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July 29, 1994

the southern electric system

Docket Nos.: 50-364
50-348

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Joseph M. Farley Nuclear Plant
Response to NRC Safety Audit of the
Service Water Pond Dam on February 2 & 3, 1993

Ladies and Gentlemen:

This letter completes the Southern Nuclear Operating Company (SNC) response to the Nuclear Regulatory Commission (NRC) letter dated February 15, 1994, which provided the results of the NRC safety audit of the Service Water Pond Dam and Dike conducted on February 2 and 3, 1993.

SNC's initial, partial response was included in a letter dated April 13, 1994. This response transmitted a corrected copy of the National Inventory of Dams data sheet for the Service Water Pond Dam at Farley Nuclear Plant.

Enclosure 1 of the NRC letter contained seven "...actions that should be taken by (SNC) to insure the continued safety of the embankment of the Category I cooling water storage pond consistent with the Federal Guidelines for Dam Safety (1979)." The response to these seven items was required within 180 days of the receipt of the NRC letter. Each of these items is addressed separately in the Enclosure to this letter.

If there are any questions or if additional information is needed, please advise.

Respectfully submitted,

Dave Morey
Dave Morey

EFB/clt: nrcdam1.doc

Enclosure: w/attachments

cc: Mr. S. D. Ebner
Mr. B. L. Siegel
Mr. T. M. Ross

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ENCLOSURE

Response to NRC Safety Audit of the
Service Water Pond Dam on February 2 & 3, 1993

ENCLOSURE

Response to NRC Safety Audit of the Service Water Pond Dam on February 2 & 3, 1993

NRC ACTION 1

"During the audit, observation wells OW-13 and OW-17C indicated high readings and, after subsequent bailing, the water level returned to the previous high readings. Provide a time-line plot of all data collected from these two observation wells and the observation wells and piezometers adjacent to each of them, since the facility was put into operation by reservoir filling. Clearly indicate on a plan view, such as in the Final Safety Analysis Report (FSAR) Figure 2B7-41, the location of the monitoring points for which data are being provided. For the most recent set of data, plot the water level elevations on a cross section through the embankment at the location of OW-13 and OW-17C that shows the elevations of the chimney drain and the embankment. Also indicate the expected phreatic line and the design envelope phreatic line at the section through each observation well. If the observed phreatic line is outside (above) that considered as the bounding condition used in the analysis of the dam, discuss the impact of the high water levels in the embankment on the safety of the facility. Discuss the possible causes for the increased level of the phreatic line and any additional testing or monitoring that should be considered. Also provide a discussion on the need for additional analyses to reflect the actual observed field conditions."

SNC RESPONSE

The plots requested in this action are presented in Attachment 1 as Figures 1 through 6 and 11, 12 as follows:

| Figure | Description |
|--------|--|
| 1 | Plan view showing observation well locations. |
| 2 | Time-line plot of observation well OW-13. |
| 3 | Time-line plot of observation well OW-15. |
| 4 | Time-line plot of observation well OW-17A. |
| 5 | Time-line plot of observation well OW-17B. |
| 6 | Time-line plot of observation well OW-17C. |
| 11 | Cross-section of dam at Sta. 12+00 through observation wells OW-13 and 15. |
| 12 | Cross-section of dam at Sta. 13+50 through observation wells OW-17A, 17B, and 17C. |

The time-line plots include all water level data collected by Alabama Power from 1977 to the present. The cross-sections include the phreatic surface through the dam based on the most recent water level readings in the observation wells and the design phreatic surface used in slope stability analyses during design of the dam, given on Figure 2B7-18 of the FSAR Volume 4.

A plan view showing the storage pond dam and dike and the location of the various observation wells referenced in the following discussion is included as Figure 1.

SNC has found that the water level measured in OW-13 since reservoir filling has been fairly constant and consistently within the design envelope. Thus no further discussion or analysis is required per this NRC question. The water level at OW-17C is outside the design envelope, but an engineering evaluation of this condition and the original embankment slope stability analysis concludes that the condition observed does not adversely affect the safety of the structure. Additional analysis is not considered necessary for the observed condition.

SNC has concluded from its review of historical well readings that the high water level observed in OW-17C is due to localized rain accumulation rather than seepage through the embankment. SNC will continue to monitor well readings per plant procedure FNP-0-ETP-4381. Additional monitoring is not considered necessary. The discussion below provides additional details of SNC's evaluation of this action.

As shown on Figure 11, the actual phreatic surface for observation well OW-13 (and downstream well OW-15) is well below the design phreatic surface and thus does not affect the safety and stability of the embankment. No further discussion of OW-13 is required.

As shown on Figure 12, the tip of observation well OW-17C is at a higher elevation than the gravel drain through which the maximum design phreatic surface passes. Therefore, any water level reading made in this well will be higher than the design phreatic surface.

An examination of the time-line plots, Figures 5 and 6 indicates that the high water level being indicated in OW-17C is the result of localized rain runoff collecting at the toe of the dam rather than any reservoir effect. This is discussed below.

As shown on Figure 6, the time-line plot for OW-17C, the water levels within this well ranged from a minimum of approximate elevation 152.8 feet to a maximum at elevation 163.5 feet over the years of monitoring. Since the water levels within this well are not consistent over time, they are not considered to be a result of any reservoir influence.

The fluctuation of the water level readings do coincide with seasonal weather differences however. The high water levels have typically occurred in the first quarter of each year when there is more saturation from rainfall and little evaporation. The lower readings have typically occurred during the dry season of each year. It is worth noting that OW-17C is located at the toe of the maximum dam section. Runoff from the embankment concentrates in this area. In addition, all ground surfaces on the downstream side of the dam embankment also slope to this central region.

It is to be noted that January 1993, just prior to the NRC Safety Audit, was a particularly heavy rainfall month. Weather data collected at the Auburn University weather station in Headland, Alabama (located 20 miles northwest of FNP) indicates that rainfall for the area during January, 1993 was 7.36" which is 2.09" above normal.

Further evidence of a localized effect is seen in the time-line plots and dam cross-sections for other wells adjacent to OW-17C. The time-line plot, Figure 5 for OW-17B (located 50 feet upstream of OW-17C at the same station) shows no actual water level in that well over the years of reservoir operation. All points shown on Figure 5 are mud readings at the bottom of the well rather than piezometric water surface readings. The time-line plots for wells OW-13, 15 and 17A show water levels consistently below the expected design phreatic surface. Consistently low water levels in downstream well OW-18 (located 150 feet downstream of OW-17C at Station 13+60) adds further confirmation of a localized condition.

The actual phreatic surface at OW-17C would not affect the safety factors for the design failure surfaces presented in Figure 2B7-18 of the FSAR. There is a possibility that the higher phreatic surface may only slightly decrease the safety factor against a shallow failure surface through the downstream slope. However, none of the critical failure surfaces shown in Figure 2B7-18 of the FSAR are shallow circles, indicating that a shallow surface failure is unlikely and any possible decrease in that safety factor would be of no significance to design.

Based on engineering judgment of the Earth Science and Environmental Engineering group of Southern Company Services Engineering, the safety factors against a slope failure would not be affected by the isolated water level readings at OW-17C. The conservative design of the embankment and the localized nature of the observed condition indicates that additional formal analysis is not warranted or required.

SNC will continue the regular monitoring of water levels in wells related to the dam and dike per plant procedure FNP-0-ETP-4381. No additional testing or monitoring is deemed necessary.

NRC ACTION 2

"During the audit, an observation was made that it appears a linear seepage feature has developed near the toe of the embankment in the area between approximately Station 28+75 and Station 30+25. This feature was recognizable from a distance because of the change in color of the vegetation. A close examination revealed that standing water was present, and the presence of hydrophytes indicated the wet conditions to be the normal condition, as opposed to periodic surface ponding from precipitation induced runoff. Provide a time-line plot of all the data from the closest water level or water pressure monitoring instruments since the facility was filled. Clearly indicate on a plan view, the location of the wet area and the adjacent monitoring points. For the most recent set of data, plot the water level elevations on cross sections through the embankment at the location of the monitoring points. Also indicate the design limits of the water surface within the embankment based on the analyses that were completed. Discuss any discrepancies (between the design and actual observed water levels) and the apparent cause(s) for these discrepancies. Provide an evaluation of whether or not there is a need for corrective action, monitoring, etc., relative to this subject. Monitoring should include, as a minimum, mapping the extent of and location of the area, and the inclusion of procedures to review the area on a periodic basis."

SNC RESPONSE

The plots requested in this action are presented in Attachment 1 as Figures 1, 7 through 10, 13 and 14 as follows:

| Figure | Description |
|--------|--|
| 1 | Plan view showing observation well locations. |
| 7 | Time-line plot of observation well OW-37. |
| 8 | Time-line plot of observation well OW-38. |
| 9 | Time-line plot of observation well OW-39. |
| 10 | Time-line plot of observation well OW-40. |
| 13 | Cross-section of dam at Sta. 28+75 through observation well OW-37. |
| 14 | Cross-section of dam at Sta. 30+25 through observation wells OW-39 and 40. |

The time-line plots include all water level data collected by Alabama Power from 1977 to the present. The cross-sections include the phreatic surface through the dam based on the most recent water level readings in the observation wells and the design phreatic surface used in slope stability analyses during design of the dam, given on Figure 2B7-18 of the FSAR Volume 4.

SNC has found that the historic water level readings of wells in the area of concern are well within the original embankment slope stability analysis design envelope. The historic low water levels plus the SNC finding that this condition is intermittent leads to the conclusion that the wet conditions are not due to any reservoir influence but rather rain runoff accumulation. SNC has noted that the existing biennial inspection performed under plant procedure FNP-0-ETP-4389 has proven adequate to detect and evaluate this condition in the past. Thus SNC considers this inspection to be an appropriate means of tracking the condition. The discussion below provides additional details of SNC's evaluation of this action.

A plan view showing the storage pond dam and dike and the location of the various observation wells referenced in this discussion is included as Figure 1.

As shown on the dam cross-sections, Figures 13 and 14, the most recent phreatic surface through the dam is well below the design phreatic surface at Stations 28+75 and 30+25. Time-line plots for the observation wells in the vicinity including OW-37 through OW-40 indicate that the measured water levels have actually trended downward since pond filling. These factors indicate that the observed wet condition is not due to any reservoir influence.

A survey of past biennial inspection reports indicates that the wet condition observed in this area during the safety audit is not a continual condition but rather intermittent. The biennial inspection includes a walk down of the entire length of the downstream toe of the embankment. The biennial inspection specifically looks for conditions such as seepage and water ponding conditions.

Below is a summary of the last five inspections and their findings related to wet areas in the toe of the embankment.

| Inspection Date | Comments Related to Conditions Near Sta. 28+75 to 30+25 |
|-----------------|---|
| August 1984 | None |
| June 1986 | Variations in the color of the grass indicated minor seepage had occurred in the past in the vicinity of Sta. 27+00 to 33+00 but the area was dry at the time of the inspection. |
| May 1988 | None |
| October 1990 | No indications of any seepage along the toe of the embankment. |
| January 1993 | Wet areas were noted along the downstream toe between Sta. 28+00 and 30+00. Inspectors concluded that these areas appeared to be where rainfall runoff accumulated due to poor drainage conditions. |

Four of the last five biennial inspections covering the period from August 1984 through October 1990 found the area to be dry. Comments from the January, 1993 biennial inspection just prior to the NRC safety audit concluded that the wet condition observed was due to rainfall runoff accumulation due to poor drainage conditions.

As discussed in Action 1 above, it is to be noted that January 1993, just prior to the NRC Safety Audit, was a particularly heavy rainfall month. Weather data collected at the Auburn University weather station in Headland, Alabama (located 20 miles northwest of FNP) indicates that rainfall for the area during January, 1993 was 7.36" which is 2.09" above normal.

An examination conducted May 16, 1994, of the toe of the embankment from approximately STA 20+00 to 32+50 found no standing water and no visual color variation in the vegetation at the toe area compared to that of the surrounding vegetation. The ground condition just upstream and downstream of the toe area was firm and dry. Some isolated areas of softer ground were found at the exact toe area of the embankment between STA 21+00 and 32+50. These spots were characterized by equipment tire ruts where a 3/8" probe could be inserted to depths of up to 1 1/2" with moderate hand pressure. The ruts appear to serve as effective ponding areas for the collection of rainwater. At the time of this examination there was nothing to indicate that any abnormal conditions existed in the NRC referenced area, i.e. between STA 28+75 and 32+50.

SNC will continue to monitor this area as part of the normal biennial inspection per plant procedure FNP-0-ETP-4389. The biennial inspection is conducted by a team of non-SNC engineers experienced in the design, construction and operation of earthen and concrete dams. As the summary of the past biennial inspections above indicates, conditions such as that discussed in this NRC action are detected by the inspection team with the current procedure. Thus, no procedural changes are indicated.

The dam inspection team evaluates observed conditions and provides recommendations for corrective actions to SNC. To date, the dam inspection team has not considered this condition to be of significant concern and has not recommended corrective action, expanded monitoring, or other actions to be taken to insure the continued safe operation of the embankment.

The changing wet/dry condition observed during the biennial inspections does not lend itself to meaningful mapping and trending of the extent of the area and is not considered to be of value. No additional corrective action is planned.

NRC ACTION 3

Note that action 3 of the NRC letter contained an incorrect figure number where FSAR Figure 9.2-16 is referenced as the river water inlet discharge structure. SNC contacted Byron Siegel and Bob Shumaker of the NRC on March 2, 1994, by telephone for clarification. It was determined that the FSAR Figure referenced should be Figure 9.2-15. In the discussion that follows the NRC action is quoted as written with any necessary corrections appearing in parenthesis.

"On some extended frequency, such as every 5 years, the licensee should consider probing around the periphery of the submerged concrete slabs at the discharge end of the river water inlet lines of the discharge structure. As shown on Figure 9.2-16 (9.2-15) of the FSAR, the slabs extend outward into the pond approximately 69 feet (157' - 6"). This survey should be conducted to ensure that scour is not occurring, and that there has been no gross displacement of the slab that could set up a condition where scour could begin under the main structure below elevation of 181.00 feet (178.25 feet). This activity could be incorporated into one of the existing procedures for the facility."

SNC RESPONSE

During the conversation referenced above the NRC stated that the main area of interest is the 23' - 6" portion of the 157' - 6" of the slab extending into the pond. NRC indicated that probing under the edges of this 23' - 6" section of the slab with a rod would be sufficient to determine if scour was occurring. SNC agrees that a regular inspection of this area on an extended frequency, such as once every 5 years, will be performed and has incorporated this additional inspection into procedure FNP-0-ETP-4338 "Service Water Storage Pond Sounding Survey." A copy of this procedure is included in Attachment 2.

