.2027061.5
028561.6030061.9031562.1033062.3034562.5036062.8037563.0039063.2040563.3
042063.5043563.7045064.0046564.3048064.5049564.7051064.9052565.2054065.4
055565.6057065.8058566.1060066.4 -9999.9
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1MN2  W2SW 7185 5E 62  4   280
001454.8002955.6004456.0005956.3007456.6008956.8010456.8011957.0013457.3
014957.5016457.6017957.7019457.8020957.9022457.9023958.0025458.1026958.2
028458.4029958.6031456.8032959.0034459.2035959.4037459.6038959.8040459.9
041960.1043460.3044960.5046460.8047961.0049461.1050961.3052461.7053961.9
055462.1056962.3058462.5059962.8061463.0062963.2064463.4065963.6067463.9
068964.1070464.4071964.7073465.0074965.3076465.5077965.8079466.0080966.3
082466.5083966.8085467.1086967.3088467.5089967.8091468.0092968.2094468.4
095968.7097468.9098969.2100469.4 -9999.9
1MI1SESWSE1818S23E17U  4   170
  1254.2  2754.6  4255.1  5755.5  7255.9  8756.2 10256.4 11756.7 13256.9
 14757.2 16257.4 17758.0 19258.4 20758.7 22258.9 23759.2 25259.5 26759.7
 28259.9 29760.3 31260.8 32761.1 34261.6 35761.9 37262.2 38762.6 40263.0
 41763.3 43263.6 44764.1 46264.5 47764.8 49265.3 50765.8 52266.1 53766.6
 55267.1 56767.6 58268.2 59768.8 61269.3 62769.7 64270.0 65770.6 67271.0
 68771.6 70272.0 71772.5 73272.9 74773.1 76273.3 77773.6 79273.8 80774.0
 82274.2 83774.4 85274.6 86774.8 88274.9 89775.2 91275.4 92775.5 94275.7
 95775.9 97276.1 98776.2100276.4101776.6103276.7104776.8106277.1107777.2
109277.4110777.6112277.8113777.9115278.1116778.3118278.7119779.1 -9999.9
1MR1W2E2SE2317S 6EU01  5   240
  1256.0  2754.9  4255.5  5755.7  7255.9  8756.0 10256.1 11756.3 13256.6
 14756.8 16257.0 17757.2 19257.4 20757.5 22257.6 23757.8 25258.0 26758.4
 28258.9 29758.7 31259.0 32759.5 34259.6 35759.9 37260.1 38760.3 40260.6
 41760.9 43261.4 44761.6 46261.8 47761.9 49262.1 50762.3 52262.5 53762.8
 55263.1 56763.4 58263.6 -9999.9
1MR2N2N2NE 914S BE600 4   210
  1454.0  2854.5  4454.7  5954.9  7455.1  8955.4 10455.6 11955.8 13456.1
 14956.3 16456.6 17956.9 19457.2 20957.4 22457.6 23957.9 25458.1 26958.3
 28458.5 29958.7 31458.9 32959.2 34459.5 35959.8 37460.0 38960.3 40460.7
 41961.0 43461.3 44961.7 46462.0 47962.3 49462.7 50963.3 52463.6 53964.0
 55464.3 56964.7 58465.2 59965.7 -9999.9
1MT1  SENE3534S42W520  4   150
  1357.9  2858.6  4359.2  5859.3  7359.5  8859.7 10359.8 11859.9 13360.1
 14860.2 16360.3 17860.5 19360.7 20861.0 22361.2 23861.4 25361.6 26861.8
 27362.0 29862.2 31362.4 32862.7 34362.9 35863.1 37363.4 38863.5 40363.7
 41863.9 43364.1 44864.3 46364.5 47864.8 49365.1 50865.4 -9999.9
1MT2N2SESW 333S41W001  5   340
001459.1002959.7003960.0004960.2005960.5006960.7007960.9008961.0009961.1
010961.3011961.6012961.7013961.8014961.9015962.1016961.9017961.9018961.9
019962.0020962.0021962.1022962.3023962.3024962.4025962.7026962.7027962.8
028962.9029963.0030963.1031963.2032963.2033963.3034963.5035963.5036963.6
037963.7038963.9039964.0040964.2041964.3042964.5043964.7044964.8045965.0
046965.2047965.3048965.5049965.7050965.8051965.9052966.1053966.3054966.4
055966.4056966.5057966.6058966.9059967.1060967.3062967.8063968.1064968.4
065968.7066968.9067969.0068969.0069969.1070969.2071969.4072969.5073969.7
074969.7075969.9076970.0077970.1078970.4079970.7080971.0081971.2082971.2
 83971.3084971.4085971.5086971.7087971.8088971.9089972.0090972.2091972.3
092972.4093972.6094972.7095972.9096973.0097973.2098973.4099973.7100973.9
101974.1102974.3103974.5104974.7105974.8106974.8107974.4108974.7109975.0
110975.3111975.5112975.6113975.6114975.6115975.7116975.9117976.0118976.1
119976.1 -9999.9
1NS1  NENE3620S21W470  5   480
  1557.9  3058.2  4558.6  6059.1  7559.5  9059.7 10560.0 12060.1 13560.3
 15060.4 16560.7 18060.9 19561.1 21061.1 22561.2 24061.3 25561.5 27061.7
 28562.0 30062.2 31562.3 33062.5 34562.8 36062.9 37563.1 39063.3 40563.4
 42063.7 43564.1 45064.6 46564.9 48065.3 49566.7 51067.1 52567.3 54068.0
 55568.5 57068.9 58568.9 60069.2 61369.3 63069.5 64569.9 66070.0 67570.1
 69070.5 70570.7 72070.8 73571.2 75071.5 76571.7 78071.9 79572.1 81072.4
 82572.6 84072.7 86572.8 87072.9 88573.1 90073.2 91573.5 93073.6 94573.7
 96073.9 97574.2 99074.3100574.5 -9999.9
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1NS2  SESE3517S24W605  6   249
001454.7002955.9004456.9005957.8007458.3008958.8010459.2011959.5013459.8
014960.1016460.6017961.0019461.5020961.9022462.4023963.1025463.5026963.8
028464.1029964.4031464.8032965.2034465.5035965.9037466.1038966.4040466.7
041966.9043467.2044967.5046467.7047967.9049468.1050968.3052468.5053968.8
055469.2056969.4058469.6059969.9 -9999.9
1PRINEMESW1626S11W 3I  4   270
  1559.4  3059.7  4558.7  6058.7  7558.8  9059.5 10059.9 11060.8 12061.1
 13061.3 14061.3 15061.5 16061.6 17061.7 18061.7 19061.9 20062.0 21062.1
 22062.1 23062.1 24062.2 25062.2 26062.5 27062.8 28063.1 29063.3 30063.4
 31063.6 32063.7 33063.8 34064.0 35064.2 36064.3 37064.5 38064.7 39064.7
 40064.9 41065.1 42065.2 43065.3 44065.5 45065.6 46065.8 47065.9 48066.0
 49066.1 50066.3 51066.4 52066.5 53066.7 54066.8 55067.0 56067.0 57067.2
 58067.5 59067.8 60068.0 61068.2 62068.3 63068.4 64068.7 65068.9 66069.1
 67069.4 68069.6 69069.9 70070.1 71070.3 72070.5 73070.8 74071.2 75071.5
 76071.6 77071.8 78072.1 79072.4 80072.6 81072.9 82073.1 83073.3 84073.5
 85073.8 86074.0 87074.3 88074.7 89074.9 90075.1 91075.4 92075.6 93075.9
 94076.0 95076.3 -9999.9
1PR2E2SENE2429S13W600  4   155
001356.3002857.0004357.5005857.8007358.0008858.2010358.3011858.5013358.7
014858.8016358.9017859.1019359.3020859.6022359.8023860.0025360.3026860.6
028360.8029861.1031361.3032861.6034361.8035862.1037362.2038862.5040362.8
041863.0043363.2044863.4046363.6047863.9049364.2050864.5052364.7053865.0
055365.3056865.5058365.8059866.0 -9999.9
1RL1  SESW3011S 9E001  4   140
001555.9003055.7004555.8006056.0007556.2009056.5010556.8012057.1013557.3
015057.5016557.9018058.3019558.6021058.9022559.2024059.5025559.8027060.0
028560.3030060.7031561.0033061.4034561.9036062.2037562.5039062.8040563.2
042063.5043563.8045064.3046564.6048064.9049565.2051065.5052565.9054066.3
055566.6057066.9058567.1060067.5061568.0063068.3064568.7066069.1067569.4
069069.7070570.0072070.3073570.7075071.0076571.3078071.6079571.9081072.3
082572.5084072.8085573.1087073.4088573.7090074.0091574.3093074.7094575.1
096075.5097575.7099076.0100576.5 -9999.9
1SA3SWSWSW3213S 2W165  7    80
  8856.3 10356.6 11856.9 13357.1 14857.4 16357.7 17857.8 18857.9 19858.0
 20858.2 21858.3 22858.4 23858.5 24858.6 25858.7 26858.8 27858.9 28859.1
 29859.2 30859.3 31859.4 32859.6 33859.7 34859.9 35859.9 36860.1 37860.3
 38860.4 39860.5 40860.7 41860.8 42861.0 43861.1 44861.3 45861.5 46861.6
 47861.7 48861.8 49862.0 50862.1 51862.3 52862.4 53862.6 54862.8 55863.0
 56863.1 57863.3 58863.4 59863.6 60863.8 61863.9 62864.0 63864.1 64864.3
 65864.5 66864.7 67864.8 68864.9 69865.1 70865.3 71865.6 72865.8 73865.9
 74866.1 75866.3 76866.5 77866.7 78866.8 79867.0 80867.2 81867.2 82867.4
 83867.6 84867.8 85868.1 86868.3 87868.4 88868.5 89868.7 90868.9 91869.1
 92869.4 93869.7 94869.9 95870.1 96870.3 97870.5 98870.7 99870.9100871.1
101871.3102871.5103871.7104871.9105872.1106872.4107872.7108872.9109873.1
110873.3111873.5112873.7113874.0115874.2115874.4116874.6117874.8118875.0
 -9999.9
1SW1  SENW 535S34W600  4   150
  1356.6  2858.0  4358.7  5858.9  7359.0  8859.1 10359.1 11859.2 13359.3
 14859.4 16359.6 17859.8 19360.0 20860.2 22360.5 23860.8 25361.1 26861.2
 28361.4 29861.6 31361.8 32862.0 34362.2 35862.3 37362.5 38862.8 40363.0
 41863.3 43363.5 44863.8 46364.1 47864.3 49364.6 50864.8 52365.1 53865.4
 55365.7 56865.9 58366.2 59866.6 -9999.9
1SH4SWSENW22 6S3dW605  2   270
  1253.3002754.5004255.0005755.3007255.5008755.7010255.9011756.1013256.3
014756.4016256.5017756.7019256.9020757.1022257.3023757.5025257.6026757.9
028258.3029758.7031259.1032759.5034259.9035760.4037260.9038761.4040261.8
041762.3043262.8044763.2046263.6047764.0049264.5050764.9052265.4053765.8
055266.3056766.8058267.2059767.7 -9999.9
1SV1SESESW1732S37W02U  8   160
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  1453.6  2955.3  4455.6  5957.0  7457.7  8958.2 10458.7 11959.3 13459.5
 14959.7 16459.8 17960.0 19460.3 20960.6 22460.9 23961.1 25461.4 26961.8
 28462.1 29962.4 31462.7 32962.9 34463.1 35963.4 37463.5 38963.7 40463.9
 41864.1 43464.3 44964.5 46464.7 47965.1 49465.2 50965.5 52465.6 53965.8
 55466.0 56966.2 58466.4 59966.6 61966.8 -9999.9
1TH3  SENW30 8S35W515  2   100
001253.3002753.9004254.8005755.2007255.6008756.0010256.3011756.6013257.1
014757.5016258.0017758.6019259.0020759.5022259.9023760.3025260.8026761.3
028261.8029762.3031262.9032763.6034264.0035764.4037264.9038765.3040265.7
041766.3043266.7044767.1046267.7047768.2049268.5050768.9052269.4053769.8
055270.3056770.7058271.2059771.7 -9999.9
1TX1SWSWNE36 5N13E600  5   280 TEXAS COUNTY, OKLAHOMA
  1254.6  2755.3  4256.8  5757.8  7258.7  8759.4 10259.7 11759.9 13260.0
 14760.1 16260.2 17760.2 19260.3 20760.4 22260.4 23760.5 25260.6 26760.7
 28260.8 29761.0 31261.1 32761.2 34261.3 35761.6 37261.8 38761.9 40262.2
 41762.3 43262.6 44762.9 46263.1 47763.4 49263.8 50764.0 52264.2 53764.4
 55264.6 56764.8 58264.9 59765.2 -9999.9
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NON-USEABLE THERMAL LOGGING DATA FROM 1981 FIELD SEASON

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 BB2  NWNE3625S24E220  7    220
001556.4003057.1004557.9006058.4007558.8009059.0010559.2012059.4013559.7
015059.9016559.9018060.1019560.5021060.9022561.7024062.1025562.4027062.8
028563.2030063.5031563.7033064.1034564.4036064.8037564.9039065.0040565.1
 -9999.9
 DG1NENWSE 21S51VE 86  4     86
008756.2009256.3009756.3010256.3010756.3011256.4011756.4012256.5012756.5
013256.6013756.7014256.7014756.8015256.8015756.9016256.9016757.0017257.0
017757.1018257.1018757.2019257.2019757.2020257.3020757.3021257.3021757.4
022257.4 -9999.9
 GH1SWSWSW3610S21W 90  5    250 WELL A9
001554.0003055.1004556.0006056.7007557.3009057.6010557.8012058.2013558.7
