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SUMMARY REPORT

JULY 1979 SFWMD/FP&L
SEMI-ANNUAL MEETING

GROUND-WATER MONITORING PROGRAM
TURKEY POINT, FLORIDA

FLORIDA POWER & LIGHT COMPANY

DAMES & MOORE
BOCA RATON, FLORIDA

JOB NO: 04598-047-26
DATE: JULY 1979

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HANDOUT

JULY 1979 SFWMD/FP&L

SEMI-ANNUAL MEETING

GROUND-WATER MONITORING PROGRAM

TURKEY POINT, FLORIDA

FLORIDA POWER & LIGHT COMPANY

1.0 INTRODUCTION

This handout presents the results of the Ground-Water Monitoring Programs and the Interceptor Ditch pumping at the Turkey Point Generating Station operated by Florida Power & Light (FP&L). Specifically, this handout addresses the ground-water monitoring data and data on the Interceptor Ditch operation collected between January 1979 and July 1979. These data are considered in the light of historical data which are available from April 1972; these historical data provide a perspective against which to evaluate the six months of data now being presented.

This handout is the seventh semi-annual handout, the semi-annual handout series was preceded by 17 handouts which were issued quarterly (January, April, July, and October). The first semi-annual handout was issued in July 1976, since then semi-annual handouts have been issued in January and July.

In addition to the quarterly and semi-annual handouts, this handout is also preceded by the report entitled "Ground-Water

Monitoring Program, G-Series Wells, Turkey Point Plant, Florida Power & Light Company," dated March 31, 1976, which summarized the ground-water data collected between April 1972 and February 1976 for the G-Series wells. This summary report presented analyses of the measured ground-water parameters and the effects of the cooling canal system on the ground water to the west of the cooling canal system. The dilution test program undertaken between July and November 1978 was described in other reports.

During this past six-month period, a constriction has been constructed on Card Sound Canal, with the intention of improving the flow pattern in the eastern canals. Construction was completed in February. The influence on water levels within the system has been minor; a separate letter report is being prepared on this subject.

2.0 MONITORING PROGRAMS

2.1 G-SERIES WELLS

The G-Series Wells Monitoring Program was initiated in April 1972 in compliance with the February 2, 1972, legal agreement between FP&L and the South Florida Water Management District (SFWMD). This monitoring program consisted of two separate but related projects:

1. The Ground-Water Quality Monitoring Program and,
2. The Interceptor Ditch Program.

The original ground-water monitoring program entailed 38 monitoring wells installed at 23 separate locations west of the cooling canal system and designated as the G-Series wells (Figures 1 and 2). Two piezometers, one 50 feet and one 20 feet deep, were installed at 15 of the 23 locations. The 20 feet deep piezometer was located approximately 10 feet north of the 50 feet piezometer.

Surface-water and ground-water elevations, ground-water temperature, and conductivity were measured in each of these wells near the beginning of each month. For the 15 pairs of piezometers, ground-water temperature and conductivity were measured at the bottom of the casing; in the composite wells, these parameters were measured at depths of 20, 40, and 60 feet below the top of the well casing. In addition, water samples were obtained to verify and to correlate the water conductivity data by titration for chlorinity. A regression analysis of these data established the monthly relationship between conductivity and chlorinity, this relationship then being used to convert conductivity to chlorinity.

A revised ground-water monitoring program was implemented in November 1976 following ratification of the third supplemental agreement between FP&L and SFWMD in September 1976. The revised program consisted of monitoring the ID-Series wells, the L-Series wells and Wells G-7, G-21, G-28, and G-35 near the beginning of each month (Figure 2). As from January 1979, Well G-14 was

substituted for Well G-7 because of damage to the well by local farmers. The L-wells and ID-wells were described in a following section. Additionally, Wells G-6 and G-27 are monitored at the beginning of January, March, May, and November. Monitoring consists of measuring surface-water and ground-water elevation and ground-water conductivity and temperature. Temperature and conductivity are measured at one-foot intervals for the entire well depth. One water sample is obtained from each well for analysis of the chlorinity.

2.2 L-, ID-, X-WELLS

FP&L installed 13 additional wells to aid in the determination of the effects of the cooling canal system on the ground water. Six wells were installed along Levee 31E Borrow Canal (L-wells), five along the Interceptor Ditch (ID-wells), and two north of the Feeder Canal (X-wells). These wells are composite wells extending to a depth of approximately 70 feet.

A flexible monitoring schedule was maintained for these wells. These wells were normally monitored at about two-week frequencies (near the beginning of the month when the F- and G-Series wells were monitored and near the middle of the month). Temperature and conductivity measurements were initially made in these wells at five-feet intervals from the ground-water surface to the bottom of the casing. However, since December 1975, temperature and conductivity measurements have been made at one-foot intervals.

As mentioned previously, the ID- and L-wells are now incorporated in the G-Series Wells Monitoring Program. These wells are monitored once a month. Similarly, the X-wells are monitored once a month.

2.3 INTERCEPTOR DITCH PROGRAM

The Interceptor Ditch Program consisted of construction of a ditch along the western edge of the cooling canal system and the installation of pumping facilities. The ditch and associated structures were established to control inland seepage of cooling canal water. This is accomplished by pumping water from the ditch during periods when a natural seaward ground-water gradient does not exist. Operation of the pumping stations and requirements are presented in the Ground-Water Monitoring and Interceptor Ditch Operation Procedures manual dated May 6, 1976.

Surface-water elevations are monitored at staff gages located in Levee 31E Borrow Canal, Cooling Canal 32, and the Interceptor Ditch. These staff gages are located at five positions in each of these canals relative to Lines A, B, C, D, and E as shown on the inset, Figure 2. Water elevations are collected twice a month during non-pumping periods (usually June through November) and once a week during potential pumping periods (December through May), except when the pumps are operating. When pumping occurs, water elevations are collected at least twice a week.

3.0 EQUIPMENT AND ANALYSES

3.1 MONITORING EQUIPMENT

The in-situ conductivity and temperature measurements are obtained with a Hydrolab TC-2 conductivity-temperature meter. Calibration of the field conductivity meters is done in the laboratory with saline solutions of known conductivity at the beginning and end of each day of measurements.

Water samples are obtained with a Masterflex sampling pump.

The reader is referred to the aforementioned summary report of the G-Series wells for more detailed descriptions of monitoring equipment and calibration.

No new equipment was acquired during the period December 1978 through June 1979.

3.2 LABORATORY ANALYSES

The water samples collected during the monthly monitoring programs are titrated to determine chlorinity. The chlorinity was determined by titrating the water samples with silver nitrate, using a potassium chromate solution as the end point indicator; recently a mercuric nitrate has been substituted, as it provides a more readily identified end point. These titrations are performed at Florida Power & Light's laboratories at Turkey Point.

The chlorinity, once it is determined, is used to develop a relationship between conductivity and chloride content.

Conductivity-chloride relationships are determined for each series of wells each month. The conductivity-chloride relationships developed for this monitoring period are shown on Figure 4.

The conductivity-chloride relationships are used to convert the appropriate monthly conductivity data to equivalent values of chlorinity.

The methodology used to determine the conductivity-chloride relationships is discussed in greater detail in the G-Well Summary Report.

3.3 MONITORING PROGRAM LOGISTICS

Field data collection efforts have been conducted from the FP&L field laboratories at Turkey Point. All monitoring equipment is stored at these facilities. Instrument calibration and most instrument maintenance have been handled at these facilities.

Transportation to the monitoring wells is dependent on well location. Most of the wells are located in swampy areas and are accessible only by helicopter. Since discontinuance of the E-Well Monitoring Program, a helicopter will be required onsite only during the months of January, March, May, and November for the revised ground-water monitoring programs. During the remaining months all the required wells can be reached by automobile.

4.0 DATA ANALYSIS

The following sections present a summary, analysis, and discussion of the measured ground-water parameters for the period January 1979 through July 1979. The G-well data collected under the revised program are presented in a format reflecting the revised monitoring procedures. These data presentations incorporate:

1. Chlorinity data, rather than conductivity data;
2. Time-history plots of water level, chlorinity, and temperature at elevations of -15, -30, and -45 feet, MSL;
3. Profiles of temperature and chlorinity values with respect to elevation, MSL, instead of depth below casing; and,
4. Chlorinity cross-sections between the Interceptor Ditch and Levee 31E along each line of wells.

4.1 GROUND-WATER LEVELS

The onset of the dry season in late 1978 was accompanied by a return to a more normal climatic pattern. The months November 1978 through March 1979 recorded low monthly rainfall totals, as illustrated by data from the SFWMD rain gauges on Levee 31, at Structures 20 and 20F (Figure 3). Particularly notable is the reduction in dry season rainfall this year compared with the abnormally wet winter in 1978. Inspection of the data from the rain gages at Structures 20 and 20F indicates that the dry season has been nearly as dry as any season experienced since the cooling system was constructed. Rainfall for the period November 1978 through March 1979 at Structures 20 and 20F totals only 3.97

inches and 6.17 inches respectively. However, unusually high rainfalls of 12 and 4 inches, respectively, were recorded in April.

On a longer-term view, this season is not regarded as unusual, as the last few years have had dry seasons that were wetter than the longer-term average.

The return to a more normal dry-season is reflected in the typical seasonal fluctuations in ground-water levels west of the cooling canal system. The clearly-defined dry season is readily identifiable from the fluctuations in ground-water levels. From a peak in early November 1978, ground-water levels fell abruptly until the end of April 1979.

The ground-water levels in the preceding wet season were essentially normal in terms of elevation, though unusual in that the maximum levels were reached at the end of the wet season, typically in November. The lowest ground-water levels have generally been recorded at the end of April 1979 for wells west of the system - though some wells close to the system - for example, the L-Wells show their lowest levels at the end of March 1979.

Typical low water levels ranged from elevation 0.5 feet at Well L-2 near L-31E to elevation -1.0 at Well G-35 along Old Card Sound Road. These low levels represented falls from the previous high water levels observed typically in November of 1.9 feet and 2.6 feet, respectively. The low water level in G-35 is the

lowest observed since the monitoring program began in early 1972, although most wells experienced similar low levels in 1975.

At this site the normal range of water levels from wet season to dry season is about two feet; this normal value has been exceeded along Tallahassee Road, whereas the range measured this season in the L-wells is typically 1.75 feet.

4.2 GROUND-WATER TEMPERATURES

In general, the ground-water temperatures west of the system have continued to be normal. Seasonal response to temperatures continue to be most notable in the upper 10 to 15 feet of the aquifer and reflect changes in average air temperatures. Such seasonal influences are particularly notable in wells adjacent to surface-water bodies, such as the L-Series wells. In this instance the sensitivity of the ground water to seasonal temperatures decreases markedly below elevation -15 feet, the depth of Levee 31 Borrow Canal.

The wells along the Tallahassee Road show a seasonal fall in water temperatures in January and February of 2° to 5° C, with a subsequent gradual recovery. The temperature fluctuations, most pronounced at -15 feet MSL, are generally less severe than in previous years. This seems due to the warmer than average winter months, perhaps coupled with less recharge by cooler water from winter rains. The temperatures recorded in these wells are within the same general range as seen over the past several years, excluding the abnormally cool temperatures recorded in early 1978.

In the L-wells the temperatures at -15 MSL show a fall in temperature with a low occurring in February. This seasonal variation has been greatest in Well L-6 where the temperature fell during the winter from 32°C to 20°C. This low temperature is attributed to the cooling of the seawards-flowing fresh water as it traversed L-31 Borrow Canal.

At the lower levels in the G-wells, temperatures have remained within the normal range of 23°C to 25°C and show typically a 1.5°C or less variation during these past six months. In the lower levels (elevation -30 and -45 feet) of the L-Series wells temperatures typically increased 0.4° to 2.0°C from January to May and then, except for Wells L-2 and L-6 (elevation -30) decreased 0.4° to 1.4°C by June 1. With these variations the temperatures at these levels still lie within the normal range of 24°C to 26°C in Wells L-1, L-4, L-5, and L-6. In Wells L-2 and L-3 the June temperatures were 26.5° to 27.6°C and represent 0.4° to 1.0°C higher values than observed in the past. These higher values most likely reflect heating from the cooling canal waters as the salt water wedge moves inland in response to the low water levels of the dry season.

The X-Series wells continue to show high temperature ground waters (about 32° - 35°C) at elevation -30 feet MSL. This is due to the physical presence of canal waters.

Some of the Interceptor Ditch wells show moderate temperature increases during the periods when adjacent sections of the Interceptor Ditch are being pumped.

4.3 GROUND-WATER SALINITIES

Ground-water salinities have, in general, followed seasonal patterns over the past six months. The reestablishment of a more typical dry season climate is clearly detectable in the salinity patterns in some wells.

In the L-wells the chlorinity of the upper level (-15 feet) in the aquifer displays a seasonal increase, the actual range being different for each individual well. In all cases the highest chlorinity concentrations in the L-wells at this level have remained below the concentrations seen in similar months in previous years, so there is no indication of long-term salinity increase in the upper, fresh part of the aquifer.

At lower levels of the L-wells, chlorinity concentrations showed a moderate increase in the early months of the year, but almost invariably reversed in May so that the June data show a downward movement after a rise of some months duration. Examination of the time-history plots illustrates this variation. At these levels, comparison of the June and January chlorinity data show a 0.5 to 1 ppt decrease in Well L-1, no change at Well L-5 and 0 to 1 ppt increase in Wells L-2, L-3, L-4, and L-6.

The G-wells along Tallahassee Road exhibited chlorinities within normal range and variation patterns and showed no long-term changes in salinity.

However, in the lower levels of Wells G-6, G-27, most of the L-wells and in the F-wells south of the Turkey Point site, a

trend toward higher salinities has developed since early 1978. In many wells the chlorinity values seen in May were the highest since 1976, whereas, the June values were typically no higher than those values measured at the height of the 1978 wet season. As noted in the January 1979 semi-annual report, salinities of the lower levels increased area-wide during the 1978 wet season in distinct contrast to previous salinity-water level relationships. The higher-than-normal tides leading to low ground-water gradients were believed responsible for that behavior. It is not clear whether the perceived trend since early 1978 is continuing or reverting back to normal levels, but it is clear that this behavior is occurring in areas uninfluenced by the presence or operation of the canal system. Consequently, we do not see the canal system as a principal contribution to this salinity increase.

5.0 SUMMARY

There has been a reestablishment of a more typical seasonal pattern, as evidenced by very low rainfalls in the dry season. The rainfall in the past six months has been lower than that recorded in the past few dry seasons and has resulted in area-wide declines in water levels.

The declines in water levels have been accompanied by increases in chlorinities, particularly at the lower levels in wells immediately west of the system, such as the L-wells.

Seasonal increases of this character are typical of earlier years, again reflecting a return to more typical wet season/dry season behavior. However, there are indications of an area-wide increase in salinity at lower depths, the cause of which is uncertain. There is no indication of such a trend in the upper part of the aquifer.

Temperature fluctuations tend to be strongly seasonal in the upper portion of the aquifer. This has again been true in all the wells, though a somewhat warmer and marked dry winter has resulted in the seasonal low not being quite so pronounced. Wells close to the system such as the X-wells and the Interceptor Ditch wells (when the ditch is being pumped) display higher temperatures, due to canal waters. Near the bottom of the L-wells some warming has been noted; this appears to have reversed during May. This is regarded as a consequence of a more pronounced dry season than in the past few years.

6.0 INTERCEPTOR DITCH OPERATION

The Interceptor Ditch and the pumping stations were constructed to be able to create an artificial seaward groundwater gradient when such a gradient did not naturally occur. Determination of a natural seaward gradient and the times the Interceptor Ditch must be pumped are defined in the following criteria:

Seaward Gradient - A natural seaward gradient exists when the Levee 31 water surface elevation (ft, MSL) is greater

than 0.2 foot higher than the water surface elevation (ft, MSL) in Cooling Canal 32.

If this criterion is not met, a natural seaward gradient still exists if the water surface elevation (ft, MSL) in Levee 31 is greater than 0.3 foot higher than the water surface elevation (ft, MSL) in the Interceptor Ditch.

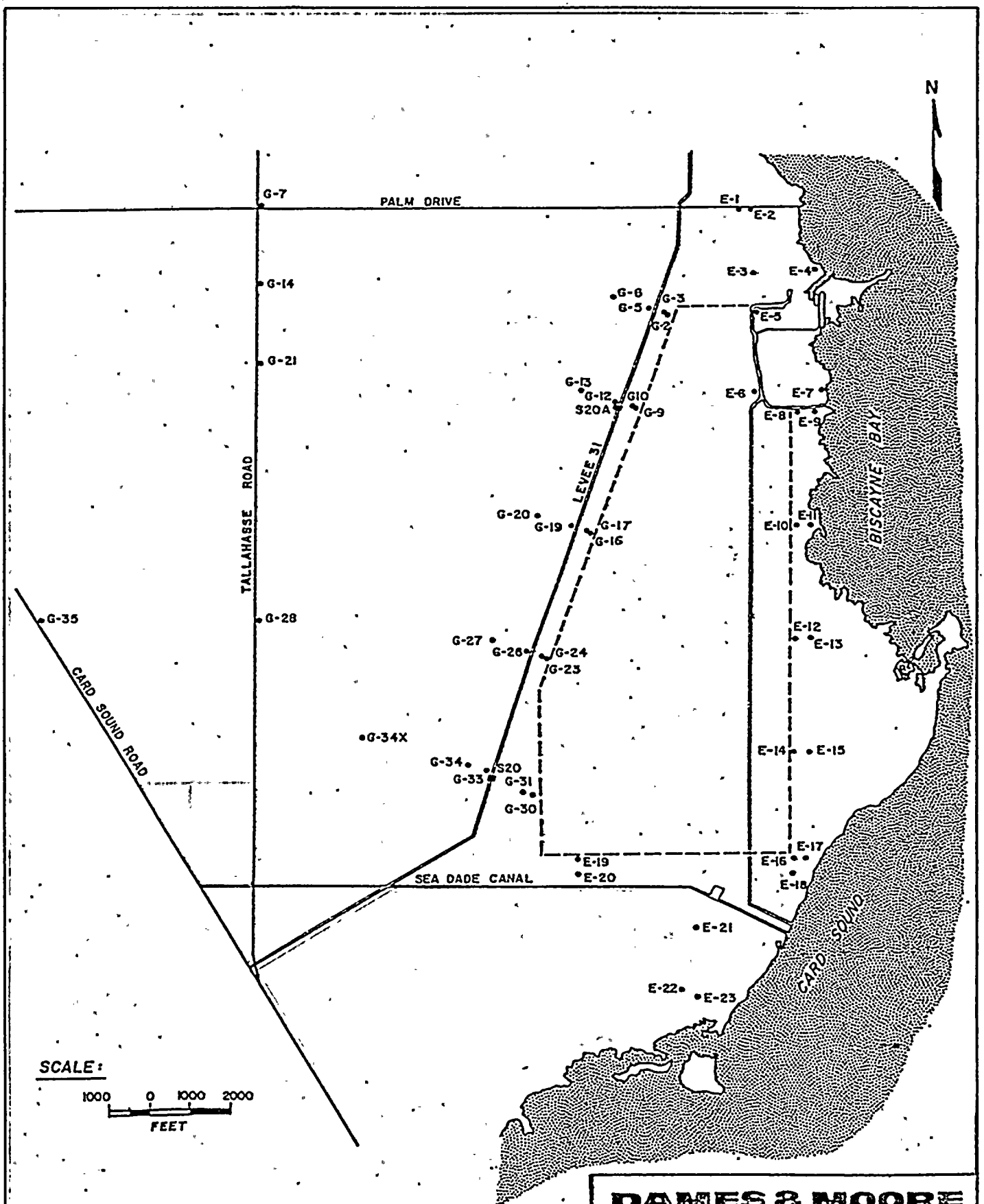
Landward Gradient - If a seaward gradient condition is not met, then pumping of the Interceptor Ditch must be initiated to artificially create such a seaward gradient. Pumping rates shall be adjusted so that the water surface elevation (ft, MSL) in the Interceptor Ditch is on the order of 0.3 foot lower than the water surface elevation (ft, MSL) in Levee 31. Pumping shall be terminated when the criteria for a natural seaward gradient is met.

(See the "Ground-Water Monitoring and Interceptor Ditch Operation Procedures" manual, dated May 6, 1976, for additional details).

Pumping of the Interceptor Ditch along Lines A and B continued from the previous report period until January 4, 1979. Pumping along Lines A and B resumed on February 5, 1979 and were joined by Line C on March 1, 1979. Pumping continued until March 8, 1979. Pumping resumed along Lines A and B on March 12, 1979 and were joined by pumping of Line C on March 16, 1979. On March 22, pumping of Lines D and E began. All lines were pumped continuously until April 26, 1979 with the exception of Lines D and E which were not pumped on April 5 and 6, 1979. Pumping was

discontinued along all lines on April 26, 1979 because a natural seaward gradient was present. As of June 30, 1979, pumping had not resumed.

A record of Interceptor Ditch pumping since the inception of the program in August 1973 is depicted graphically on the Time-History Plots in the Appendix to this report. Water levels and hydraulic gradients along Lines A through E for Levee 31E borrow canal, the Interceptor Ditch, and Cooling Canal 32 are presented on Plates 48 through 52.



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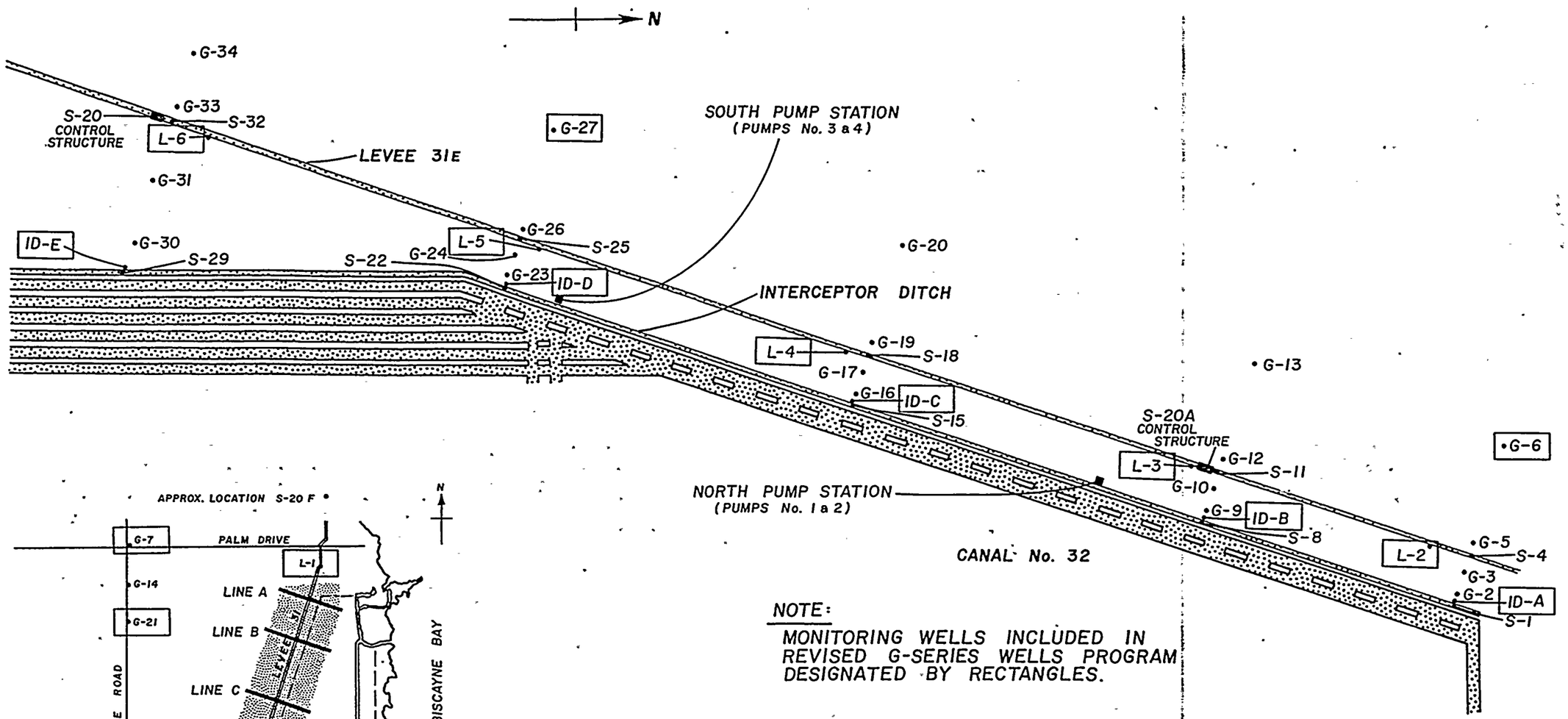
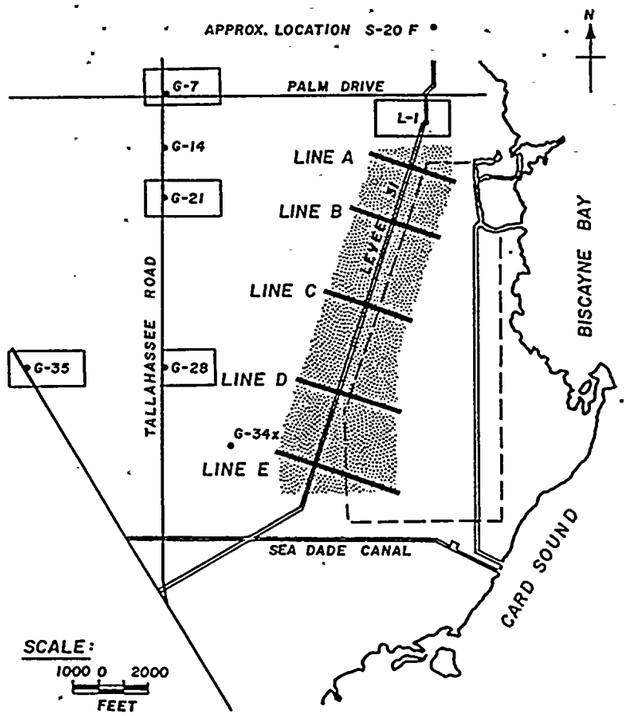
WELL LOCATIONS

0459804726(1/79) FIGURE -1





NOTE:

MONITORING WELLS INCLUDED IN REVISED G-SERIES WELLS PROGRAM DESIGNATED BY RECTANGLES.

SCALE

2000' 0 1000'

FEET

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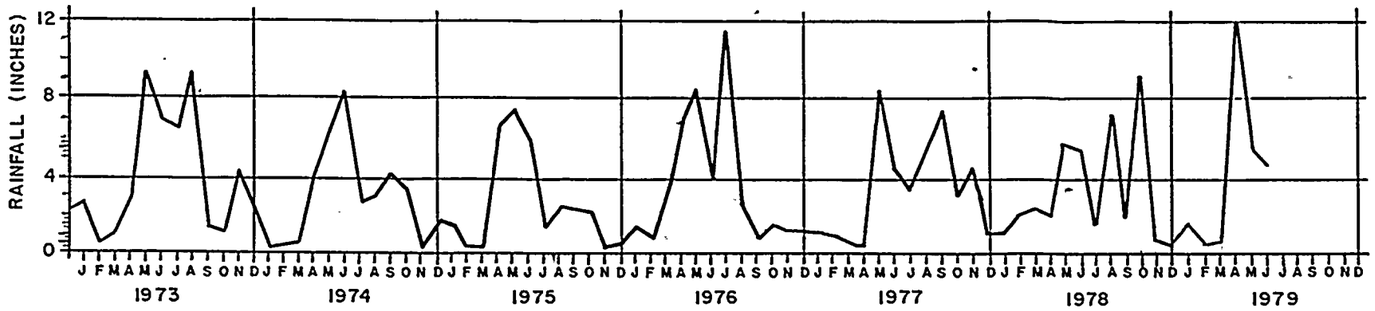
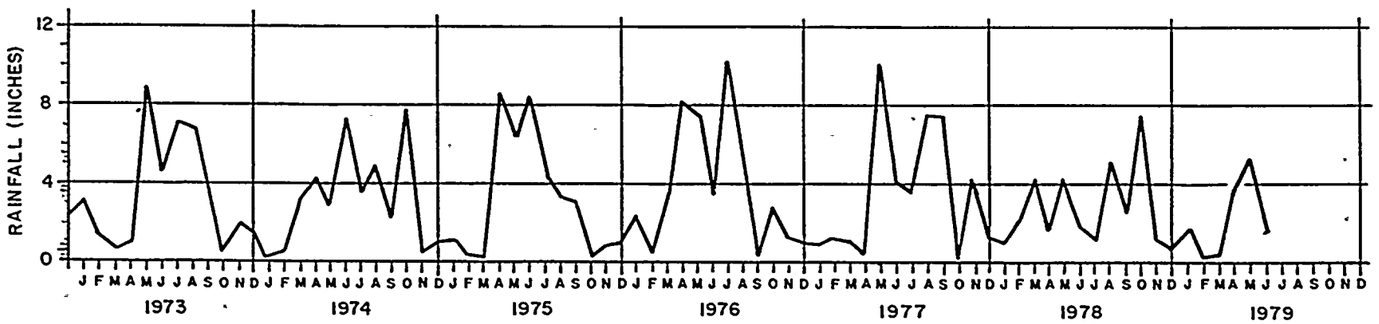
PLOT PLAN

0459804726(1/79) FIGURE 2



STRUCTURE 20



STRUCTURE 20F

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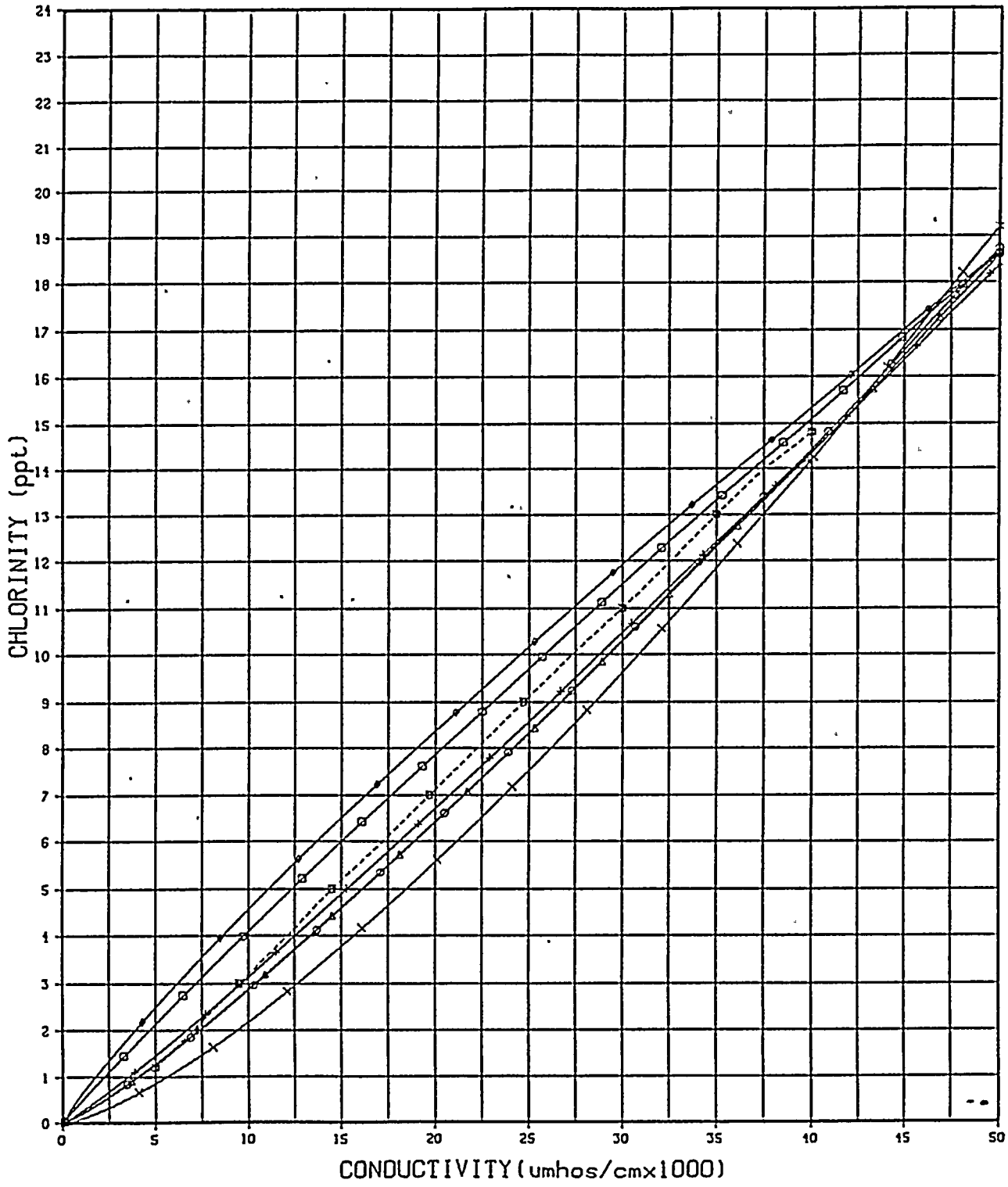
YEARLY RAINFALL
TURKEY POINT, FLORIDA

0459804726(7/79) FIGURE 3



LEGEND

- o JANUARY, 1979
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◦ JUNE, 1979
- USGS

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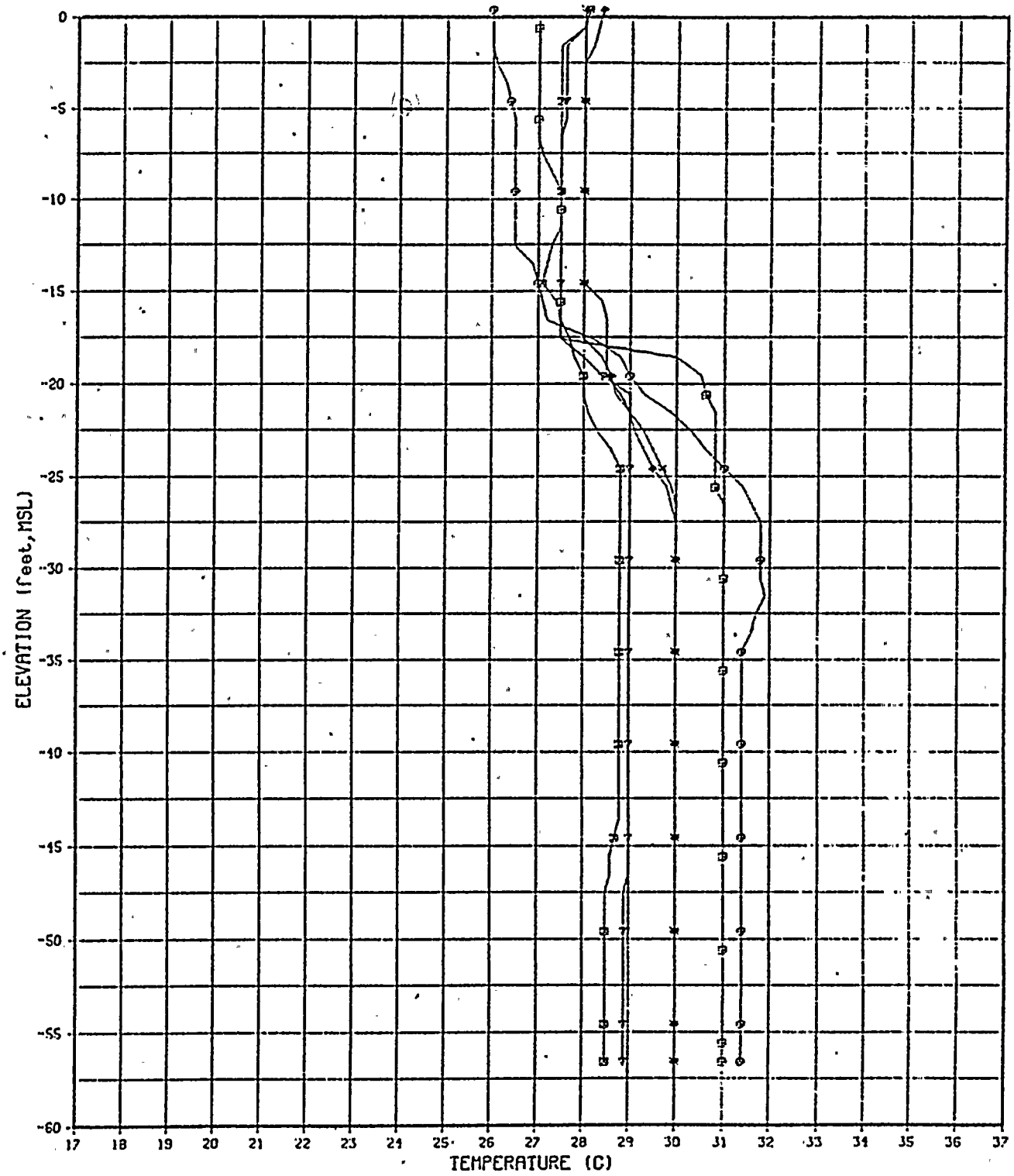
CONDUCTIVITY-CHLORINITY RELATIONSHIPS G-SERIES WELLS

045980426 (7/79) FIGURE 4



LEGEND

- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

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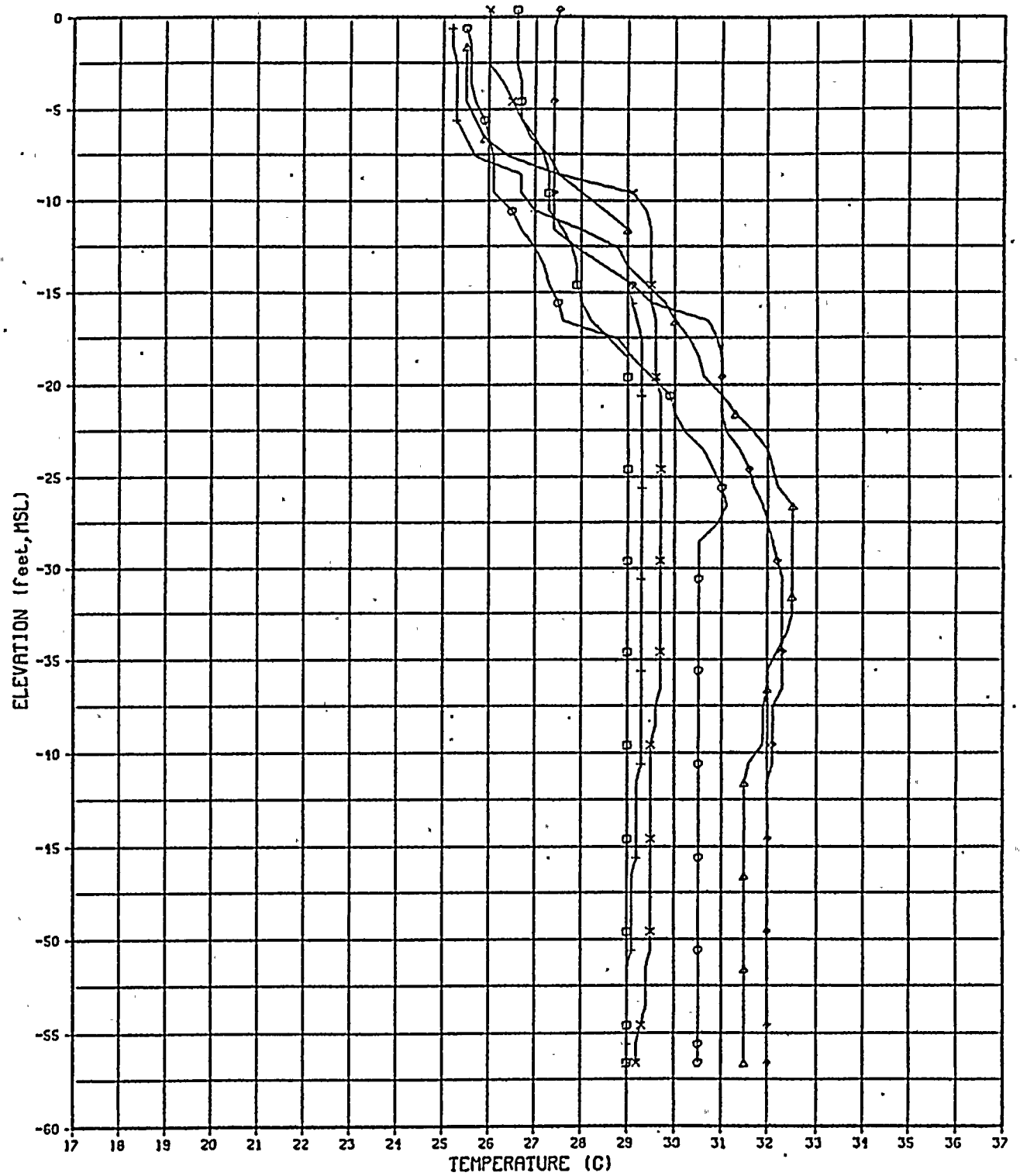
TEMPERATURE PROFILES

WELL NUMBER ID-A

0459804726 (1/79) FIGURE 5A

(a)



LEGEND

- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

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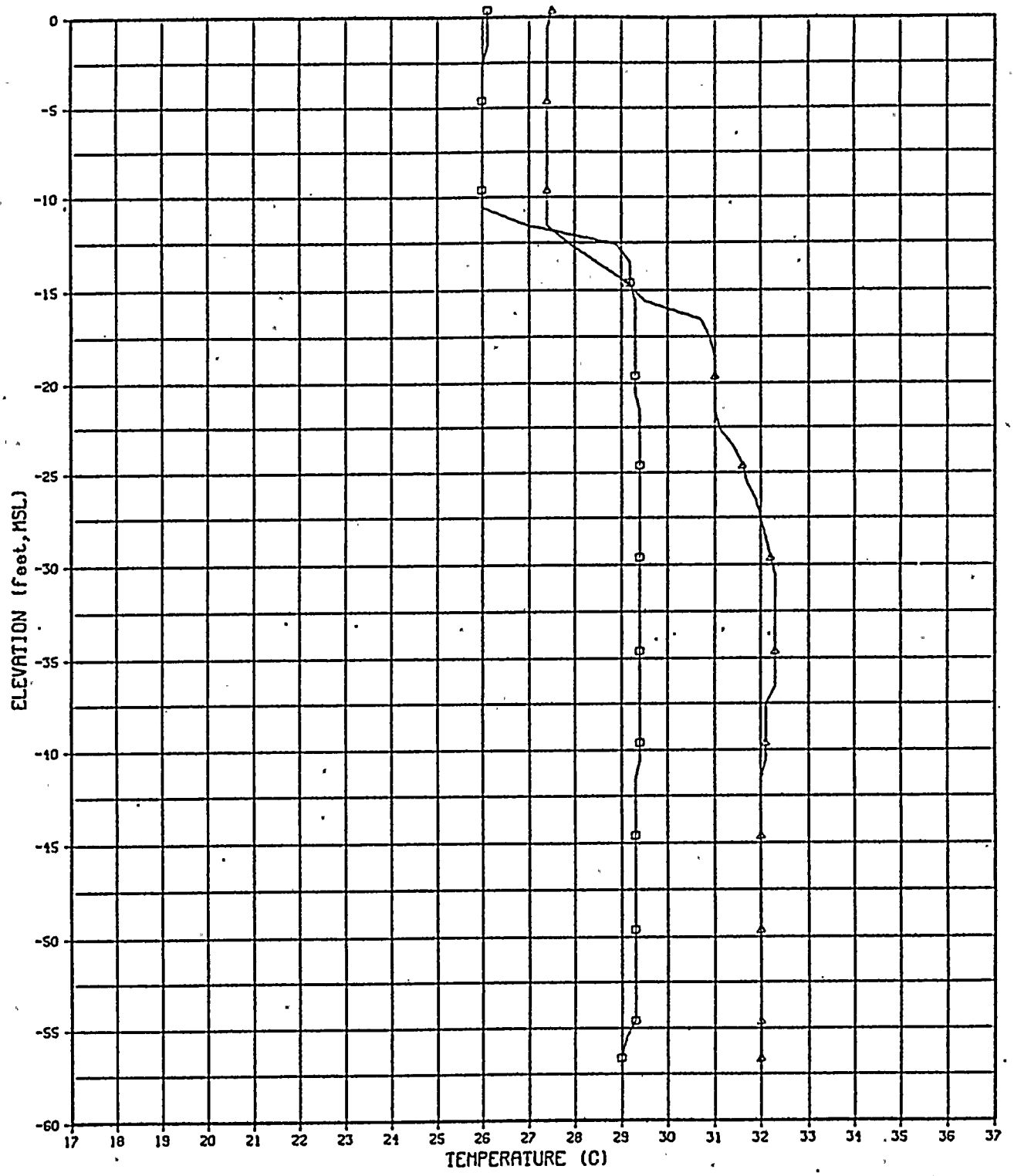
TEMPERATURE PROFILES

WELL NUMBER ID-A

04S9804726 (7/79) FIGURE 5B



LEGEND

□ JUNE, 1978

△ JUNE, 1979

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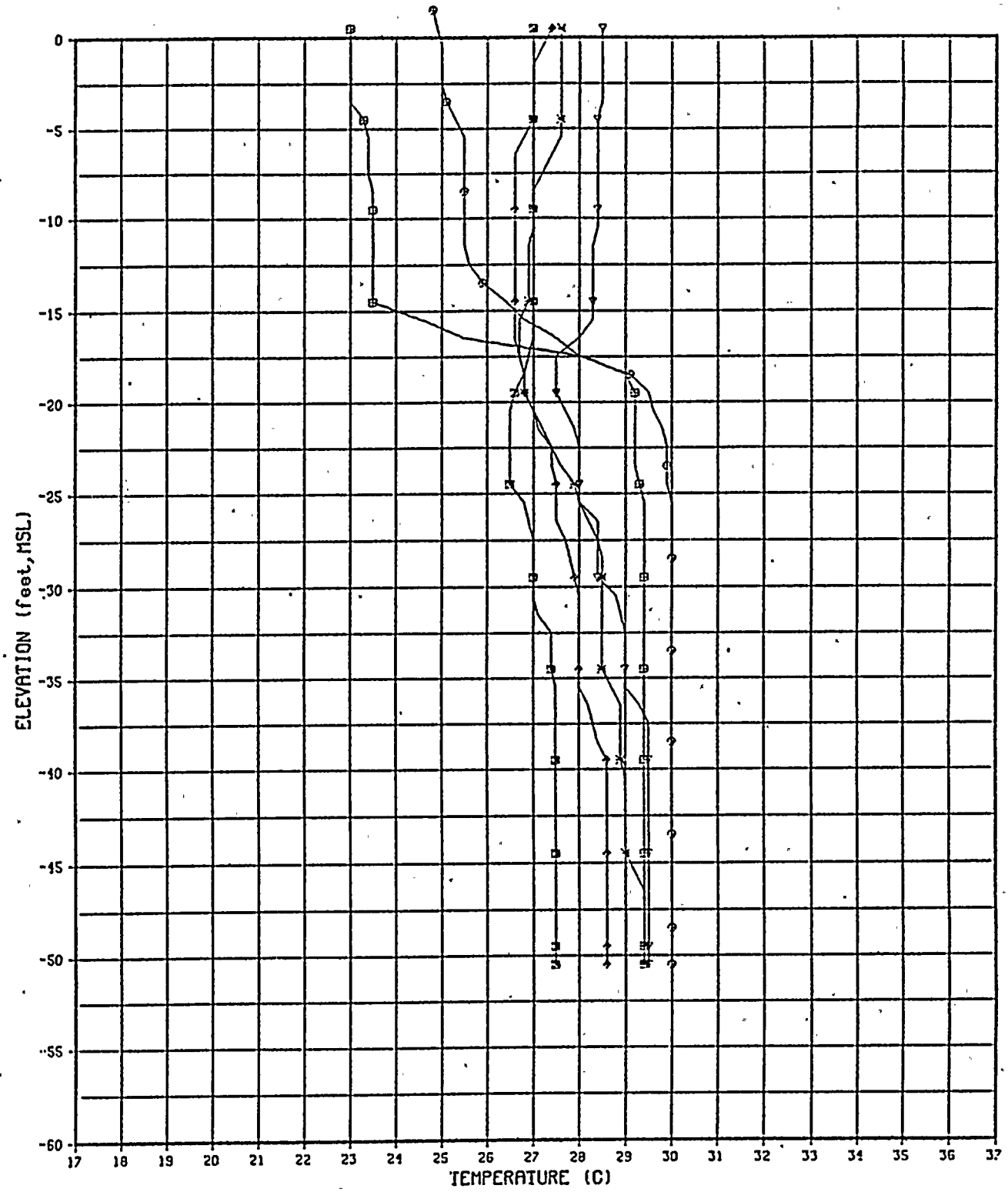
TEMPERATURE PROFILES

WELL NUMBER ID-A

0459804726 (7/79) FIGURE 5C



LEGEND

- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

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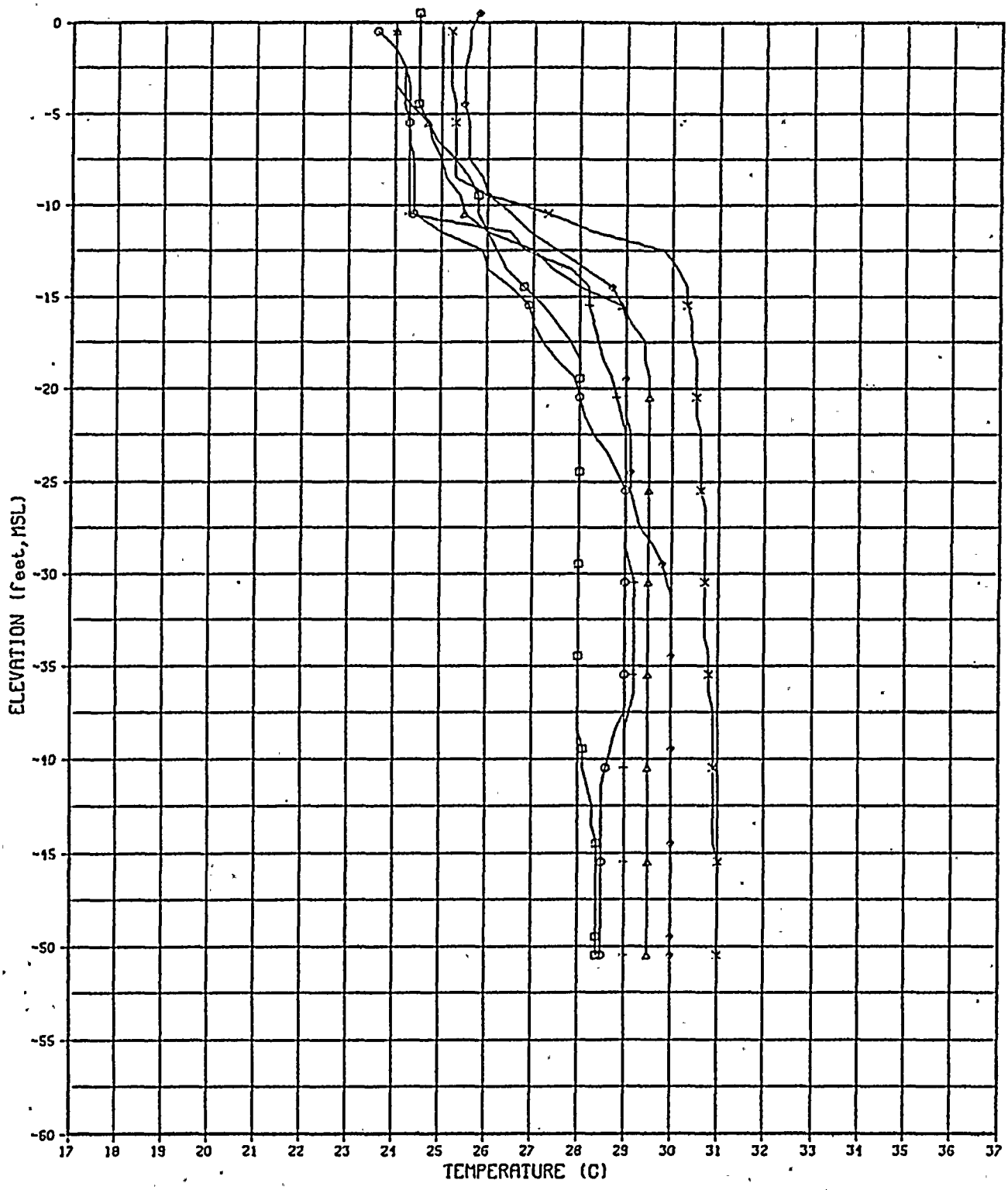
TEMPERATURE PROFILES

WELL NUMBER ID-B

0459804726 (1/79) FIGURE 6A



LEGEND

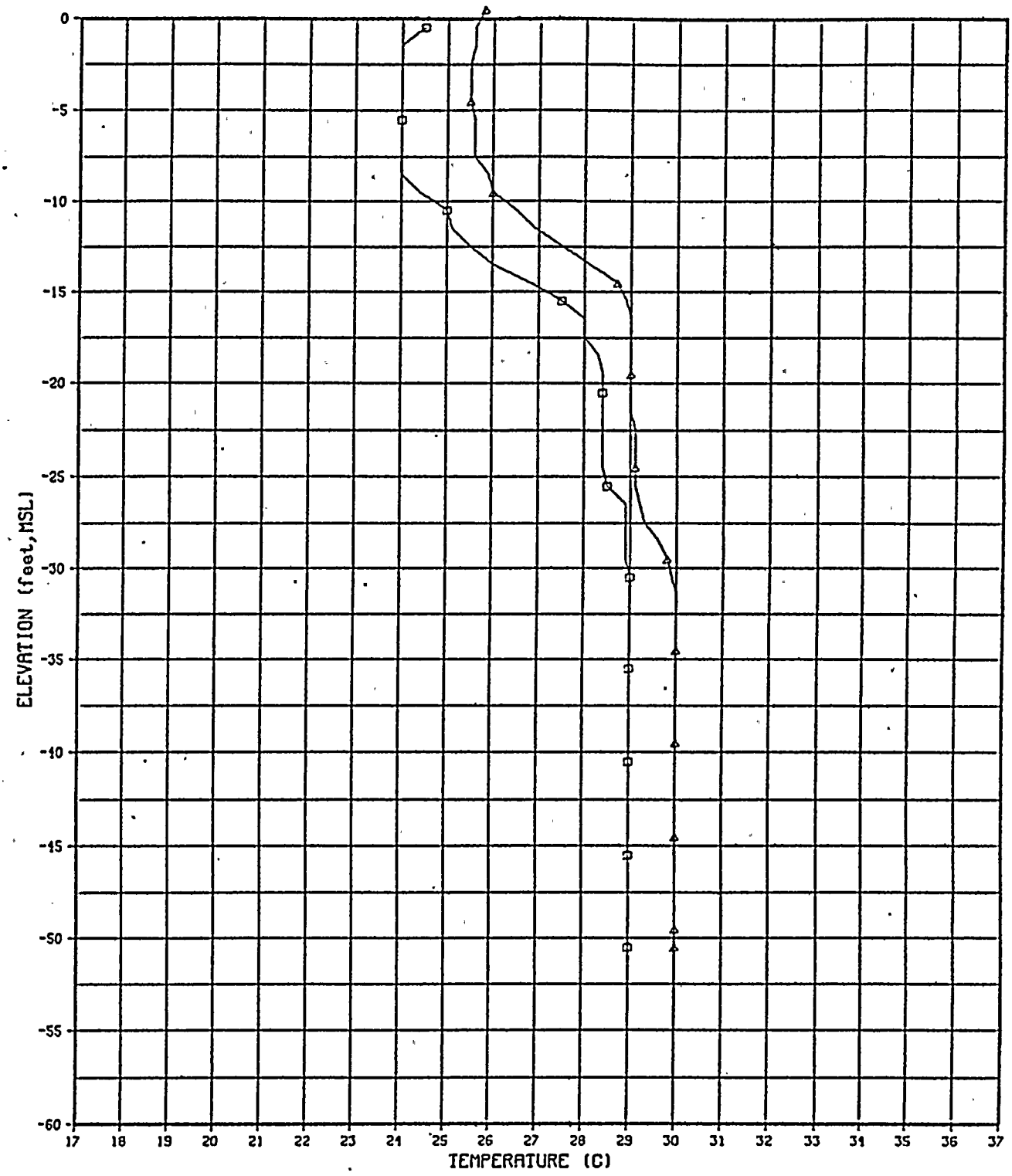
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-B

0459804726 (7/79) FIGURE 6B



LEGEND

□ JUNE, 1978

△ JUNE, 1979

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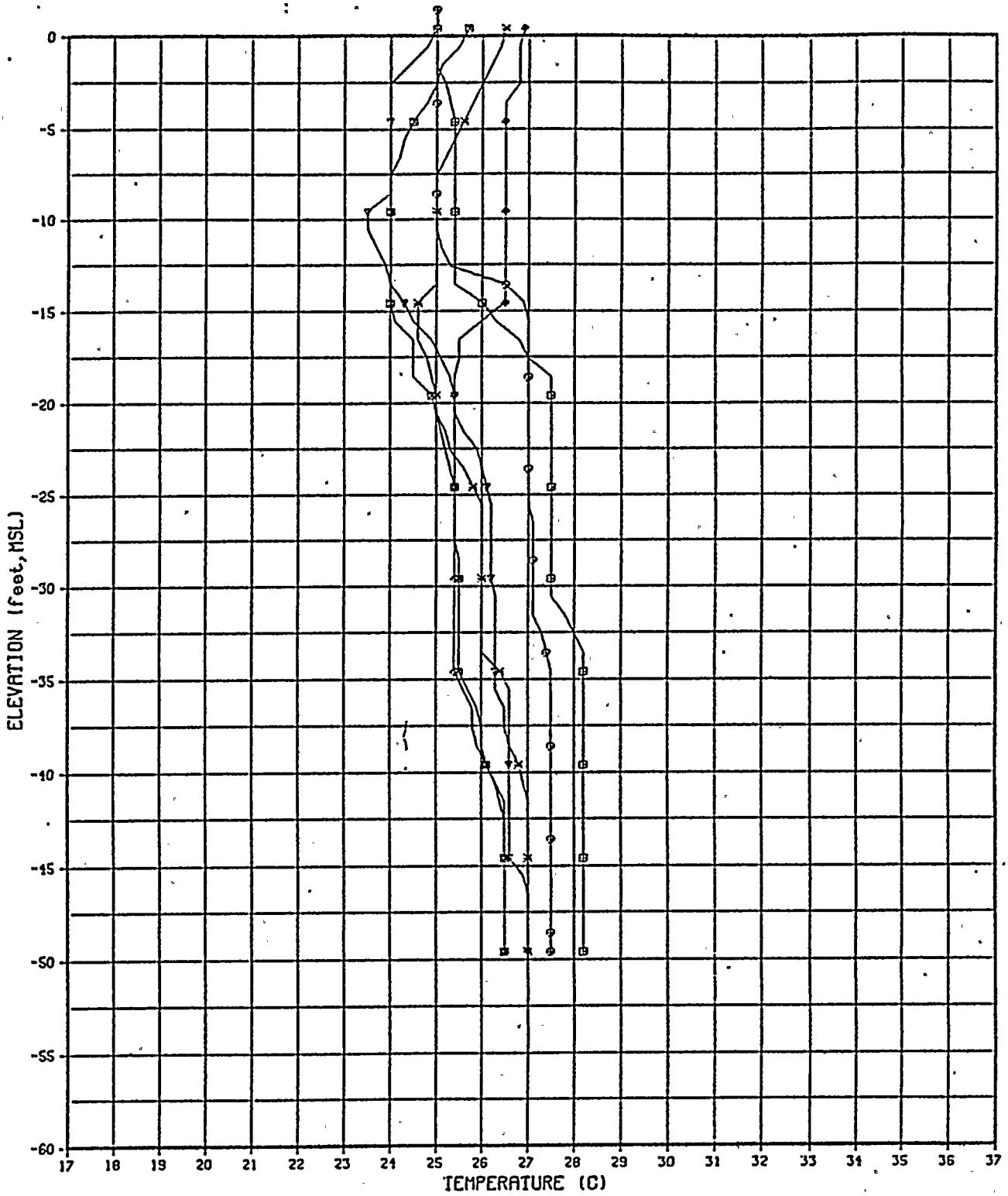
TEMPERATURE PROFILES

WELL NUMBER ID-B

0459804726 (7/79) FIGURE 6C



LEGEND

- ▽ JULY, 1978
- ◆ OCTOBER, 1978
- ⊡ AUGUST, 1978
- ⊙ NOVEMBER, 1978
- ✕ SEPTEMBER, 1978
- ⊞ DECEMBER, 1978

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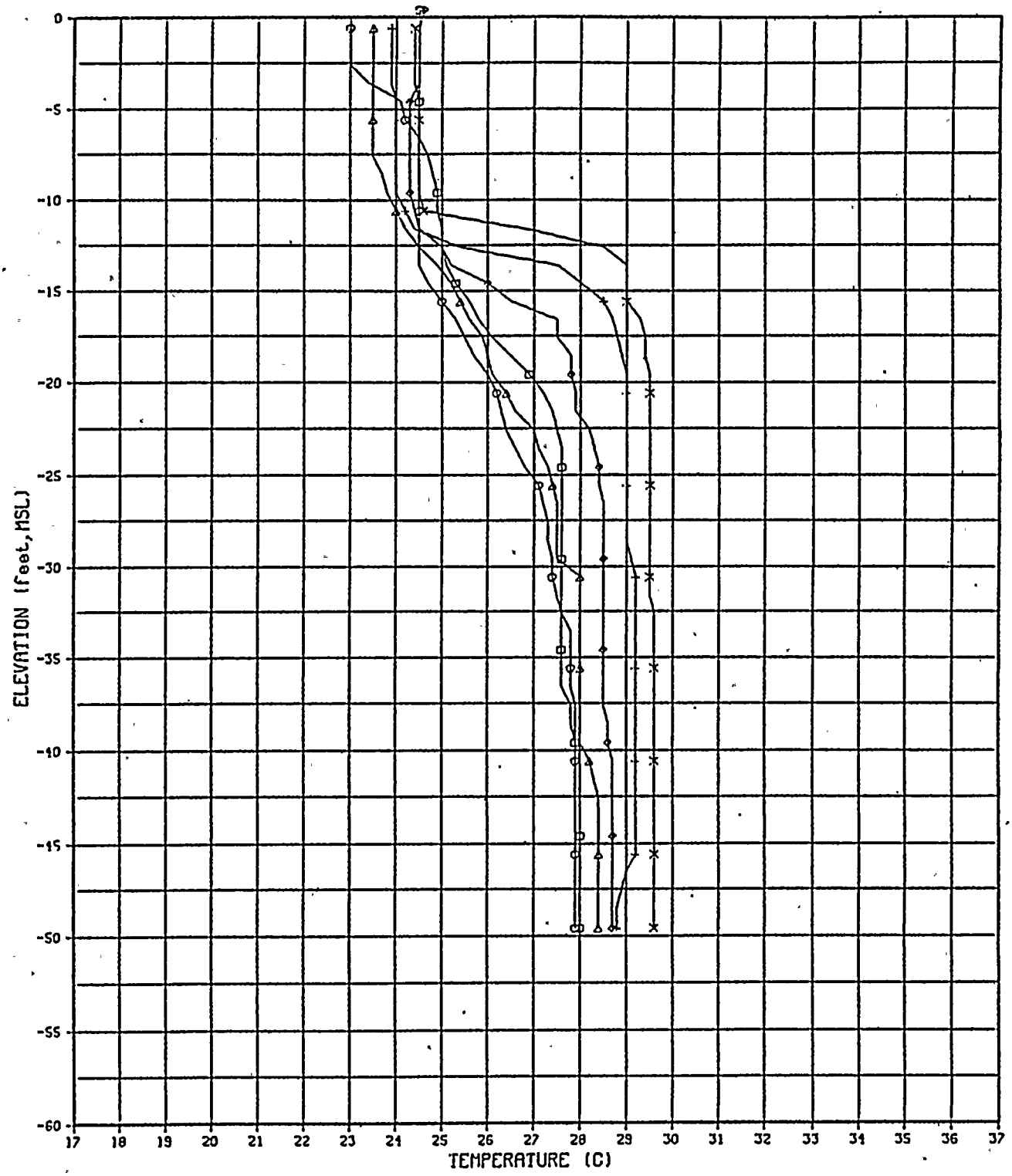
TEMPERATURE PROFILES

WELL NUMBER ID-C

0459804726 (1/79) FIGURE 7A



LEGEND

- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

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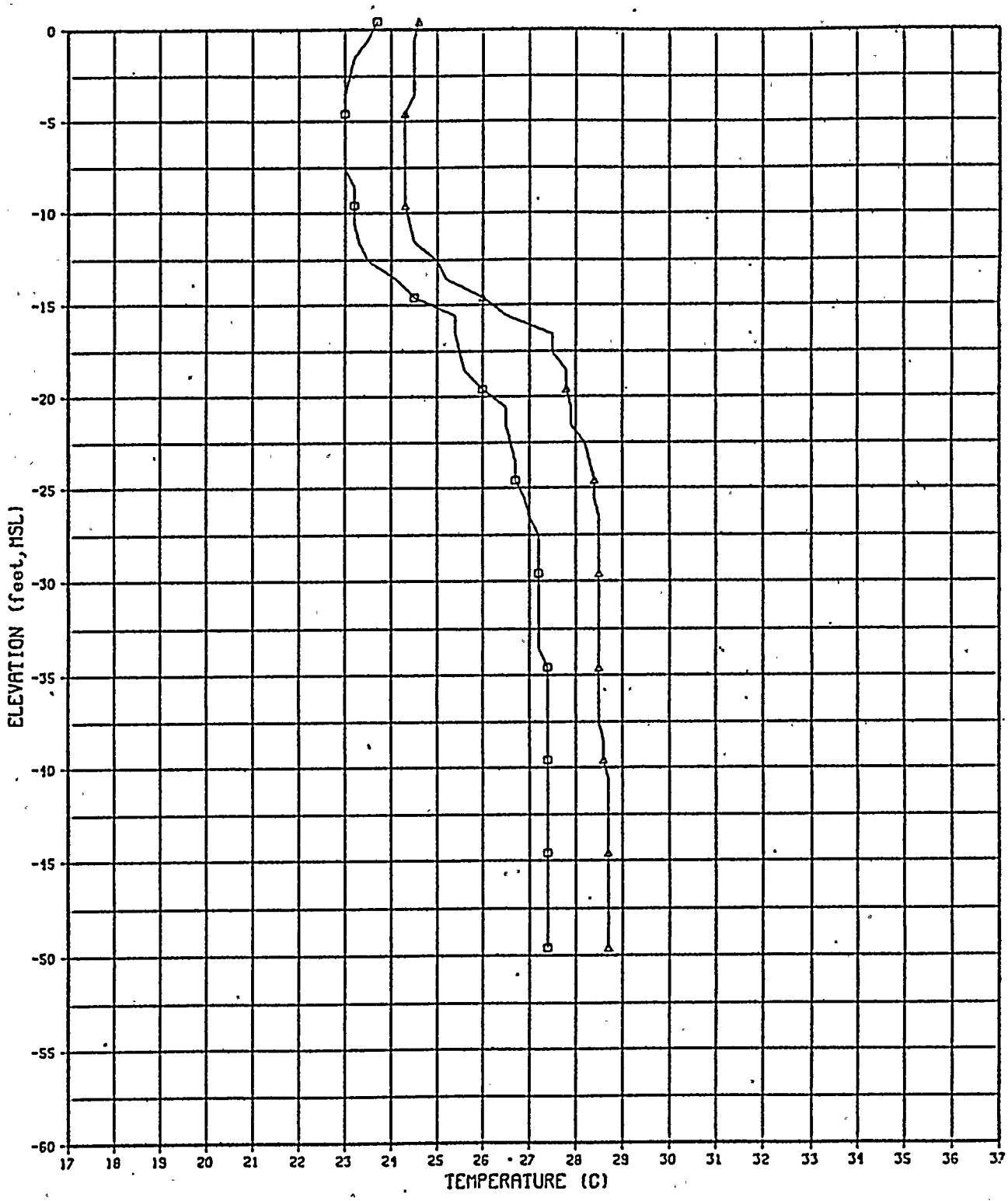
TEMPERATURE PROFILES

WELL NUMBER ID-C

0459804726 (7/79) FIGURE 7B



LEGEND

□ JUNE, 1978

△ JUNE, 1979

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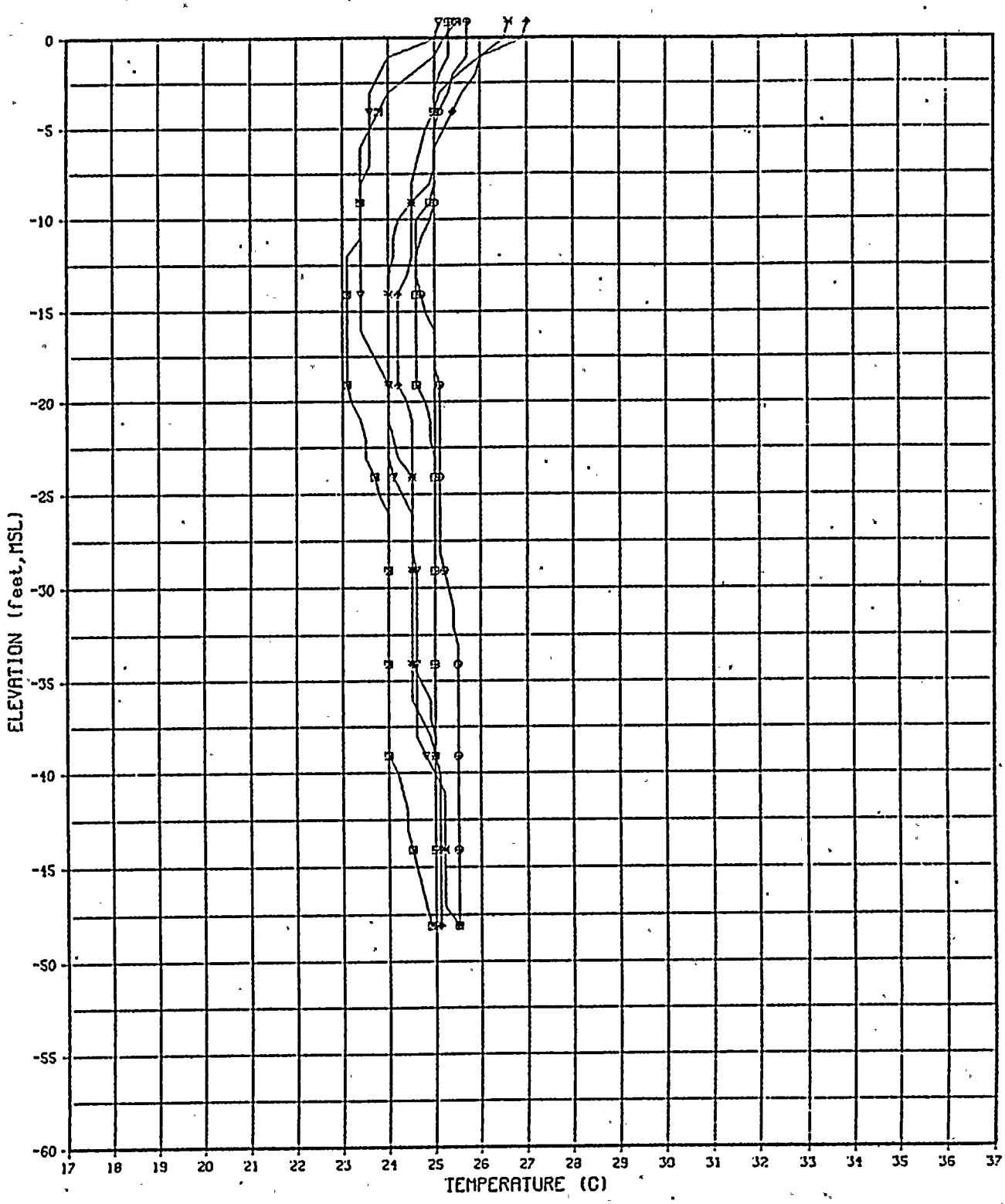
TEMPERATURE PROFILES