NRC ACTION 4

"During the audit, there were some routine maintenance items that were identified as needing corrective action. These items should be corrected within a 12-month period and used as examples for future items that maintenance personnel should be aware of for action:

- *Filling a hole at the west end of the embankment.*
- *Filling the hole at the abandoned observation well on the eastern side of the facility.*

- *Repairing eroded areas downstream of the eastern embankment of the facility.*
- *Establishing grass cover on bare areas downstream of the embankment.*
- *Damage to instrumentation protective devices should be repaired as the damage occurs. This would include the above-grade protective pipe frames around instrumentation locations and the covers and caps to piezometers, observation wells, relief wells and survey monuments."*

SNC RESPONSE

Maintenance work orders were written and completed for these items as a result of the NRC safety audit. These work orders are summarized below:

- WO #45511 to fill in eroded areas of the NE side of the embankment and to fill in a hole resulting from an abandoned and destroyed well.
- WO #45499 to plant rye grass seed on bare areas along the NE side of the embankment.
- WO #45507 to fill in animal burrows.
- WO #45503 to remove plastic bag from gravity relief well GRW #10.
- WO #45510 to remove dirt and vegetation from well covers on all gravity relief wells.
- WO #45509 to repair damaged manholes covers on gravity relief wells 4 and 5.

SNC has revised certain plant procedures to more efficiently detect these types of problems such that they can be detected and corrected in a timely manner. See response to NRC action 5 below.

NRC ACTION 5

"Existing instrumentation should be inspected on a frequency adequate to prevent the types of problems encountered during the audit. The problems found included a plastic bag blocking the discharge line in a relief well and soil and vegetation extending over the covers to relief wells. It is noted that the existing operating procedures indicate the piezometers, relief wells and observation wells are inspected quarterly. Since the procedures were only briefly addressed during the audit, please provide copies (uncontrolled) of the following procedures:

- *FNP-0-ETP-4381 Service Water Storage Pond Piezometer Well Readings*
- *FNP-0-ETP-4384 Service Water Pond Deformation Monument Readings*
- *FNP-0-ETP-4389 Service Water Storage Pond Dam Biennial Inspection*
- *FNP-0-ETP-1035 Service Water Dam and Structure Monthly Inspection"*

SNC RESPONSE

Copies of the requested procedures are provided in Attachment 2 as requested. Note that the procedure titles listed in the NRC letter were descriptive only, the actual titles have been used in the list above.

SNC has revised procedures FNP-0-ETP-4381 and FNP-0-ETP-4389 to more clearly delineate requirements of the inspections in order to identify and preclude the type of

problems noted during the NRC safety audit including those detailed in actions 4 and 5 above.

NRC ACTION 6

"During the audit, it was noted that near the end of the grass-covered spillway channel, there was a ditch that ended under a concrete slab. No explanation could be provided regarding the function of this feature or its impact on the channel behavior. Please provide us with this information, if any."

SNC RESPONSE

Just prior to the NRC audit in early 1993, PCN P91-0-7854 had been completed. This PCN provided for the installation of a 1000 foot long french drain starting at the spillway structure and running north in the spillway channel. The french drain was installed to remove a condition of standing water which prevented grass in the area from being mowed. A ditch was required to install the french drain system. At the time of the audit, the ground cover had not had time to grow back over the ditch backfill. There is no record of any other ditch in the spillway channel, and no ditches are presently visible. This PCN had no impact on the channel behavior.

NRC ACTION 7

"Since this facility is classified as a Low-Hazard dam under the Federal Guidelines for Dam Safety (1979), there is no requirement for a detailed Emergency Action Plan that would relate to the warning and evacuation of downstream population and facilities. Please provide any existing documents, other than those listed in Item #5, that address the training for personnel and the actions to be taken as a result of observed conditions at the facility that could impact the functioning of the facility."

SNC RESPONSE

In addition to the inspection procedures listed in Item 5 above, there are other procedures in place to alert plant personnel to unusual SW Pond conditions. FNP-0-ARP-8.0 provides instructions for response to an alarm resulting from a high pond level. If the level is above 187 feet, then the procedure directs personnel to inspect the spillway per FNP-0-STP-611.0, as required by Tech Spec. 4.7.6.2. FNP-1(2)-ARP-1.1 provides instructions for response to alarms resulting from low pond level conditions. If the low level is a result of problems with the pond or the dam, then the operators would be directed to FNP-0-AOP-31.0, which provides instructions for placing the plant in safe shutdown upon an imminent loss of the SW Pond. The service water system is reviewed as part of license retraining every two years, including the requirements for the service water system as the ultimate heat sink. Other surveillance requirements mandated by Tech Spec. 4.7.6.2 include the spillway structure inspection per FNP-0-STP-611.1 and the pond seepage test per FNP-0-STP-125. If the acceptance criteria of those procedures are not met, then a limited condition of operation (LCO) would be initiated for the Ultimate Heat Sink, Tech Spec. 3.7.6.2.

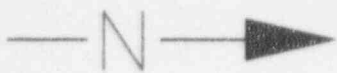
Copies of all of the procedures referenced above and listed below are provided in Attachment 2 as requested.

- FNP-0-ARP-8.0 Annunciator Response Procedure - Service Water Structure
- FNP-0-STP-611.0 Spillway Channel Inspection
- FNP-1(2)-ARP-1.1 Annunciator Response Procedure - Main Control Board
- FNP-0-AOP-31.0 Loss of Service Water Pond
- FNP-0-STP-611.1 Spillway Channel and Structure Verification
- FNP-0-STP-125 Service Water Pond Seepage Test

ATTACHMENT 1

Response to NRC Safety Audit of the
Service Water Pond Dam on February 2 & 3, 1993

Plant Diagrams



STA. 0+00

STA. 5+00

STA. 8+00

STA. 10+00

STA. 12+00

STA. 13+50

STA. 15+00

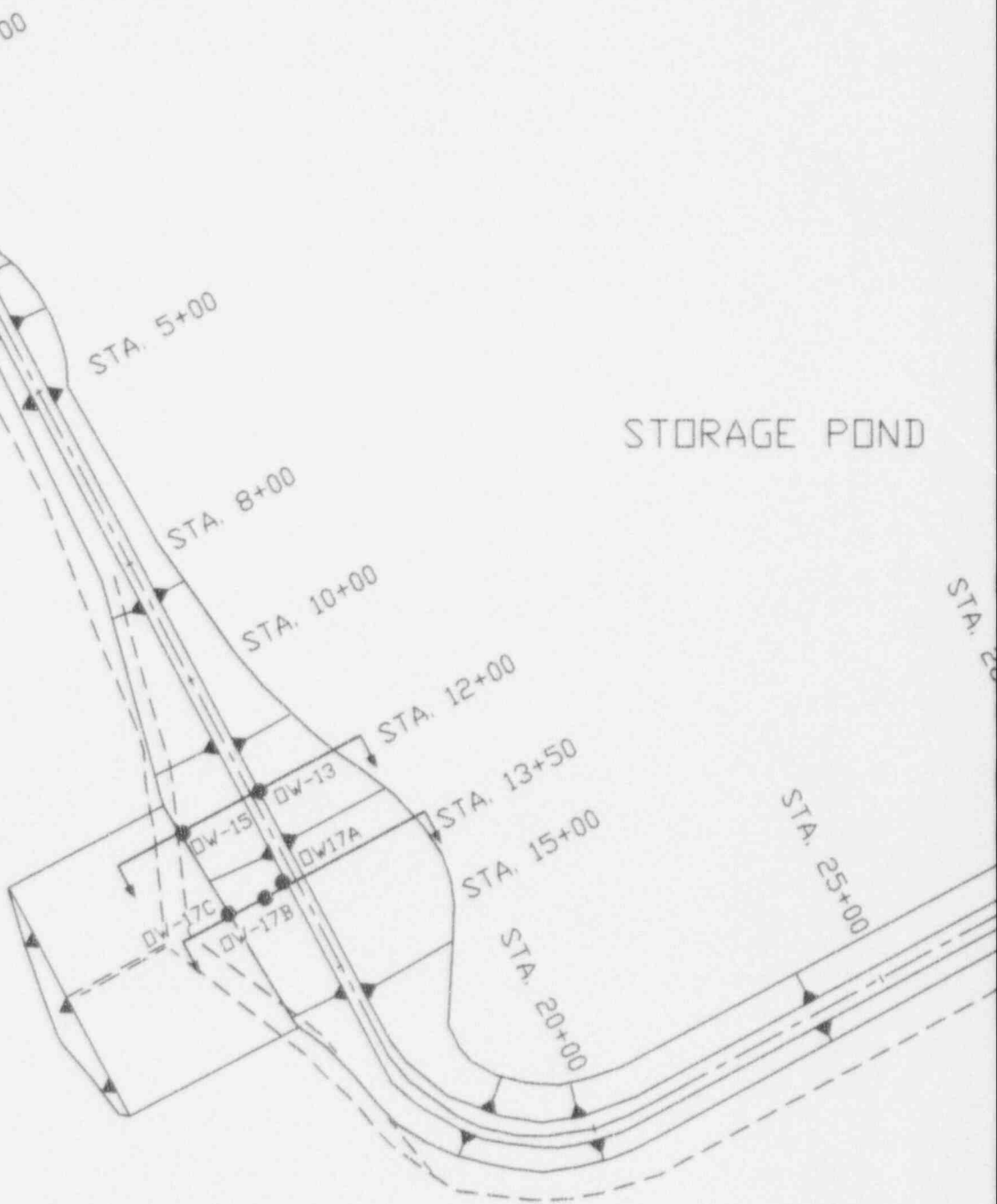
STA. 20+00

STA. 25+00

STA. 30+00

STORAGE POND

DW-13
DW-15
DW-17A
DW-17B
DW-17C



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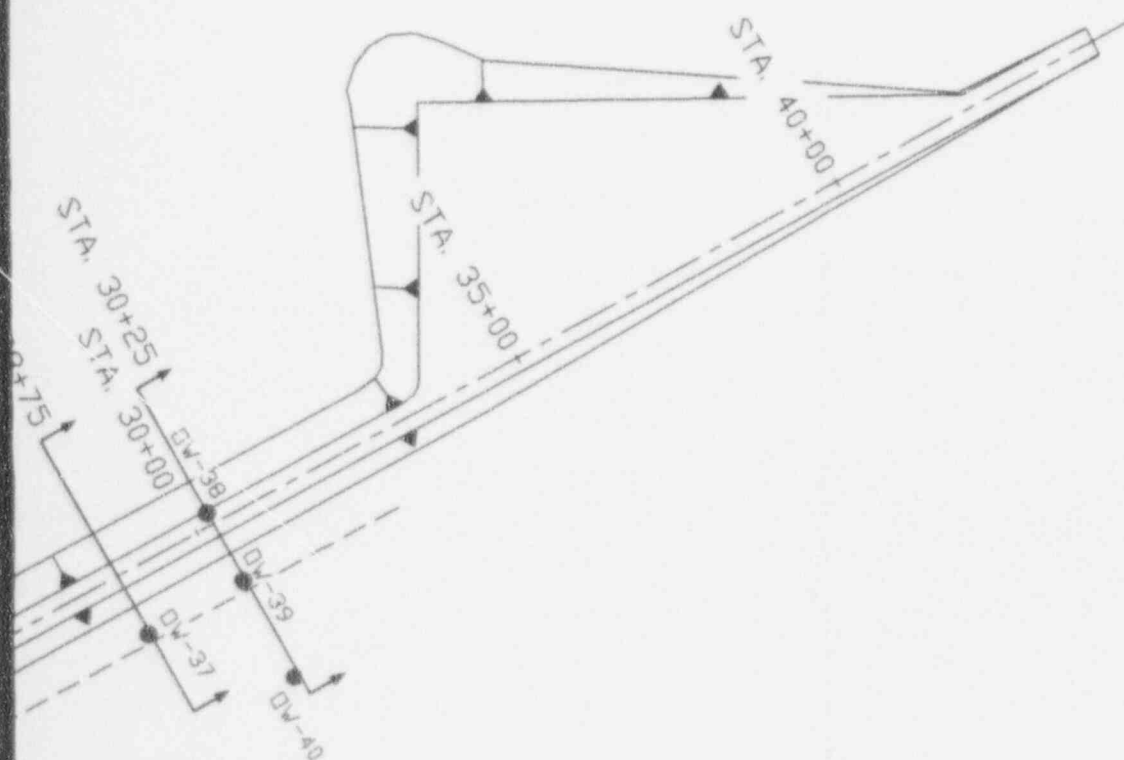
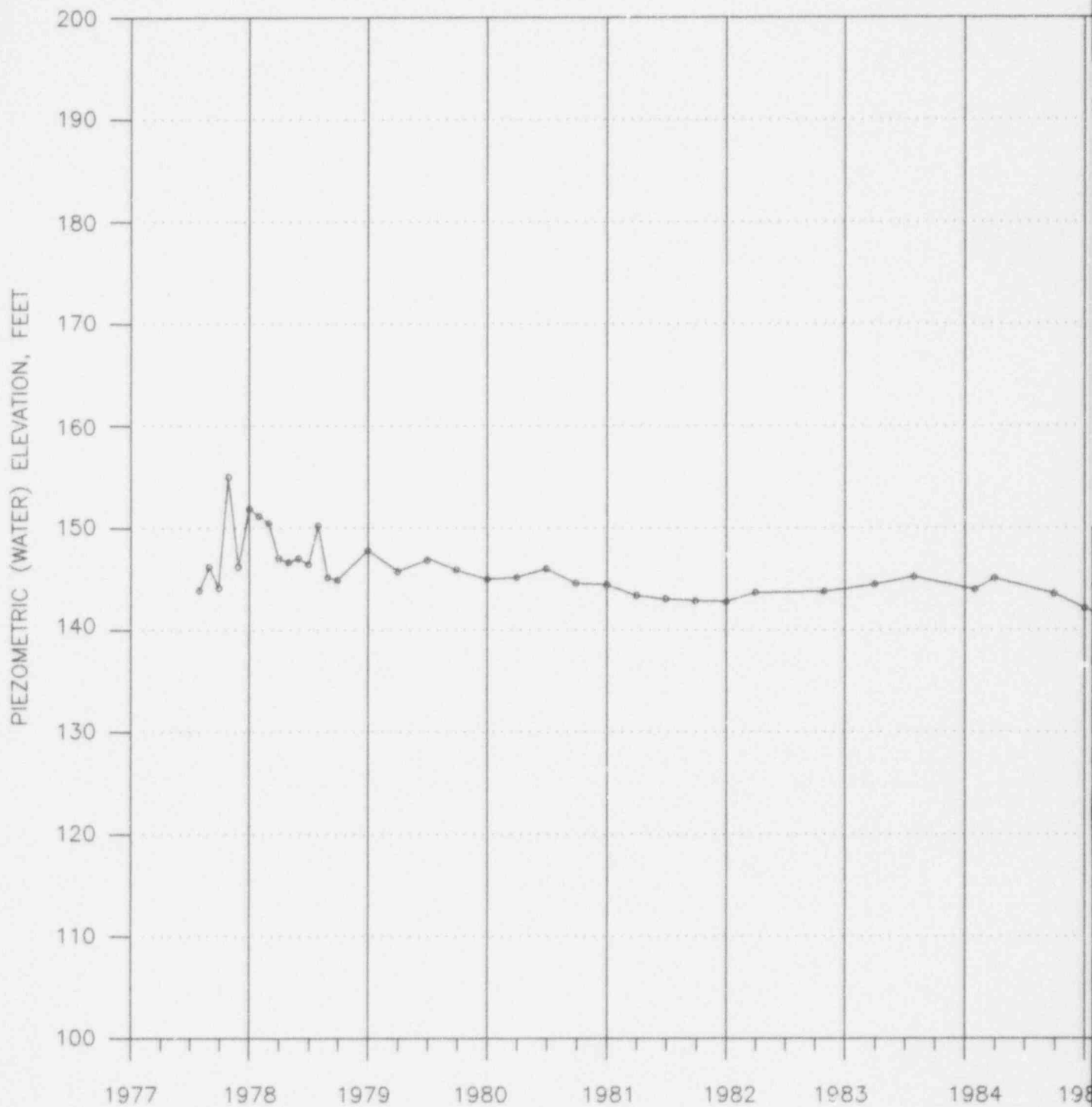


