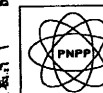




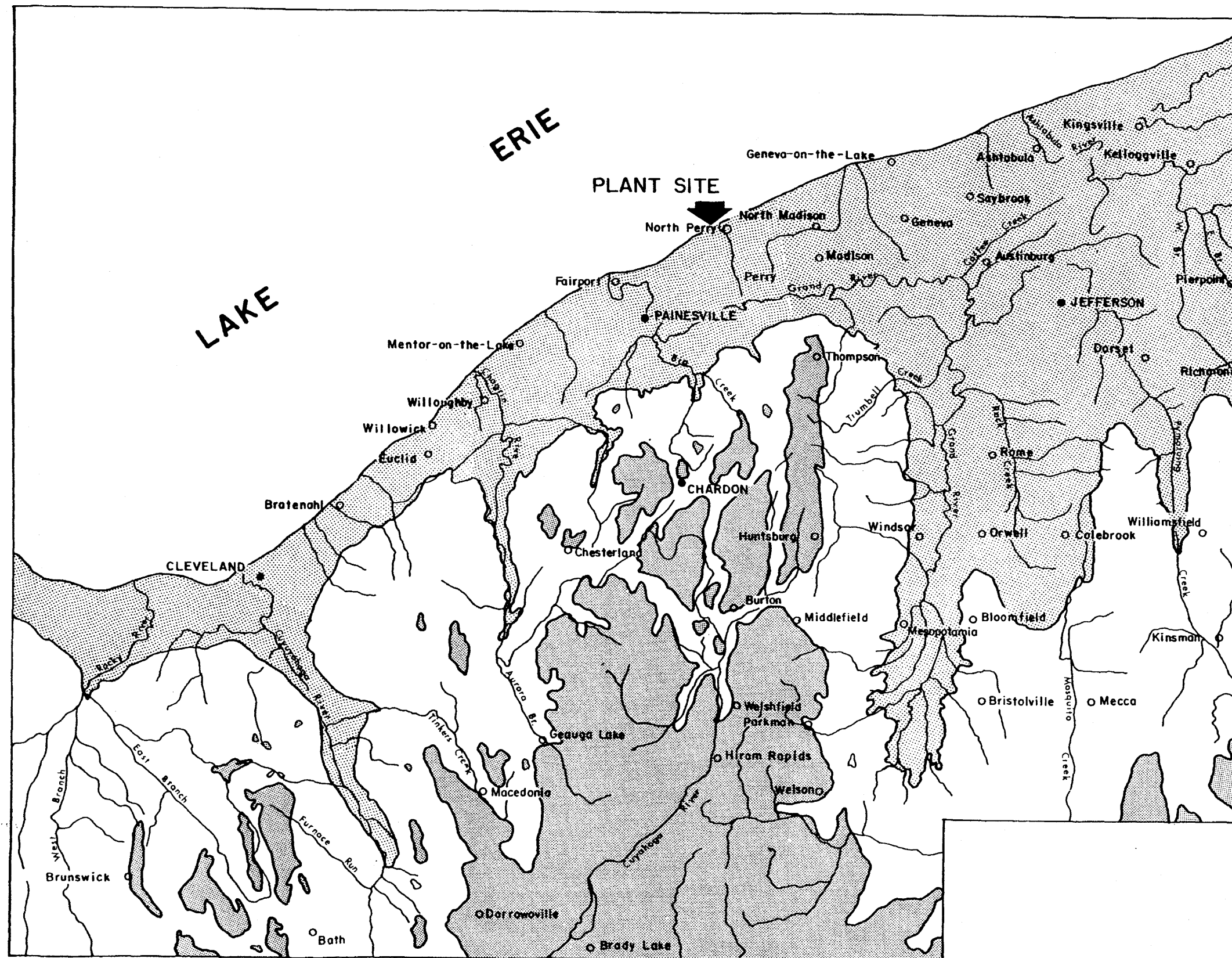
(Rev. 12 1/03)






PERRY NUCLEAR POWER PLANT

Tunneling Plan

Figure 2D-3



LEGEND

-  POTTSVILLE & ALLEGHENY
(COAL, S.S., SH, L.S.)
PENNSYLVANIAN
-  WAVERLY & MAXVILLE
(SH, S.S., L.S.)
MISSISSIPPI
-  OLENTANGY & OHIO (SHALES)
DEVONIAN

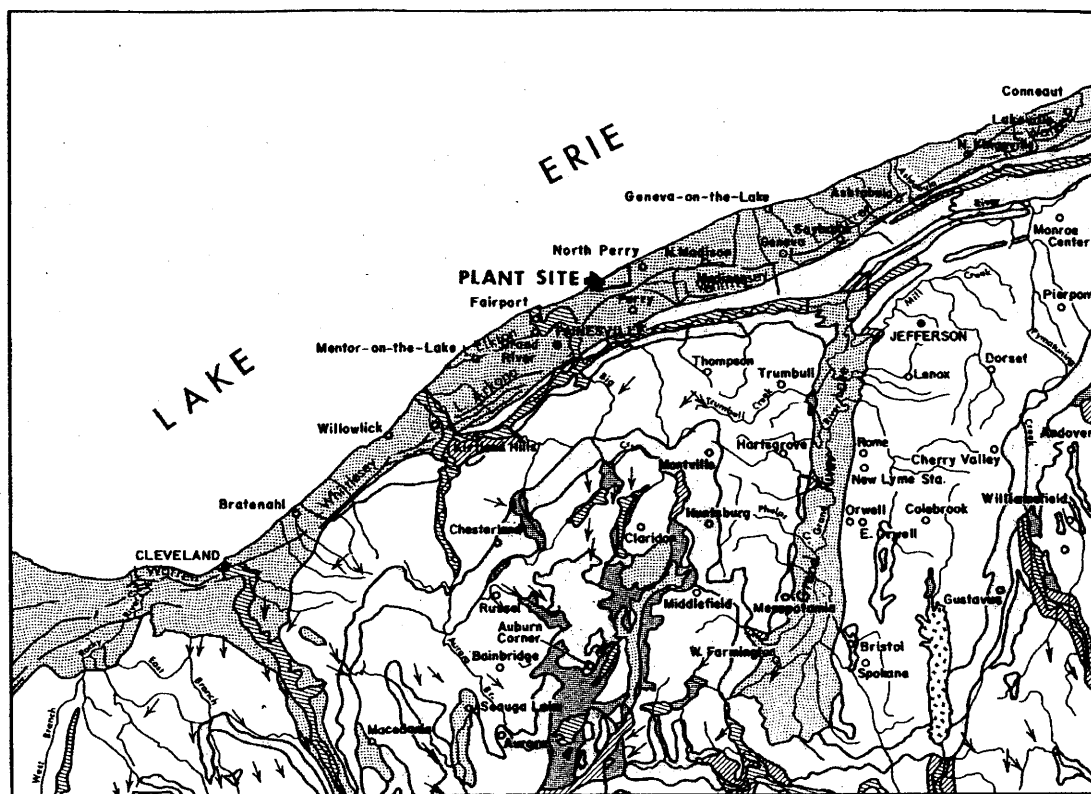
(Rev. 13 12/03)



PERRY NUCLEAR POWER PLANT











Bedrock Geologic Map of
Northeastern Ohio

Figure 2D-4



(AFTER REFERENCE 83)

LEGEND

-  GROUND MORaine - ILLINOIS
-  LACUSTRINE DEPOSITS - WISCONSIN
-  LACUSTRINE DEPOSITS - PRE-WISCONSIN
-  ALLUVIUM - WISCONSIN
-  OUTWASH - WISCONSIN
-  KAMES AND ESKERS - WISCONSIN
-  GROUND MORaine - WISCONSIN
-  END MORaine - WISCONSIN
-  BEACH DEPOSITS - WISCONSIN
-  STRIATIONS



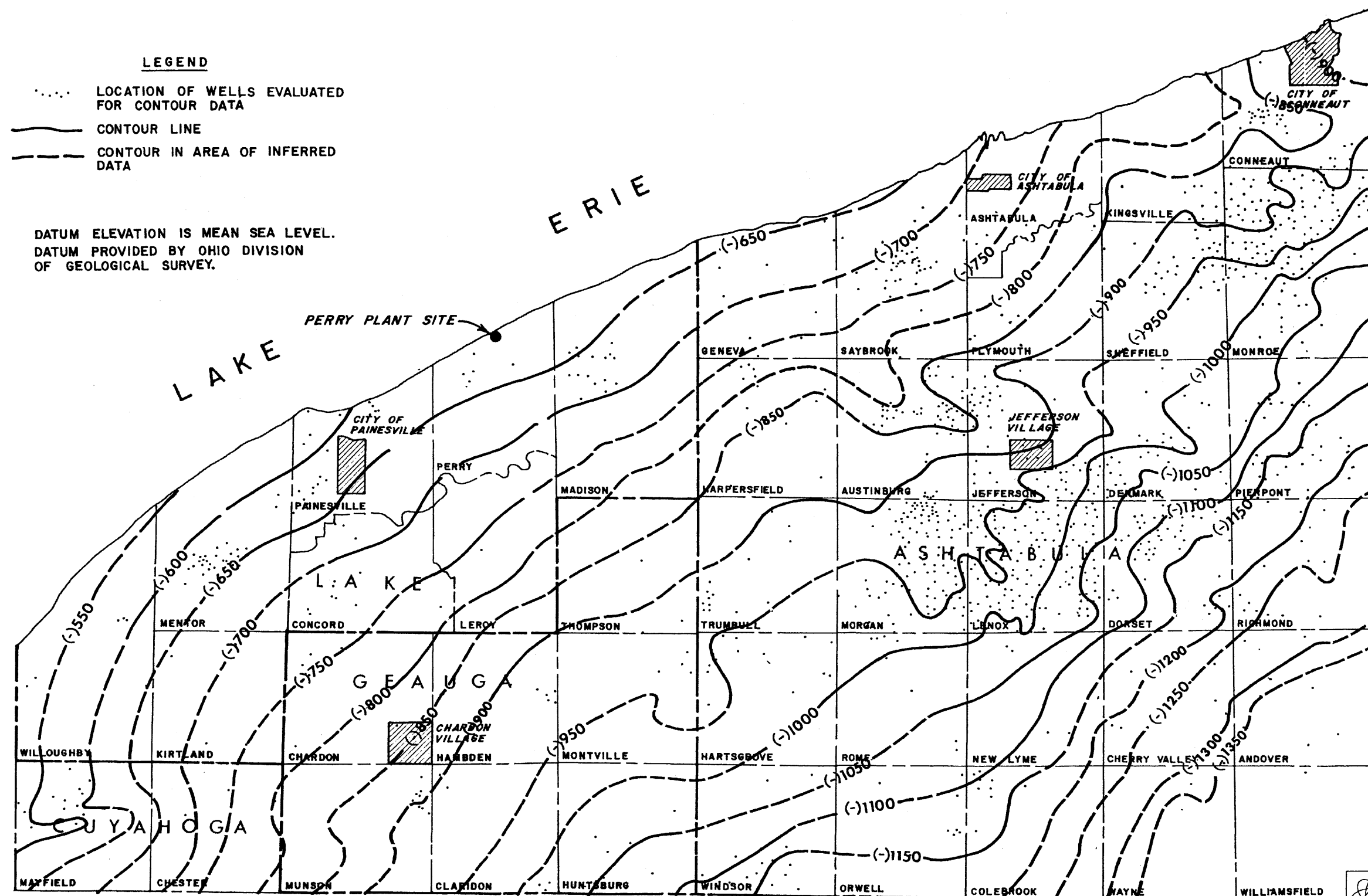
(Rev. 13 12/03)



PERRY NUCLEAR POWER PLANT

Glacial Map of
Northeastern Ohio

Figure 2D-5



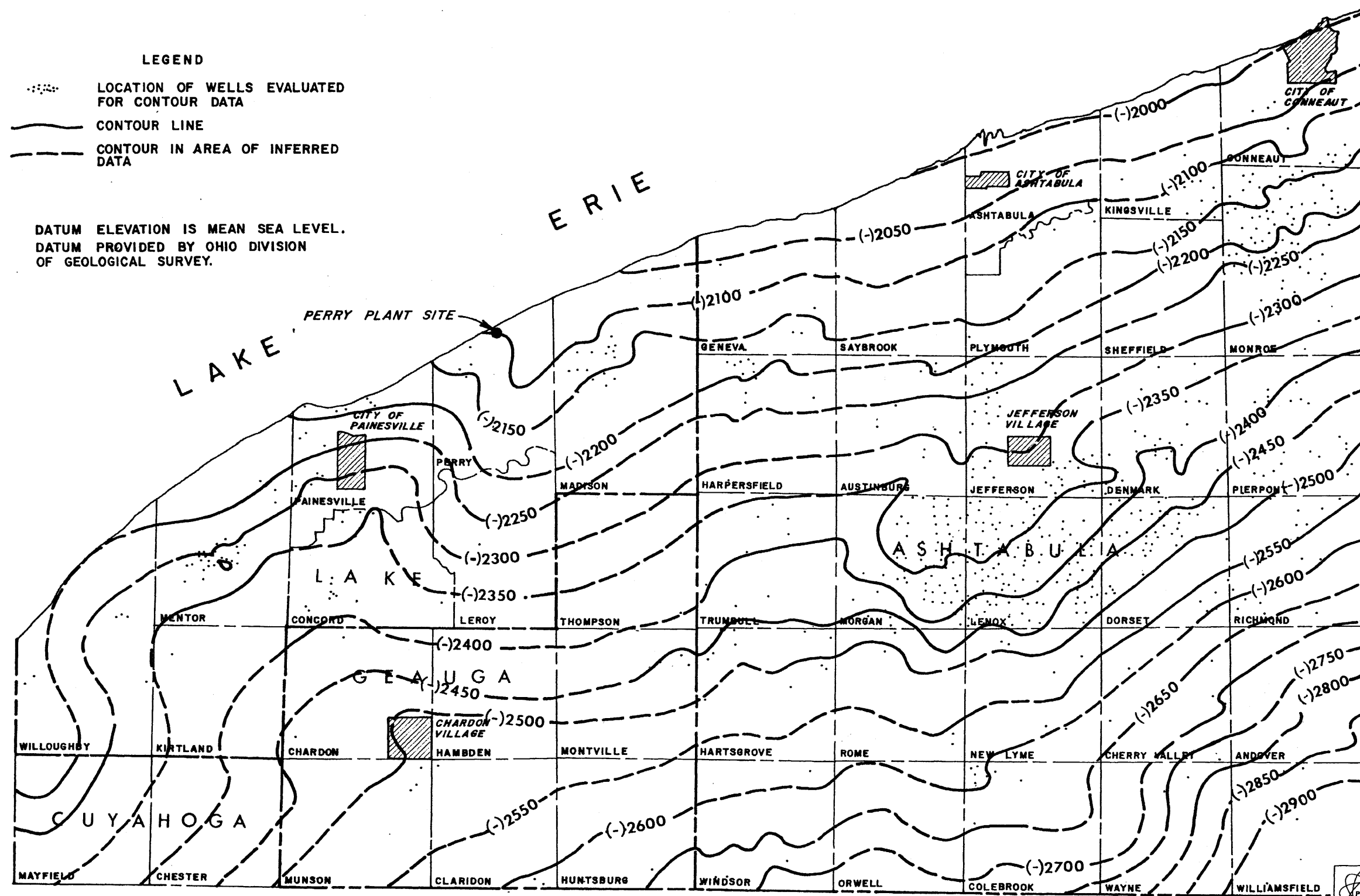
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Structural Contour Map -
Top of Big Lime

Figure 2D-6

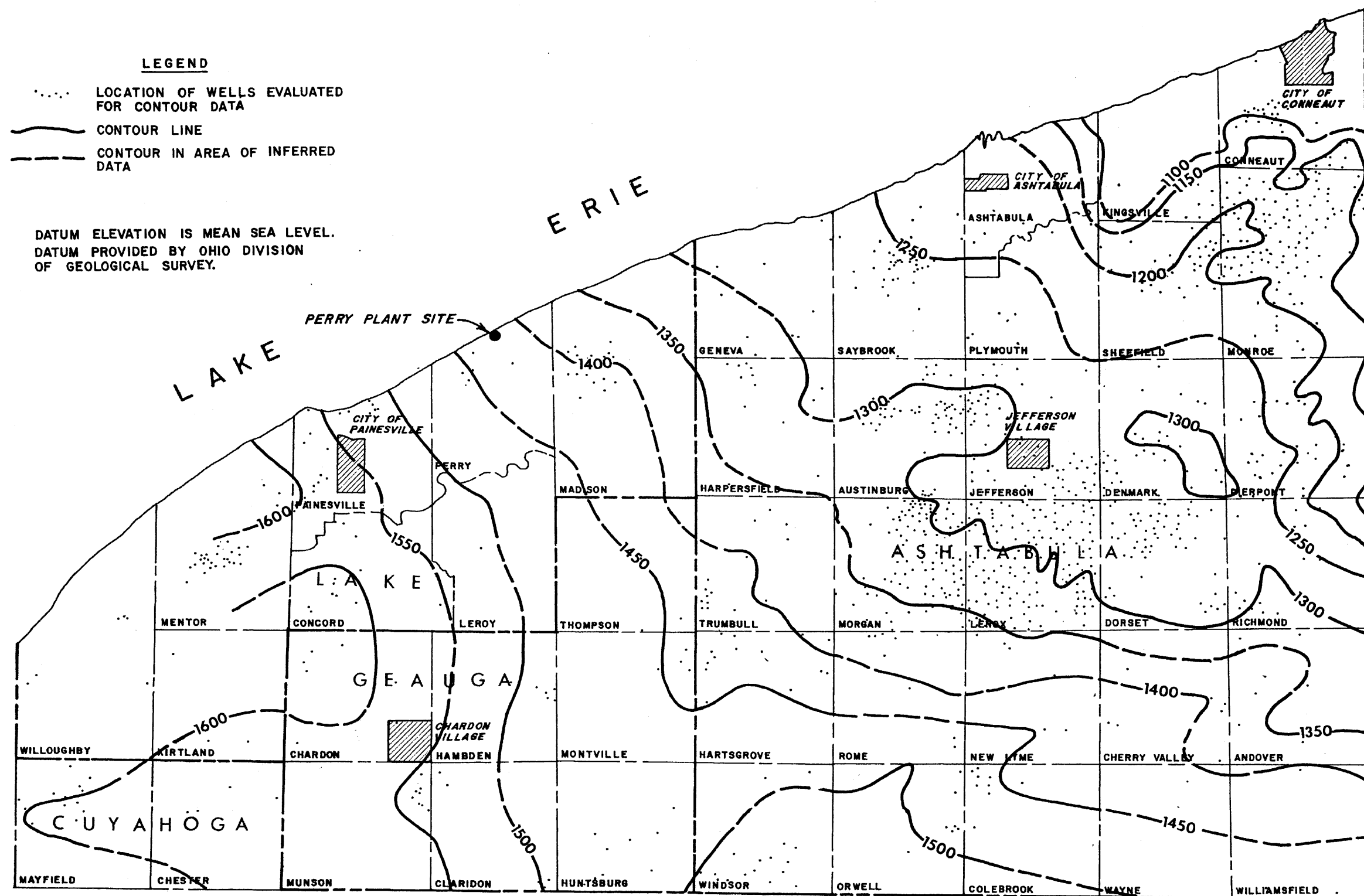


(Rev. 12 1/03)

PERRY NUCLEAR POWER PLANT

Structural Contour Map -
Top of Packer Shell

Figure 2D-7

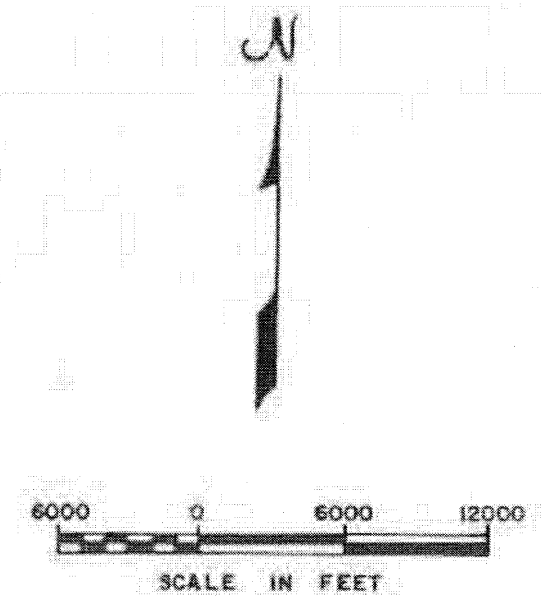


(Rev. 12 1/03)

PERRY NUCLEAR POWER PLANT

Isopach Map Of Big Lime
 And Niagaran Shale

Figure 2D-8



LEGEND

- OBSERVED OUTCROPS
- APPROXIMATE CONTACT OF
CHAGRIN SHALE - BEDFORD SHALE
- APPROXIMATE CONTACT OF
BEDFORD SHALE - BEREA SANDSTONE

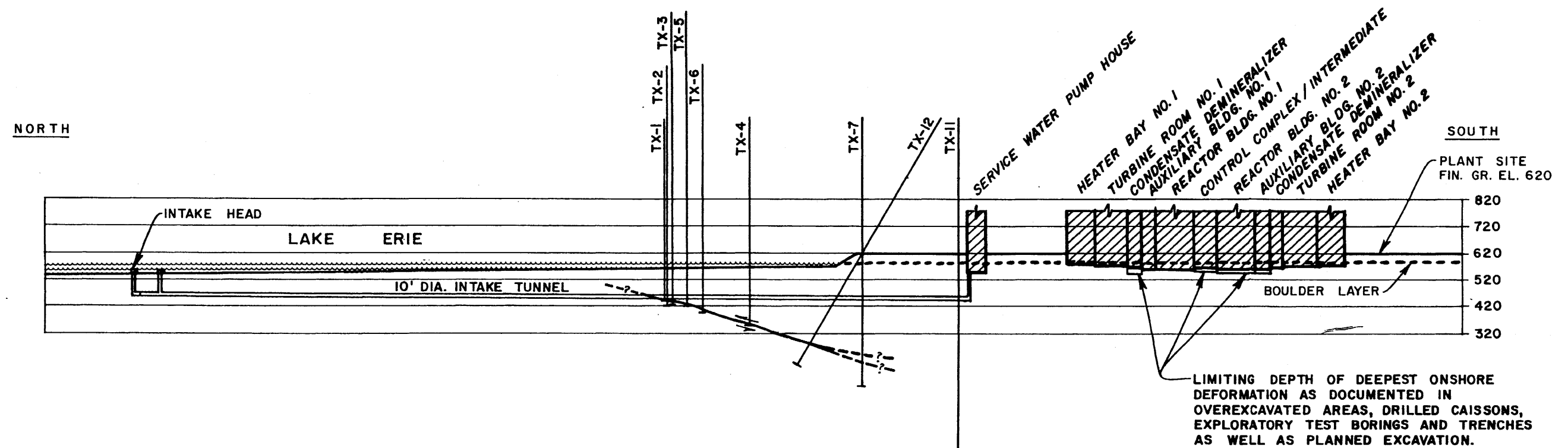
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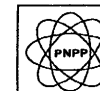
PERRY NUCLEAR POWER PLANT