WELL NUMBER ID-C

0459804726 (7/79) FIGURE 7C



LEGEND

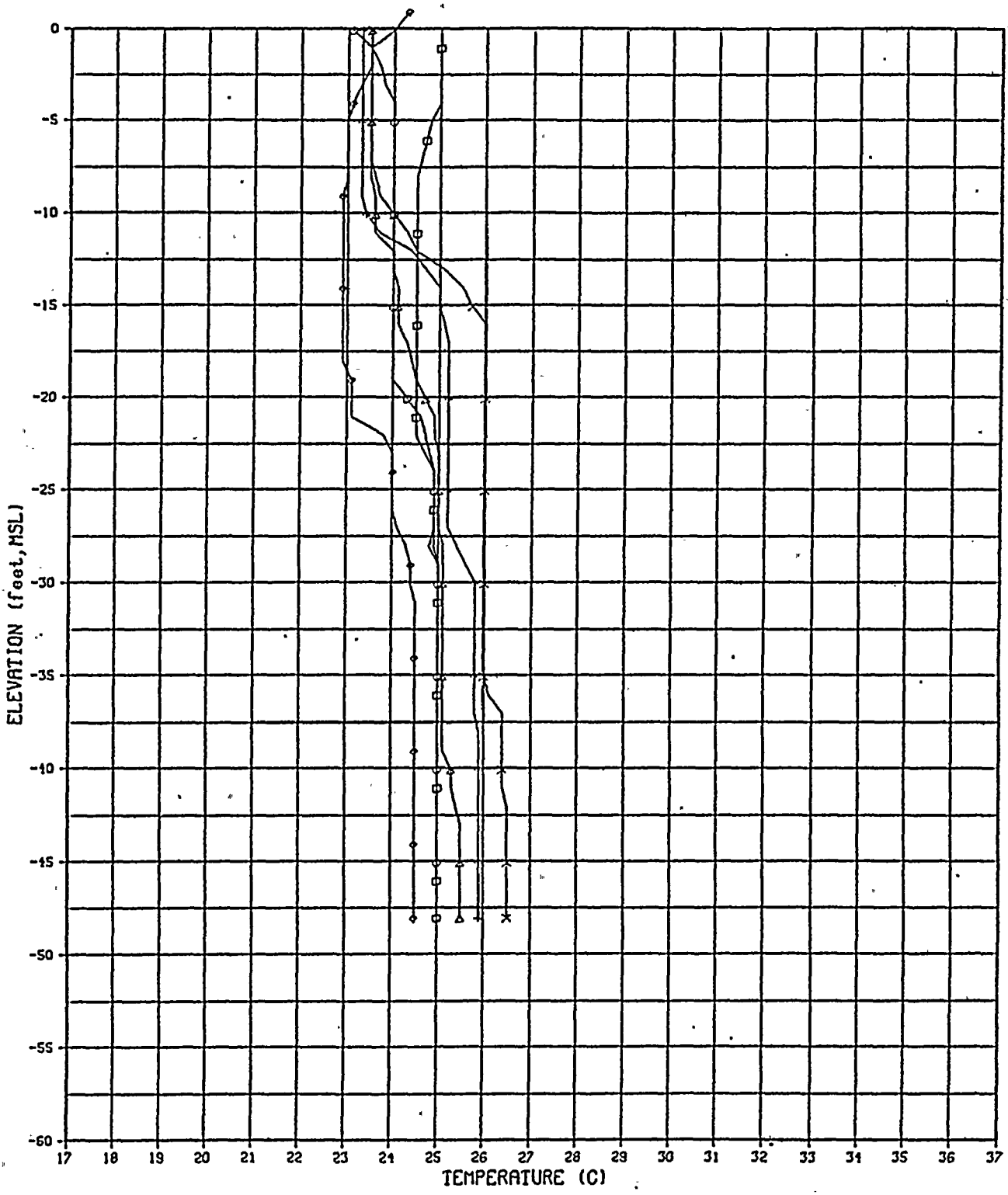
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ● NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-D

0459804726 (1/79) FIGURE 8A



LEGEND

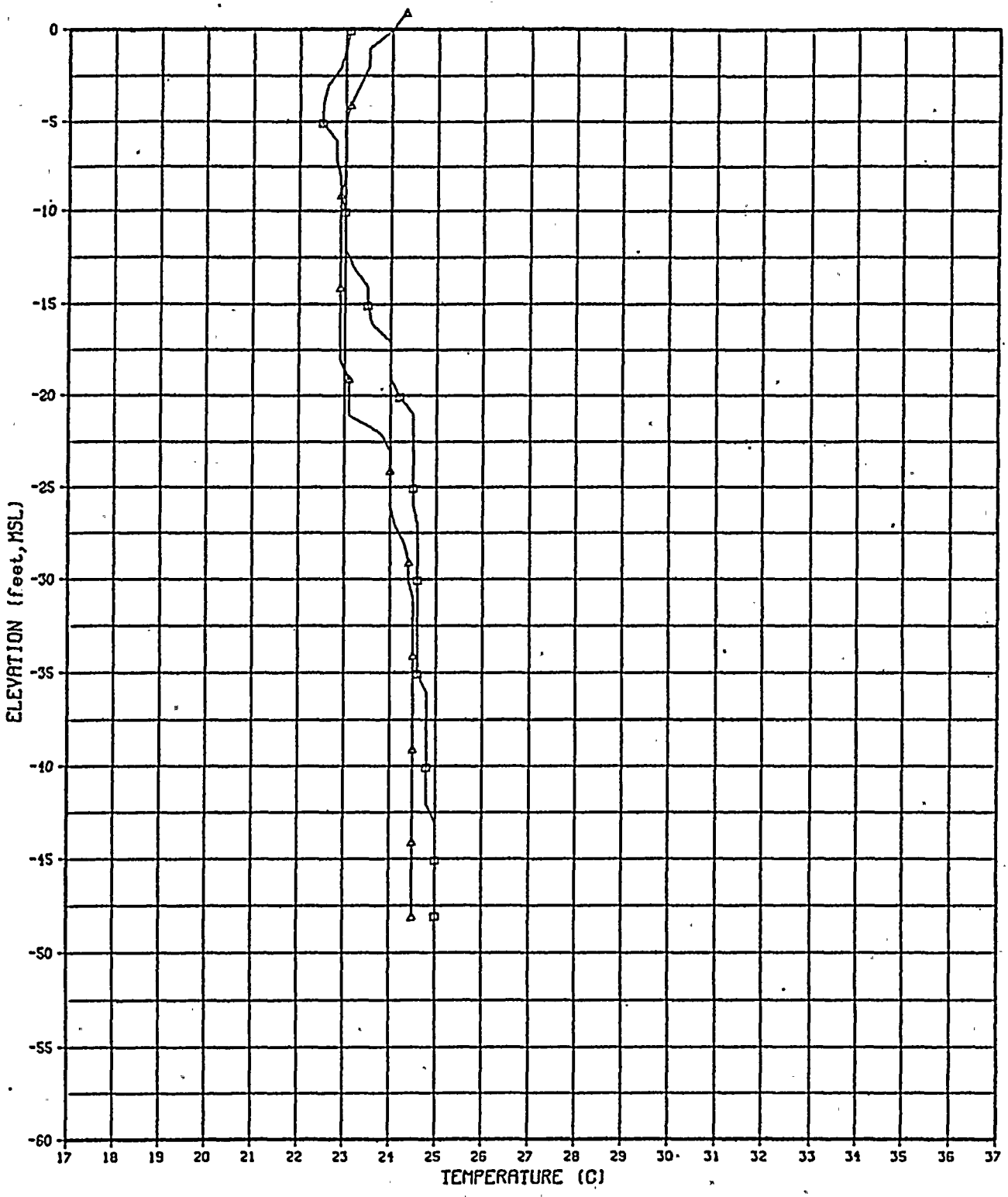
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-D

0459804726 (7/79) FIGURE 8B



LEGEND

□ JUNE, 1978

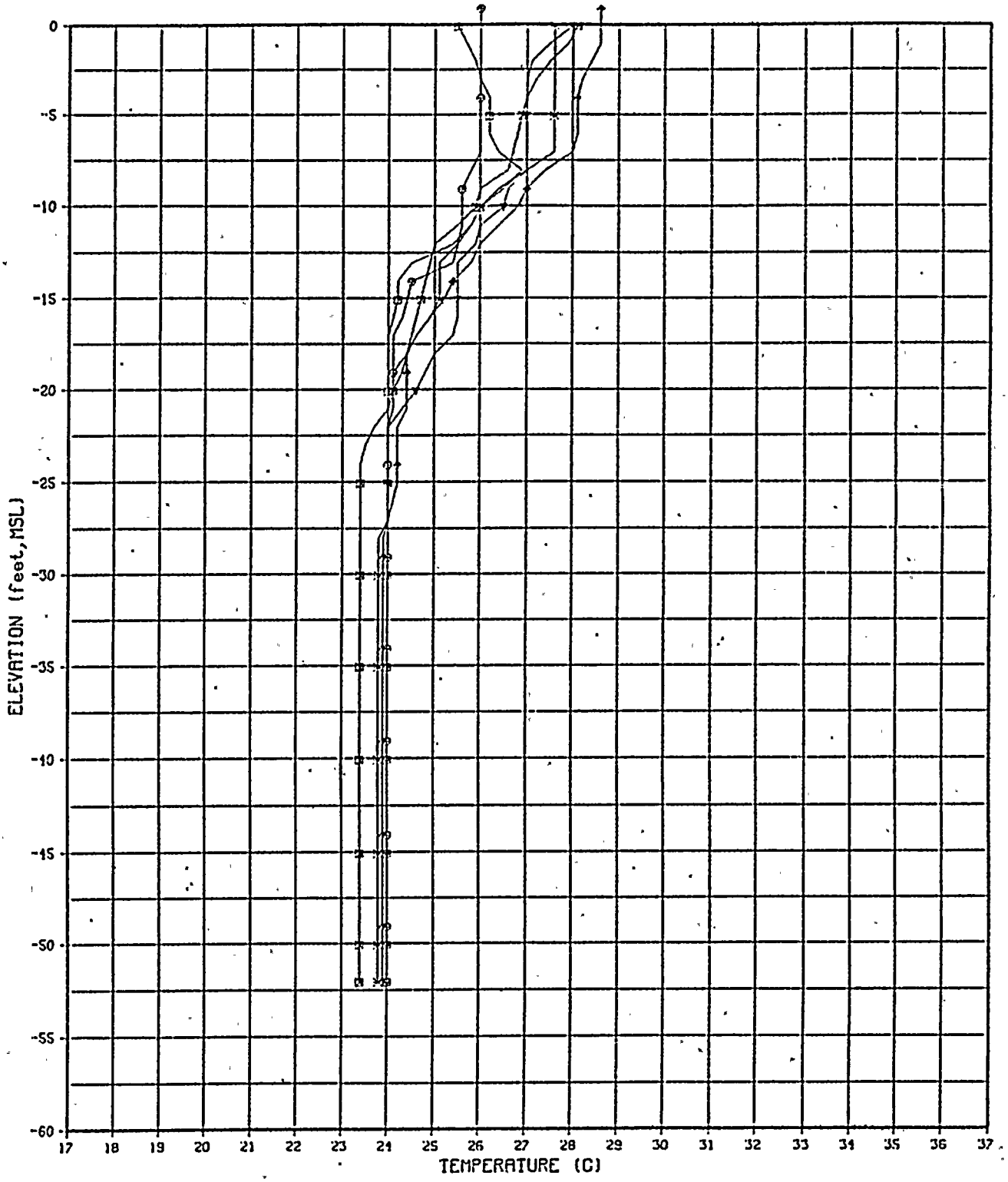
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-D

0459804726 (7/79) FIGURE 8C



LEGEND

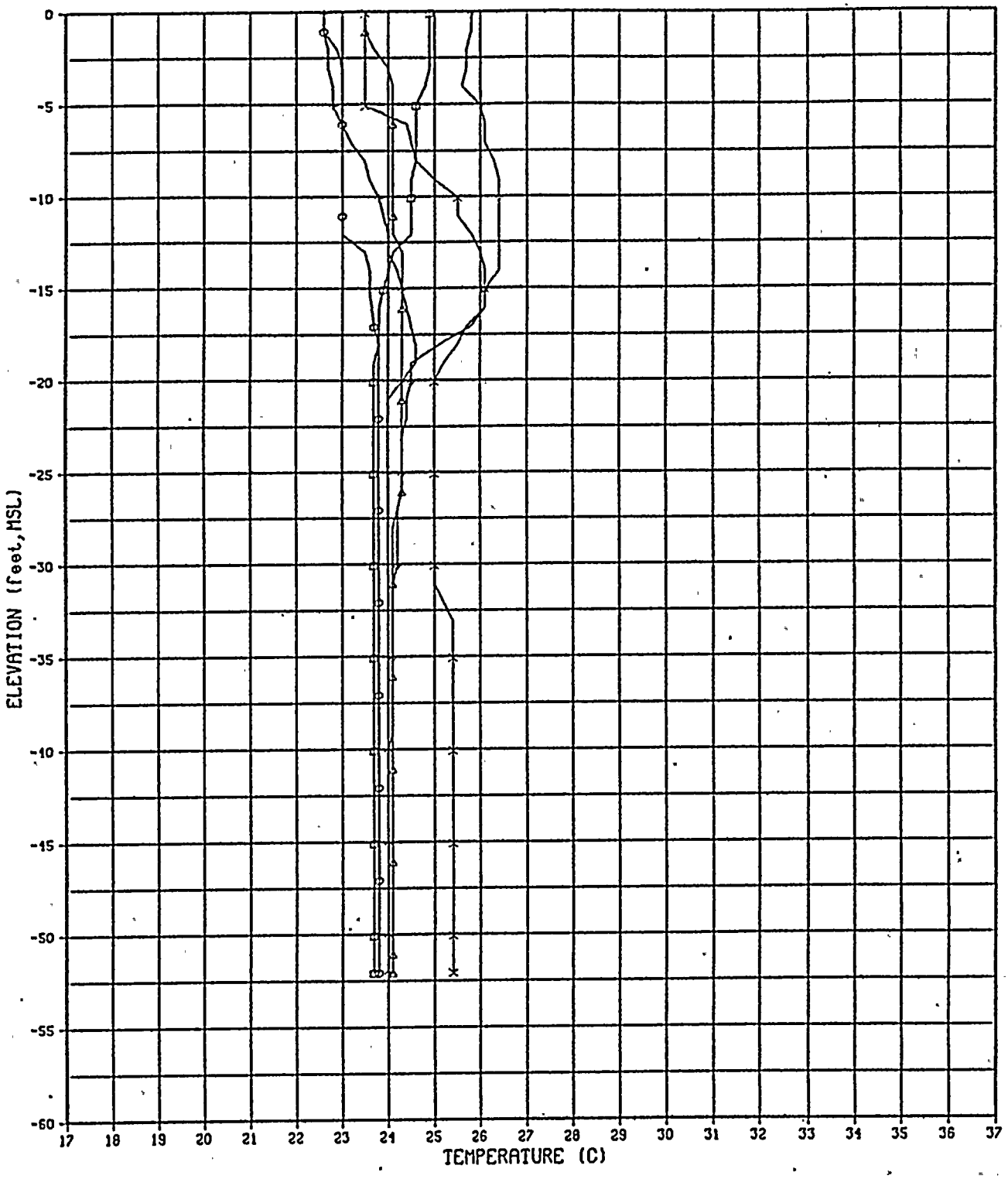
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-E

0459804726 (1/79) FIGURE 9A



LEGEND

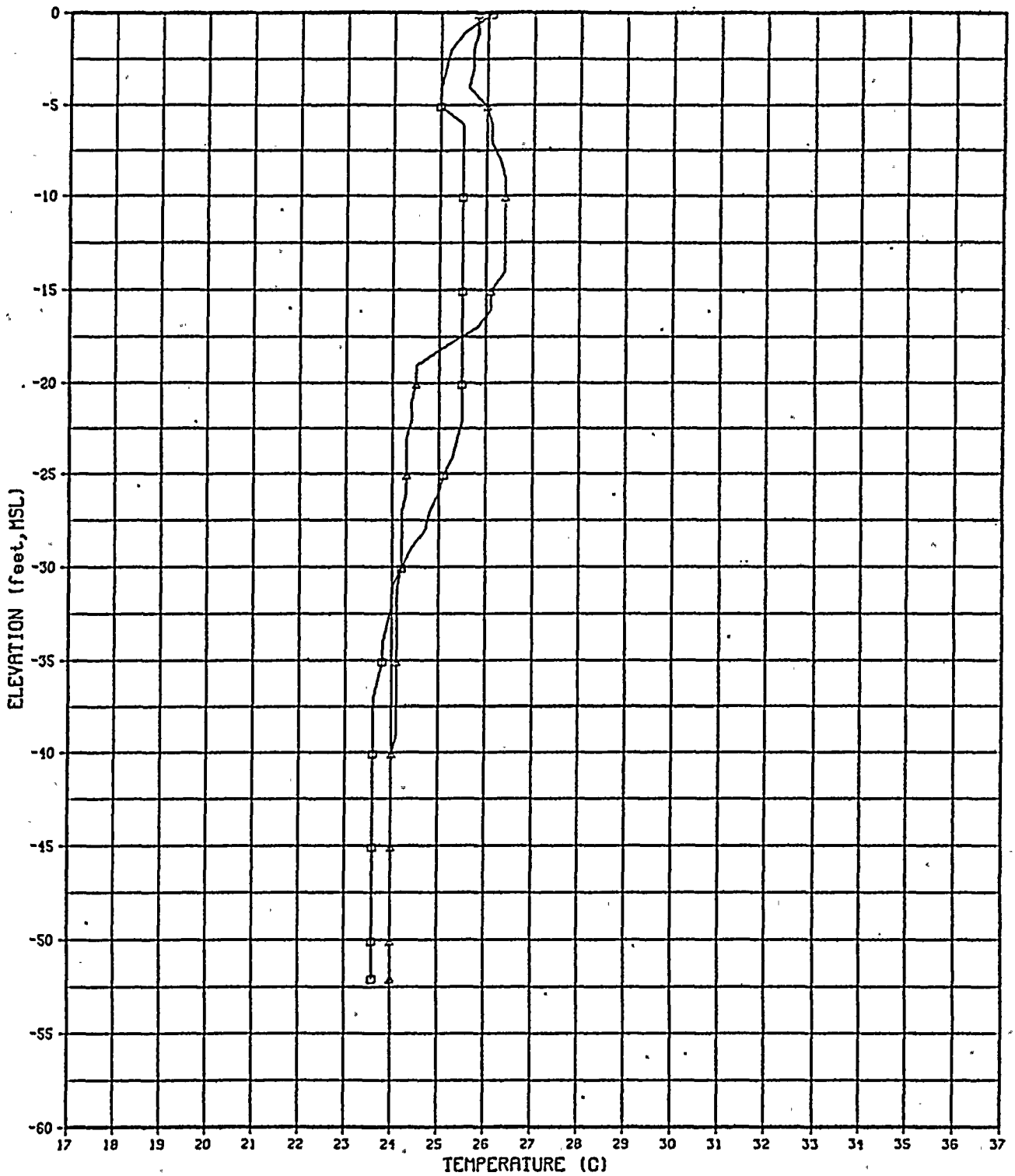
- o JANUARY, 1979
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- x MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-E

0459804726 (7/79) FIGURE 9B



LEGEND

□ JUNE, 1978

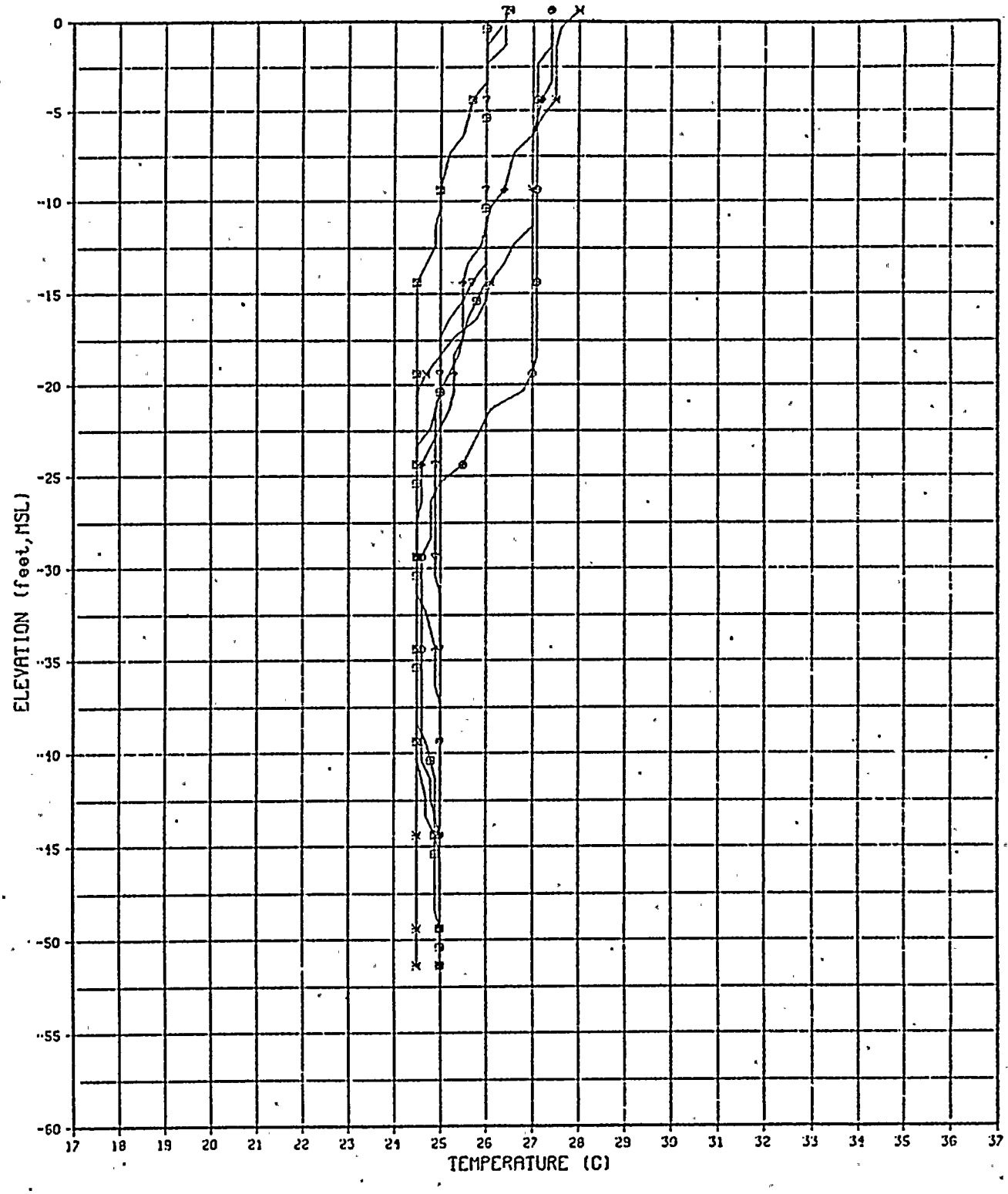
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER ID-E

0459804726 (7/79) FIGURE 9C



LEGEND

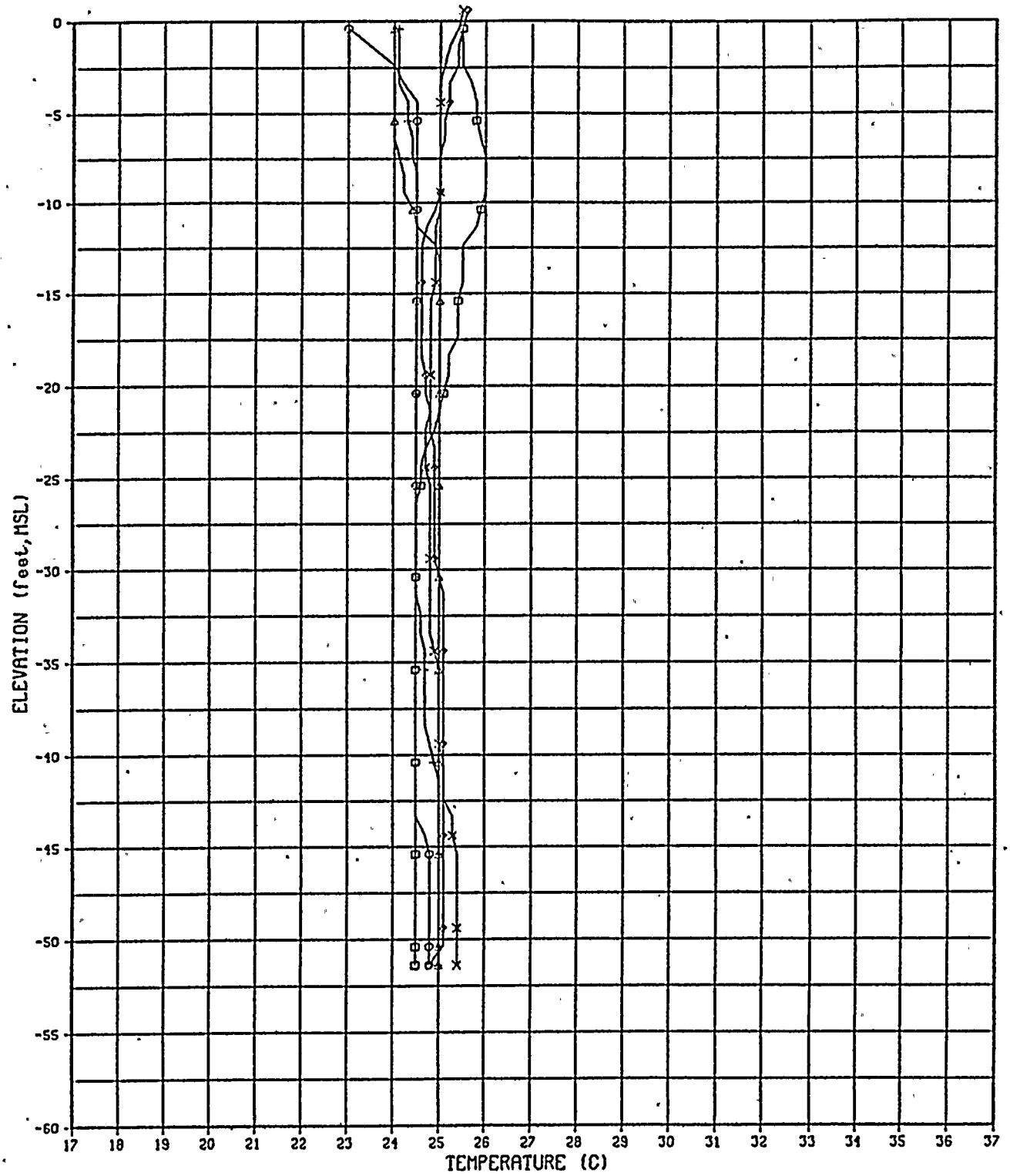
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-1

0459804726 (1/79) FIGURE 10A



LEGEND

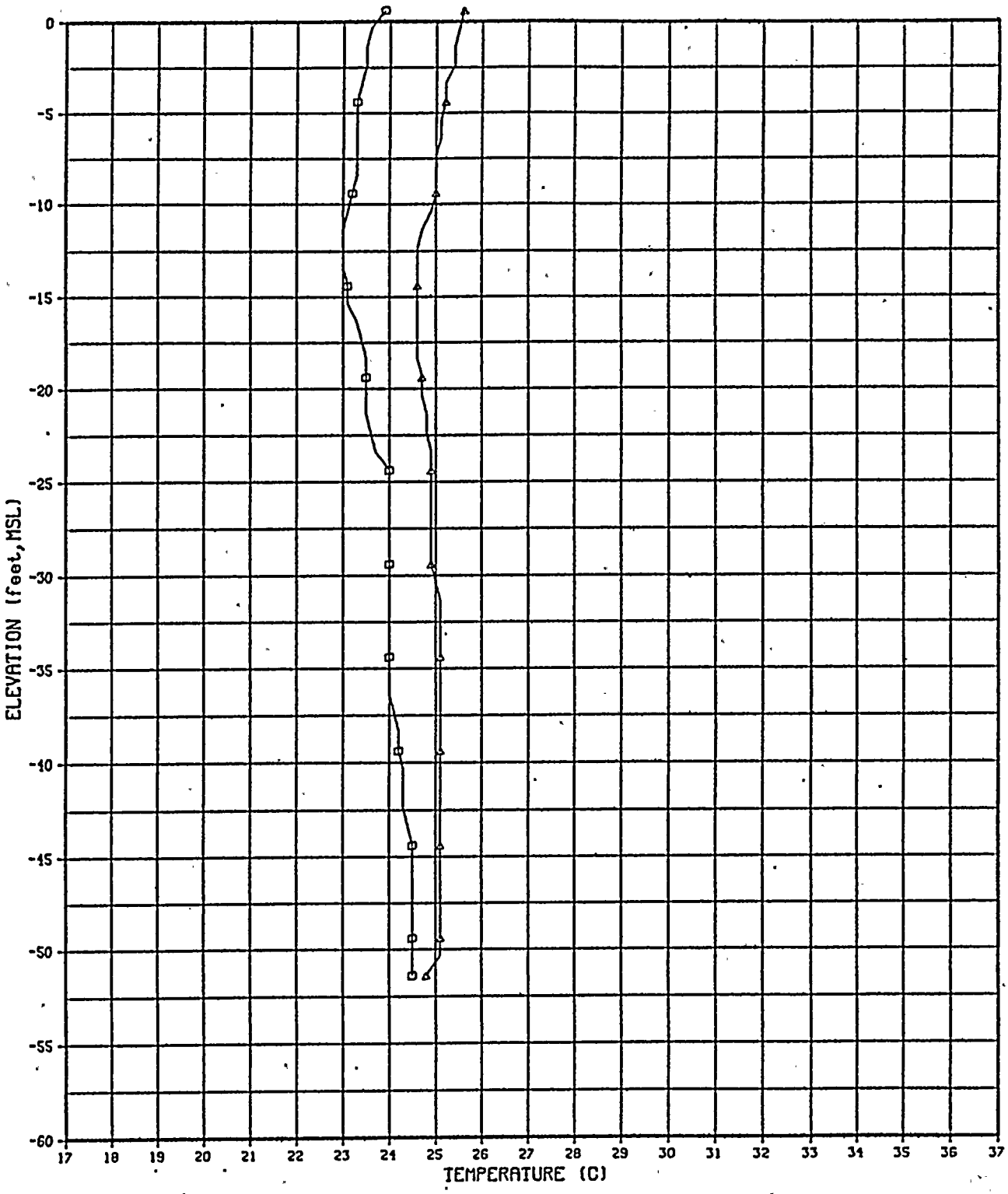
- ▫ JANUARY, 1979
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- x MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-1

0459804726 (7/79) FIGURE 10B



LEGEND

□ JUNE, 1978

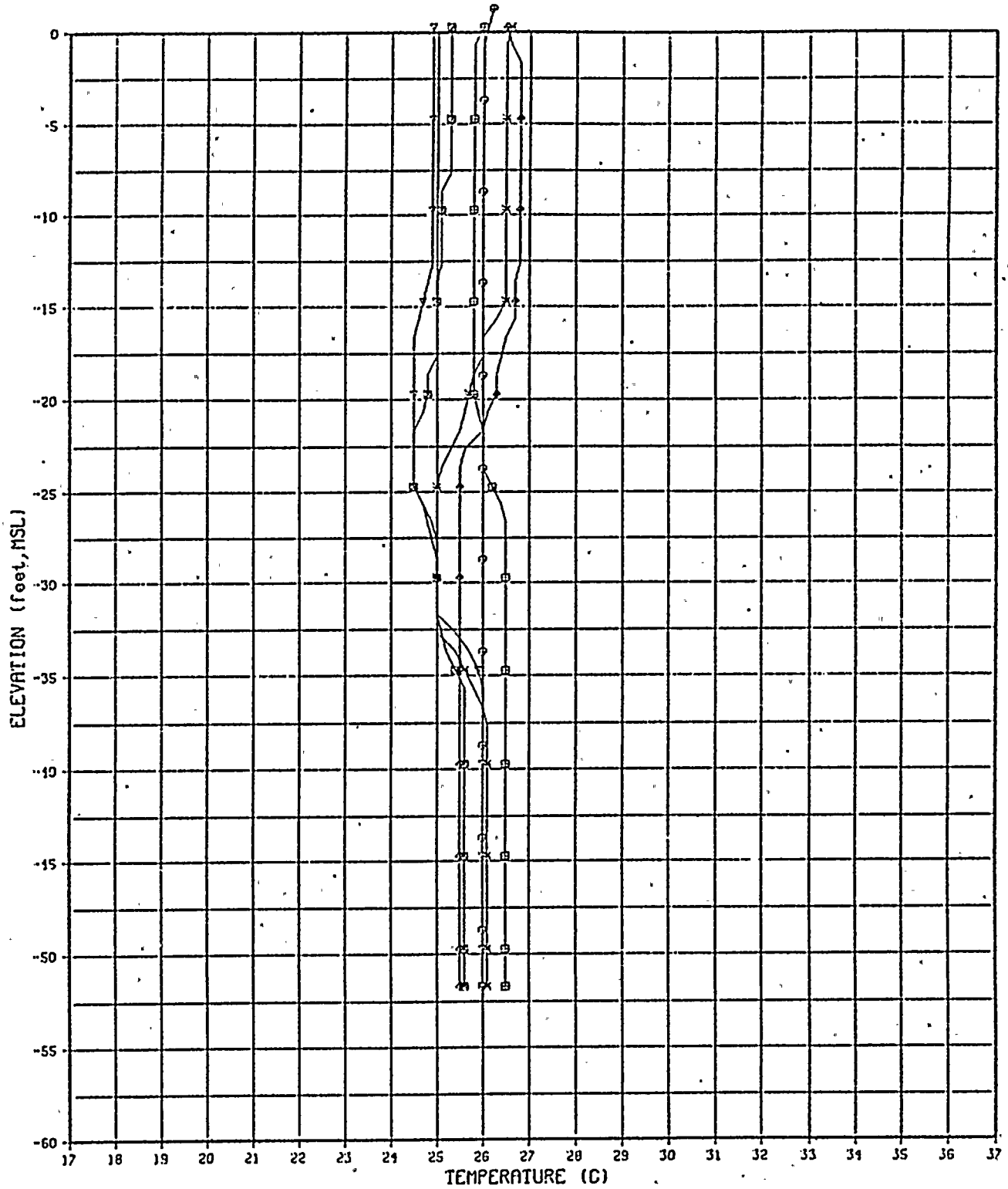
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-1

0459804726 (7/79) FIGURE 10C



LEGEND

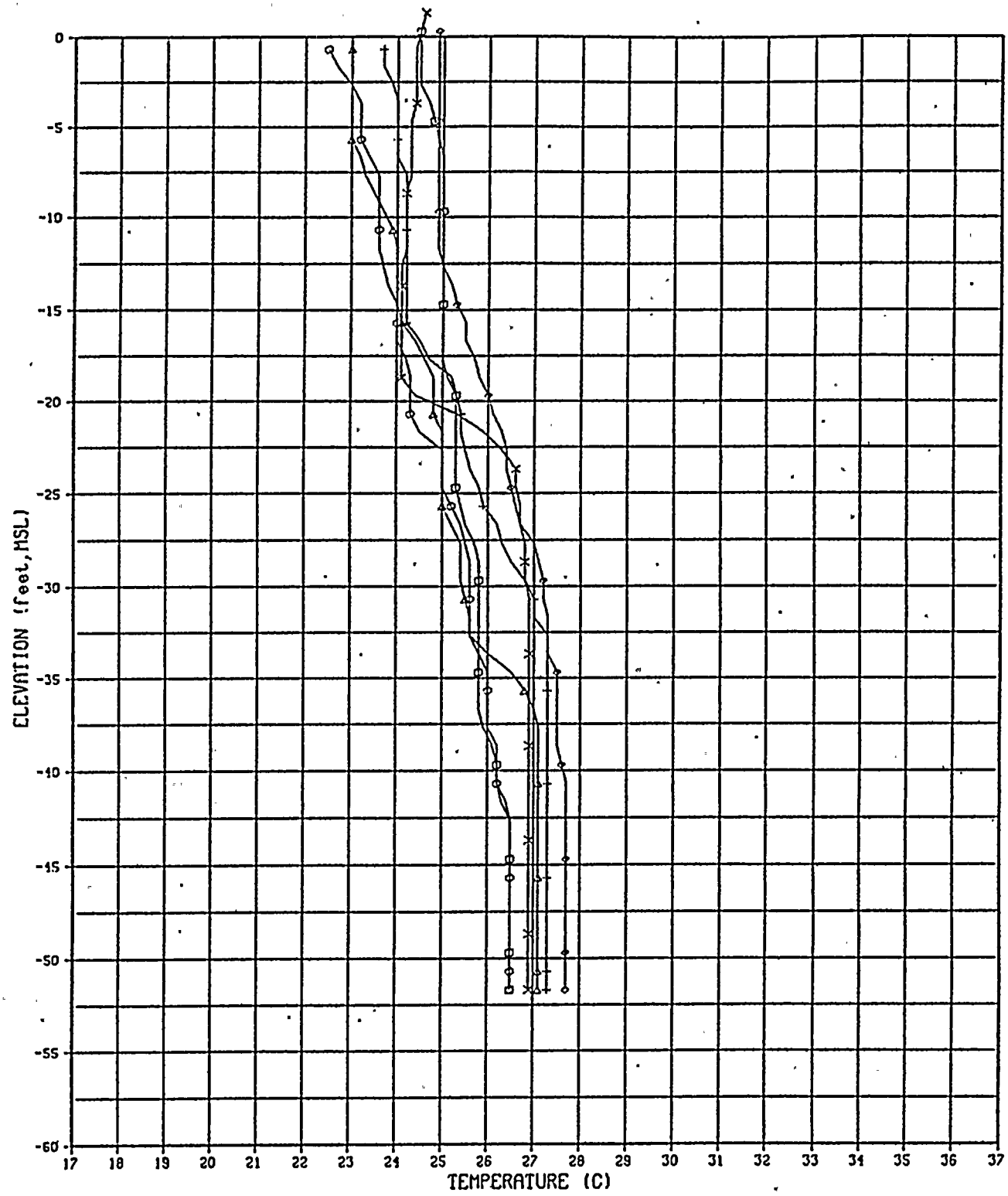
- ▽ JULY, 1978
- ◪ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-2

0459804726 (1/79) FIGURE 11A



LEGEND

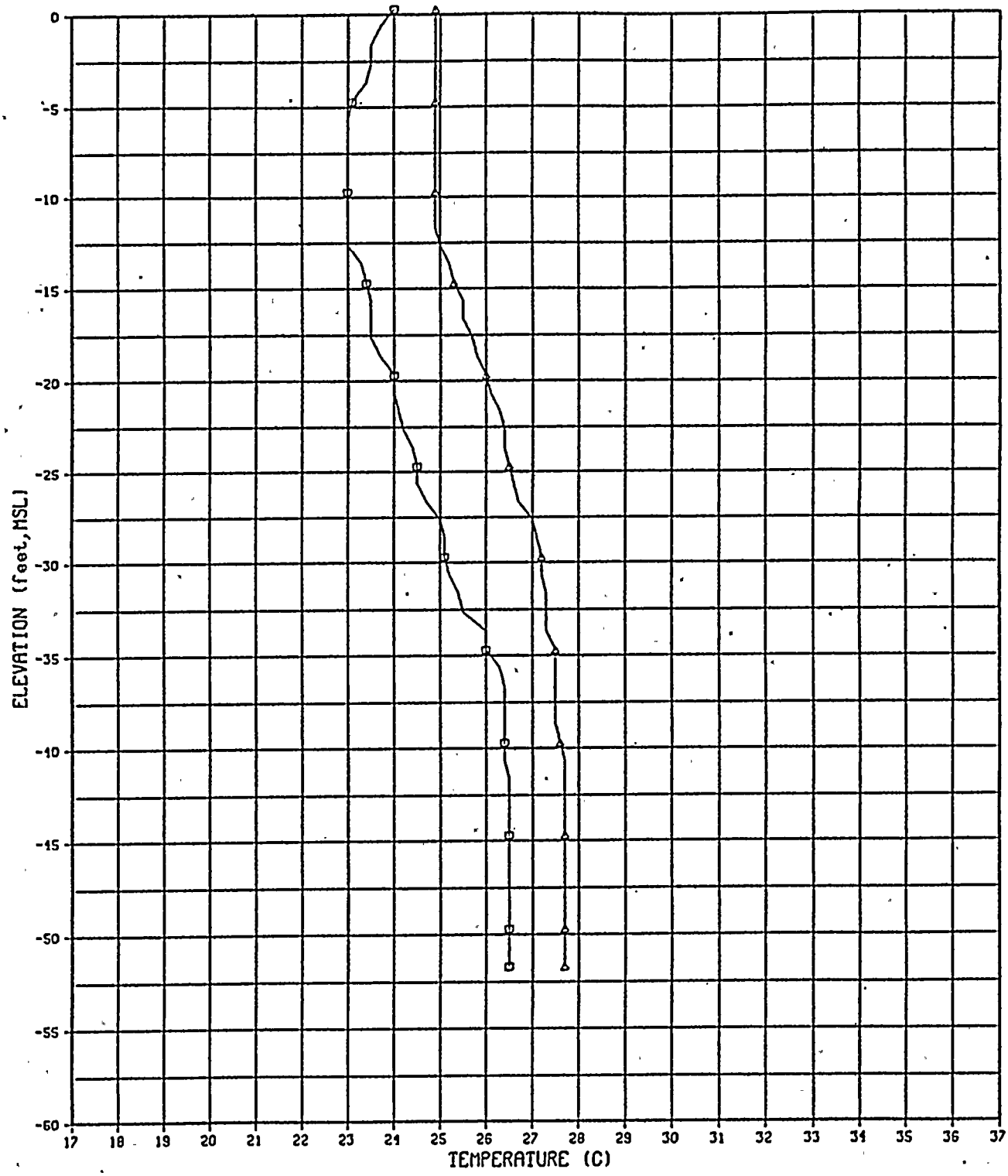
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-2

0459804726 (7/79) FIGURE 11B



LEGEND

□ JUNE, 1978

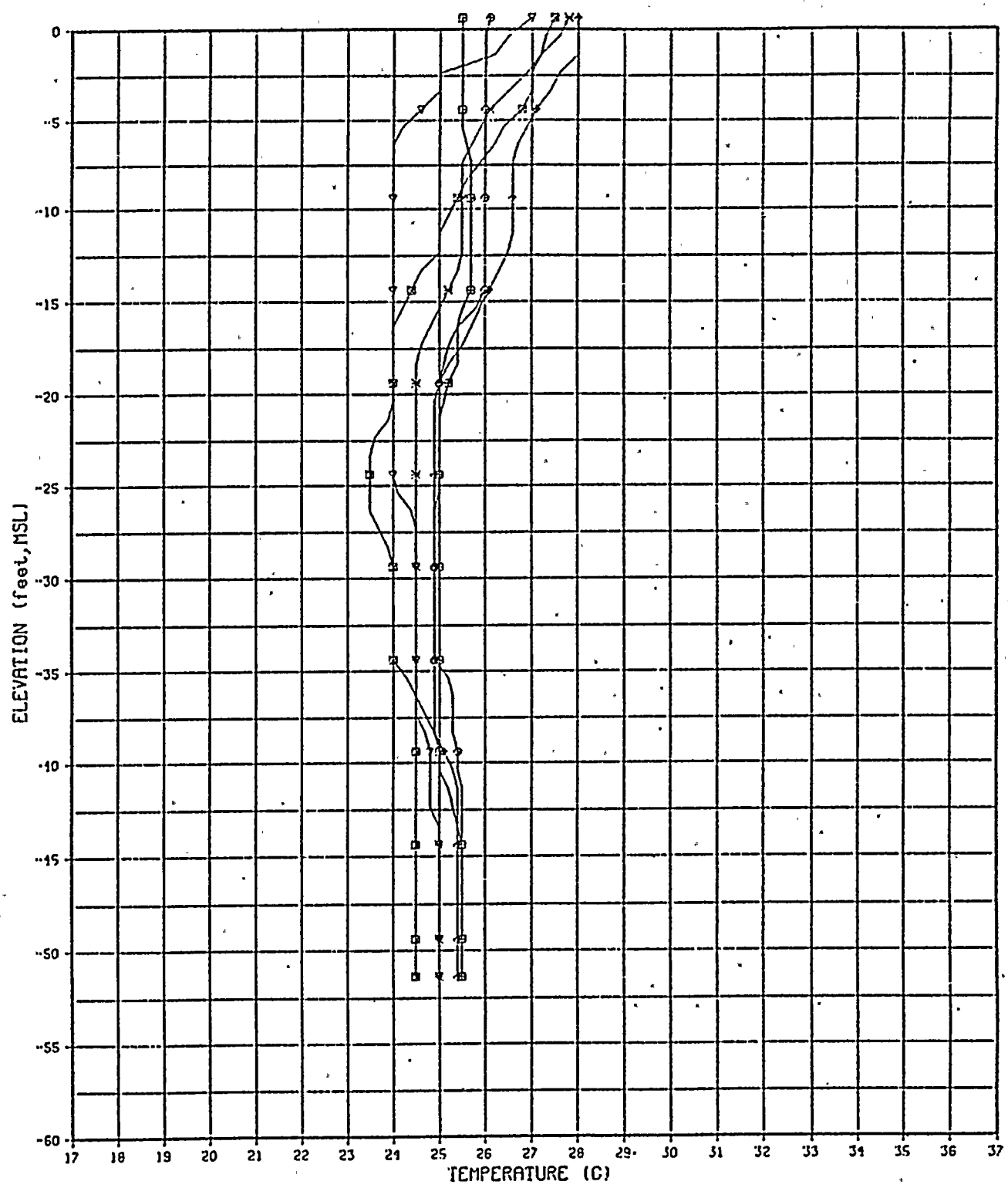
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-2

0459804726 (7/79) FIGURE 11C



LEGEND

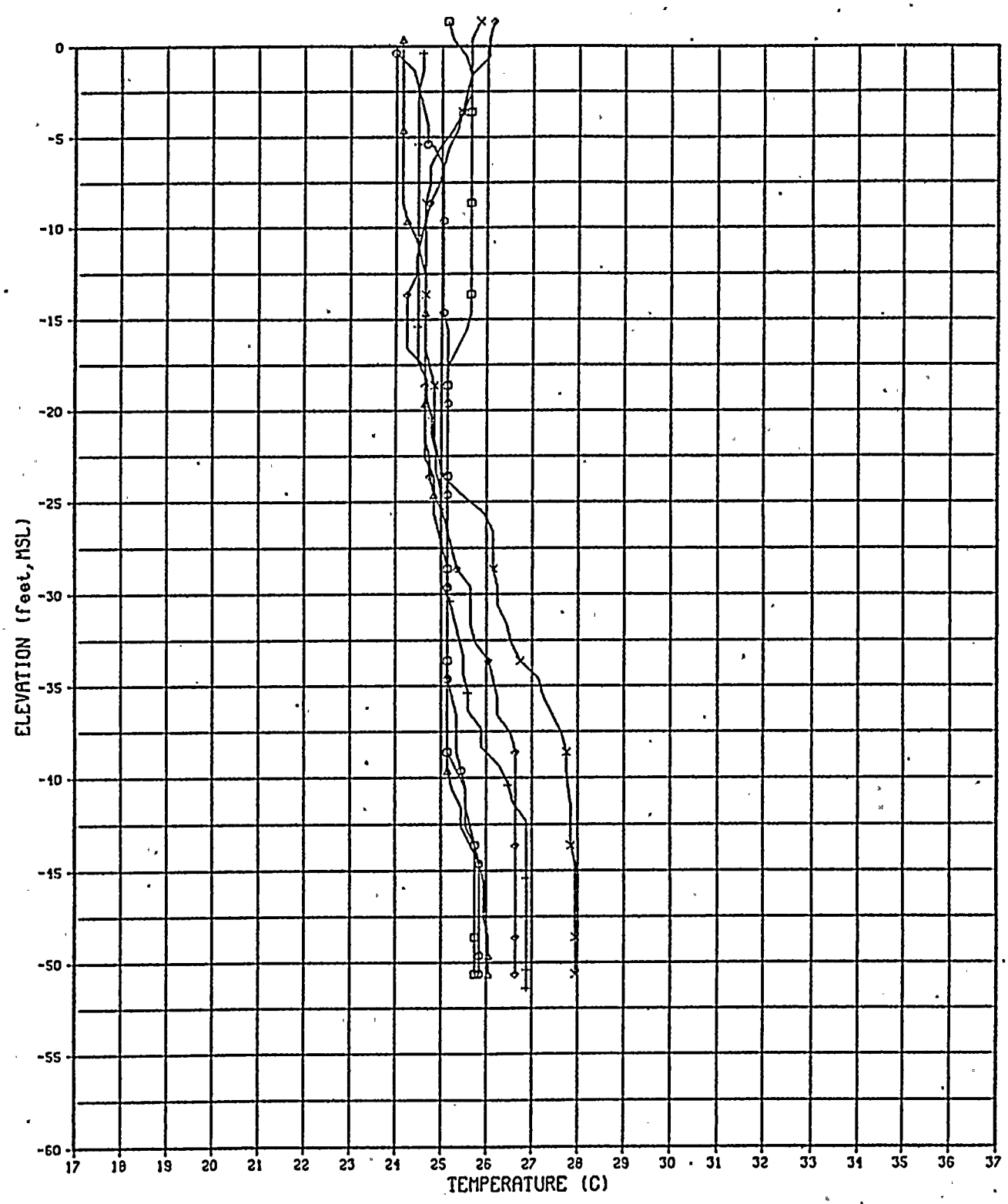
- ▽ JULY, 1978
- ⊡ AUGUST, 1978
- × SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊠ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-3

0459804726 (1/79) FIGURE 12A



LEGEND

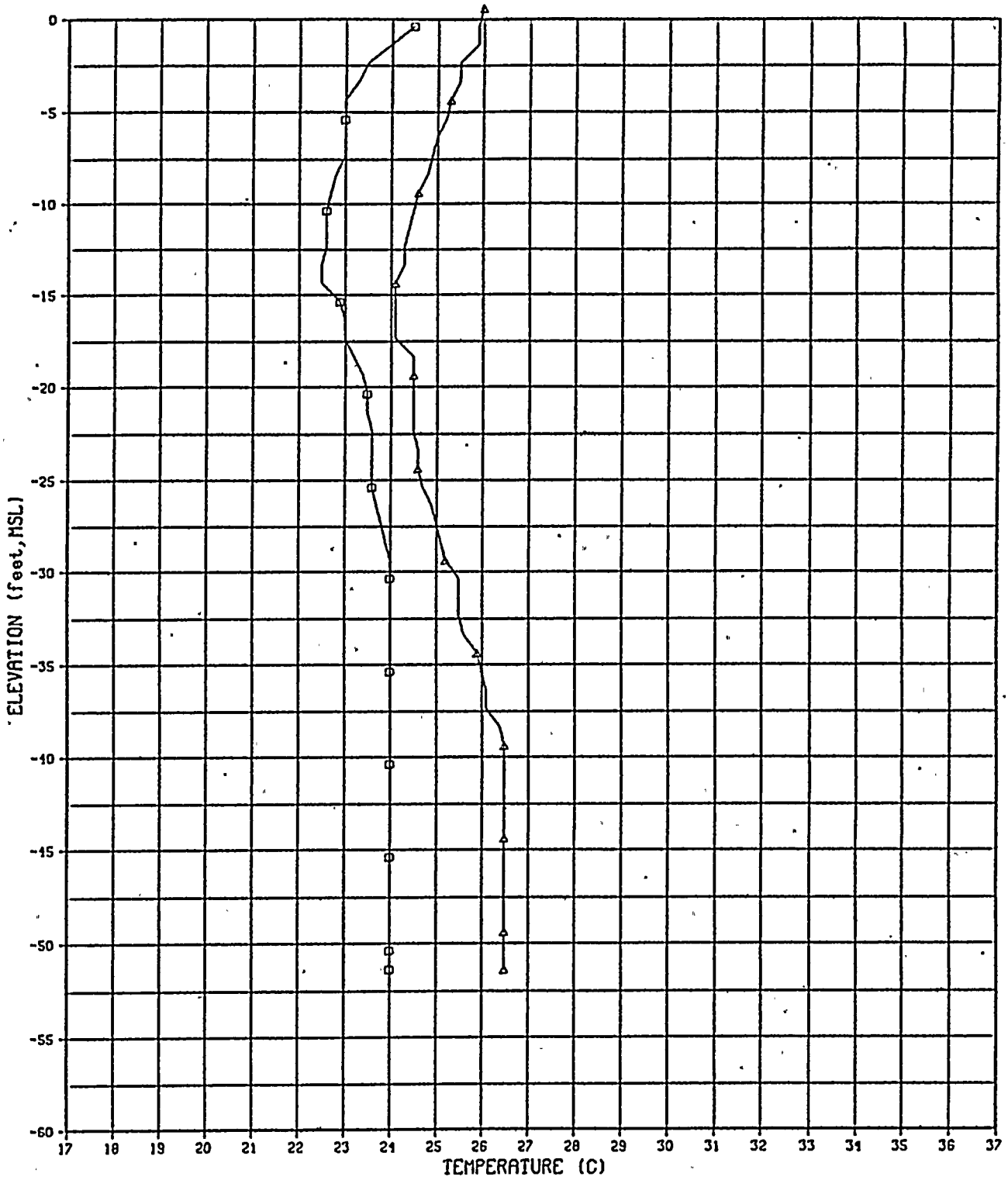
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-3

0459804726 (7/79) FIGURE 12B



LEGEND

□ JUNE, 1978

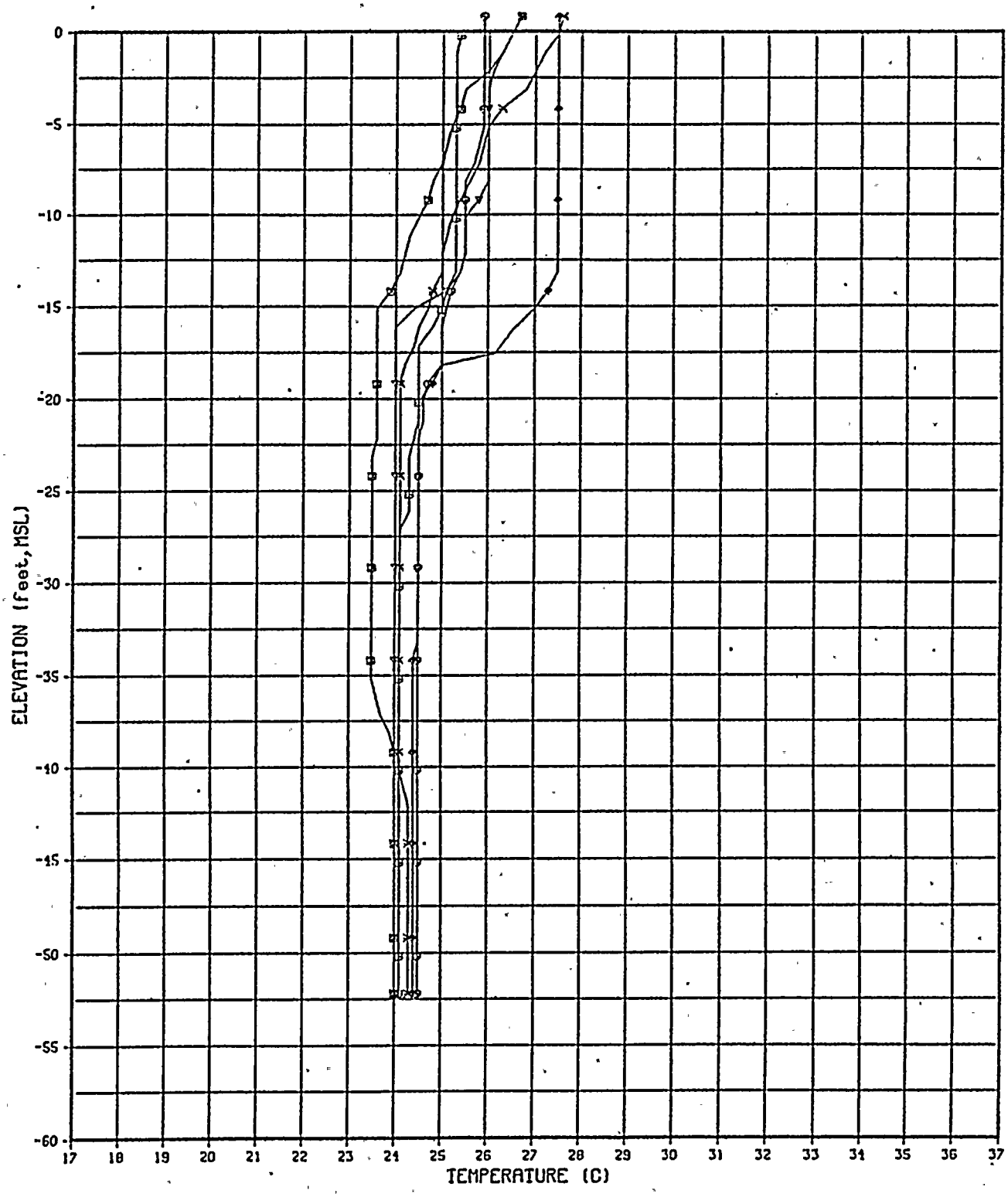
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-3

0459804726 (7/79) FIGURE 12C



LEGEND

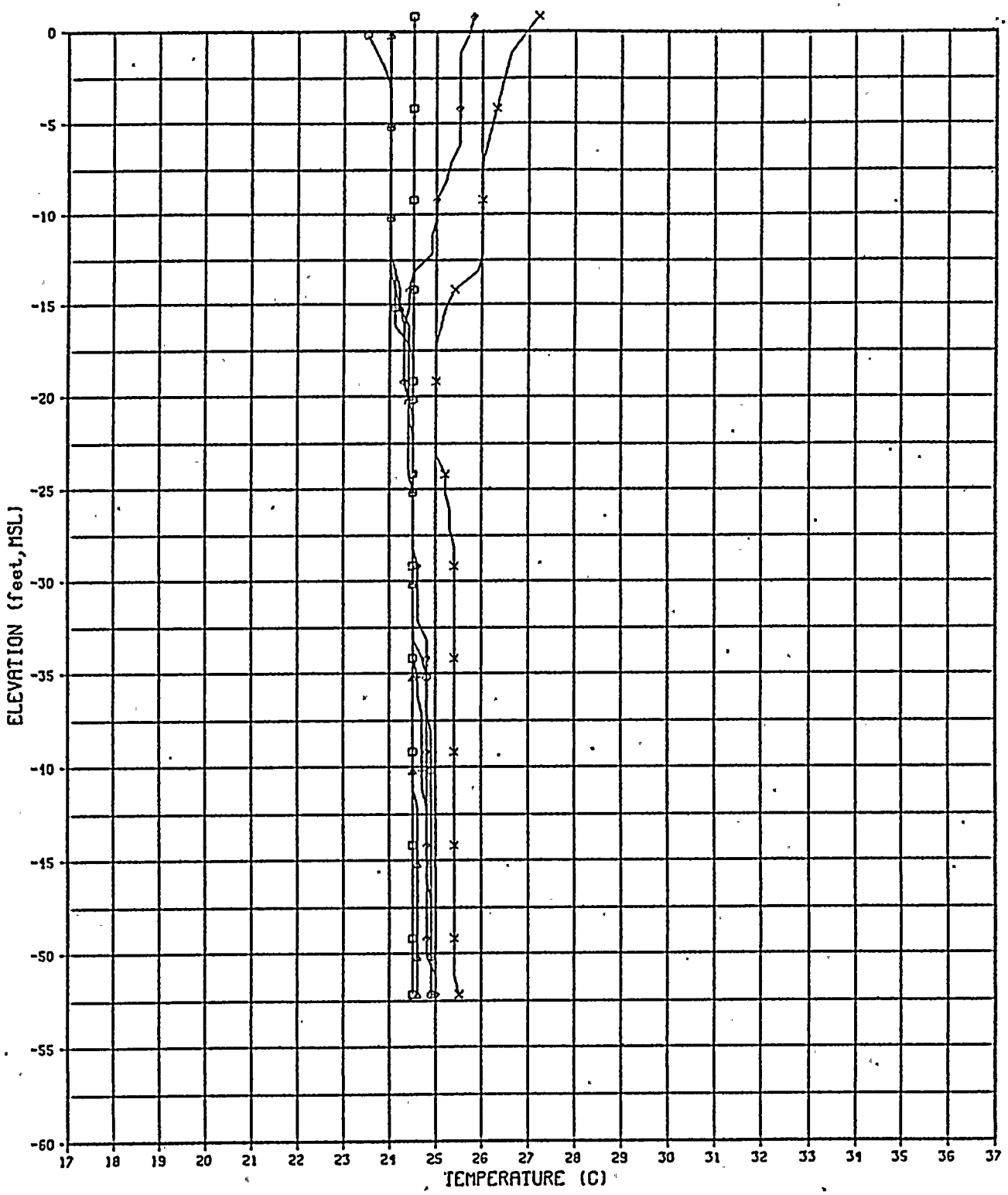
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊛ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-4

0459804726 (1/79) FIGURE 13A



LEGEND

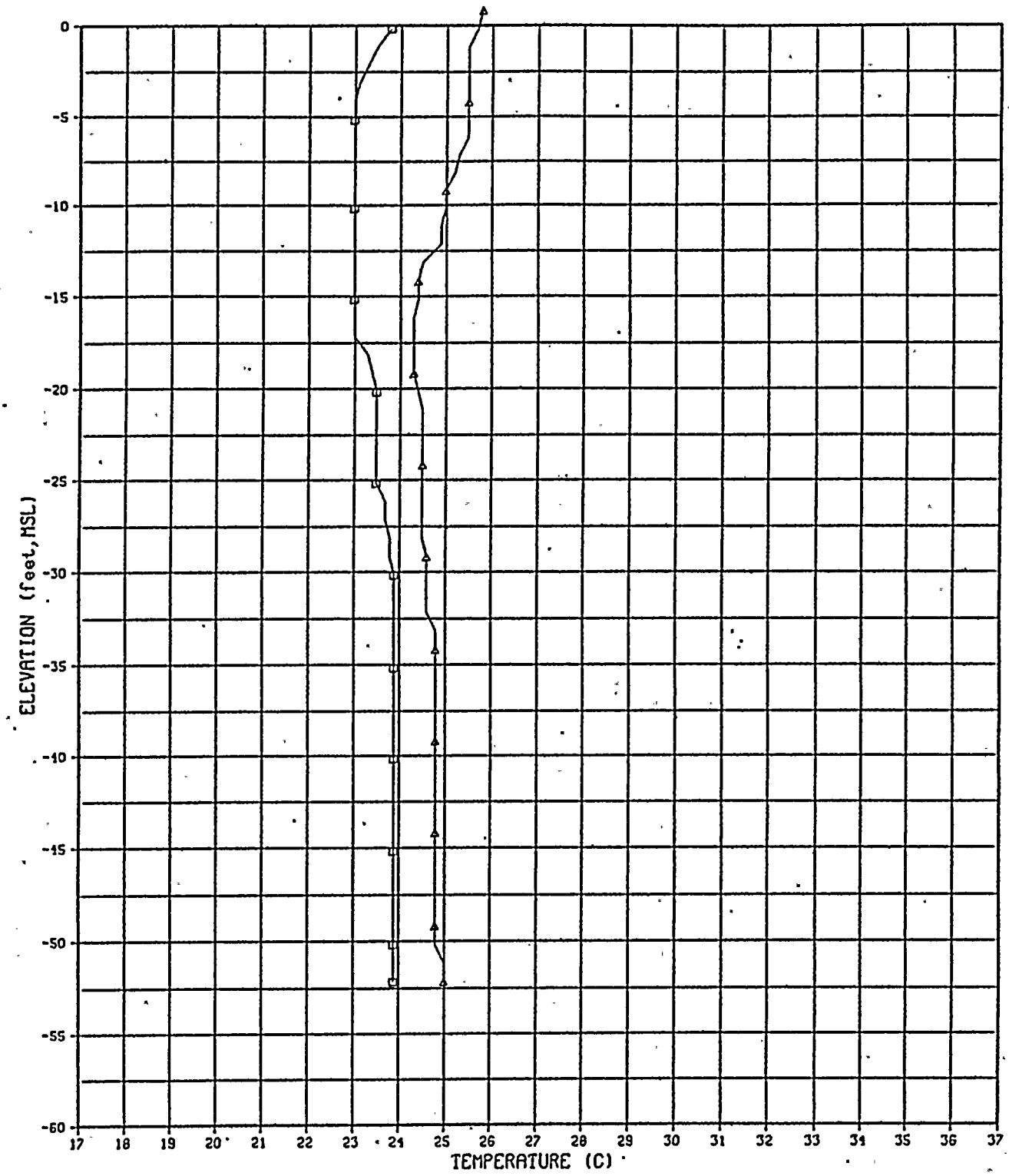
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-4

0459804726 (7/79) FIGURE 13B



LEGEND

□ JUNE, 1978

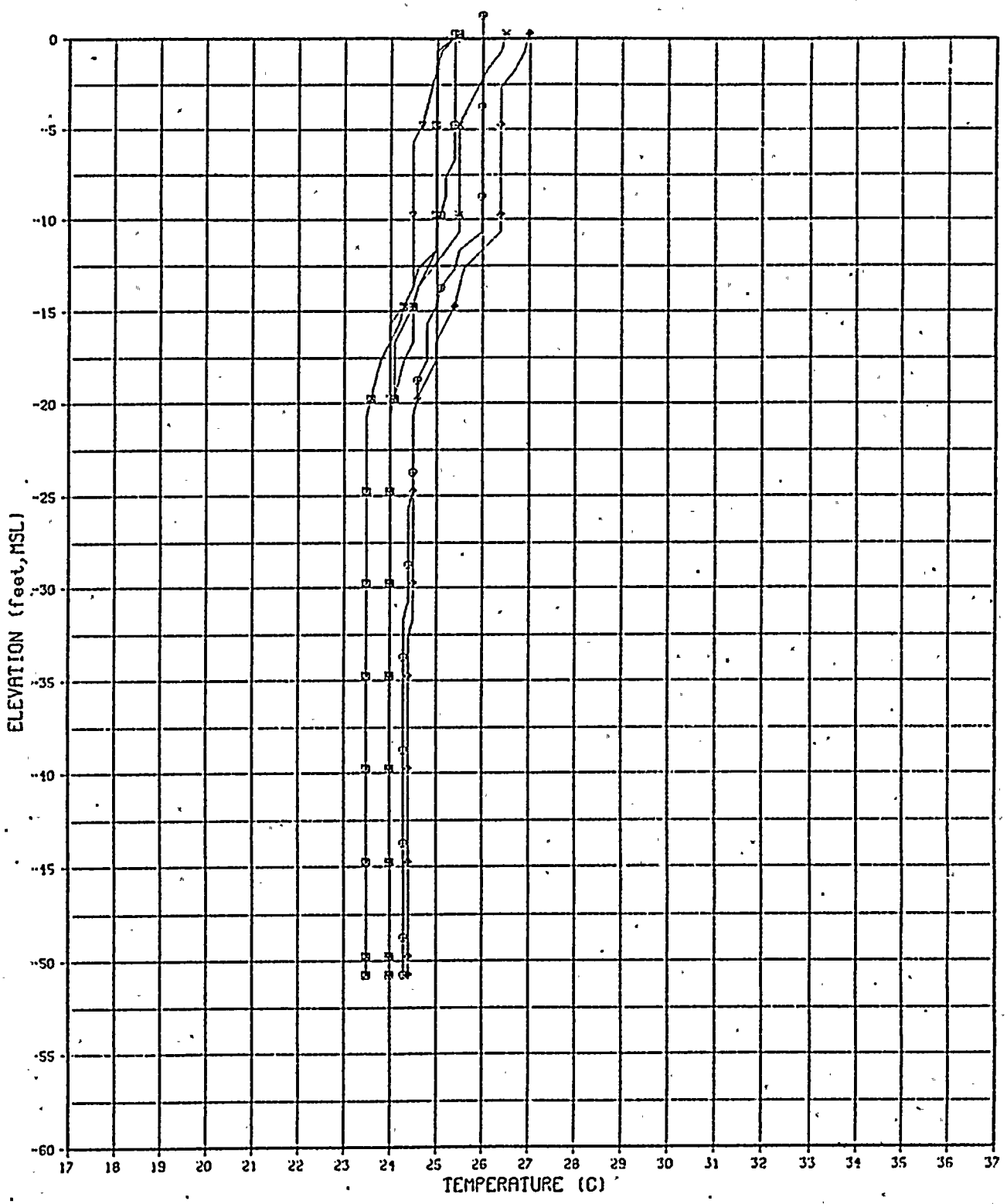
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-4

0459804726 (7/79) FIGURE 13C



LEGEND

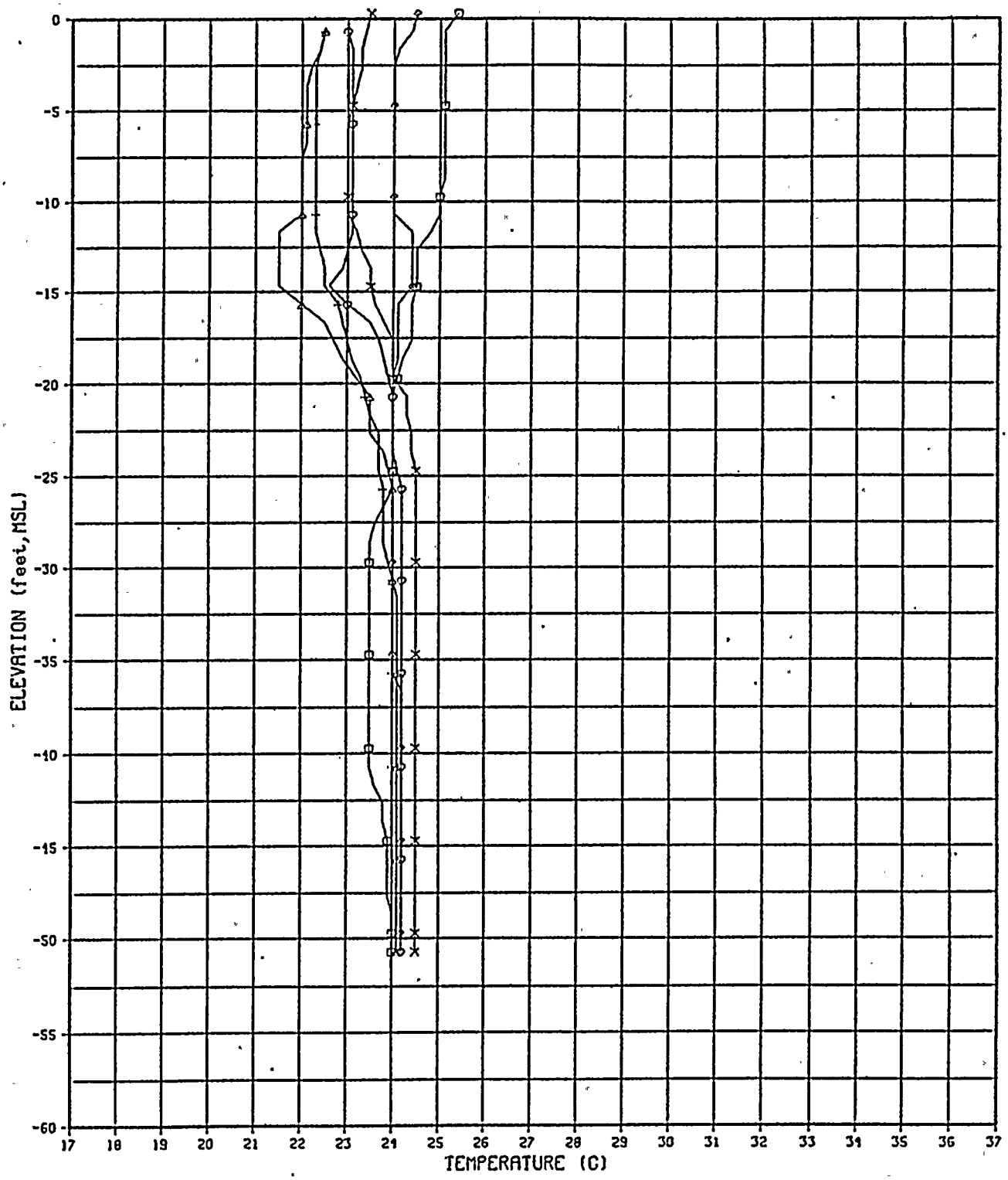
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊛ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-5