015059.4016559.9018060.4019560.9021061.4022562.1024062.9025563.5027063.9
028564.1 -9999.9
 GY1NESESW2125S29W370  2     80
001554.4003055.3004556.0006056.5007557.0009057.3010557.5012057.8013558.0
015058.3016558.5018058.9019059.0020059.2021059.3022059.6023059.7024059.9
025059.9026060.0027060.3028060.5029060.7030061.0031061.1032061.3033061.6
034061.7035062.0036062.1 -9999.9
 LY1     NE2521S1UE530  7    530
001554.9003056.5004557.8006058.6007558.9009059.2010559.5012059.7013559.9
015060.2016560.5018060.9019561.1021061.3022561.6024061.8025562.1027062.5
028562.8030062.9031563.0033063.4034563.8036064.4037564.6039064.8040565.0
042065.1043565.2045065.4046565.7048065.9049566.3051066.5052566.6054069.1
055569.8057070.1058570.3060070.3061570.5063070.6064570.7066070.9 -9999.9
 ME1NWNWNW2734S30W2DU  1    001
001256.0002757.4004257.8005758.0007258.3008758.6010258.8011759.3013259.5
014759.8016259.9017760.1019260.4020760.5022260.7023761.0024761.1025762.1
026762.2027761.9028761.9029761.8030761.8031761.8032761.8033761.9034761.9
035762.0036762.1037762.2038762.3039762.4040762.5041762.7042762.9043763.1
 44763.2045763.3046763.4047763.5048763.5049763.6 -9999.9
 NS1     NE1817S25W215  5    140
  1555.6003056.0004556.4006056.8007557.1009057.4010557.6012057.9016558.1
015058.4016558.6018058.9019559.3021059.8022560.8024061.3025061.5026061.7
027062.2028062.4029062.6030063.0 -9999.9
```

COMPARISON OF REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE FOR KS THERMAL LOGGING DATA

1AN1NENENE 922S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.02335
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00169
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 13.83080
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.3 DEGREES-F/100 FEET, 43. DEGREES-C/KILOMETER

1AN1NENENE 922S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 44
COEFFICIENT OF LINEAR REGRESSION IS 0.02761
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00027
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 103.99298
THERE ARE 42DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.8 DEGREES-F/100 FEET, 50. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 3.51625678

1AN2 NWNW1023S19E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 3
COEFFICIENT OF LINEAR REGRESSION IS 0.07000
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01347
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 5.19630
THERE ARE 1DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 7.0 DEGREES-F/100 FEET, 128. DEGREES-C/KILOMETER

1AN2 NWNW1023S19E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 68
COEFFICIENT OF LINEAR REGRESSION IS 0.02441
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00022
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 111.70076
THERE ARE 66DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.4 DEGREES-F/100 FEET, 44. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -2.74193960

1AN3NENENE2721S19E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 310FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.01550
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00056
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 27.45447
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

1AN3NENENE2721S19E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 310FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 32
COEFFICIENT OF LINEAR REGRESSION IS 0.02415
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00033
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 73.04356
THERE ARE 30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.4 DEGREES-F/100 FEET, 44. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 12.26696432

1AT1 N2SE 8 6S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 395FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.01666
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00037
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 45.46259
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

1AT1 N2SE 8 6S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 395FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 41
COEFFICIENT OF LINEAR REGRESSION IS 0.02464
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00019
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 131.44072
THERE ARE 39DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.5 DEGREES-F/100 FEET, 45. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 19.28504419

1CS1SESWSE2521S 9E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 220FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.02467
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00117
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 21.17121
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.5 DEGREES-F/100 FEET, 45. DEGREES-C/KILOMETER

1CS1SESWSE2521S 9E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 220FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.02437
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00038
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 64.38268
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.4 DEGREES-F/100 FEET, 44. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.27655417

1C03NENWNW1834S13E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 310FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 20
COEFFICIENT OF LINEAR REGRESSION IS 0.01592
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00167
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.53047
THERE ARE 18DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 29. DEGREES-C/KILOMETER

1C03NENWNW1834S13E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 310FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 36
COEFFICIENT OF LINEAR REGRESSION IS 0.02213
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00038
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 57.95773
THERE ARE 34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 40. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 4.78877437

1CN2 SWSE24 4S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.01632
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00092
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 17.66172
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

1CN2 SWSE24 4S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 24
COEFFICIENT OF LINEAR REGRESSION IS 0.03229
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00030
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 107.30265
THERE ARE 22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 3.2 DEGREES-F/100 FEET, 59. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 19.46360237

1CA1 SENE 934S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 400FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 37
COEFFICIENT OF LINEAR REGRESSION IS 0.01247
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00106
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.81413
THERE ARE 35DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.2 DEGREES-F/100 FEET, 23. DEGREES-C/KILOMETER

1CA1 SENE 934S22W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 400FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 81
COEFFICIENT OF LINEAR REGRESSION IS 0.00738
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00008
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 91.06295
THERE ARE 79DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 0.7 DEGREES-F/100 FEET, 13. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -7.79438215

1CF1 SE3522S16E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 195FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 13
COEFFICIENT OF LINEAR REGRESSION IS 0.02652
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00178
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 14.90342
THERE ARE 11DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.7 DEGREES-F/100 FEET, 48. DEGREES-C/KILOMETER

1CF1 SE3522S16E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 195FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 52
COEFFICIENT OF LINEAR REGRESSION IS 0.02082
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00013
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 156.45751
THERE ARE 50DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.1 DEGREES-F/100 FEET, 38. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.60820293

1CF2NENESE 119S14E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 175FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 11
COEFFICIENT OF LINEAR REGRESSION IS 0.02176
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00333
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 6.53961
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 40. DEGREES-C/KILOMETER

1CF2NENESE 119S14E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 175FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 56
COEFFICIENT OF LINEAR REGRESSION IS 0.01776
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00014
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 130.23589
THERE ARE 54DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -2.07298859

1CM1 NE 833S16W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 220FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.01734
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00129
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 13.19060
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 31. DEGREES-C/KILOMETER

1CM1 NE 833S16W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 220FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 26
COEFFICIENT OF LINEAR REGRESSION IS 0.01337
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00014
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 98.99551