Fault and Outcrop
Location Map

Figure 2D-9



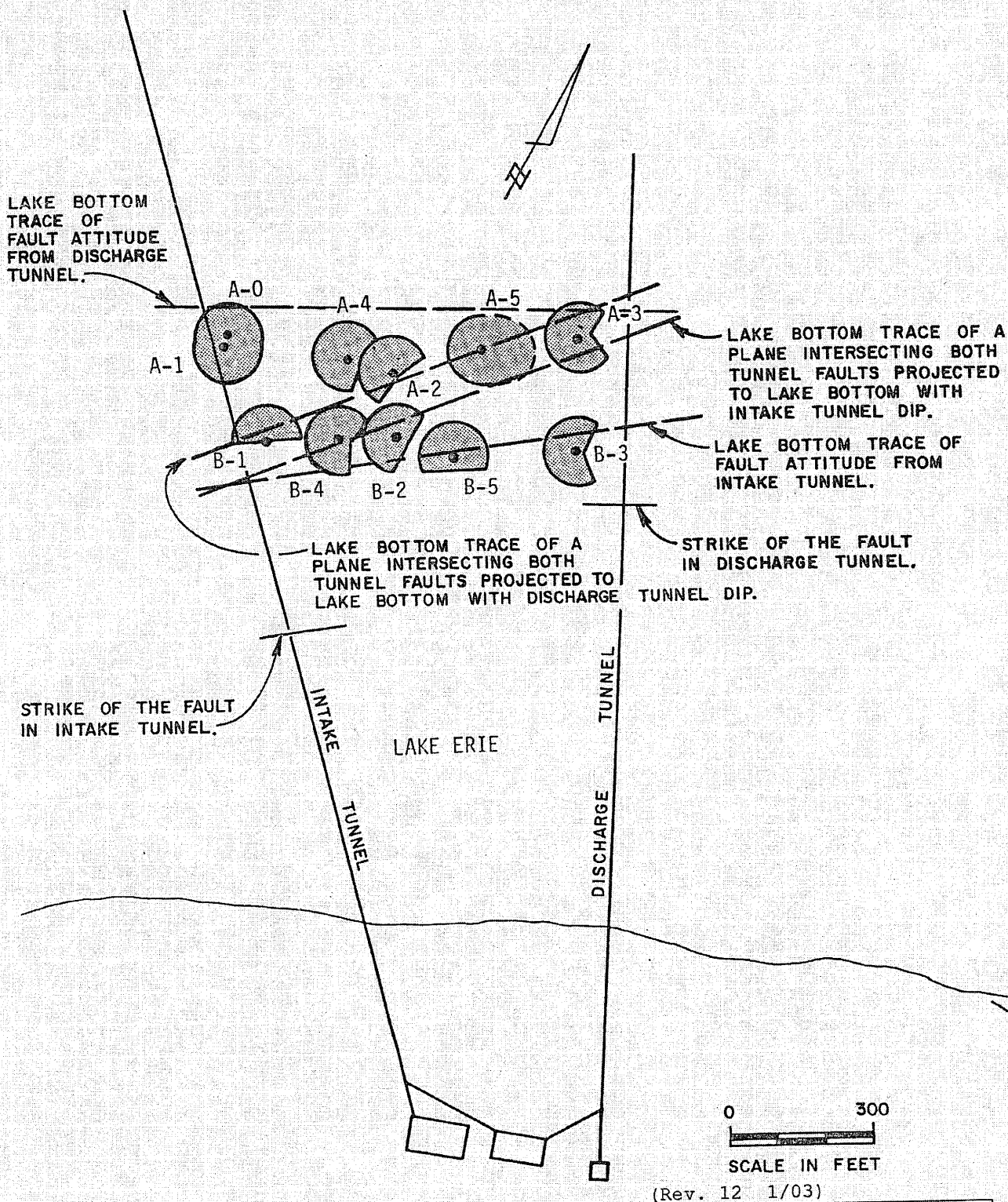
(Rev. 12 1/03)




PERRY NUCLEAR POWER PLANT

Schematic Northwest-Southeast
 Cross Section,
 Perry Nuclear Power Plant

Figure 2D-10



• = STATION LOCATION

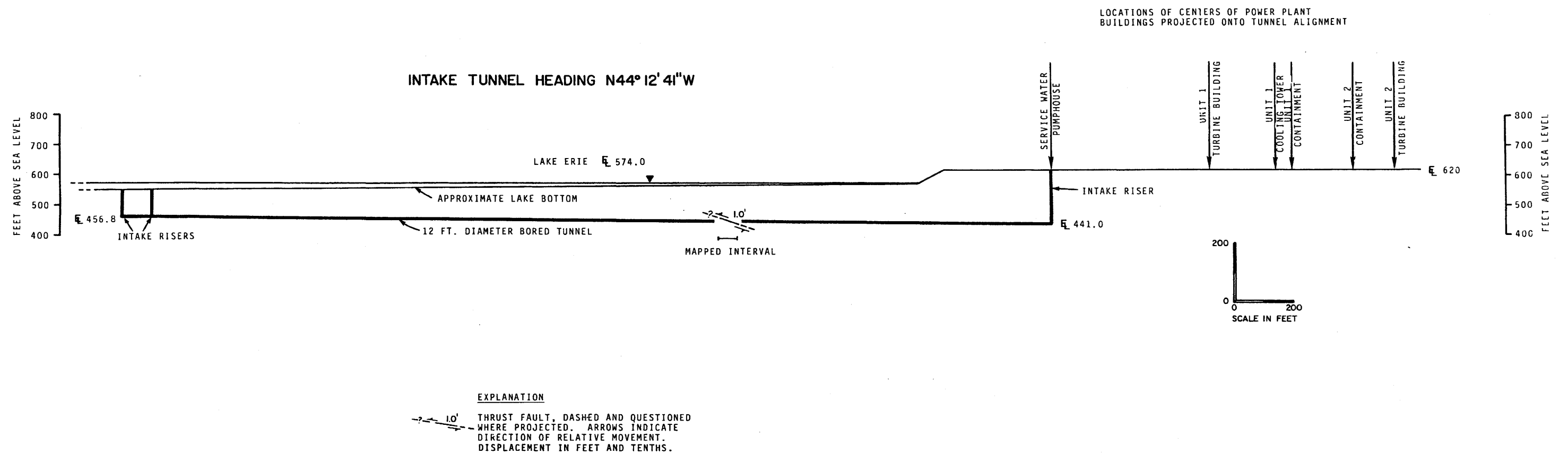
 = AREA OF COVERAGE ABOUT EACH STATION



PERRY NUCLEAR POWER PLANT

Location Map, Video
Survey Lake Erie Bottom

Figure 2D-13



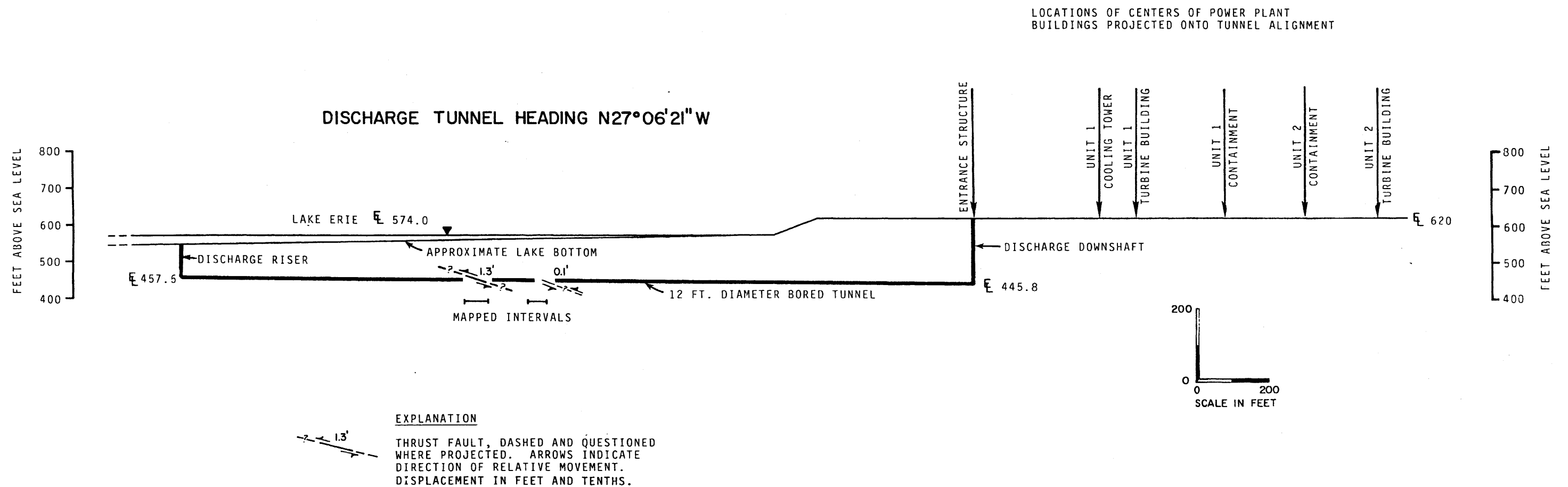
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Longitudinal Section,
Intake Tunnel

Figure 2D-14



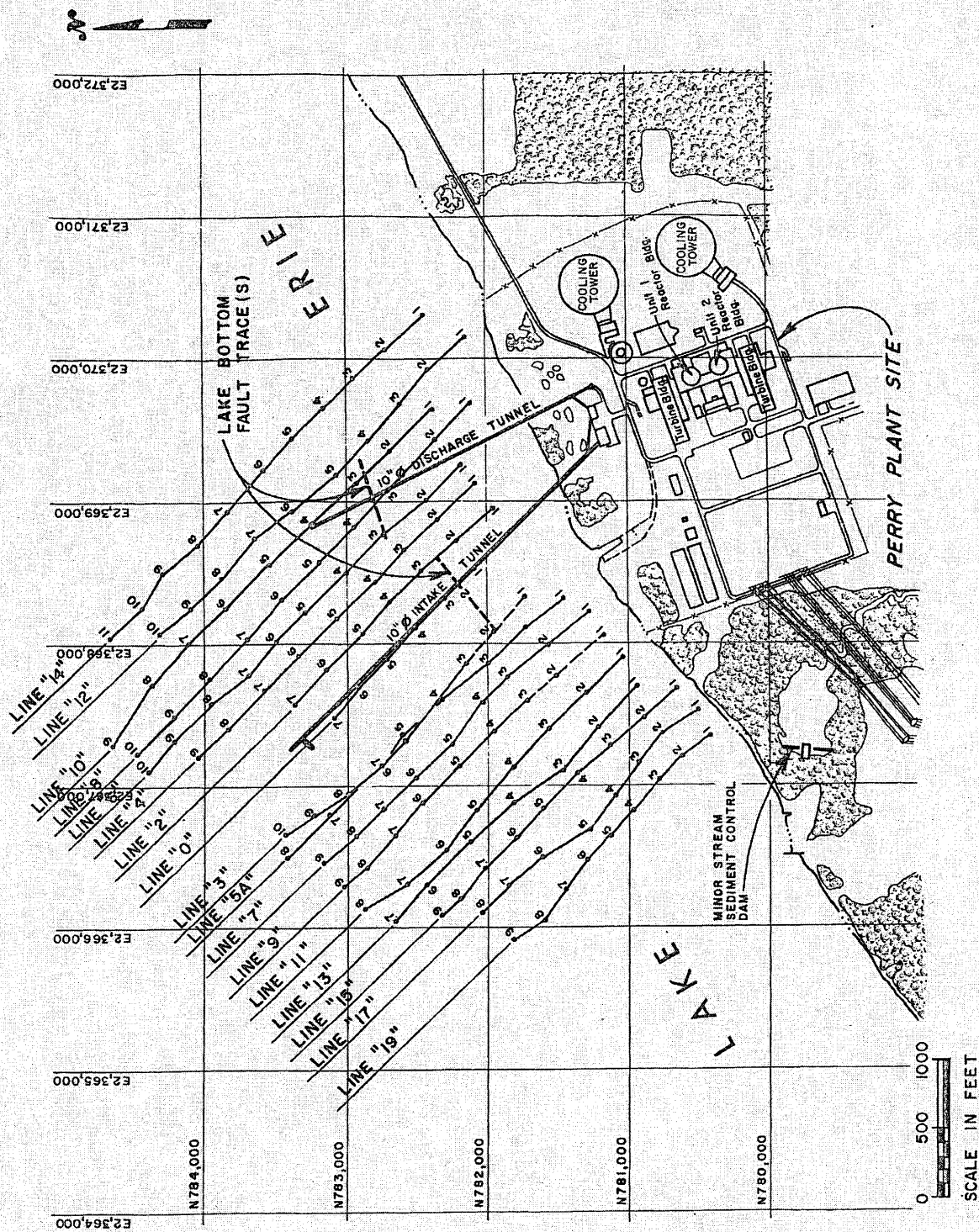
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Longitudinal Section,
Discharge Tunnel

Figure 2D-15



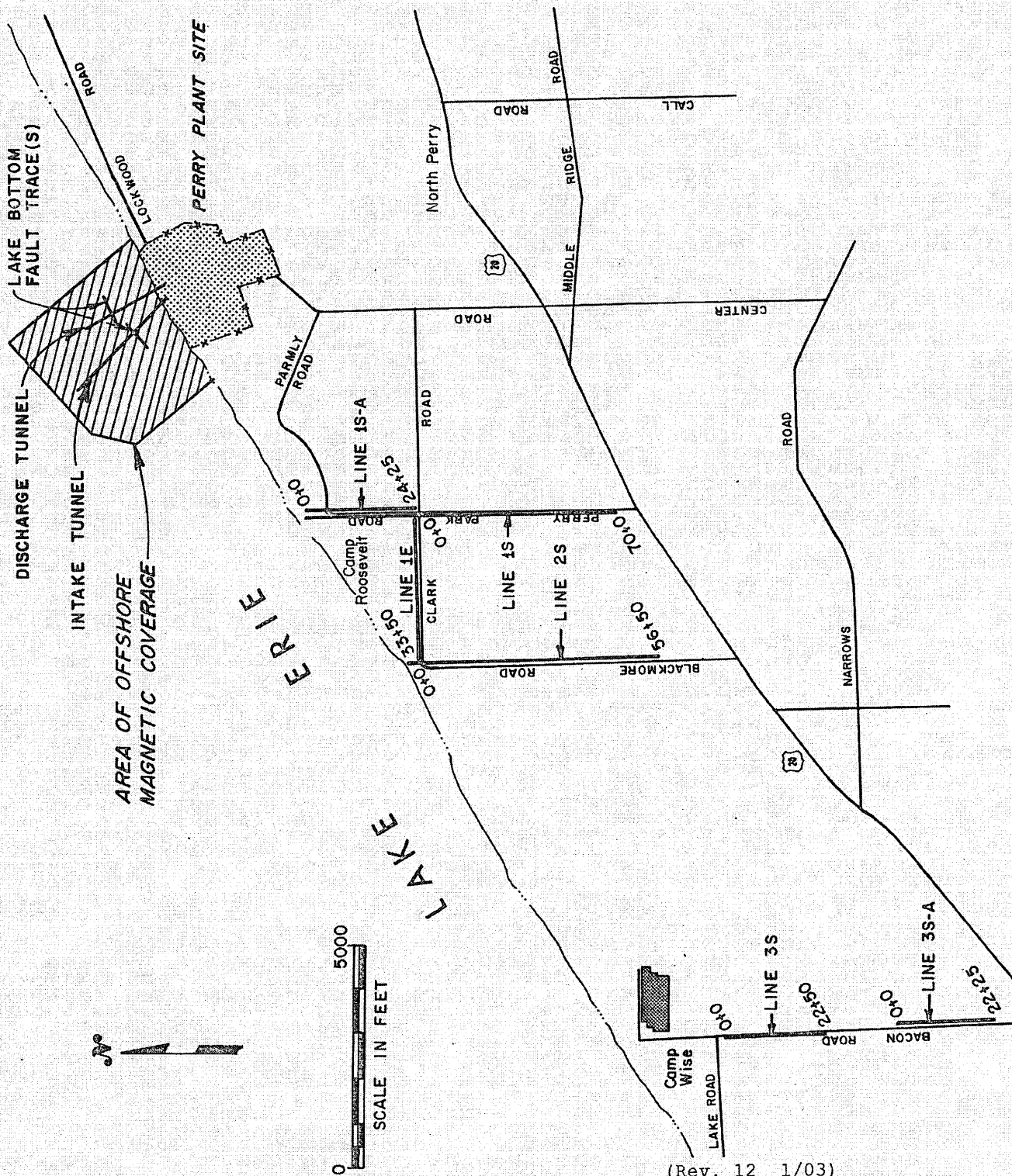
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Location Map,
Offshore Magnetic Survey

Figure 2D-16



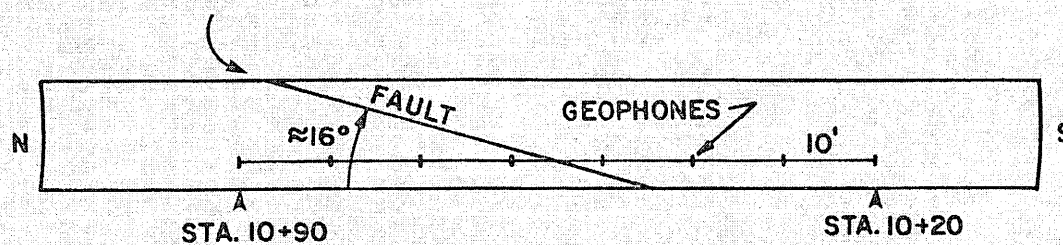
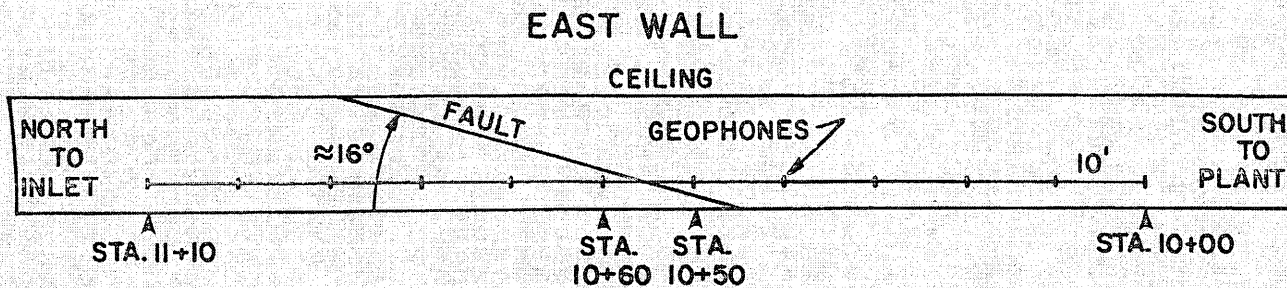
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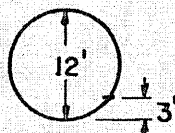
PERRY NUCLEAR POWER PLANT

Location Map,
Onshore Magnetic Survey

Figure 2D-17



3 ELEMENT GEOPHONE
AT EACH STATION



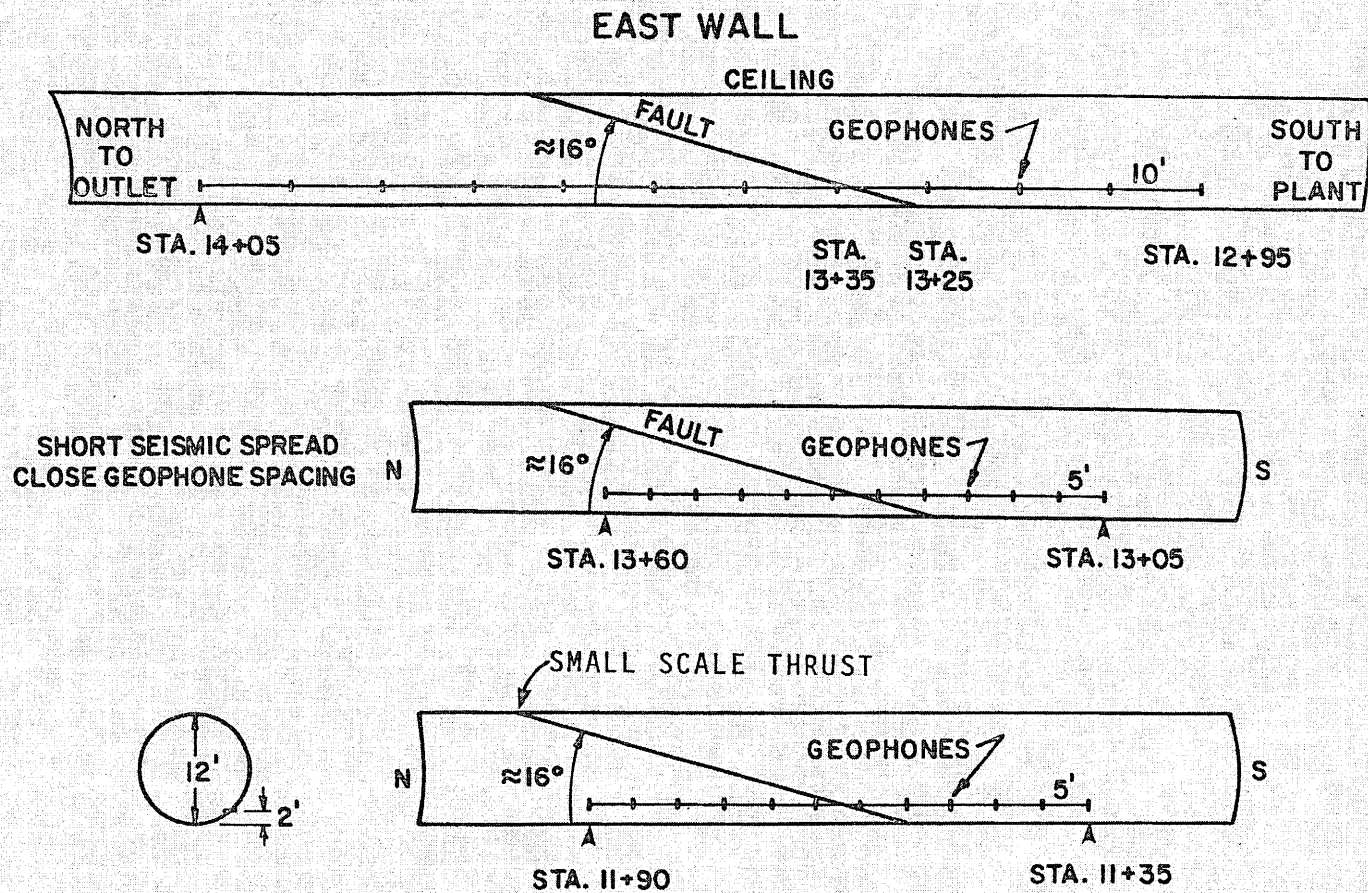
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Location Map,
Seismic Spreads, Intake Tunnel

Figure 2D-18



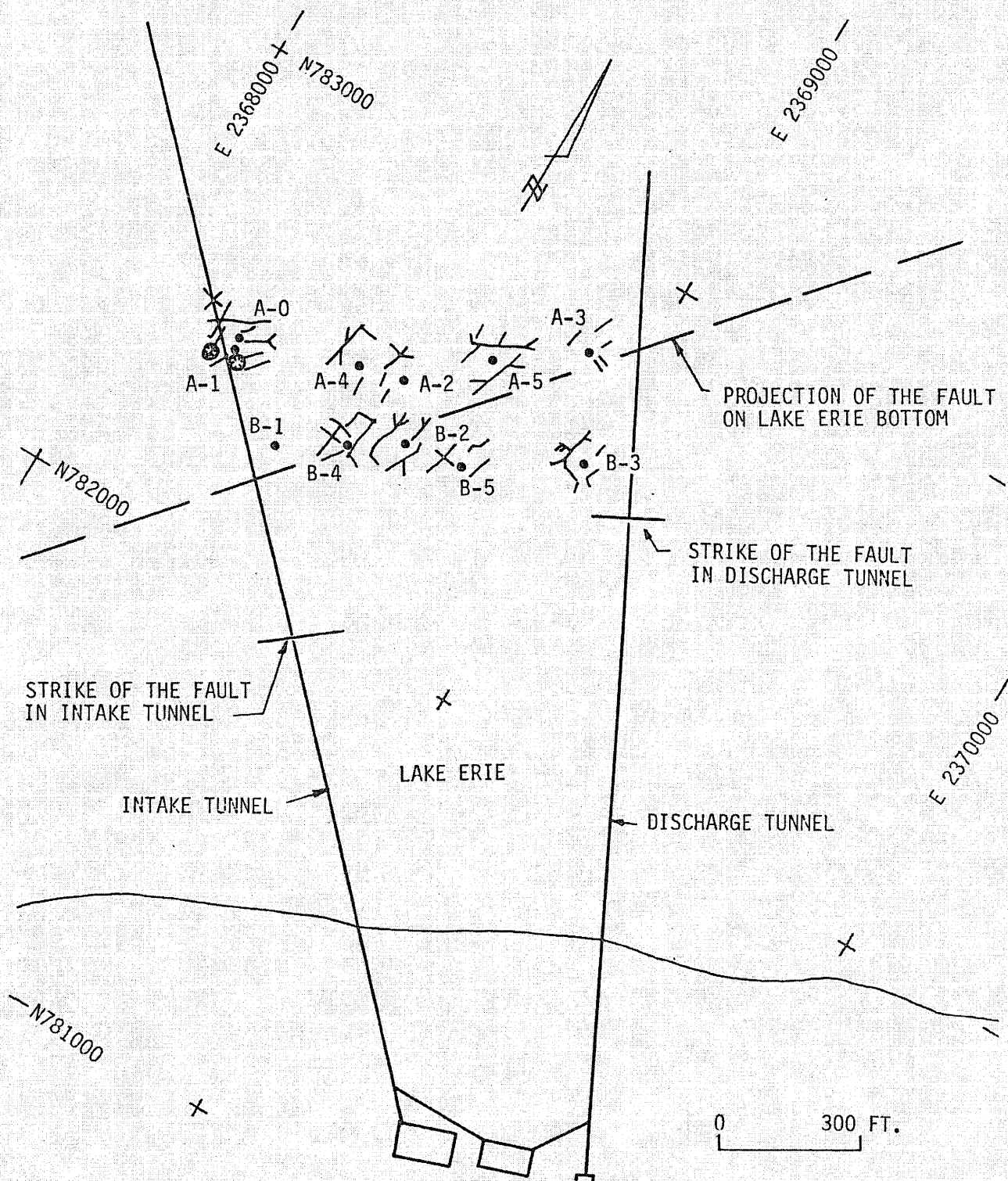
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Location Map,
Seismic Spreads, Discharge Tunnel

Figure 2D-19



• = STATION LOCATION

— = FRACTURE

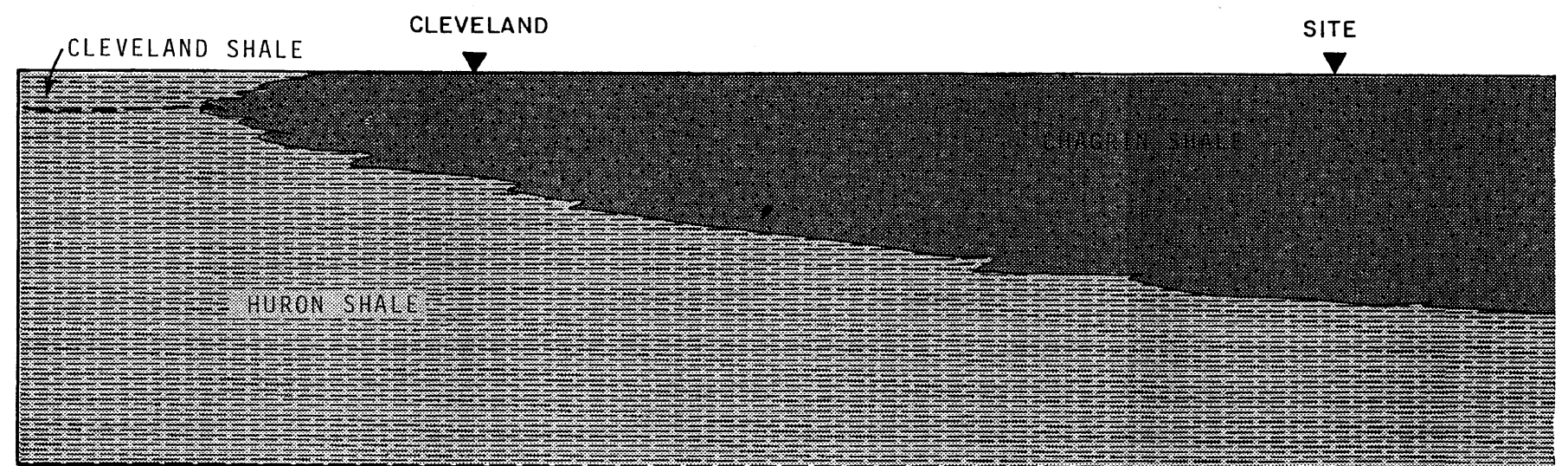
⊙ = SHALLOW DEPRESSION
IN BEDROCK SURFACE



PERRY NUCLEAR POWER PLANT

Schematic Map,
Lake Bottom Fractures

Figure 2D-20



NOTE: SECTION ORIENTED NORTHEASTERLY.