0459804726 (1/79) FIGURE 14A



LEGEND

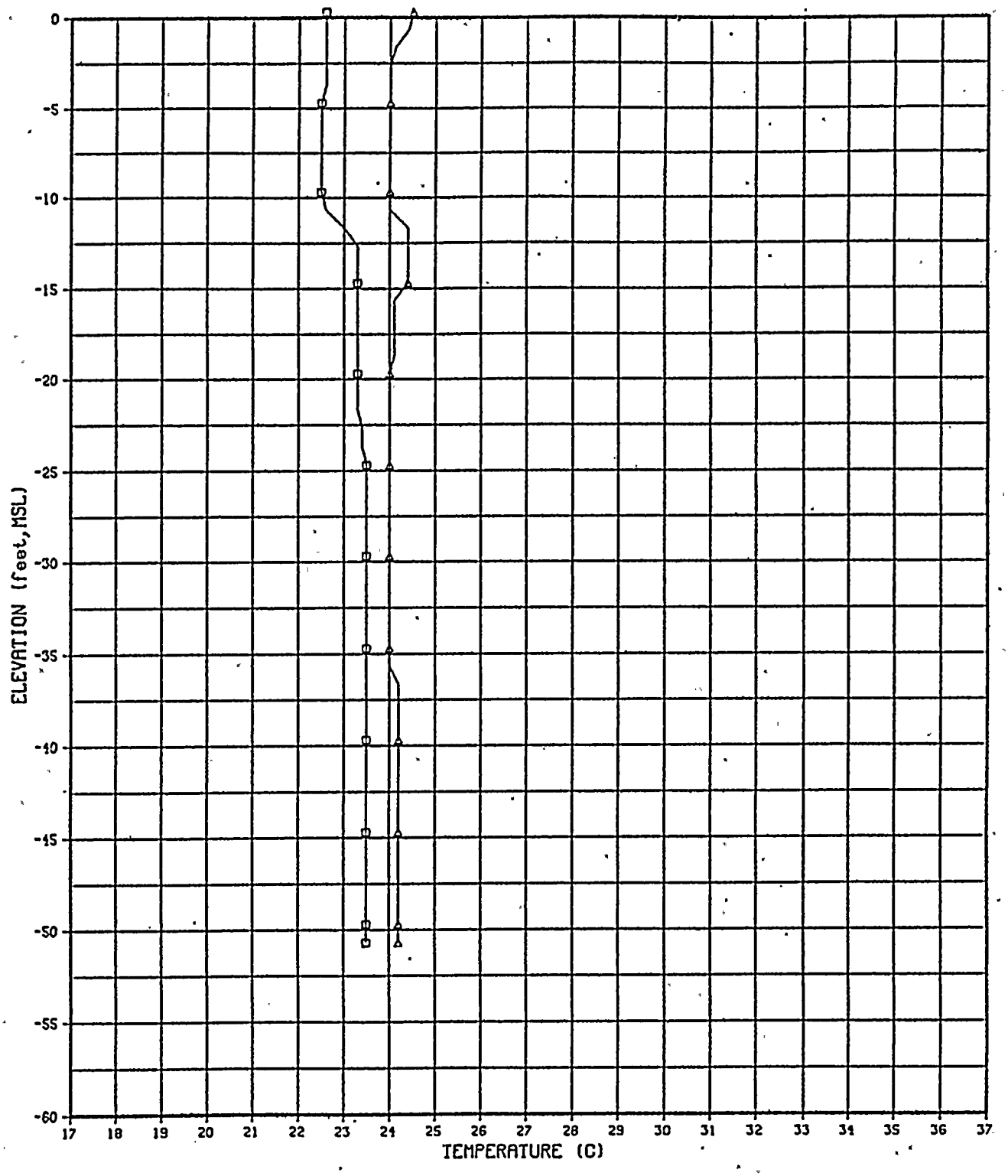
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-5

04S9804726 (7/79) FIGURE 14B



LEGEND

□ JUNE, 1978

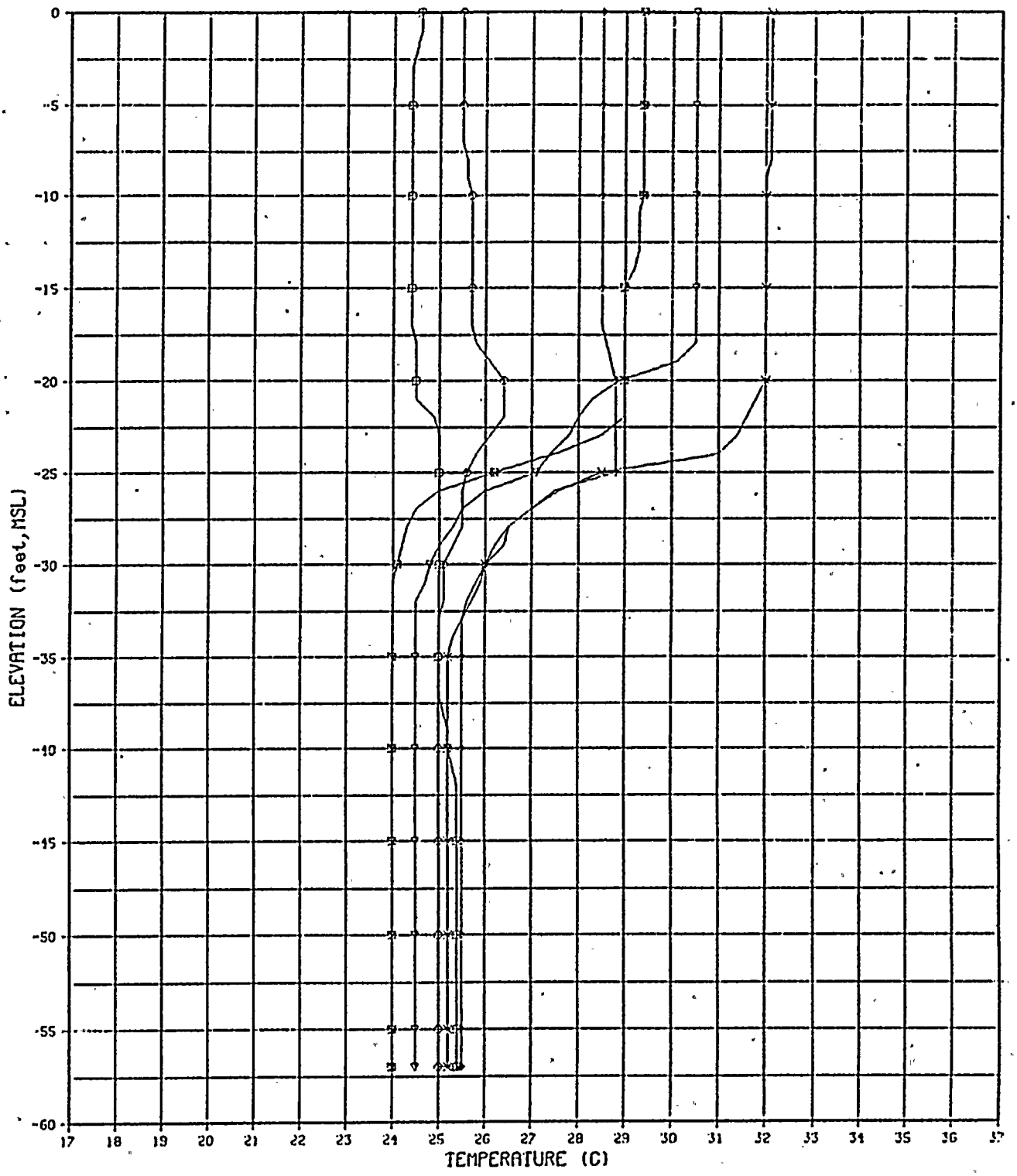
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-5

0459804726 (7/79) FIGURE 14C



LEGEND

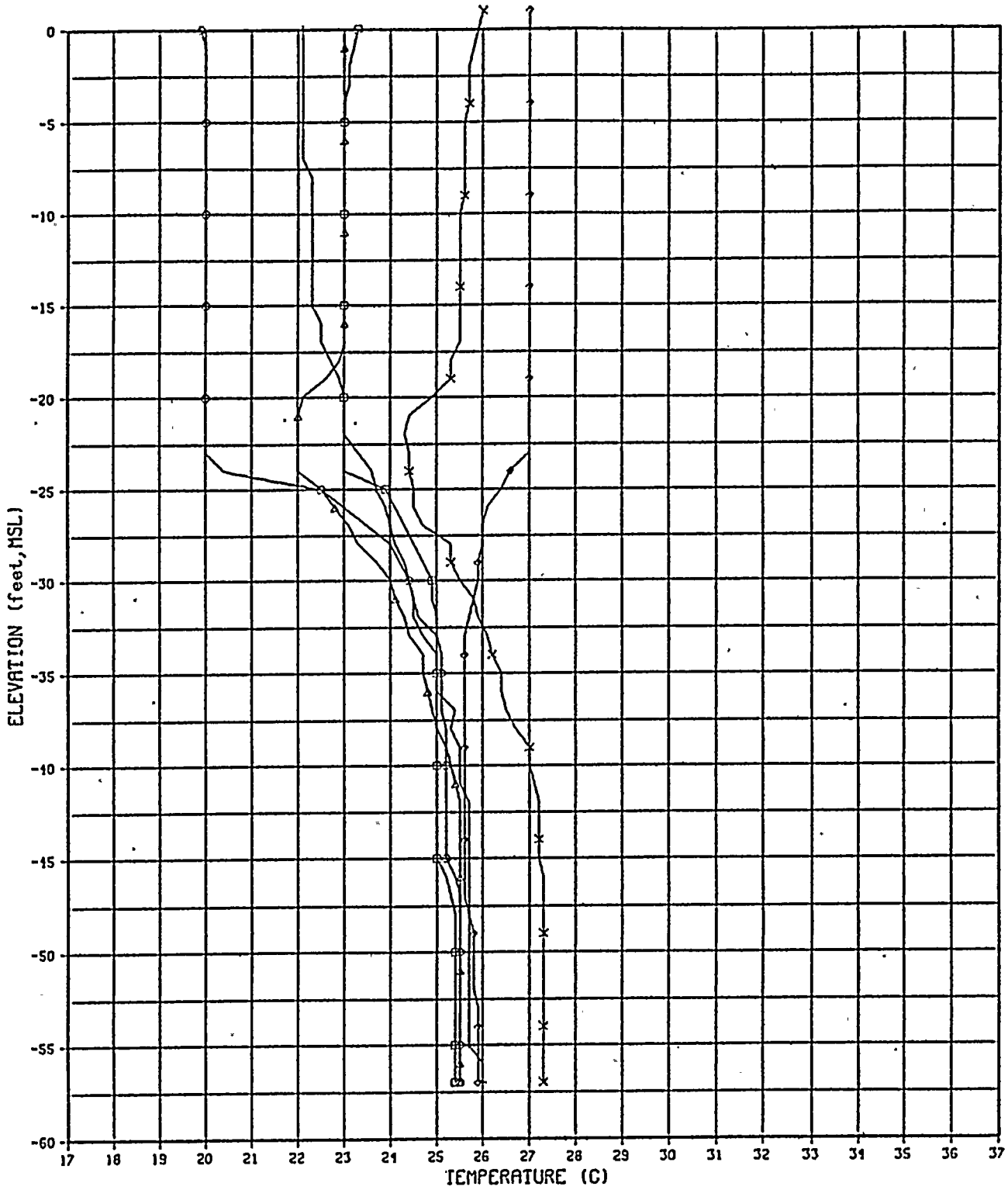
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- × SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊗ NOVEMBER, 1978
- ⊡ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-6

0459804726 (1/79) FIGURE 15A



LEGEND

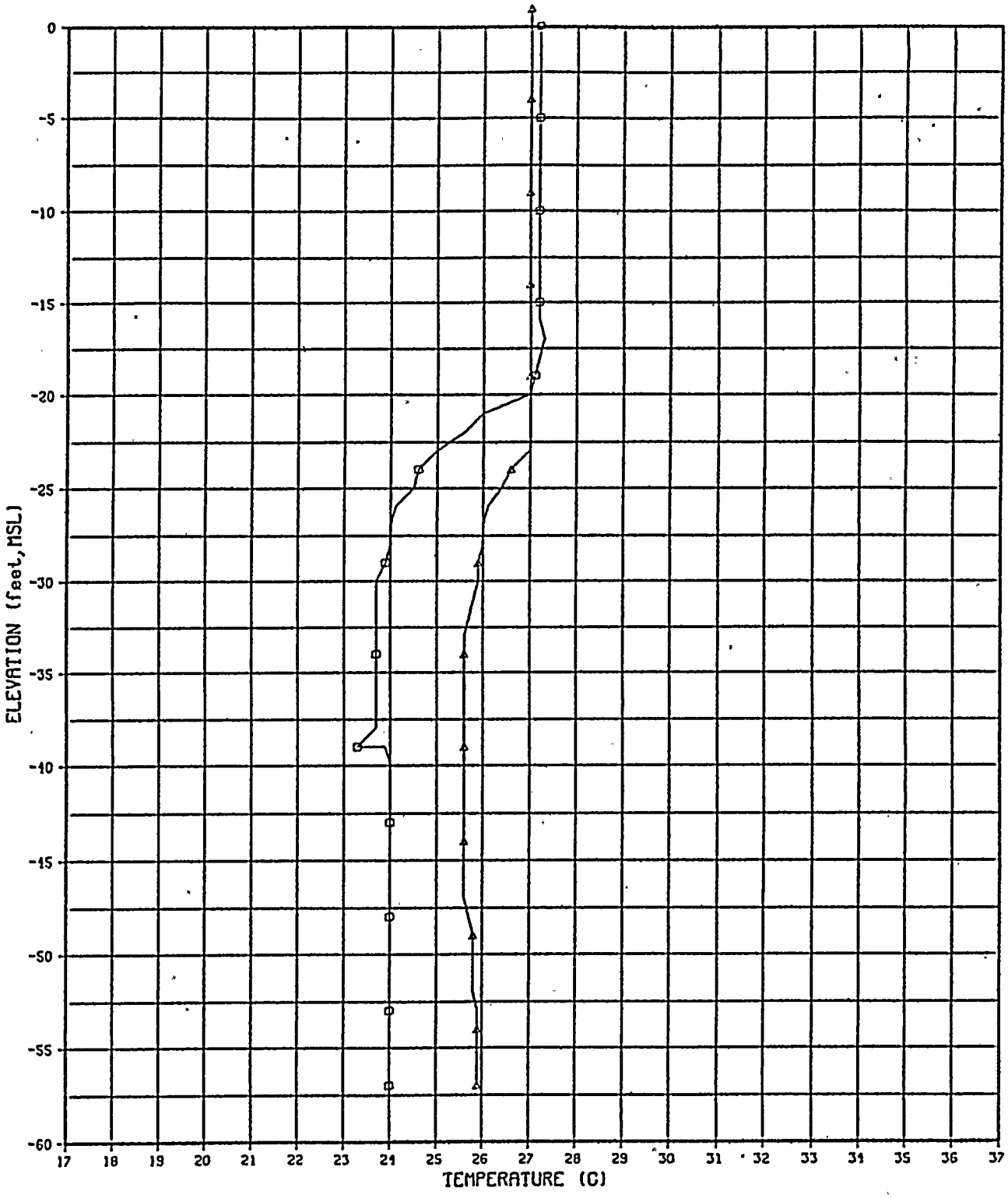
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-6

0459804726 (7/79) FIGURE 15B



LEGEND

□ JUNE, 1978

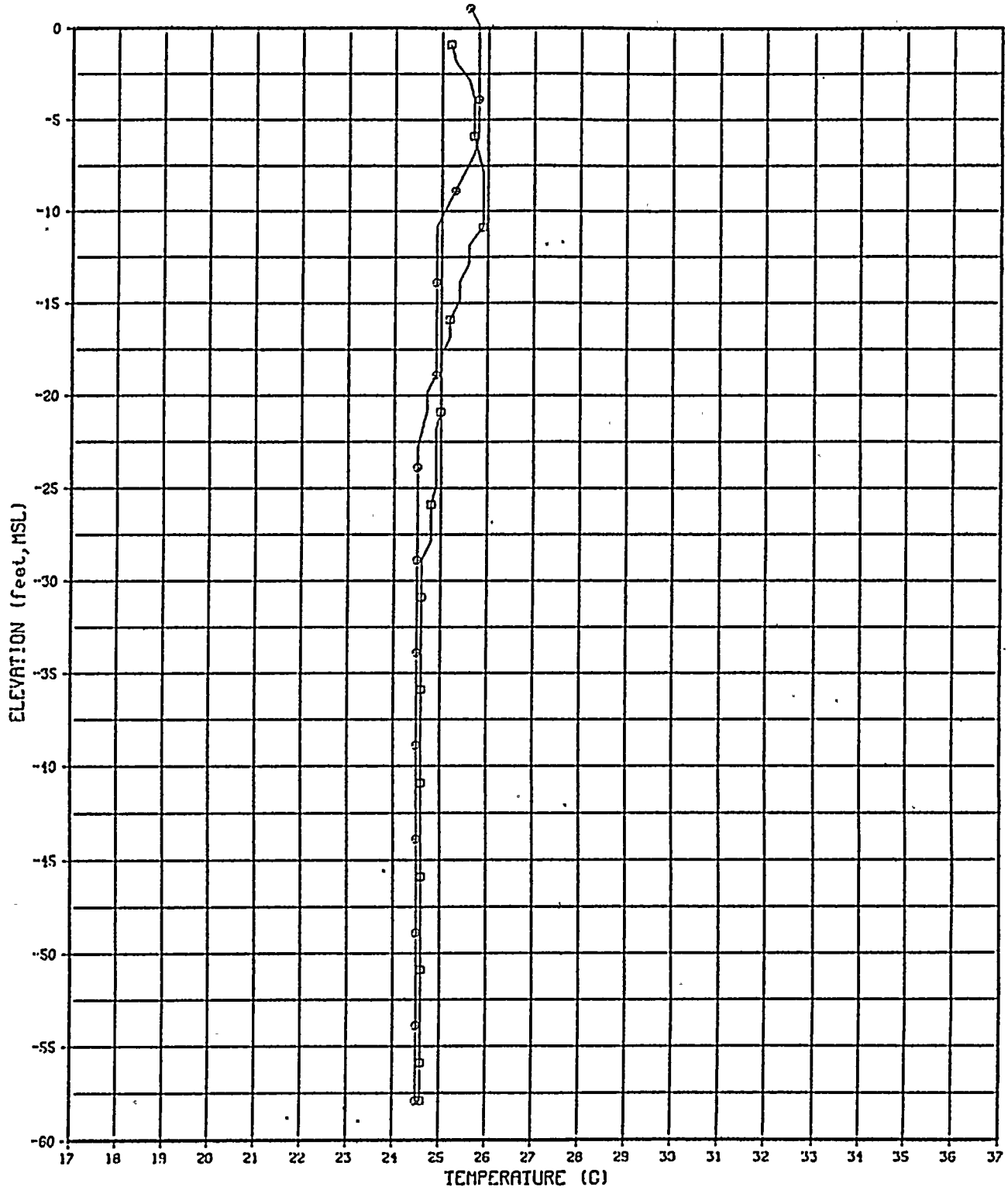
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER L-6

0459804726 (7/79) FIGURE 15C



LEGEND

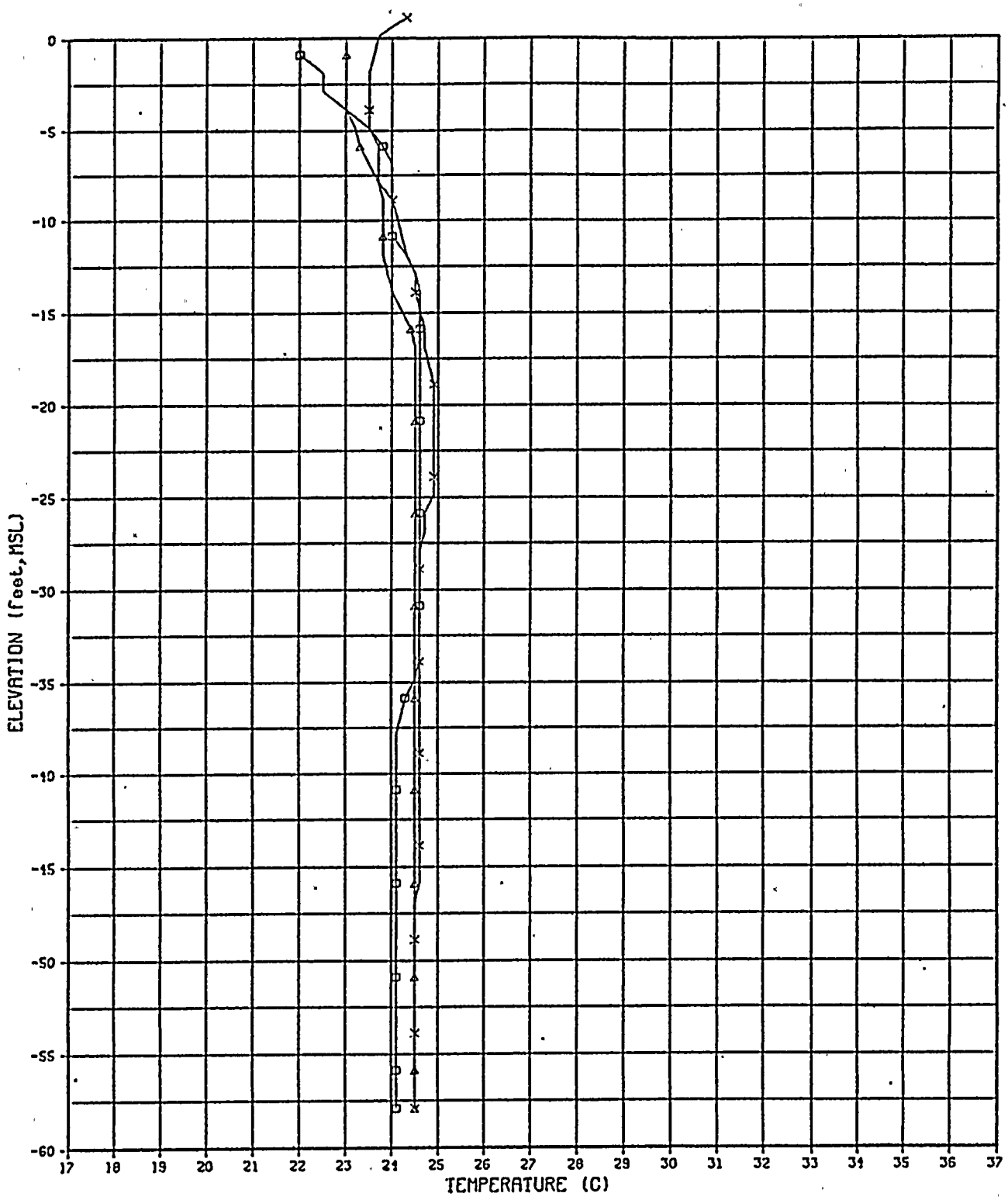
- ▫ NOVEMBER, 1977
- ◦ NOVEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-6

0459804726 (1/79) FIGURE 16A



LEGEND

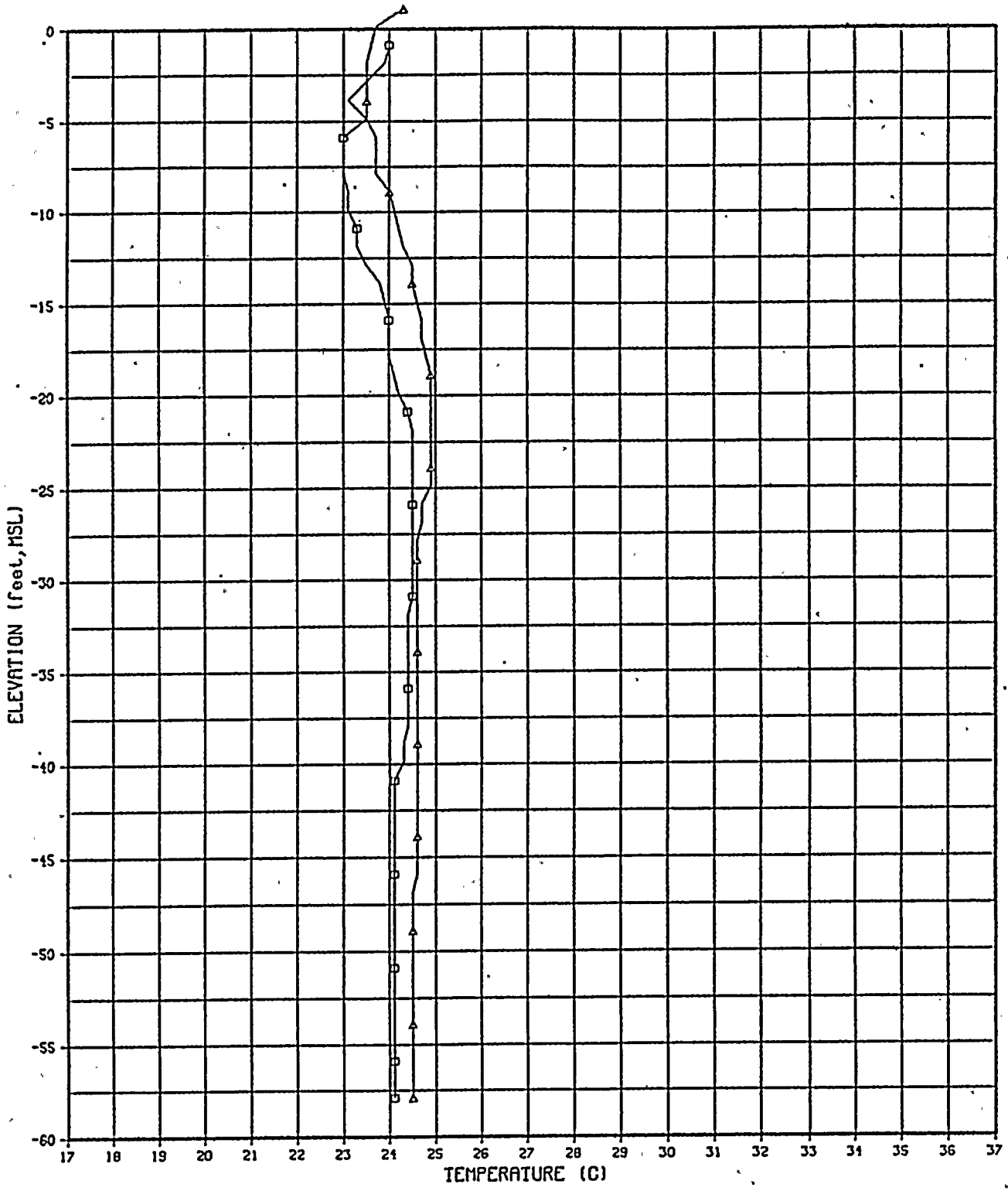
- ▫ JANUARY, 1979
- ▵ MARCH, 1979
- × MAY, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-6

0459804726 (7/79) FIGURE 16B



LEGEND

□ MAY, 1978

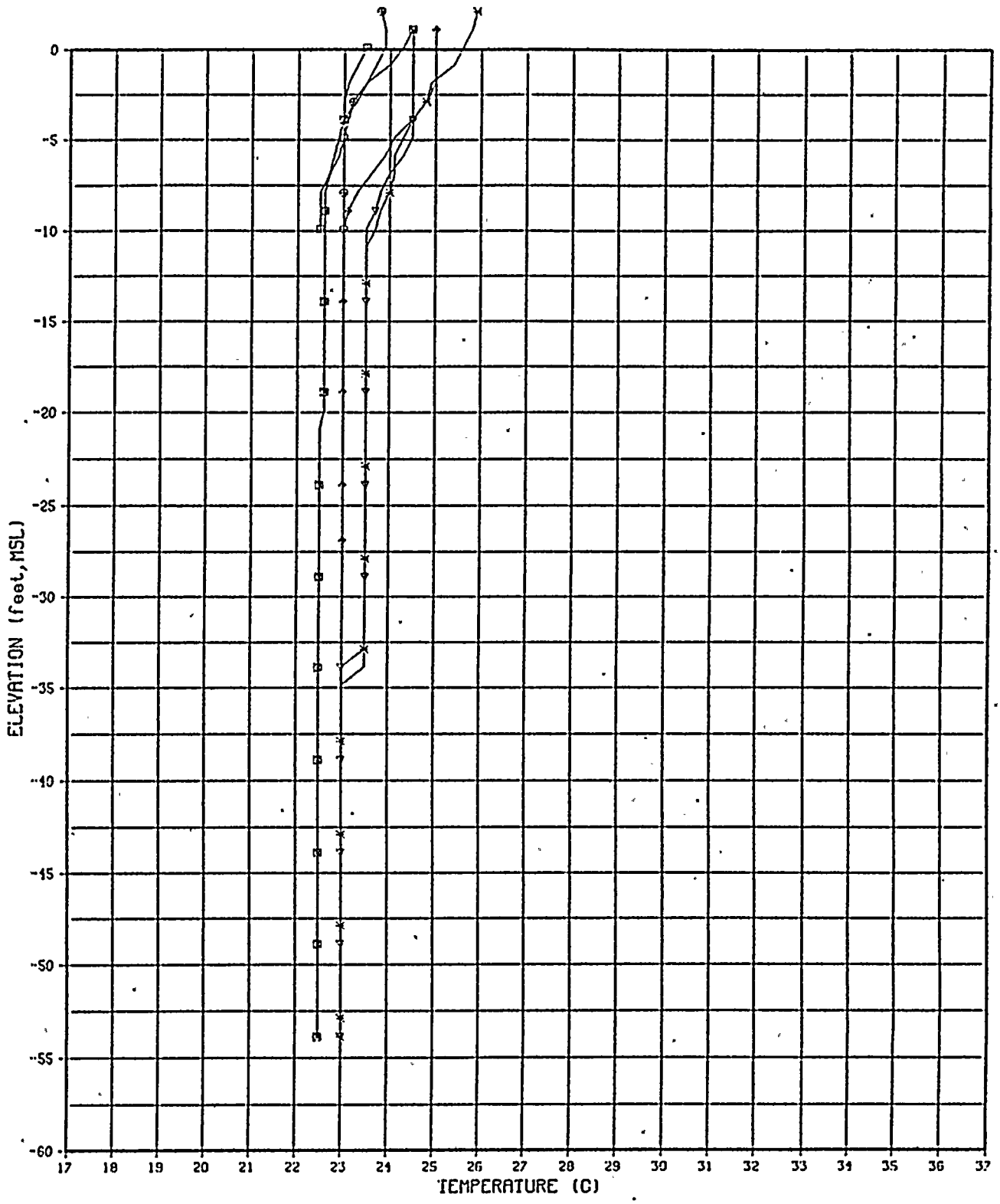
△ MAY, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-6

0459804726 (7/79) FIGURE 16C



LEGEND

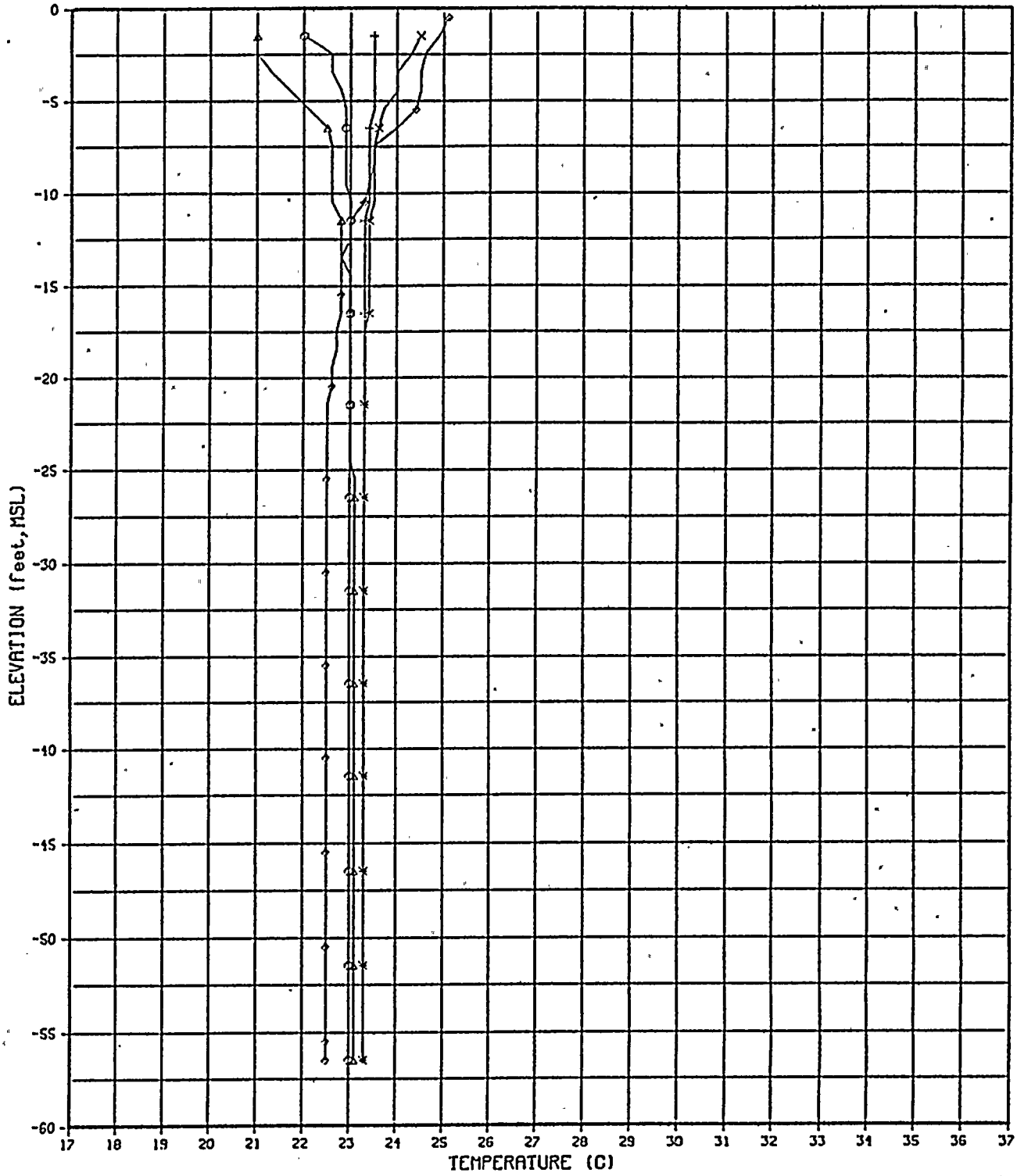
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- × SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊗ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-7

0459804726 (1/79) FIGURE 17A



LEGEND

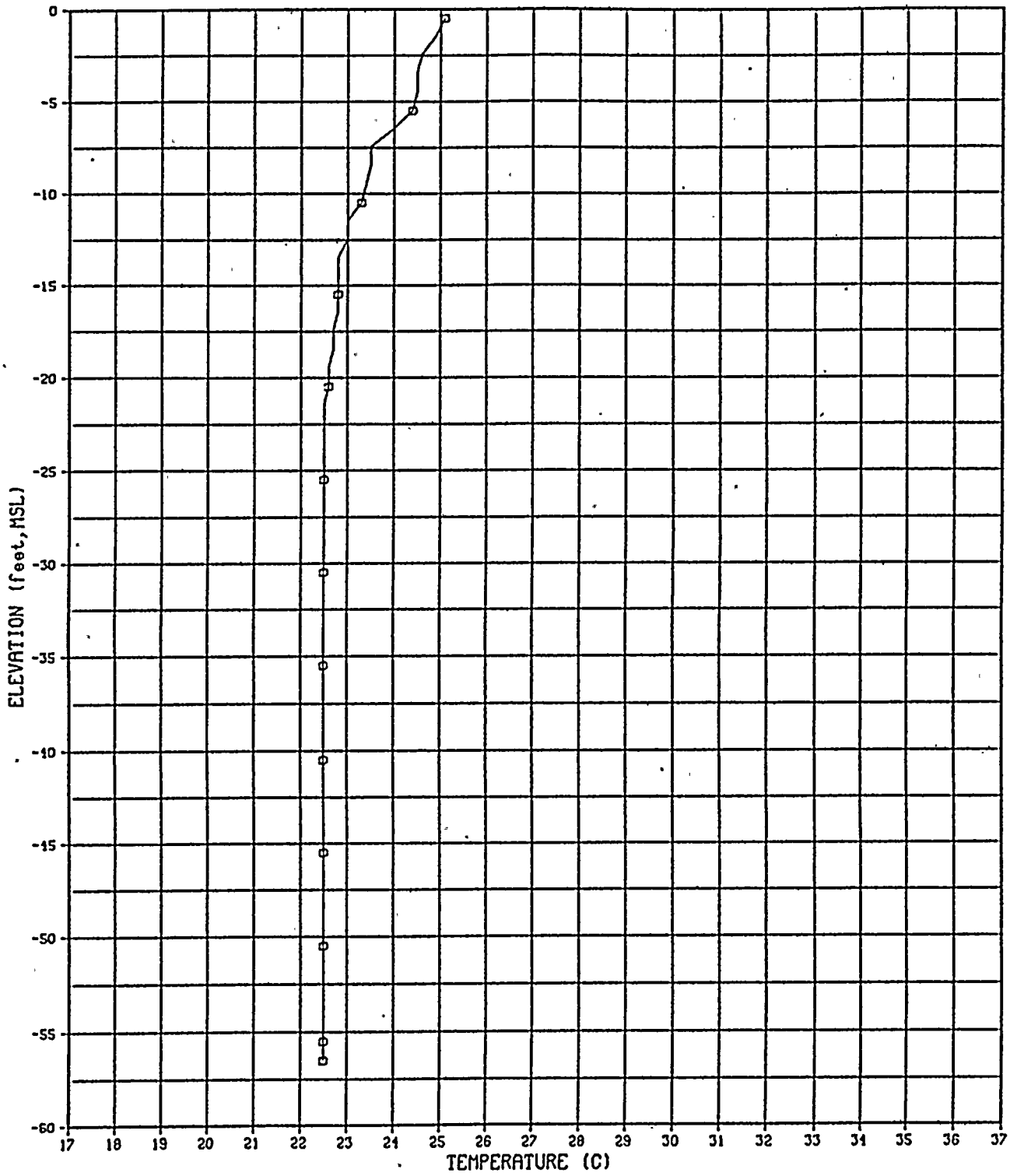
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- x MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-14

0459804726 (7/79) FIGURE 17B



LEGEND

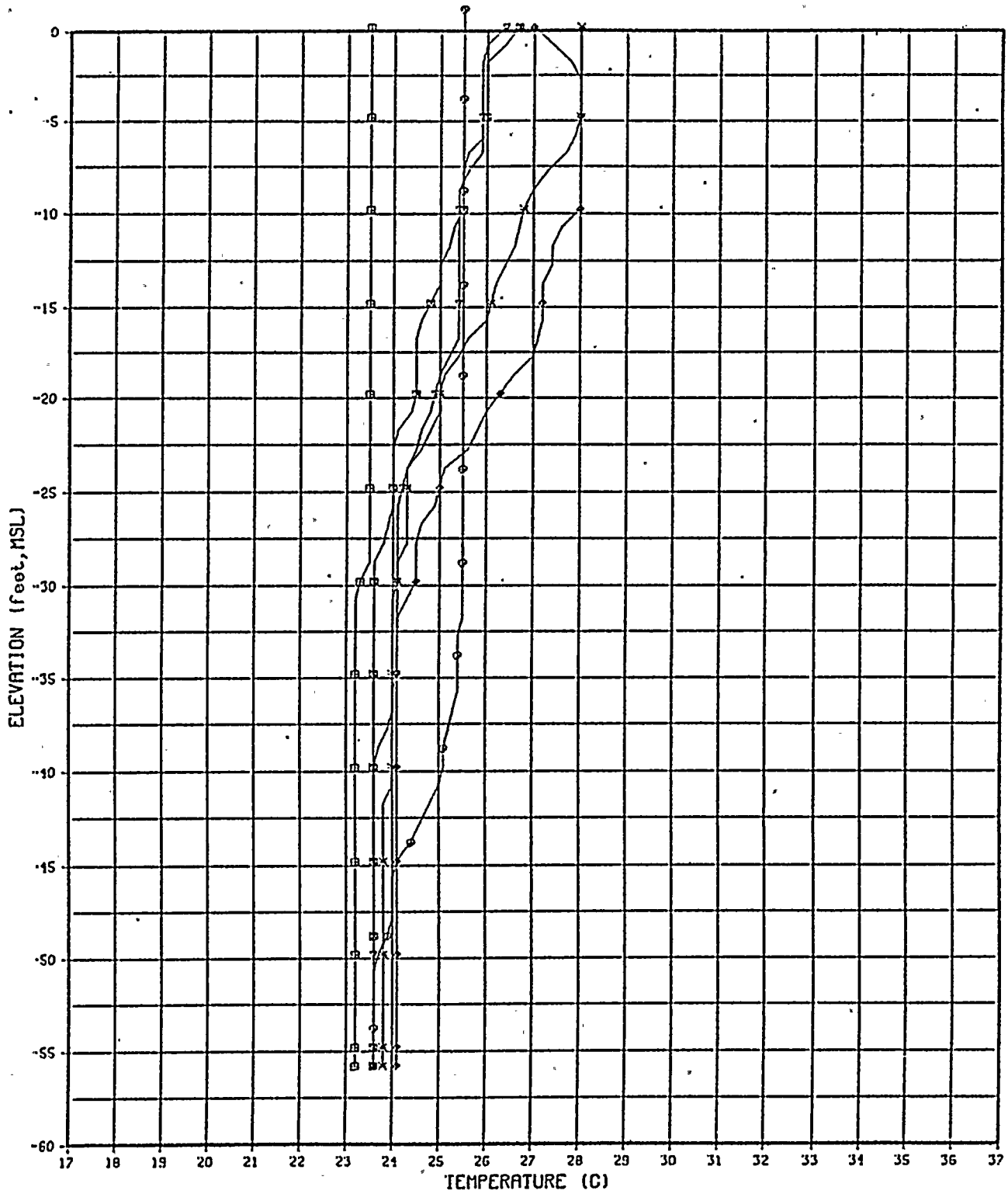
o JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-14

0459804726 (7/79) FIGURE 17C



LEGEND

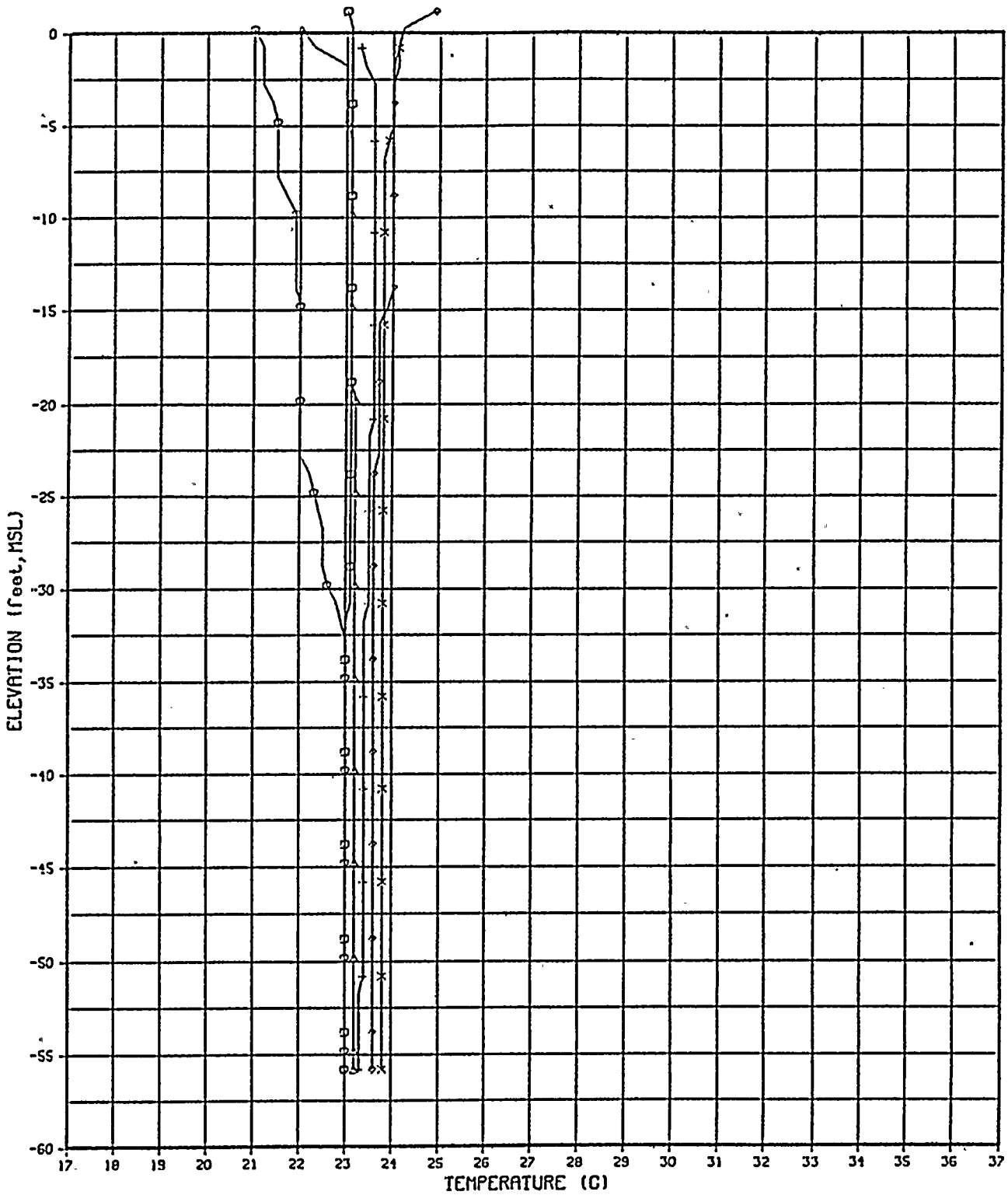
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-21

0459804726 (1/79) FIGURE 18A



LEGEND

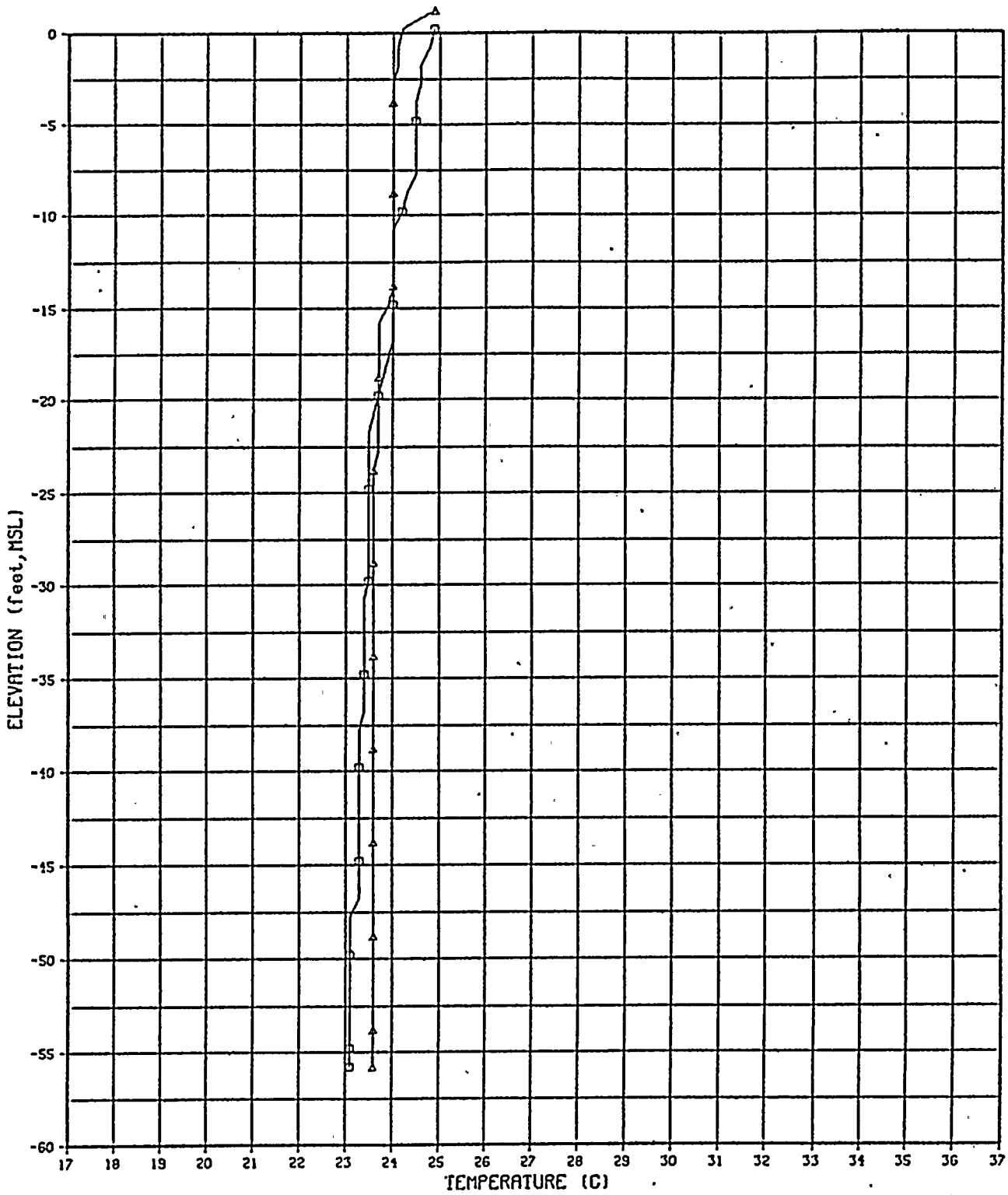
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-21

0459804726 (7/79) FIGURE 18B



LEGEND

o JUNE, 1978

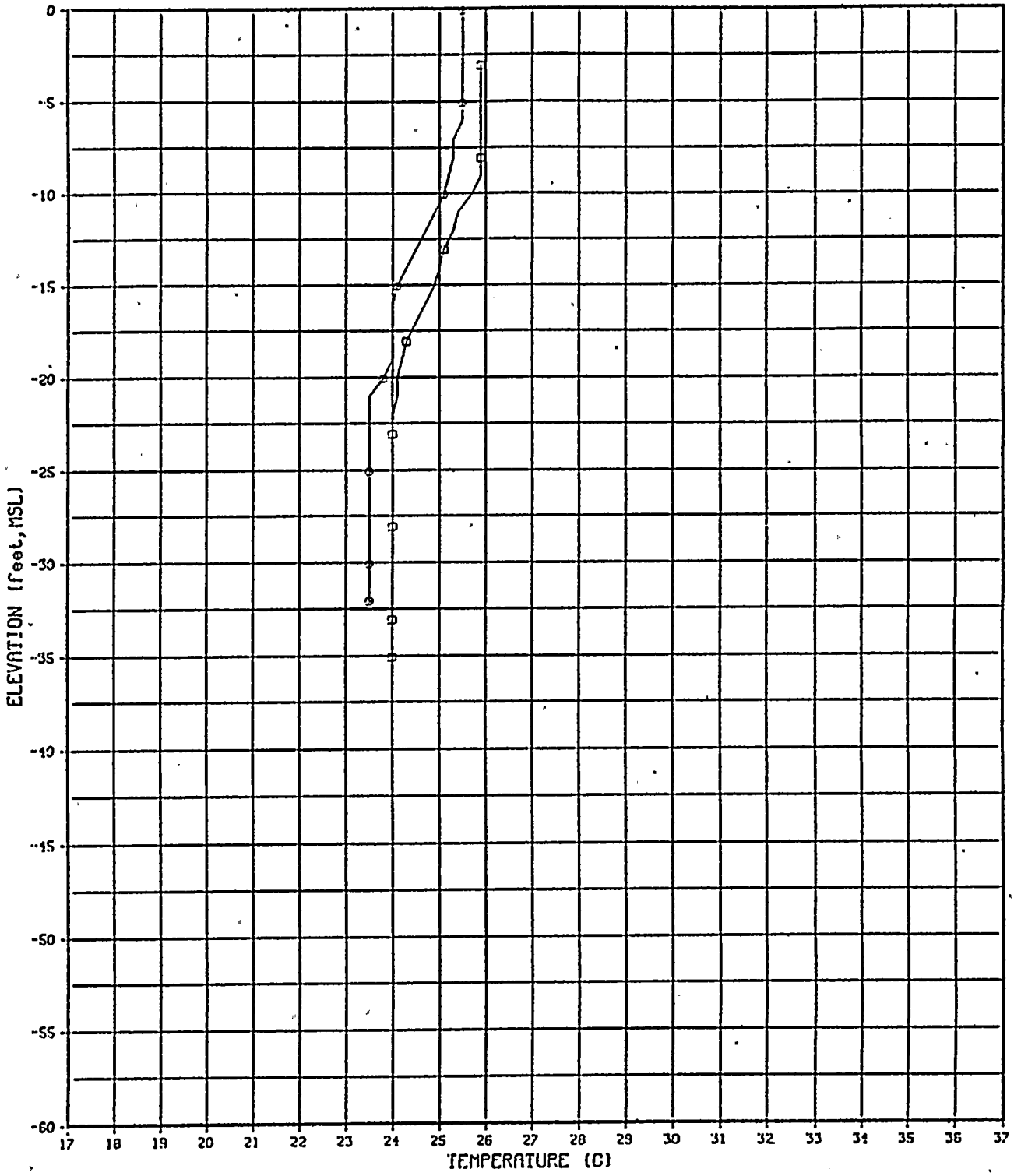
Δ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-21

0459804726 (7/79) FIGURE 18C



LEGEND

□ NOVEMBER, 1977

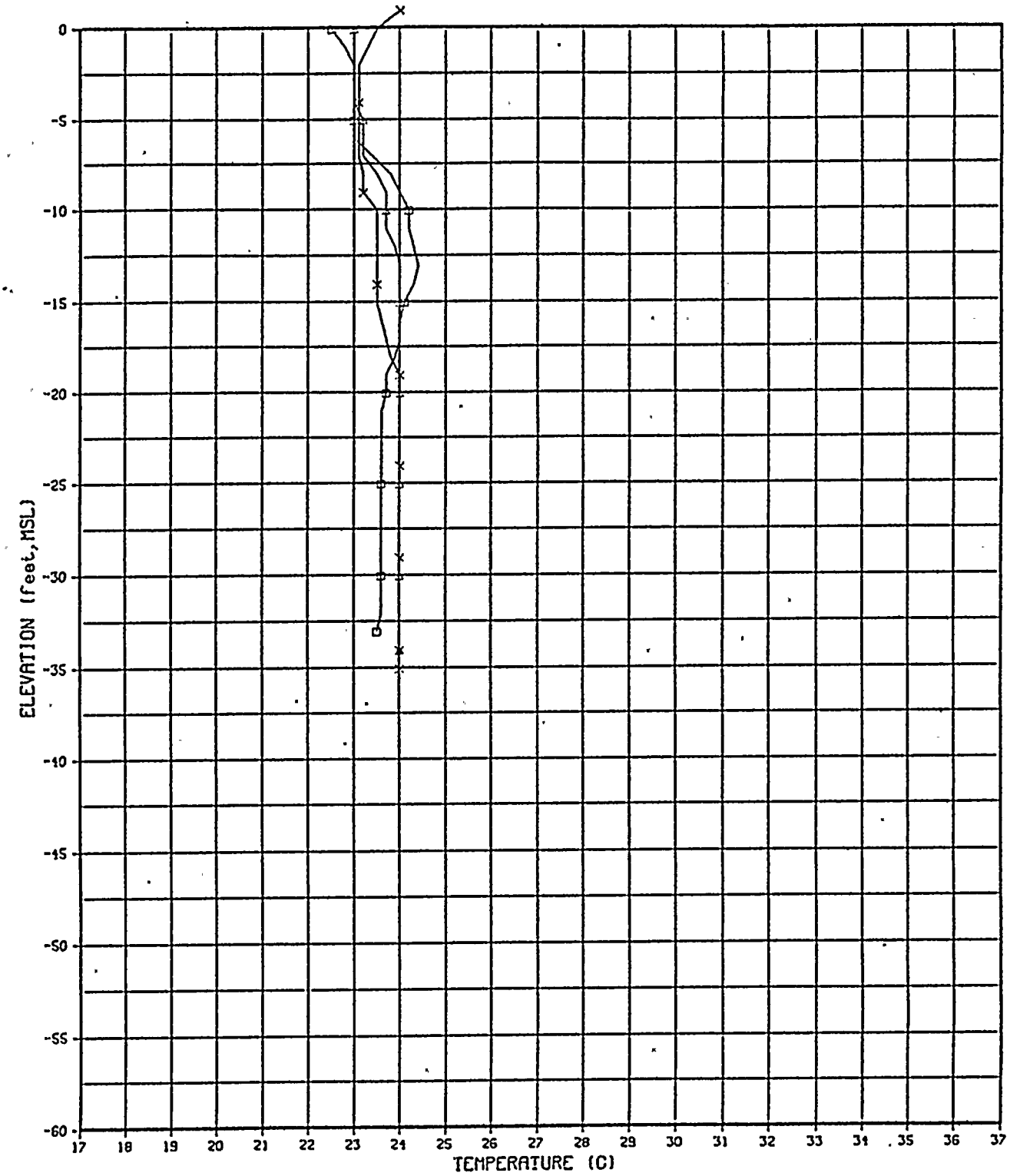
● NOVEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-27

0459804726 (1/79) FIGURE 19A



LEGEND

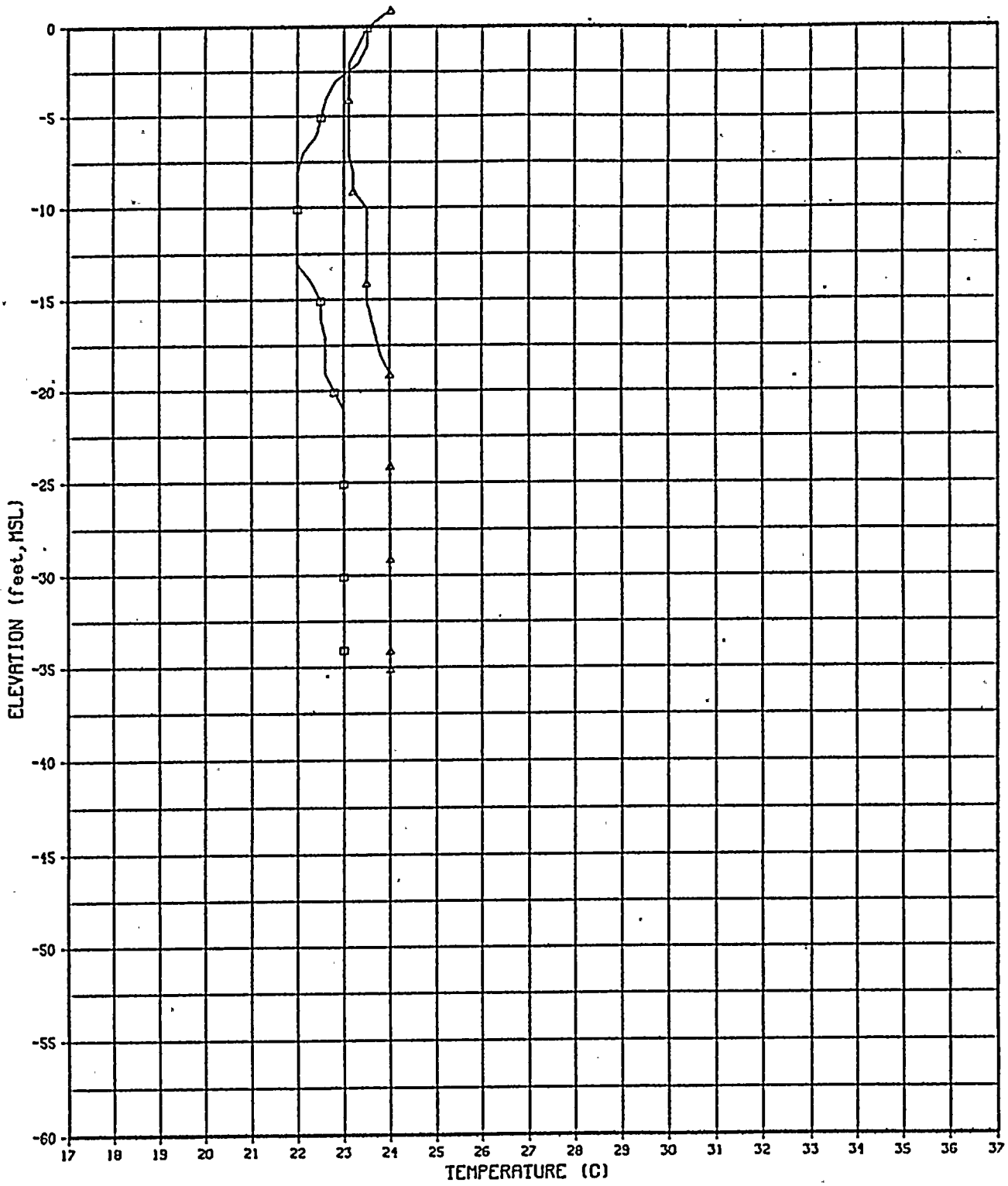
- ▫ JANUARY, 1979
- ▵ MARCH, 1979
- × MAY, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-27

0459804726 (7/79) FIGURE 19B



LEGEND

□ MAY, 1978

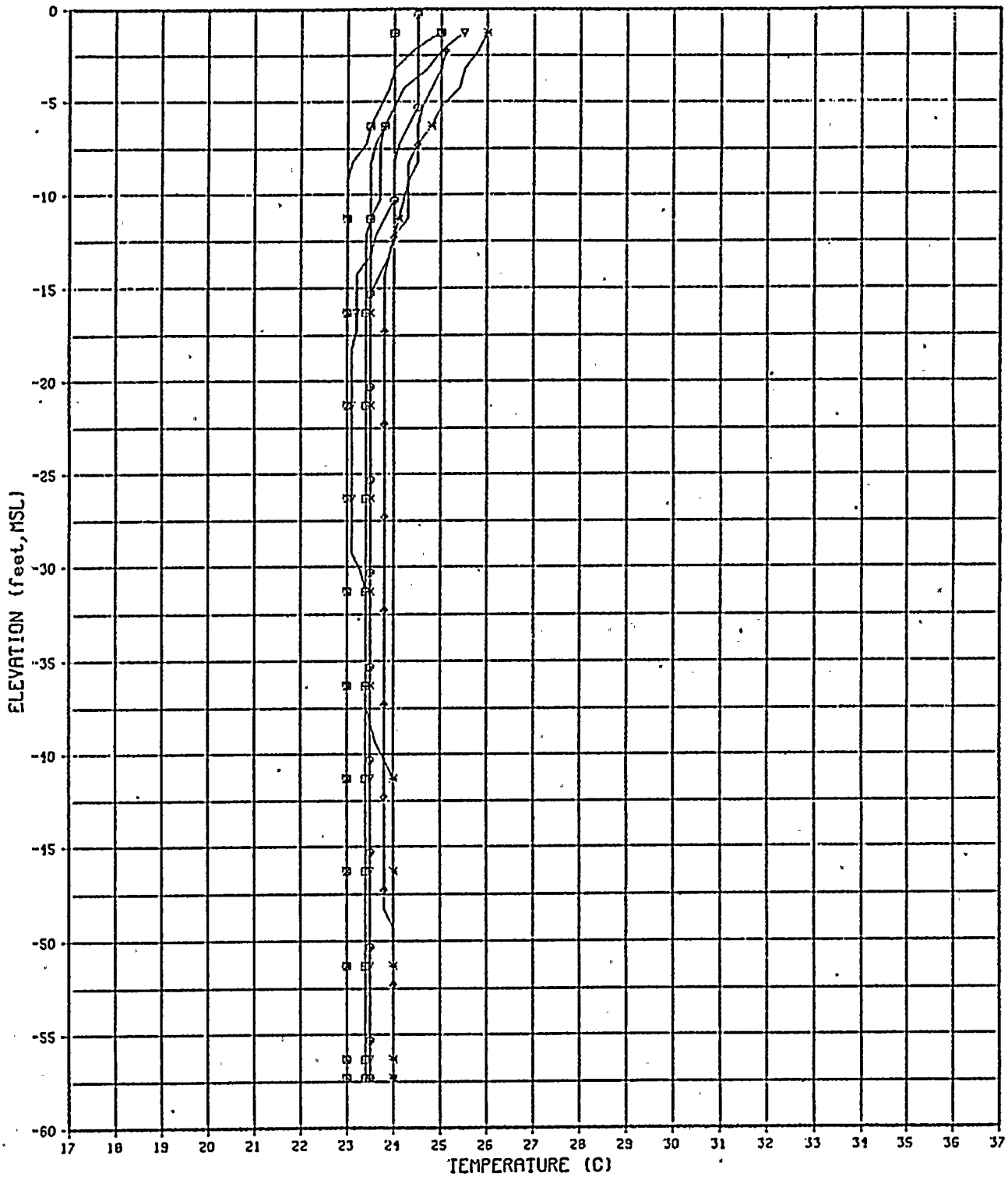
△ MAY, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-27

0459804726 (7/79) FIGURE 19C



LEGEND

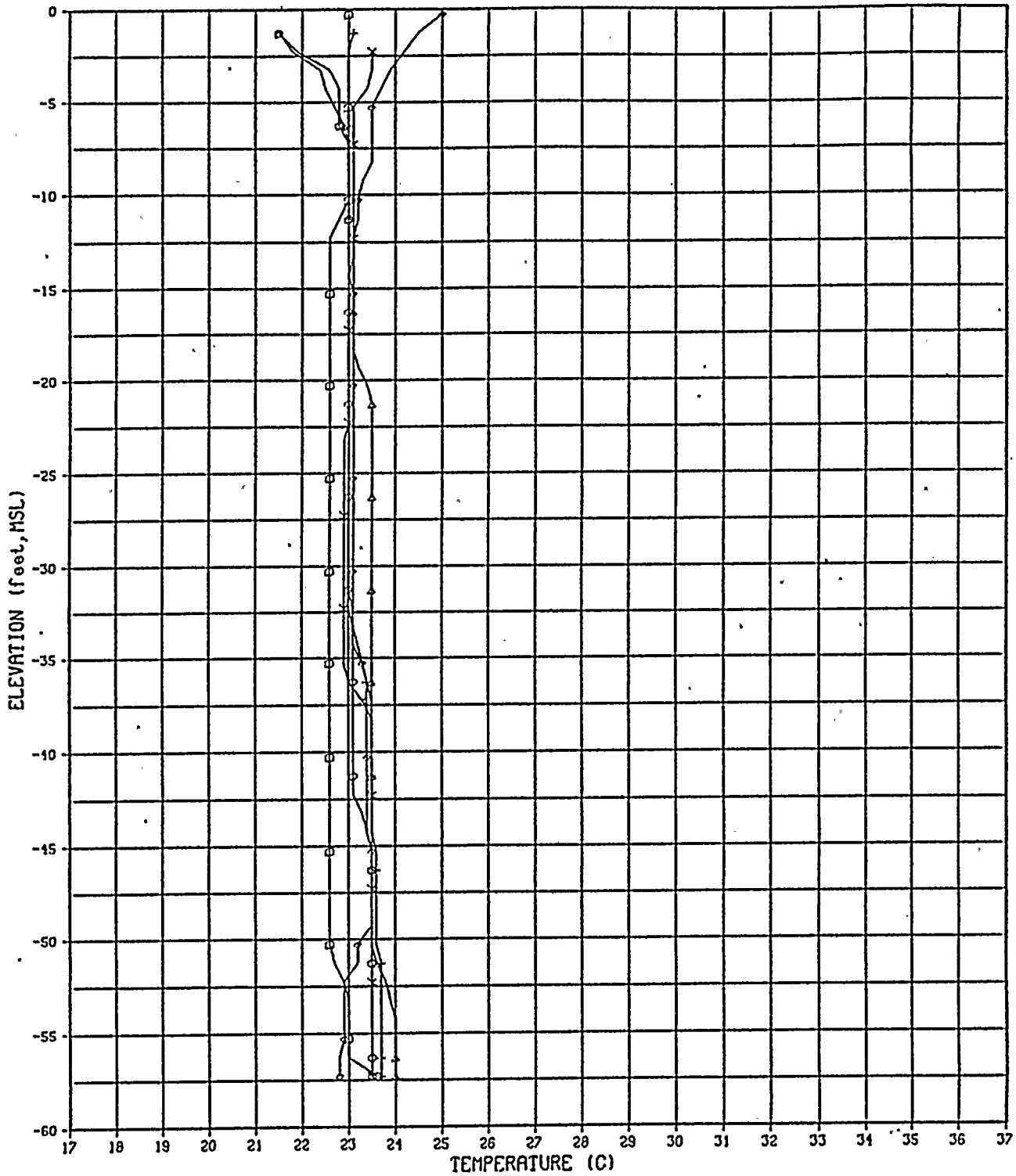
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊗ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-28

0159804726 (1/79) FIGURE 20A



LEGEND

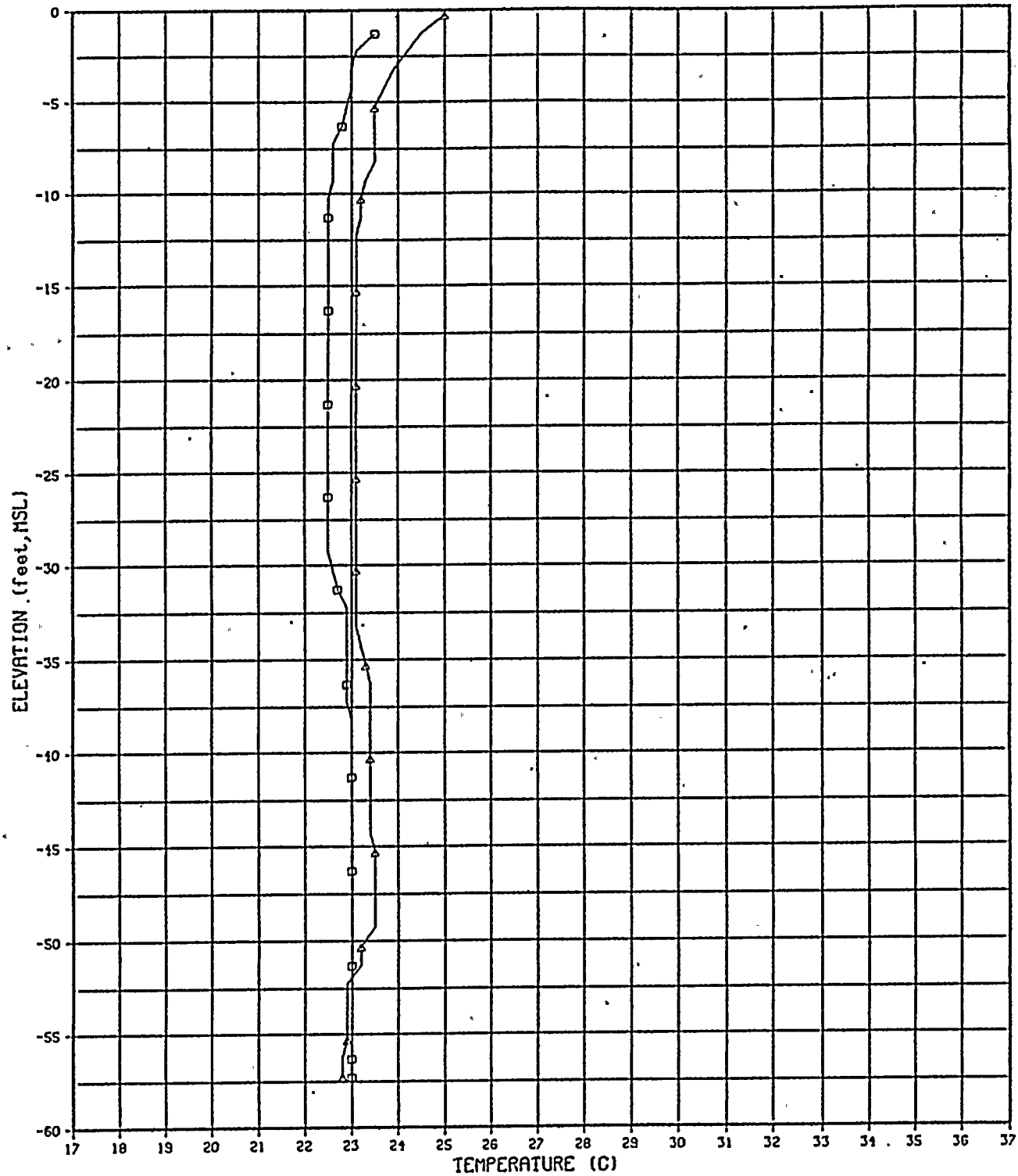
- ▫ JANUARY, 1979
- o FEBRUARY, 1979
- ▵ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◦ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-28