FIGURE 1
PLAN OF STORAGE POND
DAM AND DIKE
SCALE: $3/8" = 1' - 0"$

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TOP OF RISER @ EL. 162.74
 TIP OF WELL @ EL. 112.00

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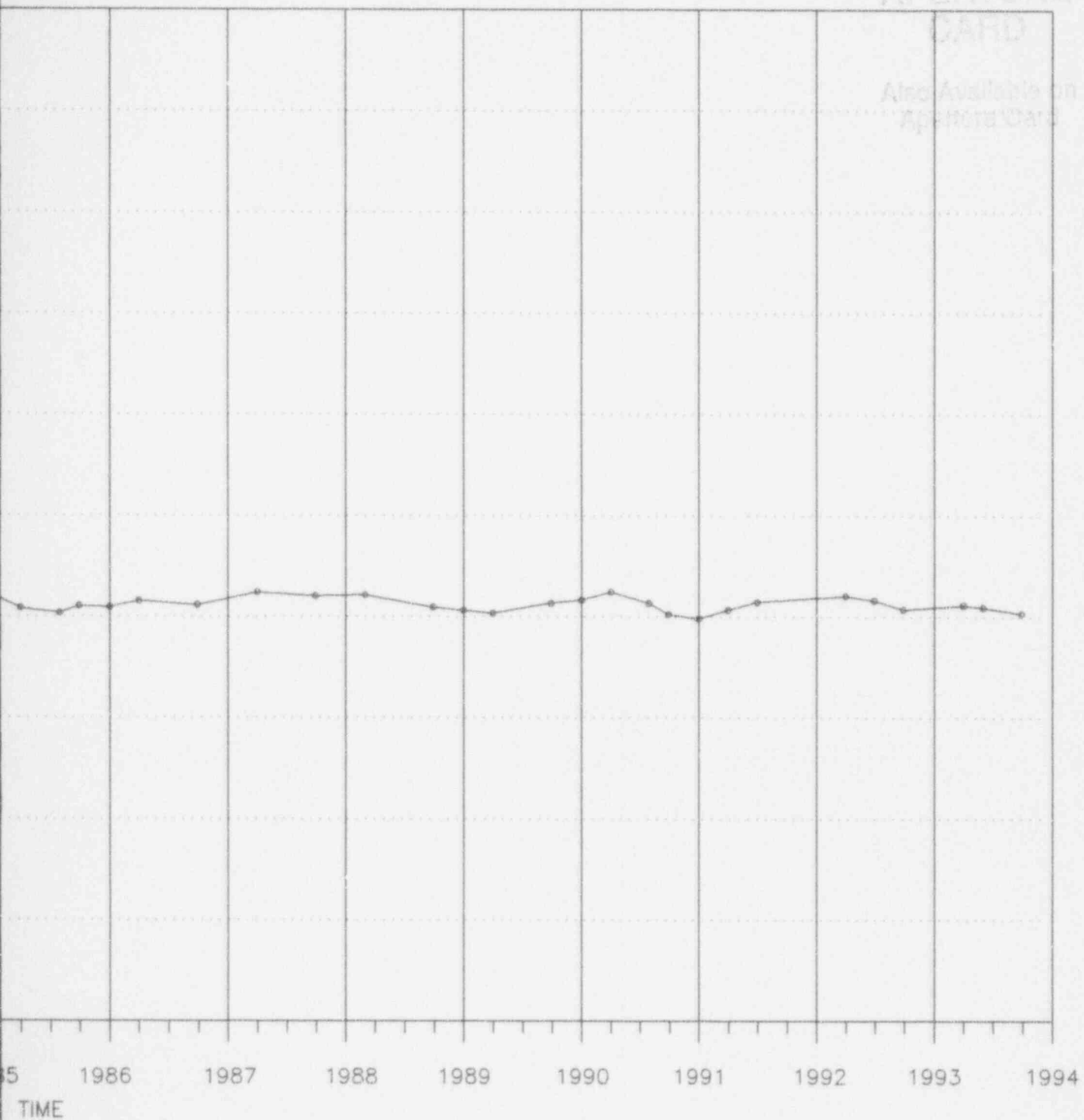
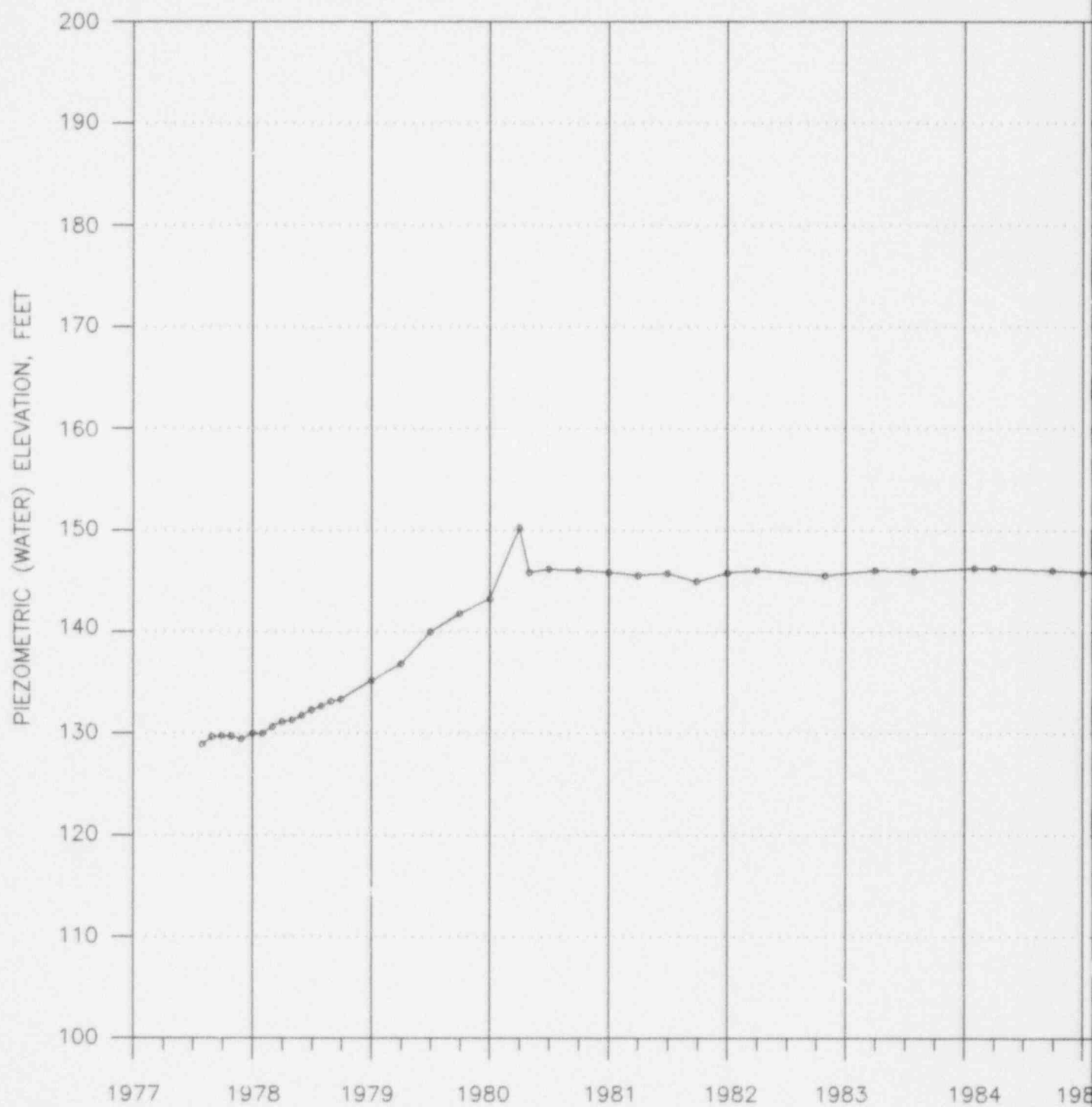


FIGURE 3
OBSERVATION WELL OW-15

9408100266-02



TOP OF RISER @ EL. 198.31
TIP OF WELL @ EL. 112.00

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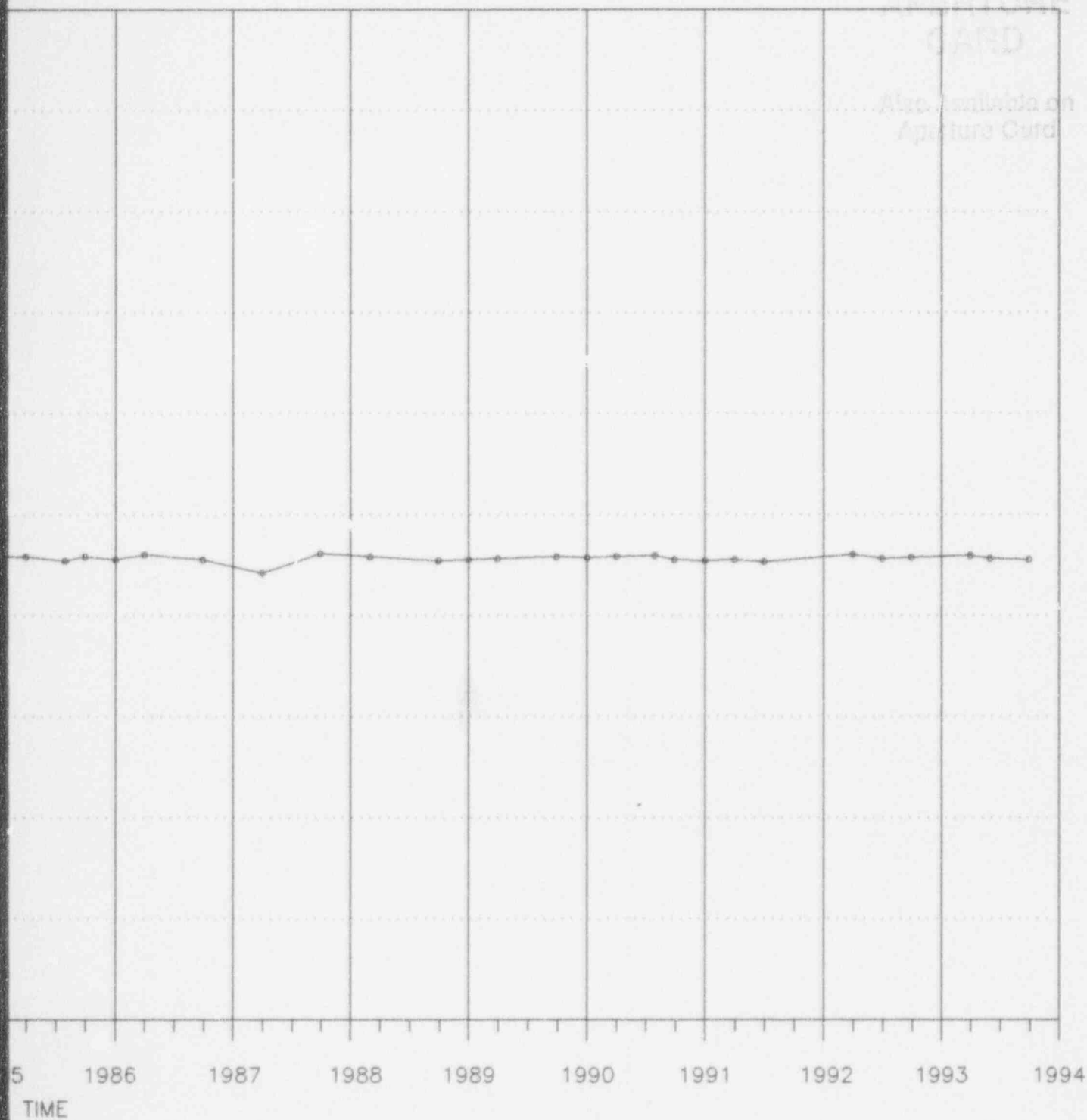
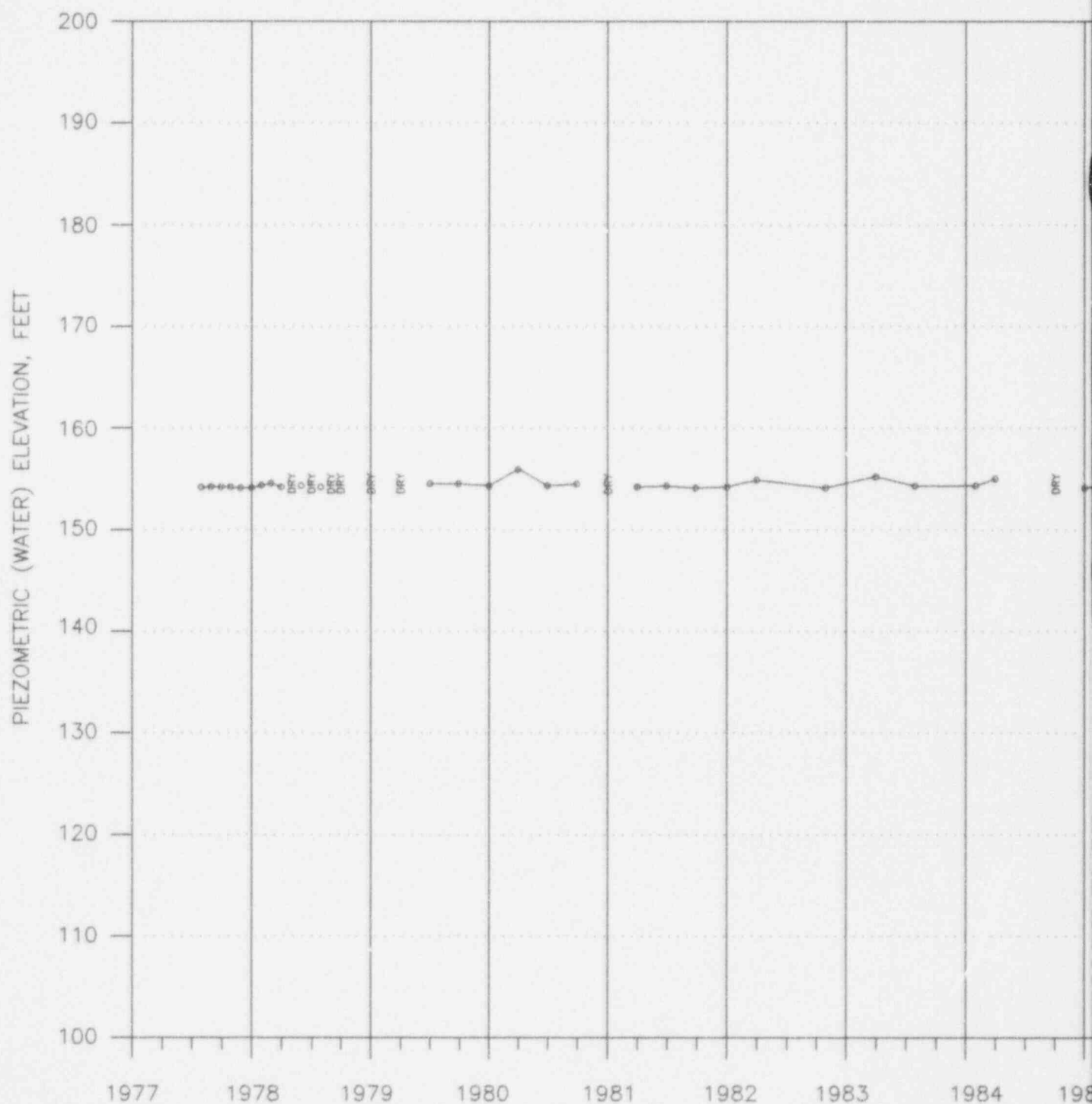