(Rev. 12 1/03)




PERRY NUCLEAR POWER PLANT

Sketch of Facies Relationships
Among the Huron, Chagrin,
& Cleveland Shales

Figure 2D-21

[illegible][illegible]

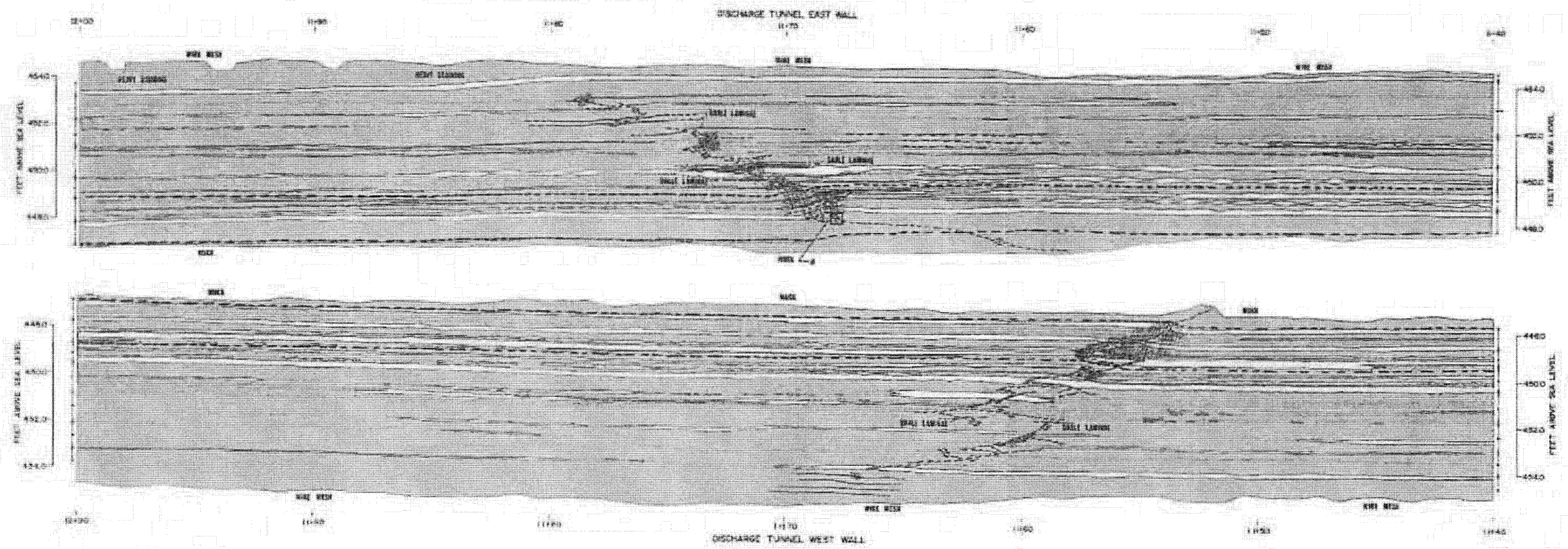
1. MAP TAKEN DIRECTLY FROM PHOTOGRAPHIC IMAGE
FIXING PLANS ARE WAPPED, NOT INDENTED
MULTIPLE SETS OR STRATIFICATION UNITS
2. LINES INDICATED BY STATIONING AND ELEVATION TICKS
VARIATION DUE TO PHOTOGRAPHIC DISTORTION



PERRY NUCLEAR POWER PLANT

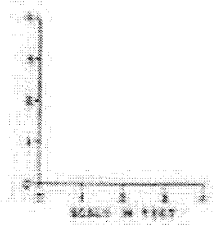
Detailed Map,
Intake Pinnal Fault

Figure 2D-22



EXPLANATION

- FAULT: SOUGE ZONE, GRAY, PLASTIC CLAY DOUGLE MATRIS WITH AGGREGATE OF RANDOMLY ORIENTED SILTSTONE AND SHALE FRAGMENTS.
- FAULT: SOUGE STRINGER <0.1 FT. THICK. ARROWS INDICATE DIRECTION OF RELATIVE MOVEMENT.
- JOINT/FRACTURE PATTERN.
- SILTSTONE.
- SILTSTONE LAMINAE, DASHED WHERE BEDDING PLANE CONTINUOUSLY MAPPED BUT SILTSTONE LITHOLOGY PINCHED OUT.
- SHALE.
- SHALE LAMINAE, AS LABELED.
- SILTSTONE CONCRETIONS.
- MICRO-CRACK SAMPLE LOCATION NUMBER GIVEN.



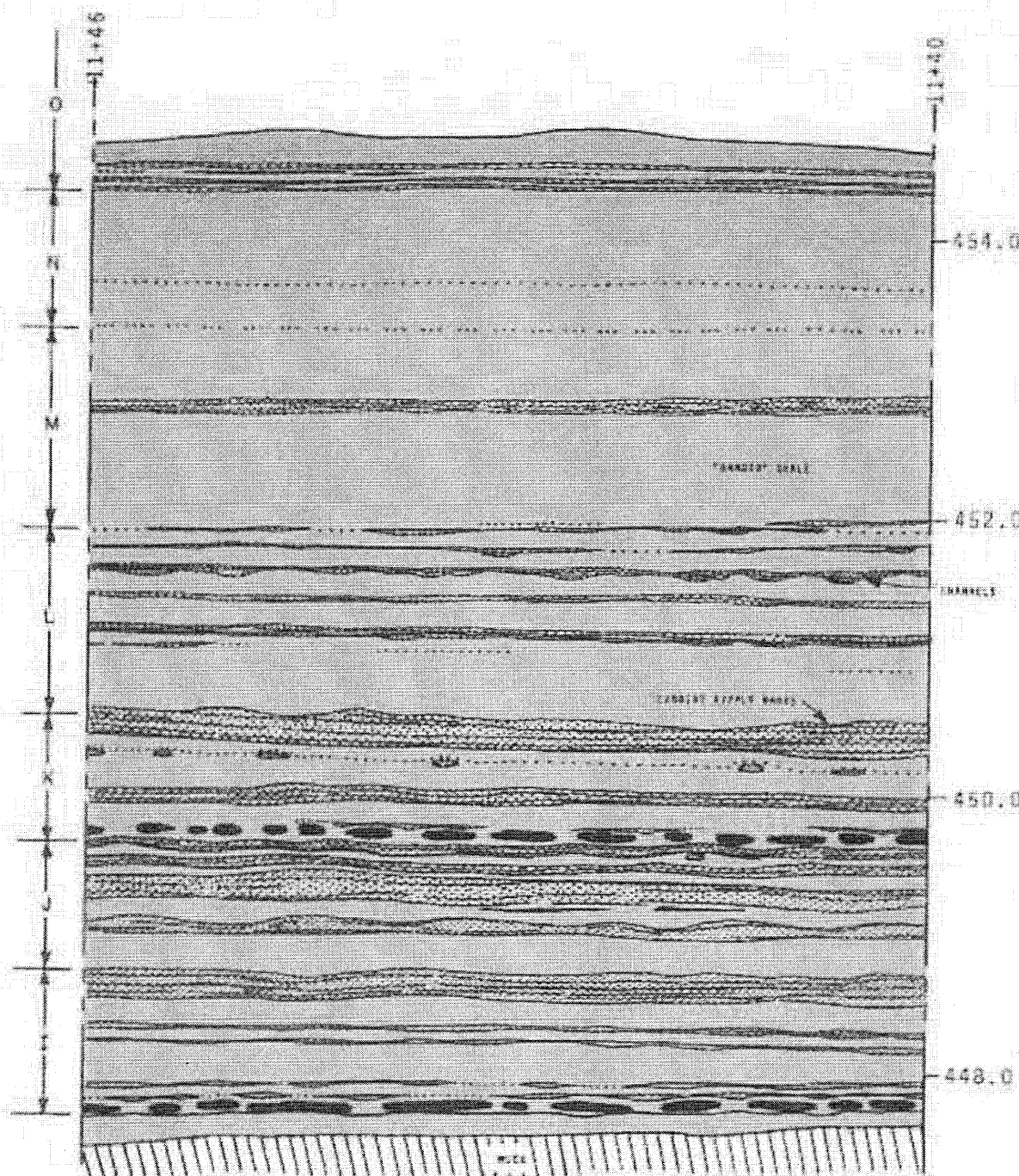
(Rev. 12 1/03)

PERRY NUCLEAR POWER PLANT

Detailed Stratigraphic Section,
Intake Tunnel East Wall Station
10-30-10:40

Figure 2D-24

DISCHARGE TUNNEL EAST WALL



- UNIT O: CLAY SHALE: DARK GRAY, WITH BLOCKY FRACTURE, LAMINATED BY REDDISH-BLACK (CARBONACEOUS) SILTSTONE. TOP OF UNIT IS 4 IN THICK ZONE OF INTERLAMINATED SILTSTONE AND SILTY SHALE. BASEL 8 IN IS GRAYISH-WHITE, INTERLAMINATED DARK-BLACK CLAY SHALE, LIGHT GRAY SILTSTONE, AND DISCONTINUOUS CLAY SHALE. SILTSTONE IN LOWER PART THICK AND SWELL, SINCE LACKS 2 TO 3 MM IN THICKNESS. UPPER PART SILTSTONE OF THIS BEDDING BECOMES MUCH THICKER DOWN TO SECTION 11+40.
- UNIT N: CLAY SHALE: DARK GRAY, WITH BLOCKY TO CONCHOIDAL FRACTURE, WITH DISCONTINUOUS MEDIAL SILTSTONE BEDS, ABOUT 1 CM THICK. DISCONTINUOUS PARALLEL LAMINAE, 1 TO 2 MM THICK, OF LIGHT GRAY SILTSTONE AND BROWNISH-GRAY (PERMANENTLY) CLAY SHALE WITH COMMON FINE MEDIAL SILTSTONE. SINGLE DISCONTINUOUS SILTSTONE LAMINAE NEAR BASE OF UNIT. UNIT N-JAY M FORMERLY IS A STANDING SURFACE AT THIS STATION; NORTHWARD FROM STATION 11+40, A PERMANENT SILTSTONE SEPARATES UNIT N AND M.
- UNIT M: CLAY SHALE AND SILTSTONE: DARK GRAY, MASSIVE, WITH BLOCKY TO CONCHOIDAL FRACTURE. MEDIAL ZONE OF SILTSTONE CONSISTS OF BROWNISH-WHITE LAMINAE, 1 TO 2 MM THICK, OF LIGHT GRAY SILTSTONE AND BROWNISH-GRAY SILTY SHALE, OVERLAIN BY A SINGLE DISCONTINUOUS (Lenticular) BED OF LIGHT GRAY SILTSTONE. (CARBONACEOUS) CLAY SHALE AS VERY THIN DISCONTINUOUS PARALLEL LAMINAE ABOVE MEDIAL SILTSTONE, AND AS PLANE CONTINUOUS PARALLEL LAMINAE IN LOWER PART OF UNIT. BASAL ONE HALF HAS "BANDER" ASPECT.
- UNIT L: CLAY SHALE AND SILTSTONE: LOWER ONE-HALF IS CLAY SHALE, DARK GRAY, WITH NUMEROUS DARK BROWNISH-GRAY, FINGERING (??), BROWNISH-WHITE LAMINAE, WITH "BANDER" ASPECT. BLOCKY FRACTURE. UPPER ONE-HALF IS GRAY CLAY SHALE WITH SEVERAL BROADLY WAVE SILTSTONE BEDS UP TO 2 CM IN THICKNESS. UPPER PART DISCONTINUOUS. LOWER BEDS CONTINUOUS. SMALL CHANNELS PRESENT AS SHOWN.
- UNIT K: CLAY SHALE, SILTSTONE, AND IRONSTONE: DARK GRAY, SLIGHTLY SILTY CLAY SHALE WITH CONCHOIDAL FRACTURE, WITH NUMEROUS BROADLY WAVE THIN LAMINAE OF BROWNISH-WHITE FINGERING (??) CLAY SHALE. SPREADING 2 CM IS GRAY MEDIAL ZONE OF FLAKEY, THINLY INTERLAMINATED SILTSTONE AND ONLY SILTSTONE WITH PARALLEL OF DARK GRAY SHALE. SOUTHWARD THE TOP OF THIS SILTSTONE IS RIPPLE MARKED. MEDIAL SILTSTONE, UP TO 2 CM THICK, HAS STRAIGHT-TOOTHED CURRENT RIPPLES AT TOP. BASE OF UNIT CONTAINS BED OF CLUSTER SHALED IRONSTONE CONCRETIONS ABOUT 1.5 CM THICK.
- UNIT J: CLAY SHALE AND SILTSTONE: DARK GRAY CLAY SHALE, WITH NUMEROUS THIN LAMINAE, 1 TO 2 MM THICK, OF DARK BROWNISH-GRAY FINGERING (??) CLAY SHALE. UPPER PART 10 CM IS WAVE BEDDED ZONE OF FLAKEY, THINLY INTERLAMINATED LIGHT-GRAY SILTSTONE AND DARK, DARK-GRAY SHALE. THIN LAMINAE OF CLAY SHALE OF DARK SILTSTONE LAMINAE. MICRO-BURROWS. SECTION LOCALLY NO TOPS ON SILTSTONE LAMINAE. CONTINUED.
- UNIT I: CLAY SHALE, SILTSTONE, AND IRONSTONE: SAME TENDENCY AS UNIT K, EXCEPT AS INDICATED GRAPHICALLY.
- NOTE: UNITS J AND K WERE RECORDED AND DESCRIBED BY STATION 11+40, UNITS L THROUGH V WERE MEASURED AND DESCRIBED AT STATION 11+46.

EXPLANATION

- SILTSTONE.
- SILTSTONE LAMINA, DASHED WHERE BEDDING PLANE CONTINUOUSLY MAPPED BUT SILTSTONE LITHOLOGY PINCHED OUT.
- SHALE.
- IRONSTONE CONCRETIONS.

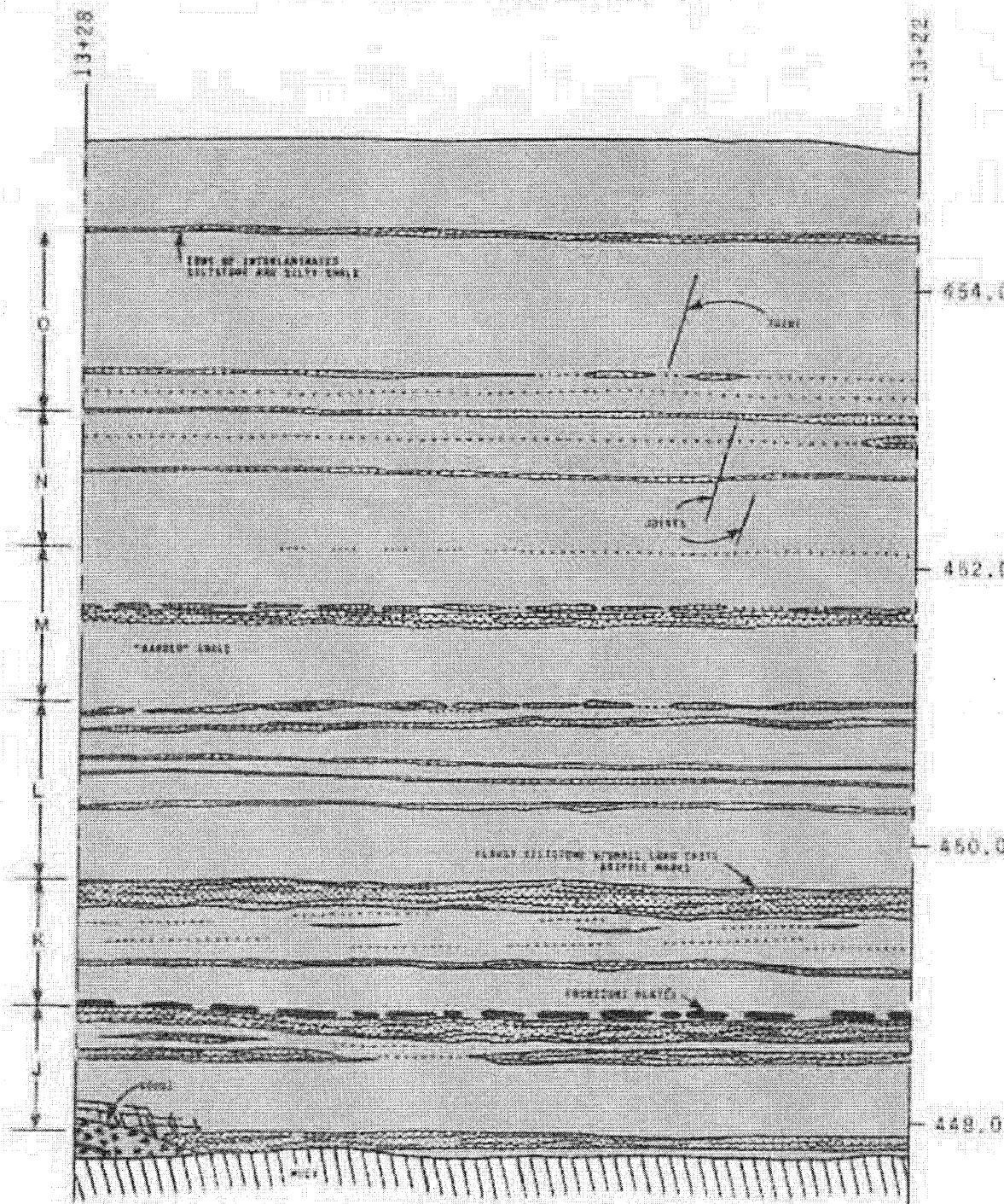
(Rev. 12 1/03)

PERRY NUCLEAR POWER PLANT

Detailed Stratigraphic Section,
Discharge Tunnel
East Wall Station 11+40-11+46

Figure 2D-25

DISCHARGE TUNNEL EAST WALL



- UNIT D: CLAY SHALE. DARK GRAY, WITH SLIGHT FRACTURE, WITH SEVERAL PLACED PARALLEL LAMINAE OF BROWNISH-BLACK SILTSTONE. CLAY SHALE TOP OF UNIT IS 8 CM THICK ZONE OF INTERLAMINATED SILTSTONE AND SILTY SHALE. BASAL 8 CM IS BROWNISH-BLACK, UNLAMINATED BROWNISH-BLACK SILTY SHALE, LIGHT-GRAY SILTSTONE, AND SUBORDINATE GRAY CLAY SHALE. FINESTONES IN LOWER PART BROWN AND DARK, RANGES FROM 2 TO 8 MM IN THICKNESS. UPPER MOST SILTSTONE AT THIS SECTION IS MORE THICKER NORTH OF STATION 13+22.
- UNIT E: CLAY SHALE. DARK GRAY, WITH SLIGHT TO CONSIDERABLE FRACTURE, WITH ONE PROMINENT MEDIAL SILTSTONE ZONE, ABOUT 2 CM THICK DISCONTINUOUS PARALLEL LAMINAE 1 TO 5 MM THICK, OF BROWNISH-BLACK SILTSTONE AND BROWNISH-BLACK (FLOCCULOUS?) CLAY SHALE. VERY COMMON ABOVE MEDIAL SILTSTONE, SINGLE DISCONTINUOUS SILTSTONE LAMINAE NEAR BASE OF UNIT. UNIT E-NORTH OF M. MURPHY IS A RIDING SURFACE AT THIS STATION, NORTHWARD FROM STATION 13+25, A PROMINENT SILTSTONE SEPARATES UNITS E AND M.
- UNIT F: CLAY SHALE AND SILTSTONE. DARK GRAY, WAGY, WITH SLIGHT TO CONSIDERABLE FRACTURE. MEDIAL ZONE OF SILTSTONE CONSISTS OF BROWNISH-BLACK INTERLAMINATIONS OF LIGHT-GRAY SILTSTONE AND BROWNISH-GRAY SILTY SHALE, OVERLAIN BY A SINGLE DISCONTINUOUS (Lenticular) BED OF LIGHT-GRAY SILTSTONE. FLOCCULOUS(?) CLAY SHALE AS VERY THIN DISCONTINUOUS PARALLEL LAMINAE ABOVE MEDIAL SILTSTONE, AND AS PLAIN CONTINUOUS PARALLEL LAMINAE IN LOWER PART OF UNIT. BASAL ONE-HALF HAS "BANDS" ASPECT.
- UNIT G: CLAY SHALE AND SILTSTONE. LOWER ONE-HALF IS CLAY SHALE, DARK GRAY, WITH NUMEROUS DARK BROWNISH-GRAY, FLOCCULOUS(?) BROWNISH-BLACK LAMINAE, WITH "BANDS" ASPECT, SLIGHT FRACTURE. UPPER ONE-HALF IS GRAY CLAY SHALE WITH SEVERAL BROWNISH-BLACK SILTSTONE BEDS UP TO 1 CM IN THICKNESS. UPPER BEDS DISCONTINUOUS, LOWER BEDS CONTINUOUS, SMALL CHANNELS OCCUR AT TOP.
- UNIT H: CLAY SHALE, SILTSTONE, AND IRONSTONE. BROWNISH-GRAY, TO BROWNISH-SILTY CLAY SHALE WITH CONSIDERABLE FRACTURE, WITH NUMEROUS UNCLAYED WAGY THIN LAMINAE OF BROWNISH-BLACK FLOCCULOUS(?) CLAY SHALE. UPPERMOST 6 CM IS WAGY MEDIAL ZONE OF FLACID, SMALLLY INTERLAMINATED SILTSTONE AND SHALE SILTSTONE WITH PATTERNS OF DARK GRAY SHALE, DOWNWARD. THE TOP 6 CM THIS SILTSTONE IS SLIGHTLY MARKED MEDIAL SILTSTONE, UP TO 2 CM THICK, HAS DIRECTION-CHANGING (WAGY) RUPPLES AT TOP. BASE OF UNIT CONSISTS OF 20 CM OF SILTY SPACED IRONSTONE CONCRETIONS ABOUT 2.5 CM THICK.
- UNIT I: CLAY SHALE AND SILTSTONE. DARK GRAY CLAY SHALE, WITH NUMEROUS THIN LAMINAE, 1 TO 2 MM THICK, OF DARK BROWNISH-GRAY FLOCCULOUS(?) CLAY SHALE. UPPERMOST 15 CM IS WAGY FLOCCULOUS(?) CLAY SHALE, THINLY INTERLAMINATED LIGHT-GRAY SILTSTONE AND SILTY, DARK GRAY SHALE, DARK LENS LENS COVER SIZES OF WAGY SILTSTONE LAMINAE, WITH-SPACED, OCCUR LOCALLY ON TOP OF SILTSTONE LAMINAE. SOUTHWARD UNIT I CONTAINS A MEDIAL IRONSTONE AND SHALLING BED OF SILTSTONE.
- UNIT J: CLAY SHALE, SILTSTONE, AND IRONSTONE. DARK GRAY, WITH NUMEROUS THIN LAMINAE, 1 TO 2 MM THICK, OF DARK BROWNISH-GRAY FLOCCULOUS(?) CLAY SHALE. UPPERMOST 15 CM IS WAGY FLOCCULOUS(?) CLAY SHALE, THINLY INTERLAMINATED LIGHT-GRAY SILTSTONE AND SILTY, DARK GRAY SHALE, DARK LENS LENS COVER SIZES OF WAGY SILTSTONE LAMINAE, WITH-SPACED, OCCUR LOCALLY ON TOP OF SILTSTONE LAMINAE. SOUTHWARD UNIT J CONTAINS A MEDIAL IRONSTONE AND SHALLING BED OF SILTSTONE.
- NOTE: UNITS I AND J WERE MEASURED AND DESCRIBED AT STATION 13+40; UNITS K THROUGH O WERE MEASURED AND DESCRIBED AT STATION 13+22.