0459804726 (7/79) FIGURE 20B



LEGEND

□ JUNE, 1978

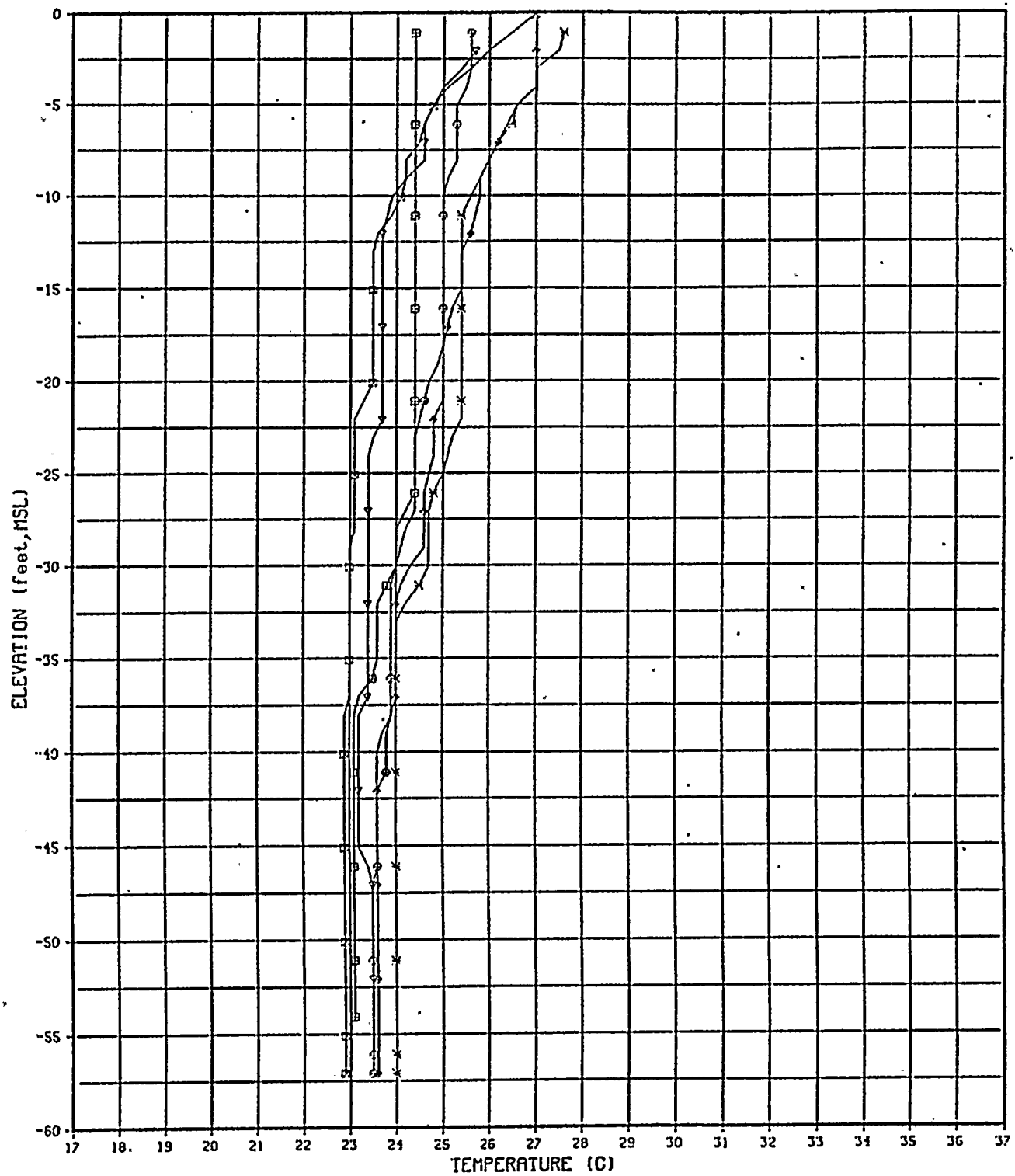
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-28

04S9804726 (7/79) FIGURE 20C



LEGEND

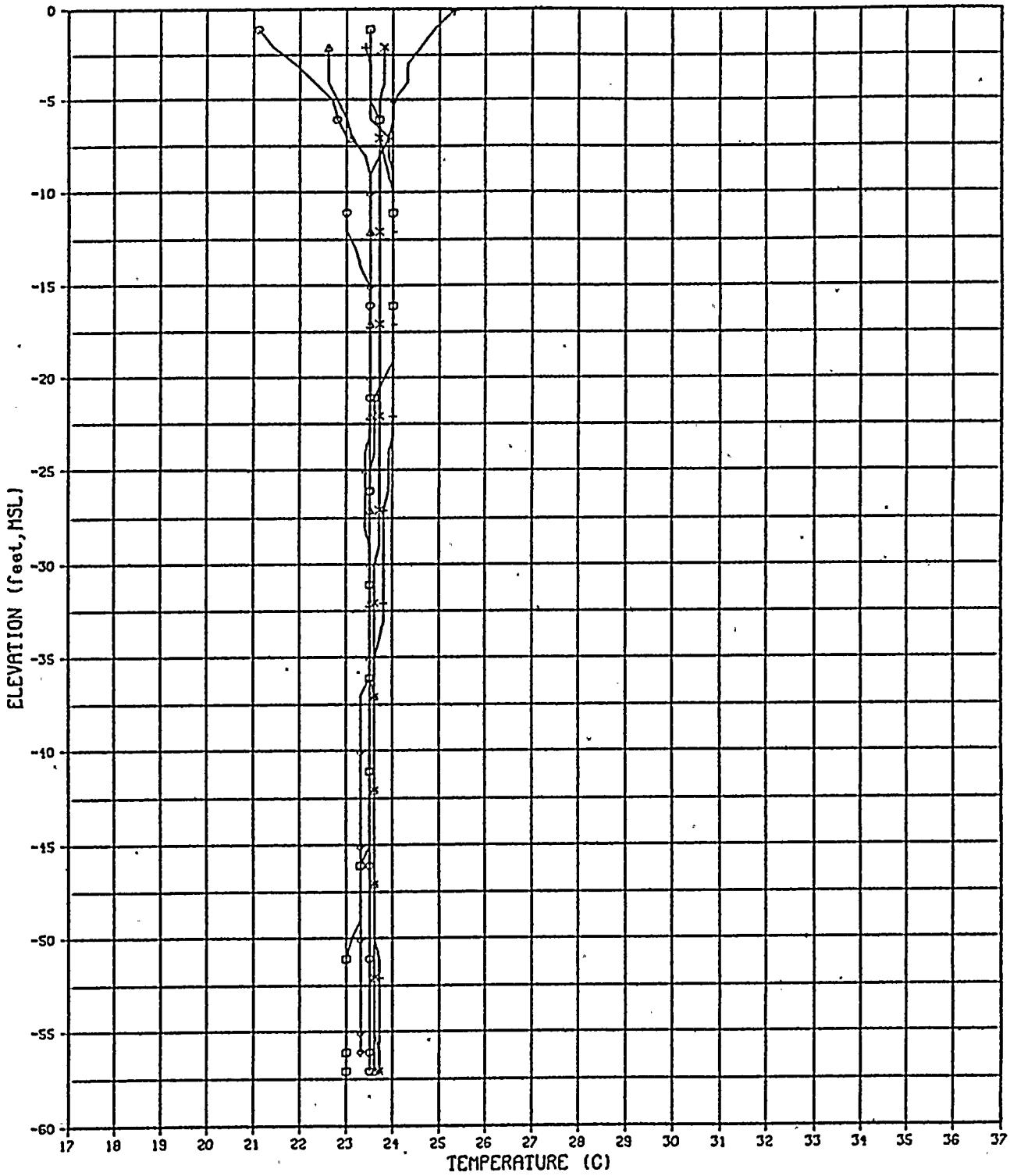
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-35

04S9804726 (1/79) FIGURE 21A



LEGEND

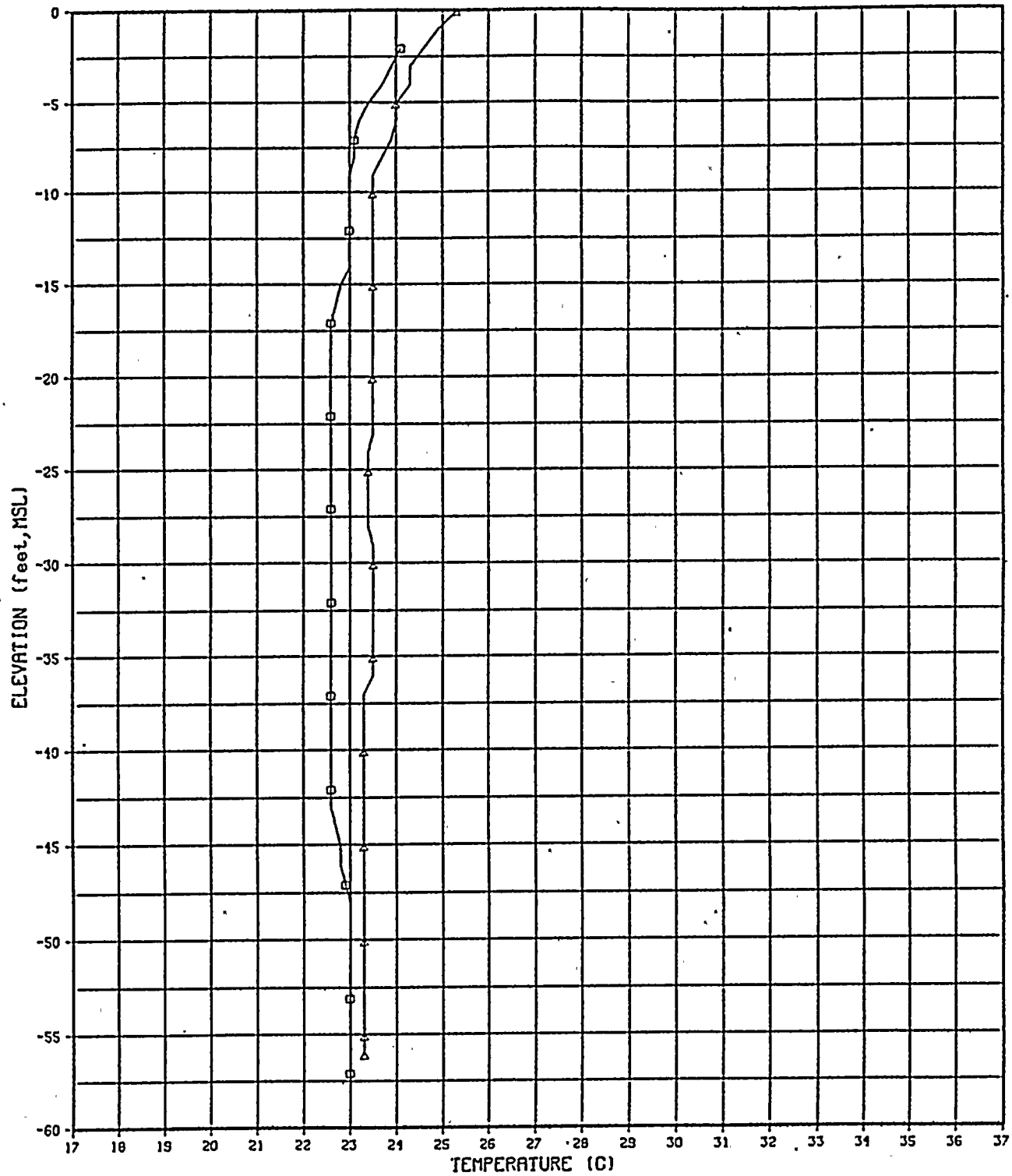
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-35

0459804726 (7/79). FIGURE 21B



LEGEND

□ JUNE, 1978

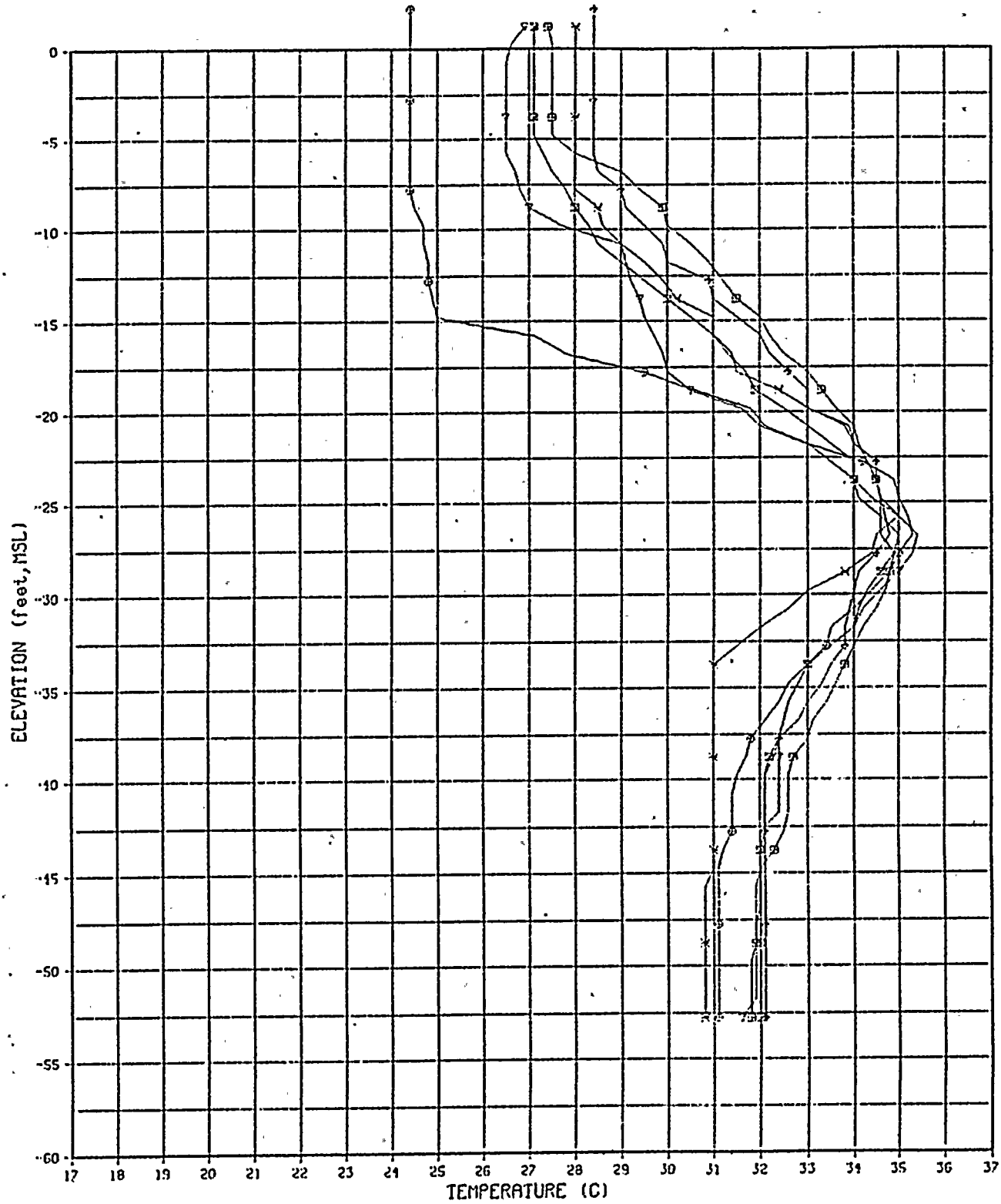
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER G-35

0459804726 (7/79) FIGURE 21C



LEGEND

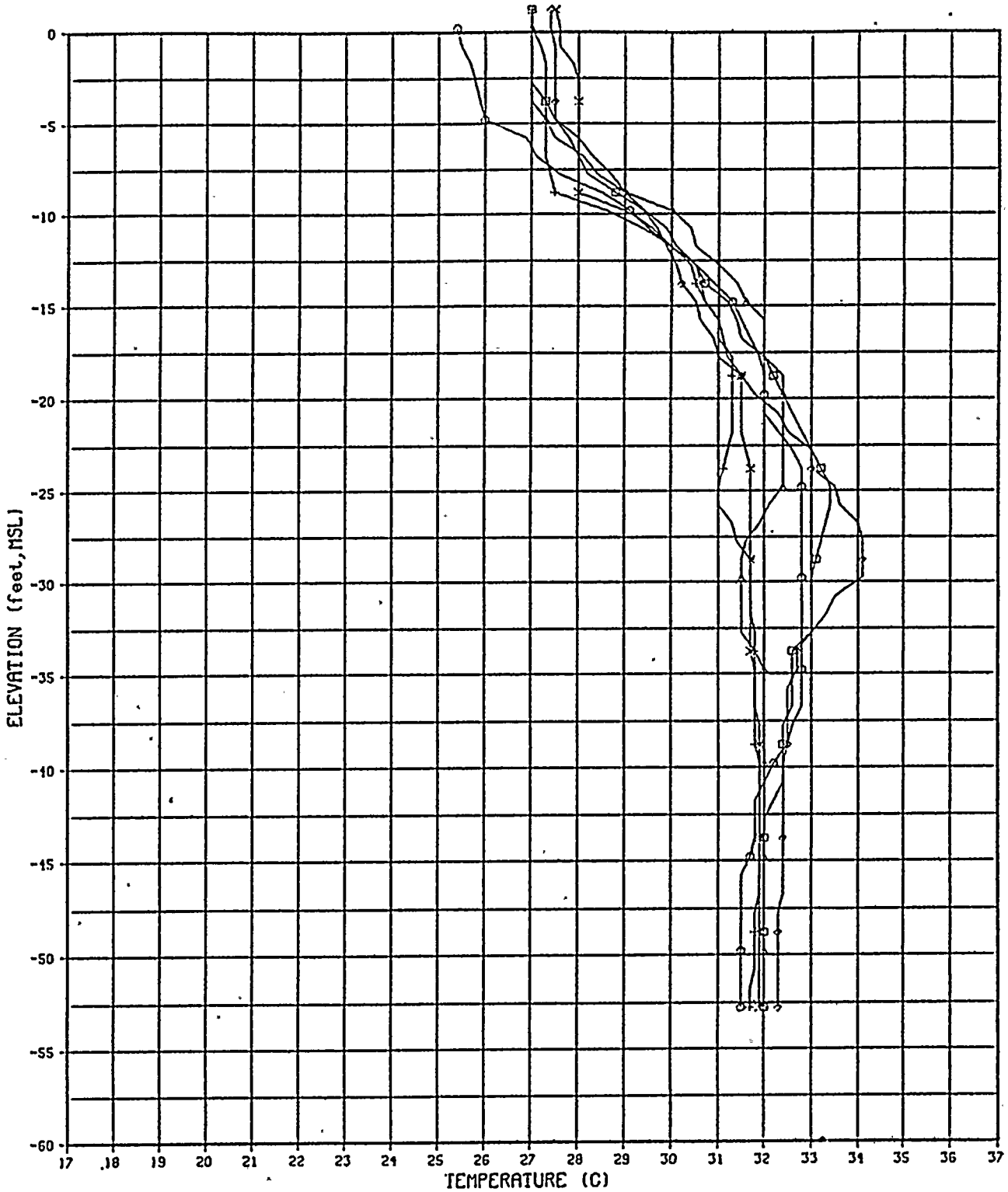
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- × SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER X-1

0459804726 (1/79) FIGURE 22A



LEGEND

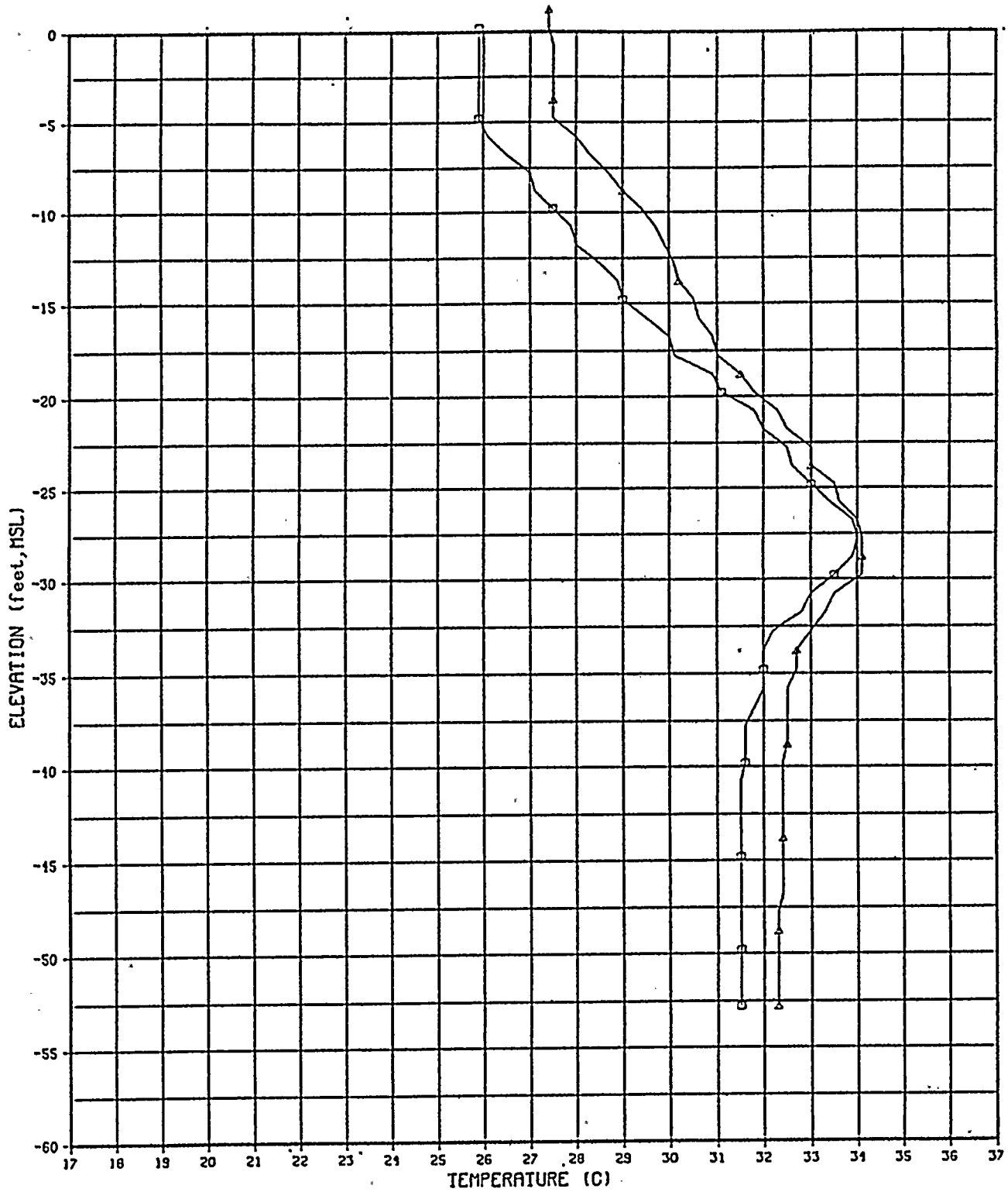
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER X-1

0459804726 (7/79) FIGURE 22B



LEGEND

□ JUNE, 1978

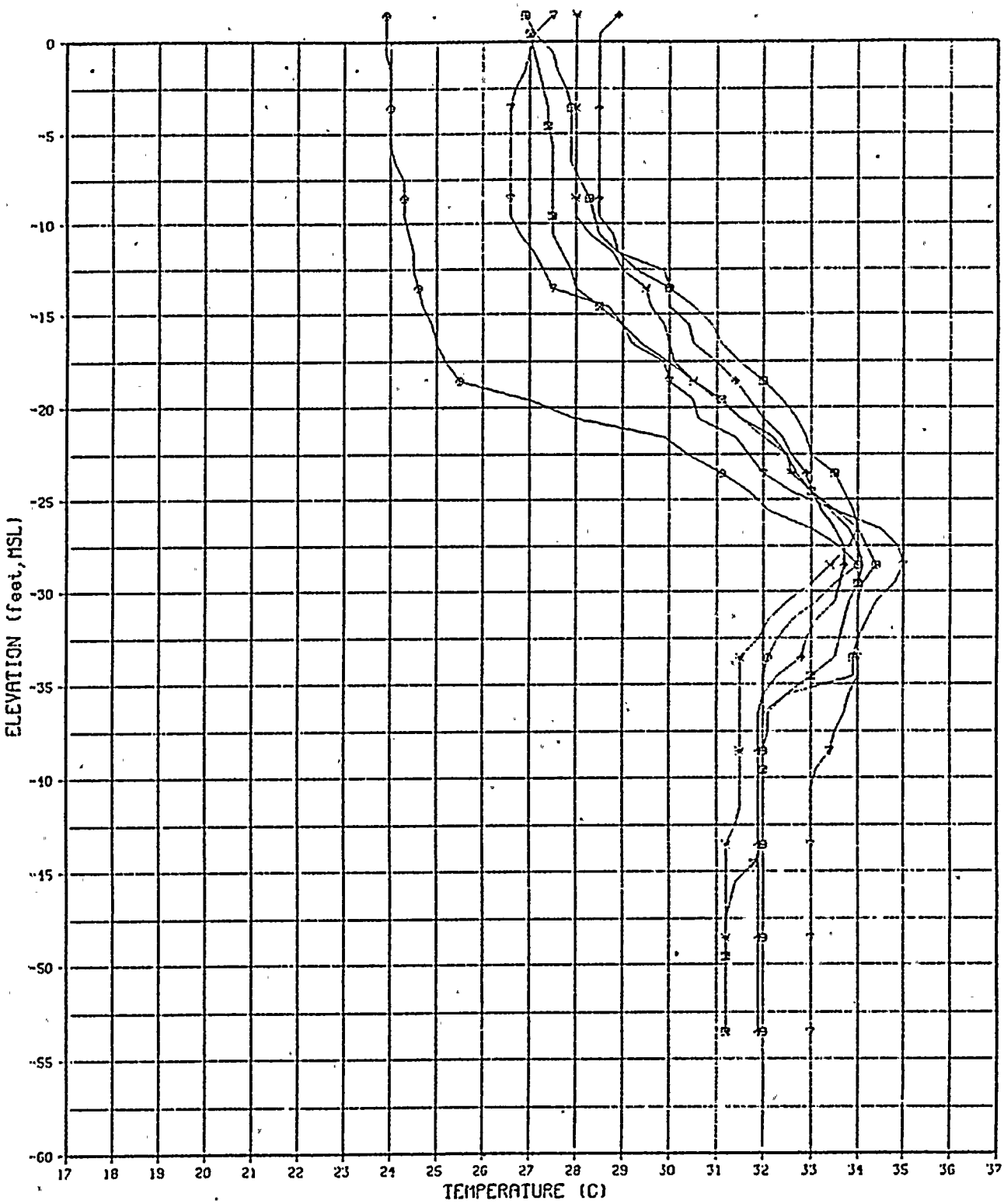
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER 'X-1'

0459804726 (7/79) FIGURE 22C



LEGEND

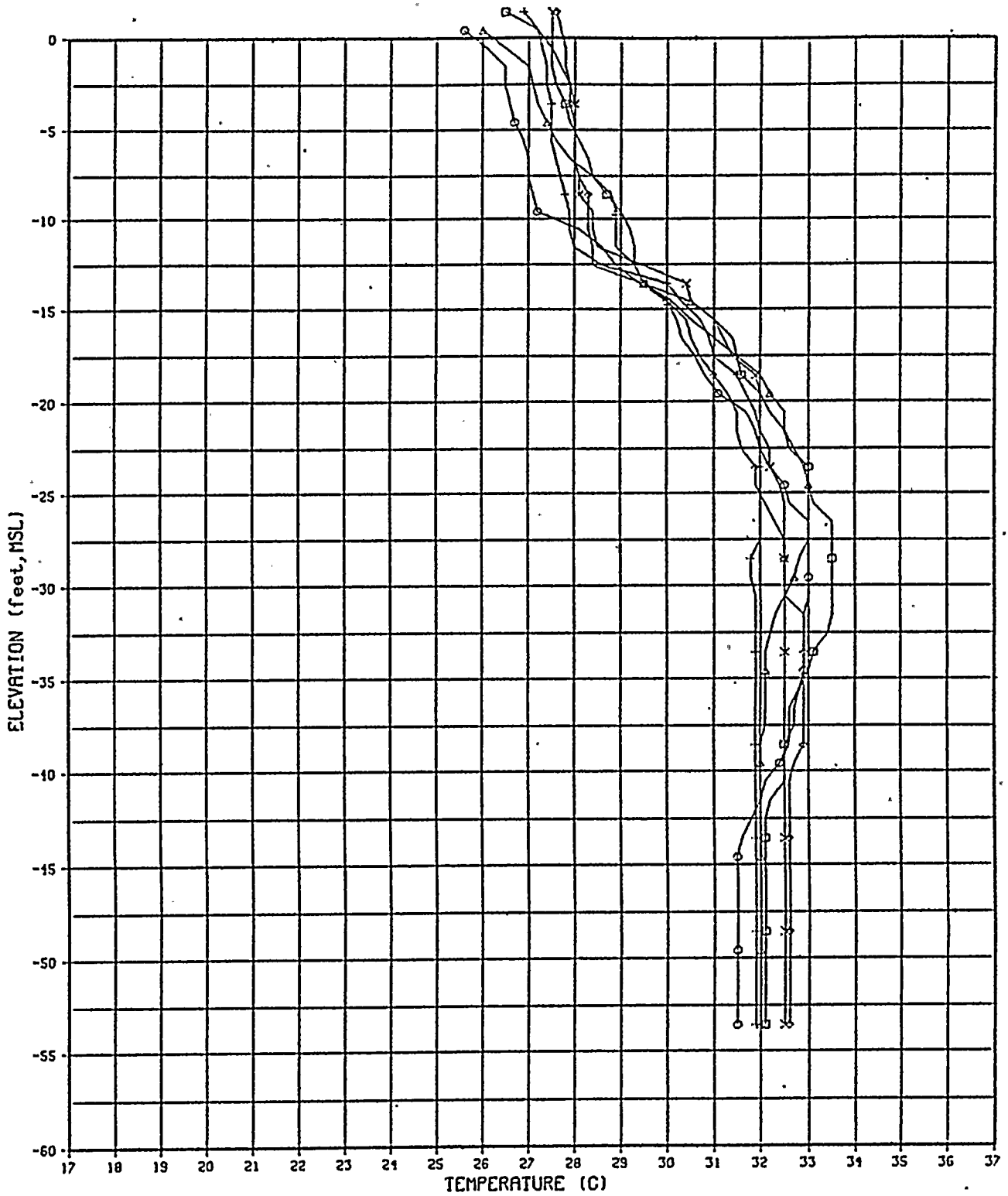
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER X-2

0459804726 (1/79) FIGURE 23A



LEGEND

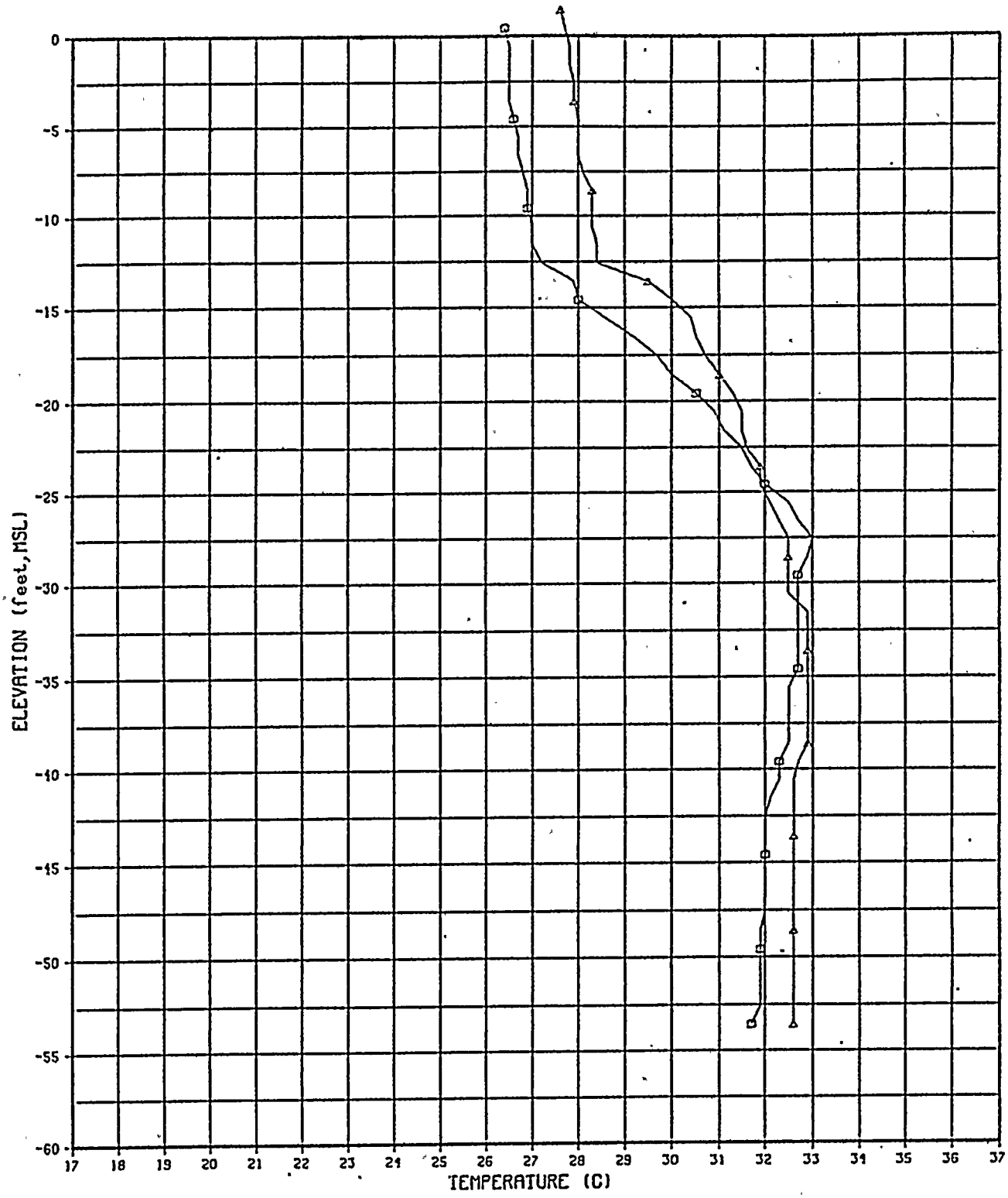
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER X-2

0459804726 (7/79) FIGURE 23B



LEGEND

□ JUNE, 1978

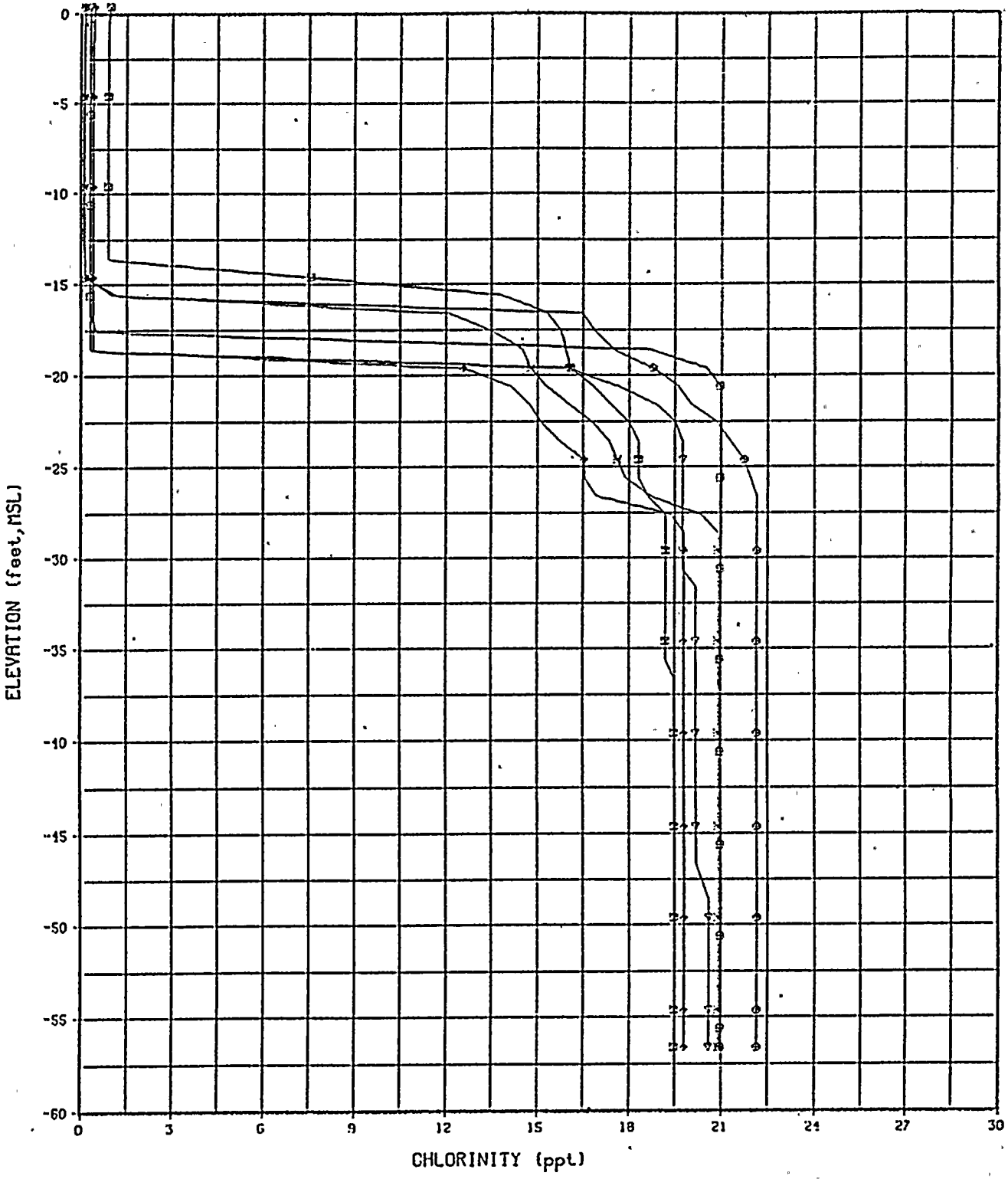
△ JUNE, 1979

DAMES AND MOORE

TEMPERATURE PROFILES

WELL NUMBER X-2

0459804726 (7/79) FIGURE 23C



LEGEND

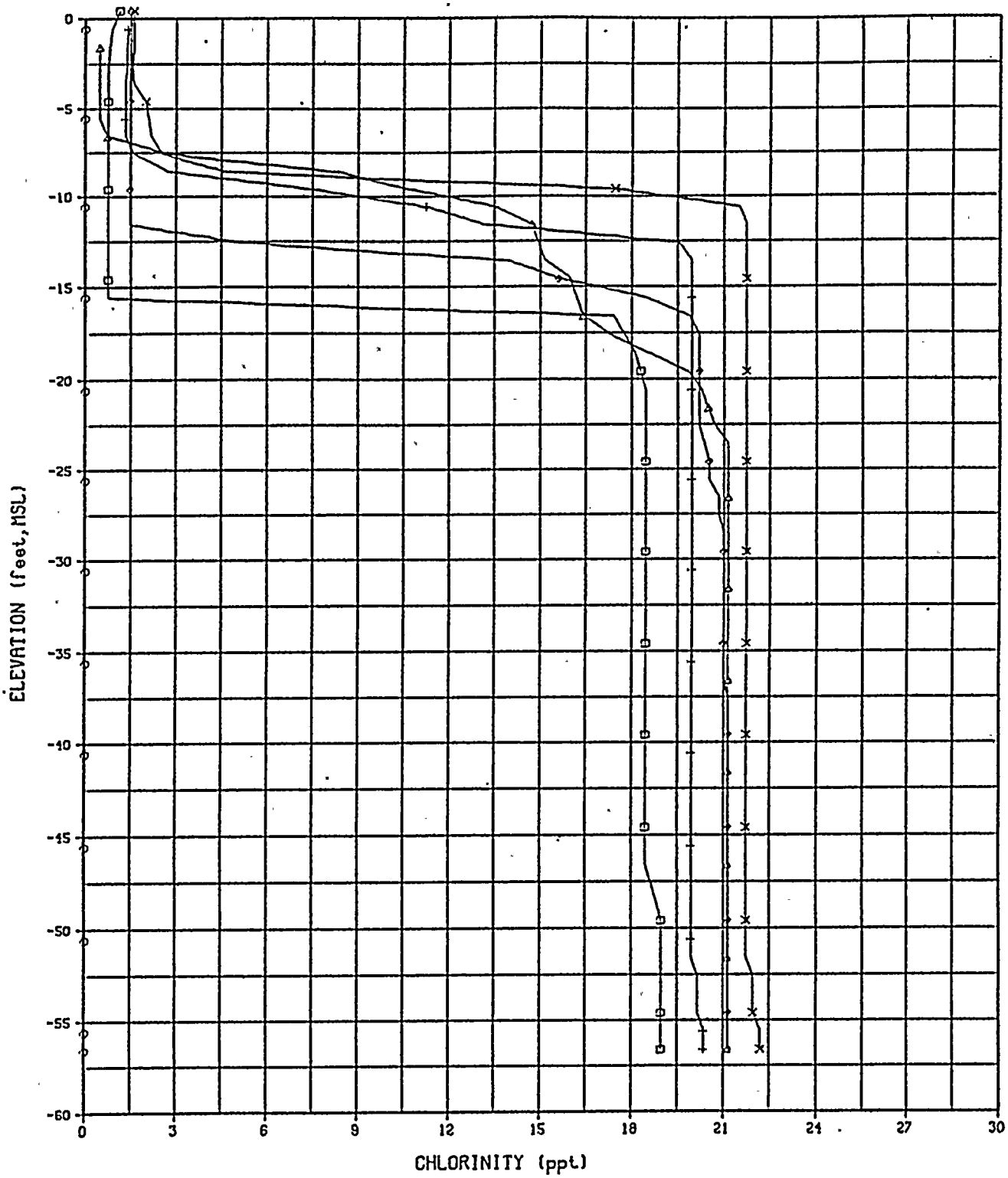
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-A

0459804726 (1/79) FIGURE 24A



LEGEND

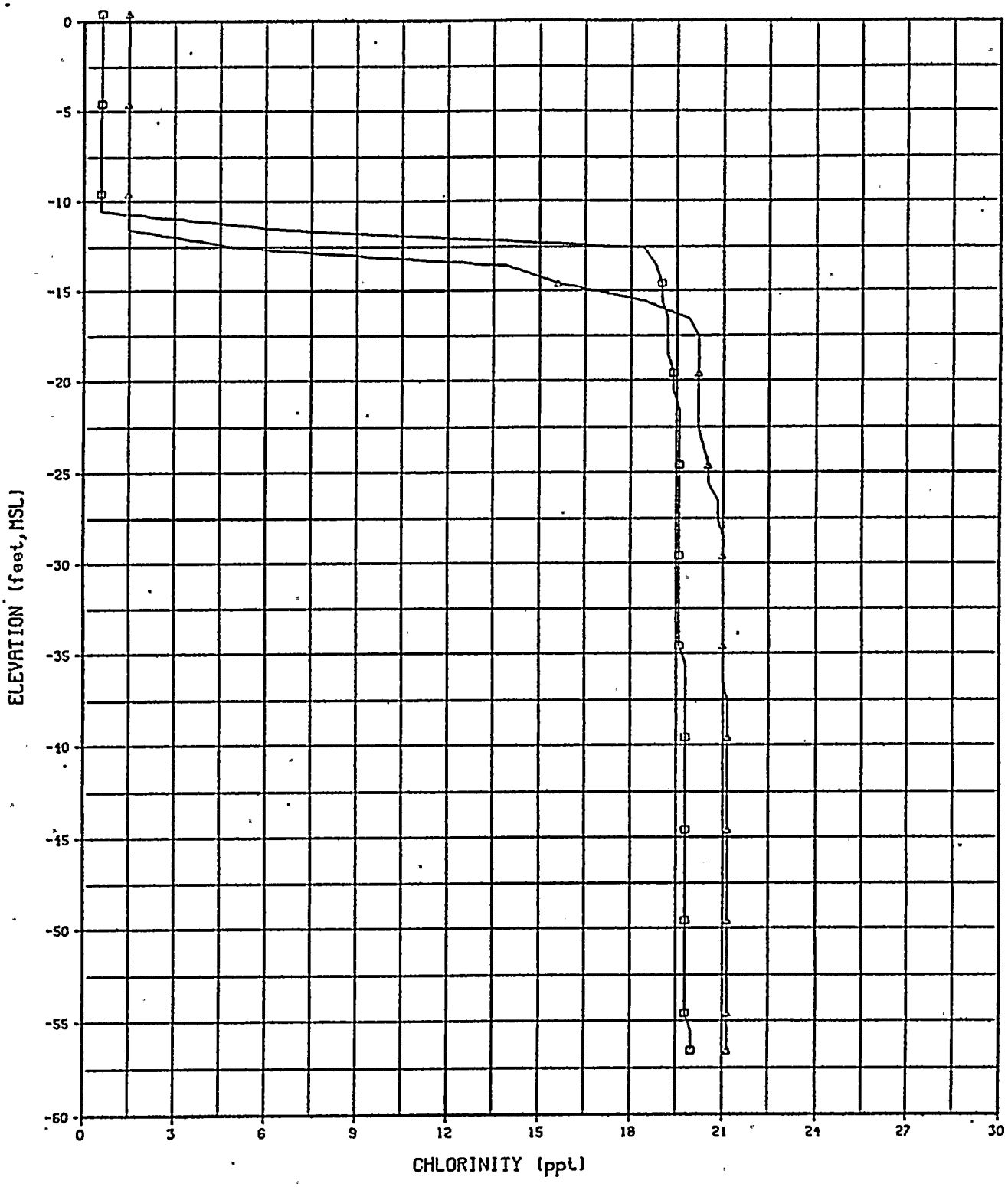
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-A

0459804726 (7/79) FIGURE 24B



LEGEND

□ JUNE, 1978

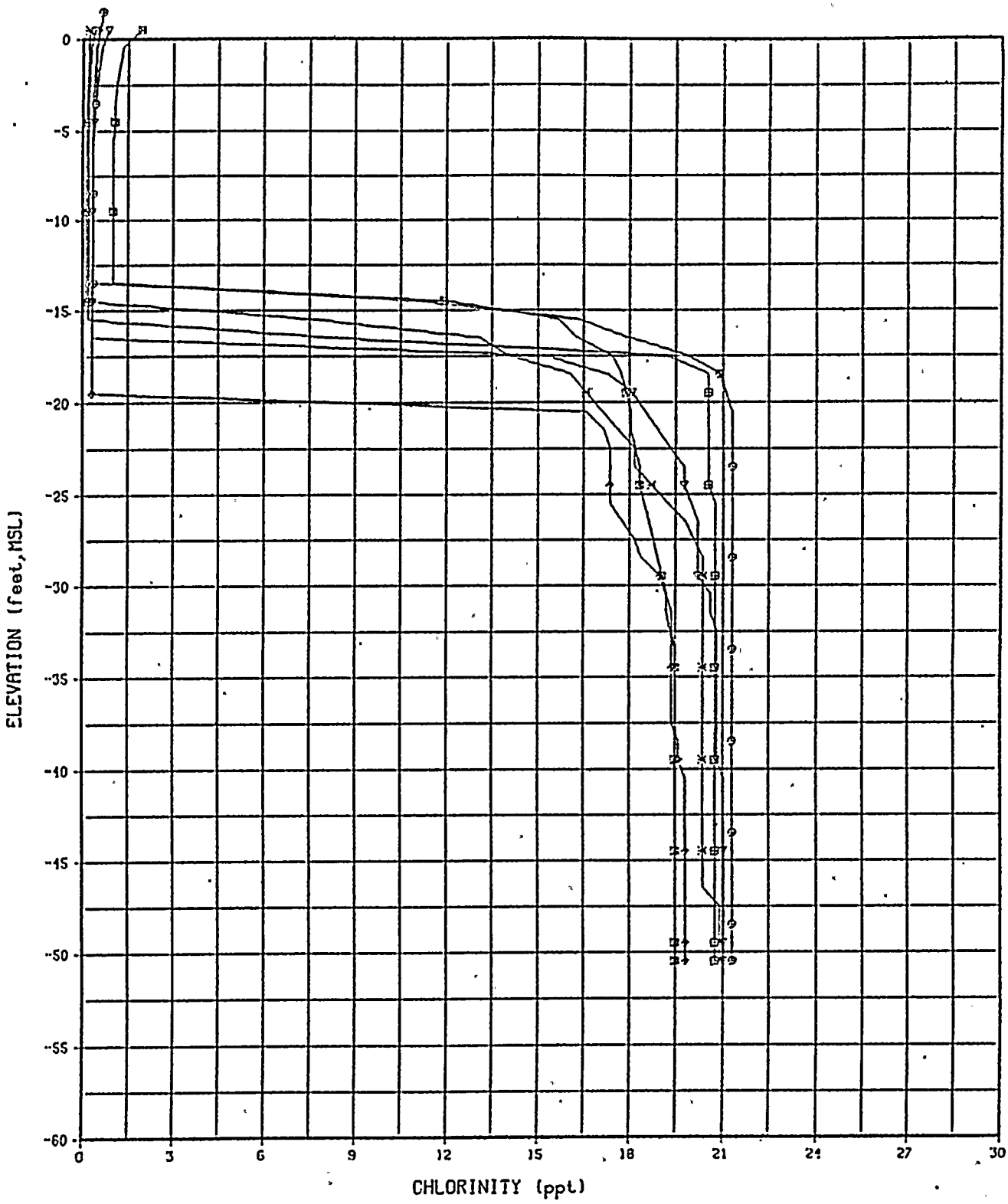
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-A

0459804726 (7/79) FIGURE 24C



LEGEND

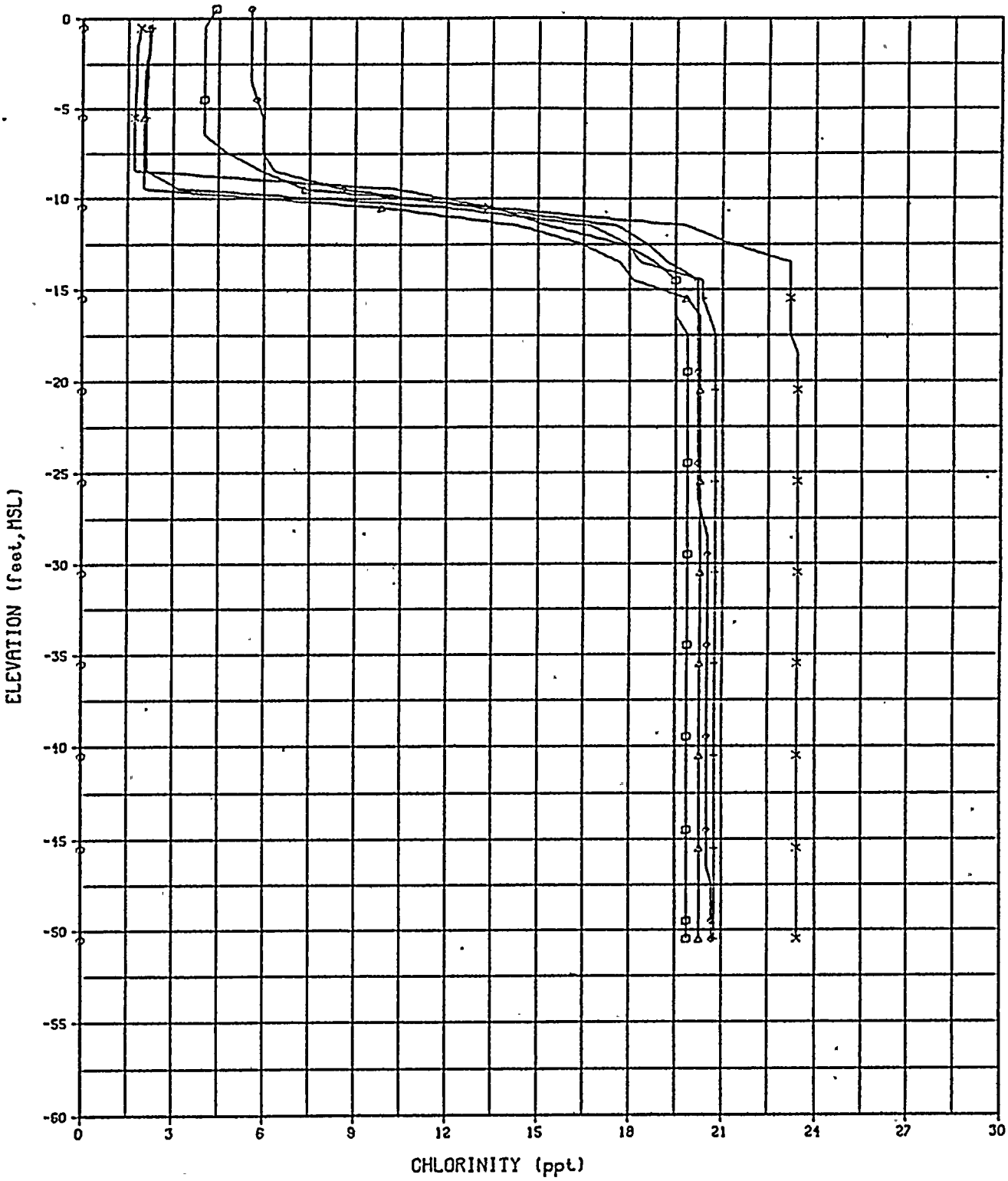
- ▽ JULY, 1978
- ◆ OCTOBER, 1978
- ⊡ AUGUST, 1978
- ⊙ NOVEMBER, 1978
- ⊠ SEPTEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-B

0459804726 (1/79) FIGURE 25A



LEGEND

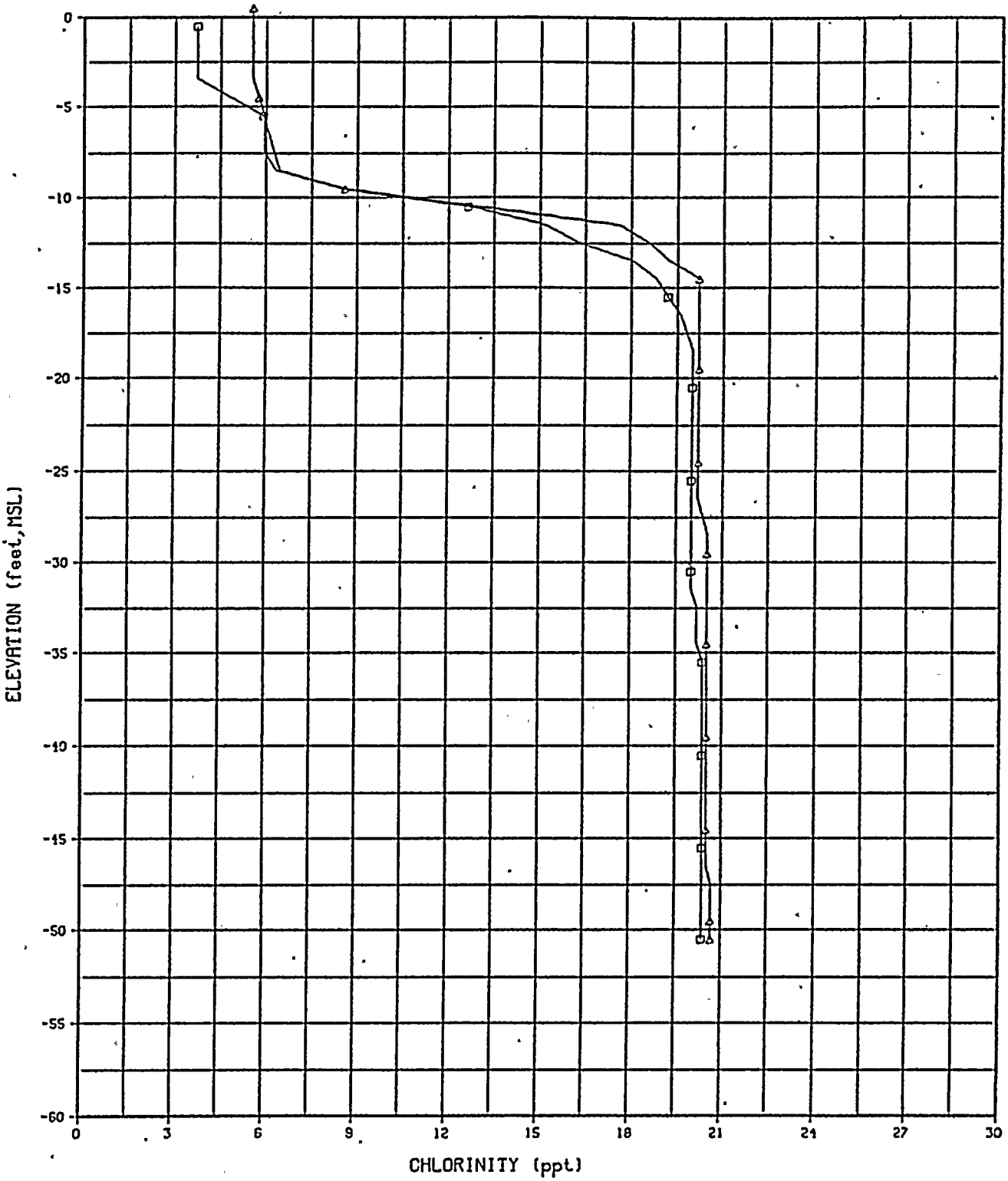
- ▫ JANUARY, 1979
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-B

0459804726 (7/79) FIGURE 25B



LEGEND

□ JUNE, 1978

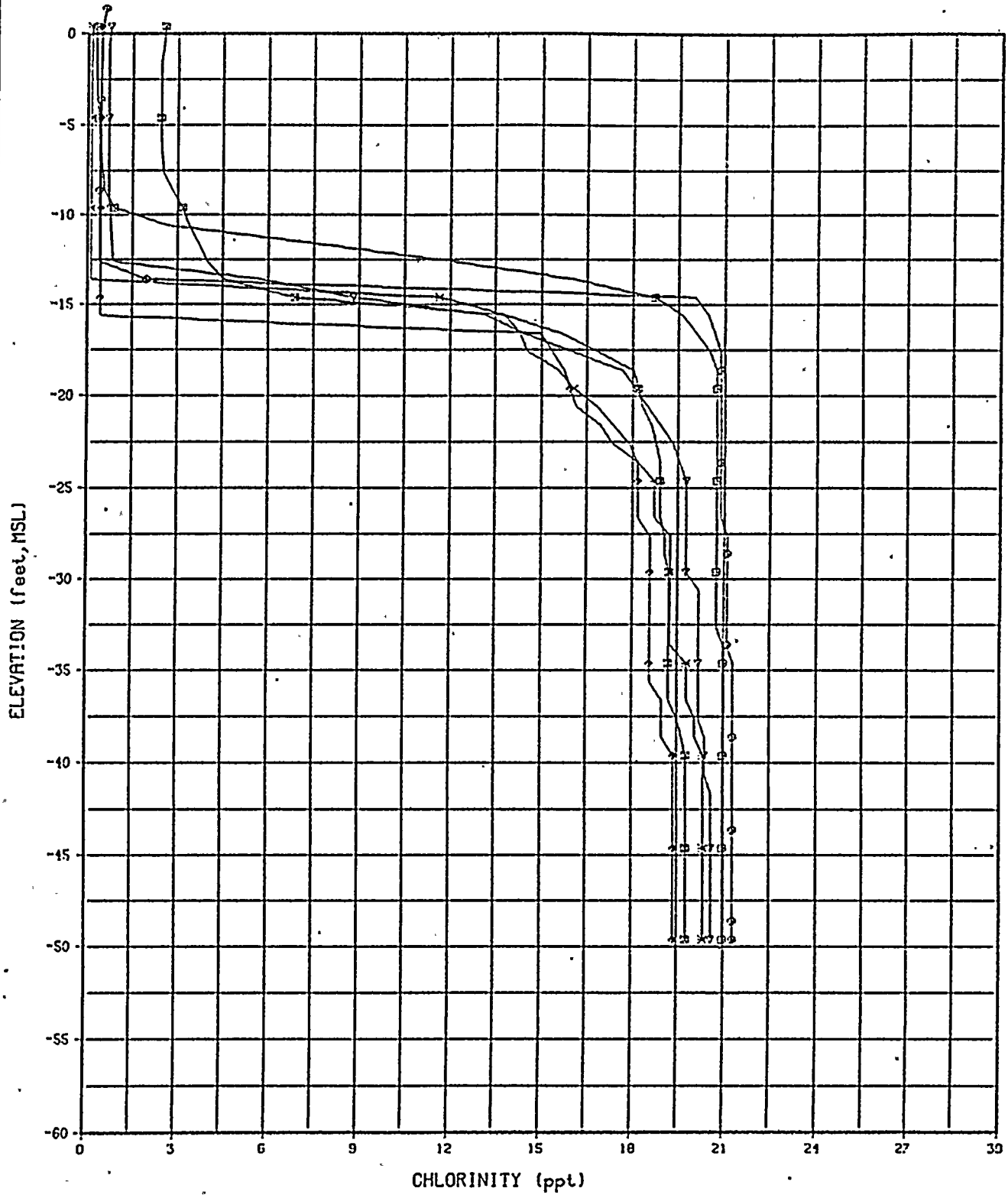
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-B

0459804726 (7/79) FIGURE 25C



LEGEND

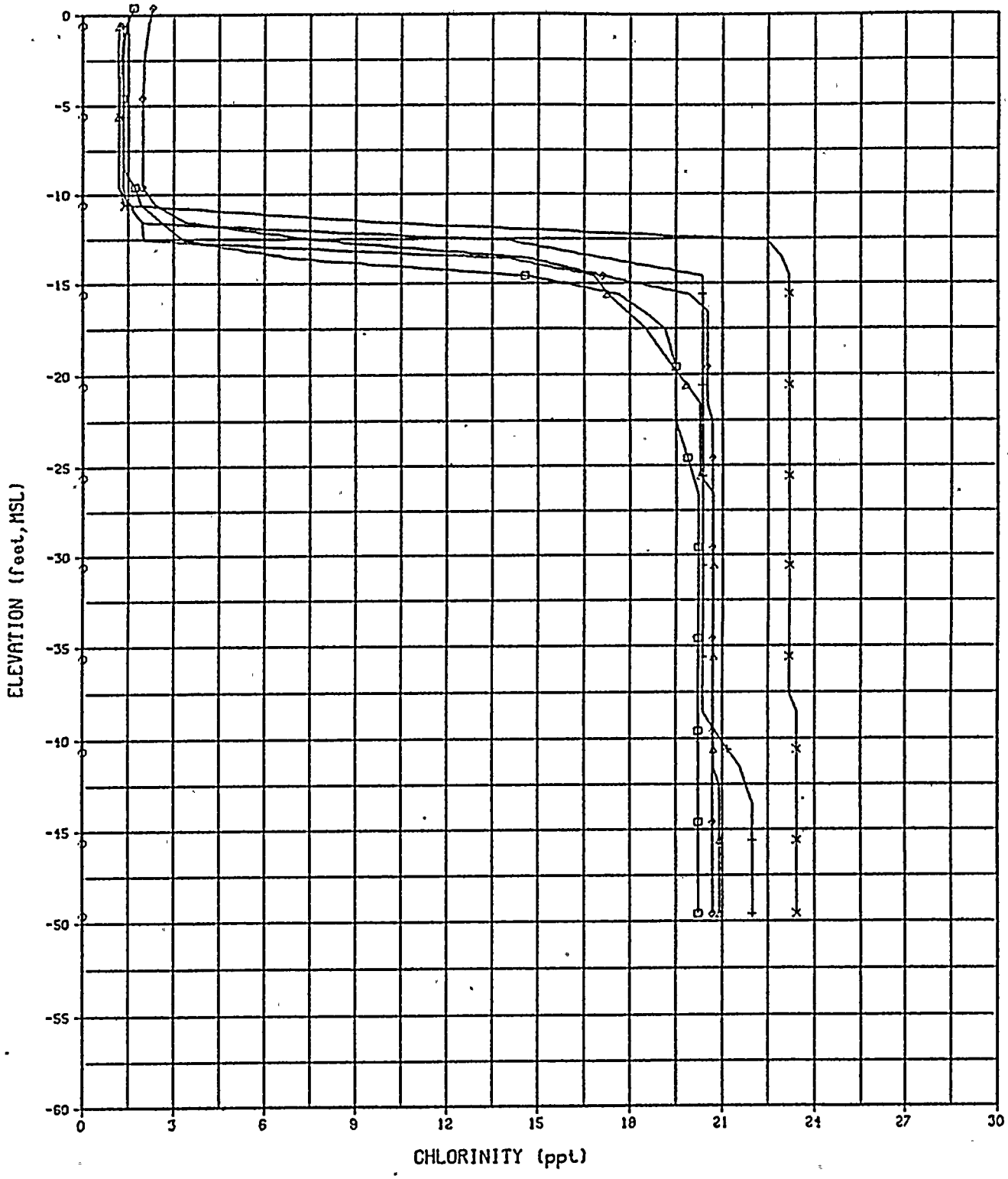
- ▽ JULY, 1978
- ◘ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ♦ OCTOBER, 1978
- ● NOVEMBER, 1978
- ■ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-C

0459804726 (1/79) FIGURE 26A



LEGEND

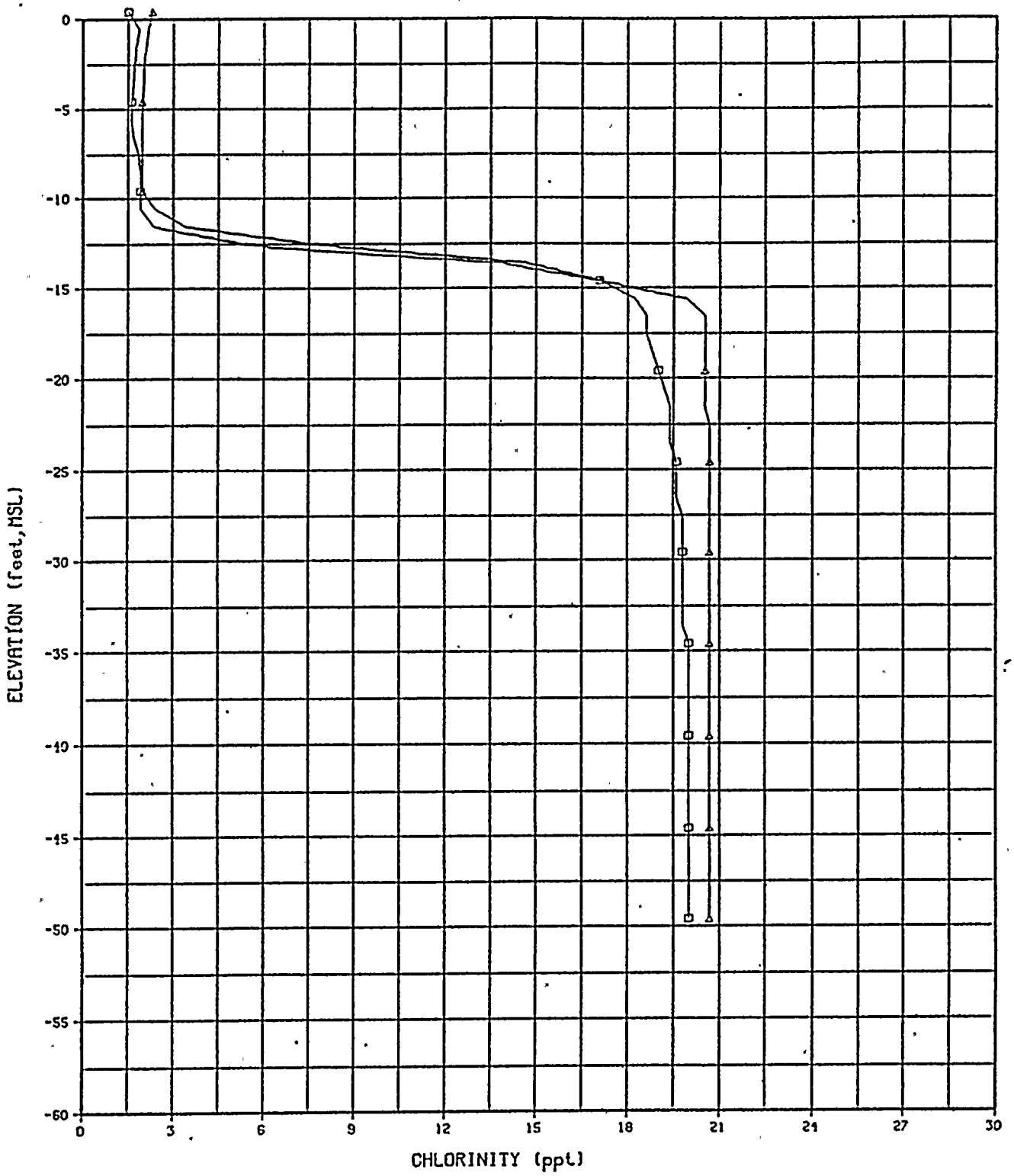
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-C

0459804726 (7/79) FIGURE 26B



LEGEND

□ JUNE, 1978

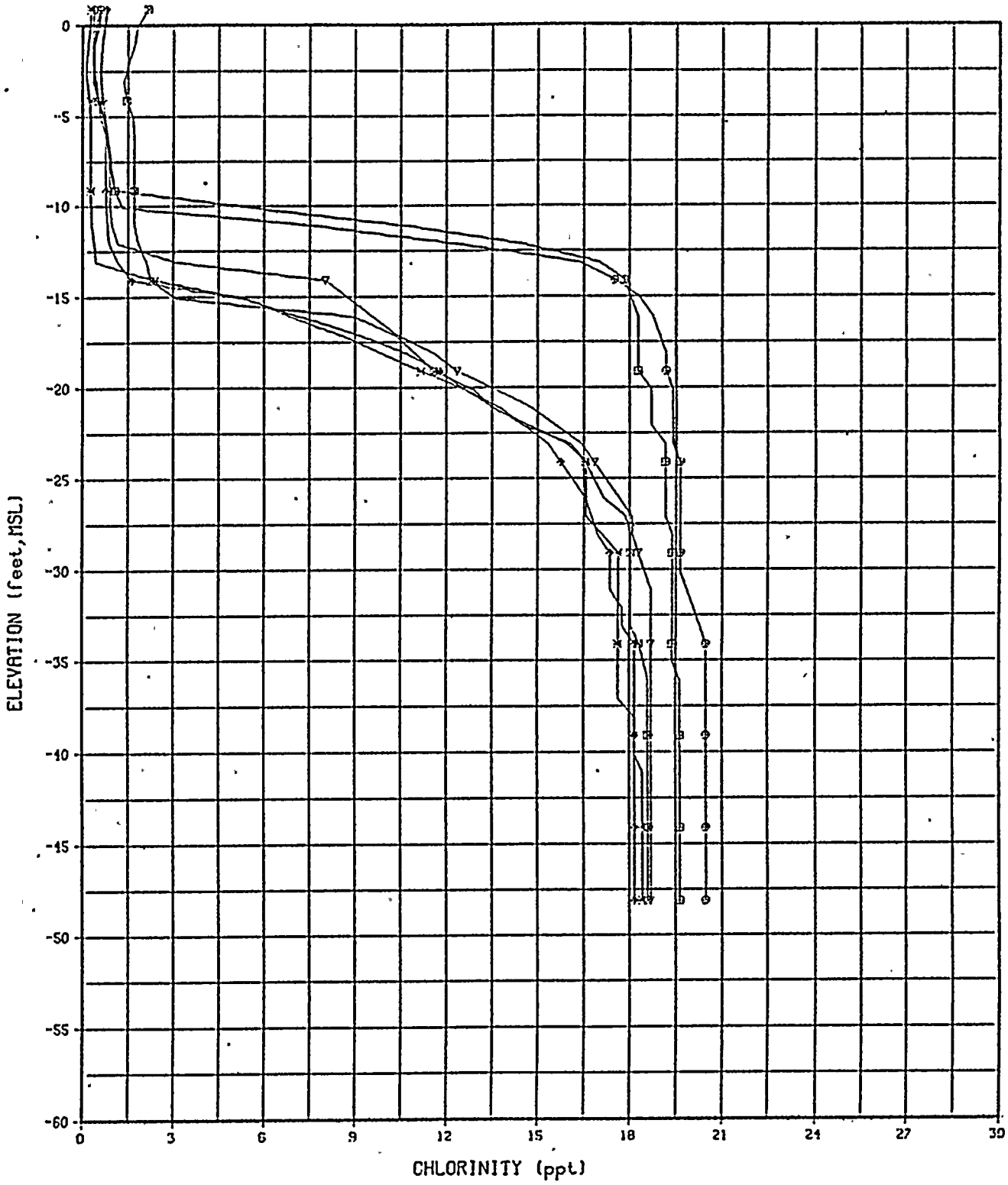
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-C

0459804726 (7/79) FIGURE 26C



LEGEND

- ▽ JULY, 1978
- ◪ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊗ NOVEMBER, 1978
- ⊠ DECEMBER, 1978