THERE ARE 24DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.3 DEGREES-F/100 FEET, 24. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.28116560

1DK1 SW 215S 1E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.00924
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00075
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.28137
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 0.9 DEGREES-F/100 FEET, 17. DEGREES-C/KILOMETER

1DK1 SW 215S 1E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 19
COEFFICIENT OF LINEAR REGRESSION IS 0.01596
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00022
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 73.88332
THERE ARE 17DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 29. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 10.09194517

1F11 SENE3621S34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 330FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.01755
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00113
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 15.58621
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

1F11 SENE3621S34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 330FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 83
COEFFICIENT OF LINEAR REGRESSION IS 0.01488
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00015
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 101.80052
THERE ARE 81DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 27. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -3.26721630

1F01 S2N2112RS21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 110FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.03714
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00402
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.24831
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 3.7 DEGREES-F/100 FEET, 68. DEGREES-C/KILOMETER

1F01 S2N2112RS21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 110FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.01798
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00043
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 41.42478
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 33. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.31049198

1FR1SWSWNW1716S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.02915
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00706
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 4.12771
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.9 DEGREES-F/100 FEET, 53. DEGREES-C/KILOMETER

1FR1SWSWNW1716S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 65
COEFFICIENT OF LINEAR REGRESSION IS 0.02110
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00022
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 95.87276
THERE ARE 63DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.1 DEGREES-F/100 FEET, 38. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.88358827

1FR2SESENE3116S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.06477
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02571
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 2.51937
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 6.5 DEGREES-F/100 FEET, 118. DEGREES-C/KILOMETER

1FR2SESENE3116S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 61
COEFFICIENT OF LINEAR REGRESSION IS 0.02315
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00018
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 130.76063
THERE ARE 59DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.3 DEGREES-F/100 FEET, 42. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.69747253

1FR3 SESW 116S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 190FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 12
COEFFICIENT OF LINEAR REGRESSION IS 0.01359
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00072
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 18.90266
THERE ARE 10DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.4 DEGREES-F/100 FEET, 25. DEGREES-C/KILOMETER

1FR3 SESW 116S18E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 190FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 32
COEFFICIENT OF LINEAR REGRESSION IS 0.02063
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00034
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 59.89277
THERE ARE 30DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.1 DEGREES-F/100 FEET, 38. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 5.07961440

1GH4SWSESE3510S21W WELL B8
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.01779
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00024
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 74.67464
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

1GH4SWSESE3510S21W WELL B8
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1GH5 N236 7S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 122FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 8
COEFFICIENT OF LINEAR REGRESSION IS 0.04913
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00694

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 7.07877
THERE ARE 6DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 4.9 DEGREES-F/100 FEET, 90. DEGREES-C/KILOMETER

1GH5 N236 7S25W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 122FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 59
COEFFICIENT OF LINEAR REGRESSION IS 0.02444
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00326
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 93.06526
THERE ARE 57DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.4 DEGREES-F/100 FEET, 45. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.50124121

1HM1 NE2822S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.02696
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00092
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 29.32255
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.7 DEGREES-F/100 FEET, 49. DEGREES-C/KILOMETER

1HM1 NE2822S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 45
COEFFICIENT OF LINEAR REGRESSION IS 0.01997
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 62.00414
THERE ARE 43DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.0 DEGREES-F/100 FEET, 36. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -5.62729229

1HM2 SW 121S39W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 194FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 12
COEFFICIENT OF LINEAR REGRESSION IS 0.01095
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00089
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.31846
THERE ARE 10DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.1 DEGREES-F/100 FEET, 20. DEGREES-C/KILOMETER

1HM2 SW 121S39W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 194FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 27
COEFFICIENT OF LINEAR REGRESSION IS 0.02458
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00085
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 29.07736
THERE ARE 25DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.5 DEGREES-F/100 FEET, 45. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 5.81973374

1HS1 NENW2228S34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 210FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 14
COEFFICIENT OF LINEAR REGRESSION IS 0.01732
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00093

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 18.55325
THERE ARE 12DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

 1HS1 NENW222RS34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 210FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.02090
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00017
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 124.87172
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.1 DEGREES-F/100 FEET, 38. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 4.84470332

 1HG1NWNESE2723S24W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 89FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.03467
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00326
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 10.64270
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 3.5 DEGREES-F/100 FEET, 63. DEGREES-C/KILOMETER

 1HG1NWNESE2723S24W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 89FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 101
COEFFICIENT OF LINEAR REGRESSION IS 0.01639
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00016
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 102.39272
THERE ARE 99DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -2.22253023

 1J01NENESE1014S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 263FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.00648
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00133
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 4.89120
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 0.6 DEGREES-F/100 FEET, 12. DEGREES-C/KILOMETER

 1J01NENESE1014S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 263FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 48
COEFFICIENT OF LINEAR REGRESSION IS 0.02158
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 76.41463
THERE ARE 46DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 39. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 14.40218246

 1J02 SENW1514S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 11
COEFFICIENT OF LINEAR REGRESSION IS -0.00245
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00174

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -1.42863
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -0.2 DEGREES-F/100 FEET, -5. DEGREES-C/KILOMETER

1J02 SENW1514S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 64