EXPLANATION

- FAULT GOUGE ZONE. GRAY, PLASTIC CLAY GOUGE MATRIX WITH AGGREGATE OF RANDOMLY ORIENTED SILTSTONE AND SHALE FRAGMENTS.
- SILTSTONE.
- SILTSTONE LAMINA, DASHED WHERE BEDDING PLANE CONTINUOUSLY MAPPED BUT SILTSTONE LITHOLOGY PINCHED OUT.
- SHALE.
- IRONSTONE CONCRETIONS.

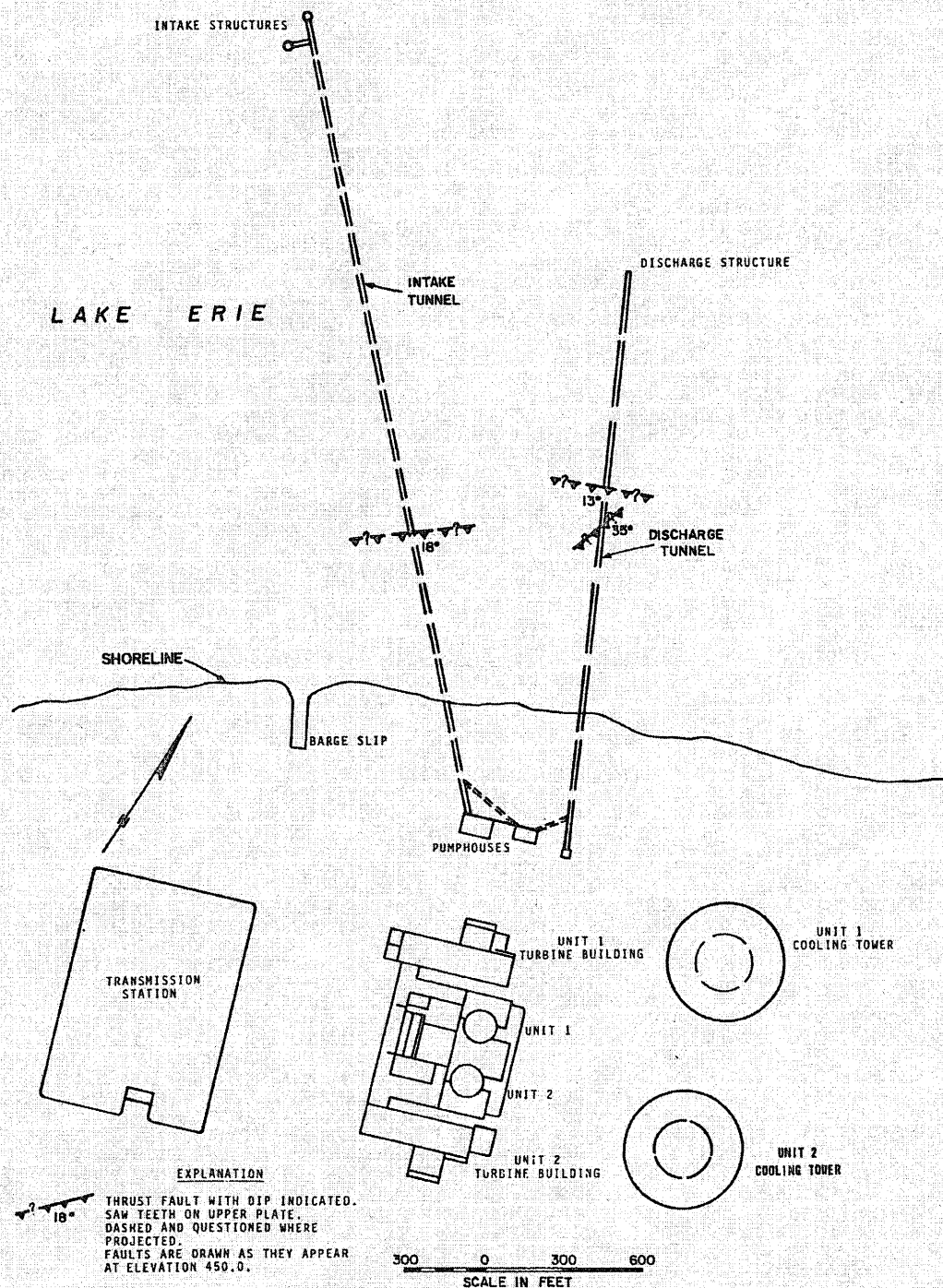
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PERRY NUCLEAR POWER PLANT

Detailed Stratigraphic Section,
Discharge Tunnel East Wall
Station 13+22-13+28

Figure 20-26



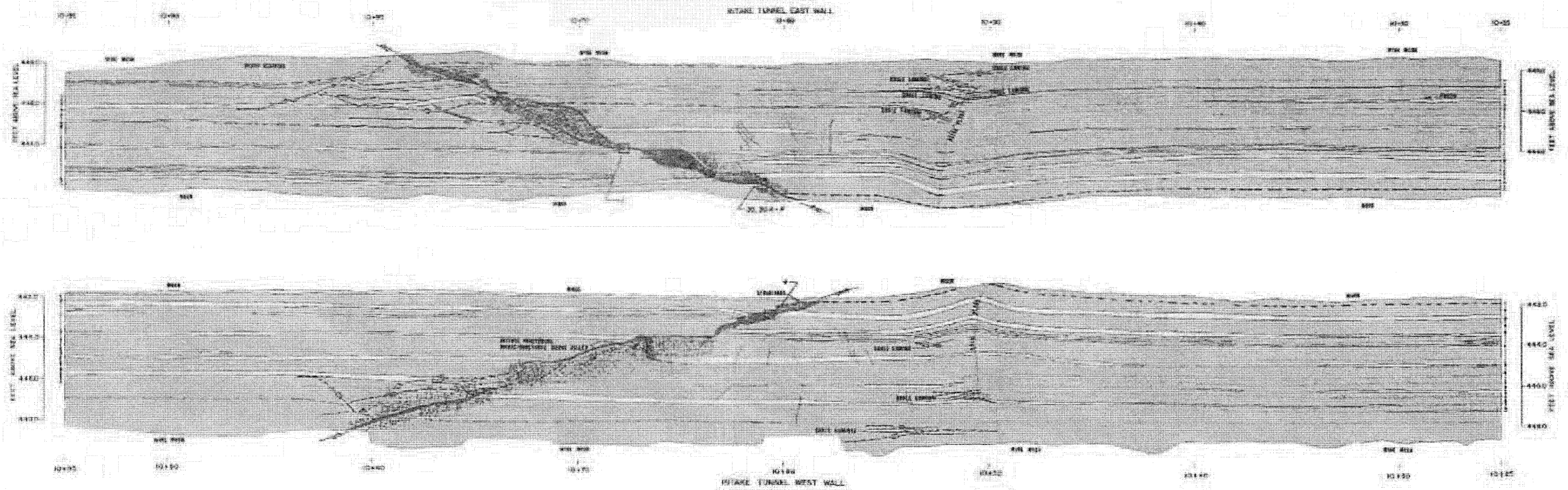
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

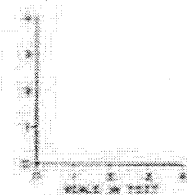
Geologic Structure Map,
Intake & Discharge Tunnel Faults

Figure 2D-27

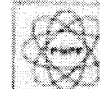


● 定價：全編五套，每套 60 元

- SAND SOURCE ZONE. GRAY PLASTIC CLAY
SOURCE WATER WITH AGGREGATE OF
RANDOMLY ORIENTED ELONGATE
AND THICK FRAGMENTS
- FAULT SOURCE STRIKES 400 FT. THICK.
ARROWS INDICATE DIRECTION OF RELATIVE
MOVEMENT.
- JOINT / FRACTURE PATTERNS.
- SILTSTONES.
- SILTSTONE LAMINAE, BAKED WHERE BEDDING
PLANE CONTINUOUSLY MAPPED BUT SILTSTONE
LITHOLOGY FINISHED OUT.
- SHALE.
- SHALE LAMINAE, AS LABELED.
- IRONSTONE CONCRETIONS.
- ☐ MICRO-CRACK SAMPLE LOCATION. NUMBER GIVEN



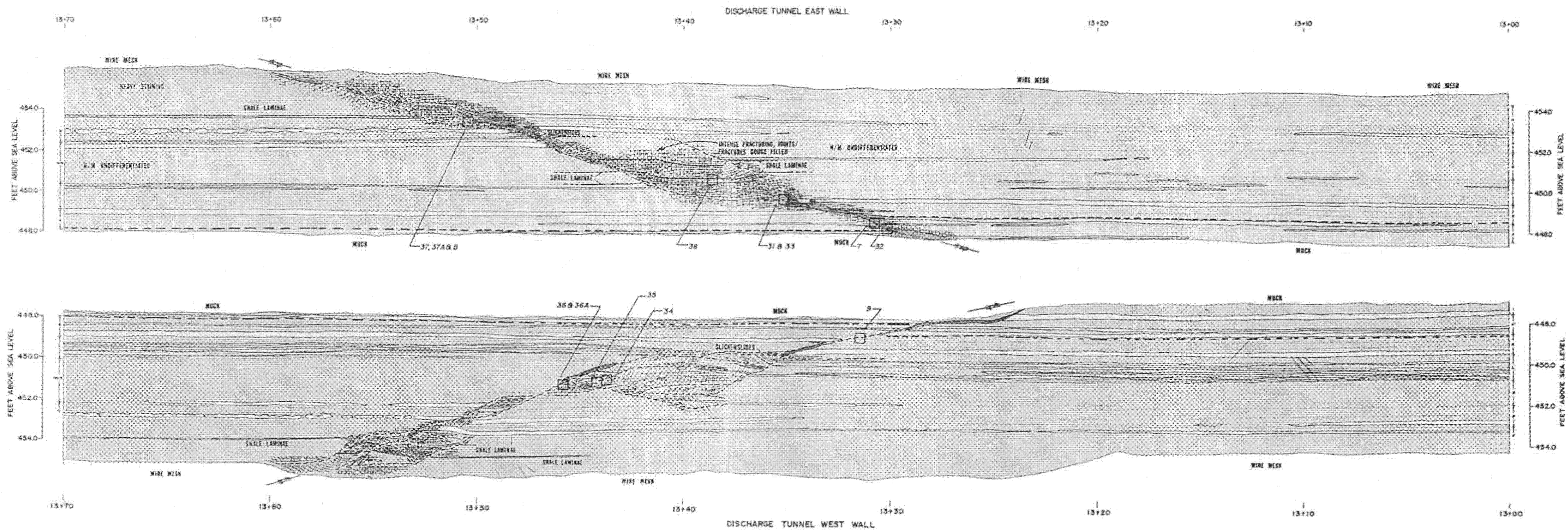
(Rev. 12-1-03)



PERRY NUCLEAR POWER PLANT

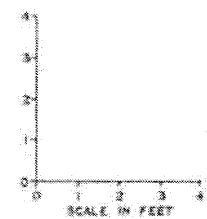
Intake Tunnel Wall Maps,
Stations 10-23-10-25

Figure 2D-28

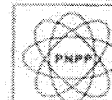


EXPLANATION

- FAULT GOUGE ZONE. GRAY, PLASTIC CLAY GOUGE MATRIX WITH AGGREGATE OF RANDOMLY ORIENTED SILTSTONE AND SHALE FRAGMENTS.
- FAULT GOUGE STRINGER <0.1 FT. THICK. ARROWS INDICATE DIRECTION OF RELATIVE MOVEMENT.
- JOINT/FRACTURE PATTERN.
- SILTSTONE.
- SILTSTONE LAMINA, DASHED WHERE BEDDING PLANE CONTINUOUSLY MAPPED BUT SILTSTONE LITHOLOGY PINCHED OUT.
- SHALE.
- SHALE LAMINA, AS LABELED.
- IRONSTONE CONCRETIONS.
- MICRO-CRACK SAMPLE LOCATION NUMBER GIVEN.



(Rev. 12 1/03)

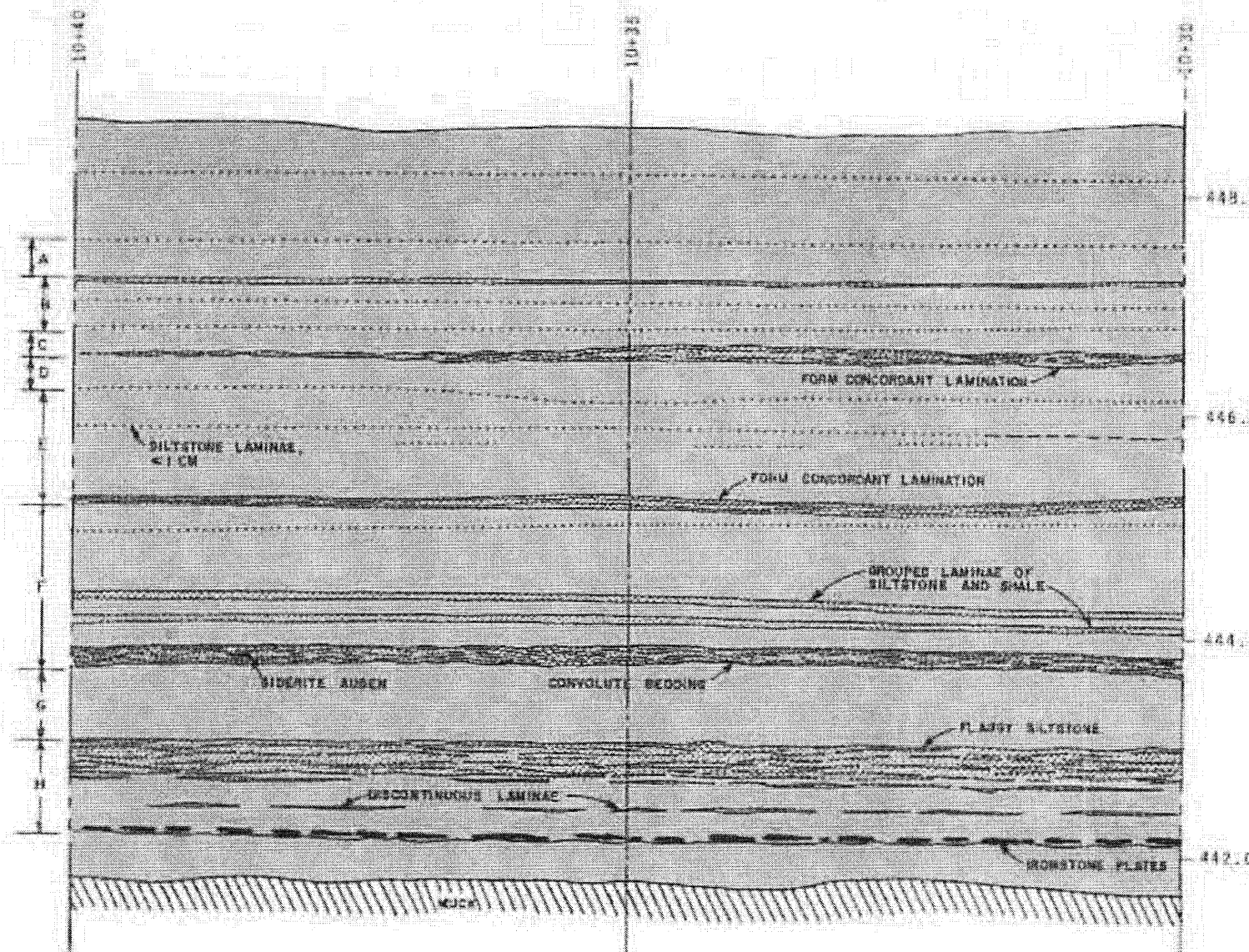


PERRY NUCLEAR POWER PLANT

Discharge Tunnel Wall Maps,
Stations 13+100-12+00

Figure 2D-29

INTAKE TUNNEL EAST WALL



EXPLANATION

SILTSTONE.

SILTSTONE LAMINA, DASHED WHERE BEDDING PLANE CONTINUOUSLY MAPPED BUT SILTSTONE LITHOLOGY PINCHED OUT.

SHALE.

IRONSTONE CONCRETIONS.

- UNIT A: SILT SHALE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT A IS PINCHED OUT BY UNIT B.
- UNIT B: SILT SHALE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT B IS PINCHED OUT BY UNIT C.
- UNIT C: SILT SHALE AND SILTSTONE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT C IS PINCHED OUT BY UNIT D.
- UNIT D: SILT SHALE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT D IS PINCHED OUT BY UNIT E.
- UNIT E: SILT SHALE AND SILTSTONE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT E IS PINCHED OUT BY UNIT F.
- UNIT F: SILT SHALE AND SILTSTONE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT F IS PINCHED OUT BY UNIT G.
- UNIT G: SILT SHALE AND SILTSTONE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT G IS PINCHED OUT BY UNIT H.
- UNIT H: SILT SHALE AND SILTSTONE: DARK GRAY, WITH MEDIUM TO COARSE GRAINED, WITH CLUSTERS OF SMALLER GRAINED SILTSTONE. BASE OF UNIT H IS PINCHED OUT BY UNIT I.

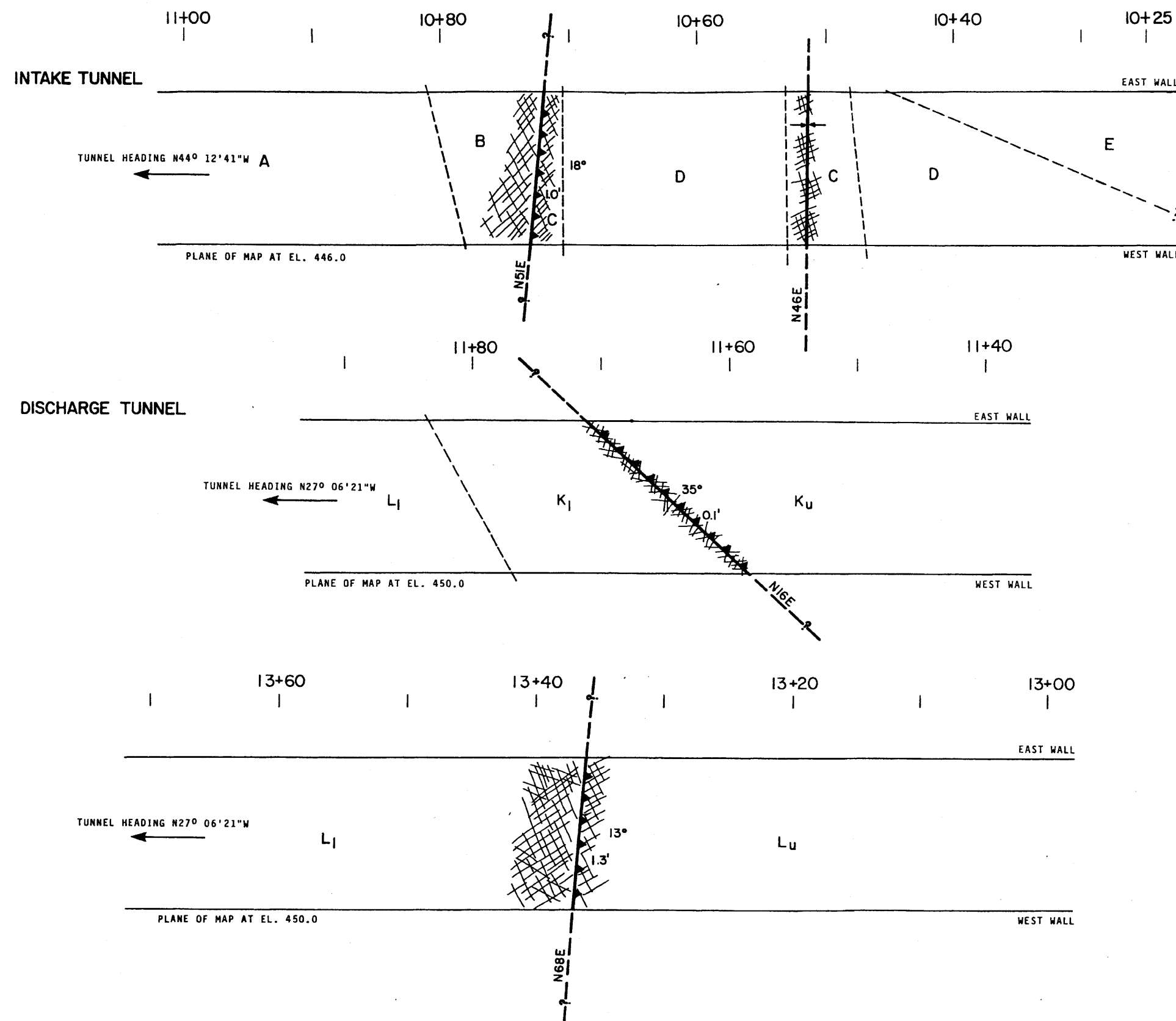
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Discharge Tunnel Wall Maps,
Station 11+40-12+00

Figure 2D-30



EXPLANATION

STRATIGRAPHIC UNITS: A, B, C, D, E, K, L. UNITS K AND L ARE SUBDIVIDED INTO UPPER AND LOWER SECTIONS AS INDICATED BY SUBSCRIPTS.

A THRUST FAULT SHOWING DISPLACEMENT AND DIP

STRATIGRAPHIC UNIT CONTACT.

SEVERELY FRACTURED ROCK.

SYNCLINAL FOLD AXIS.

NOTES: 1. SEE FIGURES 22, 23, AND 24 FOR STRATIGRAPHIC UNIT RELATIONSHIPS.