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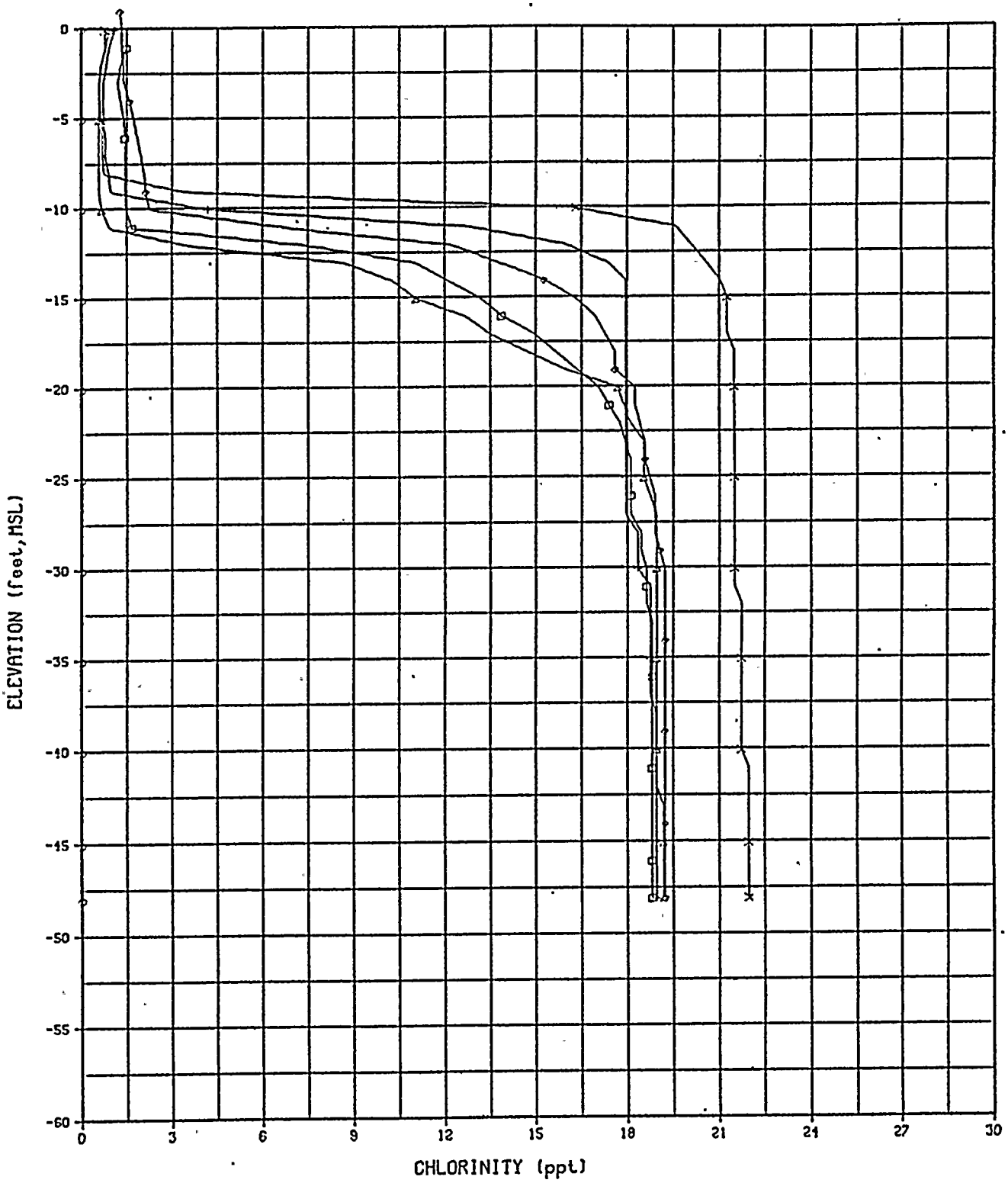
CHLORINITY PROFILES

WELL NUMBER ID-D

0459804726 (1/79) FIGURE27A



LEGEND

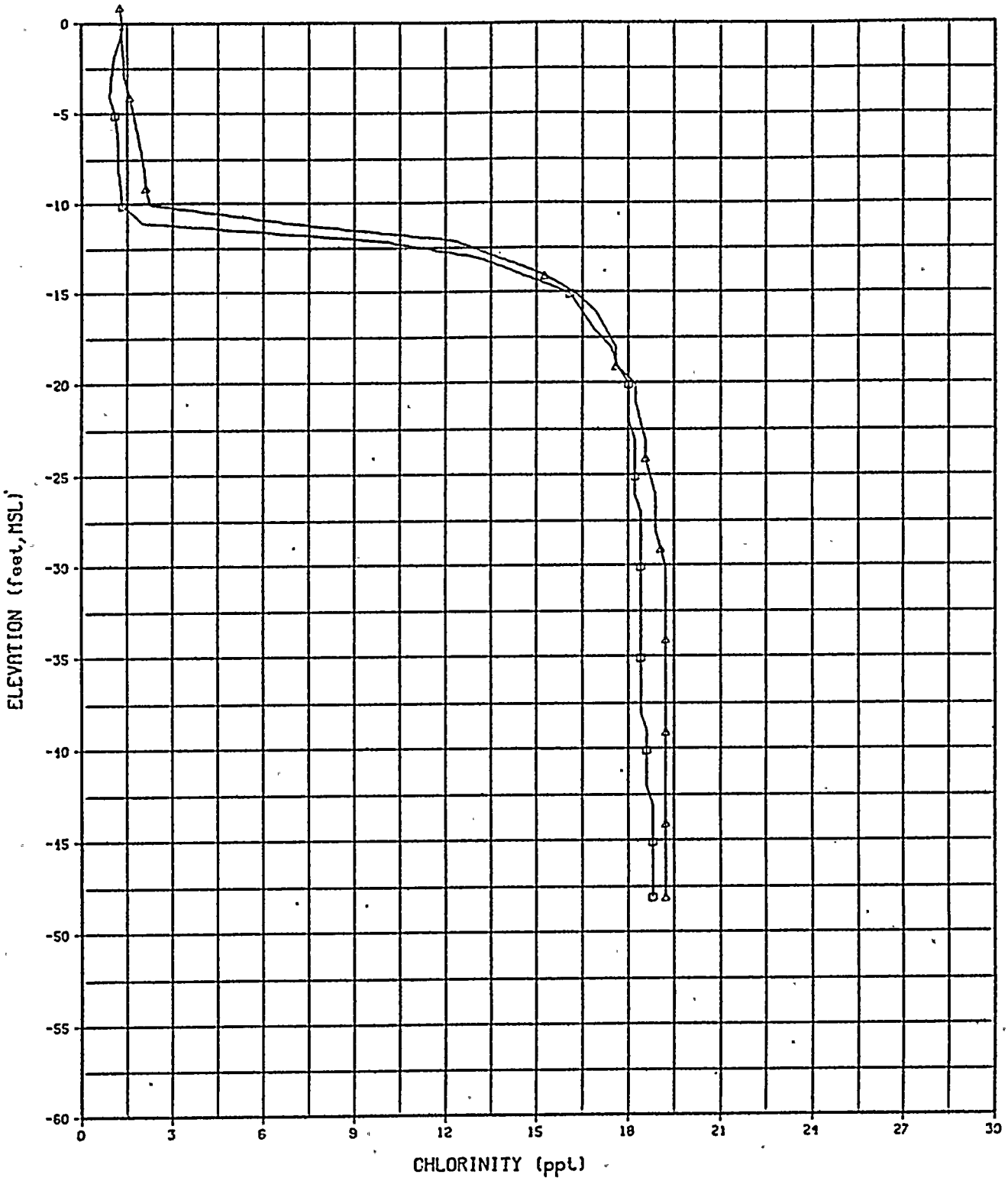
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◦ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-D

0459804726 (7/79) FIGURE 27B



LEGEND

□ JUNE, 1978

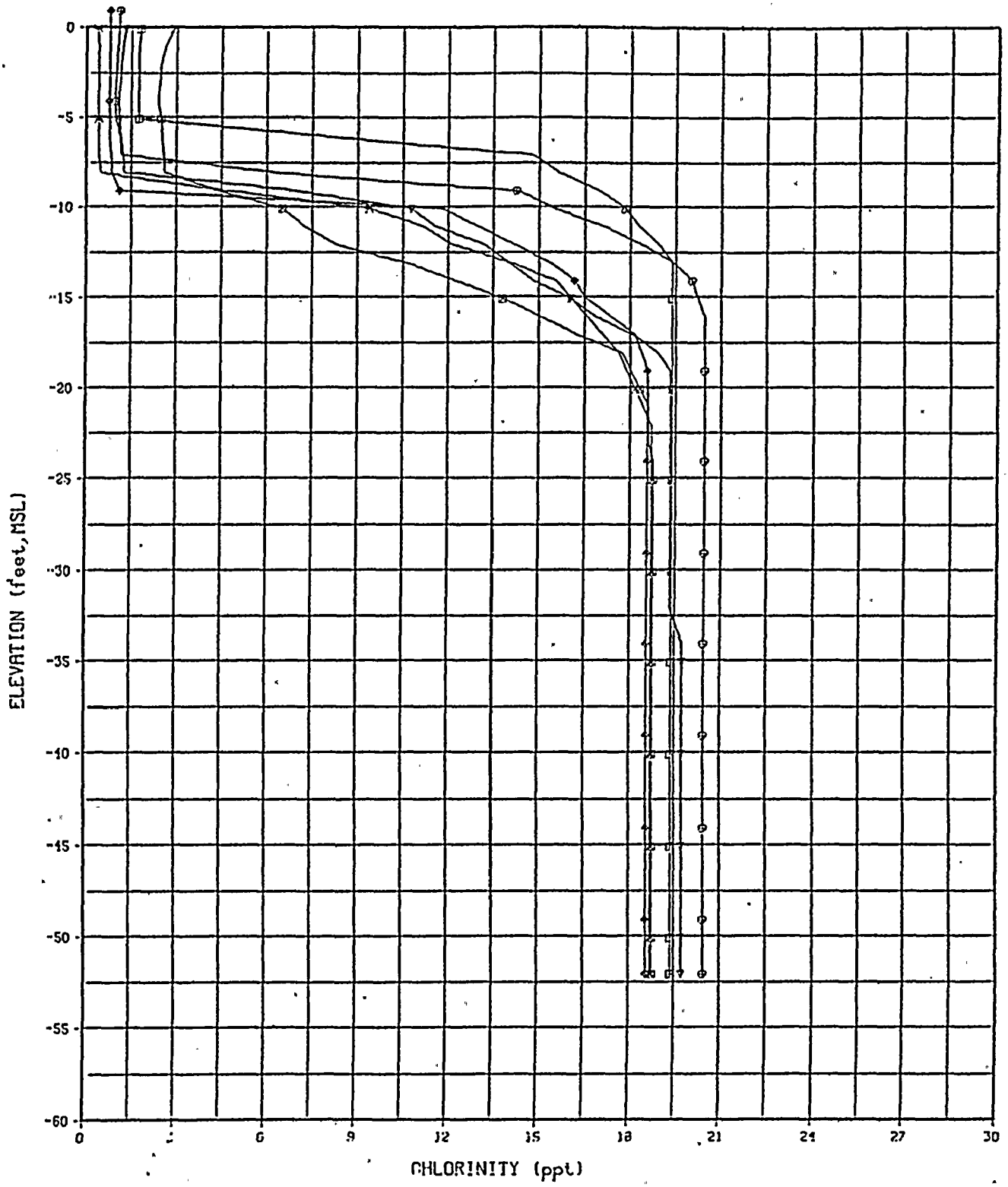
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-D

0459804726 (7/79) FIGURE 27C



LEGEND

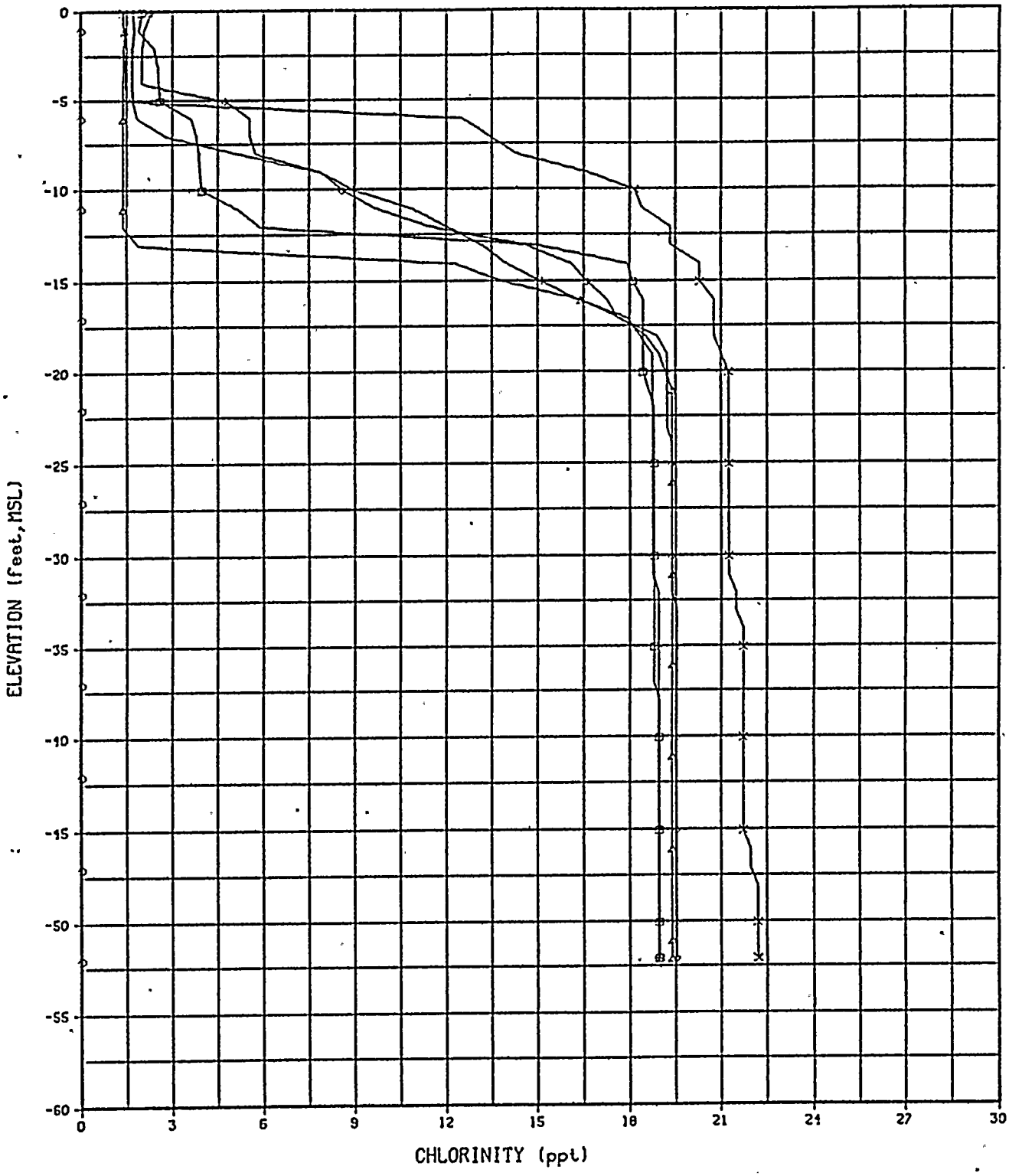
- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-E

0459804726 (1/79) FIGURE 28A



LEGEND

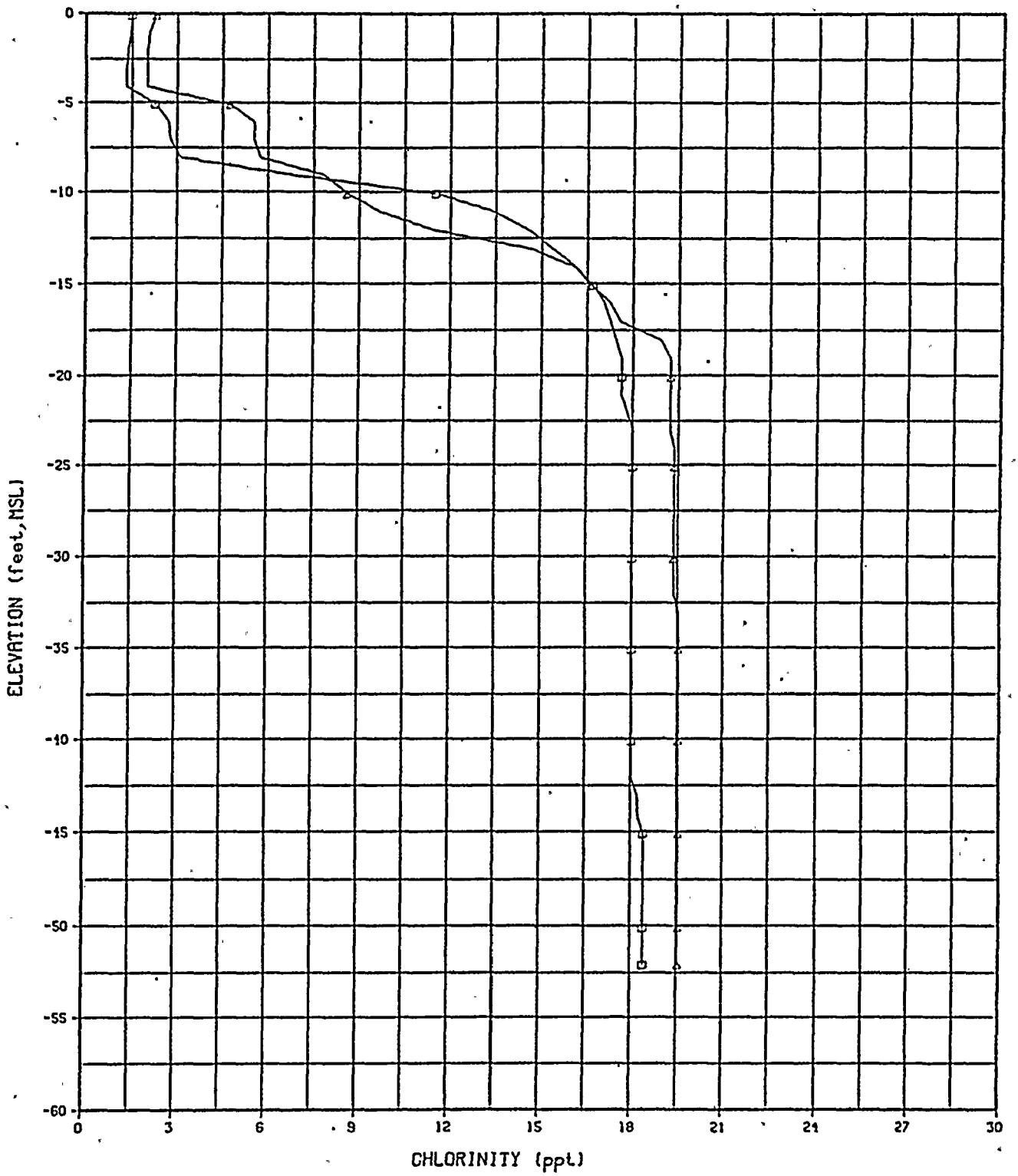
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-E

0459804726 (7/79) FIGURE 28B



LEGEND

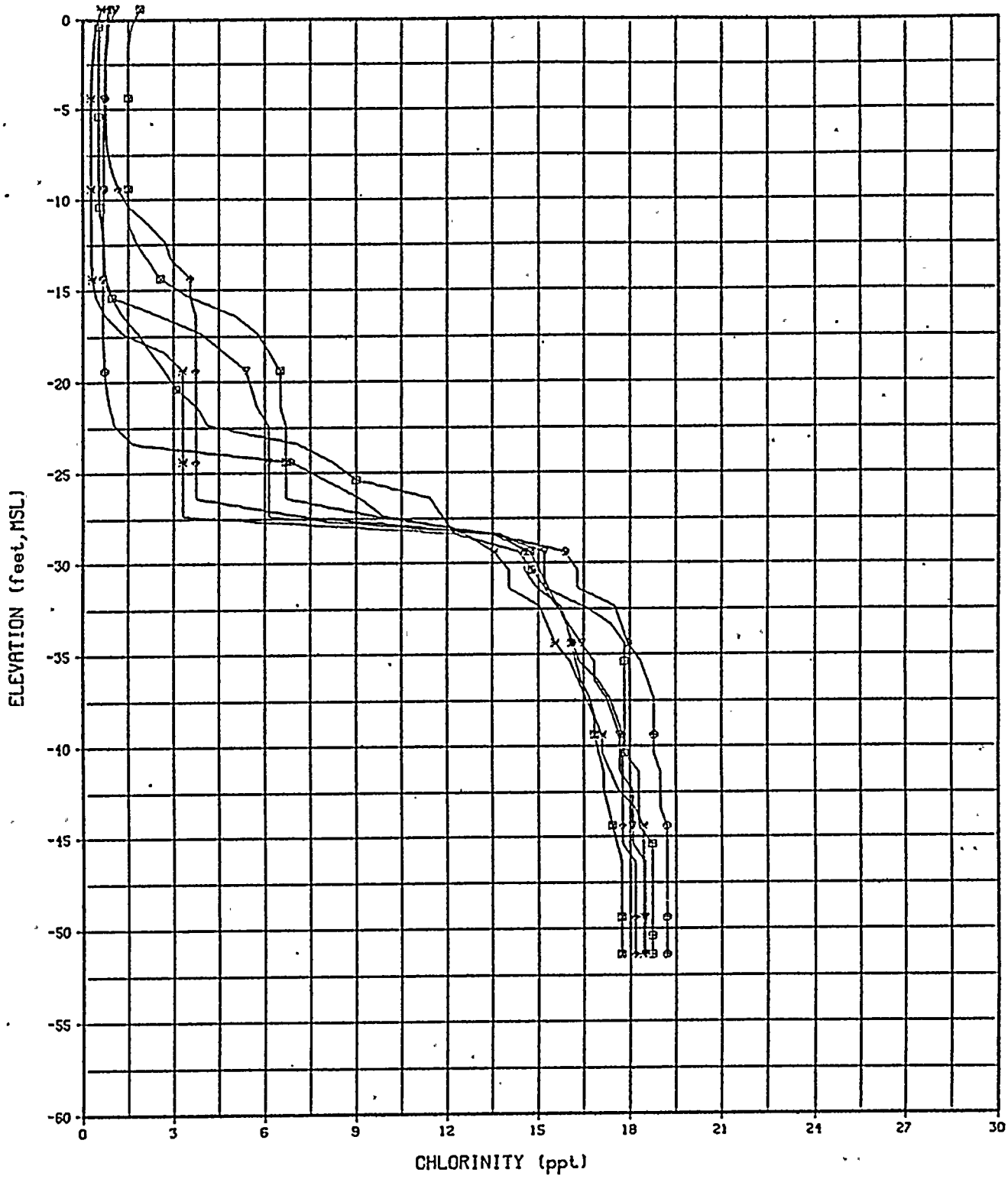
- ▫ JUNE, 1978
- ▵ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER ID-E

0459804726 (7/79) FIGURE 28C



LEGEND

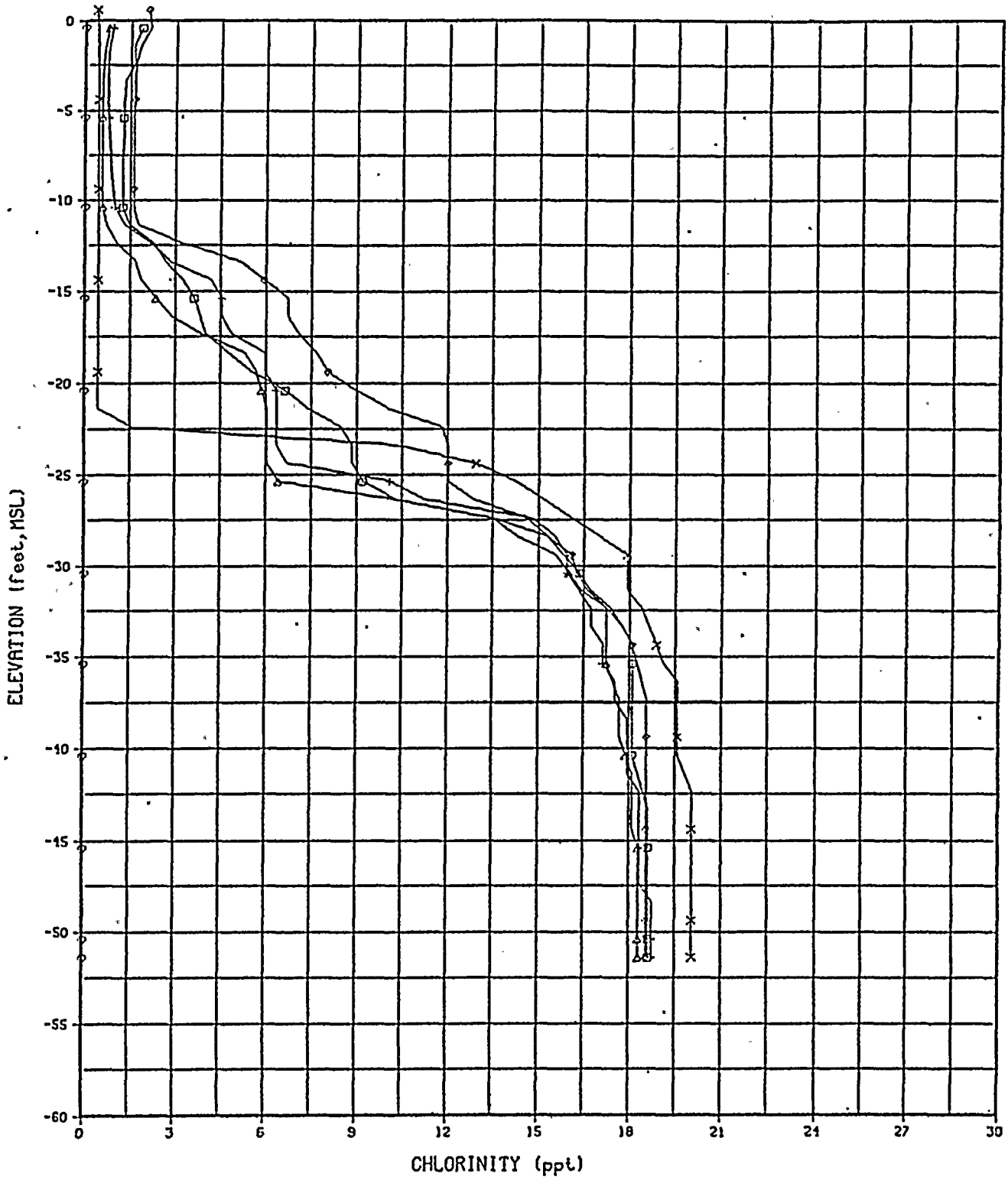
- ▽ JULY, 1978
- ◪ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊙ NOVEMBER, 1978
- ⊡ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-1

0459804726 (1/79) FIGURE 29A



LEGEND

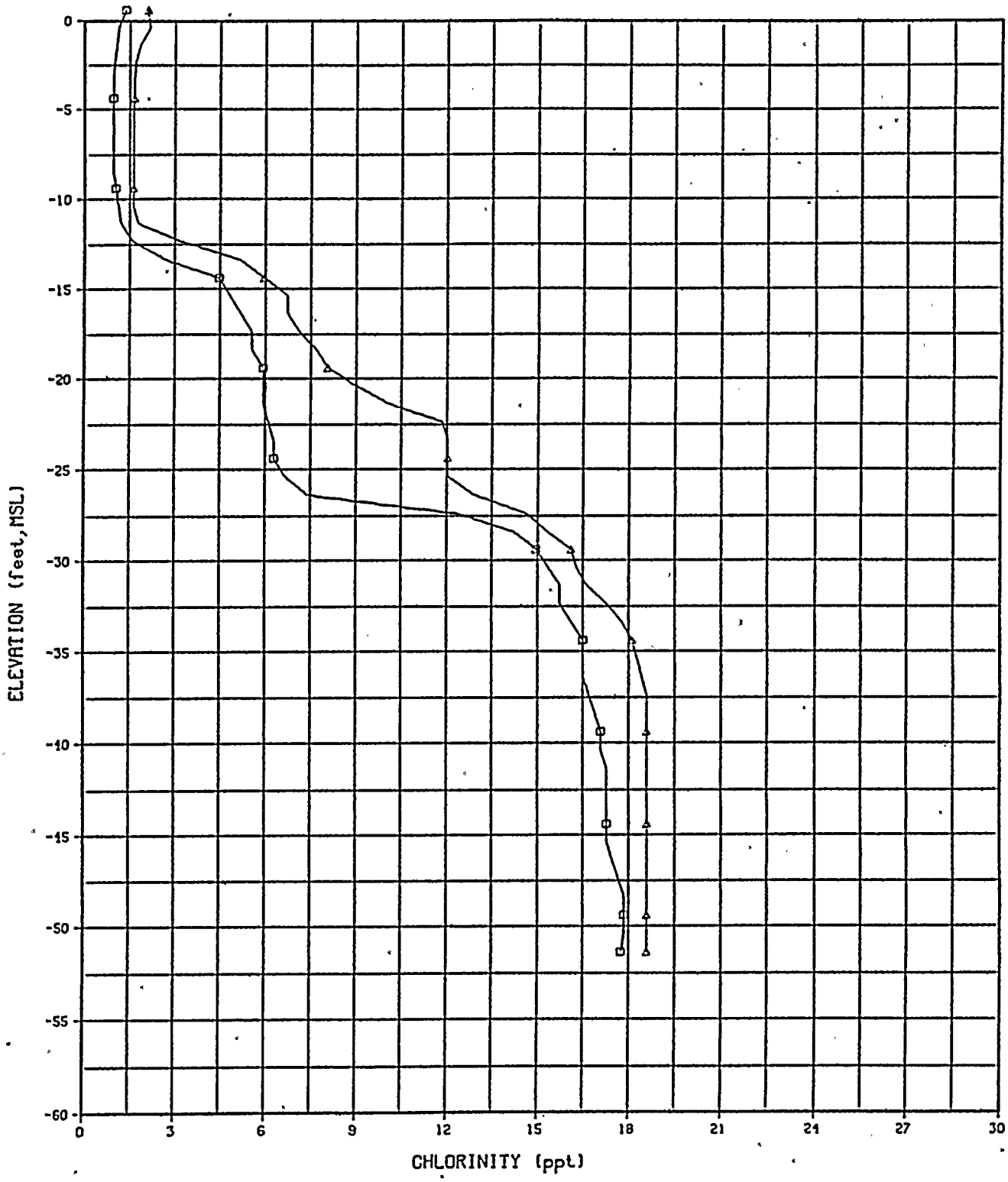
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-1

0459804726 (7/79) FIGURE 29B



LEGEND

□ JUNE, 1978

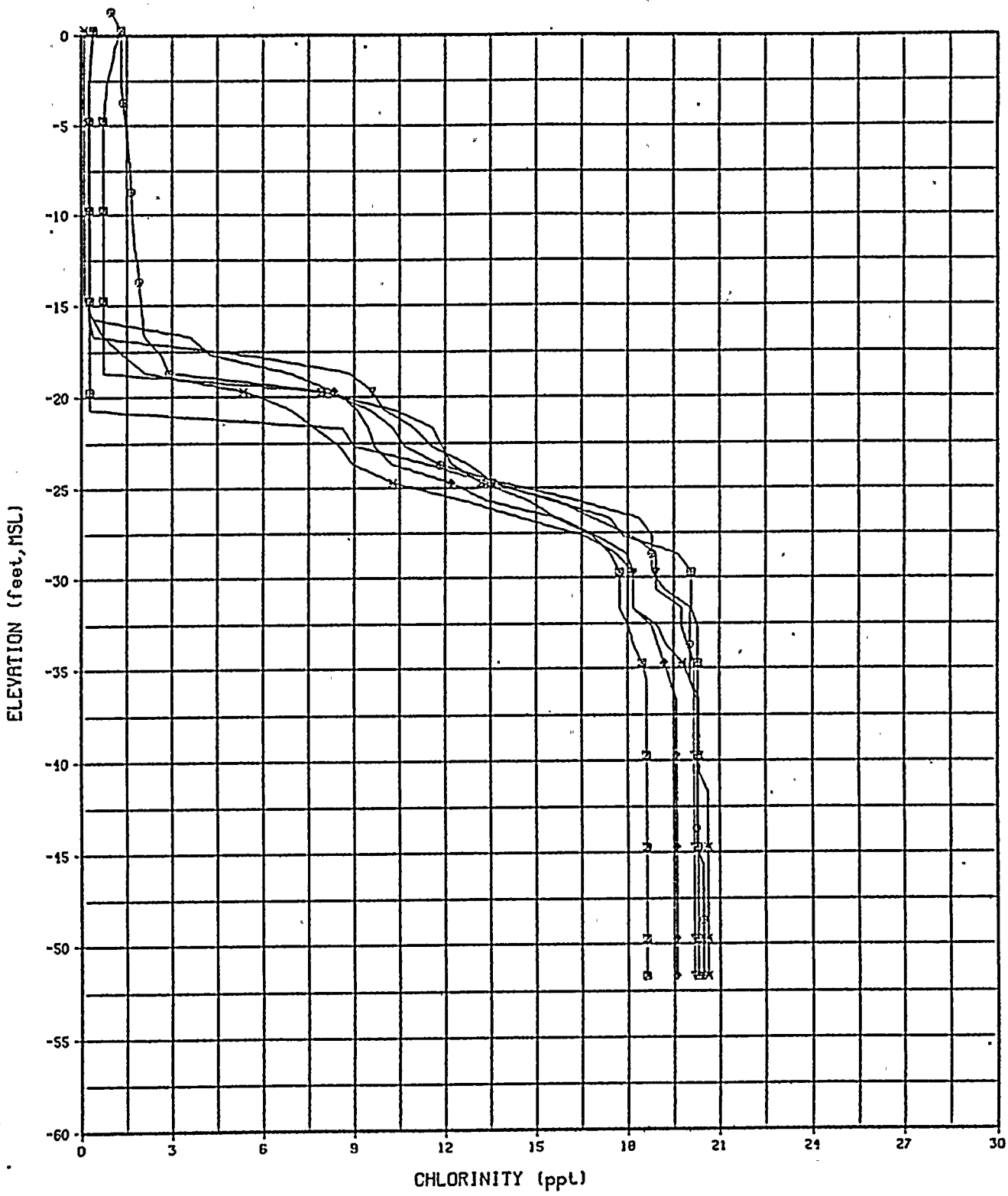
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-1

0459804726 (7/79) FIGURE 29C



LEGEND

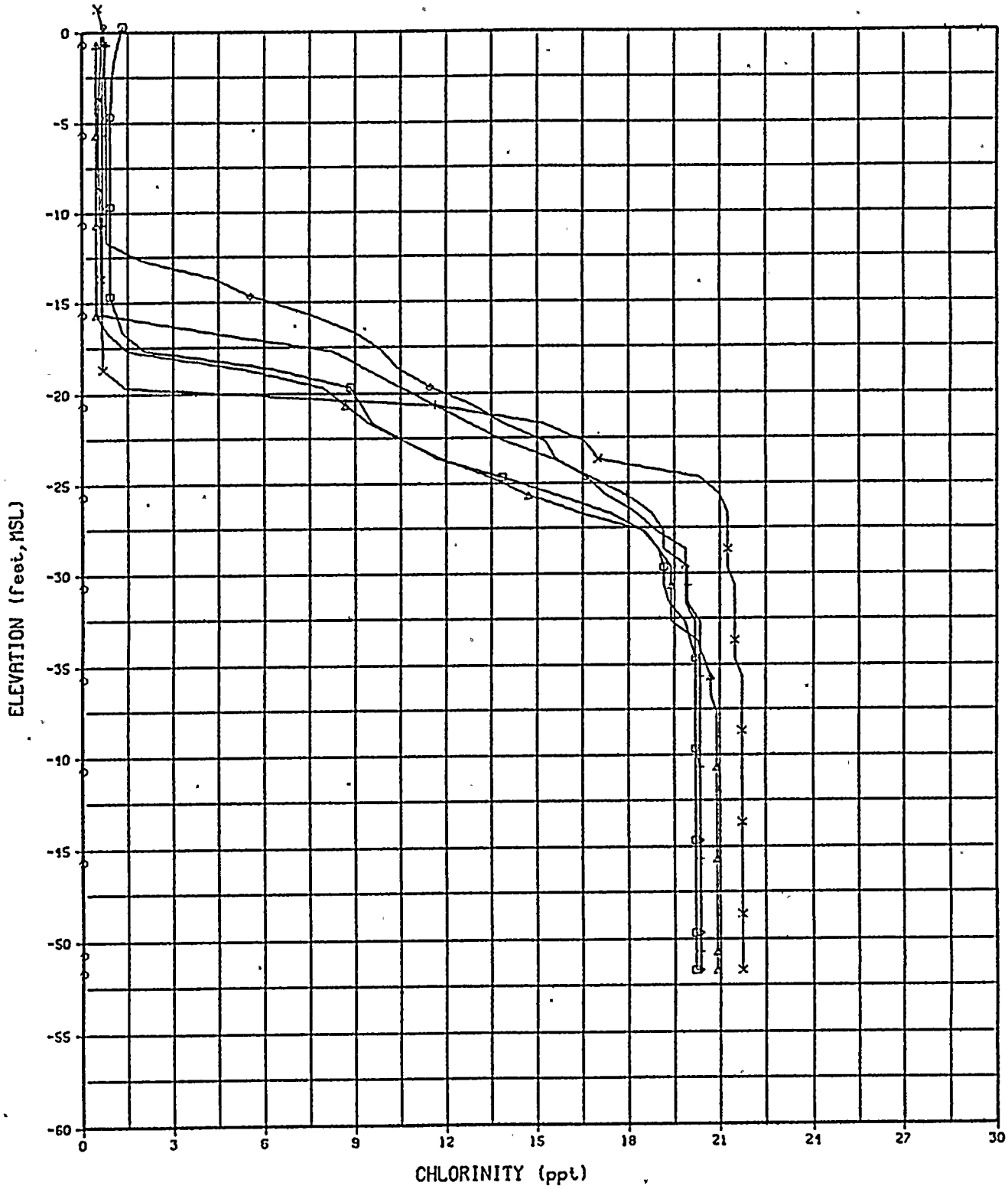
- ▽ JULY, 1978
- ◻ AUGUST, 1978
- × SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊙ NOVEMBER, 1978
- ⊠ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-2

0459804726 (1/79) FIGURE 30A



LEGEND

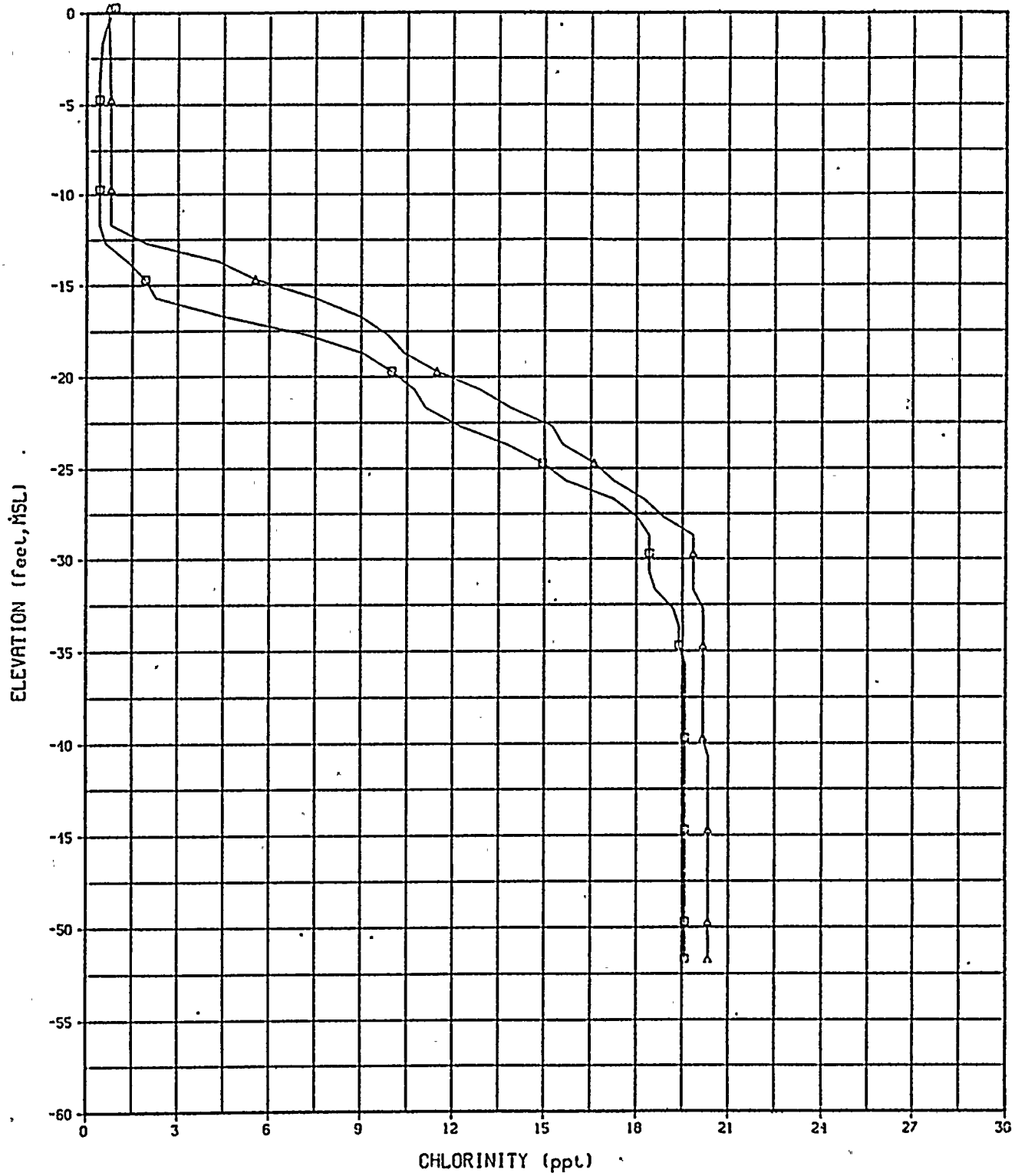
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-2

0459804726 (7/79) FIGURE 30B



LEGEND

□ JUNE, 1978

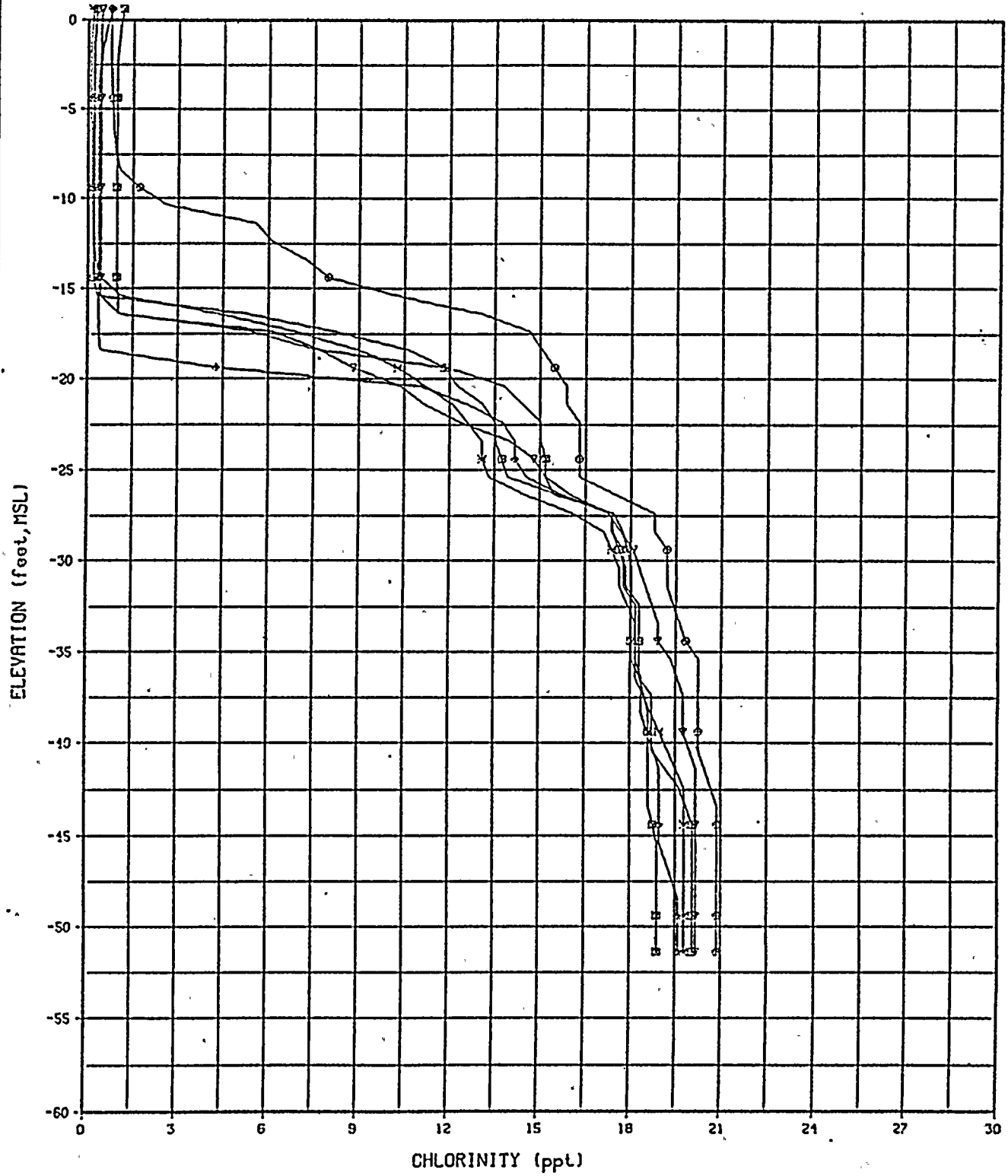
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-2

0459804726 (7/79) FIGURE 30C



LEGEND

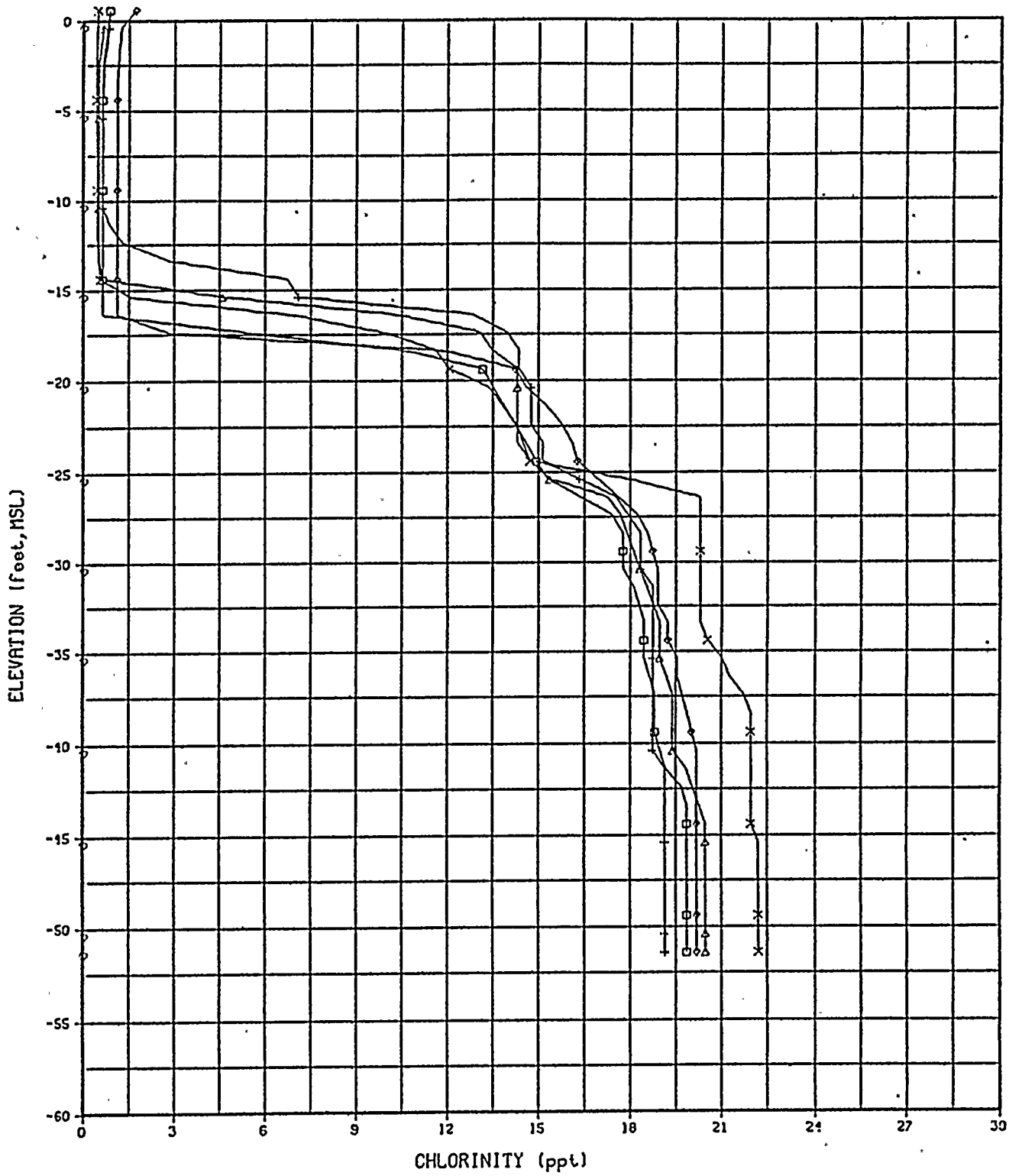
- ▽ JULY, 1978
- ◆ OCTOBER, 1978
- ⊡ AUGUST, 1978
- ⊙ NOVEMBER, 1978
- × SEPTEMBER, 1978
- ⊠ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-3

0459804726 (1/79) FIGURE 31A



LEGEND

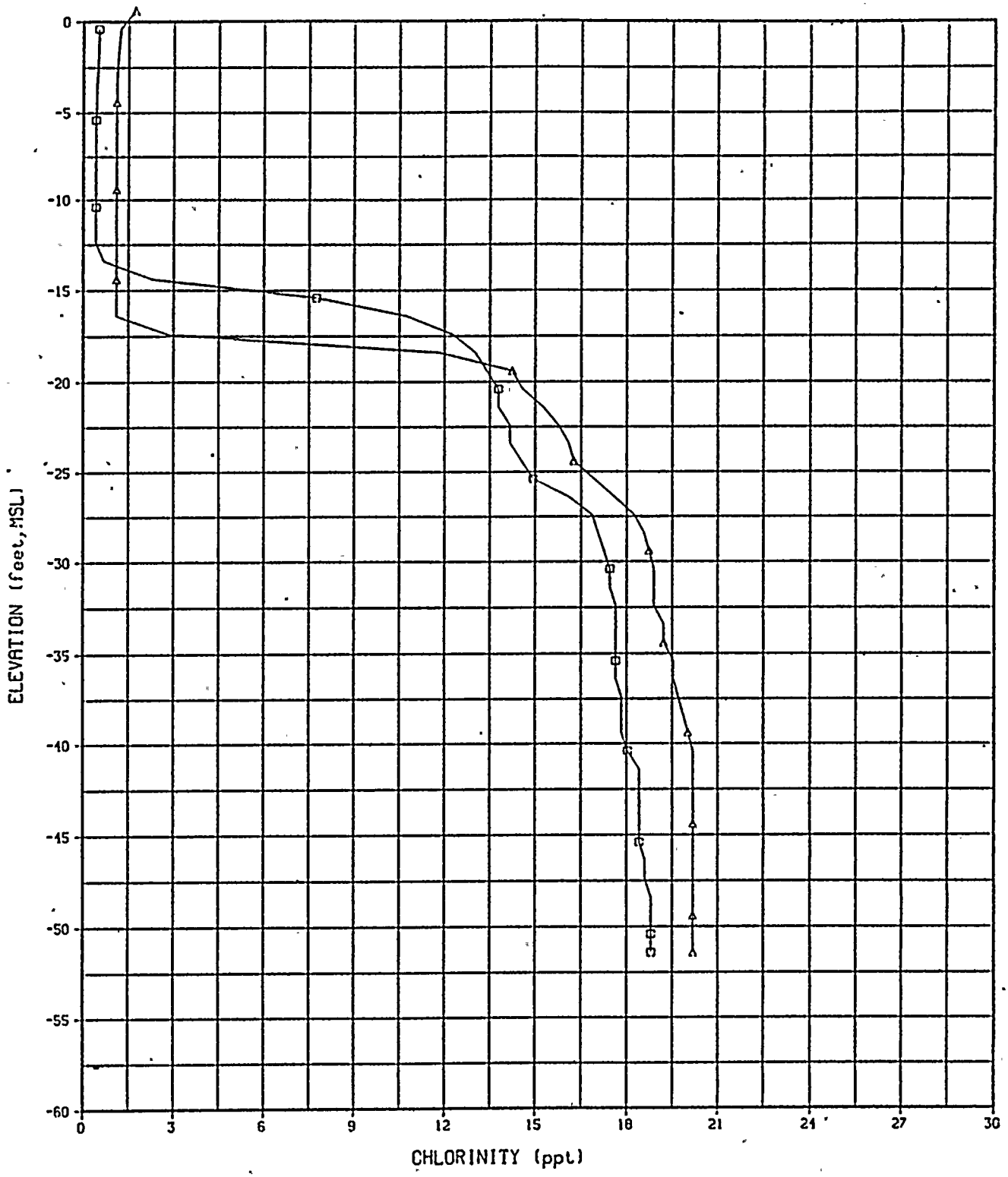
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-3

0459804726 (7/79) FIGURE 31B



LEGEND

□ JUNE, 1978

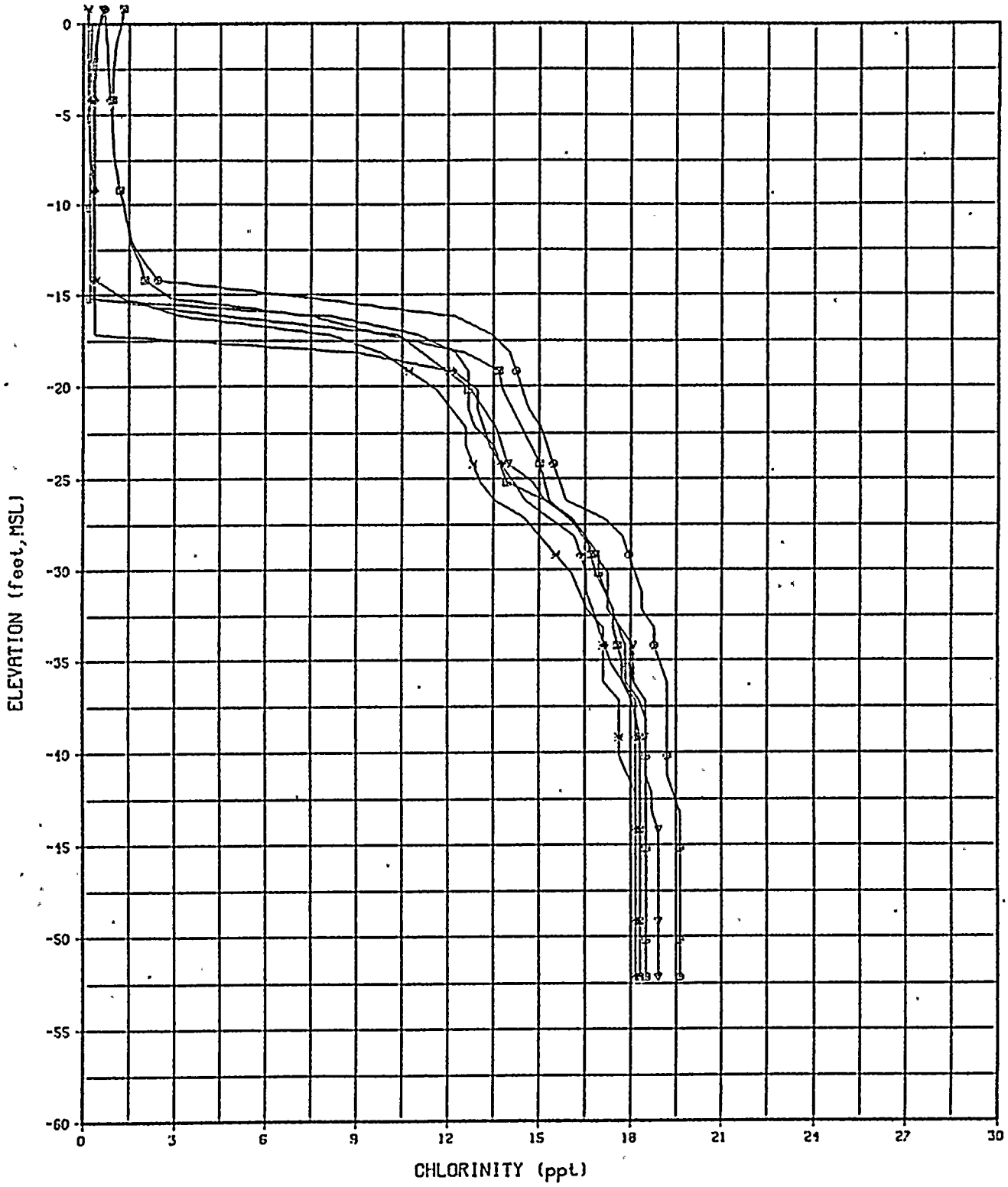
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-3

0459804726 (7/79) FIGURE 31C



LEGEND

- ▽ JULY, 1978
- ◆ OCTOBER, 1978
- ⊠ AUGUST, 1978
- ⊗ NOVEMBER, 1978
- ✕ SEPTEMBER, 1978
- ⊞ DECEMBER, 1978

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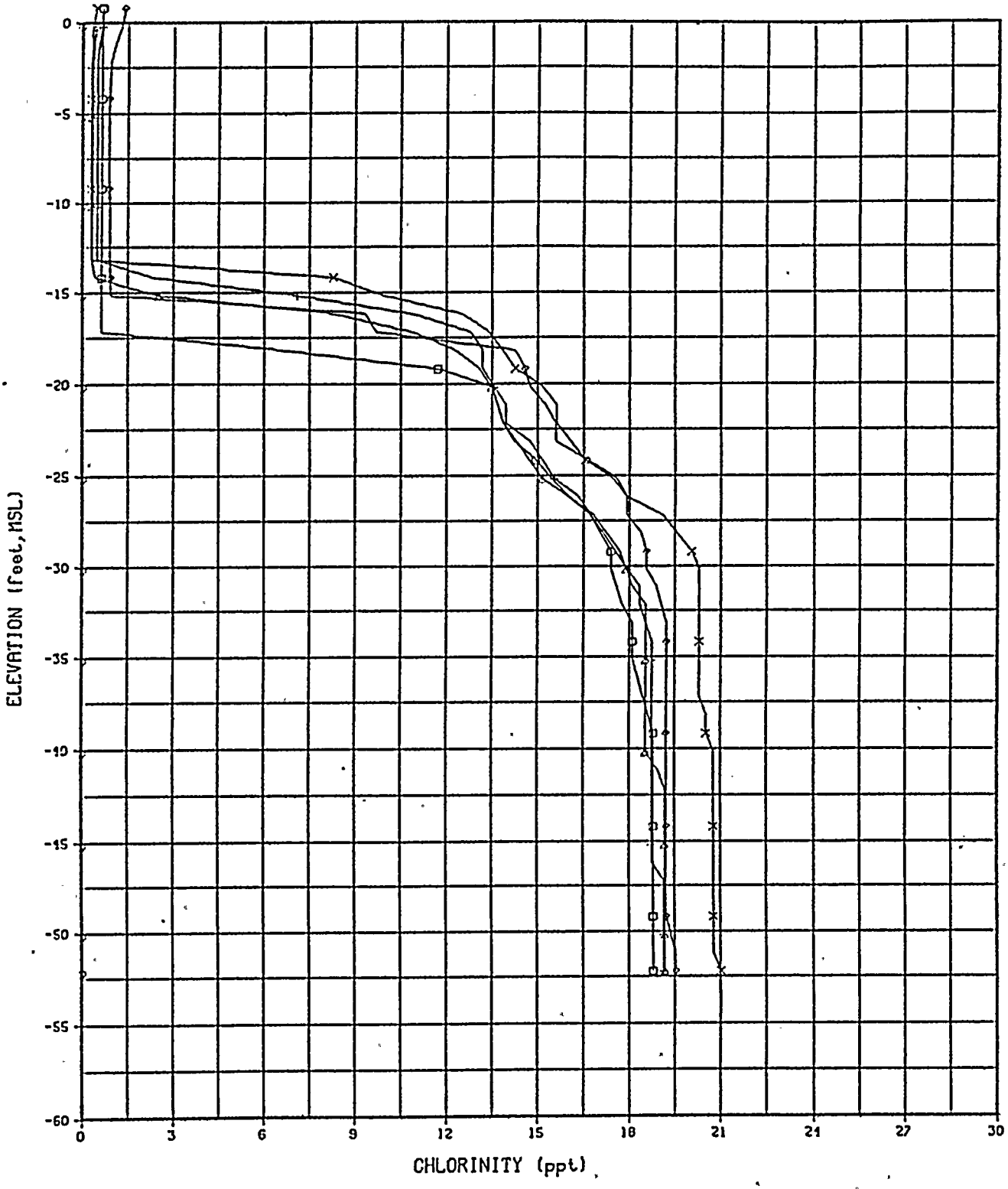
CHLORINITY PROFILES

WELL NUMBER L-4

0459804726 (1/79) FIGURE 32A



LEGEND

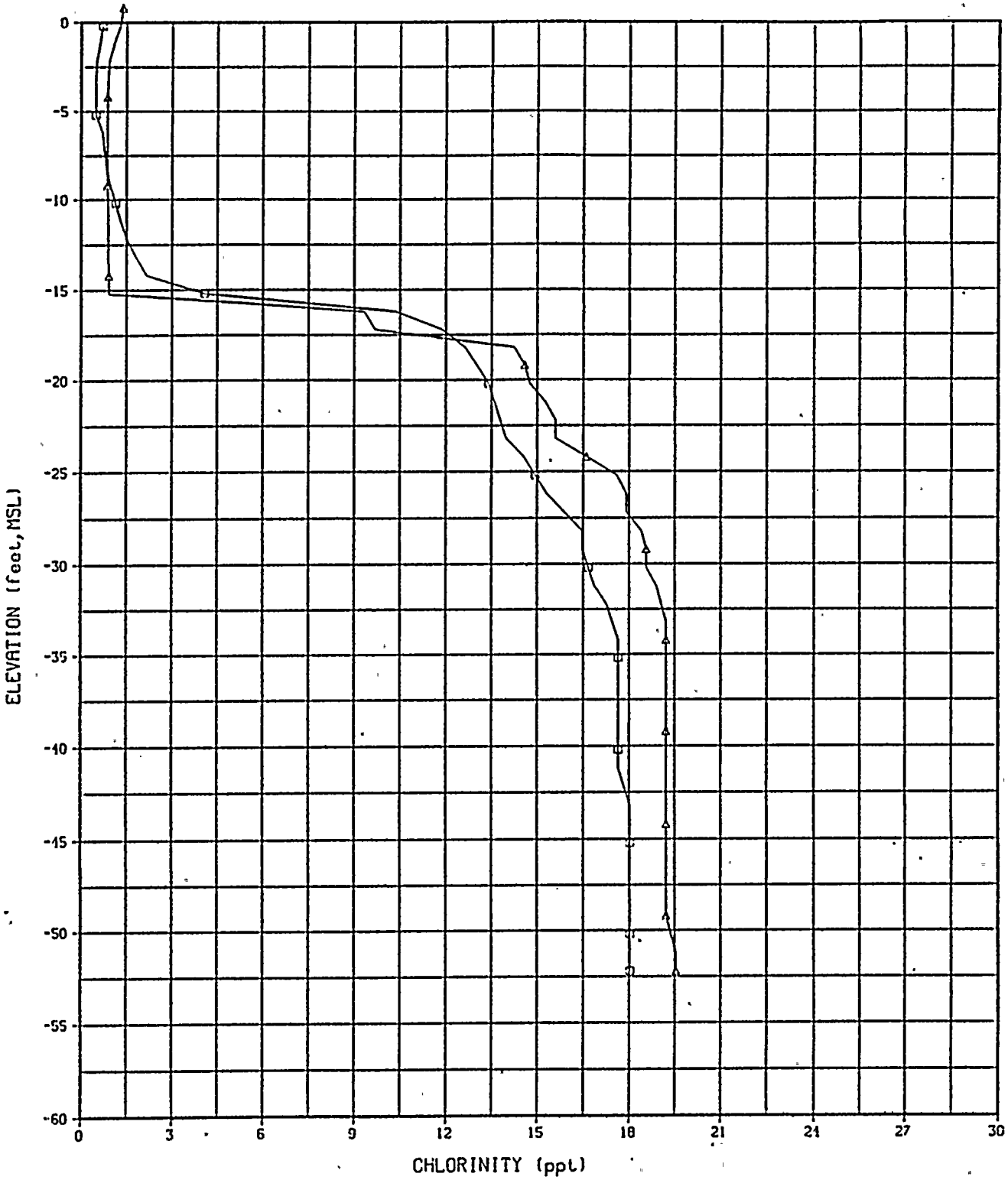
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-4

0459804726 (7/79) FIGURE 32B



LEGEND

□ JUNE, 1978

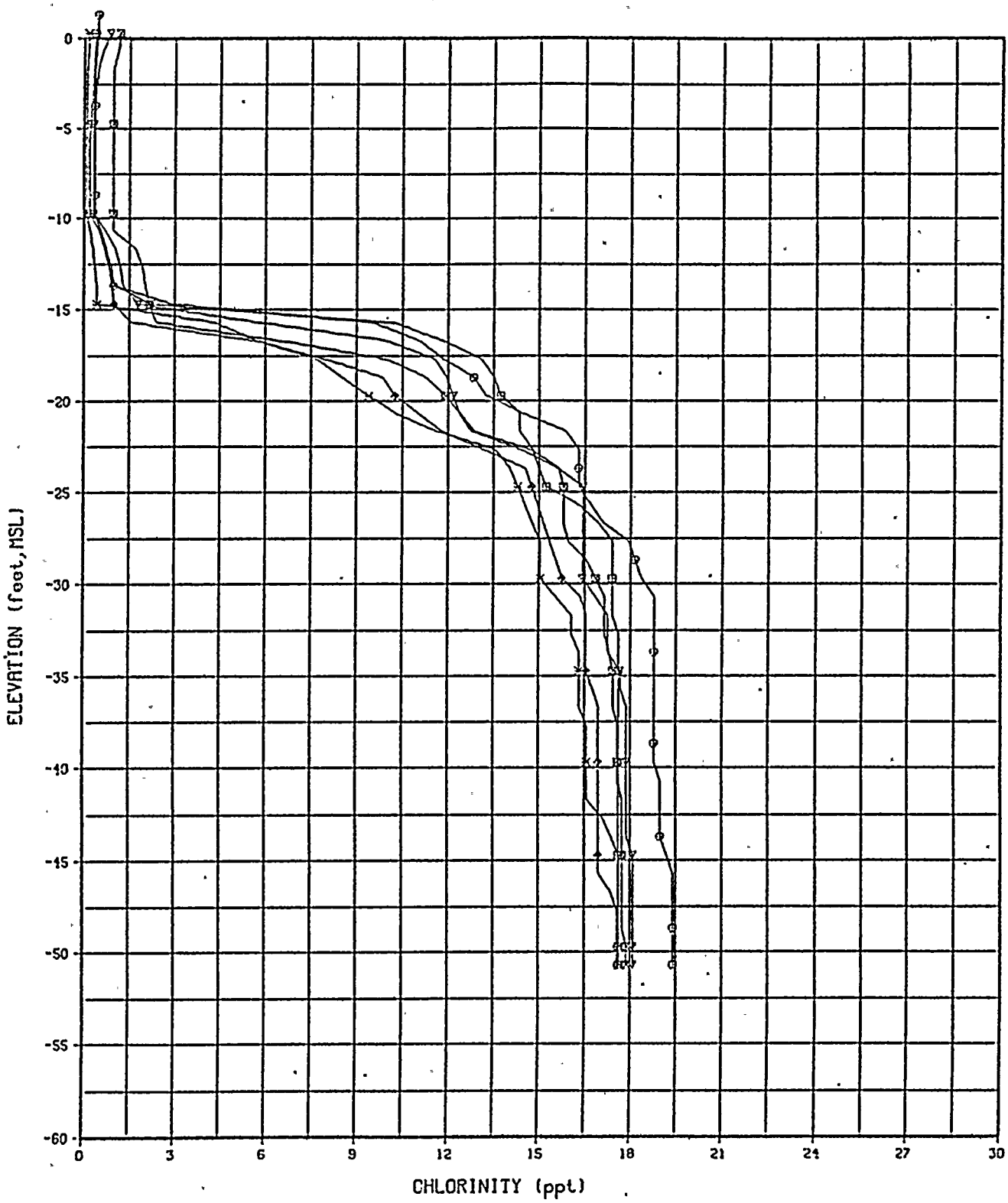
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-4

0459804726 (7/79) FIGURE 32C



LEGEND

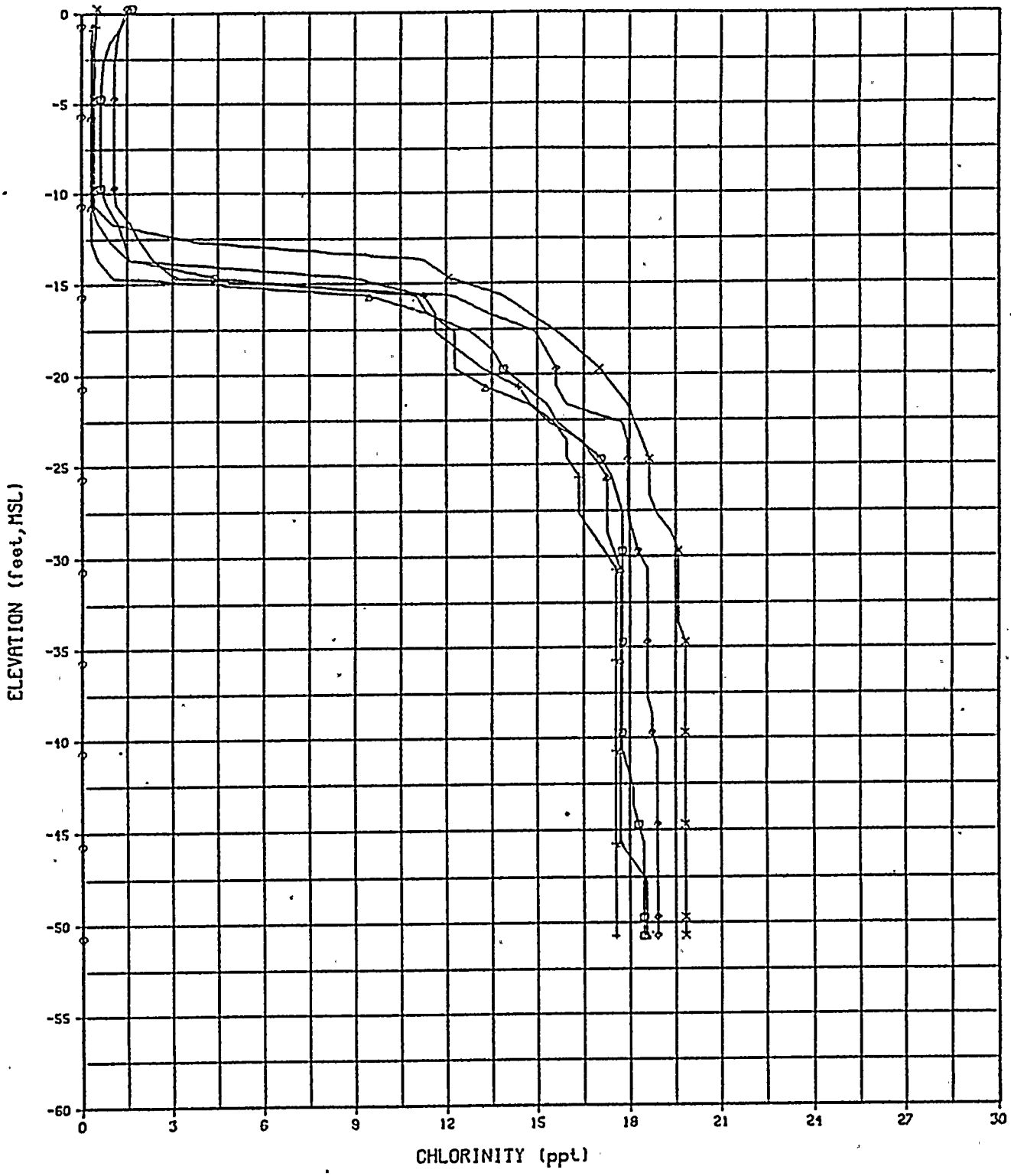
- ▽ JULY, 1978
- ◪ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ● NOVEMBER, 1978
- ◘ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-5