FIGURE 4
OBSERVATION WELL OW-17A

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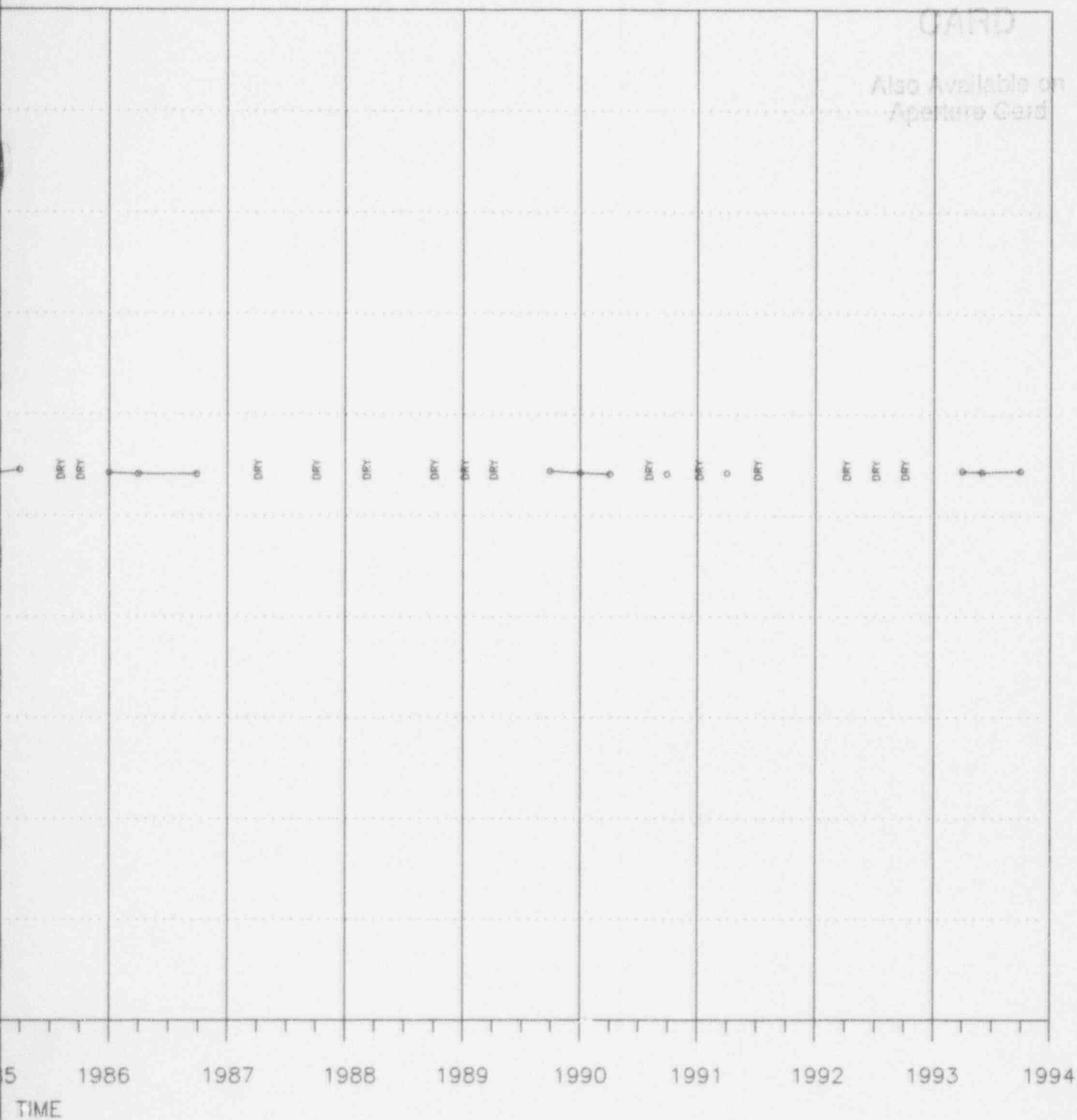
TOP OF RISER @ EL. 187.58
TIP OF WELL @ EL. 154.13

NOTE: ALL POINTS SHOWN ABOVE ARE
MUD READINGS AT THE BOTTOM
OF THE WELL, NOT PIEZOMETRIC
WATER SURFACE READINGS.

DRY: PIEZOME
BELOW

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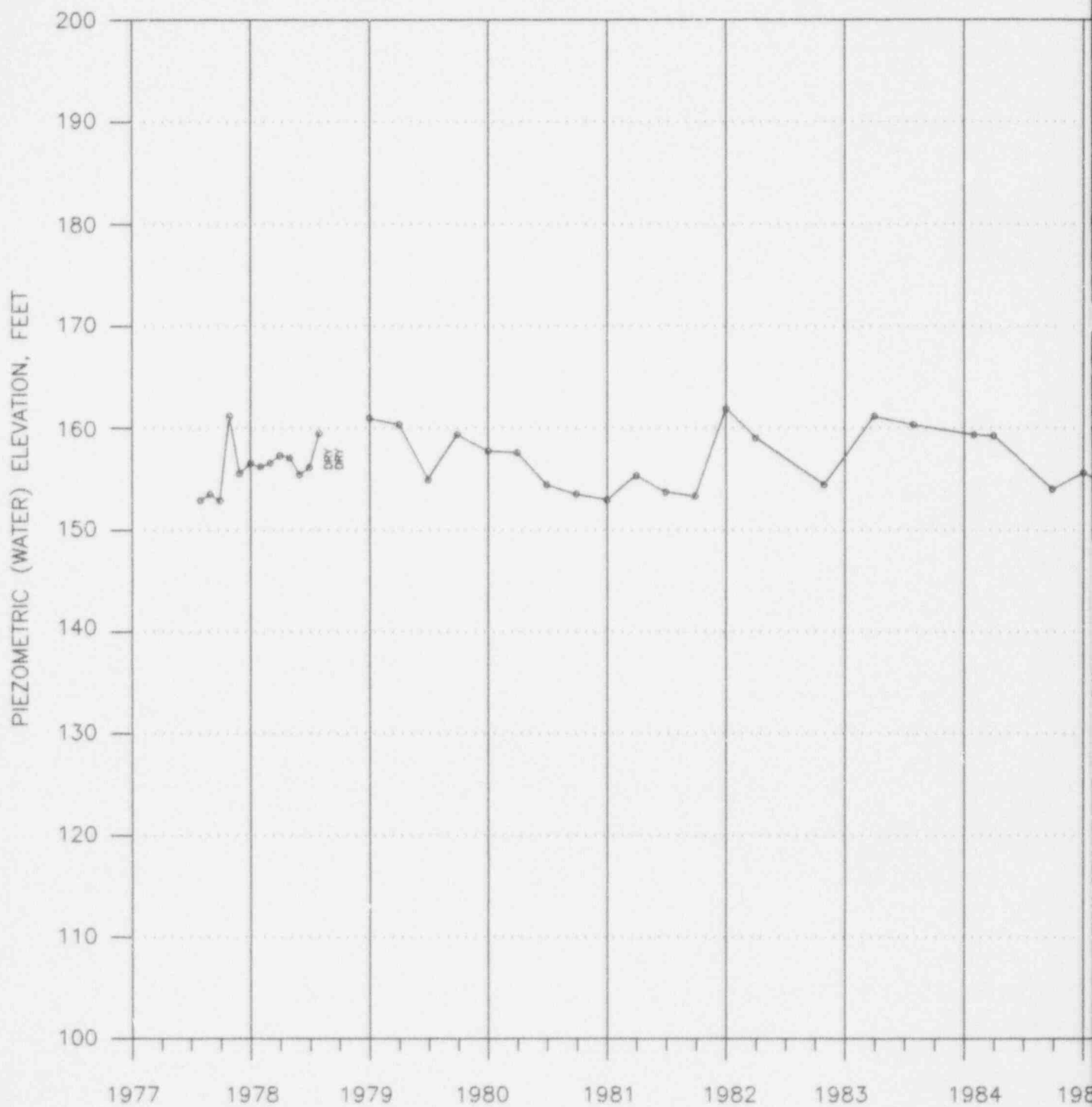
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TRIC (WATER) SURFACE
EL. 154.13

FIGURE 5
OBSERVATION WELL OW-17B

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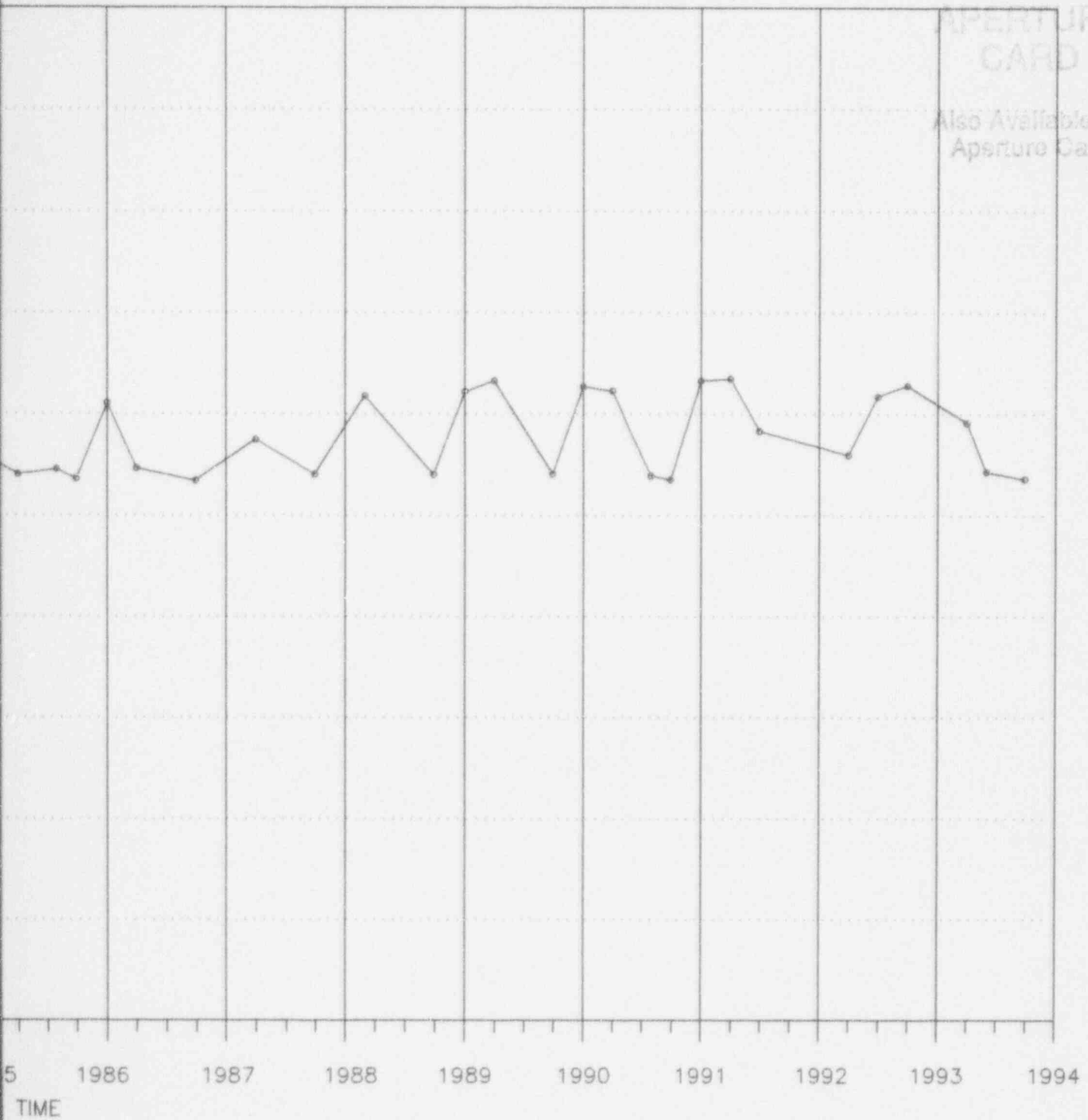