2. MAPS COMPILED FROM INTAKE AND DISCHARGE TUNNEL WALL MAPS, SEE FIGURES 26, 27, AND 28.

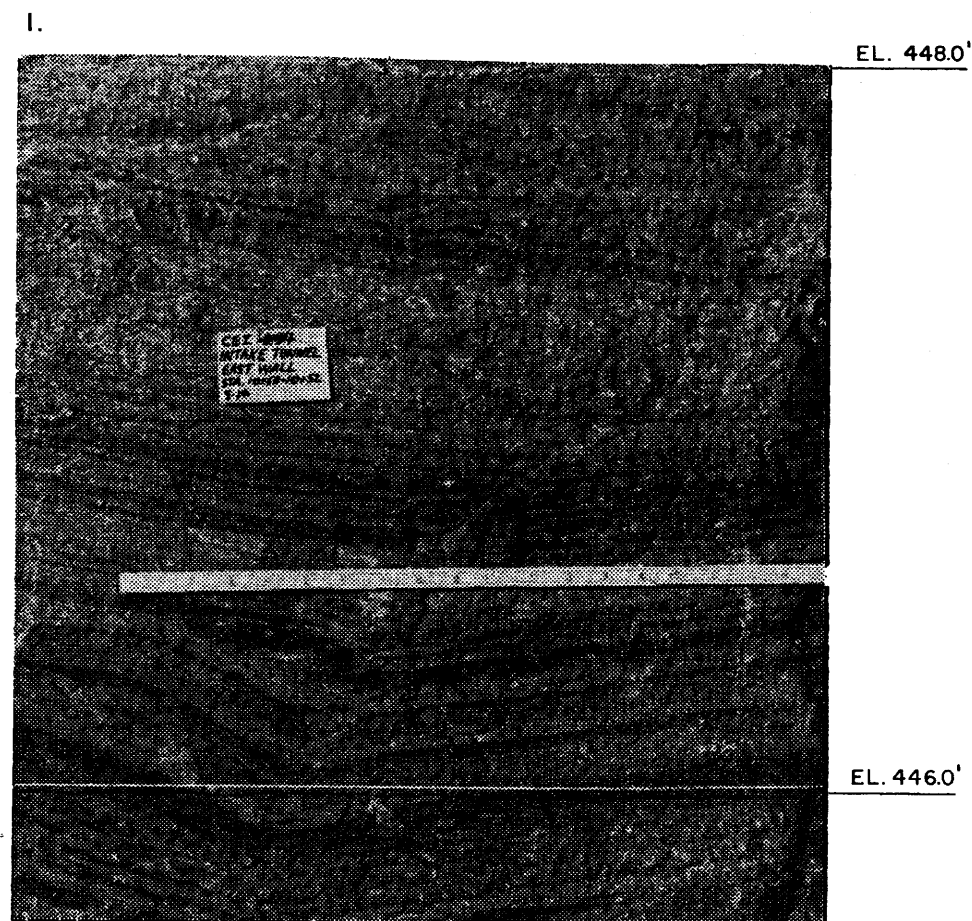
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

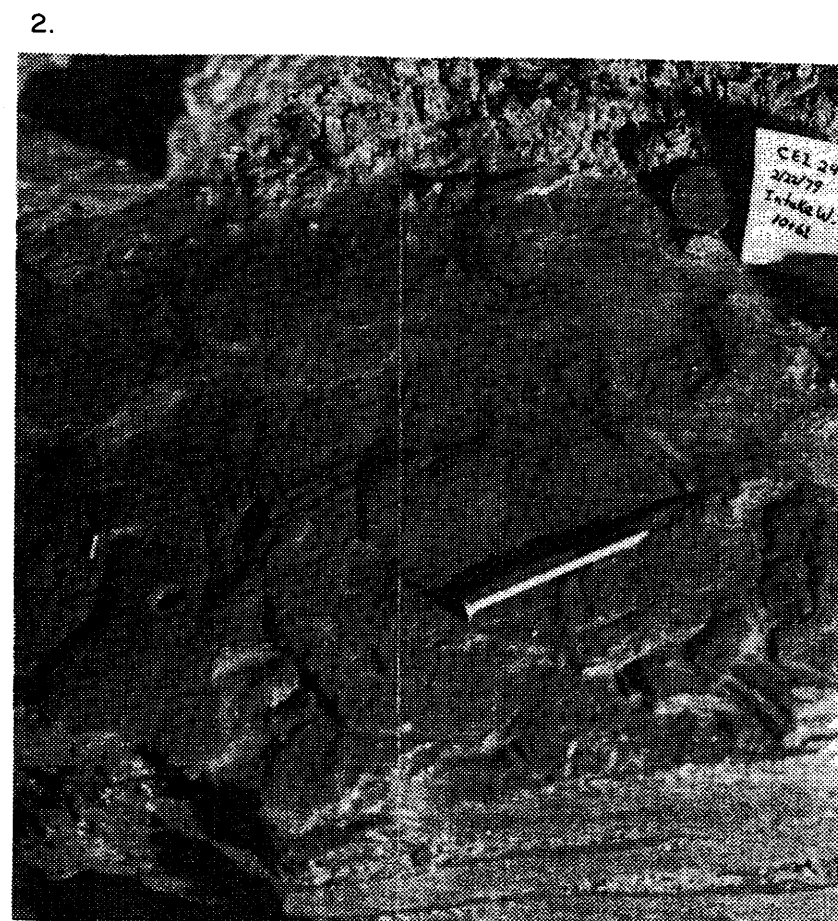
Geologic Maps,
Intake & Discharge Tunnels

Figure 2D-31



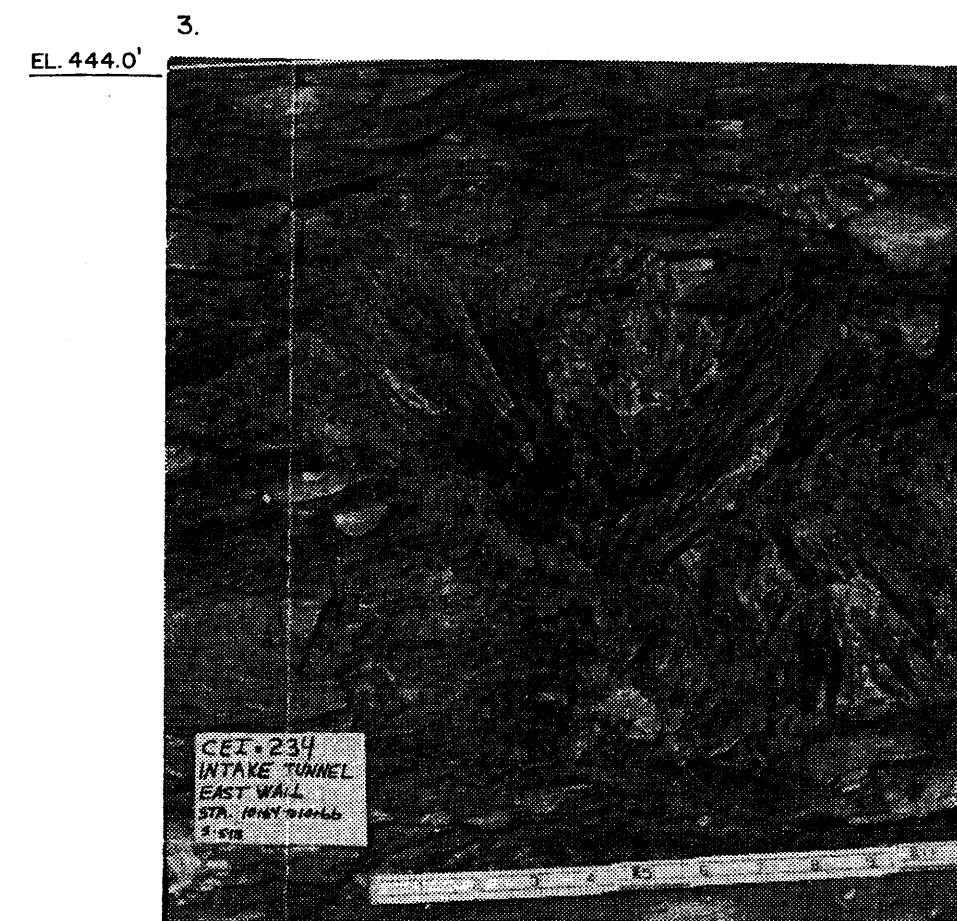
↑
10+51

ASYMMETRIC FOLD; STATION 10+51, EAST WALL INTAKE TUNNEL. NOTE FAULTED NW LIMB OF FOLD.



↑
10+61

STRIATIONS; WEST WALL INTAKE TUNNEL, STATION 10+61. STRIATIONS ON FOOTWALL, TREND N 37° W PARALLEL TO NAIL.



↑
10+65

FRACTURED AND DRAGGED STRATA; EAST WALL INTAKE TUNNEL, STATION 10+65.

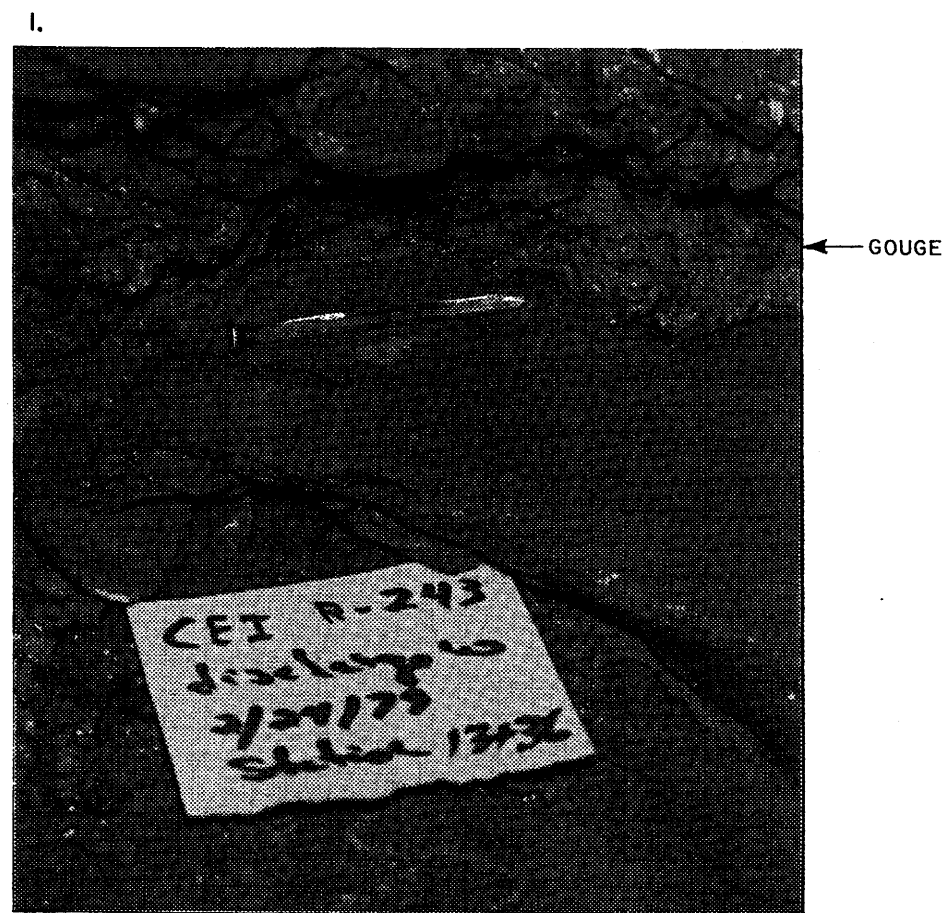
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

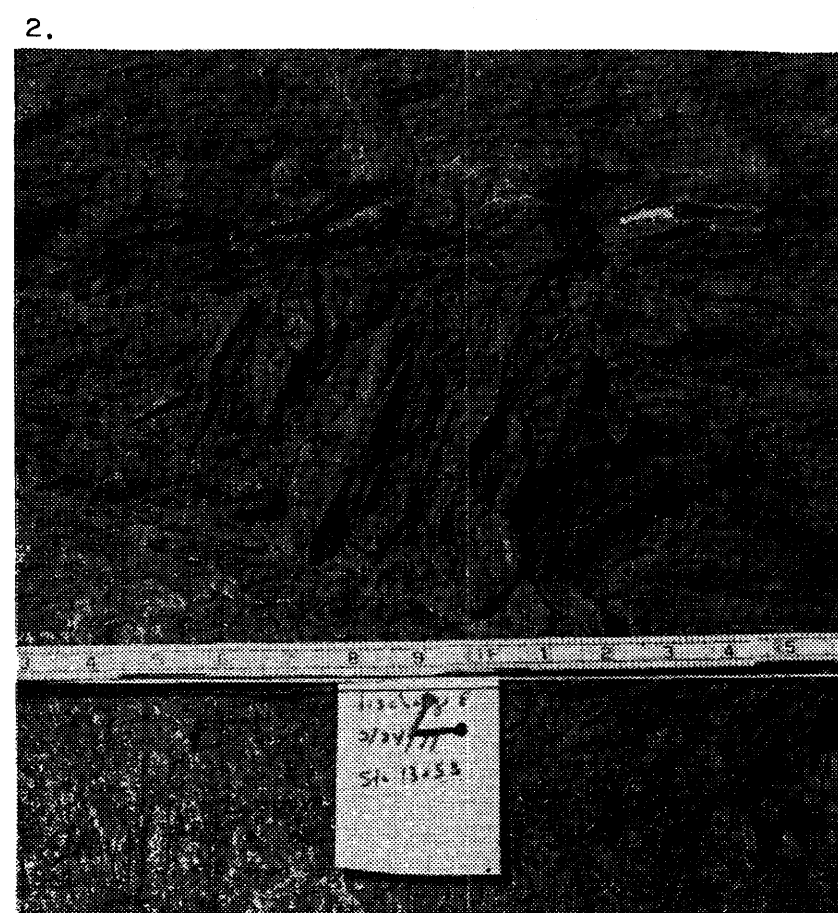
Photographs, Structural
Details, Intake Tunnel

Figure 2D-32



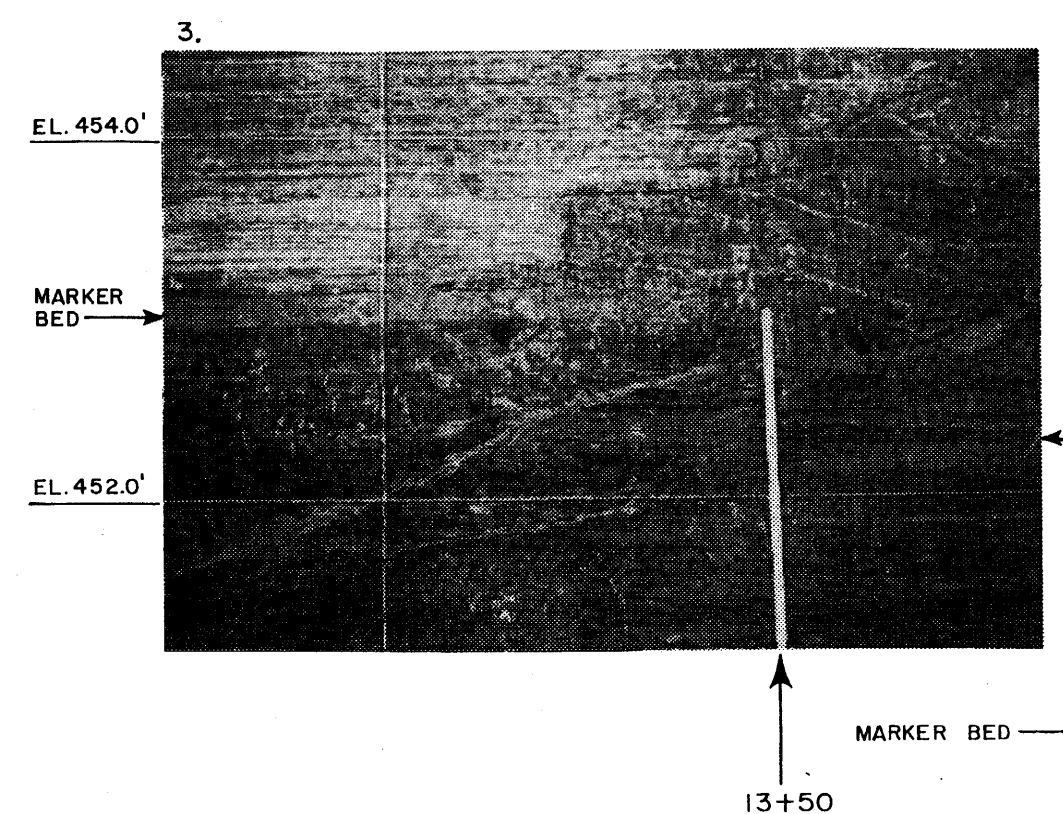
↑
13+36

STRIATIONS AND GOUGE; WEST WALL DISCHARGE TUNNEL, STATION 13+36. STRIATIONS TREND N22°W PARALLEL TO NAIL (TWO INCHES LONG). NOTE ANGULAR SHALE AND SILTSTONE FRAGMENTS IN GOUGE.



↑
13+53

DRAG FOLD; STATION 13+53, EAST WALL DISCHARGE TUNNEL.



DRAG FOLDS, KINKING AND FAULT SPLAYS; STATION 13+50 WEST WALL DISCHARGE. SCALE GIVEN BY STATIONING AND RULE.

(Rev. 12 1/03)

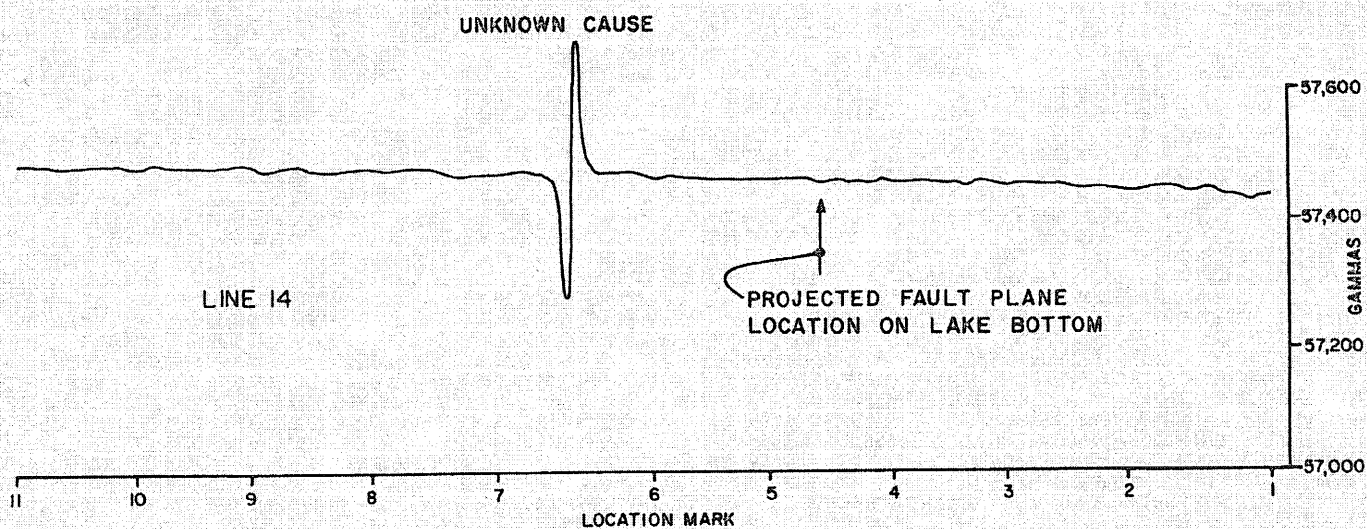


PERRY NUCLEAR POWER PLANT

Photographs, Structural
Details, Discharge Tunnel

Figure 2D-33

NOTE: MARK SEPARATION APPROXIMATELY 1000'



(Rev. 12 1/03)