0459804726 (1/79) FIGURE 33A



LEGEND

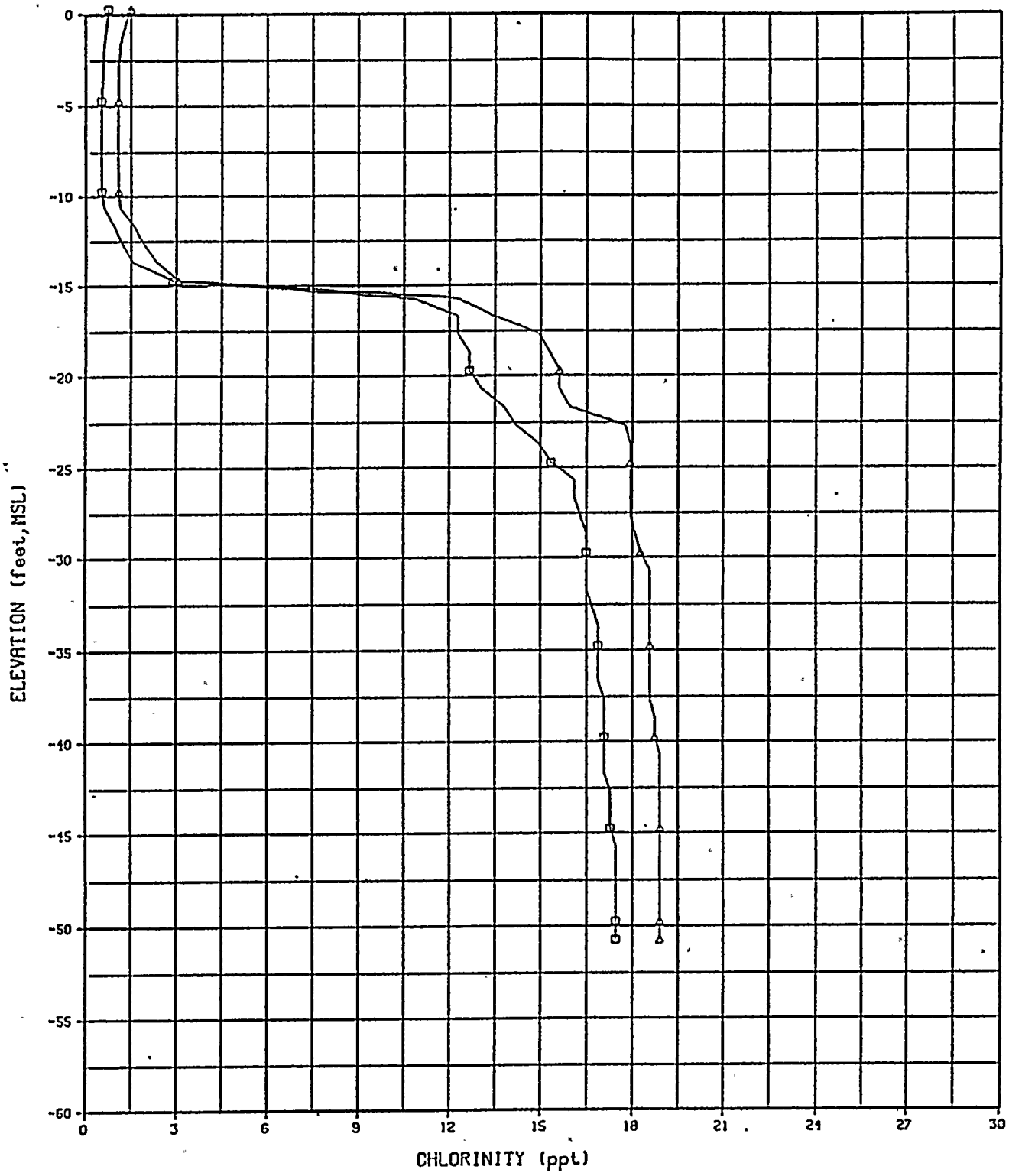
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-5

0459804726 (7/79) FIGURE 33B



LEGEND

□ JUNE, 1978

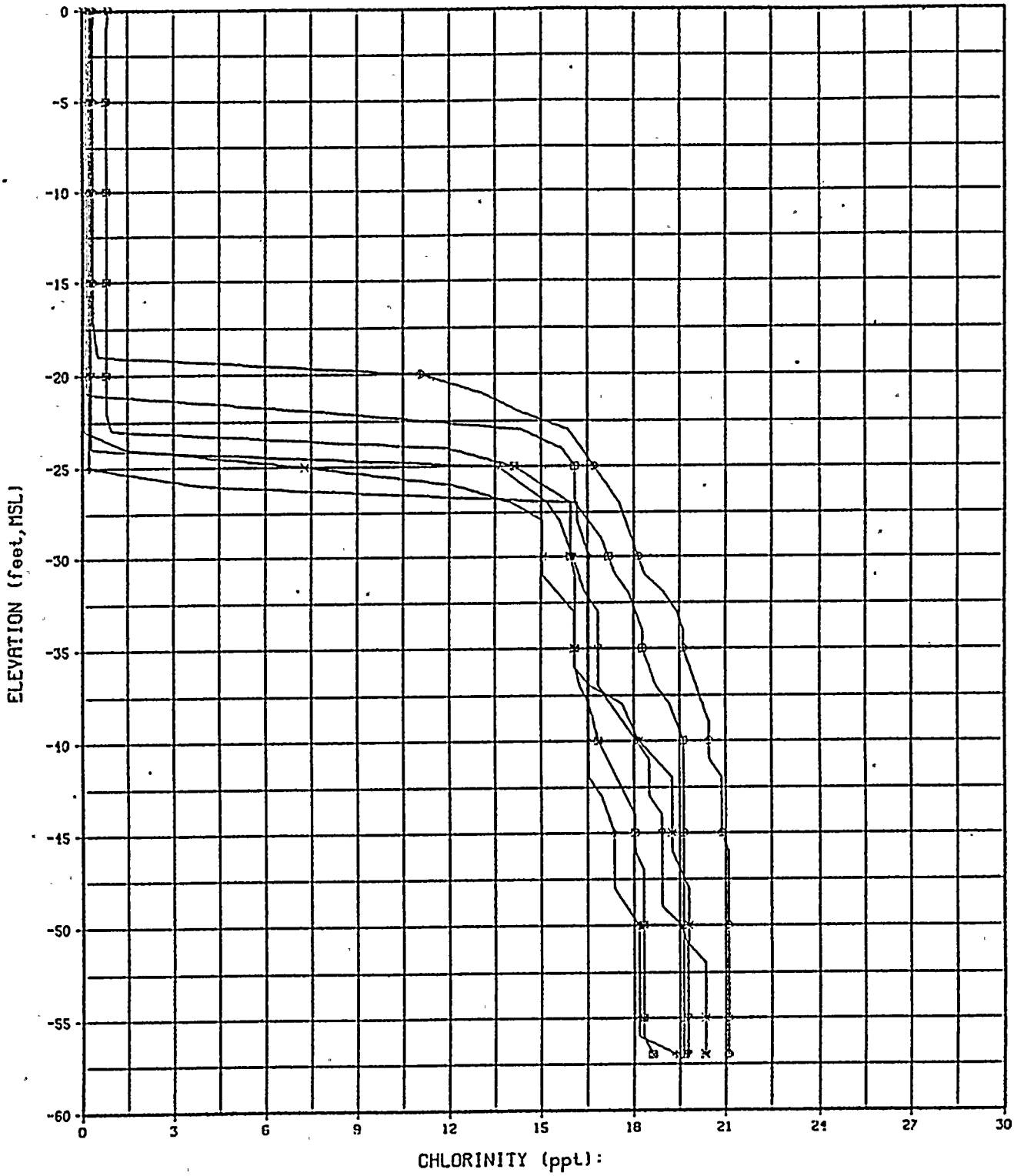
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-5

0459804726 (7/79) FIGURE 33C



LEGEND

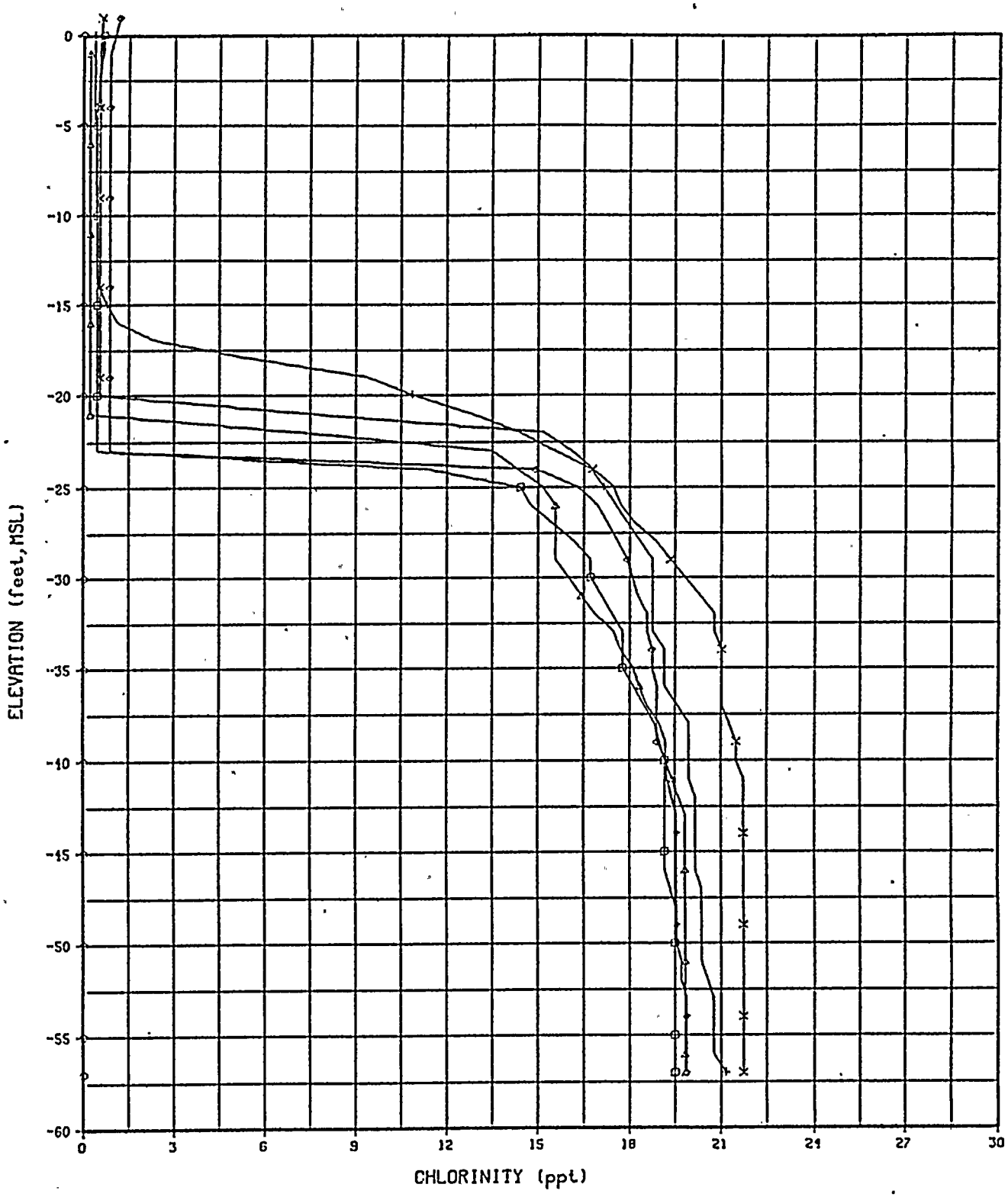
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊡ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-6

0459804726 (1/79) FIGURE 34A



LEGEND

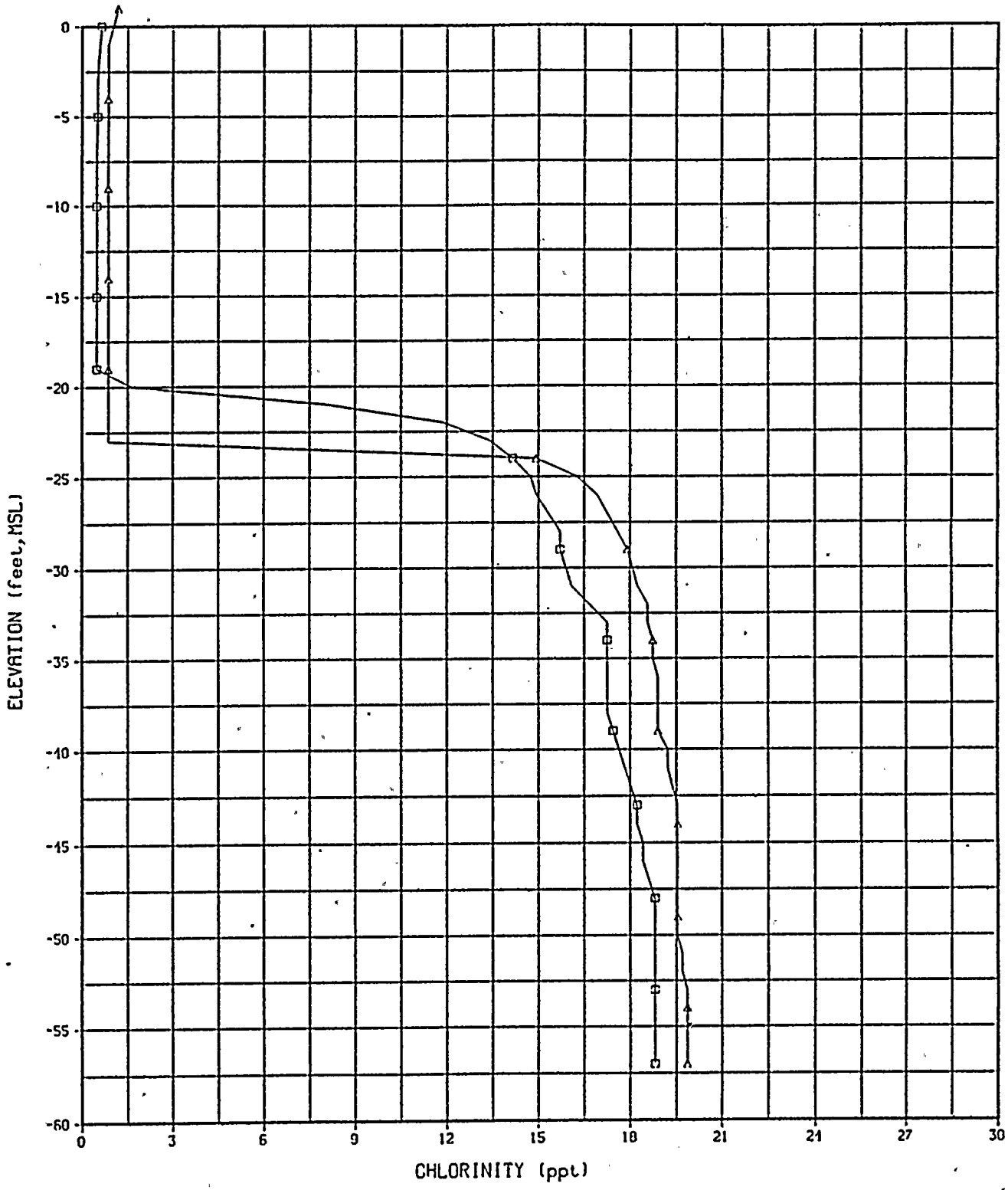
- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-6

0459804726 (7/79) FIGURE 34B



LEGEND

□ JUNE, 1978

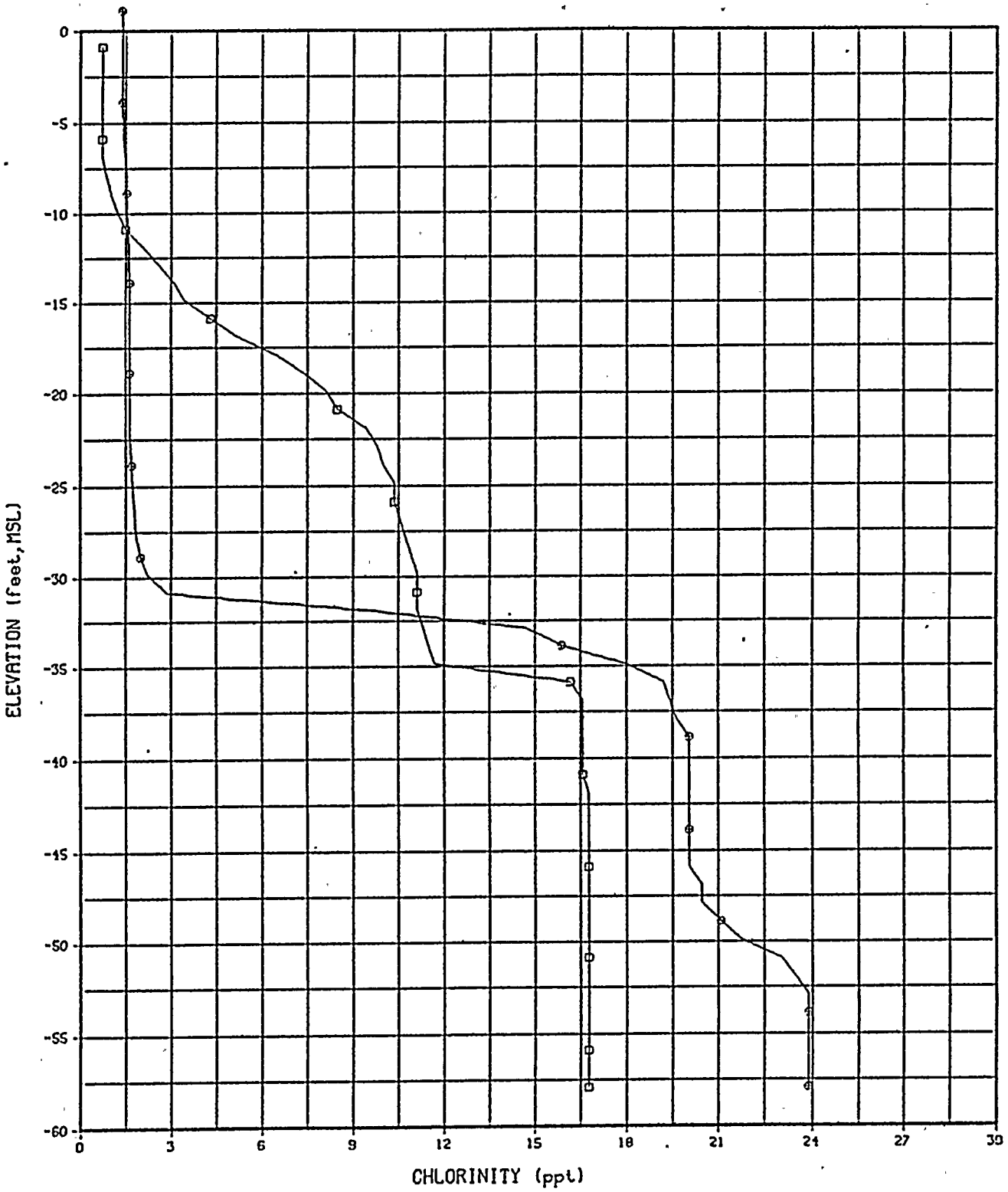
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER L-6

0459804726 (7/79) FIGURE 34C



LEGEND

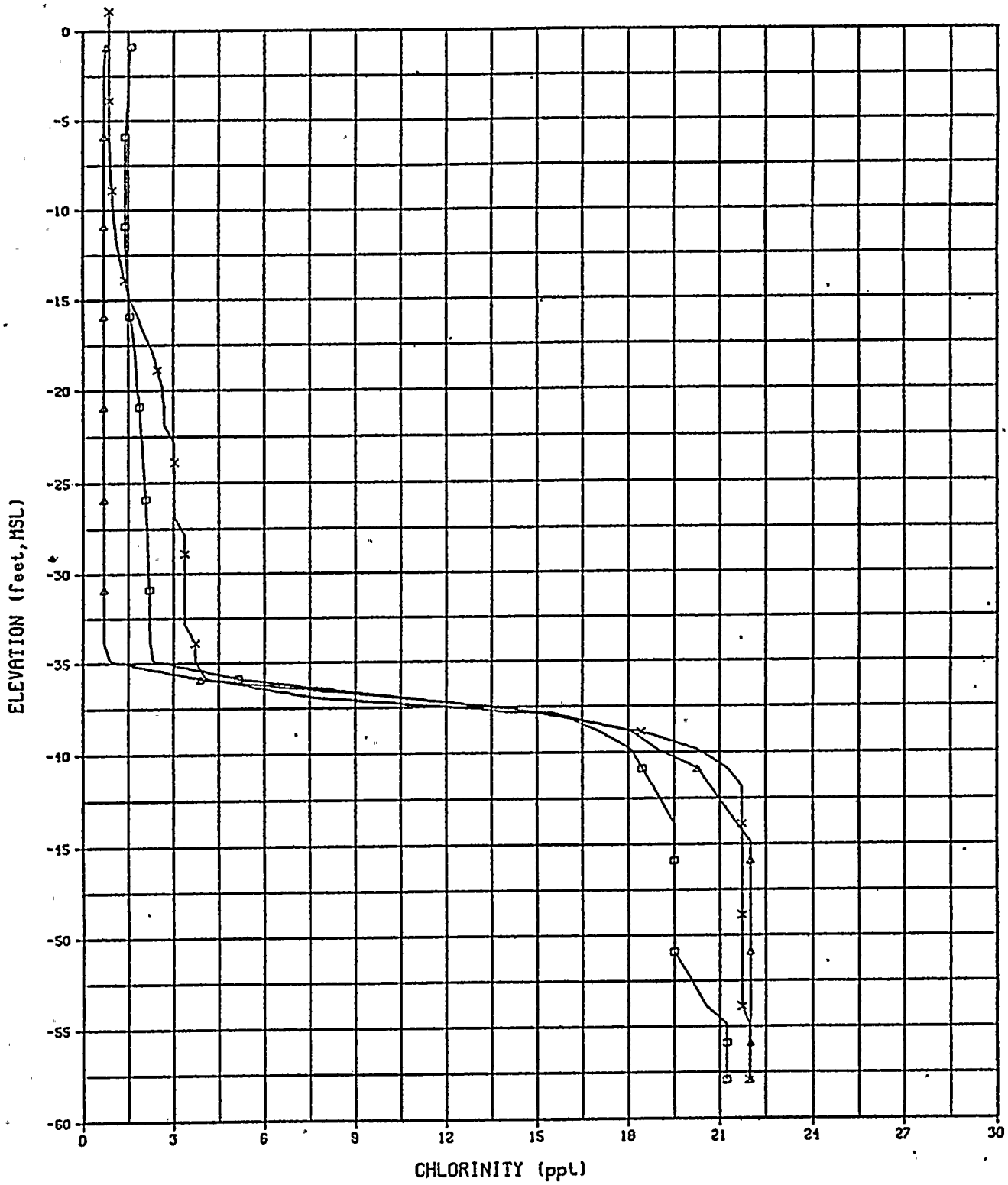
- □ NOVEMBER, 1977
- ○ NOVEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-6

0459804726 (1/79) FIGURE 35A



LEGEND

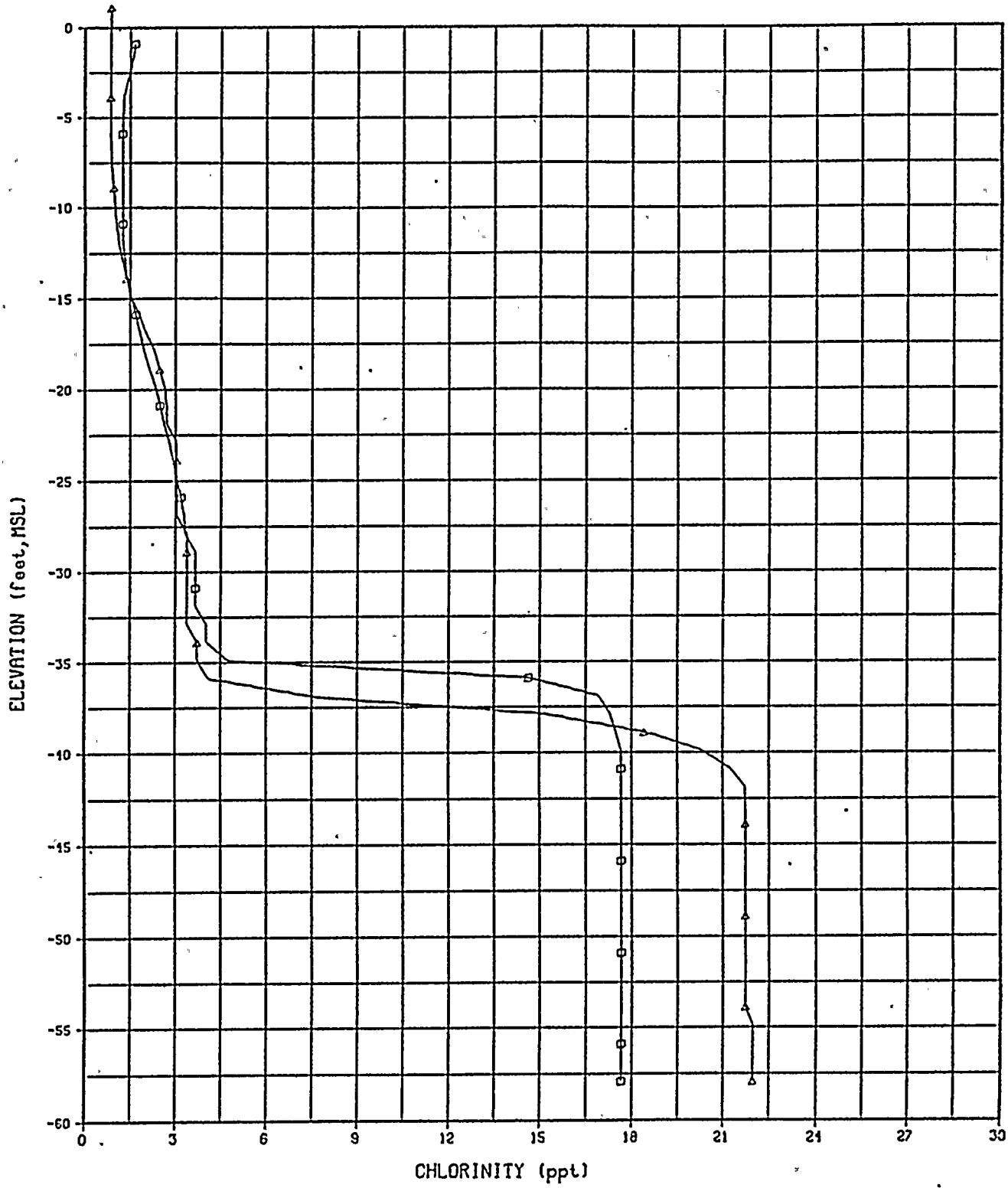
- ▫ JANUARY, 1979
- △ MARCH, 1979
- × MAY, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-6

0459804726 (7/79) FIGURE 35B



LEGEND

□ MAY, 1978

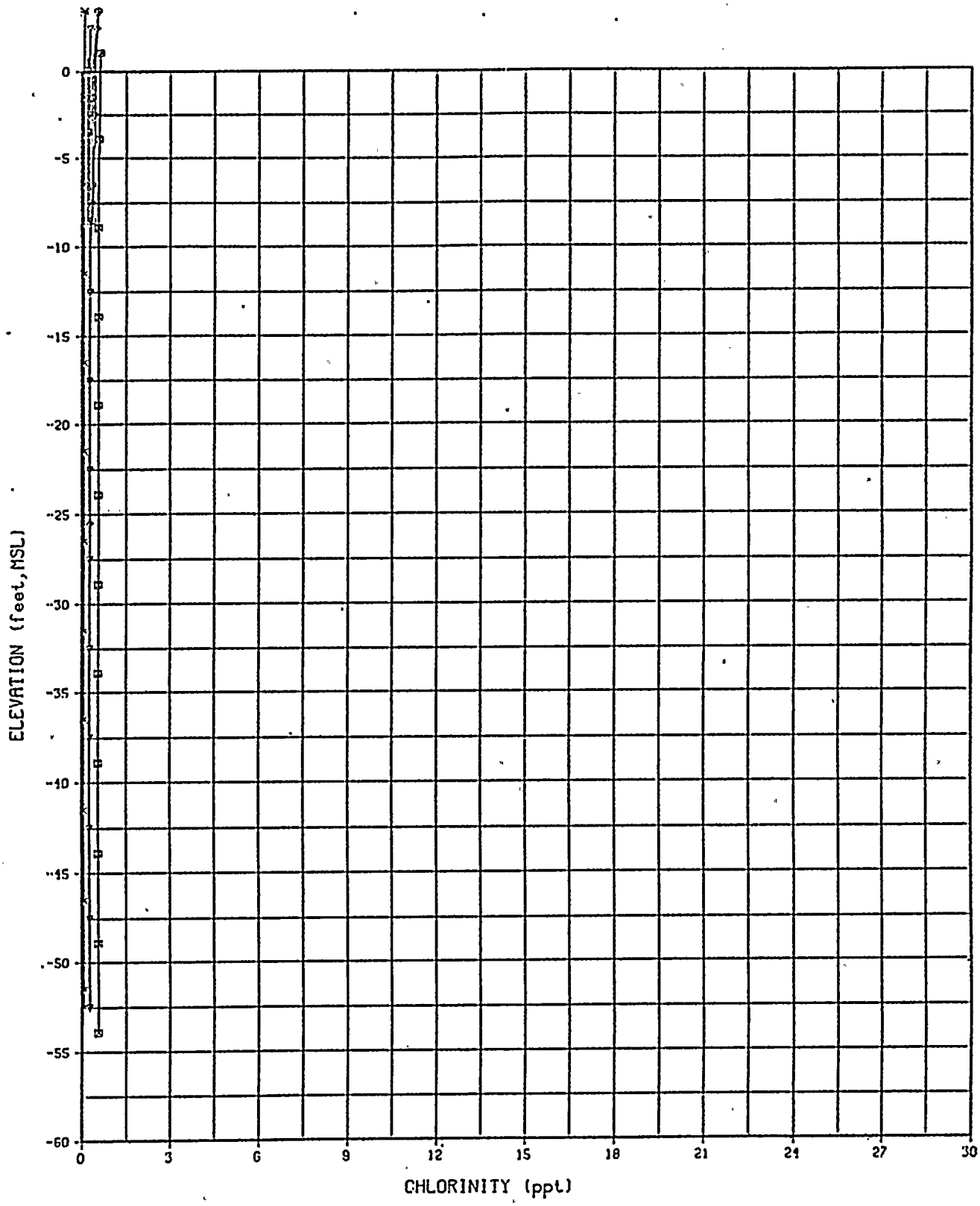
△ MAY, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-6

0459804726 (7/79) FIGURE 35C



LEGEND

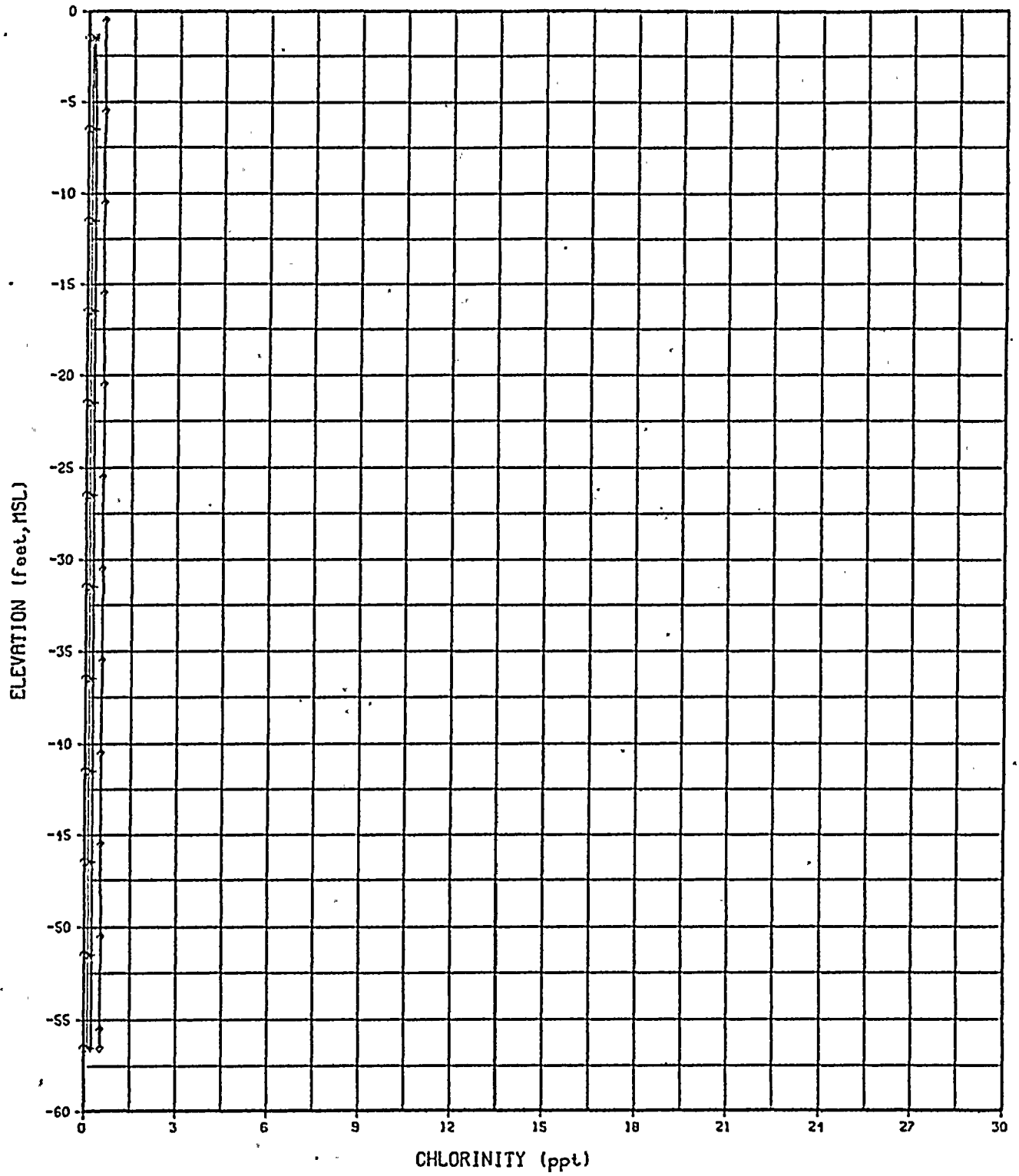
- ▽ JULY, 1978
- ◘ AUGUST, 1978
- × SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊕ NOVEMBER, 1978
- ⊠ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-7

0459804726 (1/79) FIGURE 36A



LEGEND

- o FEBRUARY, 1979
- x MAY, 1979
- △ MARCH, 1979
- ◇ JUNE, 1979
- + APRIL, 1979

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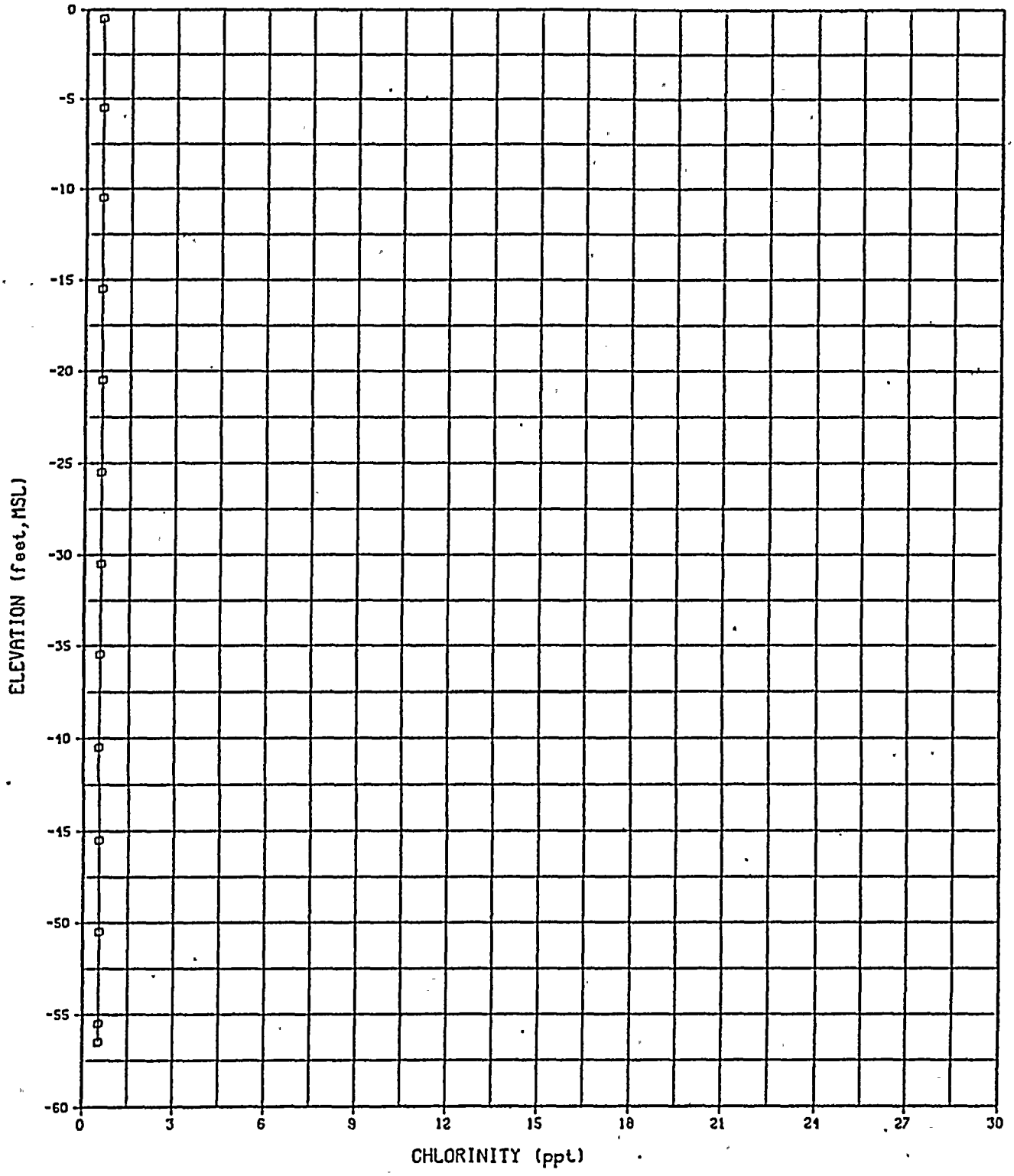
CHLORINITY PROFILES

WELL NUMBER G-14

0459804726 (7/79) FIGURE 36B



LEGEND

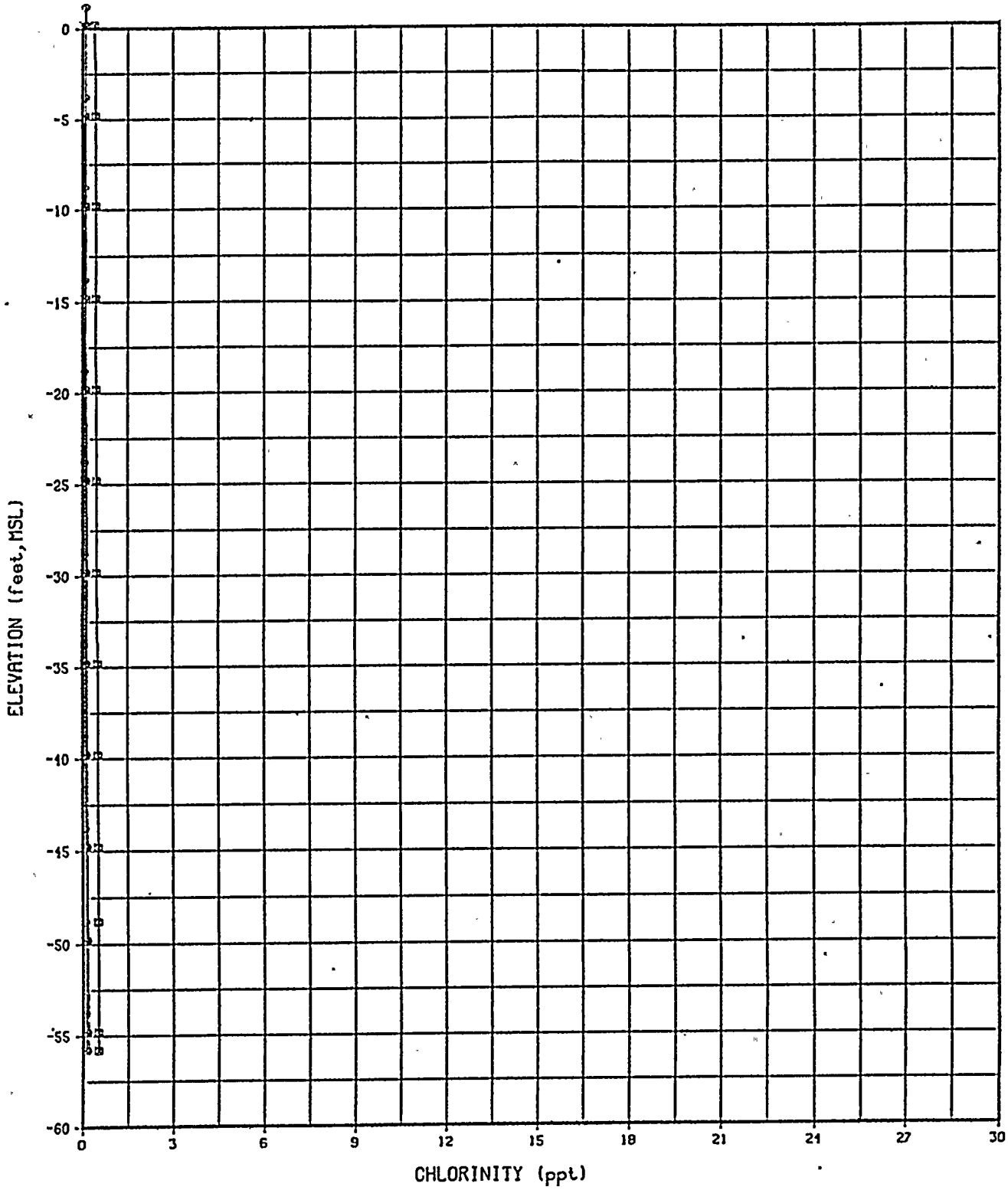
▫ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-14

0459804726 (7/79) FIGURE 36C



LEGEND

- JULY, 1978
- AUGUST, 1978
- SEPTEMBER, 1978
- OCTOBER, 1978
- NOVEMBER, 1978
- DECEMBER, 1978

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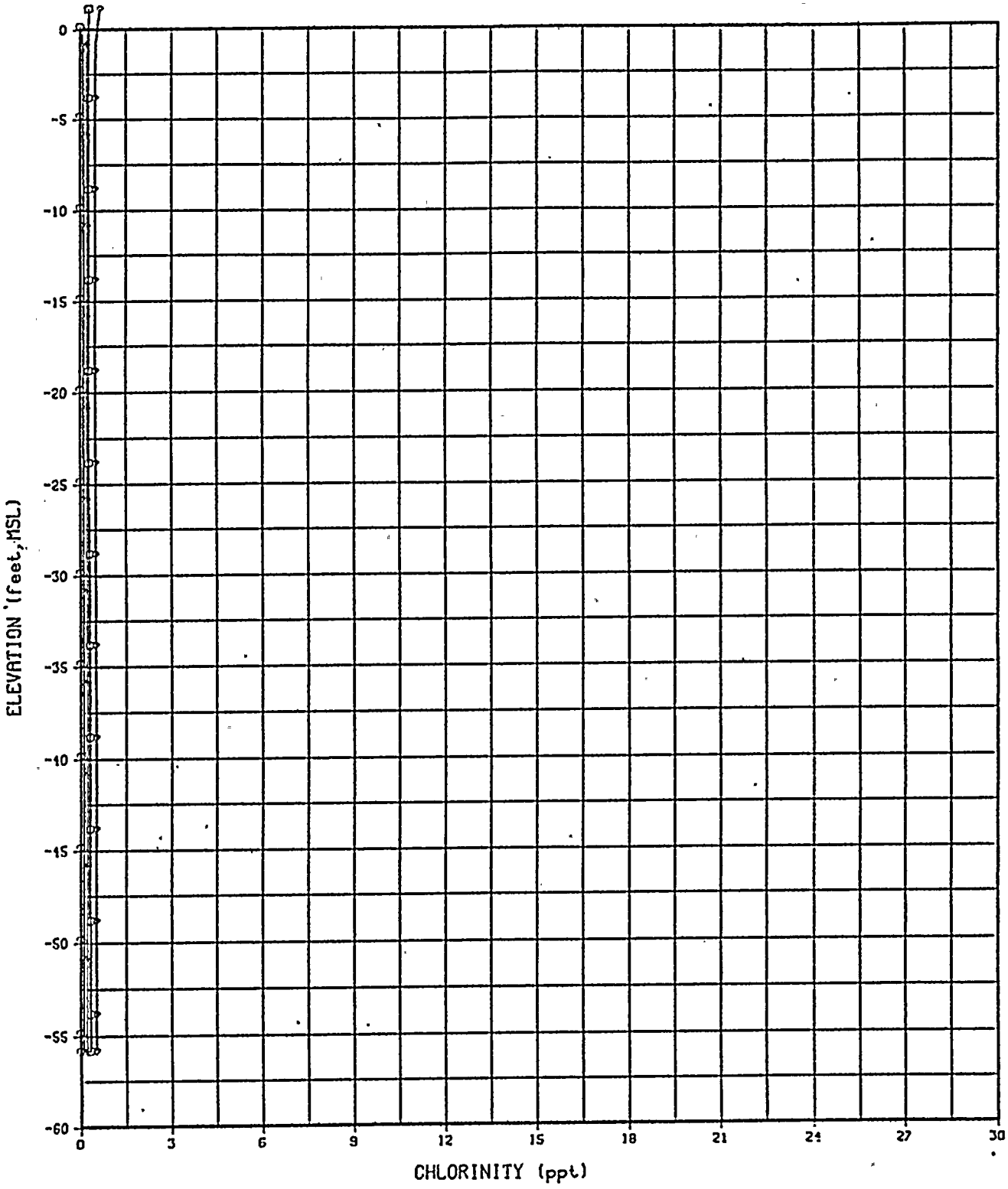
CHLORINITY PROFILES

WELL NUMBER G-21

0459804726 (1/79) FIGURE 37A



LEGEND

- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

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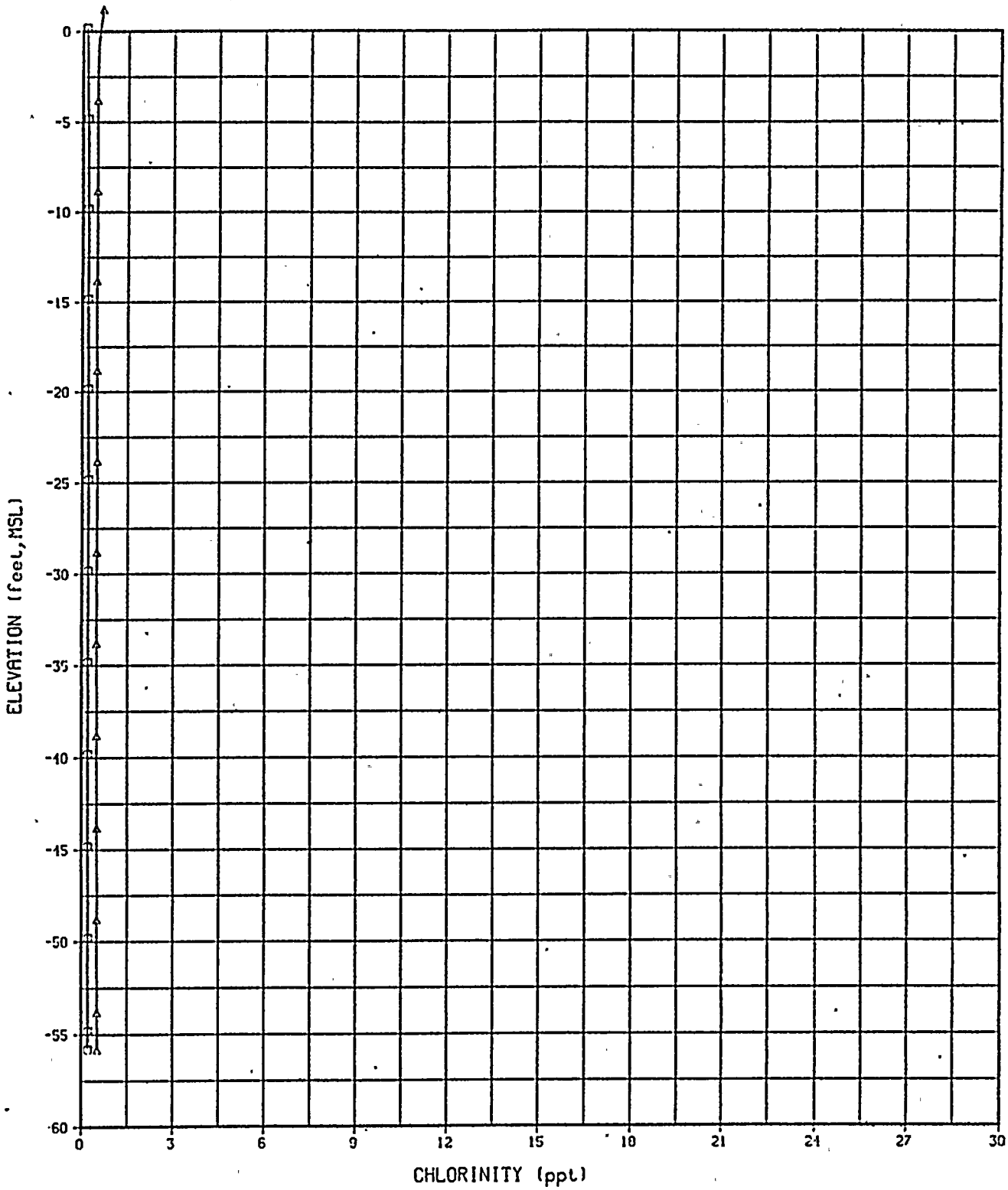
CHLORINITY PROFILES

WELL NUMBER G-21

0459804726 (7/79) FIGURE 37B



LEGEND

□ JUNE, 1978

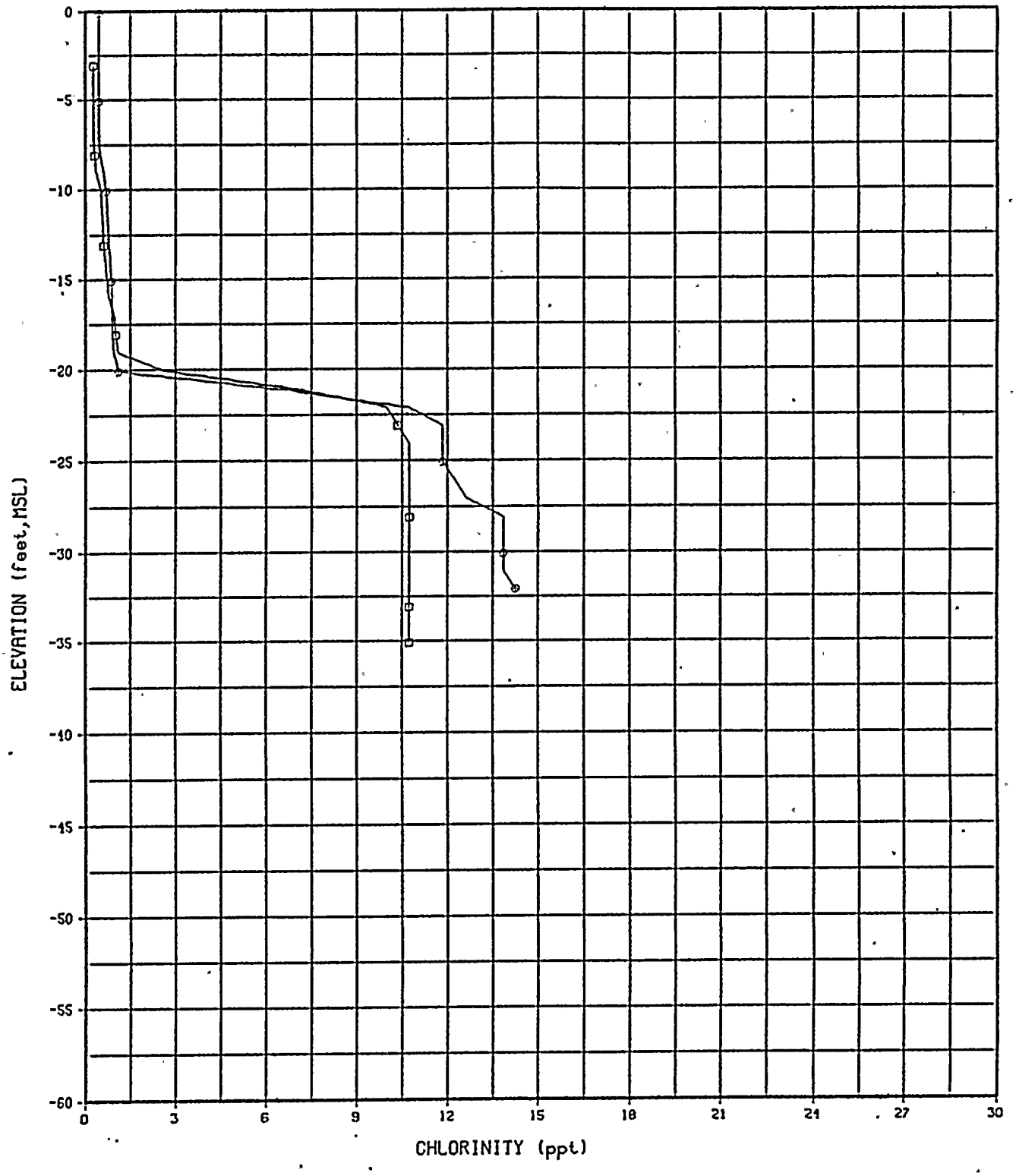
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-21

0459804726 (7/79) FIGURE 37C



LEGEND

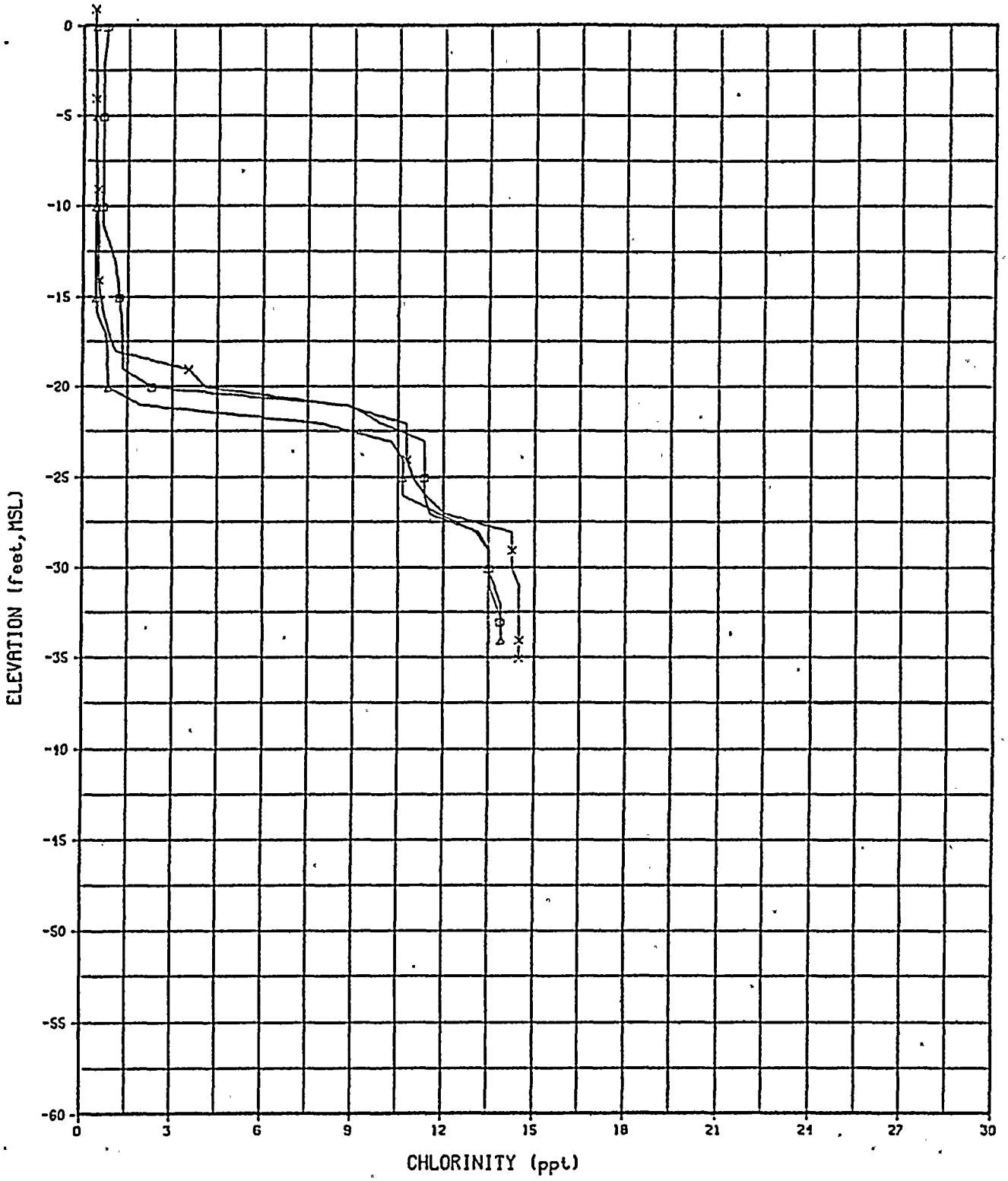
- ▫ NOVEMBER, 1977
- ● NOVEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-27

0459804726 (1/79) FIGURE 38A



LEGEND

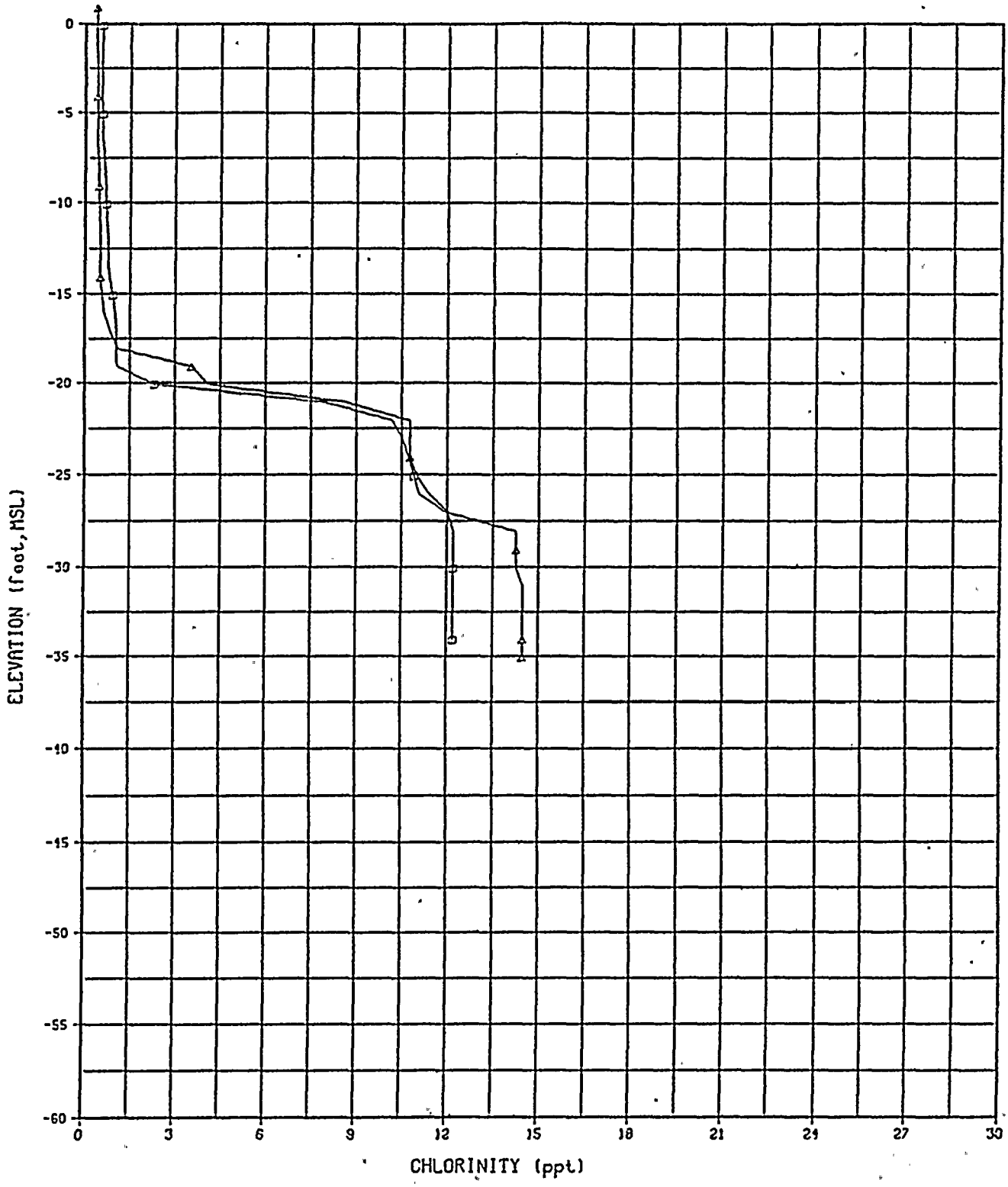
- ▫ JANUARY, 1979
- ▵ MARCH, 1979
- × MAY, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-27

0459804726 (7/79) FIGURE 38B



LEGEND

o MAY, 1978

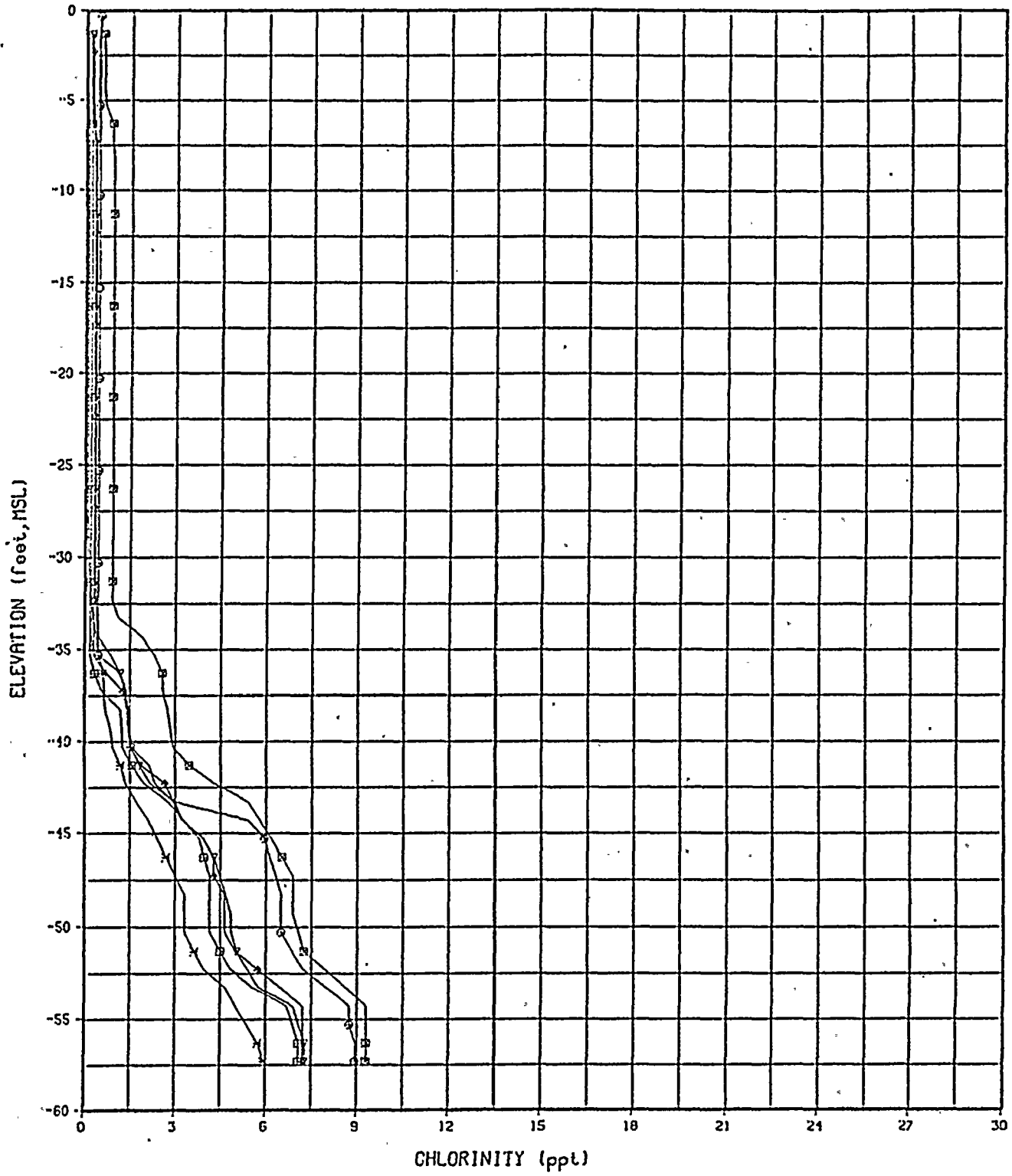
Δ MAY, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-27

0459804726 (7/79) FIGURE 38C



LEGEND

- ▽ JULY, 1978
- ◻ AUGUST, 1978
- × SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ● NOVEMBER, 1978
- ⊡ DECEMBER, 1978

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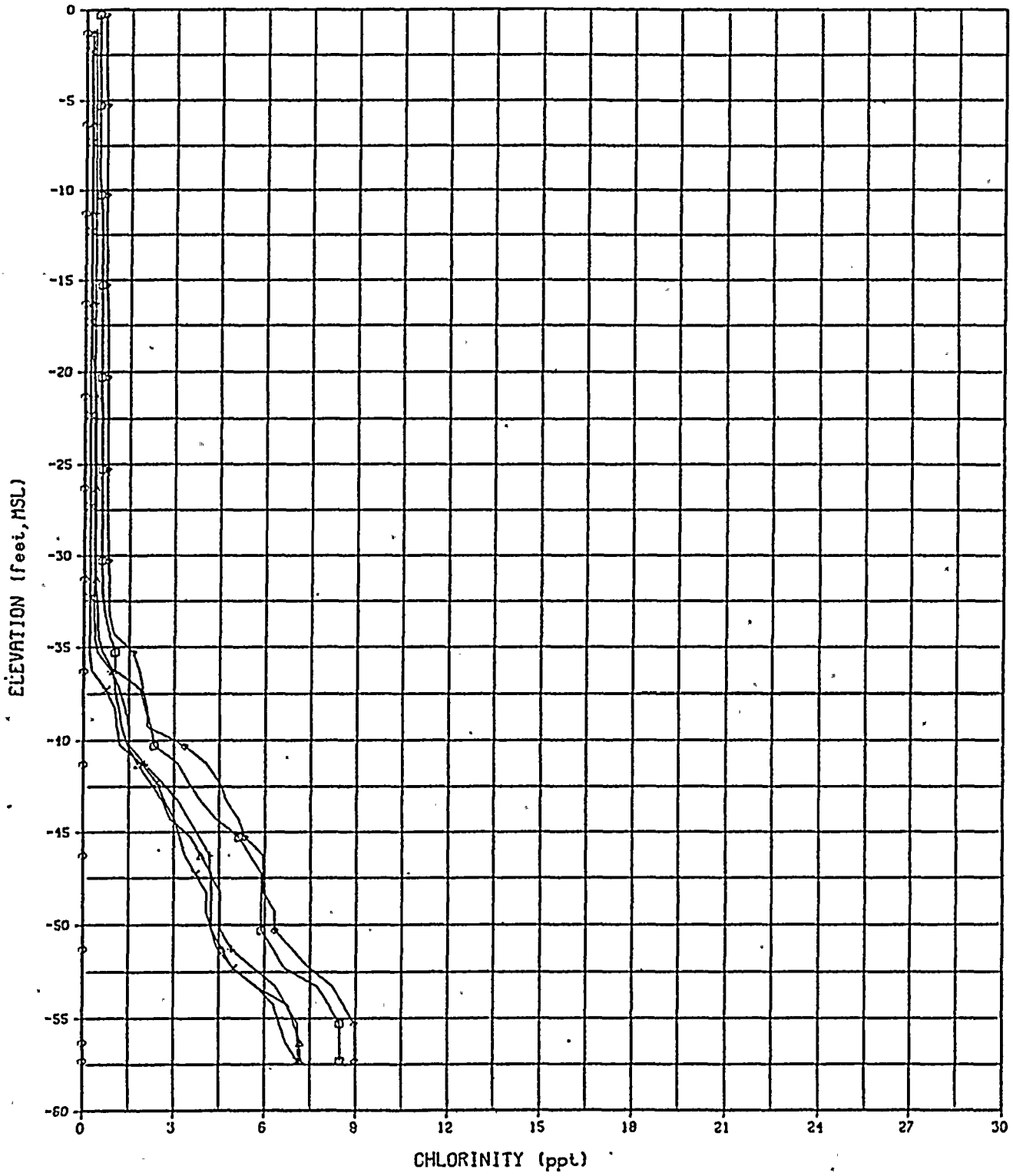
CHLORINITY PROFILES

WELL NUMBER G-28

0459804726 (1/79) FIGURE 39A



LEGEND

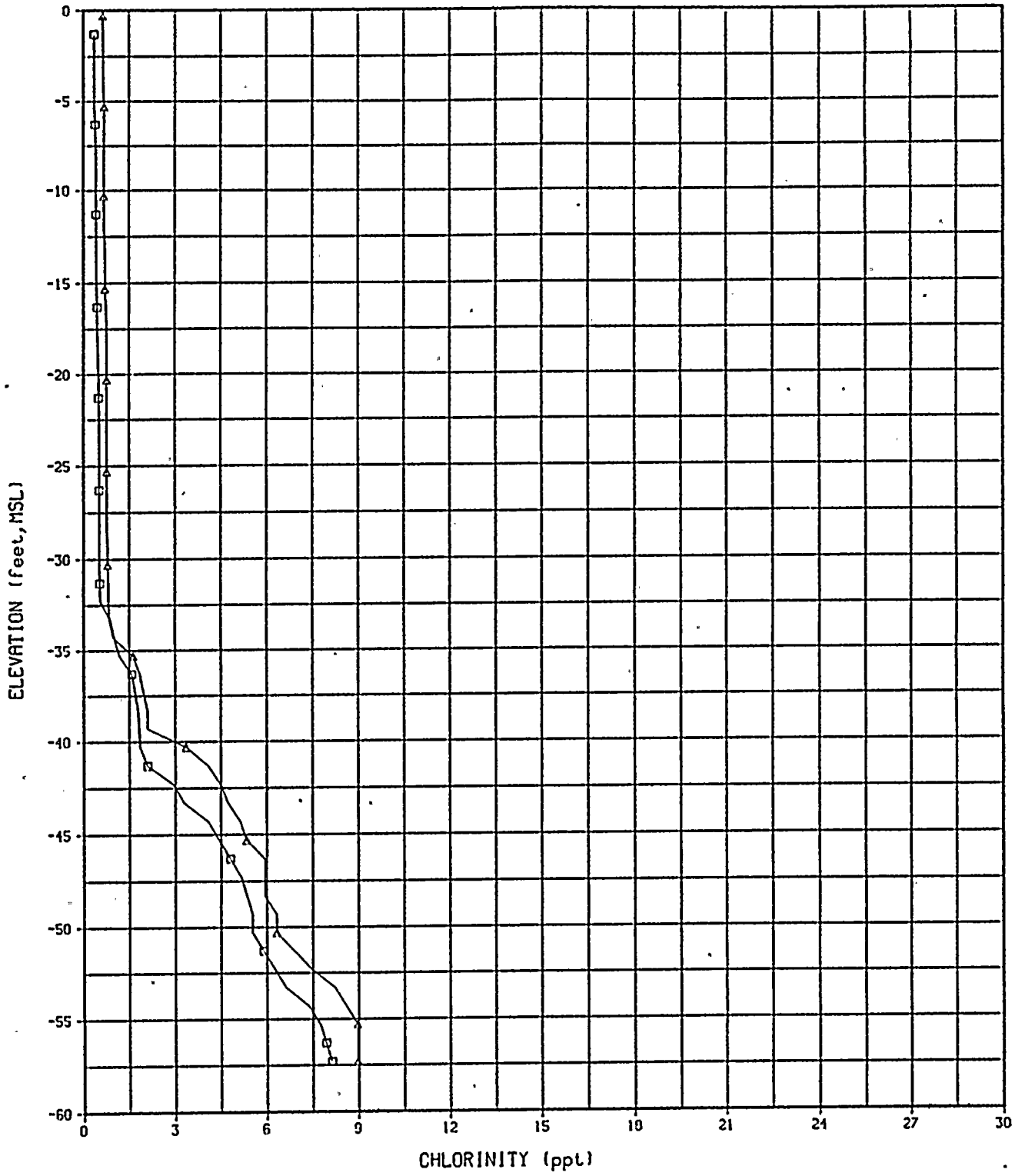
- o JANUARY, 1979
- o FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-28