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TIP OF WELL @ EL. 153.00

DRY: PIEZOME
BELOW

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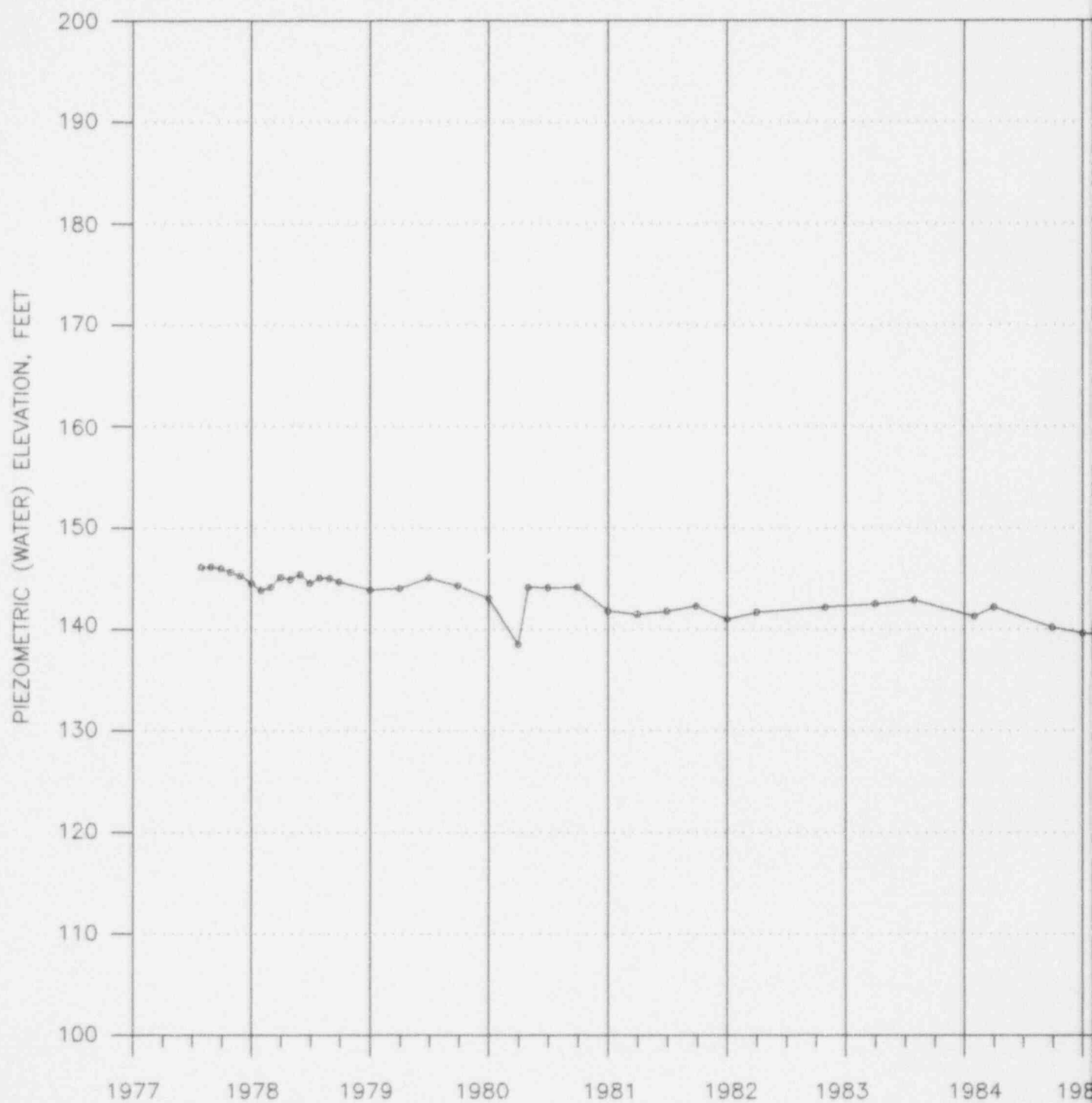
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TRIC (WATER) SURFACE
EL. 153.00

FIGURE 6
OBSERVATION WELL OW-17C

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TOP OF RISER @ EL. 181.87
TIP OF WELL @ EL. 112.00

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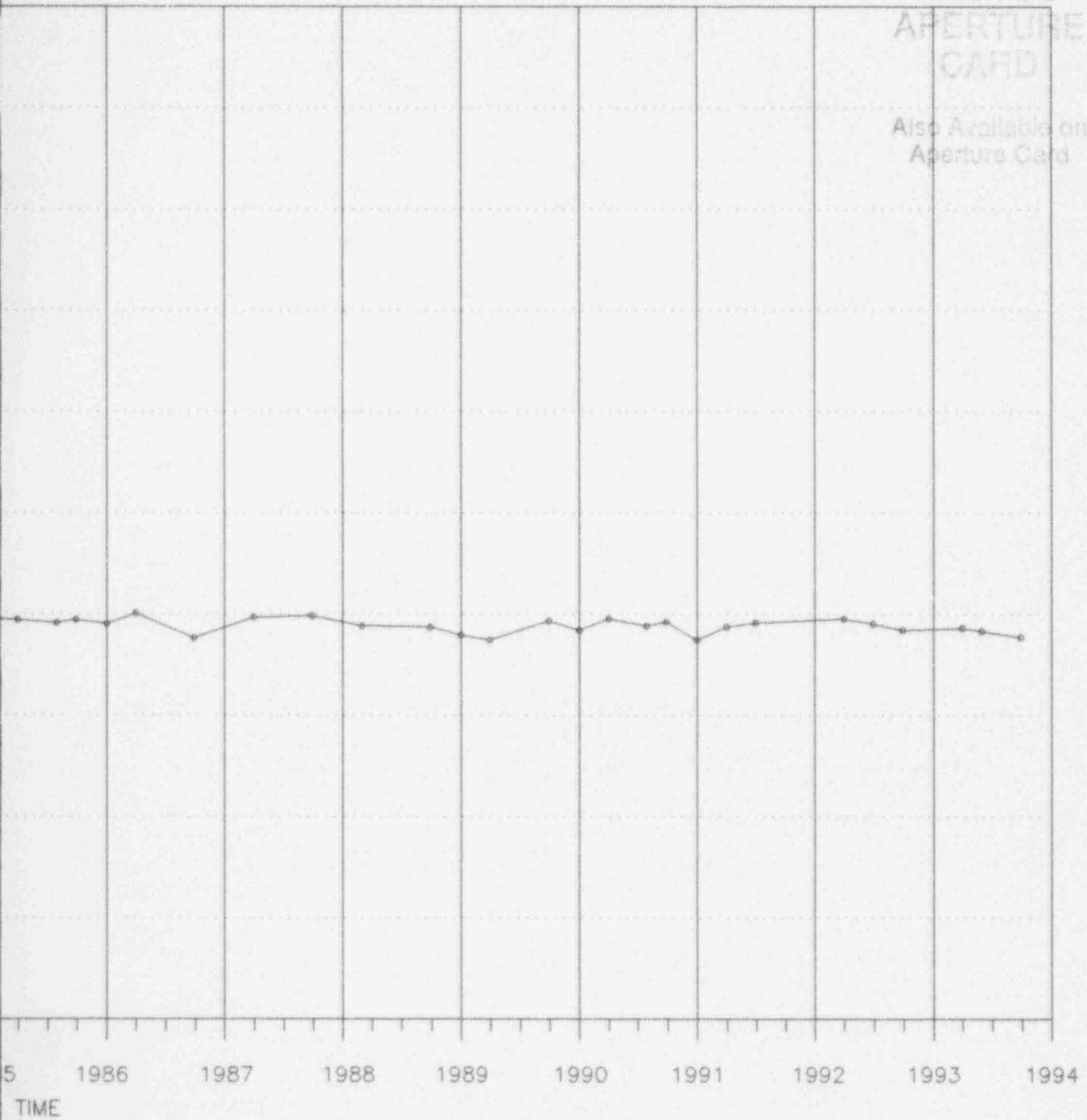
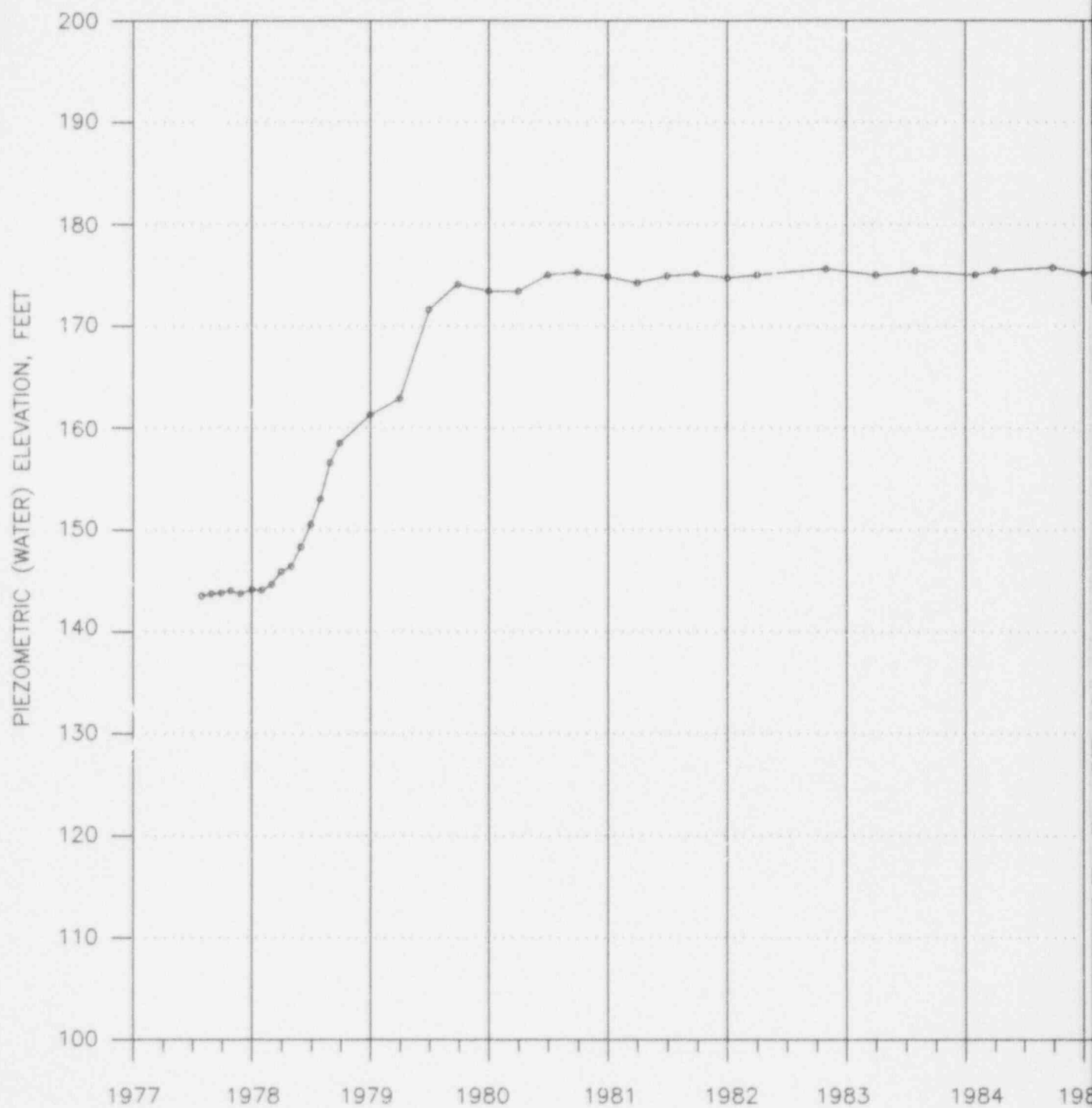