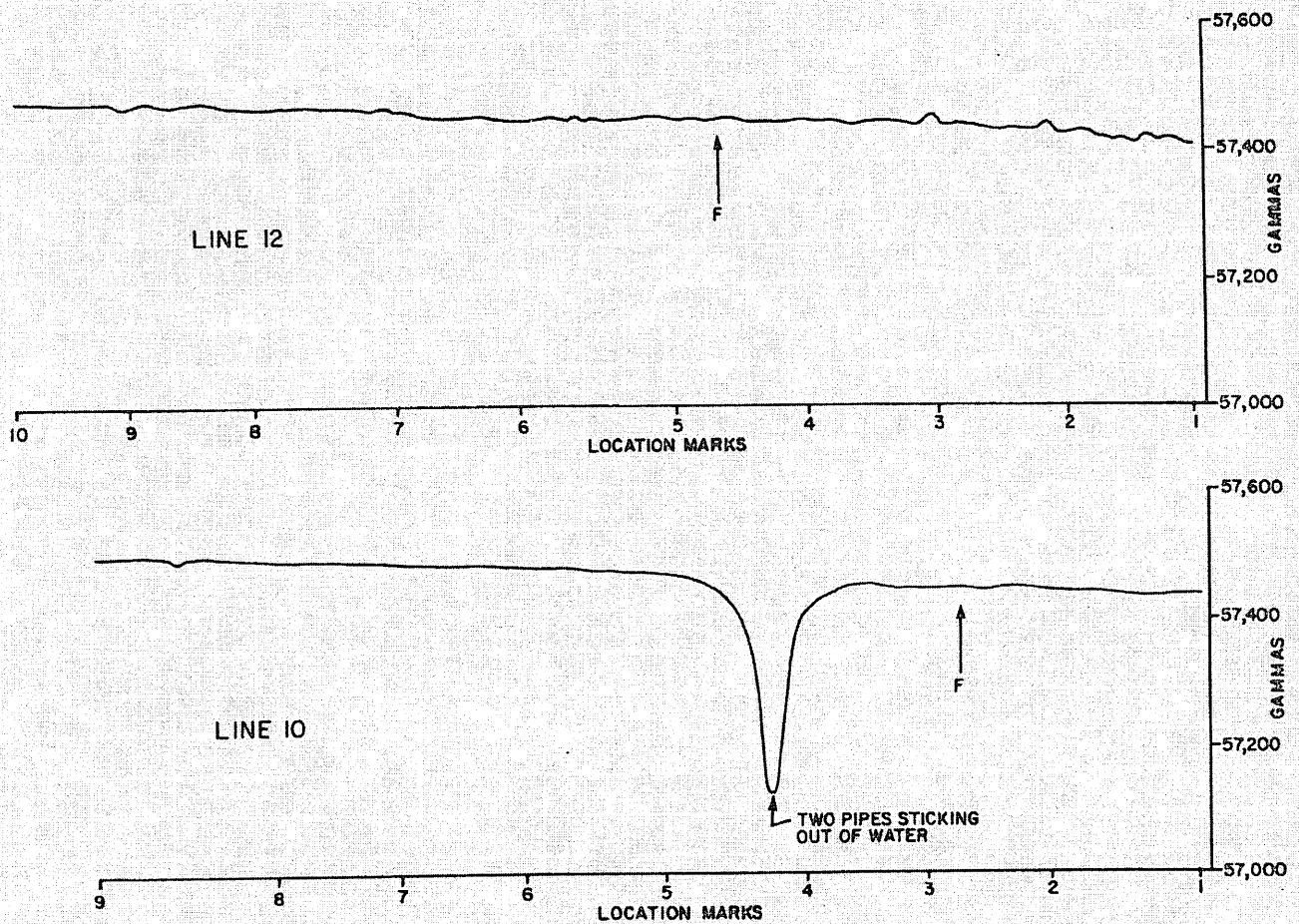


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profile 14

Figure 2D-34

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

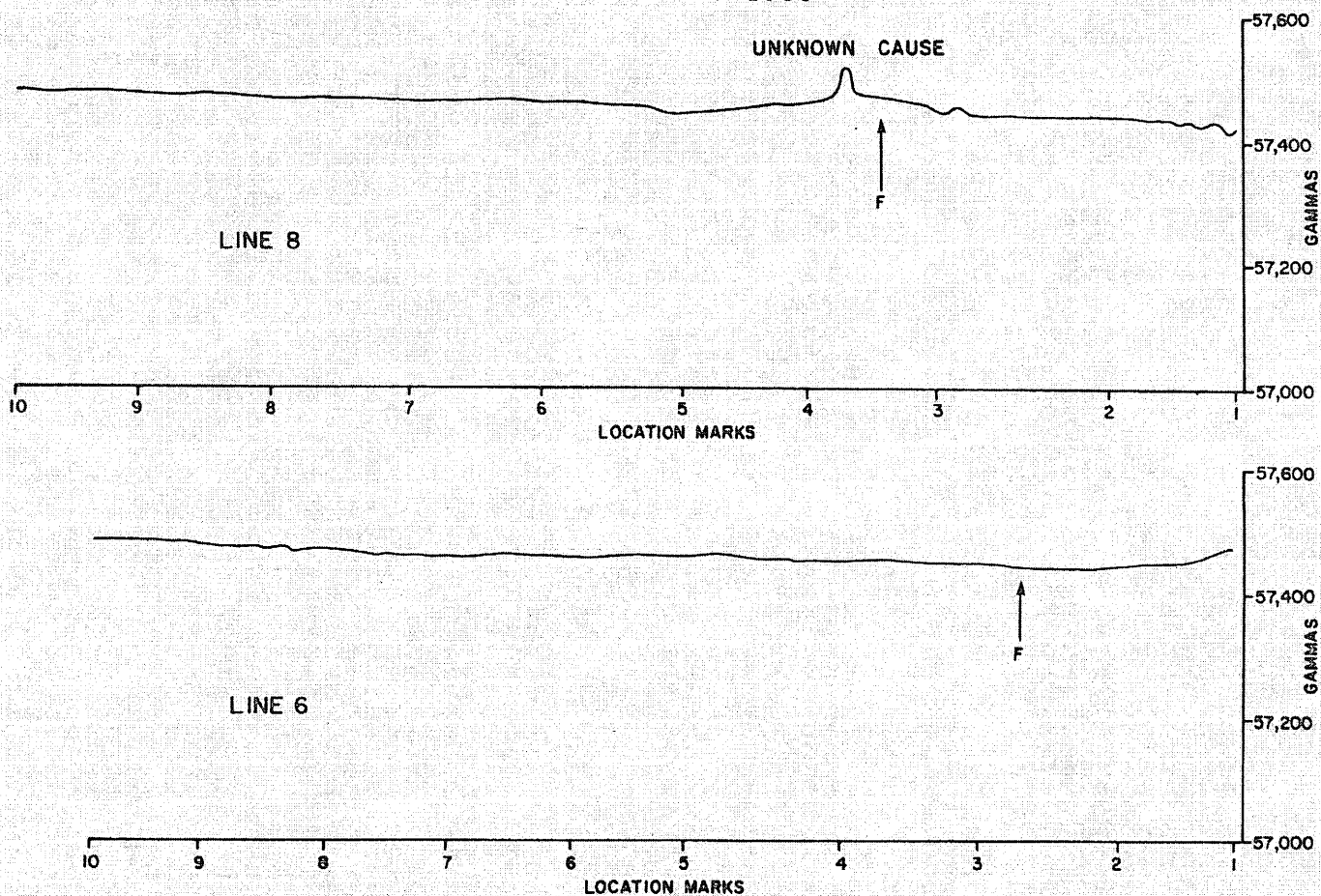


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 10 and 12

Figure 2D-35

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

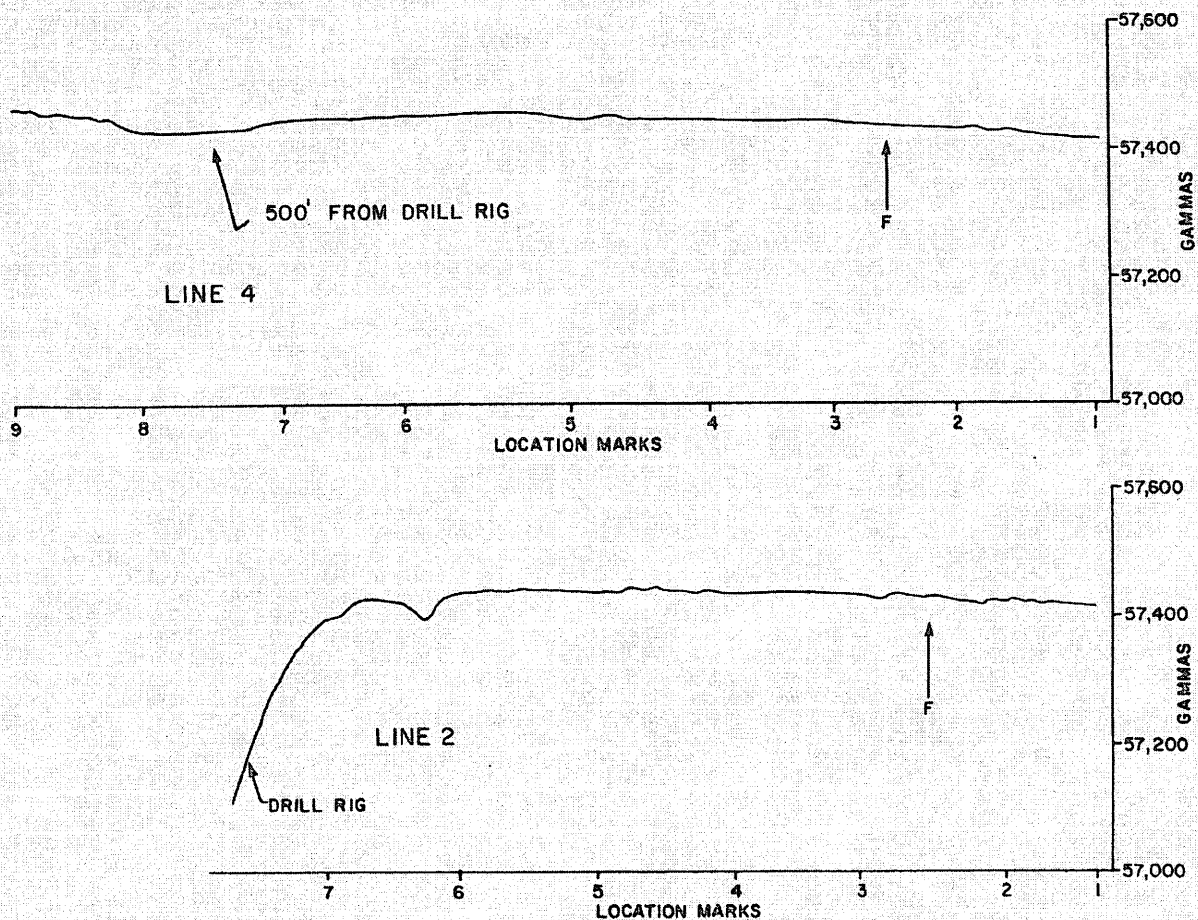


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 6 and 8

Figure 2D-36

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

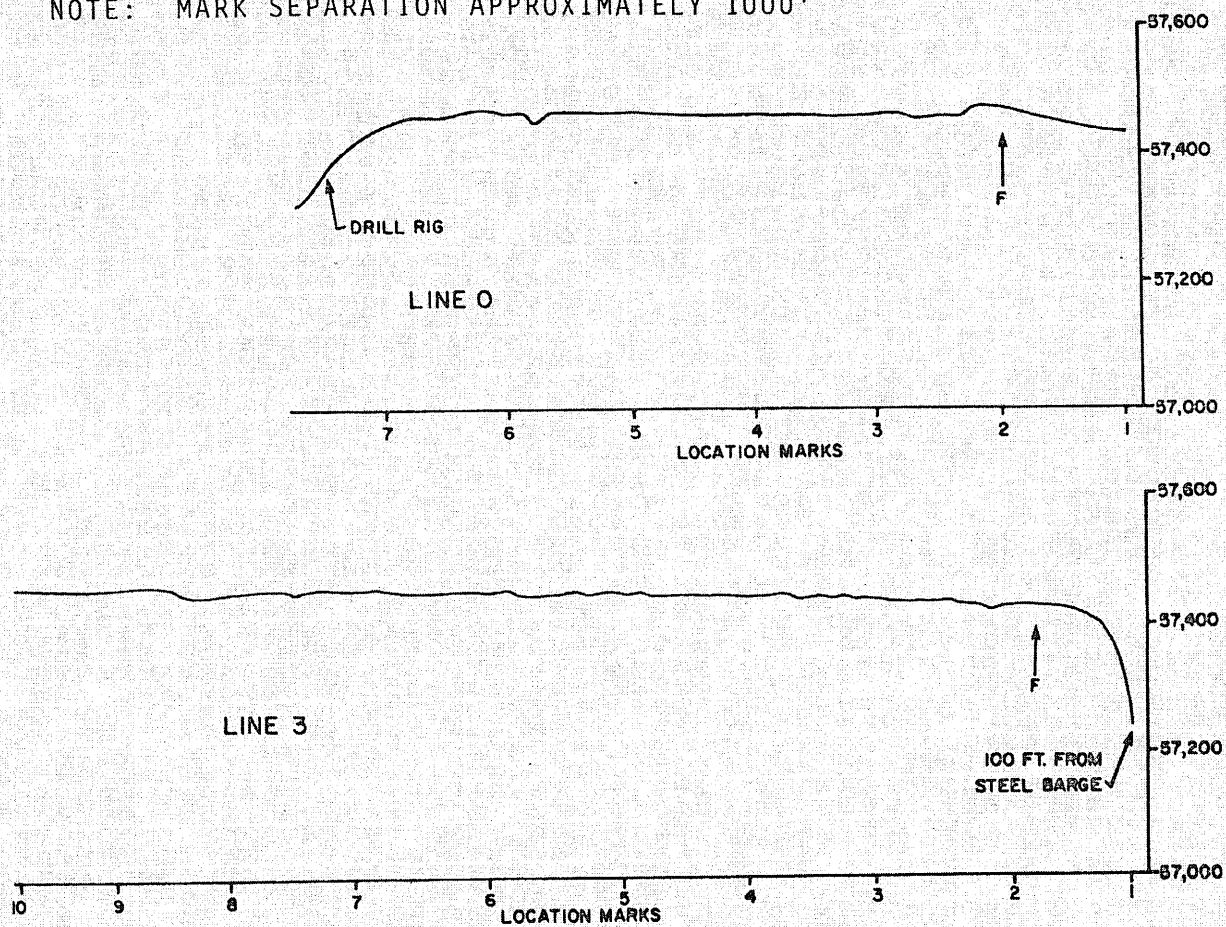


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 2 and 4

Figure 2D-37

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

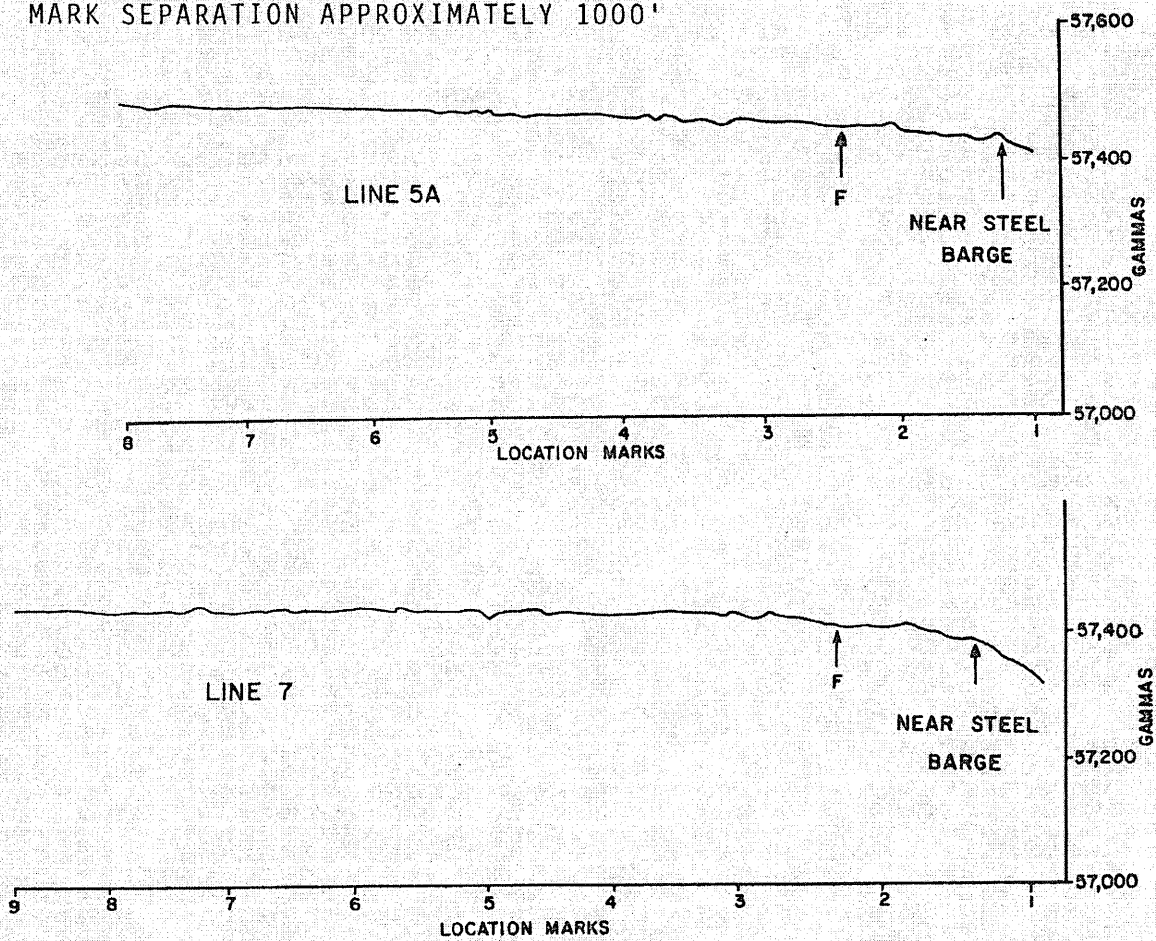


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 0 and 3

Figure 2D-38

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

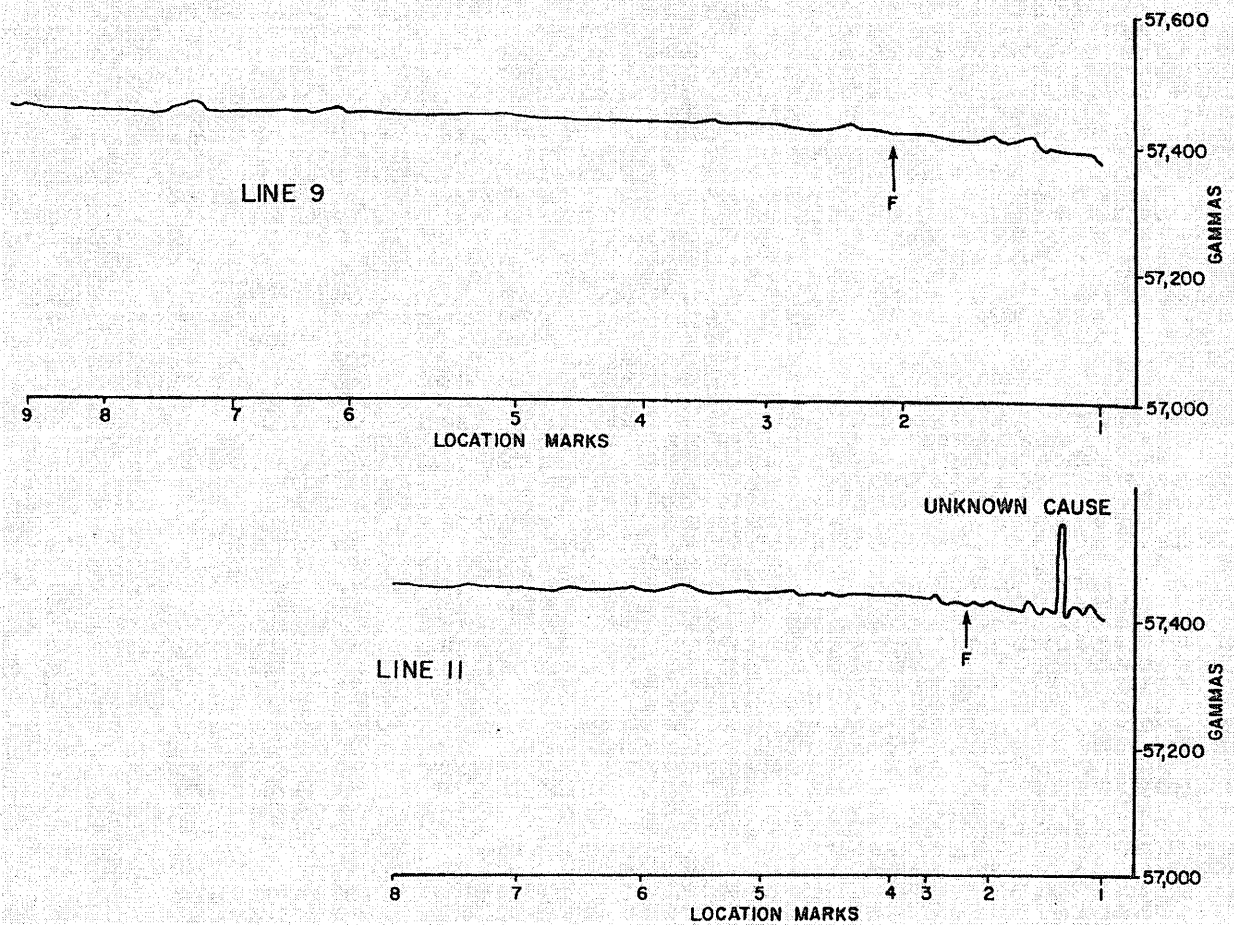


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 5A and 7

Figure 2D-39

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM.

(Rev. 12 1/03)

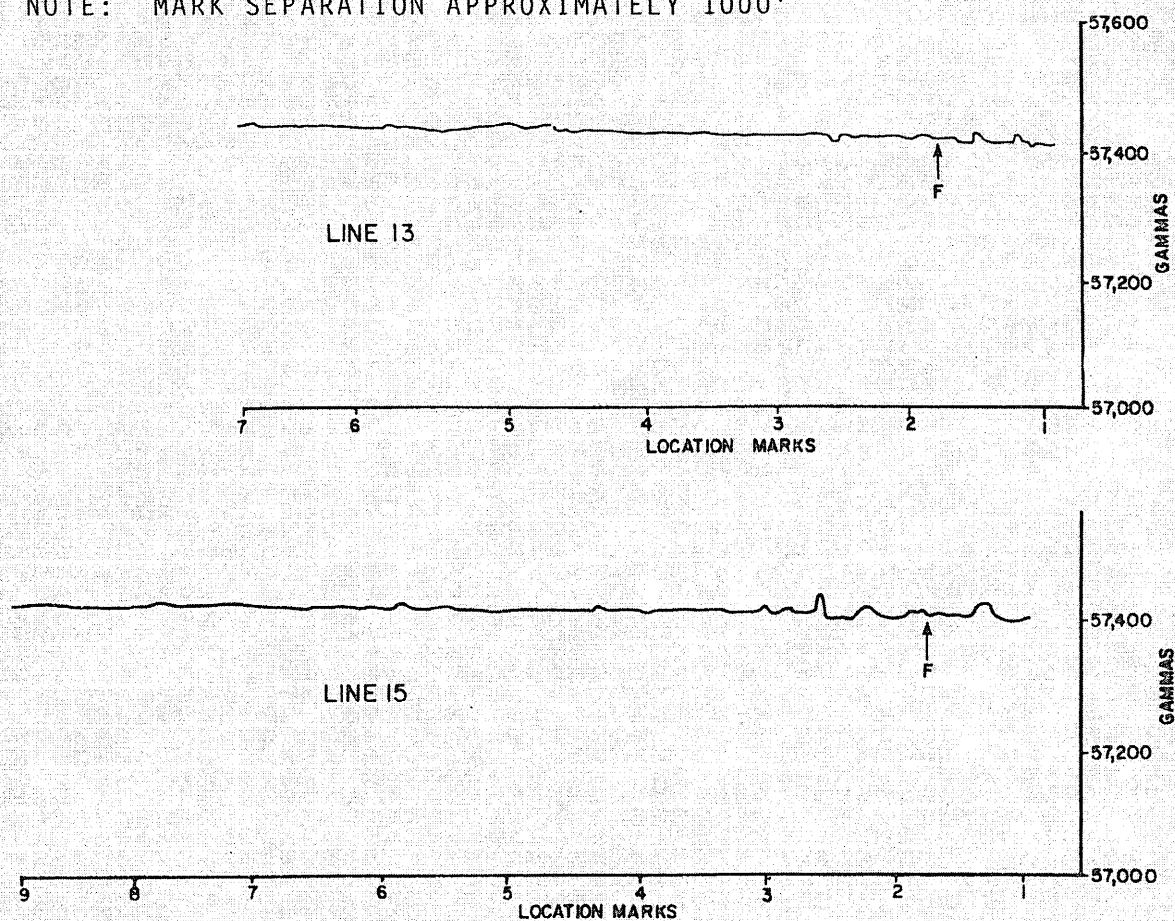


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 9 and 11

Figure 2D-40

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

↑ PROJECTED FAULT LOCATION ON
LAKE BOTTOM. (Rev. 12 1/03)

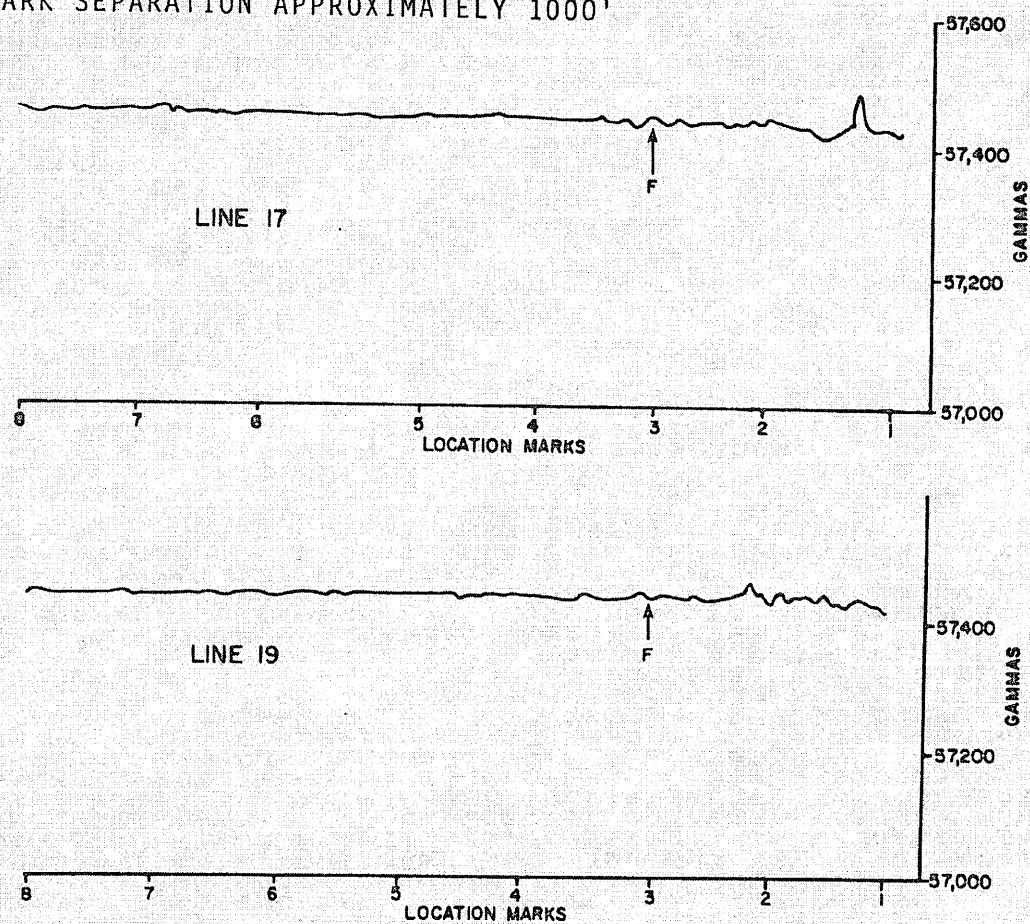


PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 13 and 15

Figure 2D-41

NOTE: MARK SEPARATION APPROXIMATELY 1000'