COEFFICIENT OF LINEAR REGRESSION IS 0.02278
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00030
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 76.62634
THERE ARE 62DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.3 DEGREES-F/100 FEET, 42. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 9.23951169

1KE1 SESW 421S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 350FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 34
COEFFICIENT OF LINEAR REGRESSION IS 0.02154
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00100
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 21.51476
THERE ARE 32DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 39. DEGREES-C/KILOMETER

1KE1 SESW 421S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 350FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 85
COEFFICIENT OF LINEAR REGRESSION IS 0.01774
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00015
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 114.49838
THERE ARE 83DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -4.97679293

1KM1NWNENE30305 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.01539
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00127
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.09986
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

1KM1NWNENE30305 7W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 290FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.02201
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 78.95731
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 40. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 5.96110690

1L04 NW3634S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 230FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 21
COEFFICIENT OF LINEAR REGRESSION IS 0.02119
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00227

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.31847
THERE ARE 19DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.1 DEGREES-F/100 FEET, 39. DEGREES-C/KILOMETER

1L84 NW3634S20E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 230FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 59
COEFFICIENT OF LINEAR REGRESSION IS 0.01882
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00056
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 33.75885
THERE ARE 57DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.9 DEGREES-F/100 FEET, 34. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.93394393

1LE1SWSWSE 417S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.02604
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00070
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 37.28537
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.6 DEGREES-F/100 FEET, 47. DEGREES-C/KILOMETER

1LE1SWSWSE 417S27W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 250FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 40
COEFFICIENT OF LINEAR REGRESSION IS 0.02973
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00043
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 69.30960
THERE ARE 38DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 3.0 DEGREES-F/100 FEET, 54. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 3.80443576

1LV1SWSWNW1512S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 89FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 5
COEFFICIENT OF LINEAR REGRESSION IS 0.01667
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00849
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 1.95210
THERE ARE 3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

1LV1SWSWNW1512S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 89FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 53
COEFFICIENT OF LINEAR REGRESSION IS 0.01511
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00029
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 51.84378
THERE ARE 51DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.21343648

1LV2 NENW2910S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.00579
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00194

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 2.99287
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 0.6 DEGREES-F/100 FEET, 11. DEGREES-C/KILOMETER

1LV2 NENW291OS21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 115
COEFFICIENT OF LINEAR REGRESSION IS 0.02029
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00008
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 247.79548
THERE ARE 113DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.0 DEGREES-F/100 FEET, 37. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 1.29705146

1LV3NWNWSE31 8S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.01281
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00288
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 4.44972
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.3 DEGREES-F/100 FEET, 23. DEGREES-C/KILOMETER

1LV3NWNWSE31 8S21E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 45
COEFFICIENT OF LINEAR REGRESSION IS 0.02887
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00014
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 208.92261
THERE ARE 43DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.9 DEGREES-F/100 FEET, 53. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 9.18320501

1LN1 SWNW2219S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 160FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 15
COEFFICIENT OF LINEAR REGRESSION IS 0.00312
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00445
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 0.70148
THERE ARE 13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 0.3 DEGREES-F/100 FEET, 6. DEGREES-C/KILOMETER

1LN1 SWNW2219S22E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 160FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 36
COEFFICIENT OF LINEAR REGRESSION IS 0.02357
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00028
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 84.69973
THERE ARE 34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.4 DEGREES-F/100 FEET, 43. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 7.90408665

1MN1 SWSE 721S 3E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 80FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 5
COEFFICIENT OF LINEAR REGRESSION IS 0.02933
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00154

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T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS    15.16991
THERE ARE    3DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  2.8 DEGREES-F/100 FEET,     51. DEGREES-C/KILOMETER

 1MN1  SWSE 721S 3E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS  80FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  35
COEFFICIENT OF LINEAR REGRESSION IS  0.01459
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00009
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  153.67335
THERE ARE  33DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  1.5 DEGREES-F/100 FEET,     27. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS      -7.54958075

 1MN2  W2SW 718S 5E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS  18
COEFFICIENT OF LINEAR REGRESSION IS  0.01129
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00094
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS  12.04010
THERE ARE  16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  1.1 DEGREES-F/100 FEET,     21. DEGREES-C/KILOMETER

 1MN2  W2SW 718S 5E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  49
COEFFICIENT OF LINEAR REGRESSION IS  0.01559
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00012
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  133.51042
THERE ARE  47DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  1.6 DEGREES-F/100 FEET,     28. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS       6.41313851

 1M11SESWSE1818S23E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS  11
COEFFICIENT OF LINEAR REGRESSION IS  0.02103
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00100
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS  21.05797
THERE ARE   9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE =  2.1 DEGREES-F/100 FEET,     38. DEGREES-C/KILOMETER

 1M11SESWSE1818S23E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 170FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS  69
COEFFICIENT OF LINEAR REGRESSION IS  0.02179
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00046
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS  47.23919
THERE ARE  67DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE =  2.2 DEGREES-F/100 FEET,     40. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS       0.11125936

 1MR1W2E2SE2317S 6E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 240FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS  16
COEFFICIENT OF LINEAR REGRESSION IS  0.01135
STANDARD ERROR OF REGRESSION COEFFICIENT IS  0.00093
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T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.21241
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.1 DEGREES-F/100 FEET, .21. DEGREES-C/KILOMETER

 1MR1W2E2SE2317S 6E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 240FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.01663
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00027
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 62.08729
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 6.62054735

 1MR2N2N2NE 914S 8E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.01701
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00159
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 10.71637
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 31. DEGREES-C/KILOMETER