0459804726 (7/79) FIGURE 39B



LEGEND

□ JUNE, 1978

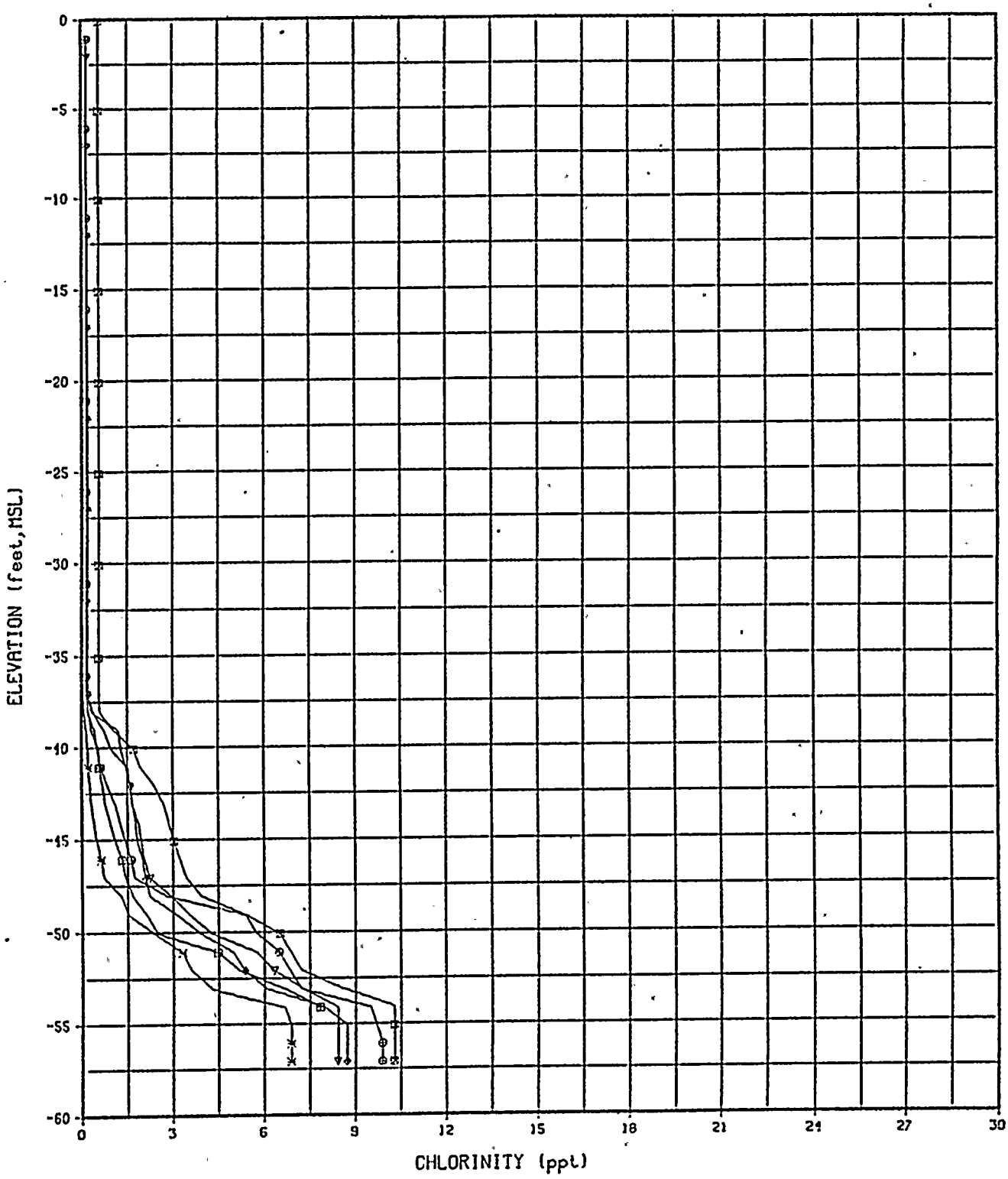
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-28

0459804726 (7/79) FIGURE 39C



LEGEND

- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ⋇ SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ● NOVEMBER, 1978
- ⊞ DECEMBER, 1978

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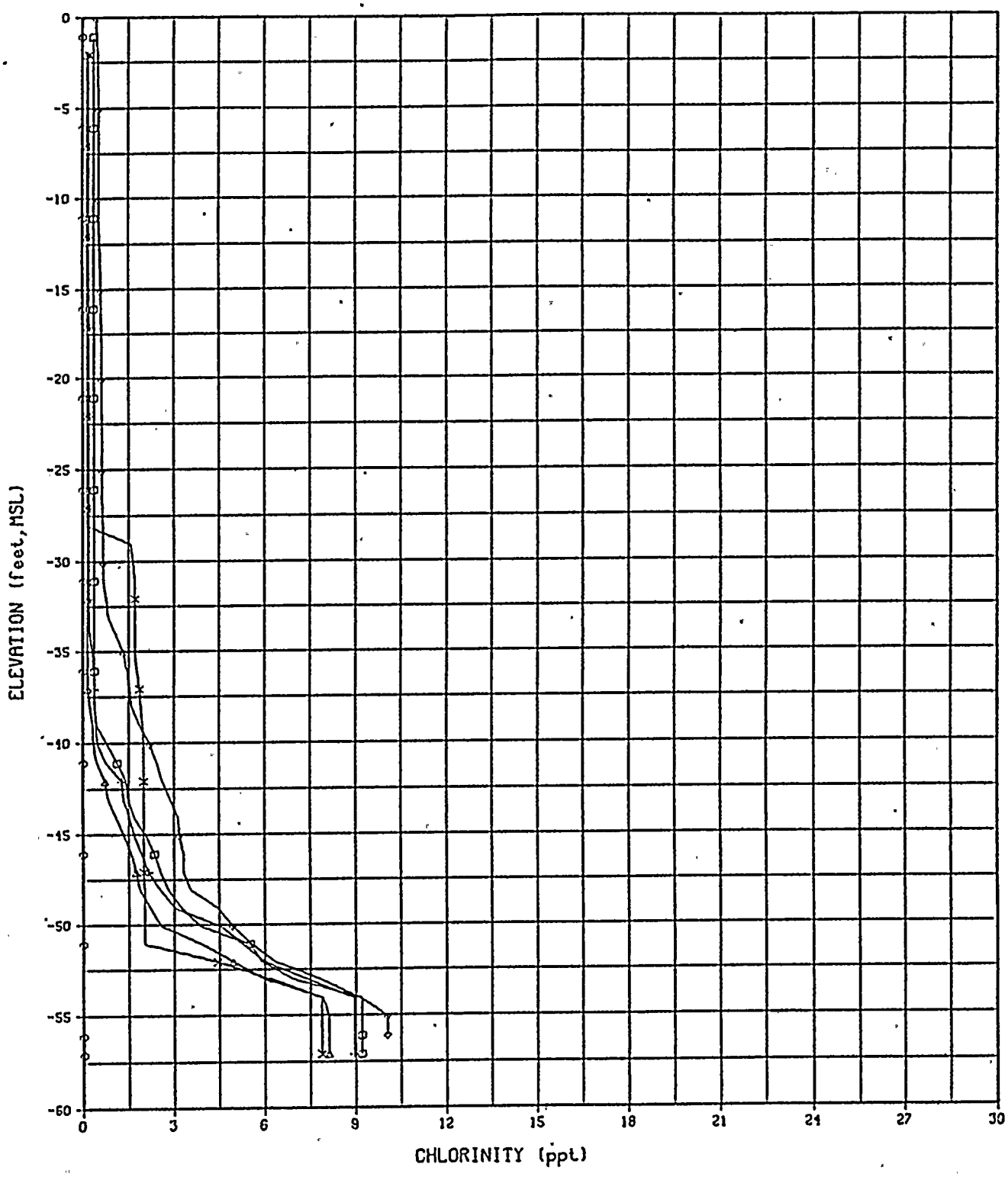
CHLORINITY PROFILES

WELL NUMBER G-35

0459804726 (1/79) FIGURE 40A



LEGEND

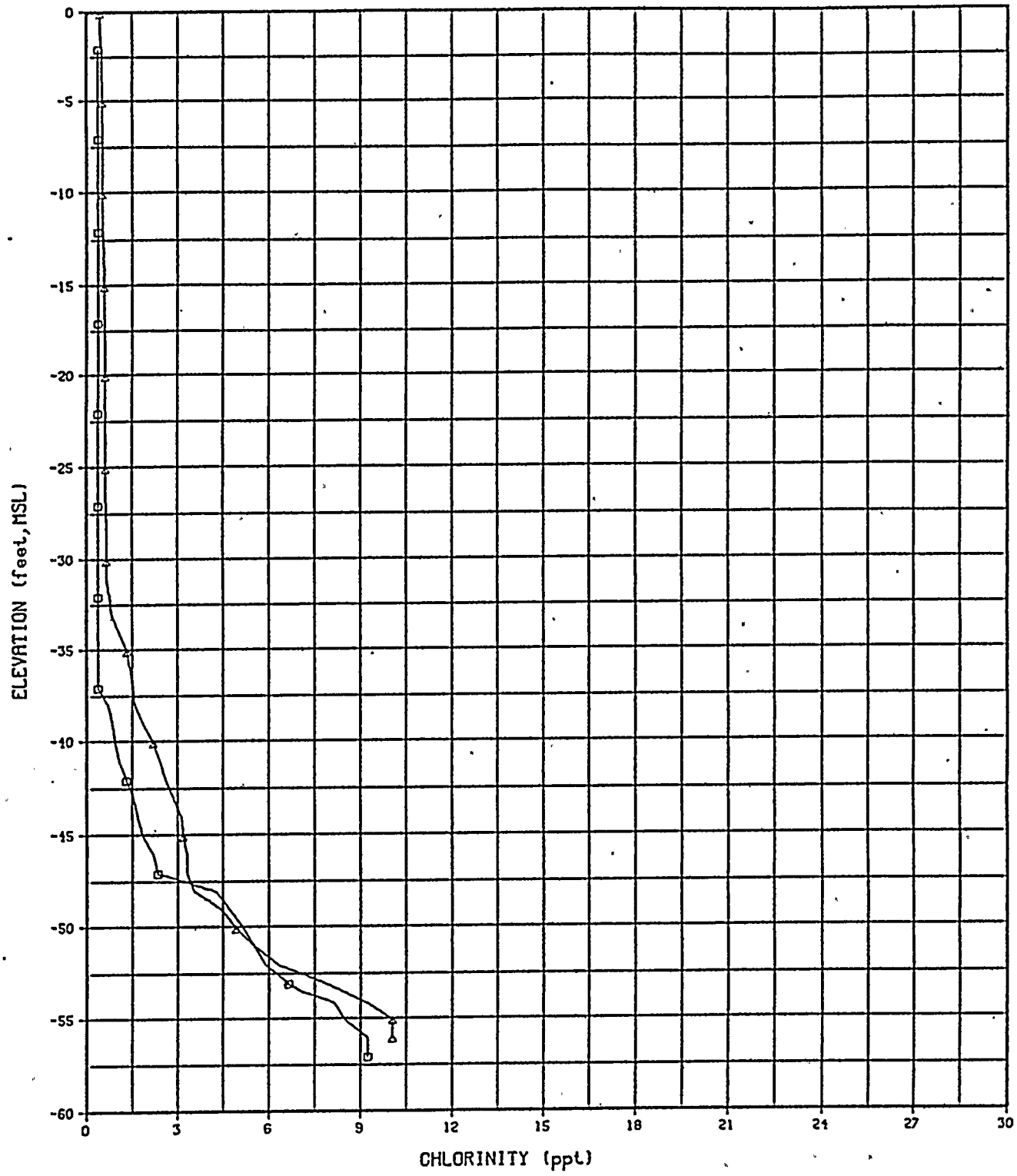
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-35

0459804726 (7/79) FIGURE 40B



LEGEND

□ JUNE, 1978

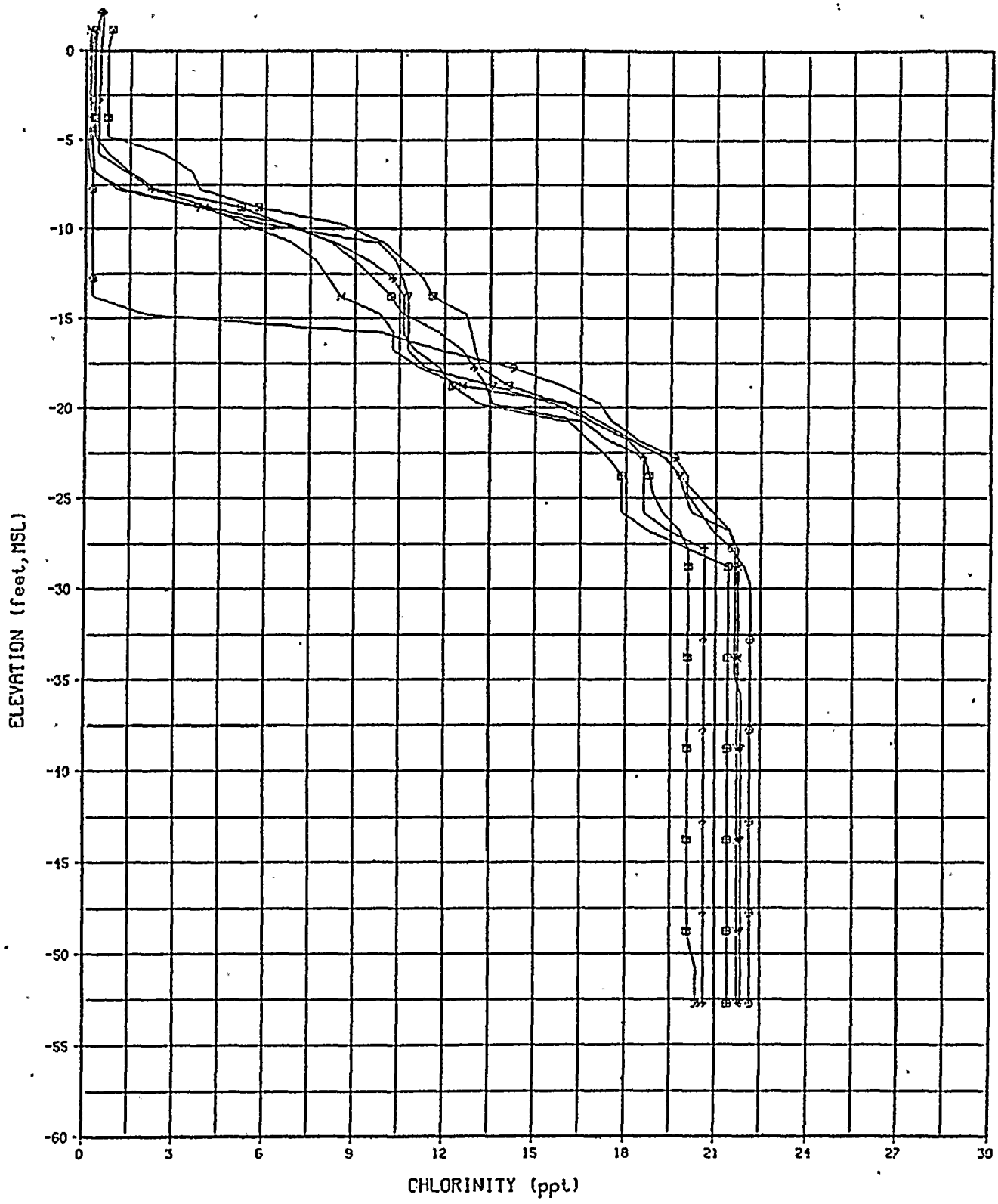
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER G-35

0459804726 (7/79) FIGURE 40C



LEGEND

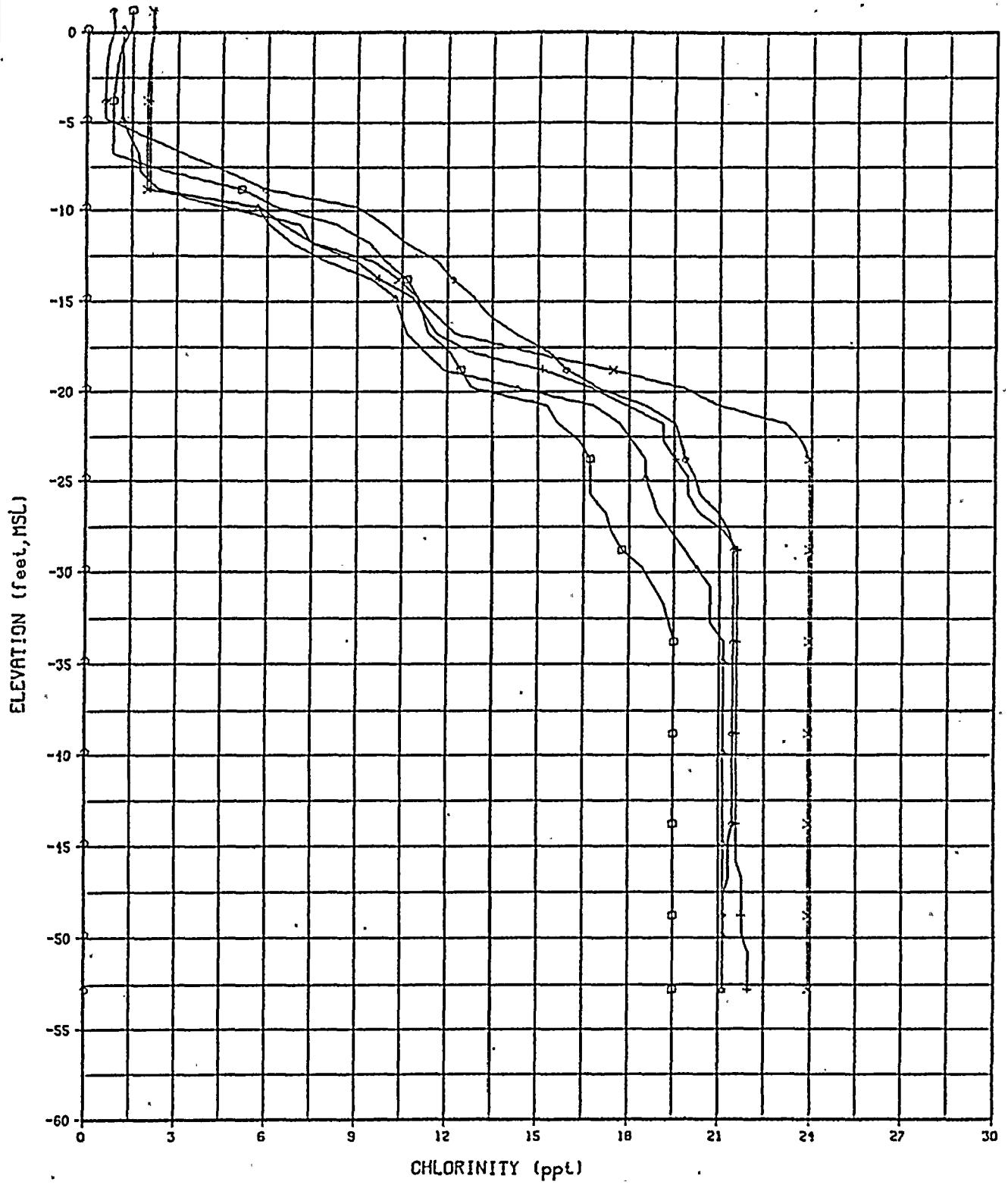
- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- × SEPTEMBER, 1978
- ✦ OCTOBER, 1978
- ⊗ NOVEMBER, 1978
- ⊞ DECEMBER, 1978

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER X-1

0459804726 (1/79) FIGURE 41A



LEGEND

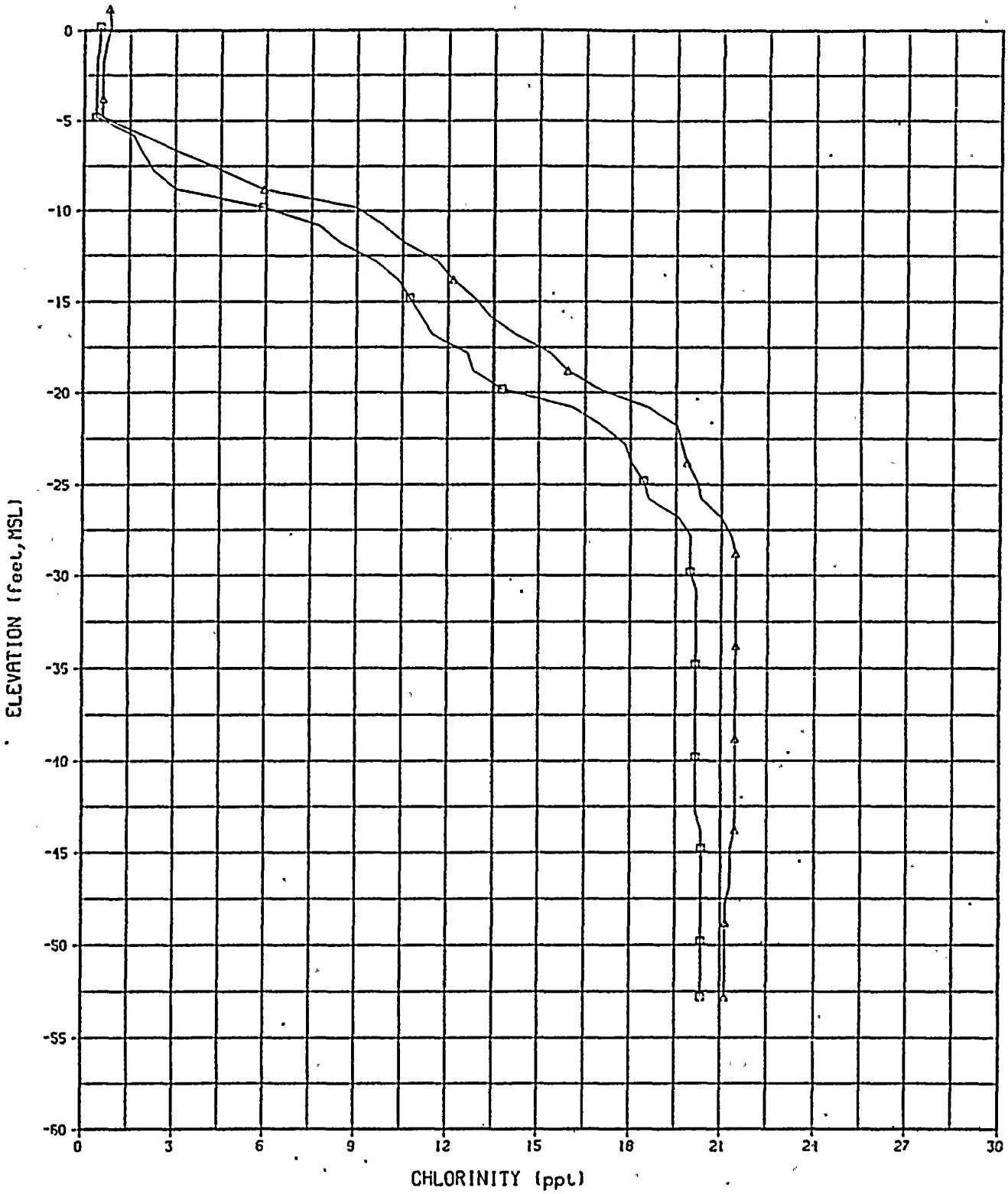
- □ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◇ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER X-1

0459804726 (7/79) FIGURE 41B



LEGEND

□ JUNE, 1978

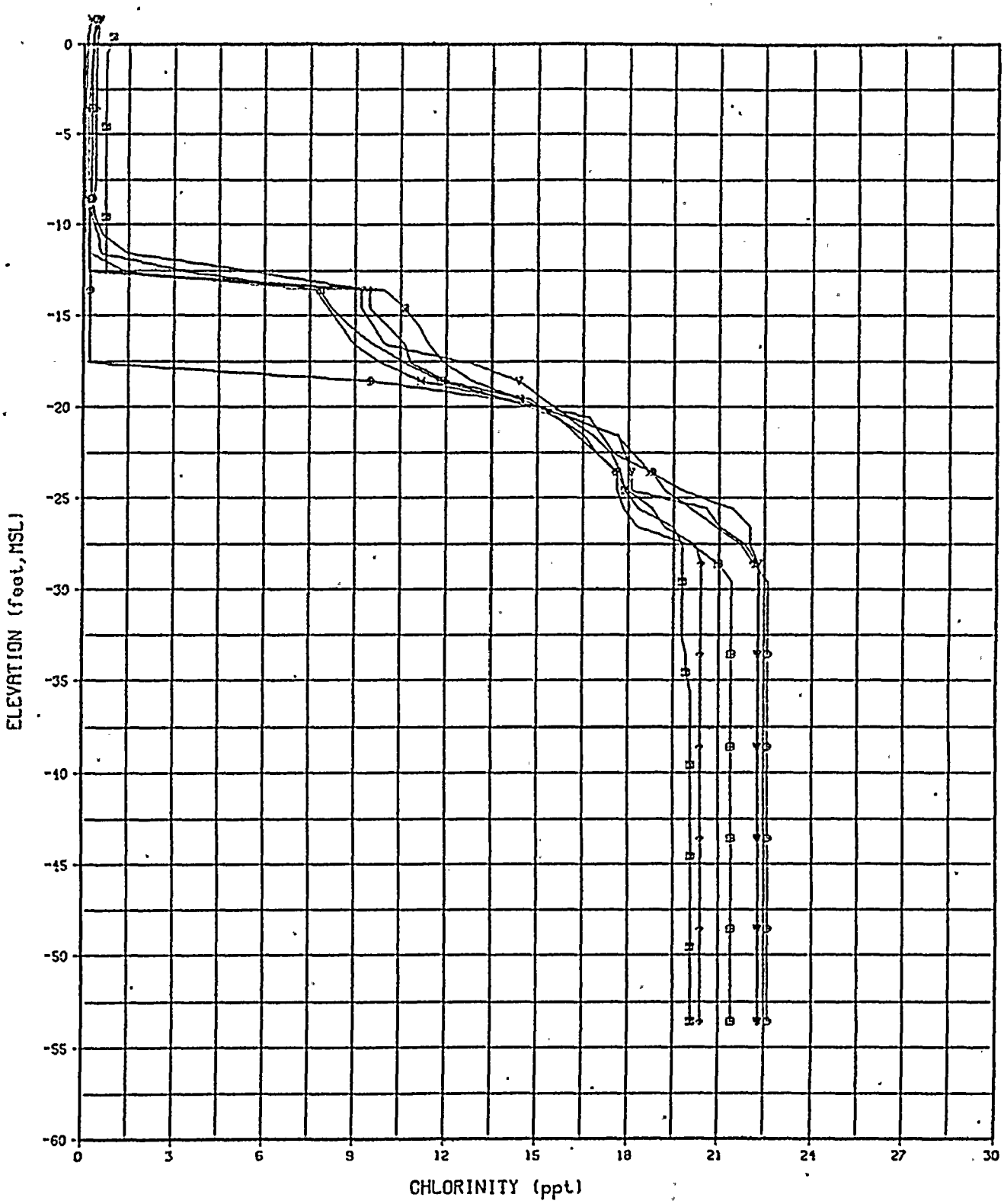
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER X-1

0459804726 (7/79) FIGURE 41C



LEGEND

- ▽ JULY, 1978
- ⊠ AUGUST, 1978
- ✕ SEPTEMBER, 1978
- ◆ OCTOBER, 1978
- ⊙ NOVEMBER, 1978
- ⊡ DECEMBER, 1978

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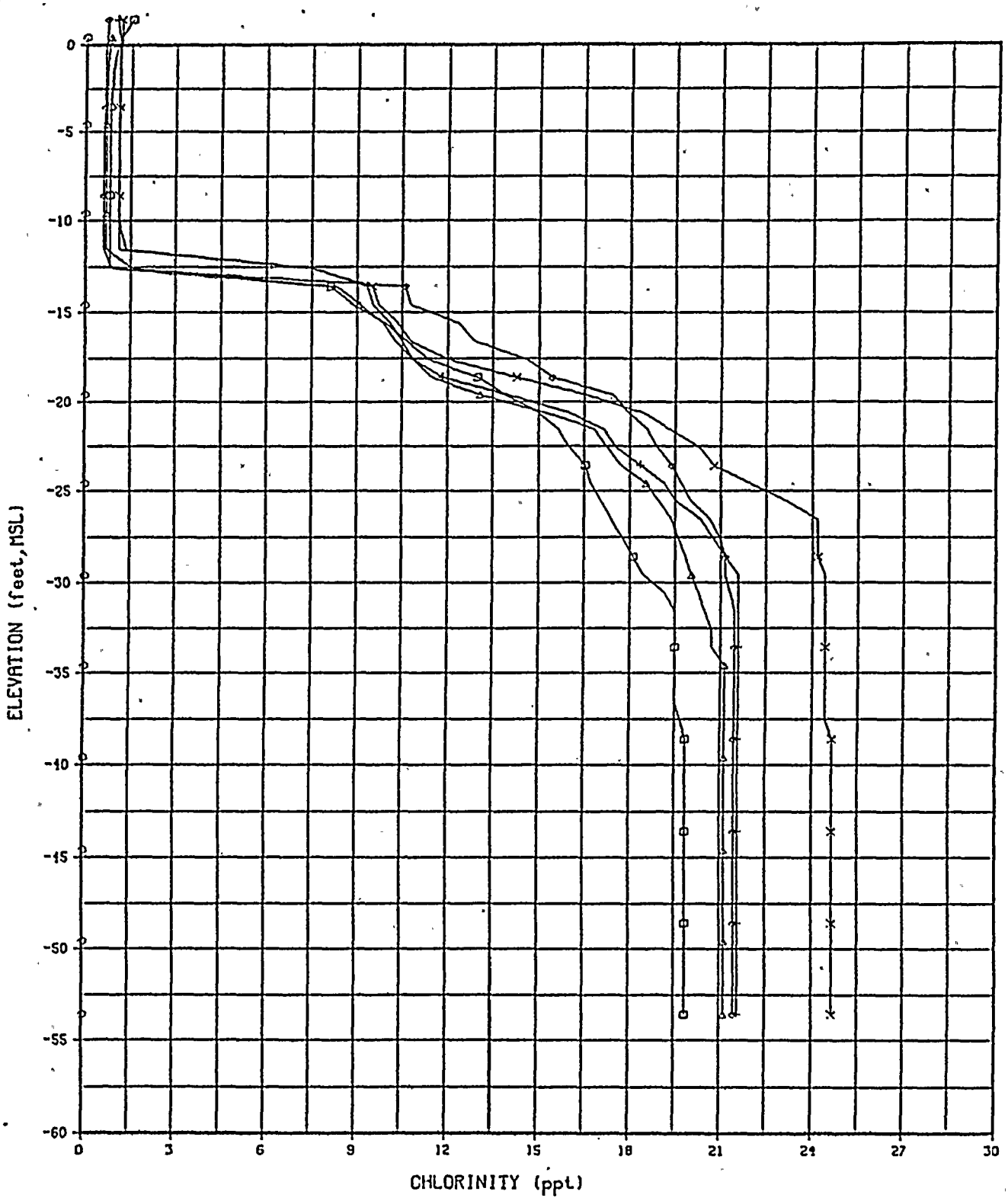
CHLORINITY PROFILES

WELL NUMBER X-2

0459804726 (1/79) FIGURE 42A



LEGEND

- ▫ JANUARY, 1979
- ○ FEBRUARY, 1979
- △ MARCH, 1979
- + APRIL, 1979
- × MAY, 1979
- ◦ JUNE, 1979.

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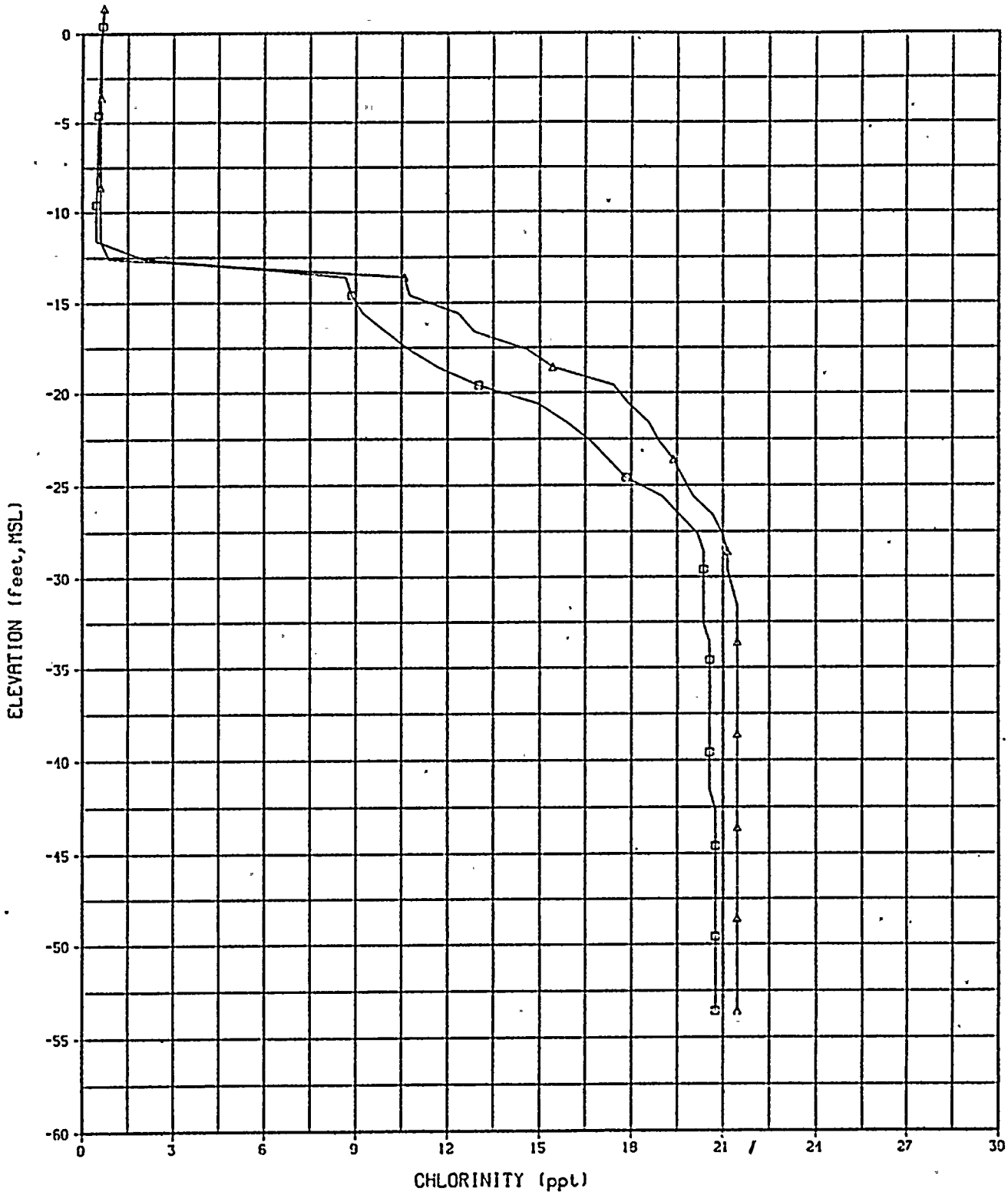
CHLORINITY PROFILES

WELL NUMBER X-2

0459804726 (7/79) FIGURE 42B



LEGEND

□ JUNE, 1978

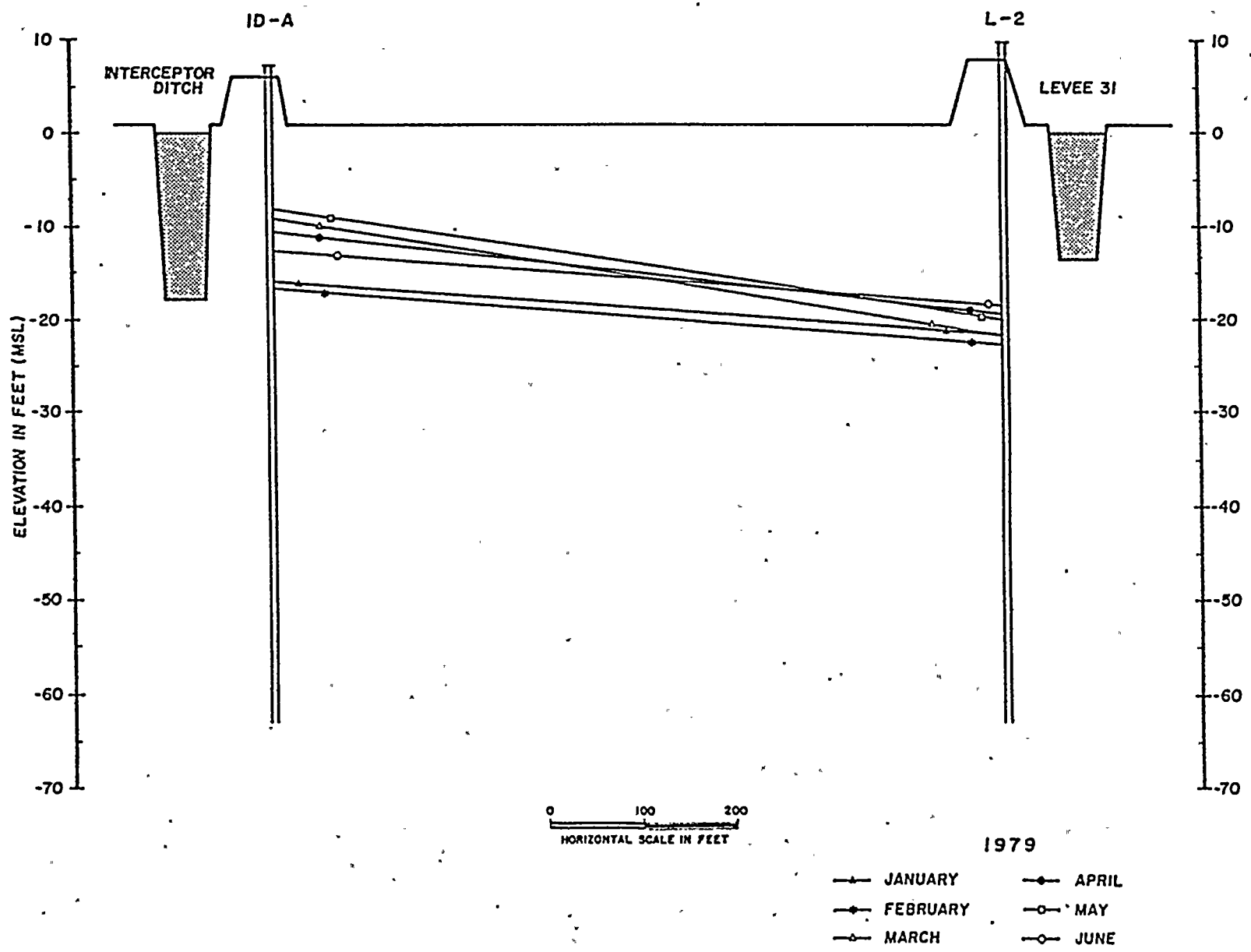
△ JUNE, 1979

DAMES AND MOORE

CHLORINITY PROFILES

WELL NUMBER X-2

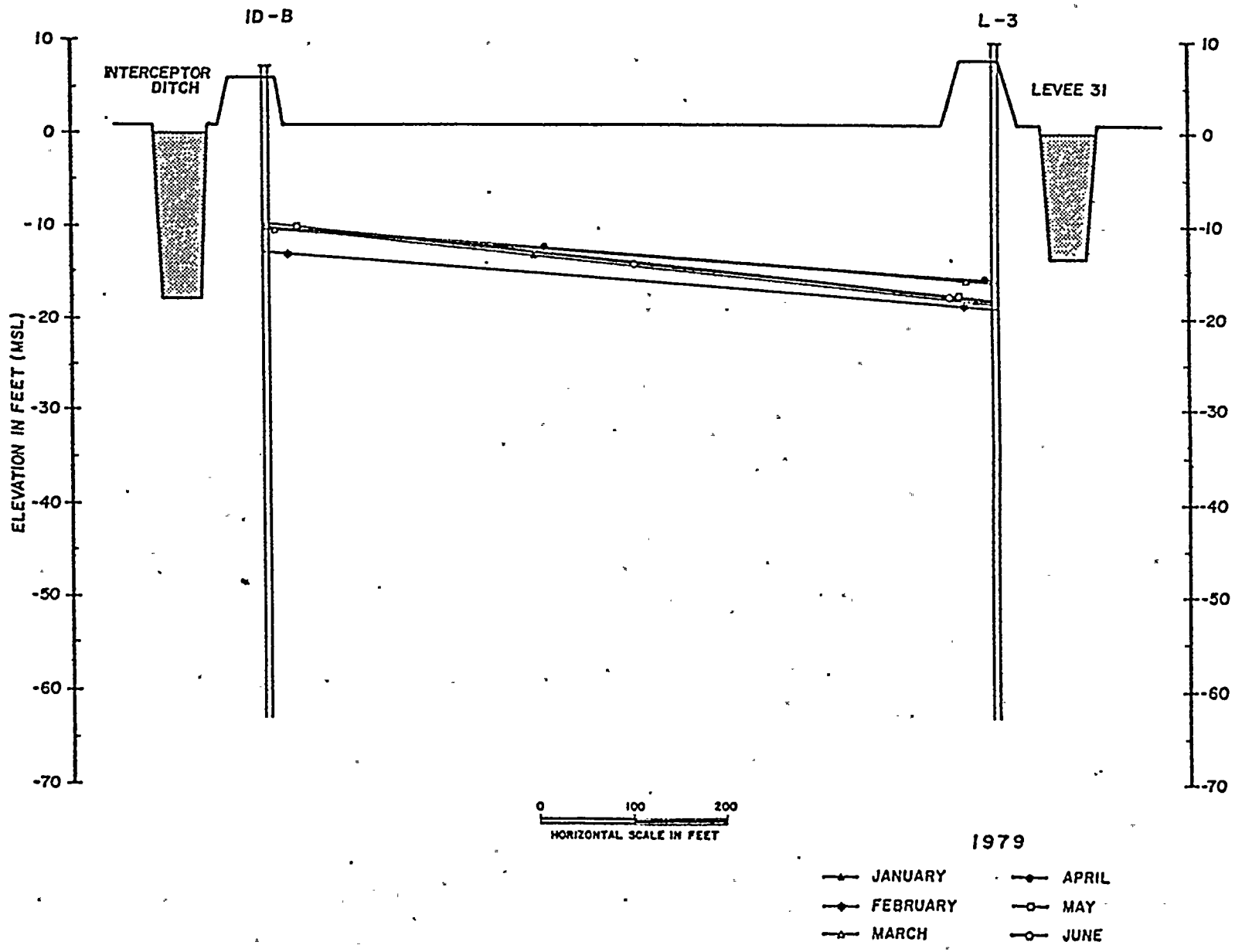
0459804726 (7/79) FIGURE 42C



DAMES & MOORE

10ppt CHLORINITY
CROSS SECTION
LINE A

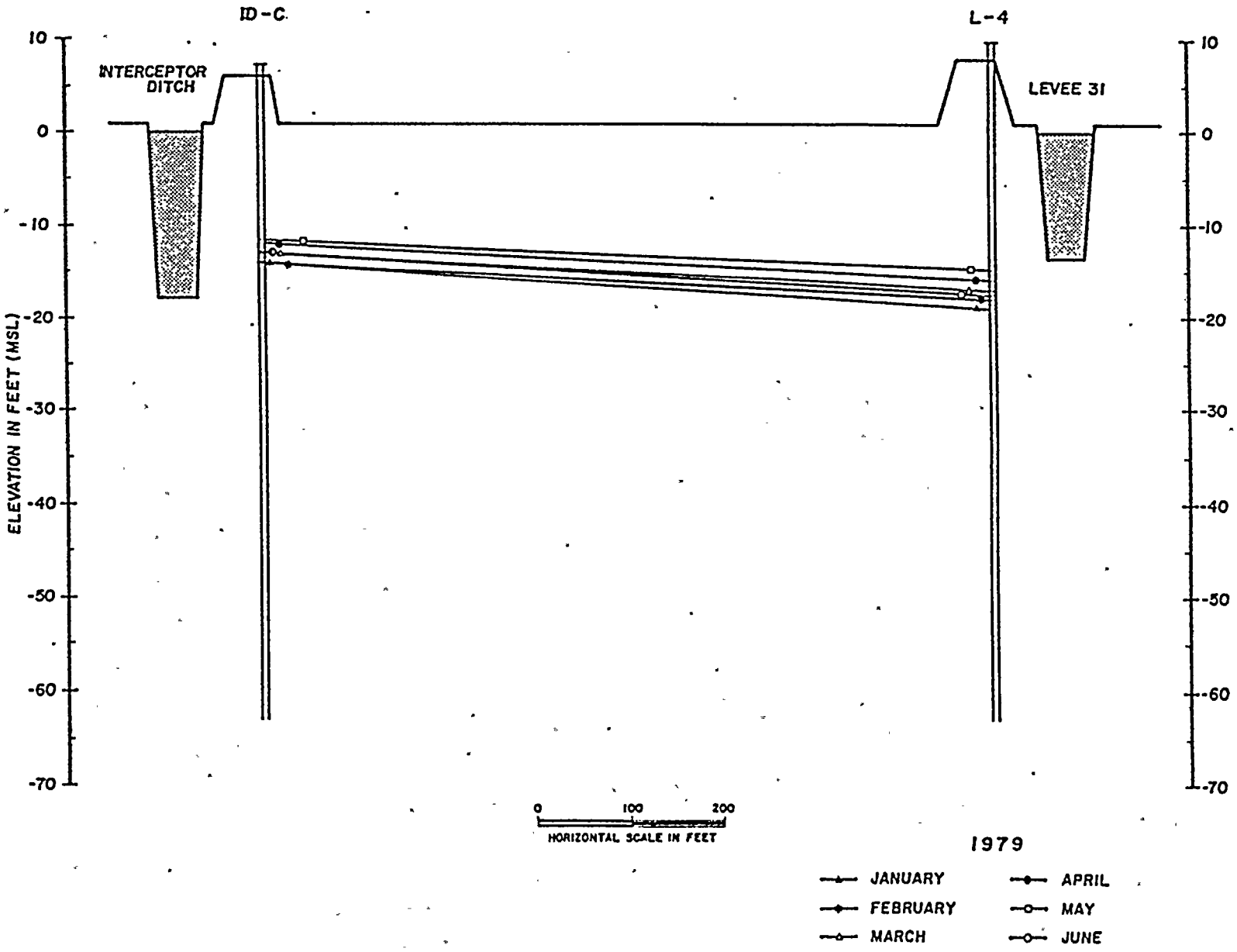
0459804726 (REV. 7/79) FIGURE 43



DAMES & MOORE

10ppt CHLORINITY
CROSS SECTION
LINE B

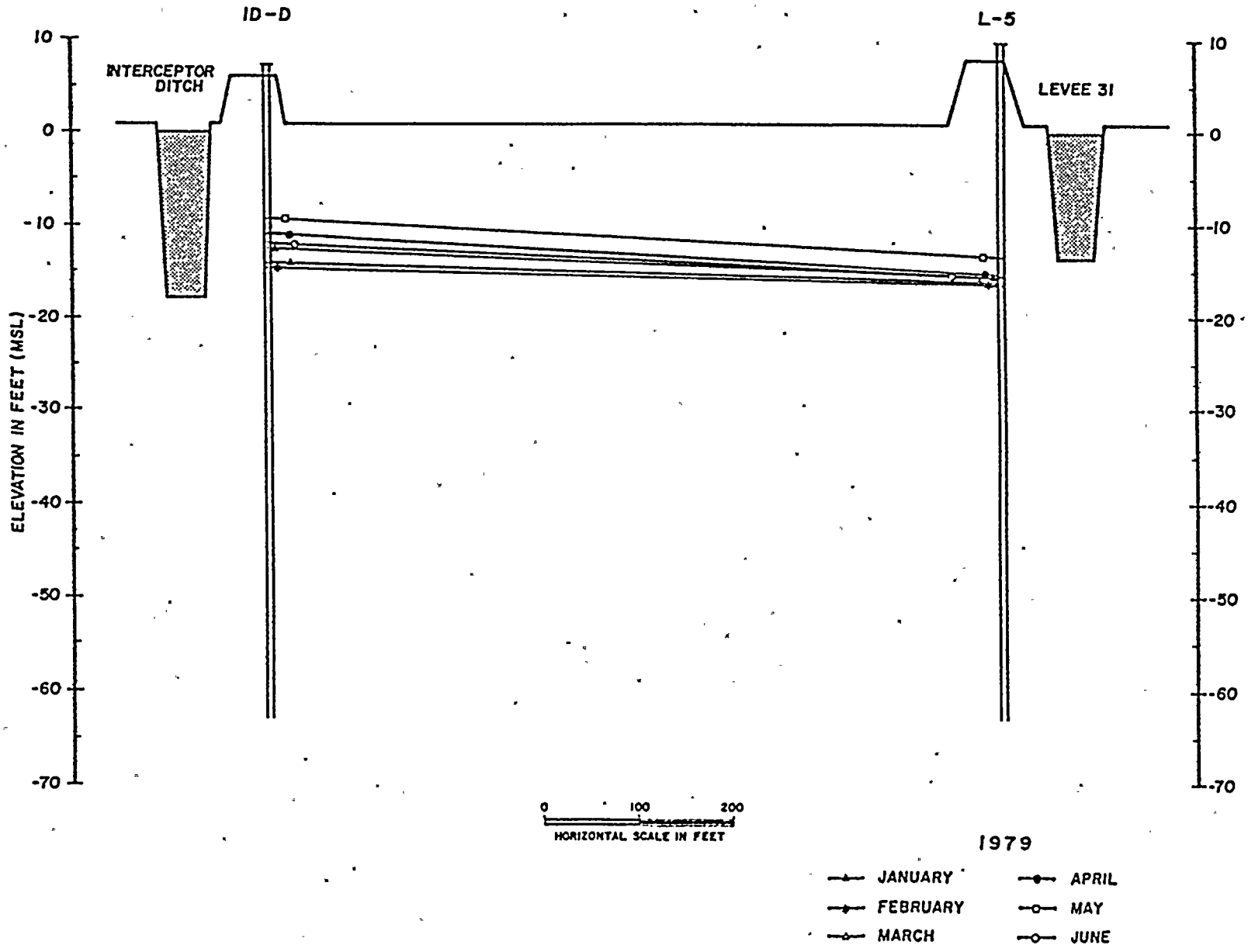
0459804726 (REV. 7/79) FIGURE 44



DAMES & MOORE

10ppt CHLORINITY
CROSS SECTION
LINE C

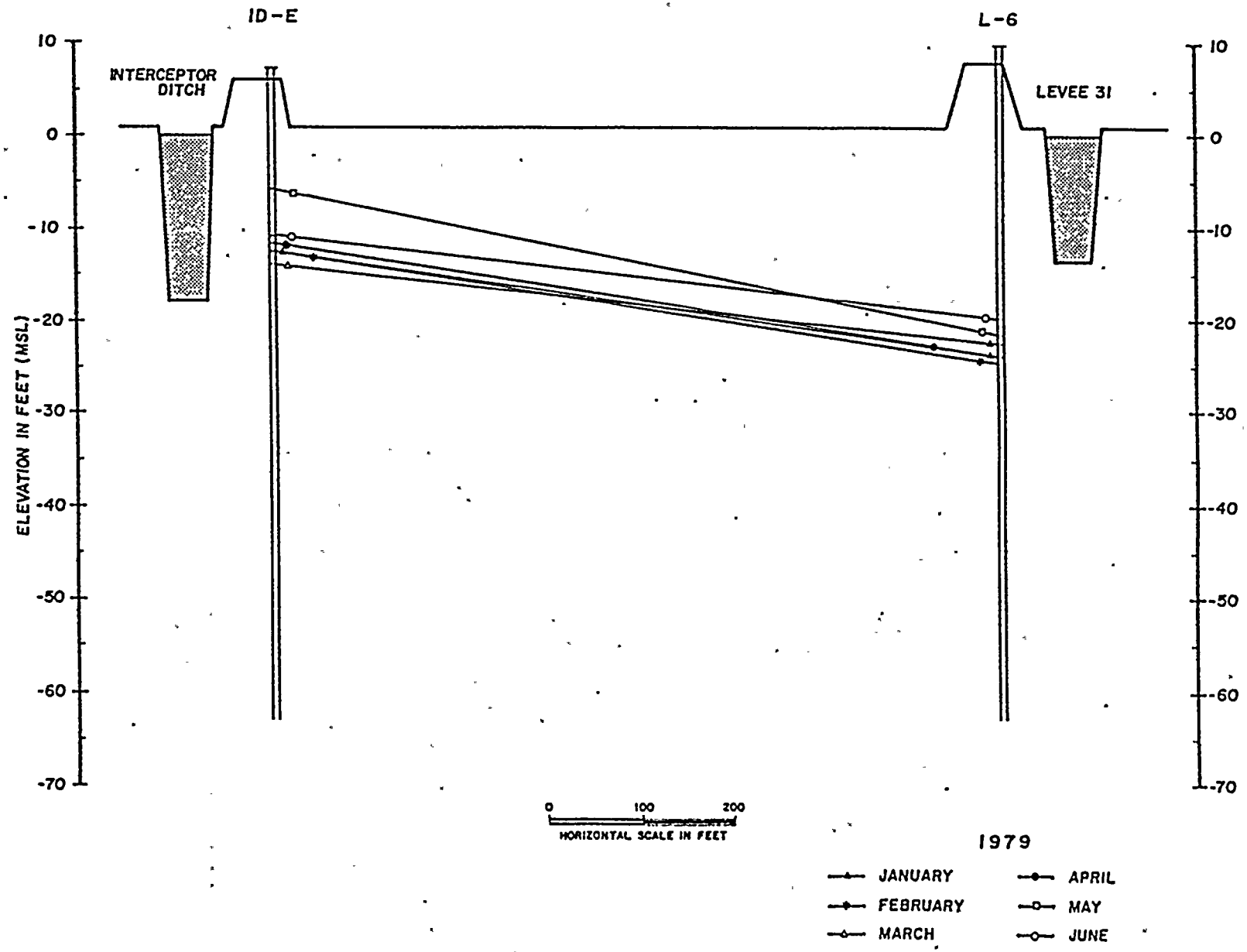
0459804726 (REV. 7/79) FIGURE 45



DAMES & MOORE

10ppt CHLORINITY
CROSS SECTION
LINE D

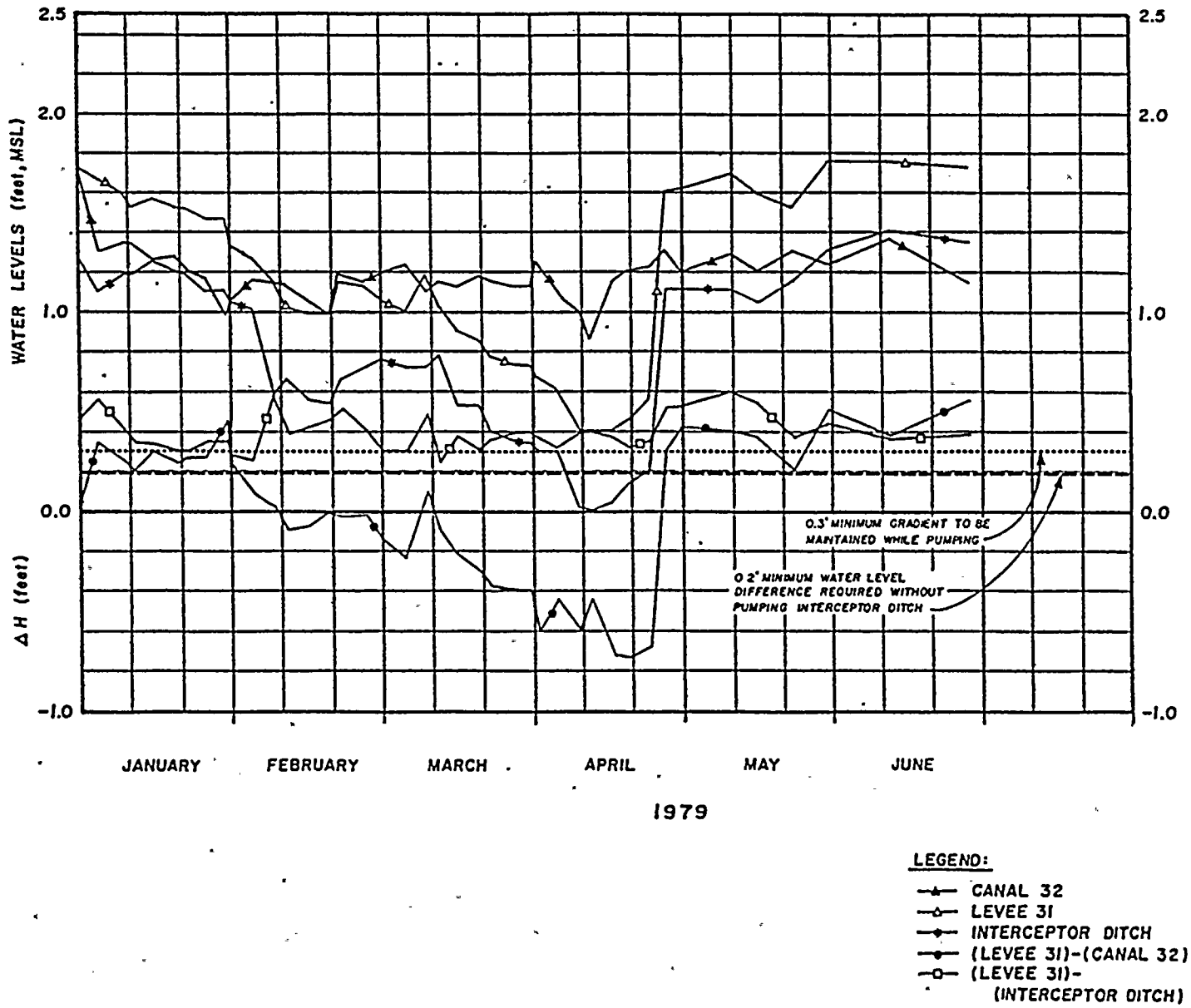
045980726 (REV. 7/79) FIGURE 46



DAMES & MOORE

10ppt CHLORINITY
CROSS SECTION
LINE E

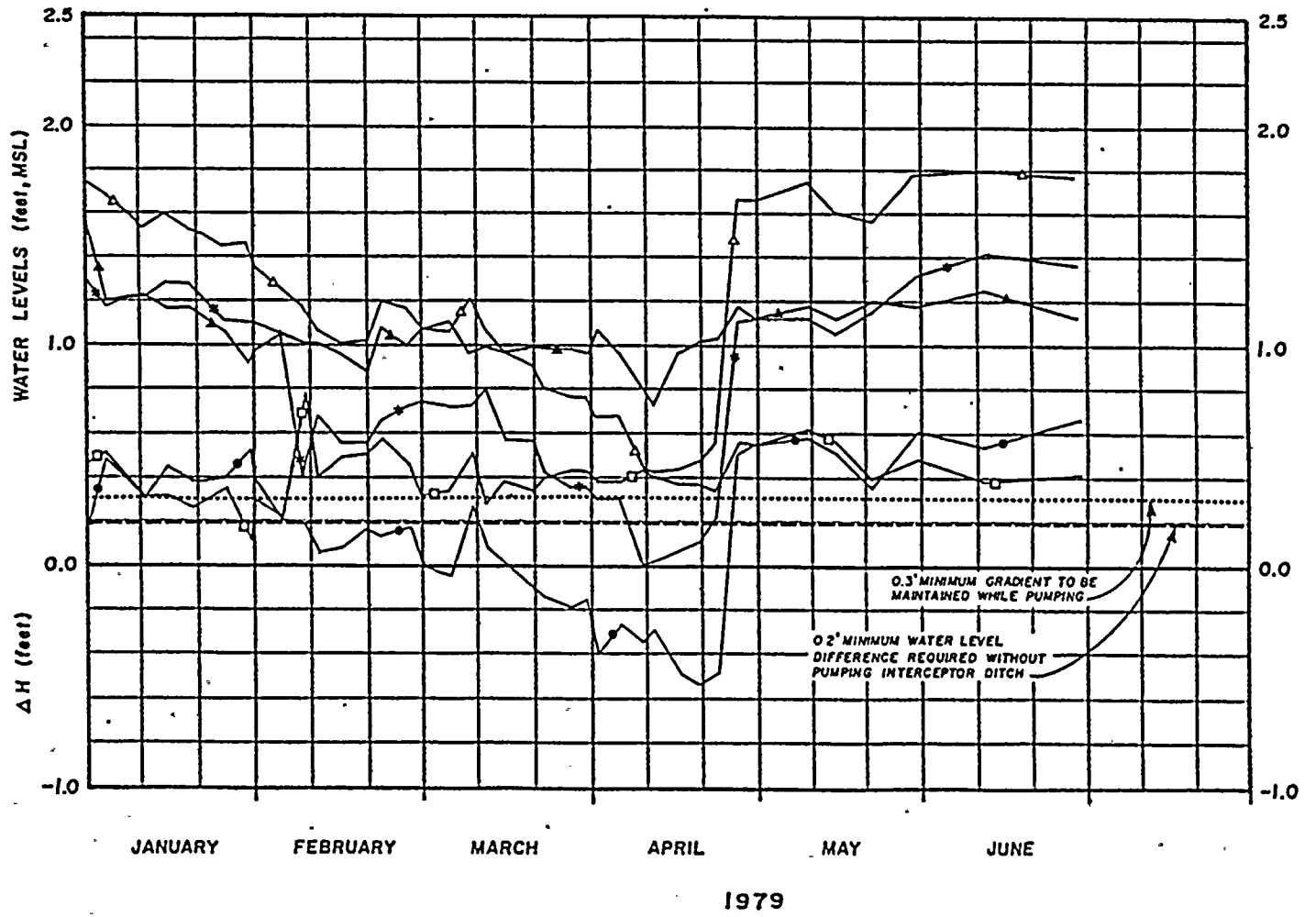
0459804726 (REV. 7/79) FIGURE 47



DAMES & MOORE

WATER LEVEL FLUCTUATIONS
LEVEE 31, INTERCEPTOR DITCH
and CANAL 32
LINE A

0459804726 (REV. 7/79) FIGURE 48



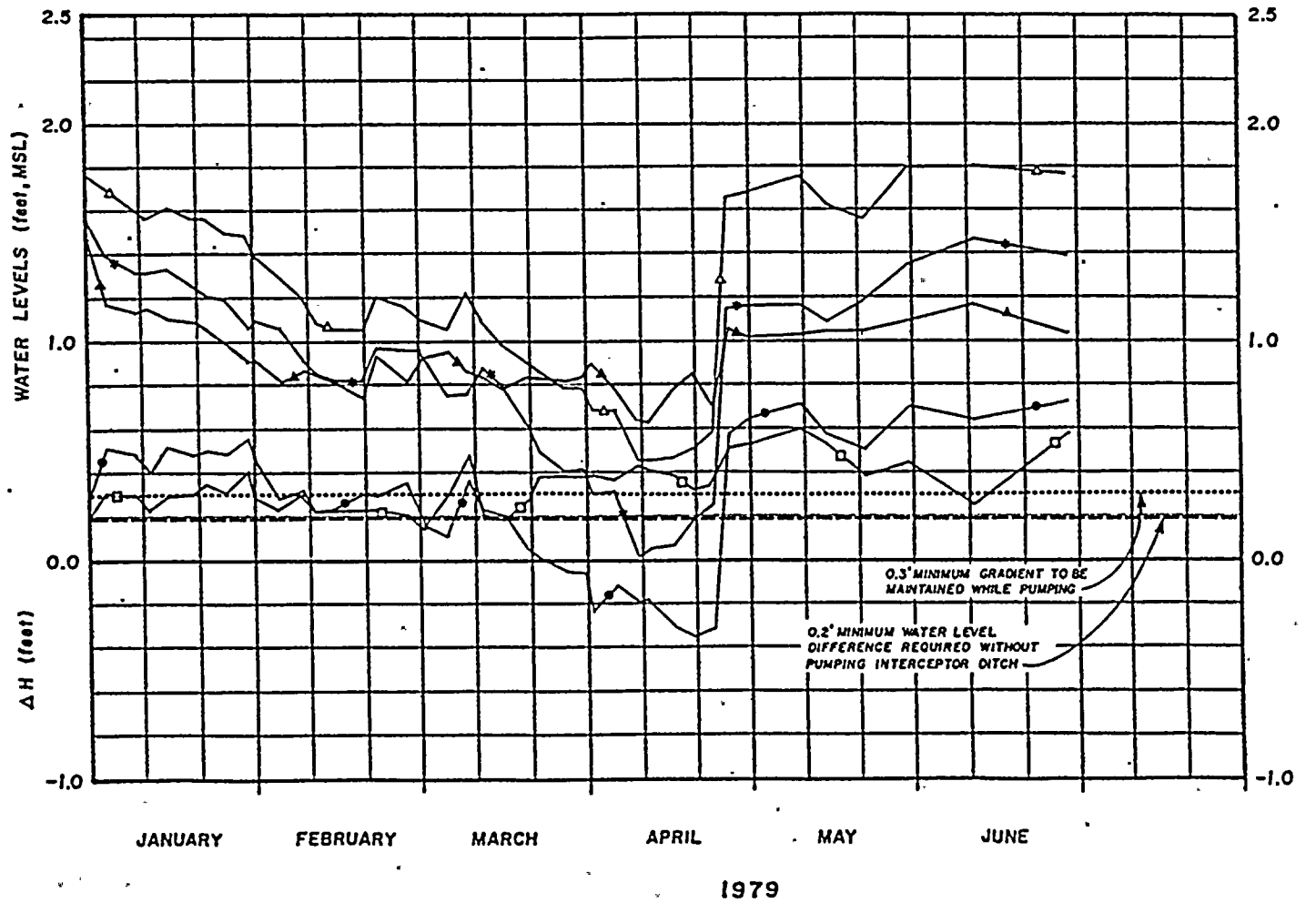
LEGEND:

- CANAL 32
- LEVEE 31
- INTERCEPTOR DITCH
- (LEVEE 31)-(CANAL 32)
- (LEVEE 31)-(INTERCEPTOR DITCH)

DAMES & MOORE

WATER LEVEL FLUCTUATIONS
LEVEE 31, INTERCEPTOR DITCH
and CANAL 32
LINE B

0459804726 (REV. 7/79) FIGURE 49



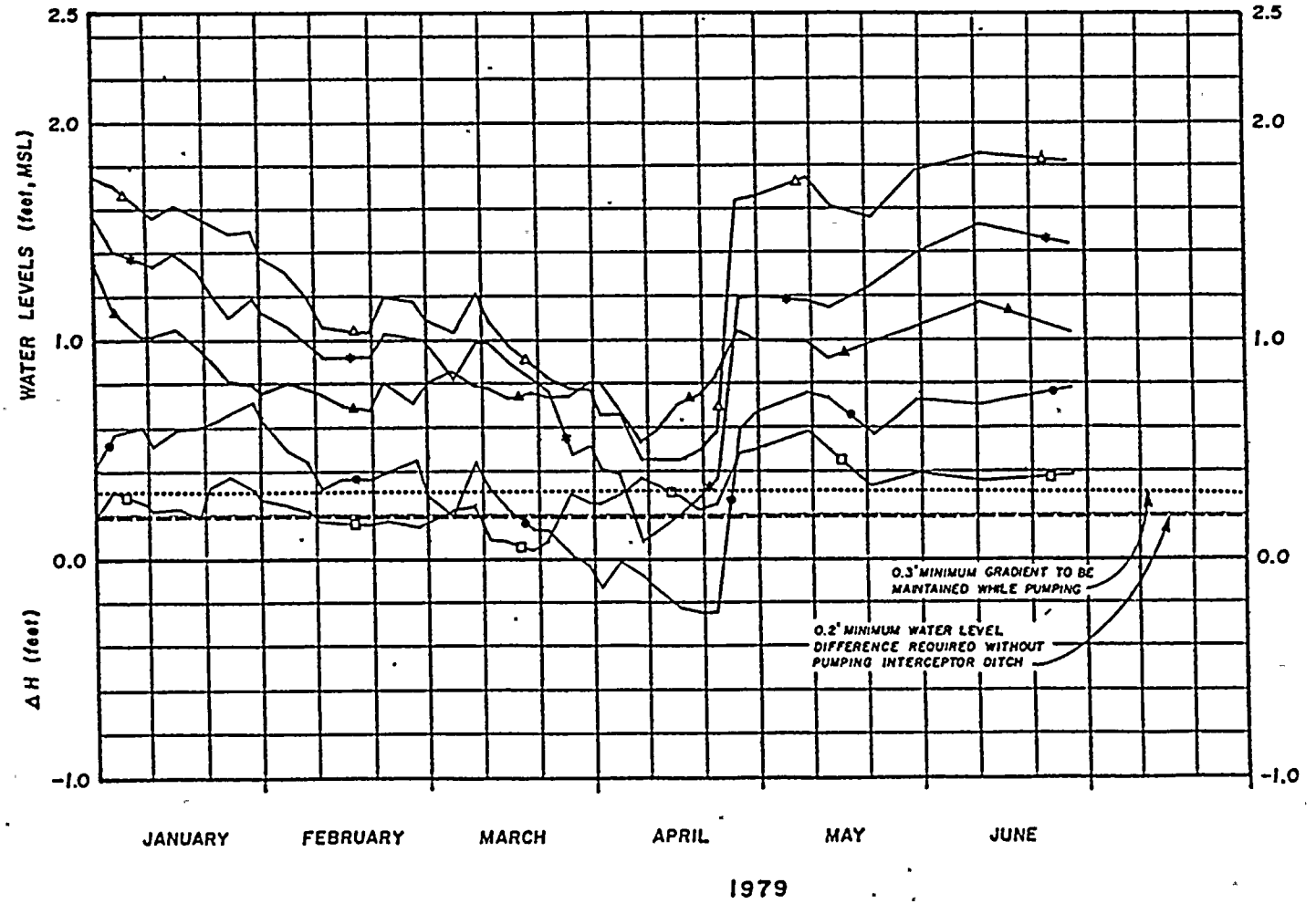
LEGEND:

- CANAL 32
- LEVEE 31
- INTERCEPTOR DITCH
- (LEVEE 31)-(CANAL 32)
- (LEVEE 31)-(INTERCEPTOR DITCH)

DAMES & MOORE

WATER LEVEL FLUCTUATIONS
LEVEE 31, INTERCEPTOR DITCH
and CANAL 32
LINE C

0459800726 (REV. 7/79) FIGURE 50



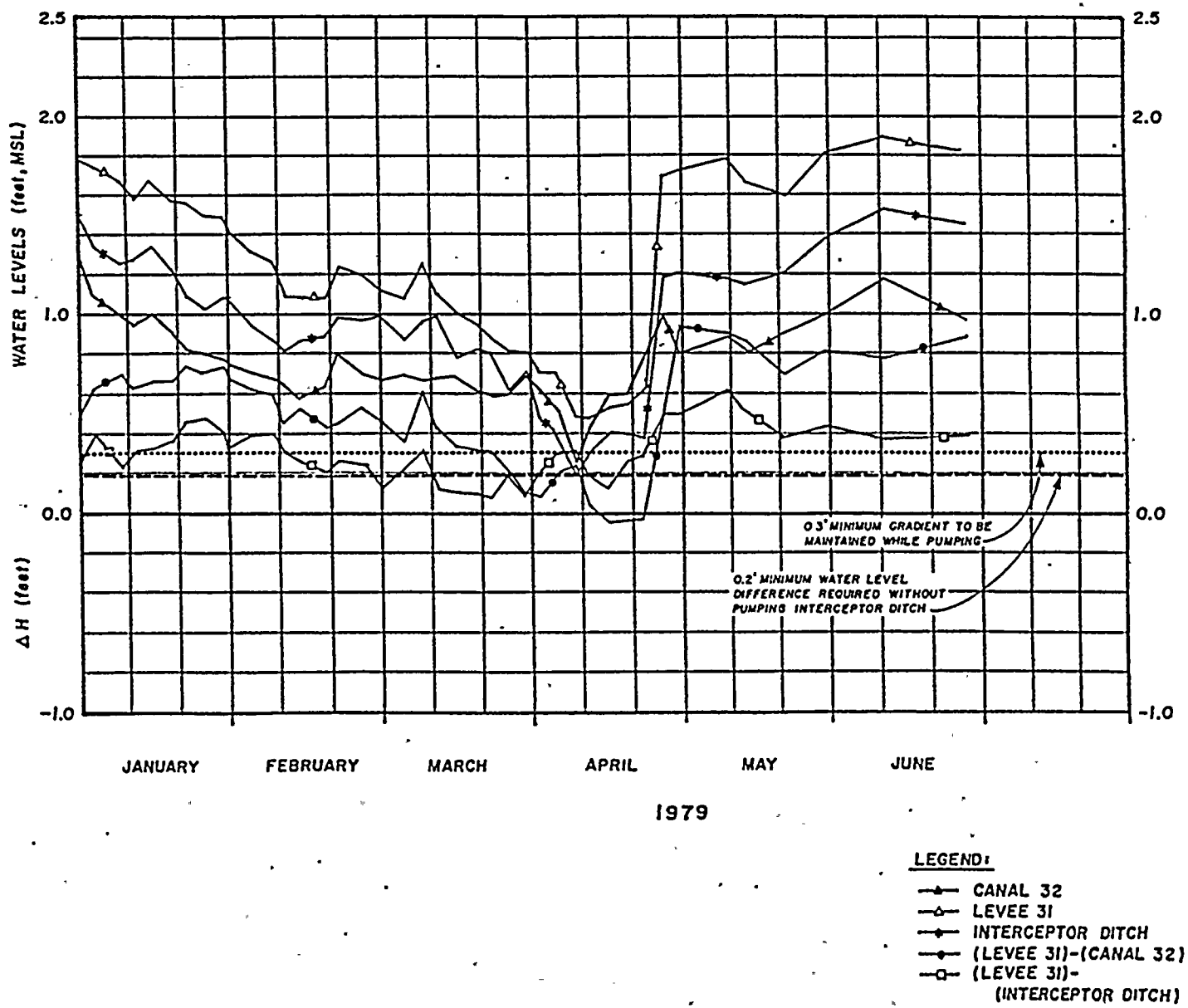
LEGEND:

- CANAL 32
- LEVEE 31
- INTERCEPTOR DITCH
- (LEVEE 31)-(CANAL 32)
- (LEVEE 31)-(INTERCEPTOR DITCH)

DAMES & MOORE

WATER LEVEL FLUCTUATIONS
LEVEE 31, INTERCEPTOR DITCH
and CANAL 32
LINE D

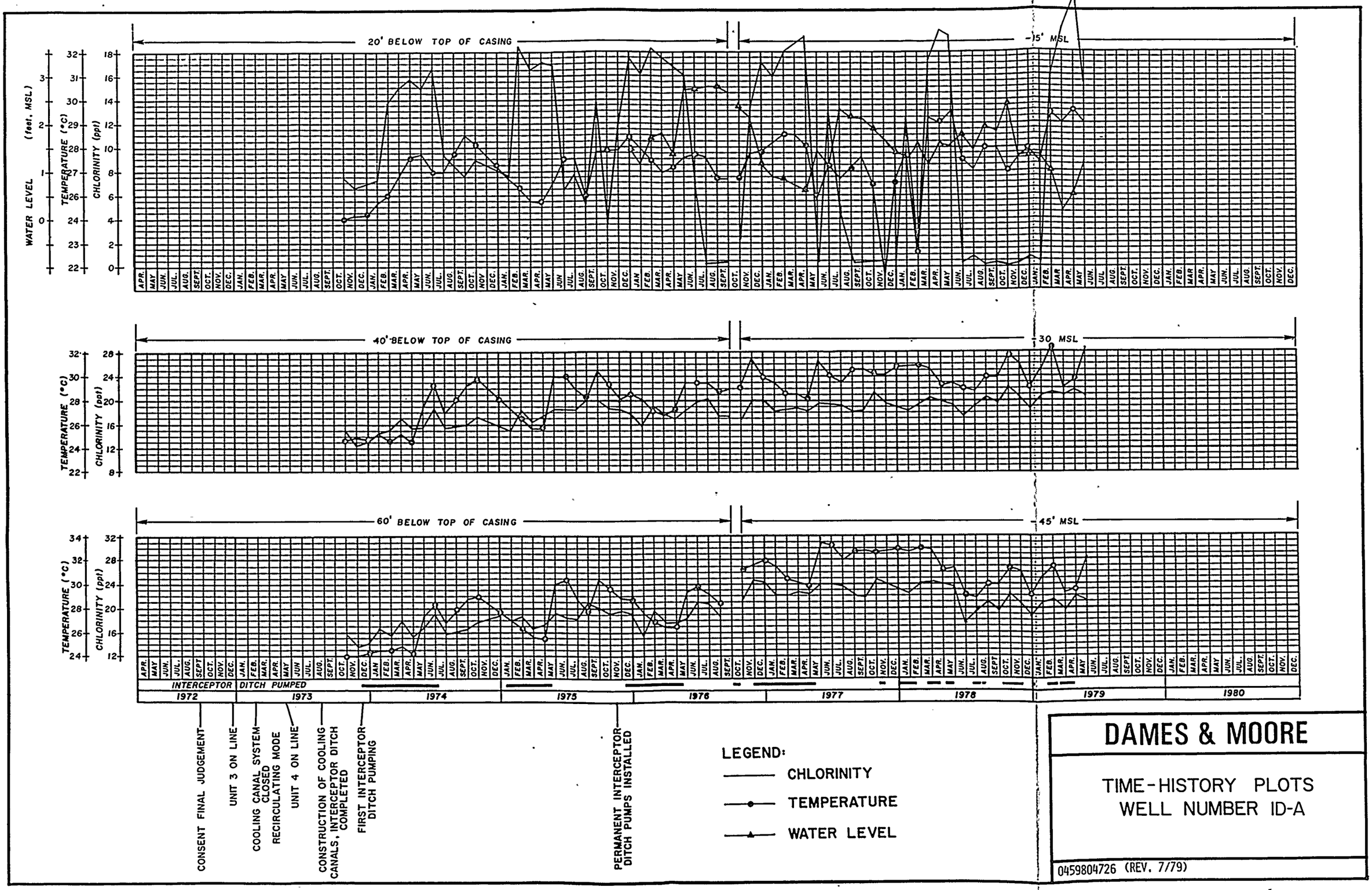
0459804726 (REV. 7/79) FIGURE 51



DAMES & MOORE

WATER LEVEL FLUCTUATIONS
LEVEE 31, INTERCEPTOR DITCH
and CANAL 32
LINE E

0459804726 (REV. 7/79) FIGURE 52



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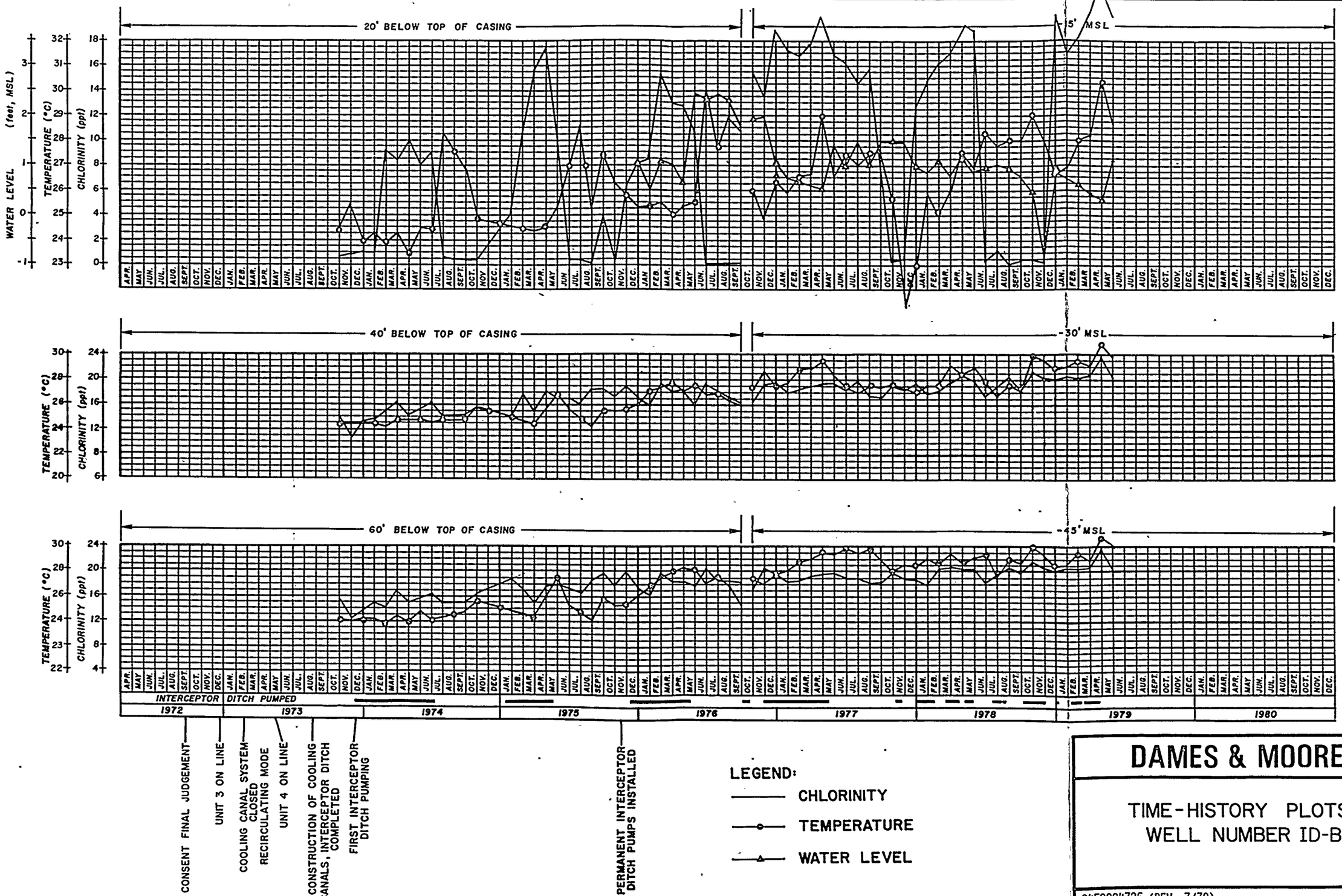
TIME-HISTORY PLOTS
WELL NUMBER ID-A

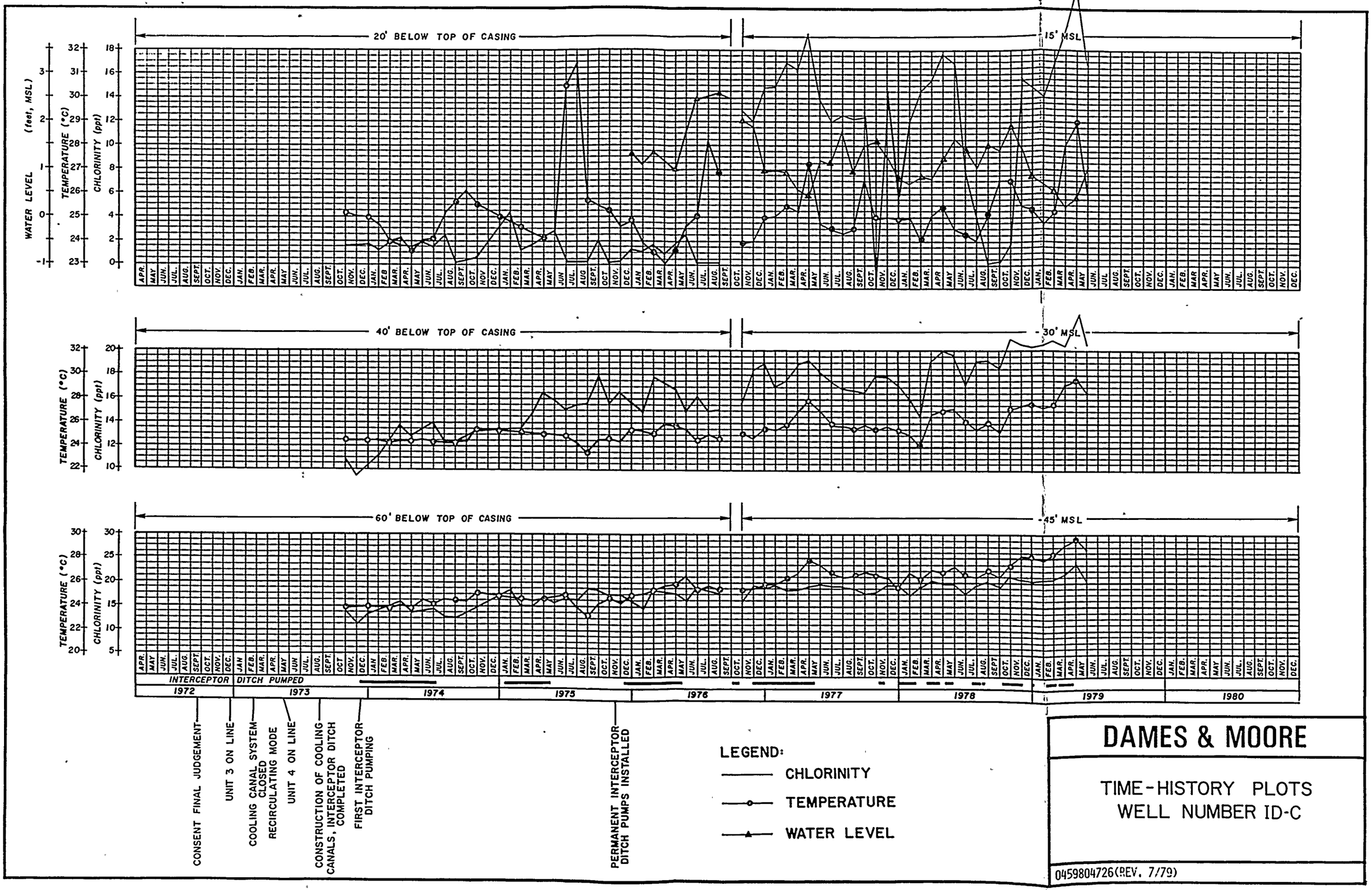
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER ID-B

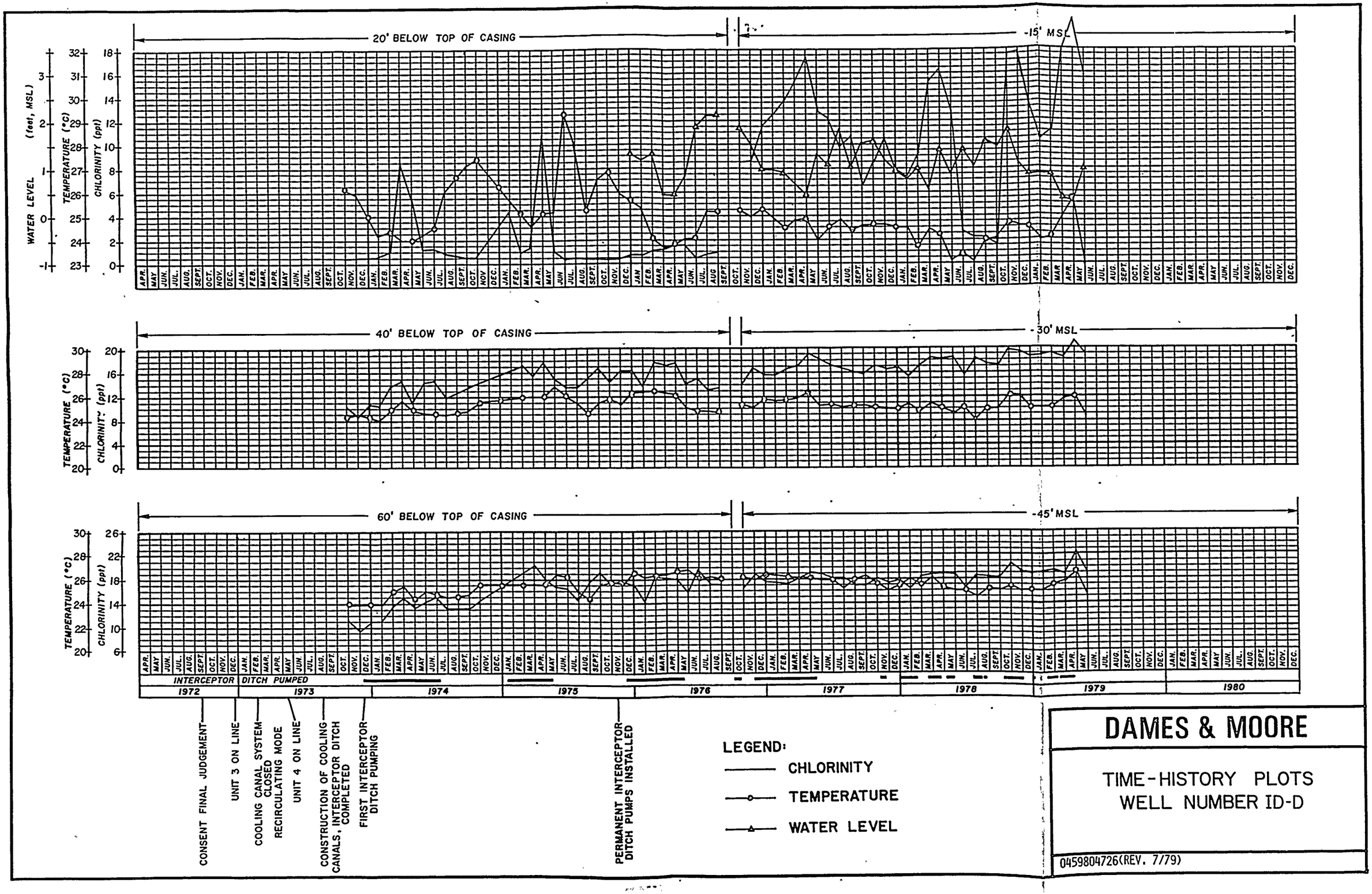
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER ID-C

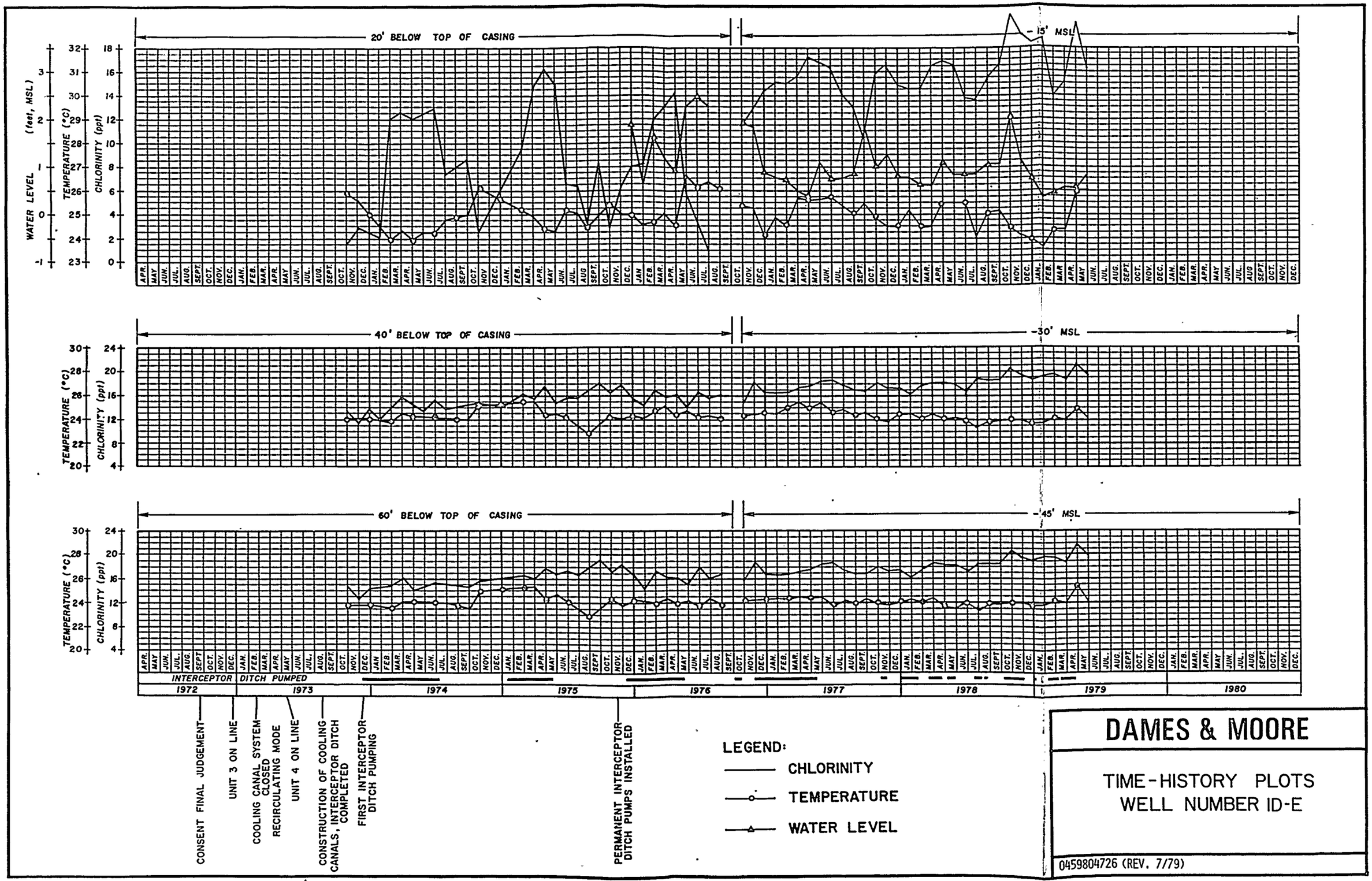
0459804726(REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER ID-D

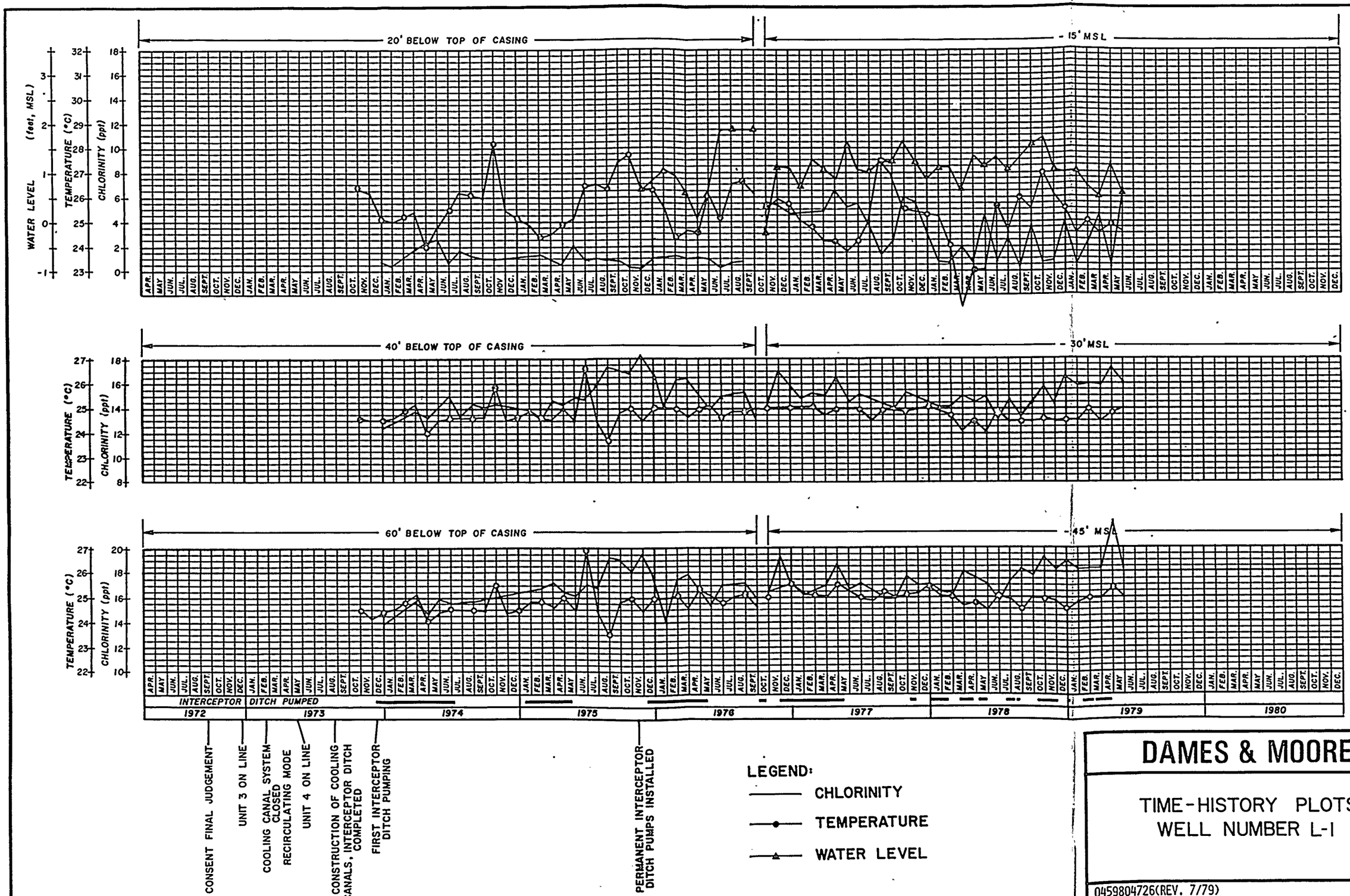
0459804726(REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER ID-E

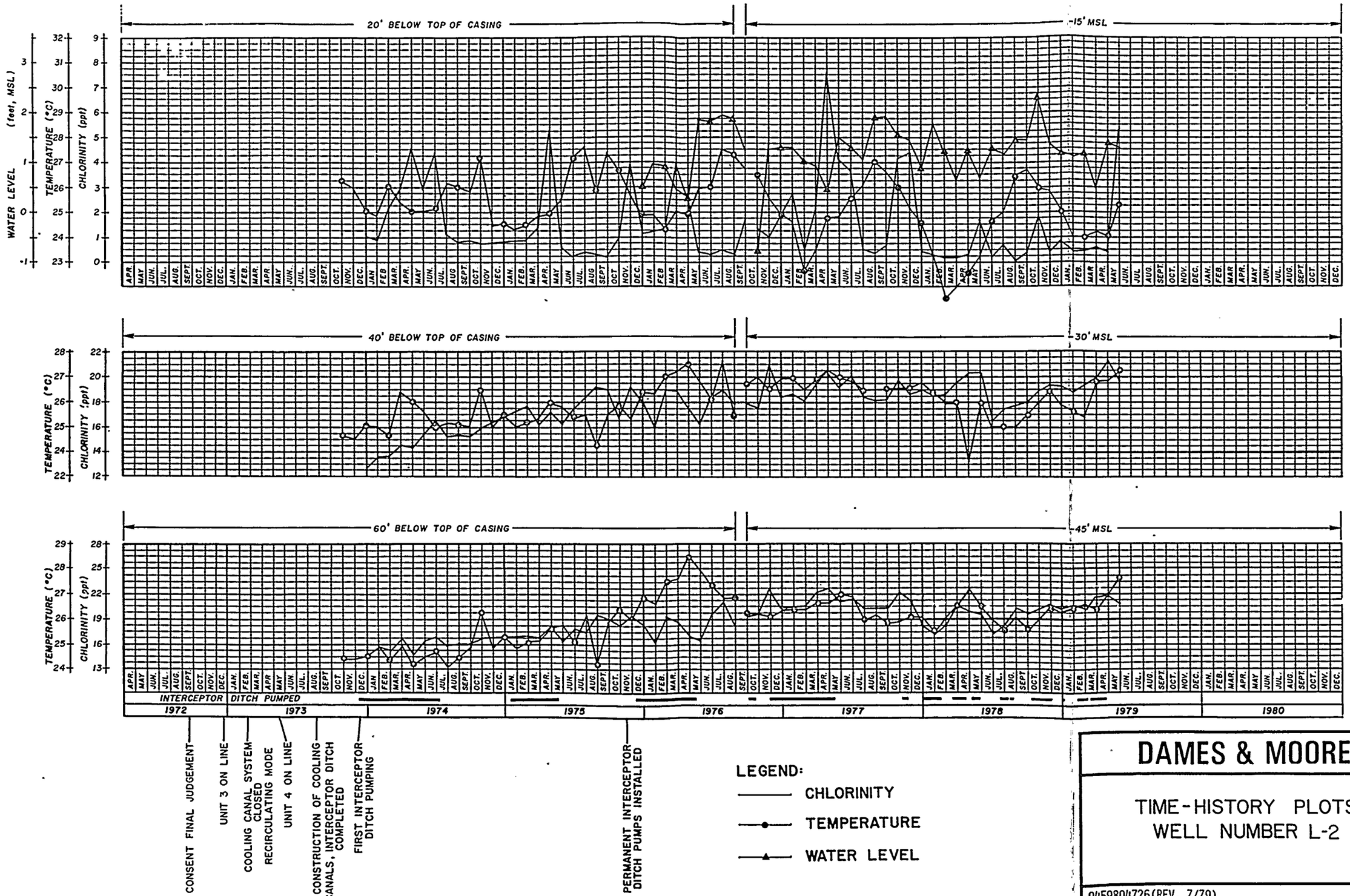
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-1

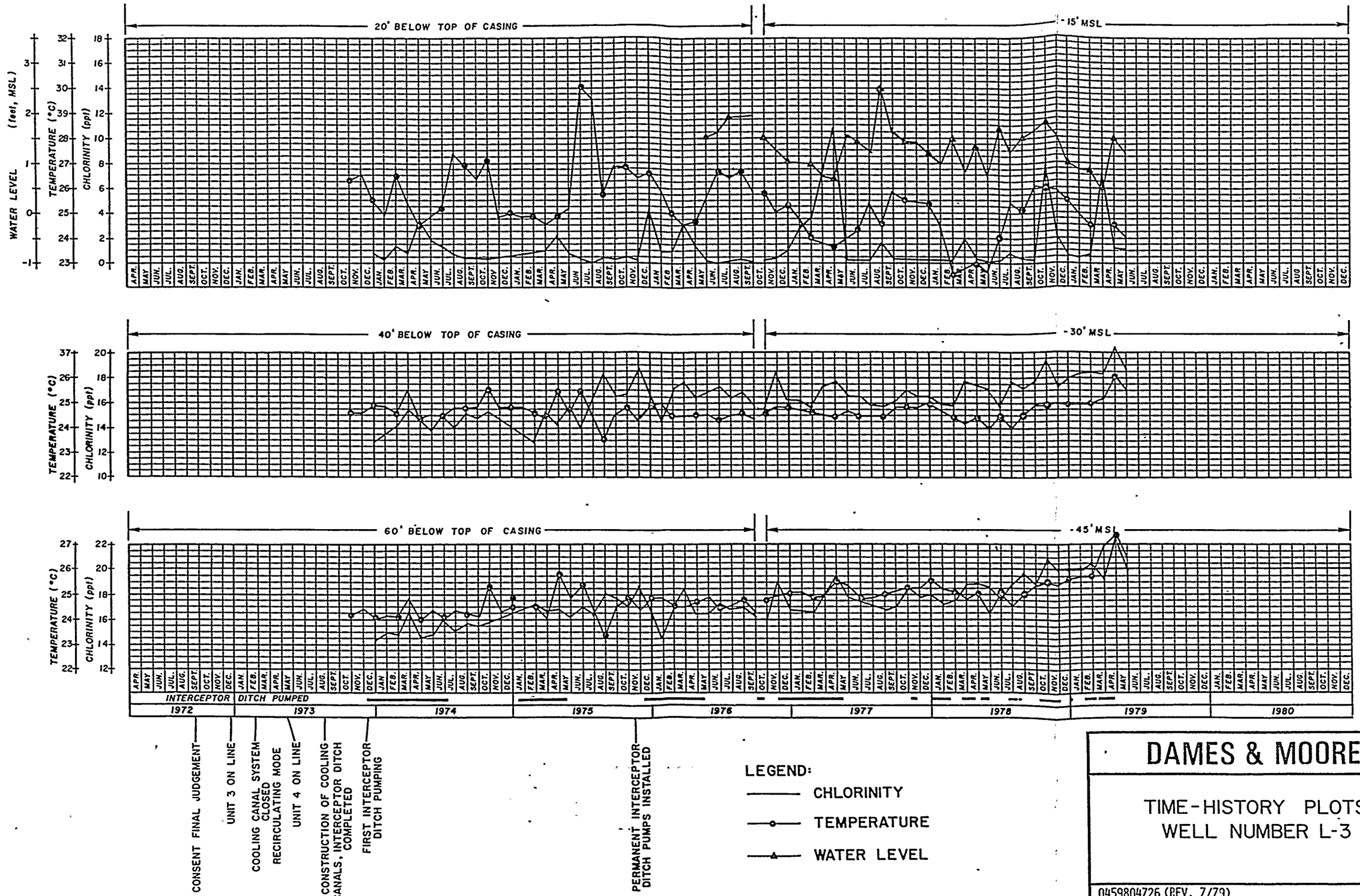
0459804726(REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-2

0459804726(REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-3

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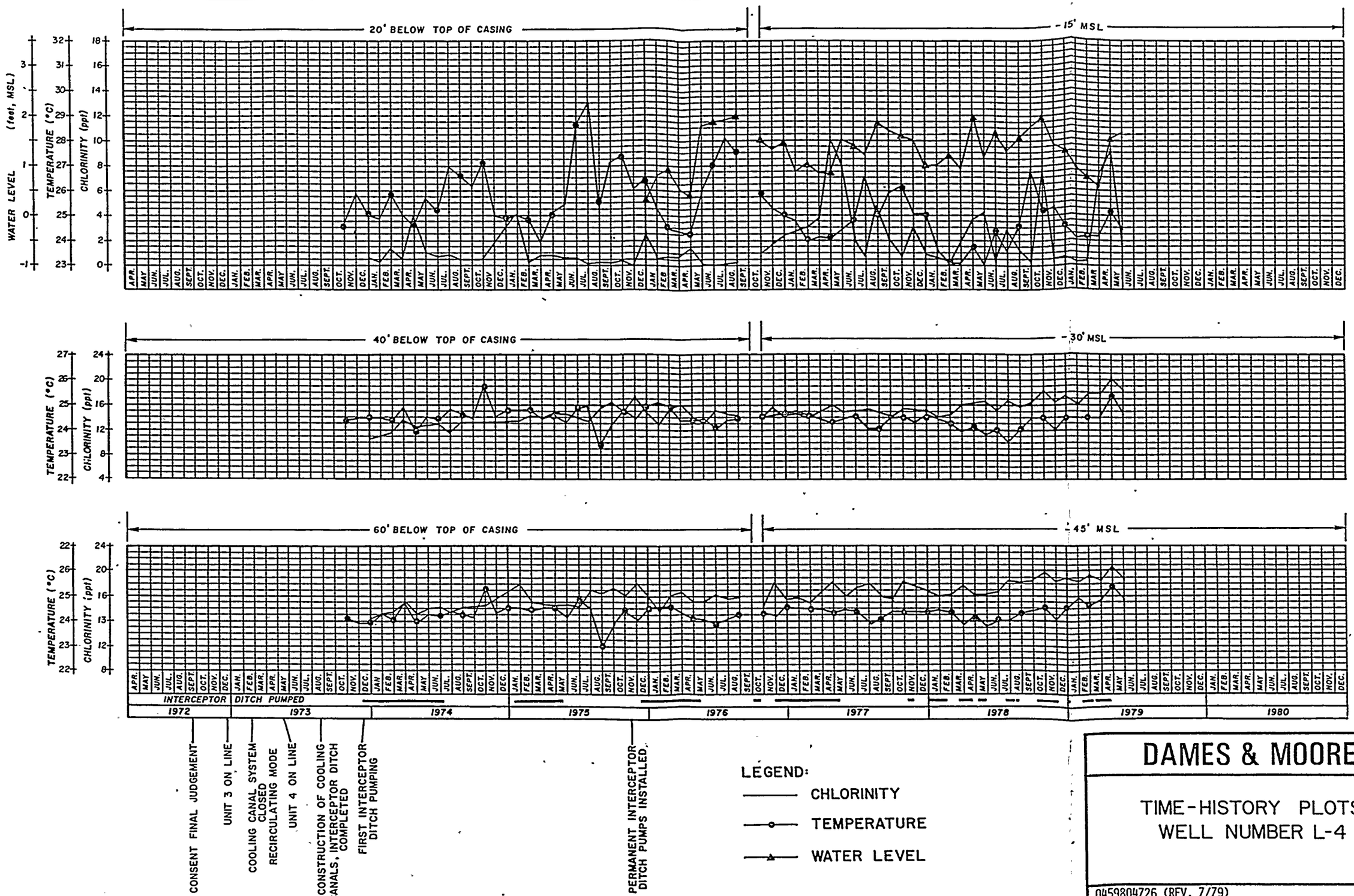
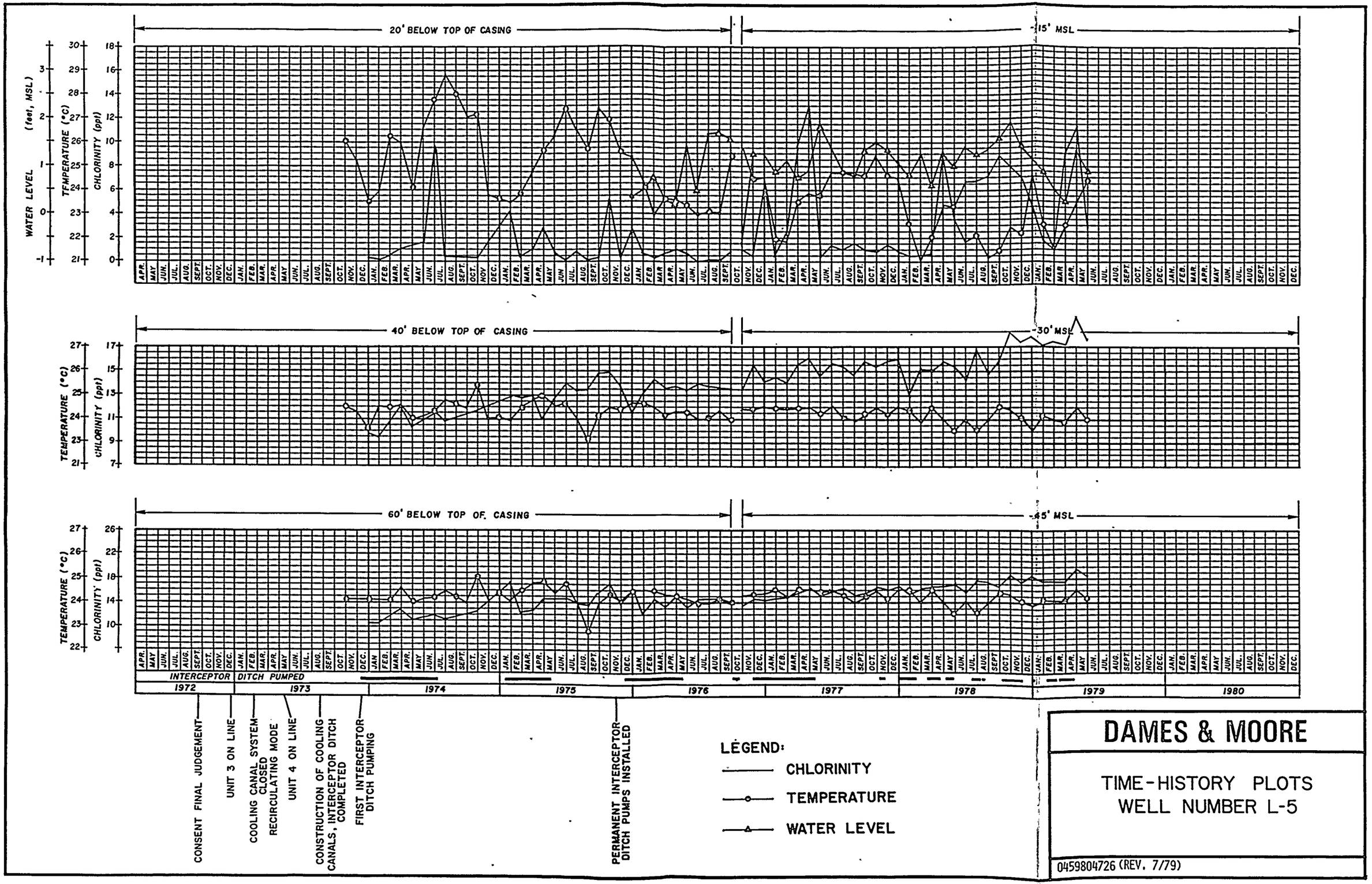


DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-4

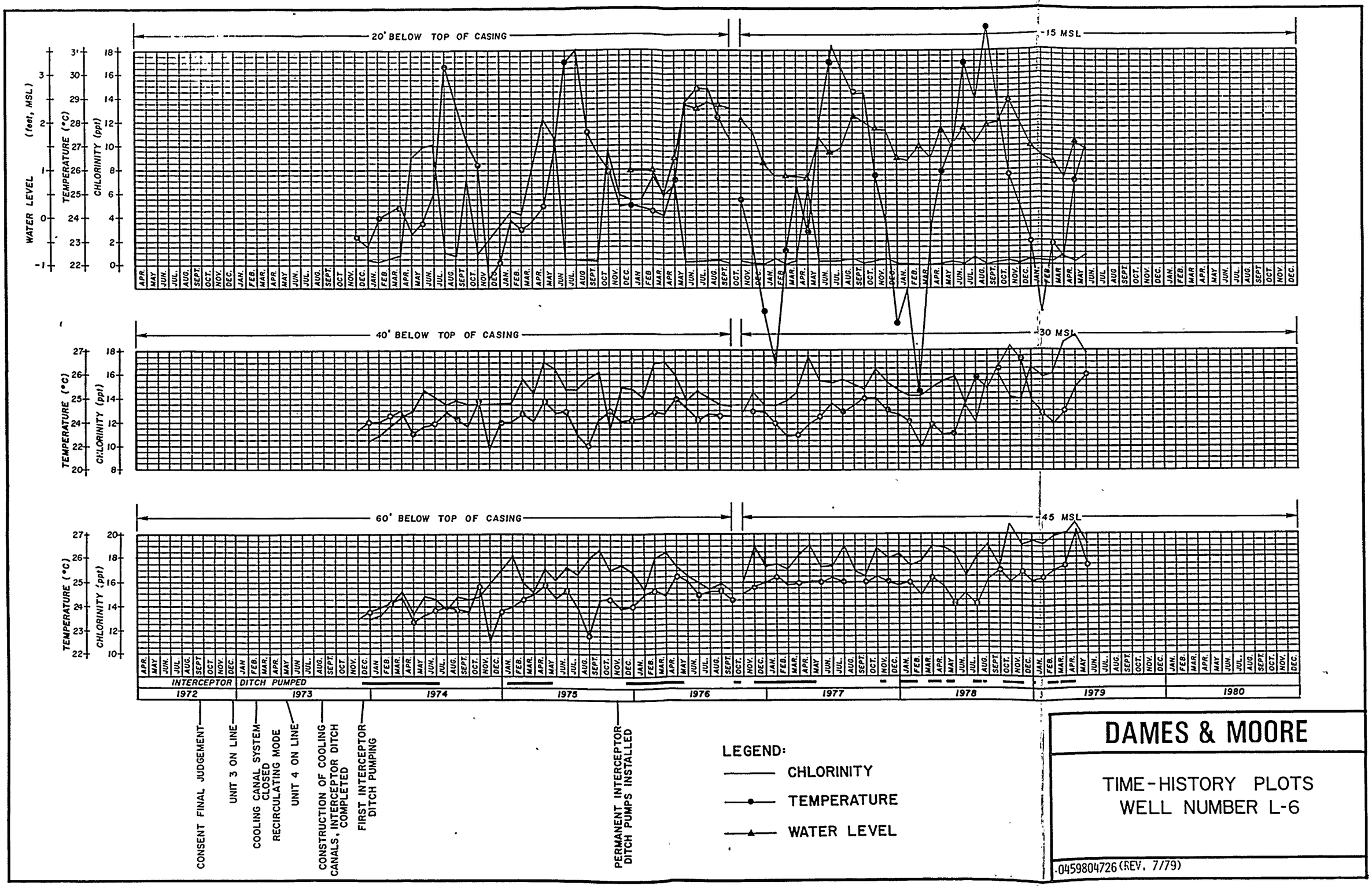
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-5

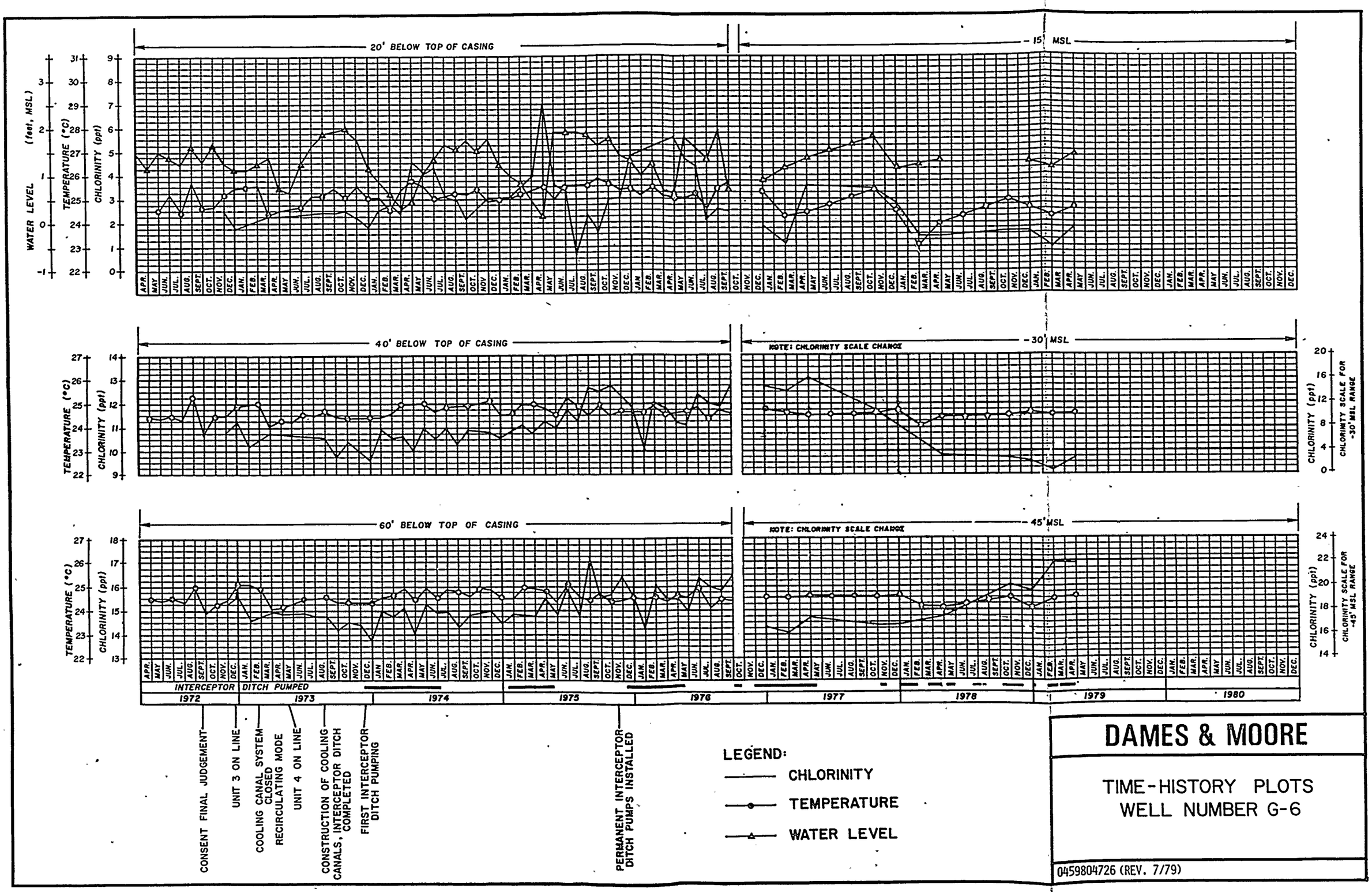
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER L-6

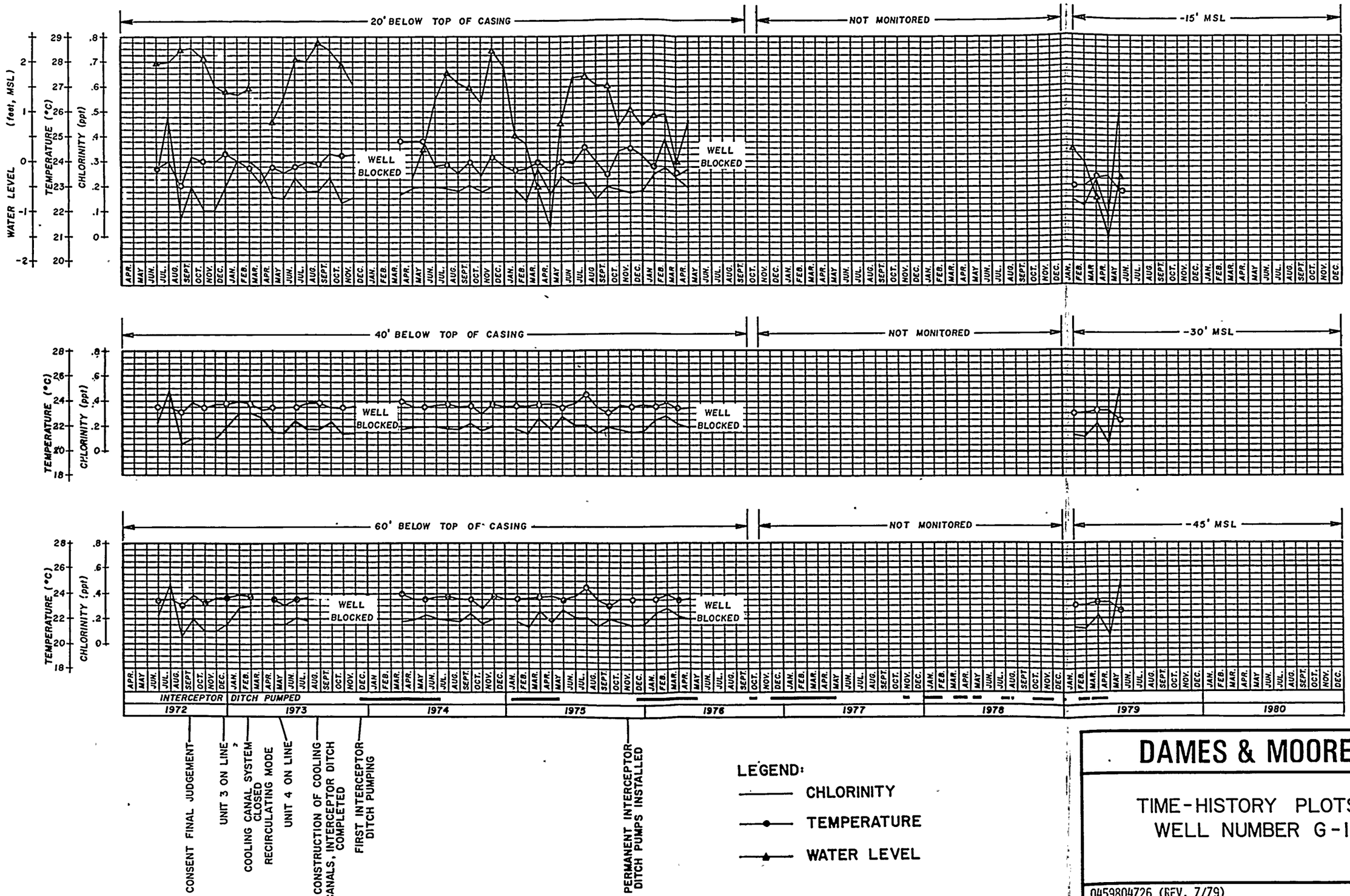
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-6

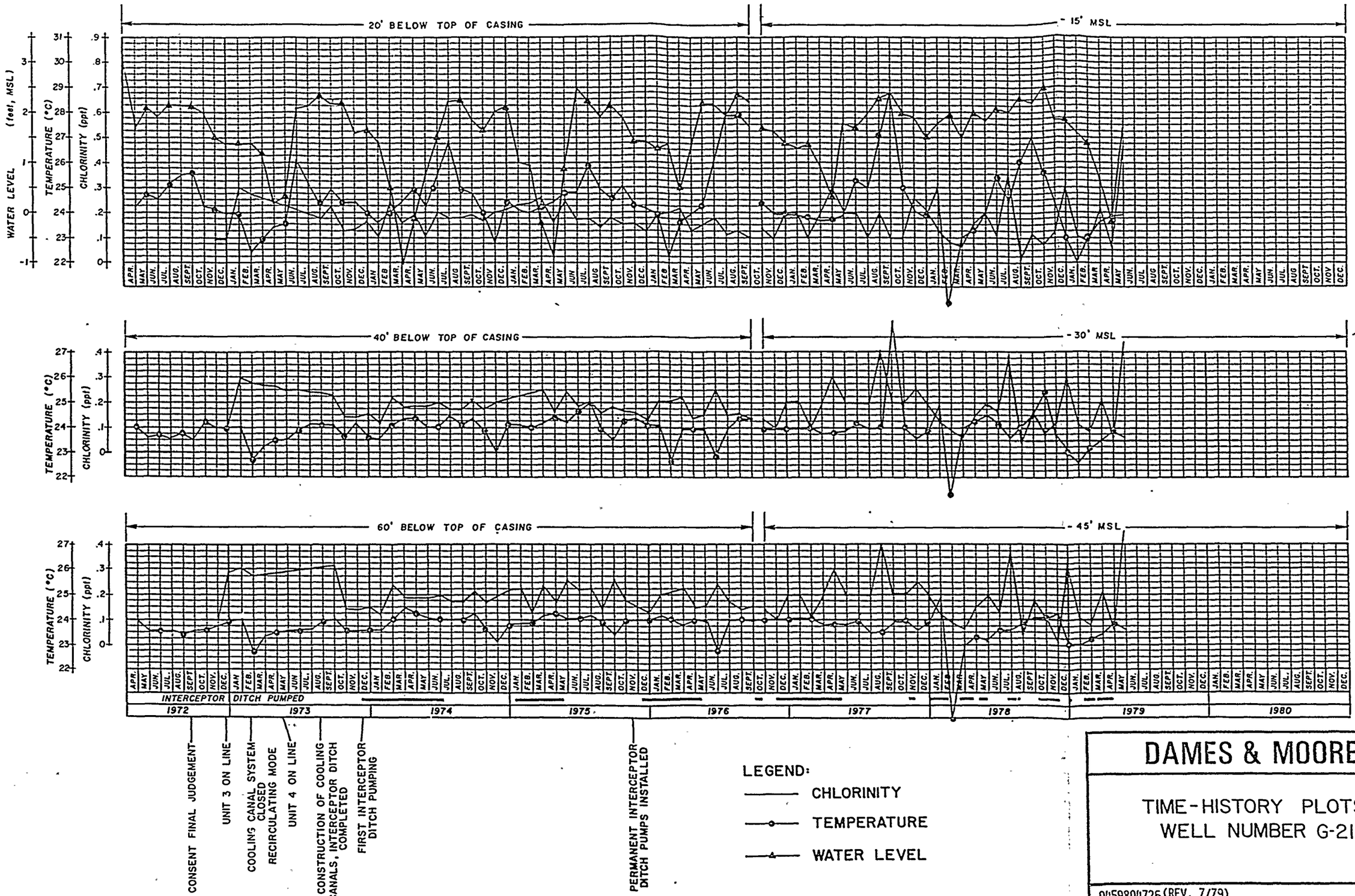
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-14

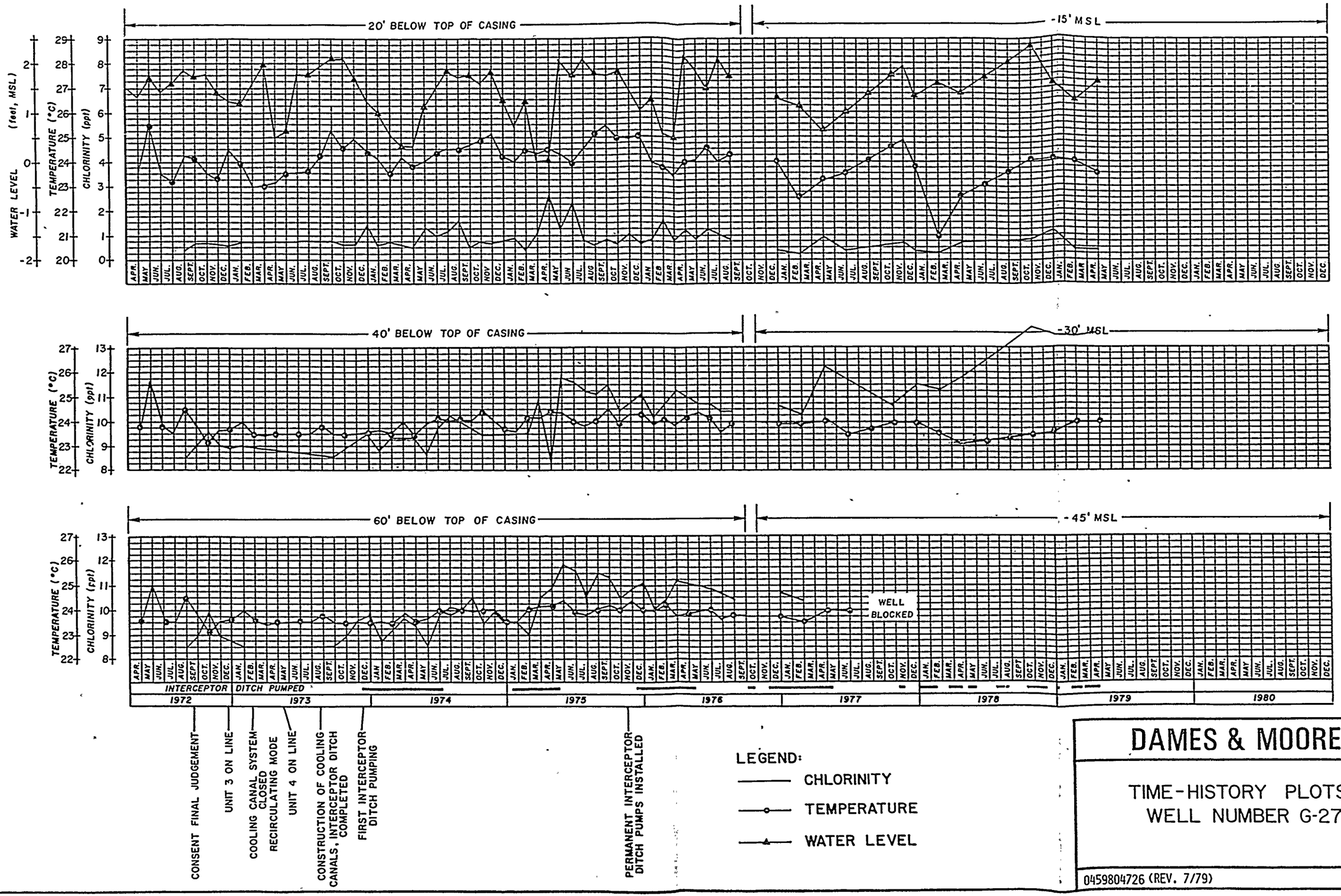
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-21

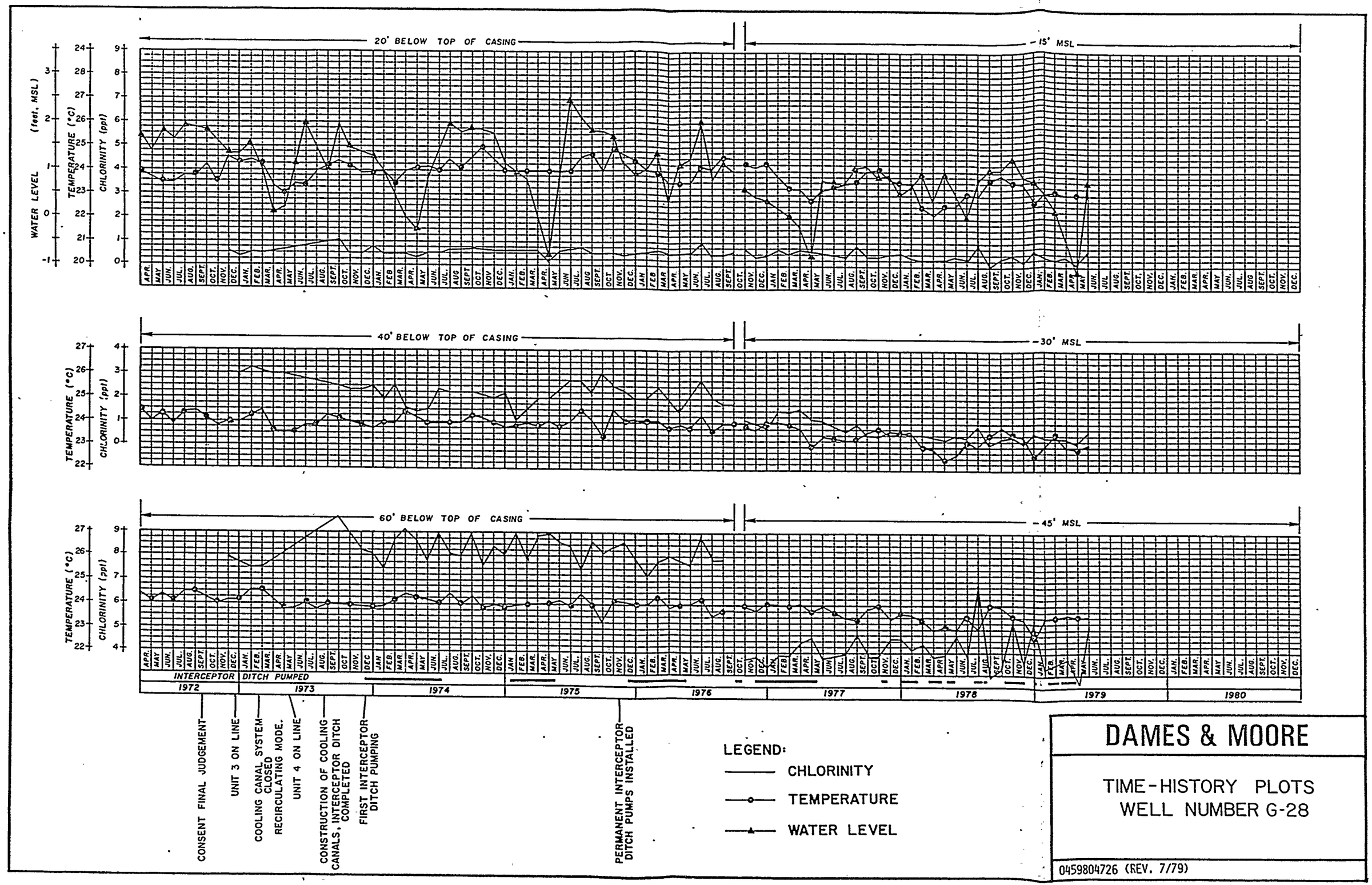
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-27

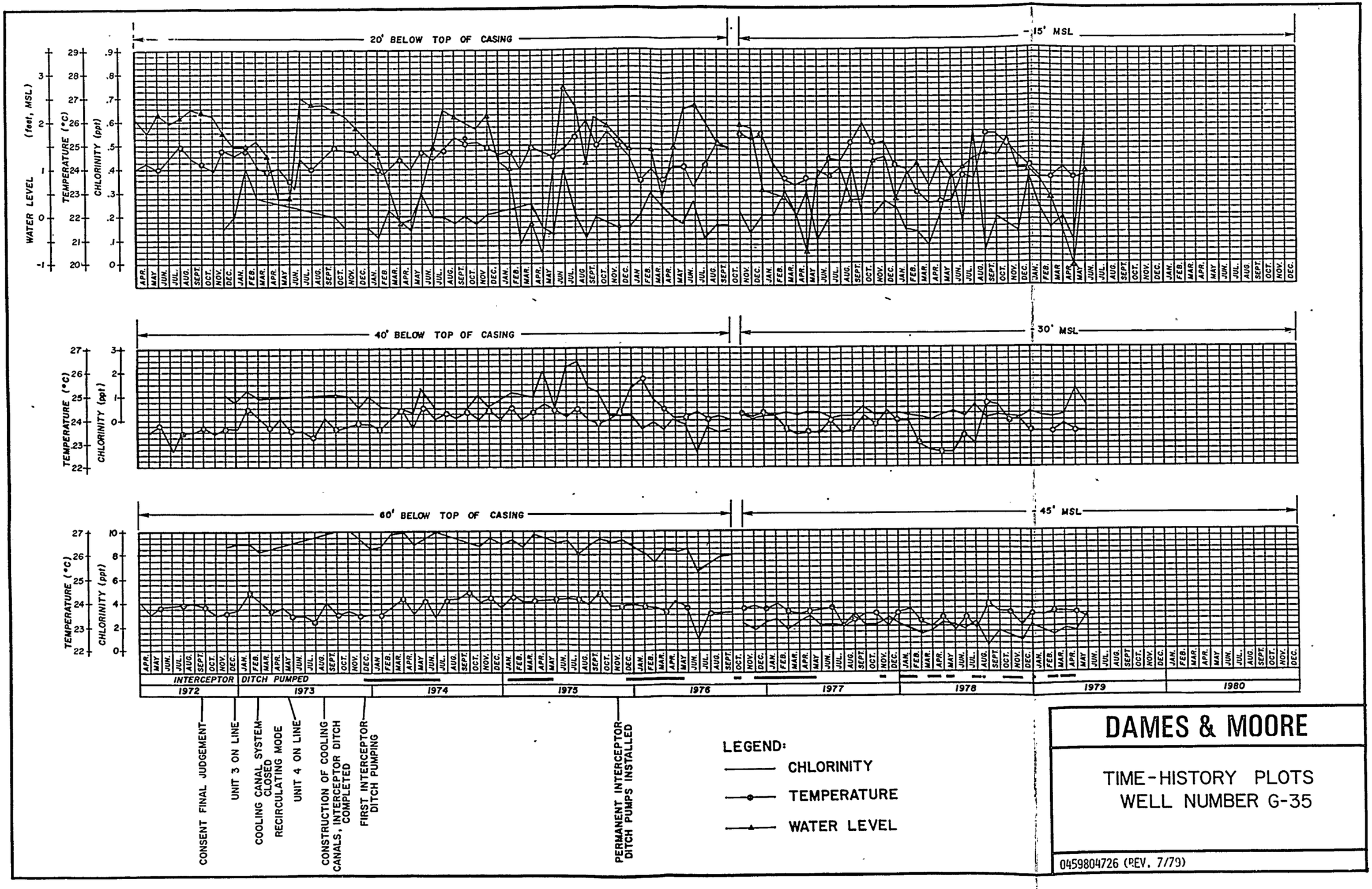
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-28

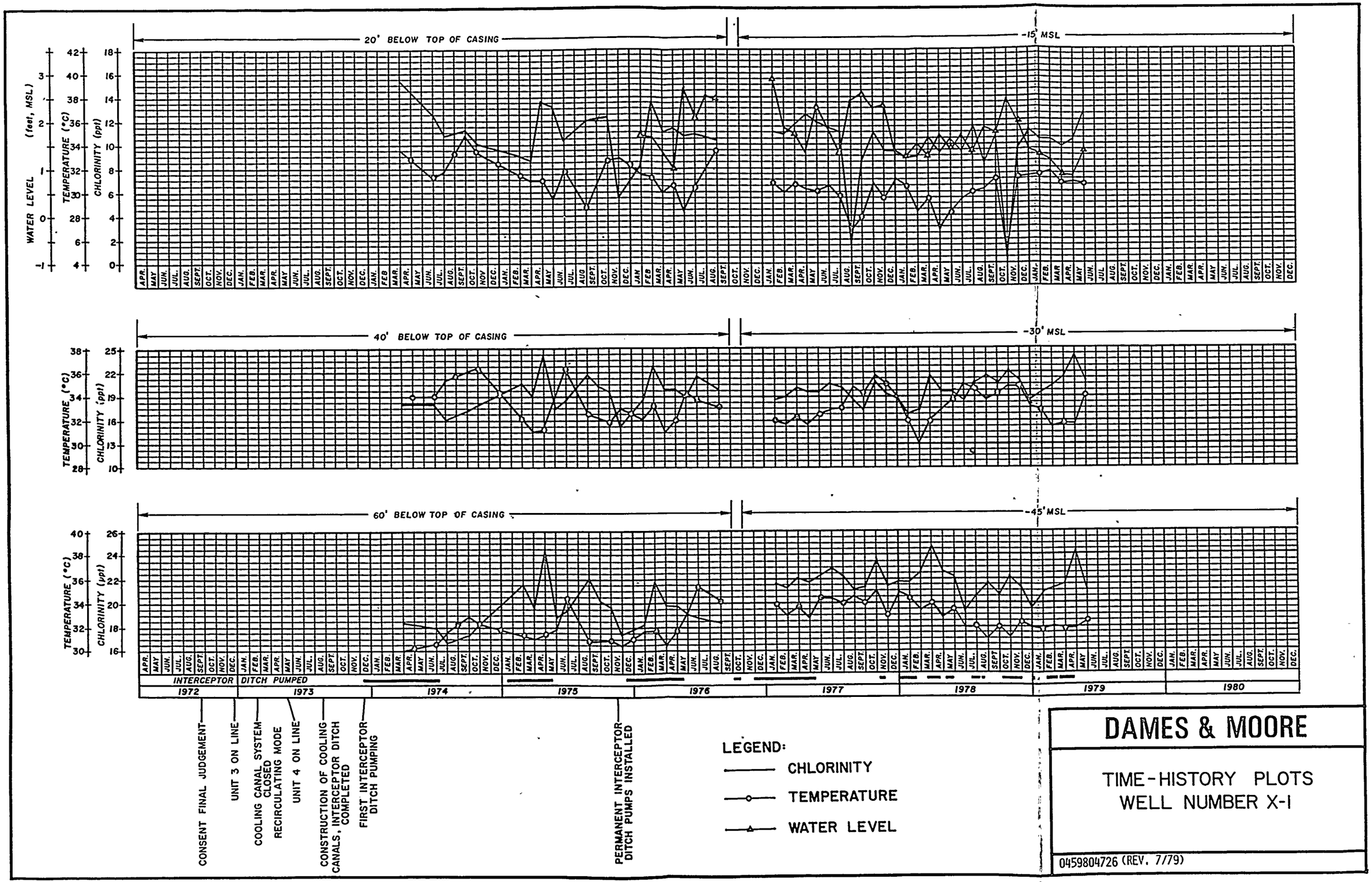
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER G-35

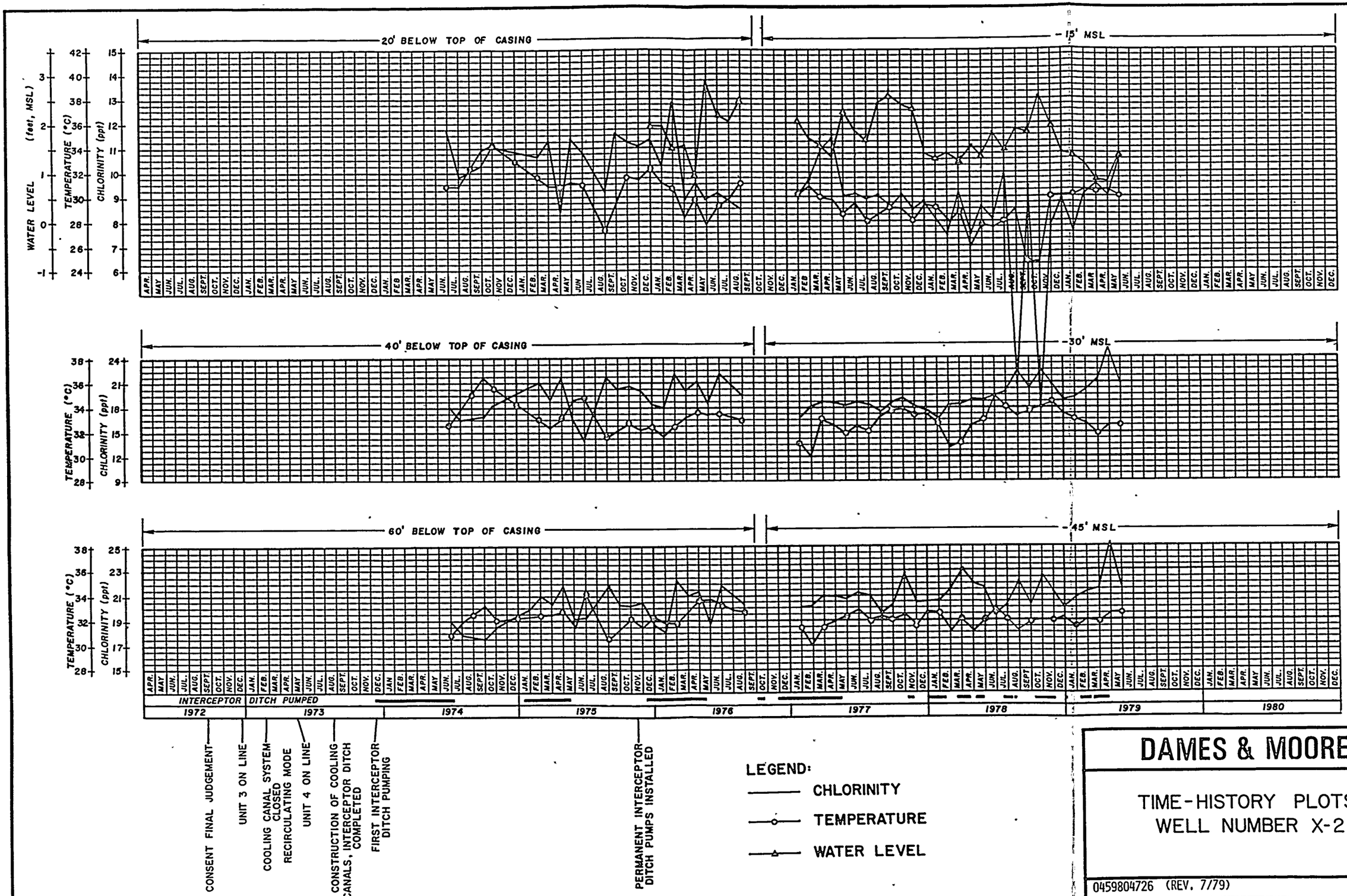
0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER X-I

0459804726 (REV. 7/79)



DAMES & MOORE

TIME-HISTORY PLOTS
WELL NUMBER X-2

0459804726 (REV. 7/79)