EXPLANATION

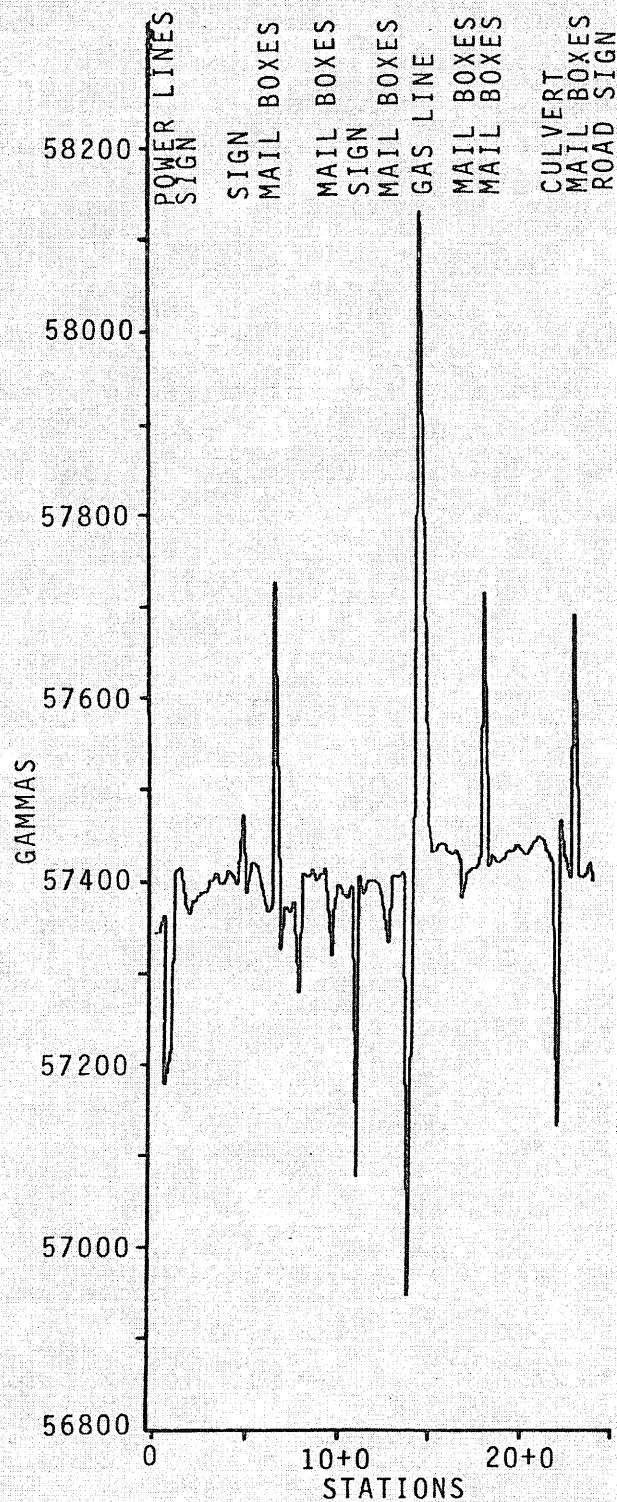
↑ PROJECTED FAULT LOCATION ON LAKE BOTTOM. (Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Offshore for Shipborne
Magnetic Profiles 17 and 19

Figure 2D-42



(Rev. 12 1/03)

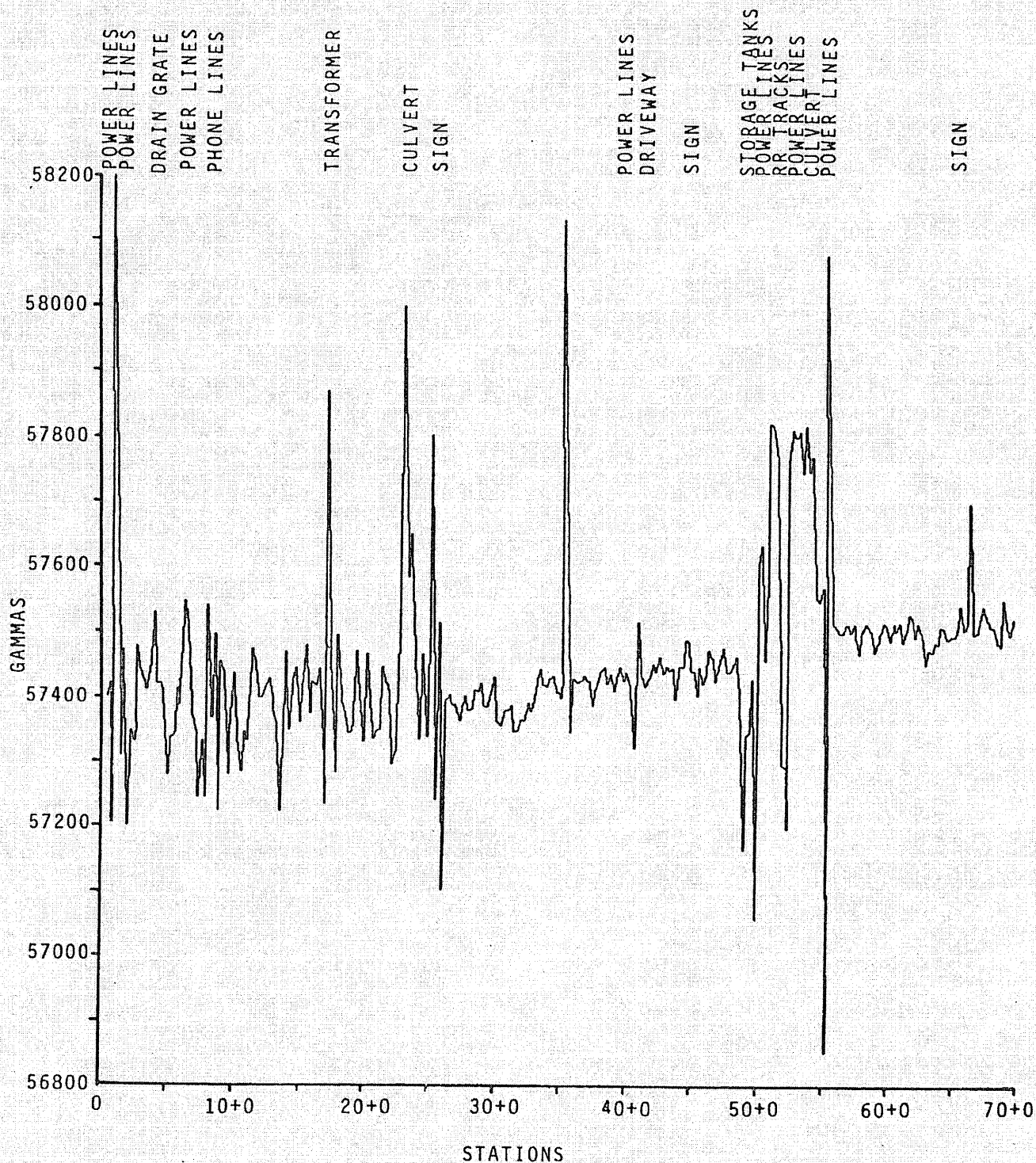


PERRY NUCLEAR POWER PLANT

1"=1000'

Onshore for Land
Magnetic Profile 1S-A

Figure 2D-43



1"=1000'

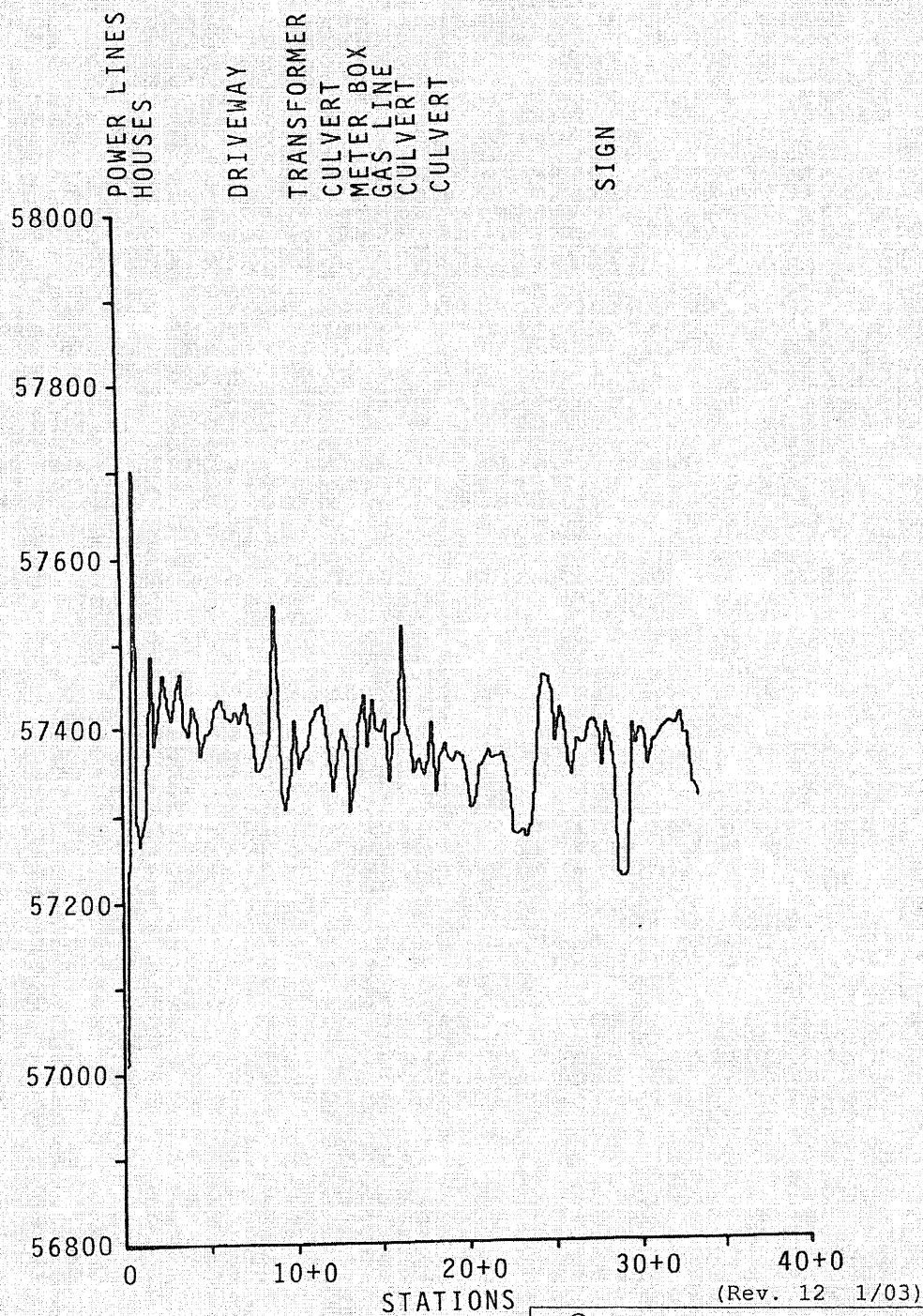
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Onshore for Land
Magnetic Profile 1S

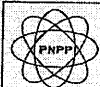
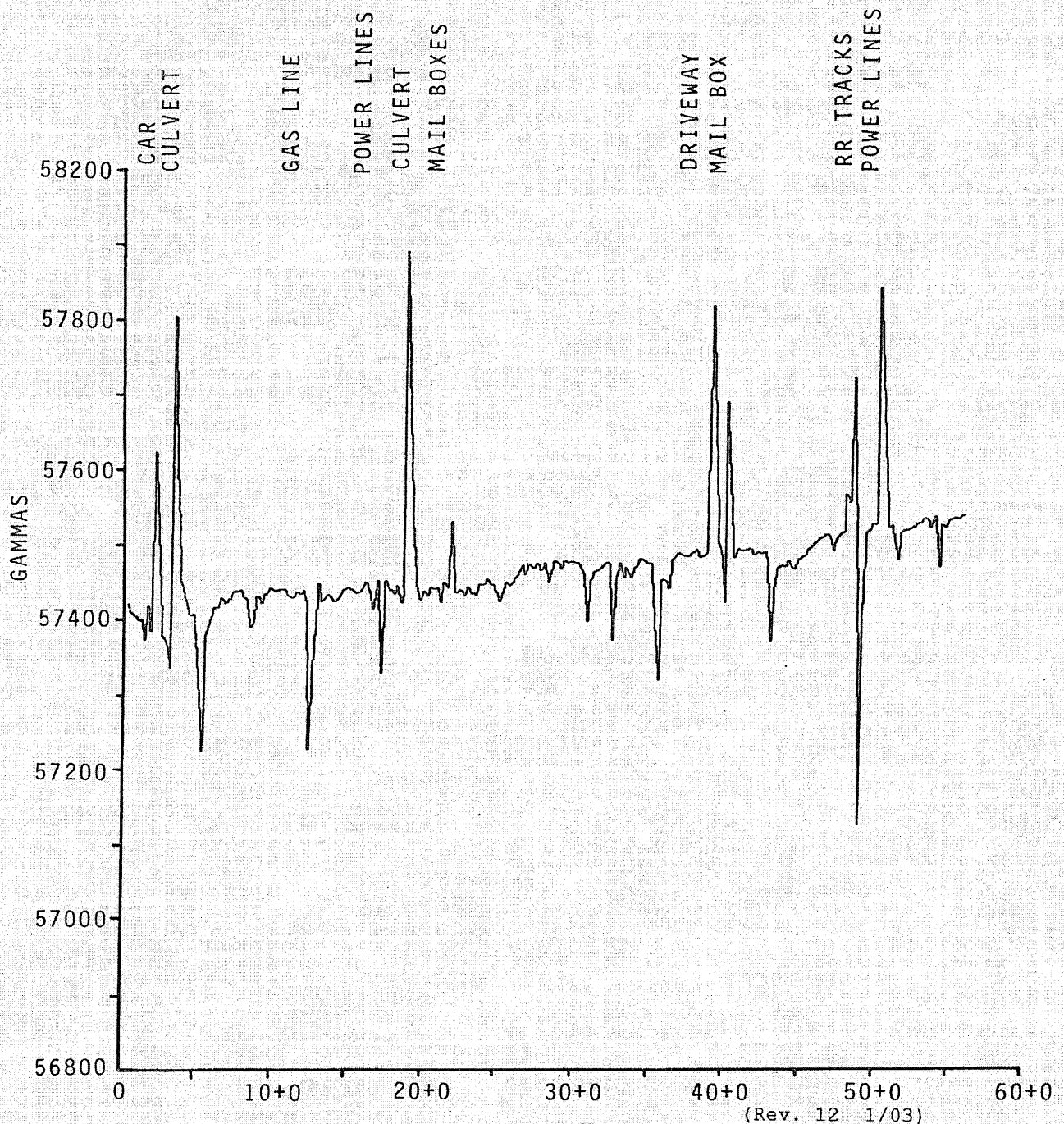
Figure 2D-44



PERRY NUCLEAR POWER PLANT

Onshore for Land
Magnetic Profile 1E

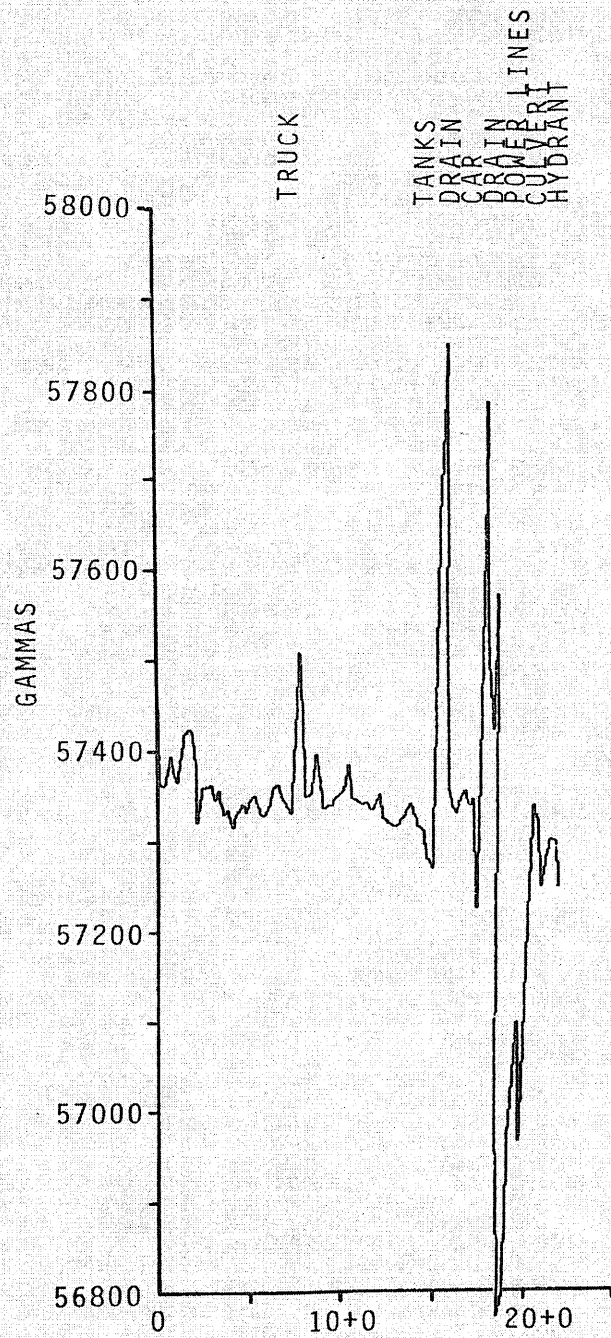
Figure 2D-45



PERRY NUCLEAR POWER PLANT

Onshore for Land
Magnetic Profile 2S

Figure 2D-46



(Rev. 12 1/03)

STATIONS

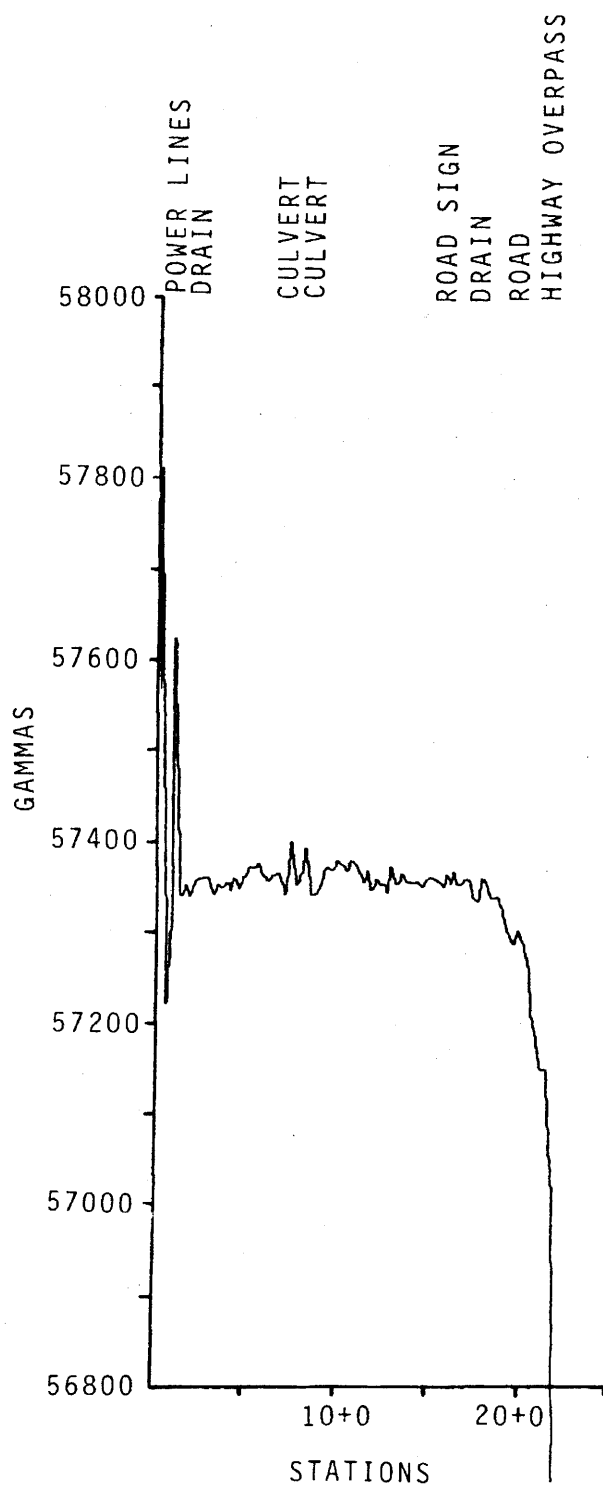


PERRY NUCLEAR POWER PLANT

1"=1000'

Onshore for Land
Magnetic Profile 3S

Figure 2D-47



1"=1000'

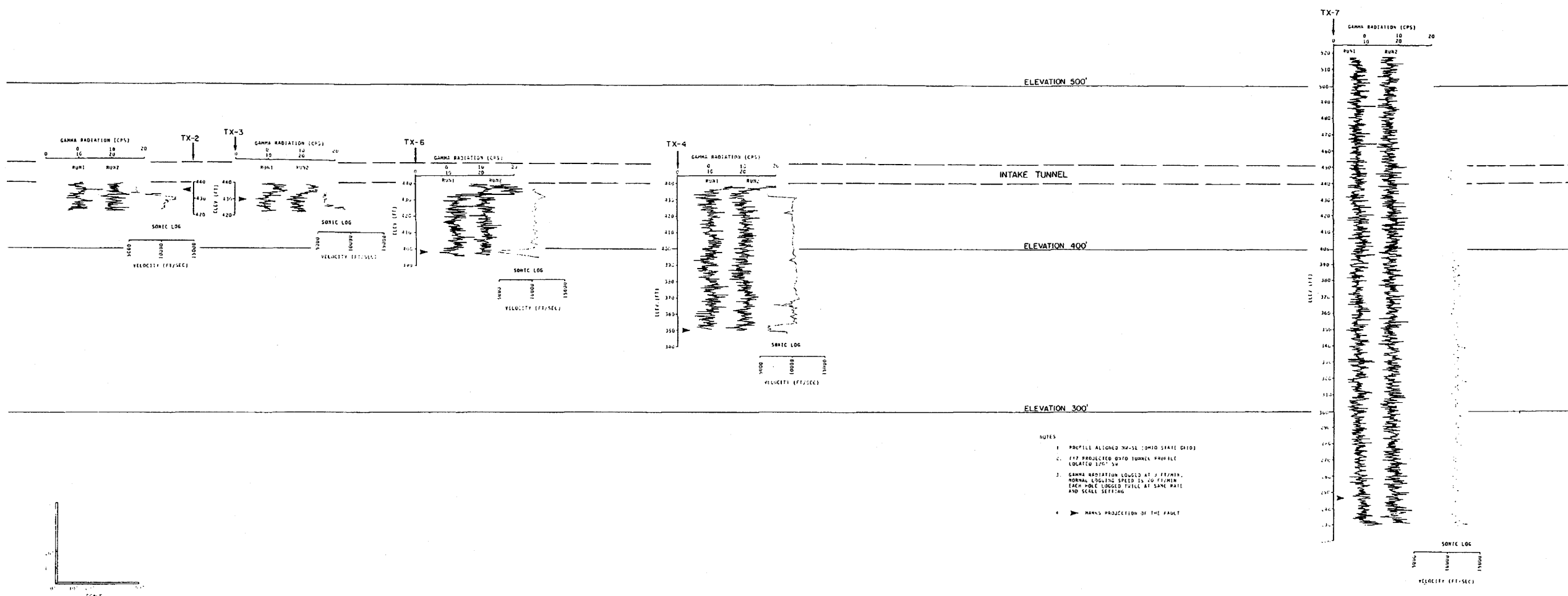
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Onshore for Land
Magnetic Profile 3S-A

Figure 2D-48

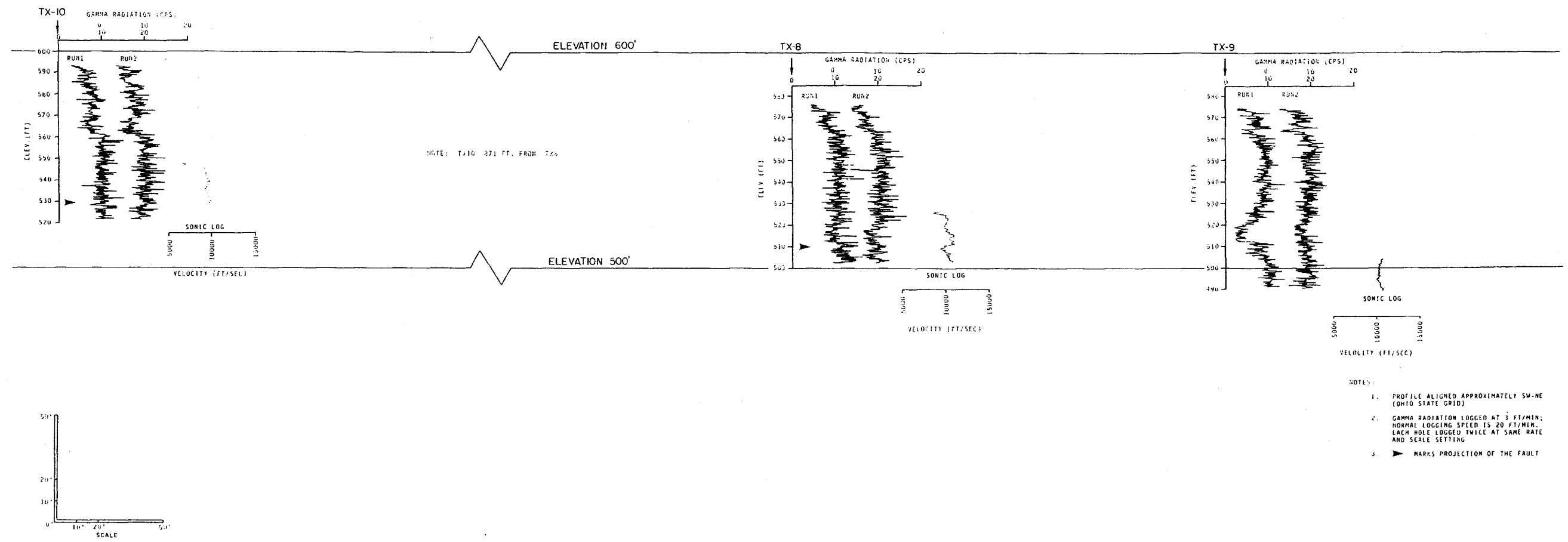


(Rev. 12 1/03)