FIGURE 7
OBSERVATION WELL OW-37

9408100265-06



TOP OF RISER @ EL. 198.02
TIP OF WELL @ EL. 112.00

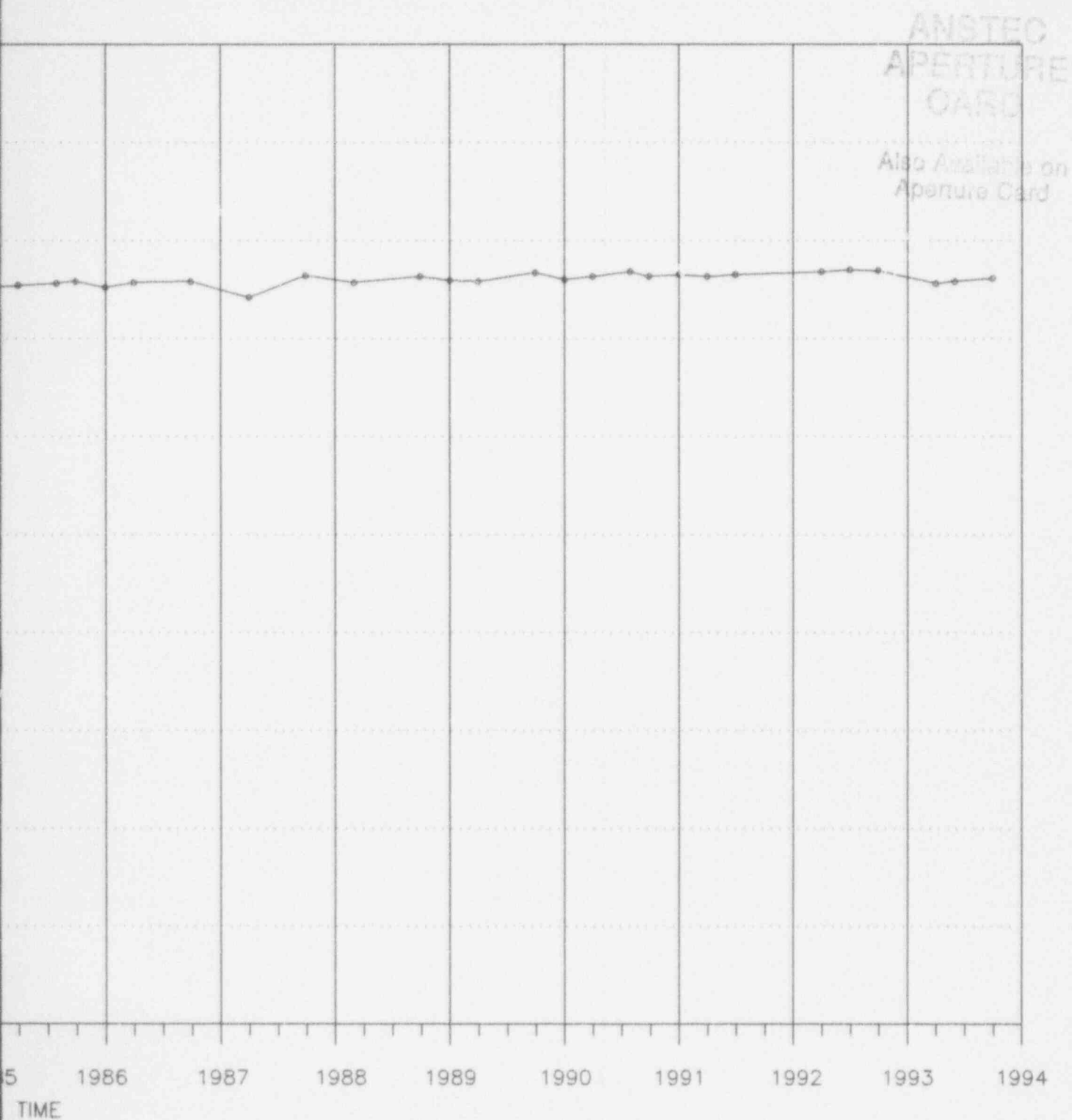
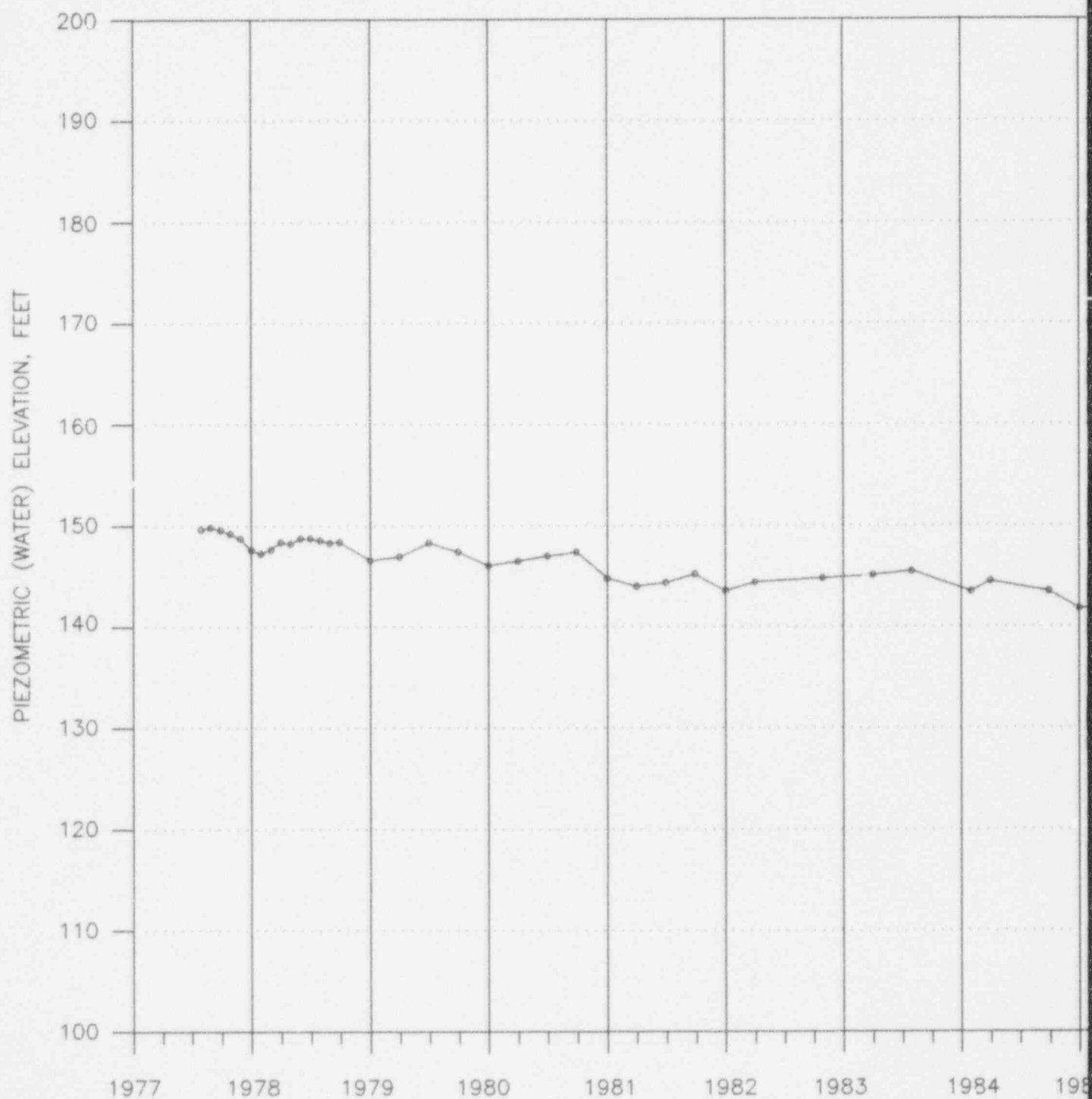


FIGURE 2
OBSERVATION WELL OW-13

9408100260-07



TOP OF RISER @ EL. 195.97
TIP OF WELL @ EL. 112.00

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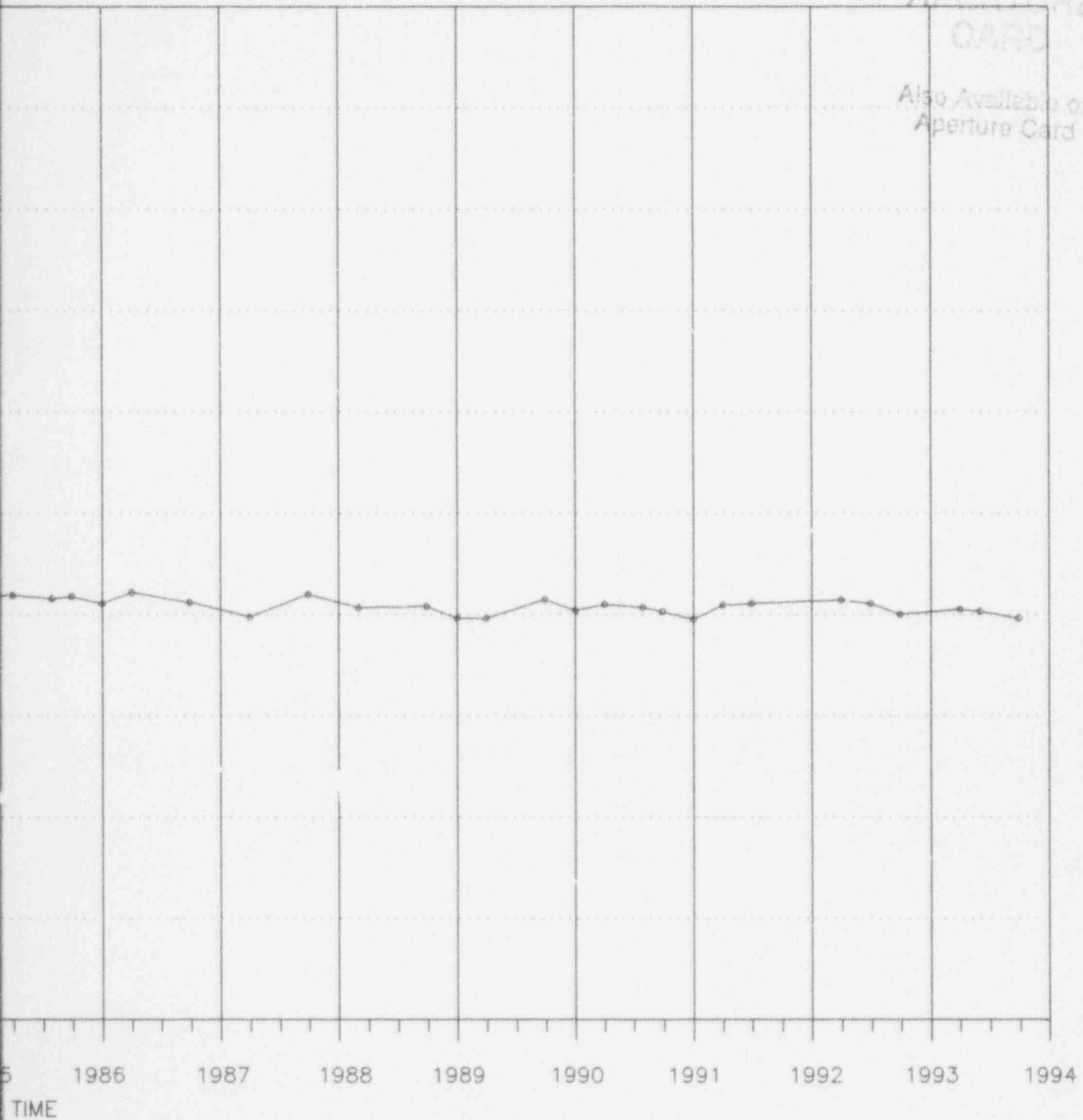
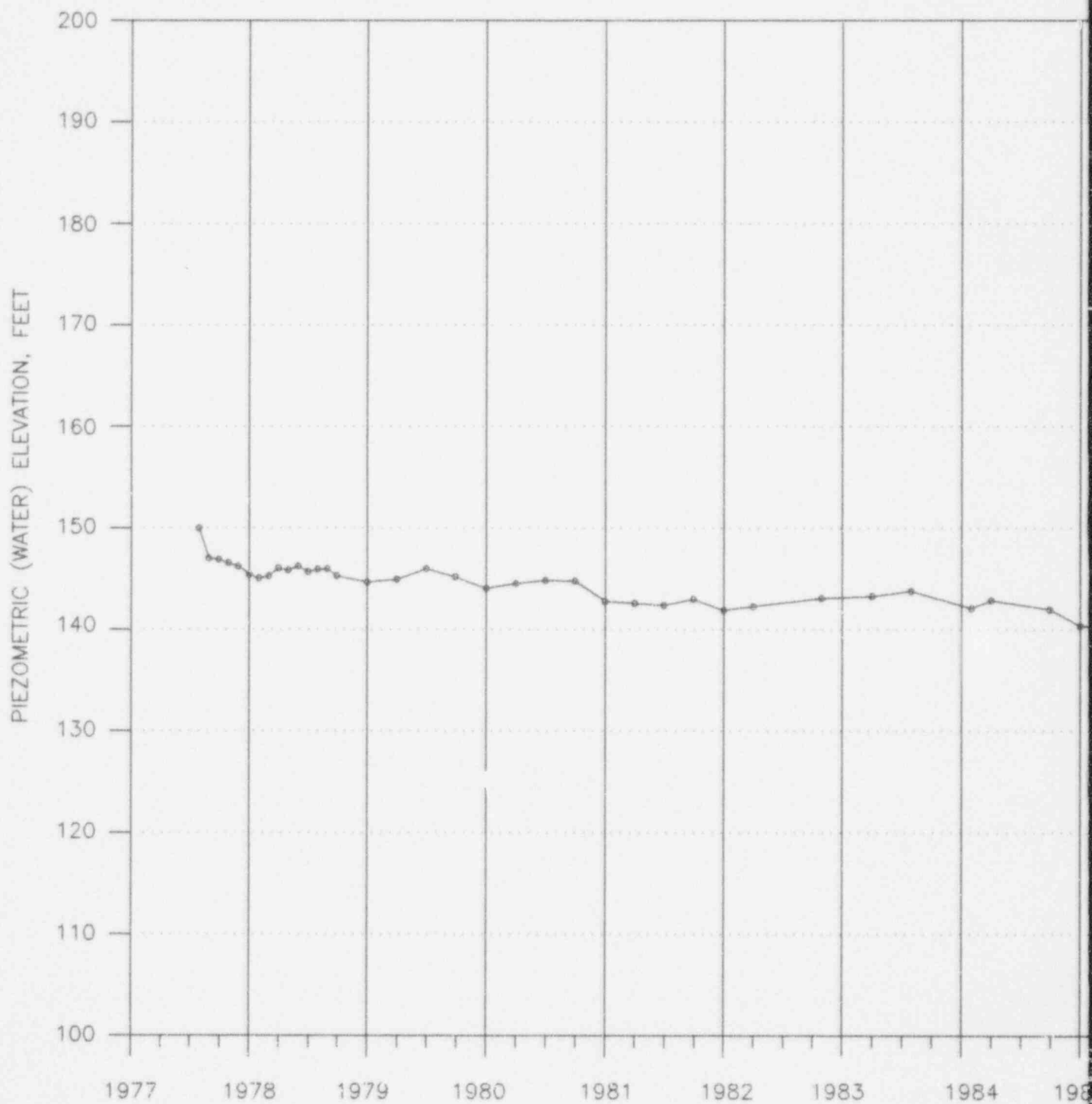


FIGURE 8
OBSERVATION WELL OW-38

9408100266-08



TOP OF RISER @ EL. 181.56
T.P. OF WELL @ EL. 112.00

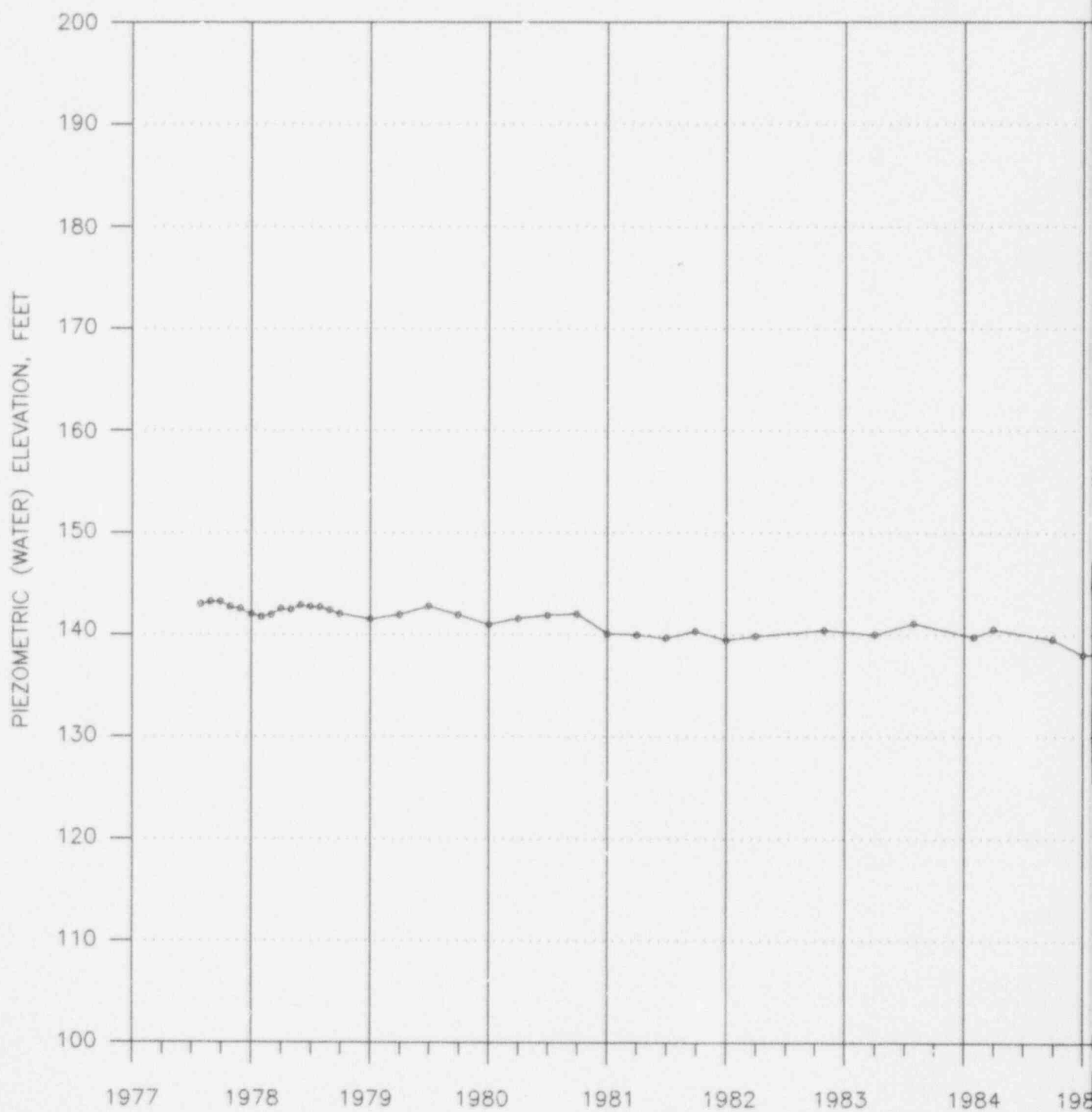
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Aperture Card