 1MR2N2N2NE 914S 8E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 34
COEFFICIENT OF LINEAR REGRESSION IS 0.01961
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00041
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 48.37238
THERE ARE 32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.0 DEGREES-F/100 FEET, 36. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 0.49626136

 1MT1 SENE3534S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 150FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.01471
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00194
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 7.57031
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 27. DEGREES-C/KILOMETER

 1MT1 SENE3534S42W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 150FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 24
COEFFICIENT OF LINEAR REGRESSION IS 0.01429
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00013
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 113.25284
THERE ARE 22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.4 DEGREES-F/100 FEET, 26. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.37408478

 1MT2N2SESW 333S41W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 33
COEFFICIENT OF LINEAR REGRESSION IS 0.01067
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00053

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 19.95496
THERE ARE 31DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.1 DEGREES-F/100 FEET, 19. DEGREES-C/KILOMETER

 1MI2N2SESW 333S41W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 340FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 85
COEFFICIENT OF LINEAR REGRESSION IS 0.01566
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00010
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 156.48930
THERE ARE 83DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 29. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 10.69004381

 1NS1 NENE3620S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 480FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.01339
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00033
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 40.66834
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.3 DEGREES-F/100 FEET, 24. DEGREES-C/KILOMETER

 1NS1 NENE3620S21W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 480FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 36
COEFFICIENT OF LINEAR REGRESSION IS 0.01502
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00047
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 32.21006
THERE ARE 34DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 27. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 2.63229343

 1NS2 SESE3517S24W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 249FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 16
COEFFICIENT OF LINEAR REGRESSION IS 0.03232
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00161
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 20.11607
THERE ARE 14DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 3.2 DEGREES-F/100 FEET, 59. DEGREES-C/KILOMETER

 1NS2 SESE3517S24W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 249FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 24
COEFFICIENT OF LINEAR REGRESSION IS 0.01816
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 56.59823
THERE ARE 22DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 33. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -11.27674294

 1PR1NENESW1626S11W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 270FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 23
COEFFICIENT OF LINEAR REGRESSION IS 0.01635
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00148

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 10.86340
THERE ARE 21DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 29. DEGREES-C/KILOMETER

1PR1NENESW1626S11W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 270FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 69
COEFFICIENT OF LINEAR REGRESSION IS 0.01961
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 62.81325
THERE ARE 67DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.0 DEGREES-F/100 FEET, 36. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 2.30945229

1PR2E2SENE2429S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 155FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.01661
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00182
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.14552
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

1PR2E2SENE2429S13W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 155FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 30
COEFFICIENT OF LINEAR REGRESSION IS 0.01636
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00008
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 198.73825
THERE ARE 28DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 30. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -0.25770671

1RL1 SESW3011S 9E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 140FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 9
COEFFICIENT OF LINEAR REGRESSION IS 0.01367
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00159
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 8.59958
THERE ARE 7DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.4 DEGREES-F/100 FEET, 25. DEGREES-C/KILOMETER

1RL1 SESW3011S 9E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 140FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 58
COEFFICIENT OF LINEAR REGRESSION IS 0.02219
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00006
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 358.00938
THERE ARE 56DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 40. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 7.74705058

1SA3SWSWSW3213S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 80FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 108
COEFFICIENT OF LINEAR REGRESSION IS 0.01675
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00015

T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 108.04858
THERE ARE 106DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.7 DEGREES-F/100 FEET, 31. DEGREES-C/KILOMETER

1SA3SWSWSW3213S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

1SW1 SENW 535S34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 150FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.01515
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00383
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 3.95525
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

1SW1 SENW 535S34W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 150FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 30
COEFFICIENT OF LINEAR REGRESSION IS 0.01557
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00020
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 75.37089
THERE ARE 28DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.6 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 0.20260799

1SH4SWSENW22 6S3RW
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 270FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.01426
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00097
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 14.63852
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 1.4 DEGREES-F/100 FEET, 26. DEGREES-C/KILOMETER

1SH4SWSENW22 6S3RW
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 270FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.02998
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00012
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 257.17065
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 3.0 DEGREES-F/100 FEET, 55. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 19.14809203

1SV1SESESW1732S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 160FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 10
COEFFICIENT OF LINEAR REGRESSION IS 0.04380
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00397
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.04237
THERE ARE 8DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 4.4 DEGREES-F/100 FEET, 80. DEGREES-C/KILOMETER

1SV1SESESW1732S37W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 160FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 31
COEFFICIENT OF LINEAR REGRESSION IS 0.01540

STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00025
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 61.55592
THERE ARE 29DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 28. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -12.64482975

 1TH3 SENW30 8S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 6
COEFFICIENT OF LINEAR REGRESSION IS 0.03619
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00301
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 12.03172
THERE ARE 4DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 3.6 DEGREES-F/100 FEET, 66. DEGREES-C/KILOMETER

 1TH3 SENW30 8S35W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 100FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 34
COEFFICIENT OF LINEAR REGRESSION IS 0.03155
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00015
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 213.86640
THERE ARE 32DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 3.2 DEGREES-F/100 FEET, 58. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -2.15410364

 1TX1SWSWNE36 5N13E TEXAS COUNTY, OKLAHOMA
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 18
COEFFICIENT OF LINEAR REGRESSION IS 0.01961
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00309
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 6.34685