FIGURE 9
OBSERVATION WELL OW-39

9408100266-09



TOP OF RISER @ EL. 181.63
TIP OF WELL @ EL. 112.00

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CARD

Also Available on
Aperture Card

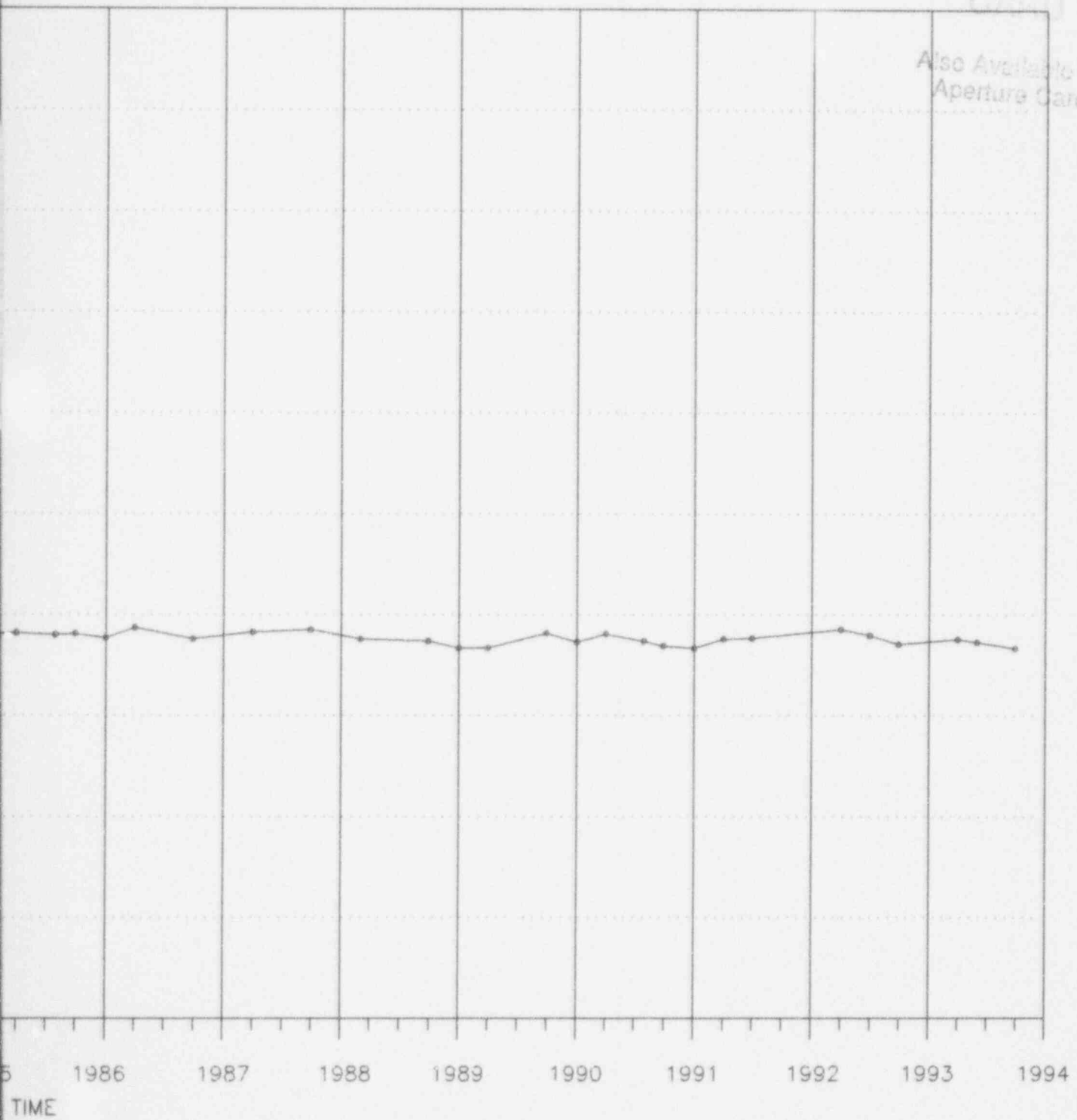
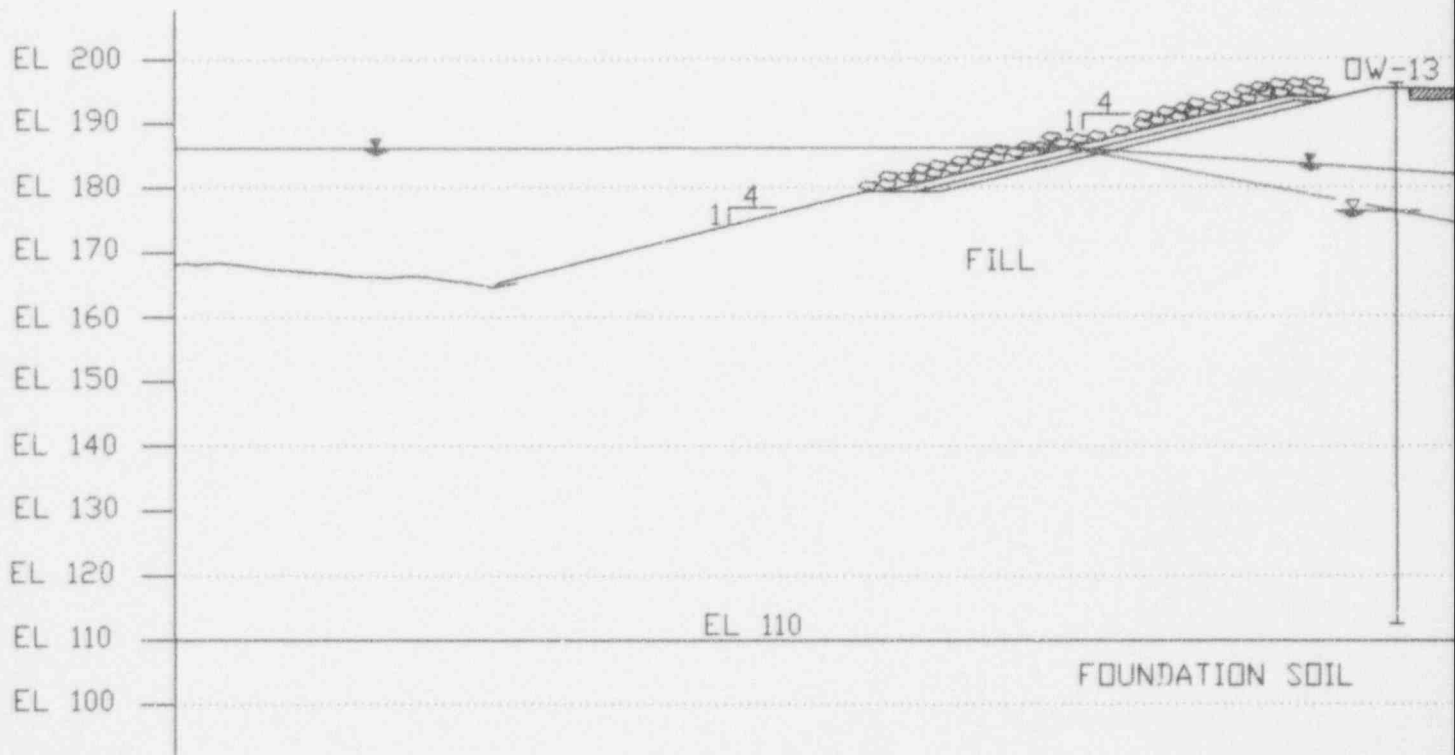


FIGURE 10
OBSERVATION WELL OW-40

9408100266-10



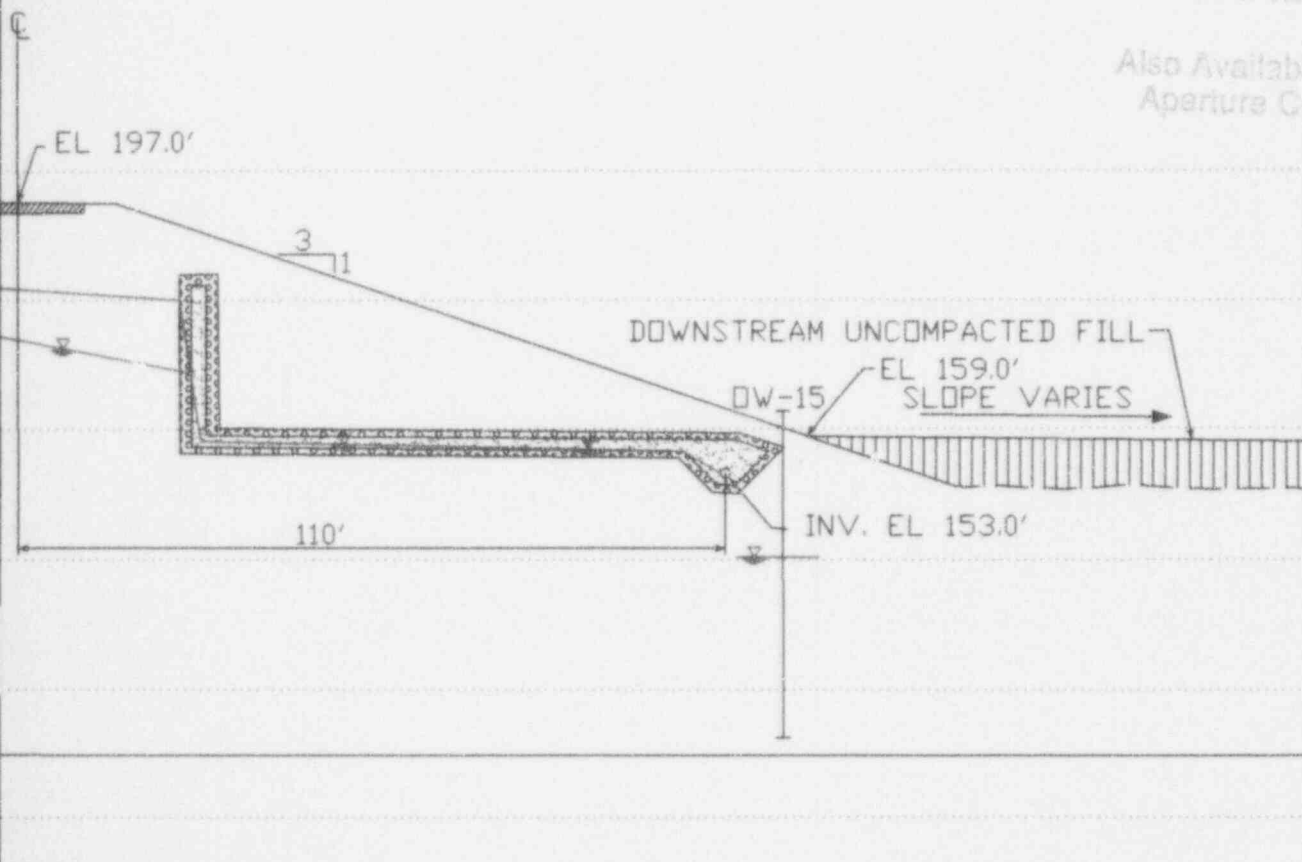
DW-13
SCALE:

LEGEND

- ⌵ MAXIMUM DESIGN PHREATIC SATURATION LEVEL
- ⌵ ACTUAL PHREATIC SURFACE (10/12/93)

ANSTEC
APERTURE
CARD

Also Available on
Aperture Card

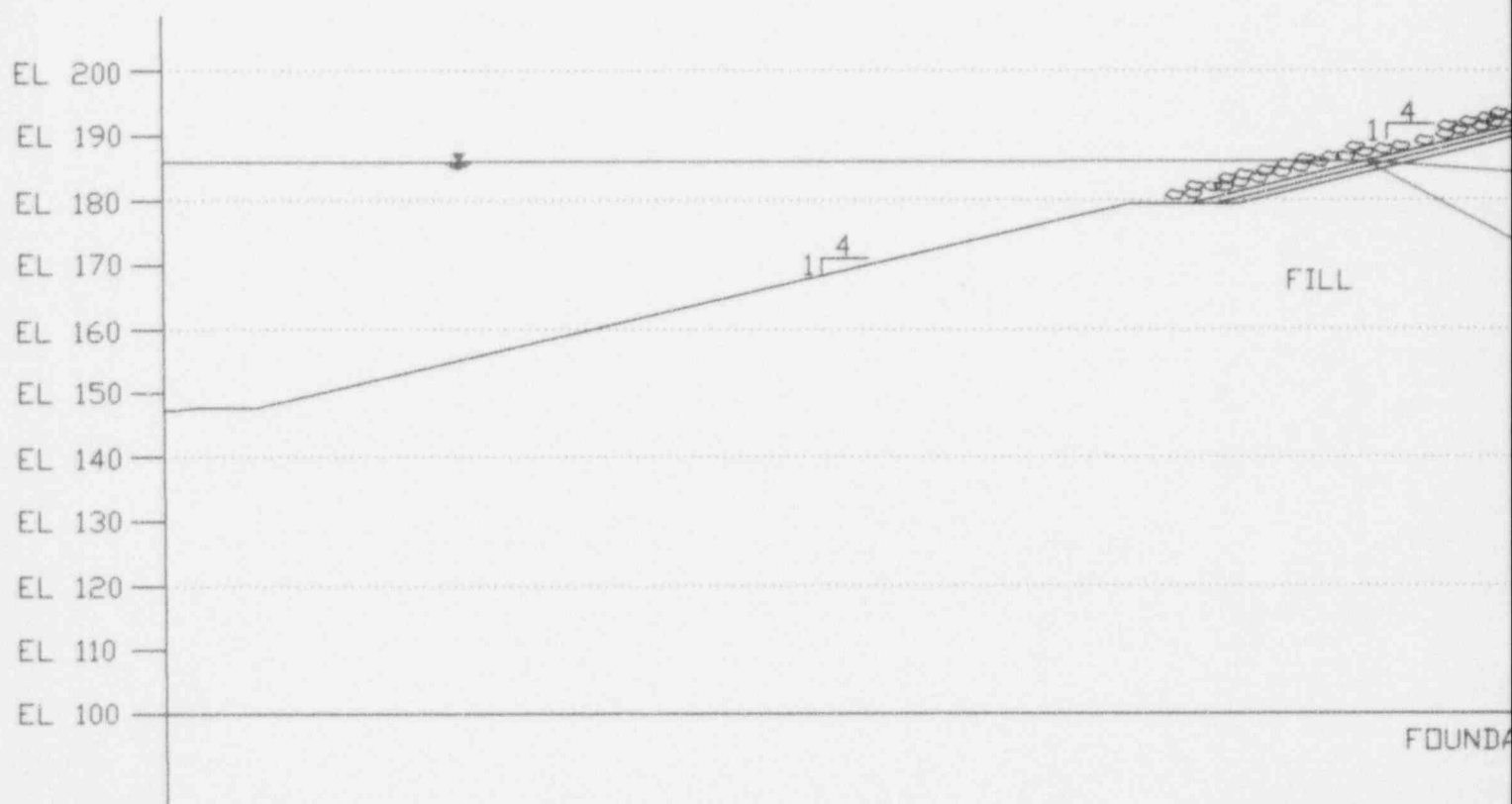


DW-15

1"=30'