THERE ARE 16DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.0 DEGREES-F/100 FEET, 36. DEGREES-C/KILOMETER

 1TX1SWSWNE36 5N13E TEXAS COUNTY, OKLAHOMA
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 280FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 22
COEFFICIENT OF LINEAR REGRESSION IS 0.01472
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00031
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 47.50560
THERE ARE 20DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.5 DEGREES-F/100 FEET, 27. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.88550236

THERMAL LOGGING DATA USED IN BHT CORRECTION FACTOR ANALYSIS

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GREENWOOD  COUNTYSWSWNE 36 25S  8E400
  1257.9  2756.0  4256.7  5757.0  7257.1  8757.3  9757.5 10757.8 11758.0
 12758.2 13758.4 14758.7 15758.8 16759.1 17759.3 18759.7 19759.9 20760.0
 21760.1 22760.4 23760.5 24760.7 25760.9 26761.1 27761.3 28761.6 29761.9
 30762.2 31762.8 32763.1 33763.3 34763.4 35763.5 36763.6 37763.7 38763.7
 39763.8 001
 56467.7 57168.8 57769.0 58469.3 59069.4 59769.4 60469.4 61069.4 61769.5
 62369.5 63069.6 63669.8 64370.0 64970.2 65670.3 66370.5 66970.7 67670.9
 68271.0 68971.1 69571.2 70271.3 70971.4 71571.6 72271.8 72872.0 73572.2
 74172.4 74872.5 75472.6 76172.8 76872.9 77473.0 78173.2 78773.4 79473.6
 80073.7 80773.8 81374.0 82074.1 82774.2 83374.3 84074.4 84674.5 85374.7
 85974.8 86675.0 87375.2 87975.4 88675.6 89275.7 89975.9 90576.0 91276.2
 91876.3 92576.5 93276.6 93876.7 94576.8 95177.0 95877.1 96477.3 97177.4
 97777.5 98477.7 99177.8 99777.9100478.0101078.1101778.2102378.4103078.5
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121482.0122082.2122782.3123382.5124082.7124682.9125383.0126083.1 -9999.9
 DOUGLAS COUNTY SENWNE 13 12S 17E160
  1052.1  2554.5  4054.7  5554.7  7055.0  8555.3 10055.4 11555.7 13056.0
 14556.2 16056.6 17556.8 19057.0 20557.2 22057.3 23557.5 25057.8 26558.0
 28058.3 29559.5 31058.6 32558.8 34059.0 35559.3 37059.6 38559.8 40060.2
 41560.9 43061.3 43561.4 44561.7 45562.1 46562.2 47562.4 48562.6 49562.8
 50563.0 51563.1 52563.2 53563.3 54563.5 55563.7 56563.9 57564.2 58564.4
 59564.6 60564.7 61565.0 62565.1 63565.3 64565.5 65565.7 66565.8 67566.1
 68566.2 69566.3 70566.5 71566.7 72566.9 73567.0 74567.1 75567.2 76567.4
 77567.6 78567.8 79568.0 80568.1 81568.3 82568.5 83568.7 84568.9 85569.2
 87569.4 88569.5 89569.7 90569.9 91570.0 92570.1 93570.3 94570.5 95570.5
 96570.7 97570.9 98571.1 99571.3100571.4101571.6102571.7103571.9104572.2
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-9999.9
 WOODSON COUNTY SENWSW 16 25S 16E  0
  1453.2  2954.1  3955.1  4955.6  5955.9  6956.1  7956.3  8956.5  9956.6
 10956.8 11957.0 12957.3 13957.5 14957.8 15958.1 16958.3 17958.6 18958.8
 19959.1 20959.3 21959.5 22959.7 23959.9 24960.0 25960.3 26960.6 27960.8
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 37964.1 38964.3 39964.5 40964.8 41964.8 42965.0 43965.2 44965.4 45965.6
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 55968.0 56968.3 57968.5 58968.8 59969.1 60969.2 61969.4 62969.5 63969.7
 64969.9 65970.1 66970.4 67970.7 68971.0 69971.4 70971.7 71971.8 72972.0
 73972.1 74972.3 75972.5 76972.7 77972.9 78973.1 79973.3 80973.5 81973.7
 82973.8 83974.0 84974.2 85974.3 86974.5 87974.8 88975.0 89975.2 90975.5
 91975.7 92976.0 93976.4 94976.7 95977.1 96977.4 97977.7 98977.9 99978.2
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139488.8140189.1140789.3141489.5142089.8142789.9143390.0144090.1144790.3
-9999.9
 SALINE  COUNTY SWSWSW 32 13S  2W  0
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  8856.3  10356.6  11856.9  13357.1  14857.4  16357.7  17857.8  18357.9  19858.0
 20858.2  21858.3  22958.4  23858.5  24859.6  25858.7  24858.8  27858.9  28859.1
 29859.2  30859.3  31859.4  32859.6  33859.7  34859.9  35859.9  36860.1  37860.3
 38860.4  39860.5  40860.7  41860.9  42861.0  43861.1  44361.3  45361.5  46861.6
 47861.7  48861.8  49862.0  50862.1  51862.3  52862.4  53862.6  54862.8  55863.0
 56863.1  57863.3  58863.4  59363.5  60363.8  61863.9  62864.0  63864.1  64364.3
 65864.5  66864.7  67864.8  68864.9  69865.1  70865.3  71865.6  72865.9  73865.9
 74866.1  75866.3  76866.5  77866.7  78856.8  79967.0  80867.2  81867.2  82867.4
 83867.6  84867.8  85868.1  86863.3  87958.4  88868.5  89868.7  90868.9  91869.1
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180435.7182186.1183786.5185486.9187087.3 -9999.9
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ROOKS COUNTY S2S2NW 27 9S 20W 90

15	52.2	20	51.9	30	52.5	40	53.4	50	54.3	60	54.7	70	55.1	80	55.4
90	55.6	100	55.8	110	56.1	120	56.4	130	56.7	140	57.0	150	57.3	160	57.6
170	57.9	180	58.1	190	58.3	200	58.6	210	58.8	220	58.9	230	59.1	240	59.3
250	59.4	260	59.9	270	60.0	280	60.1	290	60.3	300	60.4	310	60.5	320	60.6
330	60.8	340	61.0	350	61.3	360	61.6	370	61.8	380	62.2	390	62.5	400	62.8
410	63.0	420	63.4	430	63.7	440	64.2	450	64.6	460	64.9	470	65.3	480	65.7
490	66.0	500	66.3	510	66.7	520	66.9	530	66.9	540	67.1	550	67.2	560	67.8
570	68.0	580	68.2	590	68.3	600	68.5	610	68.7	620	68.9	630	69.1	640	69.3
650	69.5	660	69.6	670	69.9	680	70.1	690	70.4	700	70.6	710	70.8	720	71.1
730	71.2	740	71.3	750	71.5	760	71.6	770	71.8	780	71.9	790	72.1	800	72.3
810	72.4	820	72.5	830	72.6	840	72.7	850	72.9	860	73.0	870	73.1	880	73.2
890	73.4	900	73.5	910	73.7	920	73.8	930	73.9	940	74.1	950	74.2	960	74.3
970	74.3	980	74.4	990	75.11000		75.71010		76.11020		76.31030		76.41040		76.8
1050	77.11060		77.31070		77.61080		77.81090		78.01100		78.31110		78.41120		78.5
1139	78.61140		78.81150		78.91160		79.01170		79.11180		79.21190		79.31200		79.5
1204	79.81210		79.81217		79.91223		79.91230		80.01237		80.11243		80.11250		80.2
1256	80.21263		80.31269		80.31276		80.41283		80.41289		80.51328		80.91335		81.0
1342	81.01348		81.11355		81.21361		81.21368		81.31374		81.41381		81.41387		81.5
1394	81.61401		81.61407		81.71414		81.81420		81.91427		81.91433		82.01440		82.1
1447	82.21453		82.21460		82.31465		82.41473		82.51479		82.61486		82.61492		82.7
1499	82.81506		82.91512		83.01519		83.11525		83.11532		83.21538		83.31545		83.4
1551	83.51558		83.61565		83.61571		83.71578		83.81584		83.91591		84.01597		84.0
1604	84.11611		84.21617		84.31624		84.41630		84.41637		84.51643		84.61650		84.6
1656	84.71663		84.81670		84.91675		84.91683		85.01689		85.11696		85.21702		85.2
1709	85.31715		85.41722		85.51729		85.51735		85.61742		85.61748		85.71755		85.7
1761	85.81768		85.81775		85.91781		85.91788		86.01794		86.11801		86.21807		86.4
1814	86.51820		86.61827		86.71834		86.81840		86.91847		87.01853		87.11860		87.2
1866	87.31873		87.41879		87.51886		87.61893		87.71899		87.81906		88.01912		88.1
1919	88.21925		88.31932		88.41939		88.51945		88.71952		88.71958		88.91965		89.0
1971	89.11978		89.21984		89.31991		89.41998		89.52004		89.62011		89.72017		89.8
2024	89.92030		90.02037		90.02043		90.22050		90.32057		90.42063		90.42070		90.5
2076	90.62083		90.72089		90.72096		90.82103		90.82109		90.92116		91.02122		91.0
2129	91.12135		91.12142		91.12148		91.12155		91.22162		91.22168		91.32175		91.4
2181	91.62188		91.62194		91.72201		91.82207		91.92214		92.02221		92.12227		92.1
2234	92.22240		92.32247		92.32253		92.42260		92.52267		92.62273		92.72280		92.7
2286	92.82293		92.92299		92.92306		93.02312		93.22319		93.32326		93.42332		93.5
2339	93.62345		93.62352		93.72358		93.82365		93.92371		94.02378		94.12385		94.1
2391	94.22398		94.32404		94.42411		94.52417		94.62424		94.72431		94.72437		94.8
2444	94.92450		95.02457		95.12463		95.12470		95.22476		95.32483		95.42490		95.5
2496	95.62503		95.72509		95.82516		95.92522		95.92529		96.02535		96.12542		96.2
2549	96.32555		96.42562		96.52568		96.62575		96.72581		96.82588		96.92595		97.0
2601	97.12660		97.92667		98.02673		98.12680		98.22686		98.32693		98.32699		98.4
2706	98.52713		98.62719		98.72726		98.82732		98.92739		99.02745		99.12752		99.2
2759	99.32765		99.42772		99.52778		99.62785		99.72791		99.82798		99.92804	100.0	
2811	100.12818	100.22824		100.32831		100.42837		103.52344	100.62850	100.72857		100.8			
2863	100.92870	101.02877		101.12883		101.22890		101.32896	101.52903	101.52909		101.7			
2916	101.72923	101.92929		101.92936		102.02942		102.22949	102.32955	102.42962		102.5			
2968	102.62975	102.82982		102.92988		103.02995		103.13001	103.33008	103.43014		103.6			
3021	103.73027	103.83034		103.93041		104.03047		104.23054	104.33060	104.43067		104.6			
3073	104.73080	104.93087		105.03093		105.23100		105.33106	105.53113	105.63119		105.7			
3126	105.93132	106.03139		106.13145		106.23152		106.33159	106.43165	106.53172		106.6			
3178	106.73185	106.83191		106.93198		107.13205		107.23211	107.33218	107.43224		107.6			
3231	107.73237	107.83244		108.03251		108.13257		108.23264	108.43270	108.53277		108.7			
3283	108.83290	108.93296		109.03303		109.13310		109.23316	109.33323	109.43329		109.5			
3336	109.63342	109.73349		109.83355		109.93362		110.03369	110.13375	110.23382		110.3			

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3388110.43395110.53401110.53408110.63415110.73421110.83428110.9 -99999.9
  BUTLER COUNTY   SESESE 34 25S   4E 73
  13 54.5   28 55.1   43 56.4   58 56.2   73 56.7   88 57.0 103 57.1 118 57.3
 133 57.5 148 57.5 163 57.9 178 58.1 193 58.3 208 58.5 223 58.7 238 58.9
 253 59.3 268 59.6 283 59.9 298 60.1 313 60.5 328 60.7 343 61.1 358 61.6
 373 62.0 388 62.3 403 62.5 418 62.7 428 62.9 439 63.1 448 63.3 458 63.4
 468 63.5 478 63.7 488 63.9 498 64.1 508 64.5 518 64.7 528 64.9 538 65.1
 548 65.4 558 65.7 568 65.9 578 66.2 588 66.5 594 66.3 600 66.5 607 66.7
 613 66.9 620 67.1 627 67.3 633 67.5 640 67.7 646 68.0 653 68.1 659 68.4
 666 68.6 672 68.9 679 69.1 685 69.3 692 69.5 699 69.7 705 69.8 712 69.9
 718 70.1 725 70.3 731 70.6 738 70.8 745 71.0 751 71.1 758 71.3 764 71.4
 771 71.5 777 71.7 784 71.9 791 72.0 797 72.2 804 72.4 810 72.5 817 72.7
 823 72.8 830 72.9 836 73.0 843 73.2 850 73.3 856 73.4 863 73.5 869 73.7