FIGURE 11
SECTION @ STA. 12+00

9408100266-11



OW-17A,

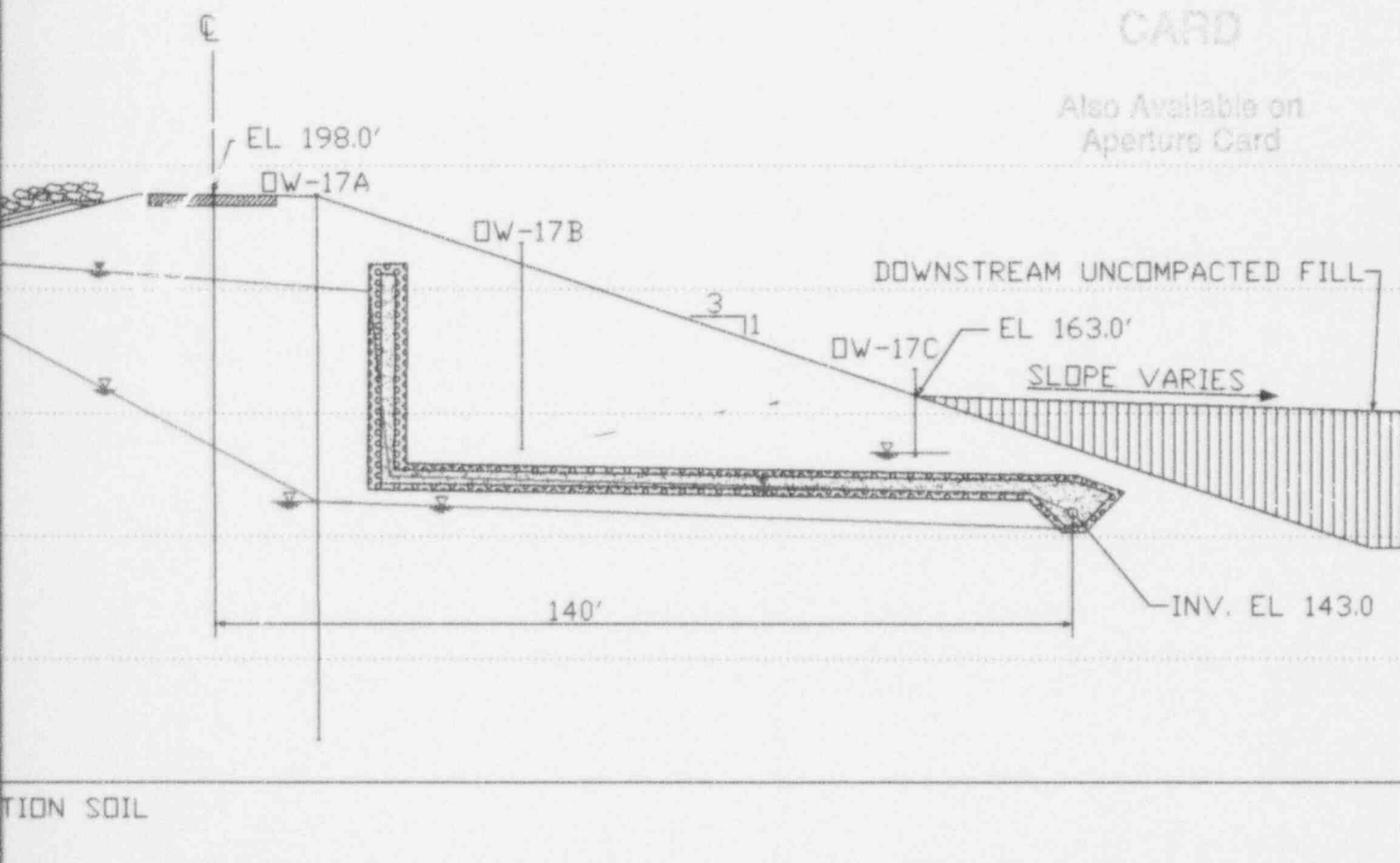
SO

LEGEND

- ⬇ MAXIMUM DESIGN PHREATIC SATURATION LEVEL
- ⬇ ACTUAL PHREATIC SURFACE (10/12/93)

ANSTEC
APERTURE
CARD

Also Available on
Aperture Card

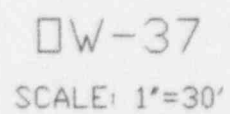


DW-17B, DW-17C

SCALE: 1"=30'

FIGURE 12
SECTION @ STA. 13+50

9408100266-12



SCALE: 1"=30'

LEGEND

- ✚ MAXIMUM DESIGN PHREATIC SATURATION LEVEL
- ✚ GROUNDWATER LEVEL READING (10/12/93)

ANSTEC
APERTURE
CARD

Also Available on
Aperture Card

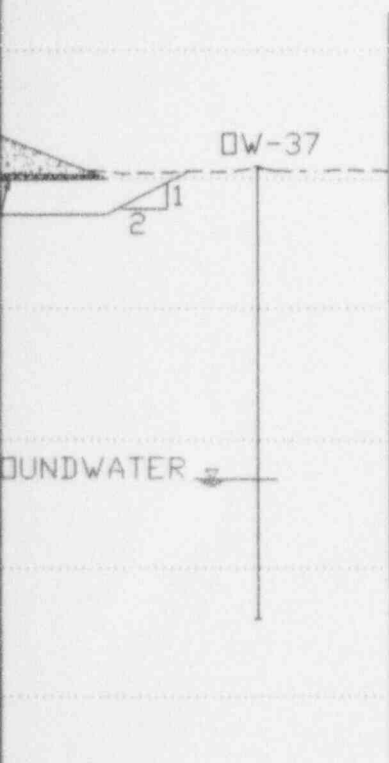
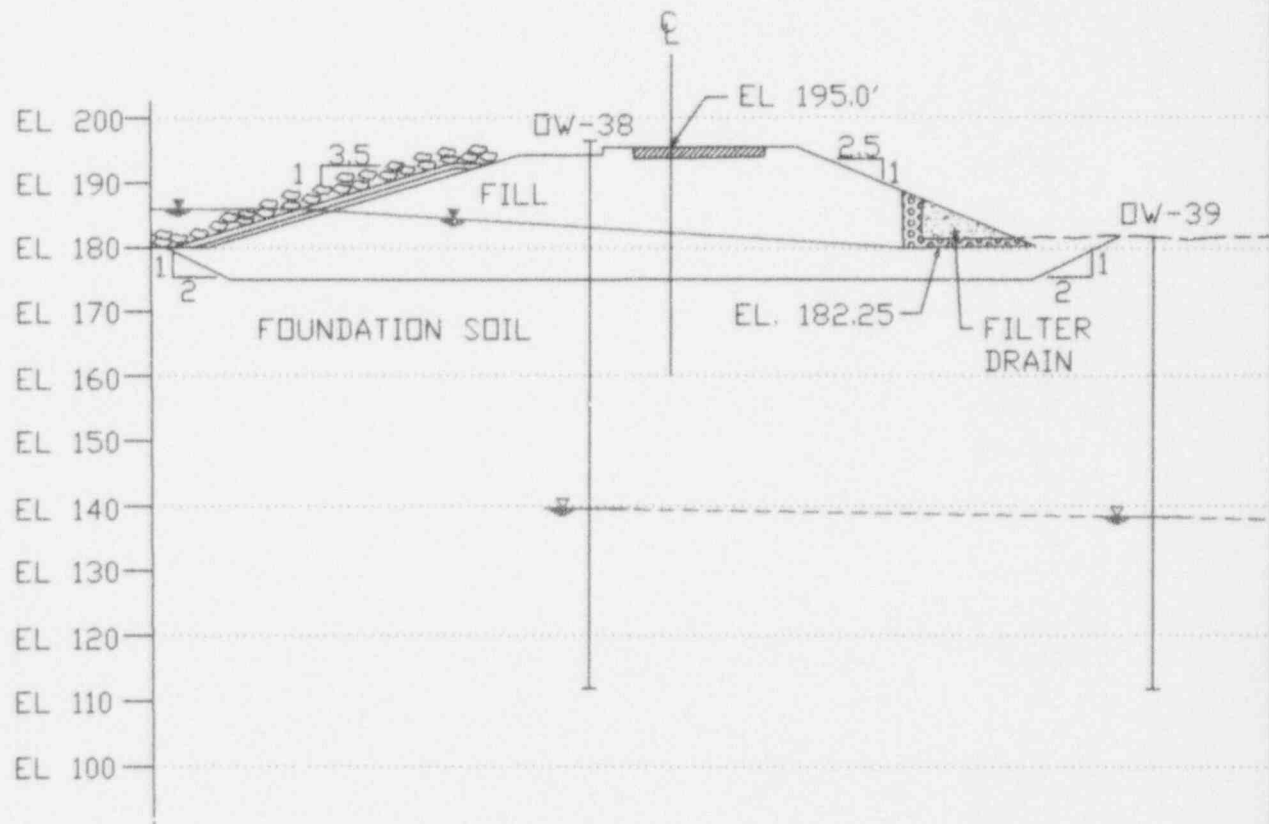


FIGURE 13
SECTION @ STA. 28+75

9408100266-13



DW-38, DW-39, DW

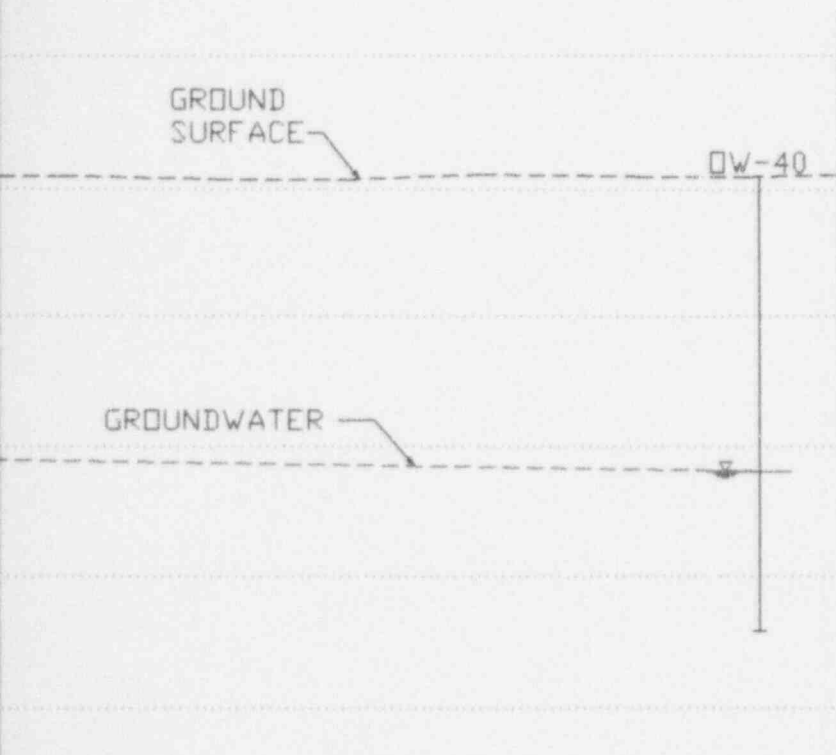
SCALE: 1"=30'

LEGEND

- ✚ MAXIMUM DESIGN PHREATIC SATURATION LEVEL
- ✚ READINGS ARE GROUNDWATER LEVEL READINGS TAKEN ON 10/12/93. NOT PHREATIC SURFACE RELATED TO POND LEVEL.

ANSTEC
APERTURE
CARD

Also Available on
Aperture Card



7-40

FIGURE 14
SECTION @ STA. 30+25

9408100266-14

ATTACHMENT 2

Response to NRC Safety Audit of the Service Water Pond Dam on February 2 & 3, 1993

Plant Procedures

Attached are the following procedures:

| | |
|------------------------|--|
| <u>FNP-0-ETP-4381</u> | <u>Service Water Storage Pond Piezometer Well Readings</u> |
| <u>FNP-0-ETP-4384</u> | <u>Service Water Pond Deformation Monument Readings</u> |
| <u>FNP-0-ETP-4389</u> | <u>Service Water Storage Pond Dam Biennial Inspection</u> |
| <u>FNP-0-ETP-1035</u> | <u>Service Water Dam and Structure Monthly Inspection</u> |
| <u>FNP-0-ARP-8</u> | <u>Service Water Structure - Annunciator Response Procedure</u> |
| <u>FNP-0-STP-611.0</u> | <u>Spillway Channel Inspection</u> |
| <u>FNP-1-ARP-1.1</u> | <u>Main Control Board Annunciator Panel A - Annunciator Response Procedure</u> |
| <u>FNP-0-AOP-31.0</u> | <u>Loss of Service Water Pond - Abnormal Operating Procedure</u> |
| <u>FNP-0-STP-611.1</u> | <u>Spillway Channel and Structure Verification</u> |
| <u>FNP-0-STP-125</u> | <u>Service Water Pond Seepage Test</u> |
| <u>FNP-0-ETP-4338</u> | <u>Service Water Storage Pond Sounding Survey</u> |