 876 73.8 882 74.0 889 74.1 895 74.3 902 74.4 909 74.6 915 74.7 922 74.9
 928 75.1 935 75.3 941 75.5 948 75.7 955 75.9 961 76.1 968 76.3 974 76.5
 981 76.6 987 76.7 994 76.81000 77.01007 77.31014 77.41020 77.41027 77.5
1033 77.51040 77.51046 77.61053 77.71059 77.71066 77.81073 77.91079 78.0
1086 78.01092 78.11099 78.21105 78.31112 78.41119 78.51125 78.61132 78.7
1138 78.81145 78.91151 79.01158 79.11164 79.21171 79.41178 79.51184 79.6
1191 79.71197 79.91204 80.01210 80.11217 80.31223 80.41230 80.51237 80.6
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1709 91.21715 91.41722 91.51729 91.61735 91.71742 91.91748 92.01755 92.1
1761 92.11768 92.21775 92.31781 92.41788 92.51794 92.61801 92.71807 92.8
1814 92.91820 93.01827 93.11834 93.11840 93.21847 93.31853 93.41860 93.5
1866 93.61873 93.71879 93.71886 93.81893 93.91899 94.01906 94.11912 94.2
1919 94.31925 94.51932 94.61939 94.71945 94.81952 94.91958 95.01965 95.2
1971 95.31978 95.41984 95.51991 95.71998 95.82004 95.92011 96.12017 96.2
2024 96.32030 96.42037 96.52043 96.62050 96.82057 96.92063 97.02070 97.1
2076 97.22083 97.32089 97.42096 97.52103 97.62109 97.72116 97.72122 97.9
2129 98.02135 98.12142 98.22148 98.32155 98.42162 98.52168 98.62175 98.7
2181 98.92188 99.02194 99.12201 99.22207 99.42214 99.52221 99.62227 99.8
2234 99.92240100.02247100.22253100.32260100.42267100.62273100.72280100.8
2286100.92293101.12299101.22306101.42312101.52319101.72326101.82332102.0
2339102.22345102.32352102.52358102.62365102.82371102.92378103.12385103.2
2391103.42398103.52404103.72411103.82417104.2 -99999.9
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LINEAR REGRESSION ANALYSIS OF WELLS DEEPER THAN 500 METERS

GREENWOOD COUNTYSWSWNE 36 25S 8E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 400FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 44
COEFFICIENT OF LINEAR REGRESSION IS 0.11889
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01940
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 6.12726
THERE ARE 42DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 11.89DEGREES-F/100 FEET, 216.74DEGREES-C/KILOMETER

GREENWOOD COUNTYSWSWNE 36 25S 8E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 400FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 108
COEFFICIENT OF LINEAR REGRESSION IS 0.02821
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00284
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 9.94099
THERE ARE 106DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.82DEGREES-F/100 FEET, 51.42DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -7.03015214

DOUGLAS COUNTY SENWNE 13 12S 17E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.05333
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.02700
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 1.97562
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 5.33DEGREES-F/100 FEET, 97.23DEGREES-C/KILOMETER

DOUGLAS COUNTY SENWNE 13 12S 17E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 60FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 140
COEFFICIENT OF LINEAR REGRESSION IS 0.01784
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00005
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 346.58250
THERE ARE 138DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.78DEGREES-F/100 FEET, 32.53DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -3.82557839

WOODSON COUNTY SENWSW 16 25S 16E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 0FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 153
COEFFICIENT OF LINEAR REGRESSION IS 0.02455
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00009
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 271.11588
THERE ARE 151DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.44DEGREES-F/100 FEET, 44.40DEGREES-C/KILOMETER

WOODSON COUNTY SENWSW 16 25S 16E
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

SALINE COUNTY SWSWSW 32 13S 2W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 0FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 149
COEFFICIENT OF LINEAR REGRESSION IS 0.01804
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00010

T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 173.07494
THERE ARE 147DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.80DEGREES-F/100 FEET, 32.89DEGREES-C/KILOMETER

SALINE COUNTY SWSWSW 32 13S 2W
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

ROOKS COUNTY S2S2NW 27 9S 20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 50FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 7
COEFFICIENT OF LINEAR REGRESSION IS 0.06139
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00546
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 11.24922
THERE ARE 5DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 6.14DEGREES-F/100 FEET, 111.91DEGREES-C/KILOMETER

ROOKS COUNTY S2S2NW 27 9S 20W
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 80FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 440
COEFFICIENT OF LINEAR REGRESSION IS 0.01503
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00007
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 206.91493
THERE ARE 438DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.50DEGREES-F/100 FEET, 27.39DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.64263773

BUTLER COUNTY SESESE 34 25S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 73FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 4
COEFFICIENT OF LINEAR REGRESSION IS 0.04267
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01336
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 3.19268
THERE ARE 2DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 4.27DEGREES-F/100 FEET, 77.78DEGREES-C/KILOMETER

BUTLER COUNTY SESESE 34 25S 4E
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 73FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 313
COEFFICIENT OF LINEAR REGRESSION IS 0.02036
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00007
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 309.92170
THERE ARE 311DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 2.04DEGREES-F/100 FEET, 37.12DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.01535857

DETERMINATION OF BEST FIT LINE TO KS BHT DATA INCLUDED WITHIN A RADIUS OF 25 MILES (40 KILOMETERS) FROM GIVEN LOCATION

GREENWOOD COUNTYSWSWNE 36 25S 8E
NUMBER OF DATA PAIRS IS 1464
COEFFICIENT OF LINEAR REGRESSION IS 0.01691
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00053
T TEST VALUE IS 31.631
THERE ARE 1462 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.01691DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (174.7,24.28) AND (1388.7,44.81)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 70.9DEGREES FAHRENHEIT

DOUGLAS COUNTYSENWNE 13 12S 17E
NUMBER OF DATA PAIRS IS 29
COEFFICIENT OF LINEAR REGRESSION IS 0.01566
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00177
T TEST VALUE IS 8.827
THERE ARE 27 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.01566DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (363.0,27.18) AND (1146.0,39.44)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 71.1DEGREES FAHRENHEIT

WOODSON COUNTYSENWSW 16 25S 16E
NUMBER OF DATA PAIRS IS 293
COEFFICIENT OF LINEAR REGRESSION IS 0.02154
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00125
T TEST VALUE IS 17.184
THERE ARE 291 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.02154DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (249.6,24.33) AND (745.8,35.02)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 66.7DEGREES FAHRENHEIT

SALINE COUNTY SW 32 13S 2W
NUMBER OF DATA PAIRS IS 176
COEFFICIENT OF LINEAR REGRESSION IS 0.01652
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00186
T TEST VALUE IS 8.870
THERE ARE 174 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.01652DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (365.8,28.18) AND (1226.2,42.40)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 72.3DEGREES FAHRENHEIT

BUTLER COUNTY SENESE 34 25S 4E
NUMBER OF DATA PAIRS IS 1176
COEFFICIENT OF LINEAR REGRESSION IS 0.01608
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00048
T TEST VALUE IS 33.398
THERE ARE 1174 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.01608DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (100.0,23.83) AND (1388.7,44.55)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 72.4DEGREES FAHRENHEIT

ROOKS COUNTY S2S2NW 27 9S 20W
NUMBER OF DATA PAIRS IS 3492
COEFFICIENT OF LINEAR REGRESSION IS 0.01423
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00074
T TEST VALUE IS 19.275
THERE ARE 3490 DEGREES OF FREEDOM FOR THIS CASE
"SLOPE" OF BEST FIT LINE = 0.01423DEGREES-C/METER
PLOT BEST FIT LINE BETWEEN (244.4,28.70) AND (1752.9,50.16)
THE TEMPERATURE FROM THE BEST FIT LINE TO THE DATA AT -50 FEET IS 77.8DEGREES FAHRENHEIT

THERMAL LOGGING DATA FOR KGS-USGS BIG SPRINGS HOLE

```
1DG1-I  SENWNW1312S17E410  7   165      4.7.80
  1059.5  2557.0  3556.8  4556.3  5556.0  6555.9  7555.8  8555.8  9555.8
 10555.8 11555.9 12556.0 13556.1 14556.2 15556.3 16556.3 17556.5 18556.6
 19556.7 20556.8 21556.9 22557.0 23557.1 24557.2 25557.3 26557.4 27557.4
 28557.6 29557.7 30557.8 31557.9 32557.9 33558.0 34558.1 35558.2 36558.3
 37558.4 38558.5 39558.6 40558.8 41559.9 42560.2 43560.4 44560.7 45561.0
 46561.3 47561.5 48561.7 49561.8 50562.0 51562.1 52562.2 53562.3 54562.6
 55562.8 56563.0 57563.2 58563.4 59563.6 60563.8 61563.9 62564.1 63564.3
 64564.4 65564.5 66564.9 67565.0 68565.2 69565.4 70565.5 71565.7 72565.8
 73566.0 74566.1 75566.3 76566.4 77566.6 78566.8 79566.9 80567.2 81567.4
 82567.6 83567.7 84567.9 85568.1 86568.3 87568.4 88568.5 89568.7 90568.8
 91569.0 92569.1 93569.2 94569.4 95569.6 96569.7 97569.9 98570.1 99570.2
100570.4101570.4102570.6103570.9104571.1105571.3106571.3107571.7108571.8
109572.3110572.5111572.7112572.8113573.0114573.3115573.5116573.8117574.0
118574.2119574.4 -9999.9
1DG1-II SENWNW1312S17E410  7   165     30.7.80
  1069.0  2560.5  4058.5  5557.5  7056.6  8556.2 10055.9 11555.8 13055.9
 14556.0 16056.2 17556.3 19056.5 20556.7 22056.9 23557.1 25057.3 26557.4
 28057.7 29557.9 31058.1 32558.4 34058.6 35558.8 37059.1 38559.3 40059.6
 41560.4 42560.5 43560.8 44561.1 45561.5 46561.7 47561.9 48562.1 49562.2
 50562.3 51562.5 52562.7 53562.8 54563.0 55563.2 56563.4 57563.6 58563.8
 59564.0 60564.2 61564.4 62564.5 63564.7 64564.8 65565.1 66565.2 67565.5
 68565.6 69565.8 70565.9 71566.1 72566.3 73566.4 74566.5 75566.6 76566.8
 77567.0 78567.1 79567.3 80567.5 81567.7 82567.9 83568.1 84568.3 85568.4
 86568.6 87568.8 88568.9 89569.0 90569.2 91569.4 92569.5 93569.6 94569.7
 95569.9 96570.0 97570.2 98570.4 99570.5100570.7101570.8102571.0103571.2
104571.4105571.6106571.8107571.9108572.1109572.3110572.5111572.7112572.9
113573.2114573.3115573.5116573.8117574.0118574.2119574.4 -9999.9
1DG1-III SENWNW1312S17E410  7   165     17.1.81
  1051.6  2554.0  4054.2  5554.2  7054.5  8554.8 10054.9 11555.2 13055.5
 14555.7 16056.1 17556.3 19056.5 20556.7 22056.8 23557.0 25057.3 26557.5
 28057.8 29558.0 31058.1 32558.3 34058.5 35558.8 37059.1 39559.3 40059.7
 41560.4 43060.8 43560.9 44561.2 45561.6 46561.7 47561.9 48562.1 49562.3
 50562.5 51562.6 52562.7 53562.8 54563.0 55563.2 56563.4 57563.7 58563.9
 59564.1 60564.2 61564.5 62564.6 63564.8 64565.0 65565.2 66565.3 67565.6
 68565.7 69565.8 70566.0 71566.2 72566.4 73566.5 74566.6 75566.7 76566.9
 77567.1 78567.3 79567.5 80567.6 81567.8 82568.0 83568.2 84568.4 85568.7
 87568.9 88569.0 89569.2 90569.4 91569.5 92569.6 93569.8 94570.0 95570.0
 96570.2 97570.4 98570.6 99570.8100570.9101571.1102571.2103571.4104571.7
105571.9106572.1107572.3108572.4109572.6110572.8111573.0112573.2113573.4
114573.6115573.8116574.1117574.2118574.4 -9999.9
1DG1-IV SENWNW1312S17E410  7   270     18.5.81
 24057.9 25557.9 27058.0 28558.1 30058.3 31558.5 33058.7 34558.8 36059.0
 37559.2 40059.6 41560.7 42560.8 43561.0 44561.3 45561.6 46561.9 47562.2
 48562.4 49562.5 50562.8 51562.9 52563.0 53563.3 54563.4 55563.5 56563.7
 57564.0 58564.2 59564.5 60564.6 61564.7 62564.9 63565.1 64565.2 65565.5
 66565.7 67565.8 68565.9 69566.0 70566.3 71566.5 72566.7 73566.8 74566.9
 75567.0 76567.1 77567.3 78567.6 79567.7 80567.9 81568.1 82568.3 83568.4
 84568.5 85568.9 86569.1 87569.3 88569.4 89569.5 90569.7 91569.9 92570.0
 93570.1 94570.3 95570.5 96570.6 97570.7 98570.9 99571.1100571.3101571.5
102571.6103571.8104571.9105572.1106572.3107572.5108572.8109573.0110573.1
111573.3112573.5113573.7114573.9115574.1116574.3117574.6118574.8119575.1
 -9999.9
```

COMPARISON OF REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE FOR KS THERMAL LOGGING DATA

1DG1-I SENWNW1312S17E 4.7.80
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 15
COEFFICIENT OF LINEAR REGRESSION IS -0.01183
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00476
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -2.48250
THERE ARE 13DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -1.2 DEGREES-F/100 FEET, -22. DEGREES-C/KILOMETER

1DG1-I SENWNW1312S17E 4.7.80
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 104
COEFFICIENT OF LINEAR REGRESSION IS 0.01790
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00012
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 149.51949
THERE ARE 102DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 33. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 11.45515025

1DG1-II SENWNW1312S17E 30.7.80
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 11
COEFFICIENT OF LINEAR REGRESSION IS -0.05691
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.01819
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS -3.12880
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = -5.7 DEGREES-F/100 FEET, -104. DEGREES-C/KILOMETER

1DG1-II SENWNW1312S17E 30.7.80
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 95
COEFFICIENT OF LINEAR REGRESSION IS 0.01773
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00010
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 178.96698
THERE ARE 93DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 32. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS 13.17554486

1DG1-III SENWNW1312S17E 17.1.81
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS ABOVE BREAK IN TEMPERATURE PROFILE IS 11
COEFFICIENT OF LINEAR REGRESSION IS 0.02158
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00362
T TEST VALUE FOR DATA ABOVE BREAK IN TEMPERATURE PROFILE IS 5.95200
THERE ARE 9DEGREES OF FREEDOM
THERMAL GRADIENT ABOVE BREAK IN THERMAL PROFILE = 2.2 DEGREES-F/100 FEET, 39. DEGREES-C/KILOMETER

1DG1-III SENWNW1312S17E 17.1.81
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 165FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 93
COEFFICIENT OF LINEAR REGRESSION IS 0.01805
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00010
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 180.23973
THERE ARE 91DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 33. DEGREES-C/KILOMETER

T TEST VALUE COMPARING REGRESSION LINES ABOVE AND BELOW BREAK IN TEMPERATURE PROFILE IS -1.77225874

1DG1-IV SENWNW1312S17E 18.5.81
DEPTH TO BREAK IN TEMPERATURE PROFILE IS 270FEET
NUMBER OF DATA PAIRS BELOW BREAK IN TEMPERATURE PROFILE IS 88
COEFFICIENT OF LINEAR REGRESSION IS 0.01811
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00012
T TEST VALUE FOR DATA BELOW BREAK IN TEMPERATURE PROFILE IS 153.54534
THERE ARE 86DEGREES OF FREEDOM
THERMAL GRADIENT BELOW BREAK IN THERMAL PROFILE = 1.8 DEGREES-F/100 FEET, 33. DEGREES-C/KILOMETER

1DG1-IV SENWNW1312S17E 18.5.81
THERE ARE TOO FEW DEGREES OF FREEDOM FOR A MEANINGFUL T TEST OF THE DATA ABOVE BREAK IN TEMPERATURE PROFILE

REPEATABILITY STUDY OF KGS-USGS BIG SPRINGS HOLE FROM 50 TO 366 METERS

1DG1-I SENWNW1312S17E
NUMBER OF DATA PAIRS IS 104
COEFFICIENT OF LINEAR REGRESSION IS 0.01790
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00012
T TEST VALUE IS 149.51949
THERE ARE 102DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 1 = 1.79DEGREES-F/100 FEET, 32.62DEGREES-C/KILOMETER

1DG1-IIISENWNW1312S17E
NUMBER OF DATA PAIRS IS 94
COEFFICIENT OF LINEAR REGRESSION IS 0.01804
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00010
T TEST VALUE IS 184.28005
THERE ARE 92DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 2 = 1.80DEGREES-F/100 FEET, 32.88DEGREES-C/KILOMETER

T TEST VALUE COMPARING TWO LOGS OF BIG SPRINGS HOLE IS 0.89720204

THERMAL LOGGING DATA FOR RUSH COUNTY HOLE USED IN ANALYSIS OF LOGGING METHOD

1NWNWNE 6 17S 17W TIME=7:16AM
001551.5003053.7004554.8005054.9006055.0007055.2008055.3009055.5010055.7
011055.9012056.4013056.7014057.0015057.2016057.5017057.7018058.0019058.3
020058.6021058.7022058.9023059.0024059.1025059.3026059.4027059.5028059.7
029059.8030059.9031060.0032060.2033060.4034060.5035060.7036060.8037061.0
038061.1039061.1040061.3041061.3042061.6043061.8044061.9045062.1046062.3
047062.5048062.8049063.1050063.3051063.5052063.6053063.9053564.0 -9999.9
2NWNWNE 6 17S 17W TIME=8:15AM
005056.3006055.6007055.3008055.3009055.5010055.7011055.9012056.2013056.6
014056.7015057.2016057.5017057.7018058.0019058.2020058.5021058.7022058.8
023058.9024059.1025059.2026059.4027059.5028059.7029059.8030059.9031060.0
032060.1033060.3034060.5035060.6036060.8037060.9038061.1039061.1040061.2
041061.3042061.5043061.8044061.9045062.0046062.2047062.4048062.8049063.1
050063.3051063.5052063.6053063.9053563.9 -9999.9
3NWNWNE 6 17S 17W TIME=8:35AM
005056.0006055.5007055.3008055.4009055.5010055.7011055.9012056.3013056.7
014057.0015057.2016057.5017057.7018058.0019058.3020058.5021058.7022058.8
023059.0024059.1025059.2026059.4027059.5028059.7029059.8030059.9031060.0
032060.2033060.4034060.5035060.7036060.8037060.9038061.1039061.1040061.2
041061.3042061.6043061.8044061.9045062.1046062.3047062.5048062.8049063.1
050063.3051063.5052063.6053063.9053563.9 -9999.9

ANALYSIS OF LOGGING METHOD--TOP DOWN VS. BOTTOM UP

1NWNWNE 617S17W-TOP DOWN1
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01772
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE IS 55.39483
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 1 = 1.77DEGREES-F/100 FEET, 32.31DEGREES-C/KILOMETER

2NWNWNE 617S17W-TOP DOWN2
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01723
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE IS 53.09028
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 2 = 1.72DEGREES-F/100 FEET, 31.40DEGREES-C/KILOMETER

T TEST VALUE COMPARING TWO LOGS OF RUSH COUNTY HOLE IS -1.09103207

1NWNWNE 617S17W-TOP DOWN1
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01772
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE IS 55.39483
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 1 = 1.77DEGREES-F/100 FEET, 32.31DEGREES-C/KILOMETER

3NWNWNE 617S17W-BOTTOM UP
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01731
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00030
T TEST VALUE IS 57.75408
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 2 = 1.73DEGREES-F/100 FEET, 31.55DEGREES-C/KILOMETER

T TEST VALUE COMPARING TWO LOGS OF RUSH COUNTY HOLE IS -0.94990276

2NWNWNE 617S17W-TOP DOWN2
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01723
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00032
T TEST VALUE IS 53.09028
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 1 = 1.72DEGREES-F/100 FEET, 31.40DEGREES-C/KILOMETER

3NWNWNE 617S17W-BOTTOM UP
NUMBER OF DATA PAIRS IS 50
COEFFICIENT OF LINEAR REGRESSION IS 0.01731
STANDARD ERROR OF REGRESSION COEFFICIENT IS 0.00030
T TEST VALUE IS 57.75408
THERE ARE 48DEGREES OF FREEDOM
THERMAL GRADIENT FOR CASE 2 = 1.73DEGREES-F/100 FEET, 31.55DEGREES-C/KILOMETER

T TEST VALUE COMPARING TWO LOGS OF RUSH COUNTY HOLE IS 0.17929905