PERRY NUCLEAR POWER PLANT

Borehole Logs - Gamma/Sonic,
TX Borings 2, 3, 4, 5, 6, 7

Figure 2D-49



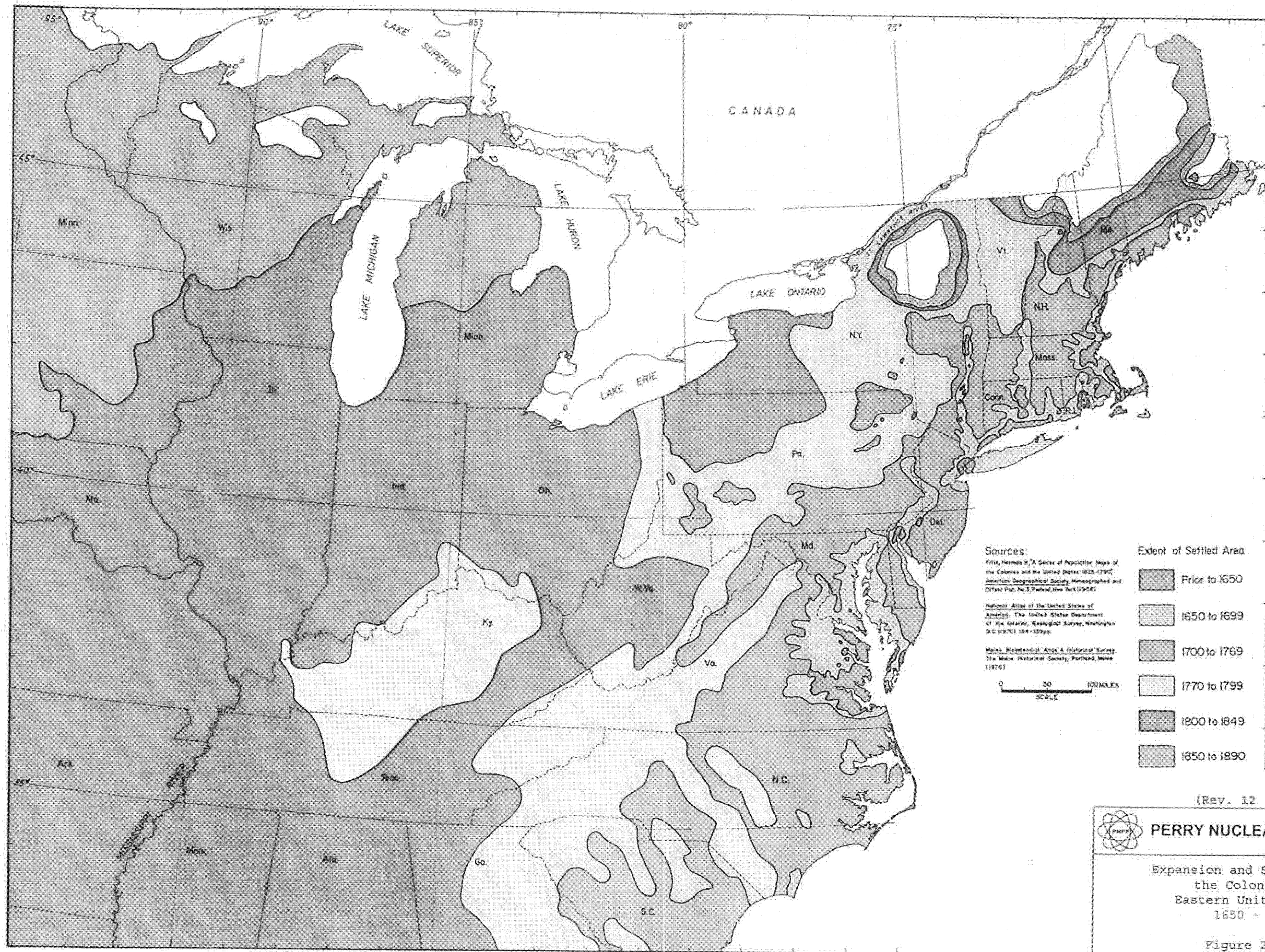
(Rev. 12 1/03)



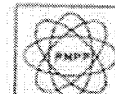
PERRY NUCLEAR POWER PLANT

Borehole Logs - Gamma/Sonic,
TX Borings 8, 9, 10

Figure 2D-50



(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Expansion and Settlement in
the Colonies and
Eastern United States
1650 - 1890

Figure 2D D-1

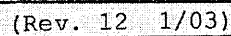



Figure 2D D-2

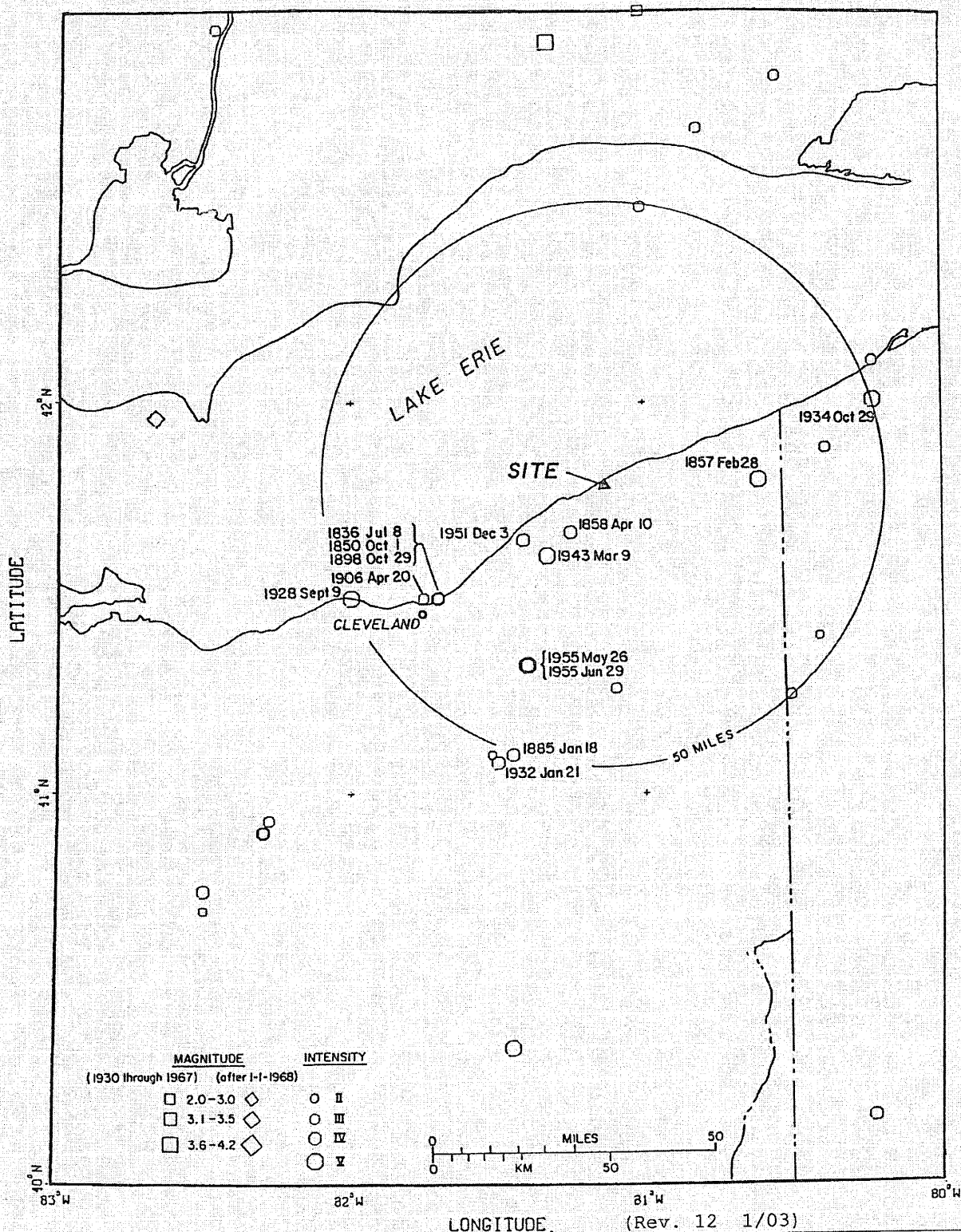
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Newspaper Research Matrix

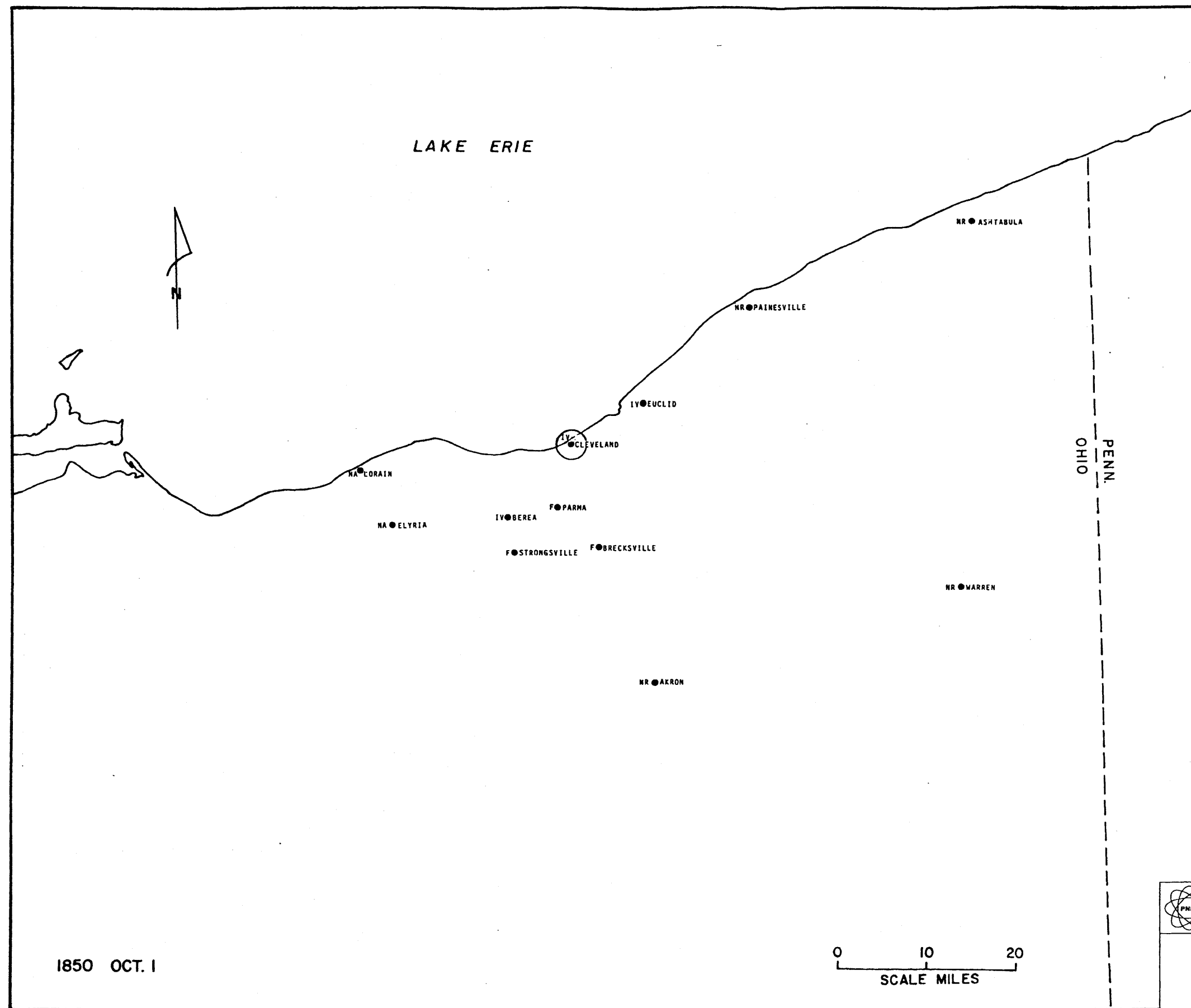
Figure 2D D-3



PERRY NUCLEAR POWER PLANT

Seismicity Map

Figure 2D D-4



1850 OCT. 1

0 10 20
SCALE MILES

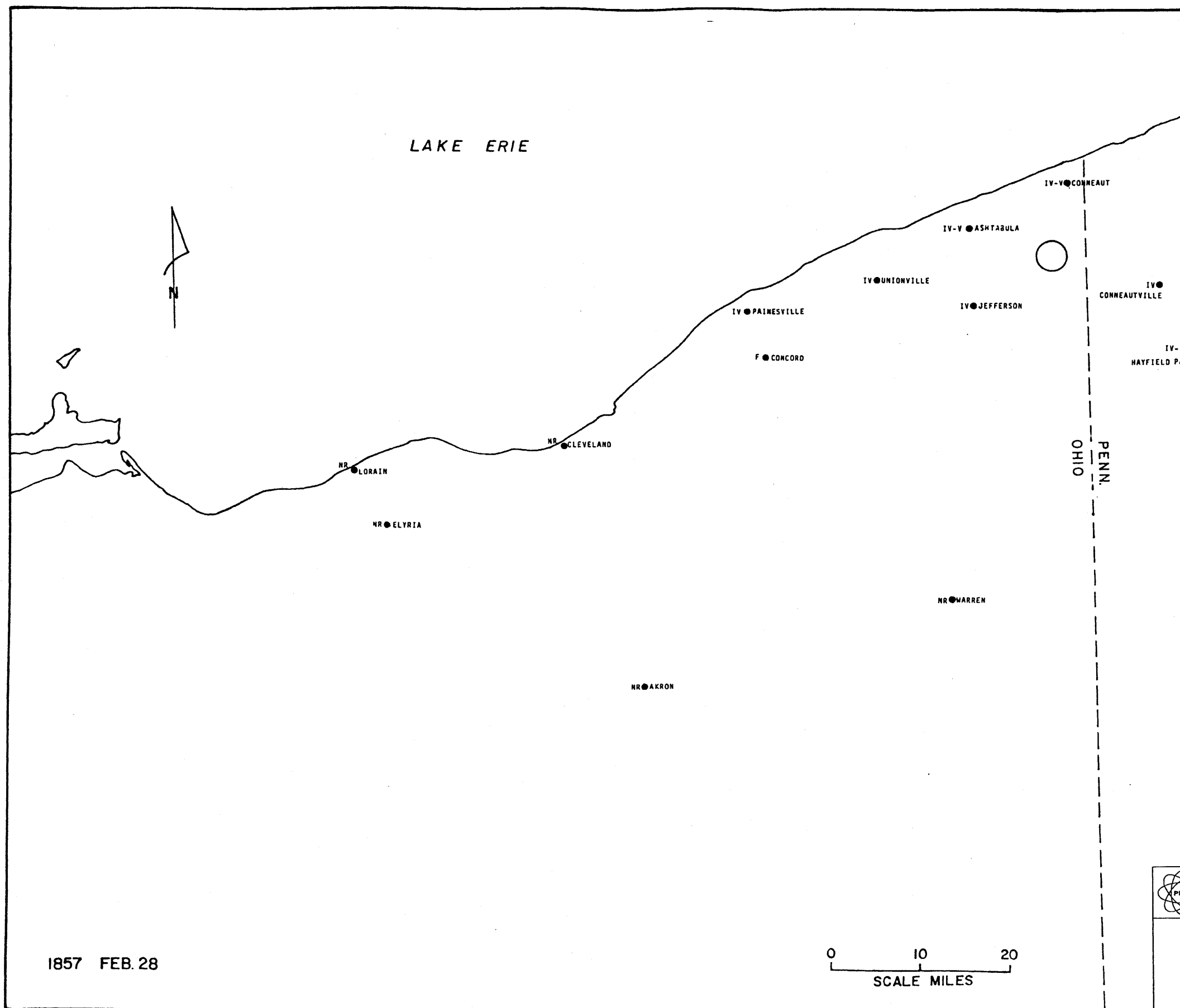
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Felt Report Map:
1850 Oct. 1


Figure 2D D-5



1857 FEB. 28

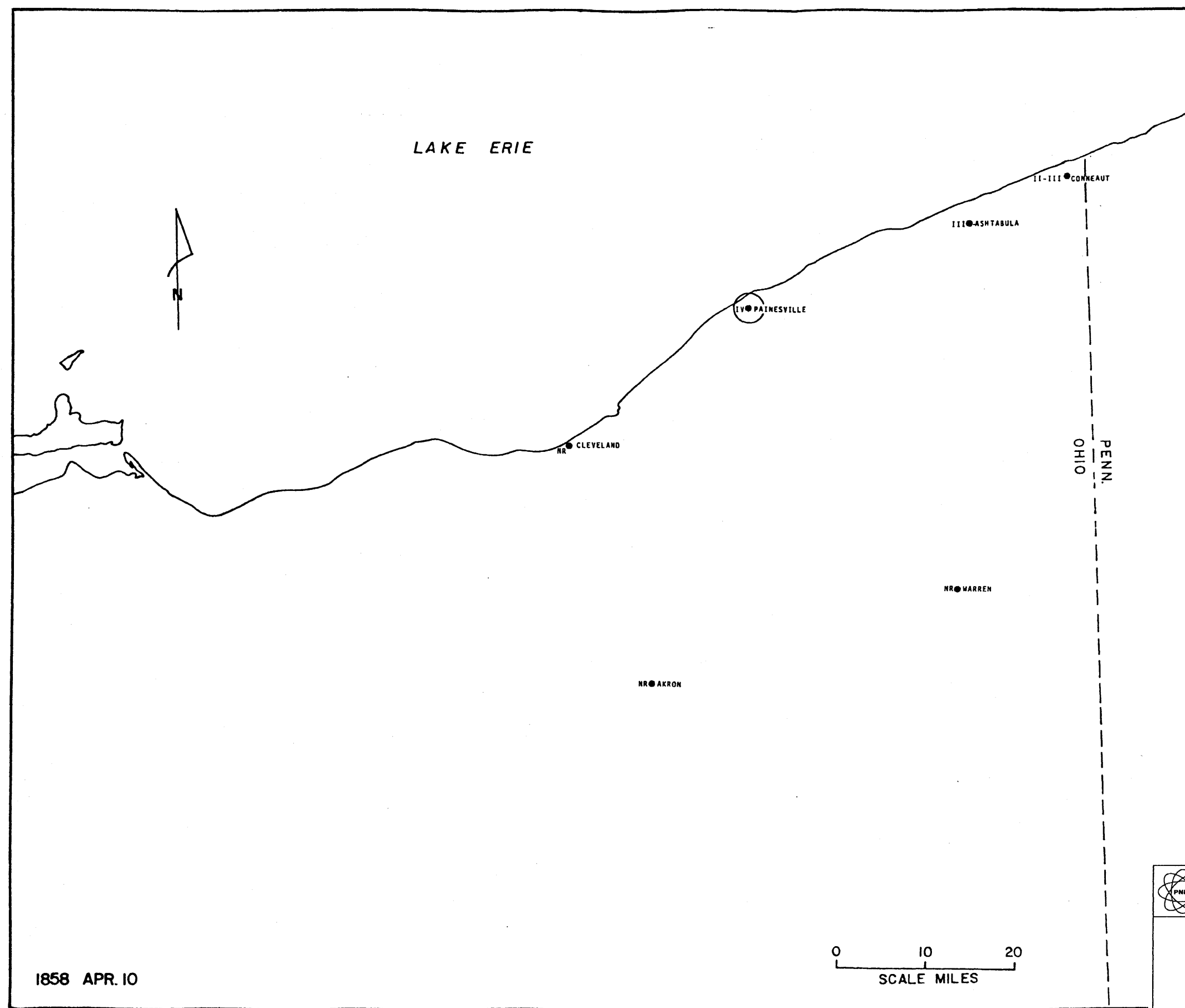
0 10 20
SCALE MILES

(Rev. 12 1/03)

 **PERRY NUCLEAR POWER PLANT**

Felt Report Map:
1857 Feb. 28

Figure 2D D-6



1858 APR. 10

0 10 20
SCALE MILES

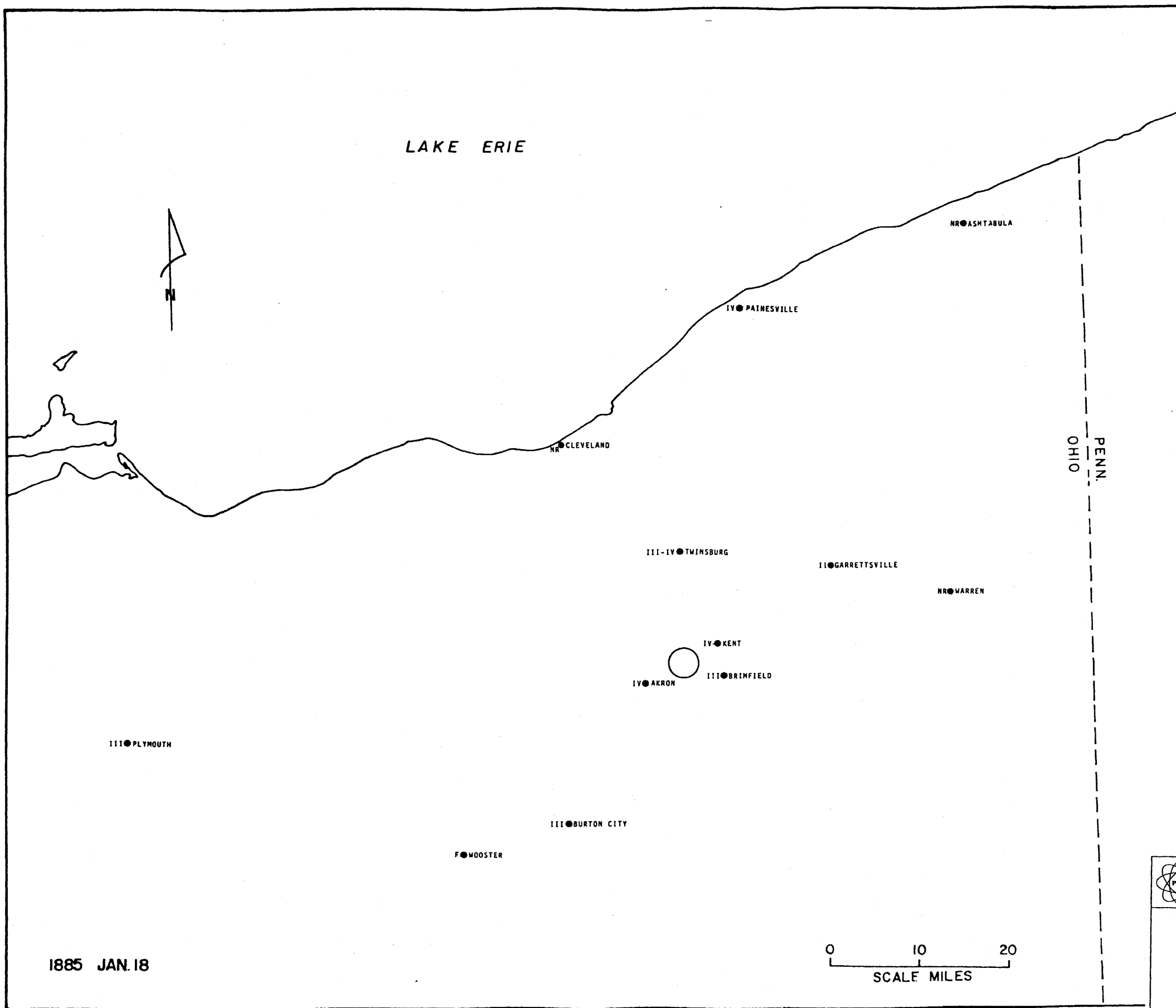
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Felt Report Map:
1858 Apr. 10

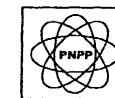
Figure 2D D-7



1885 JAN. 18

0 10 20
SCALE MILES

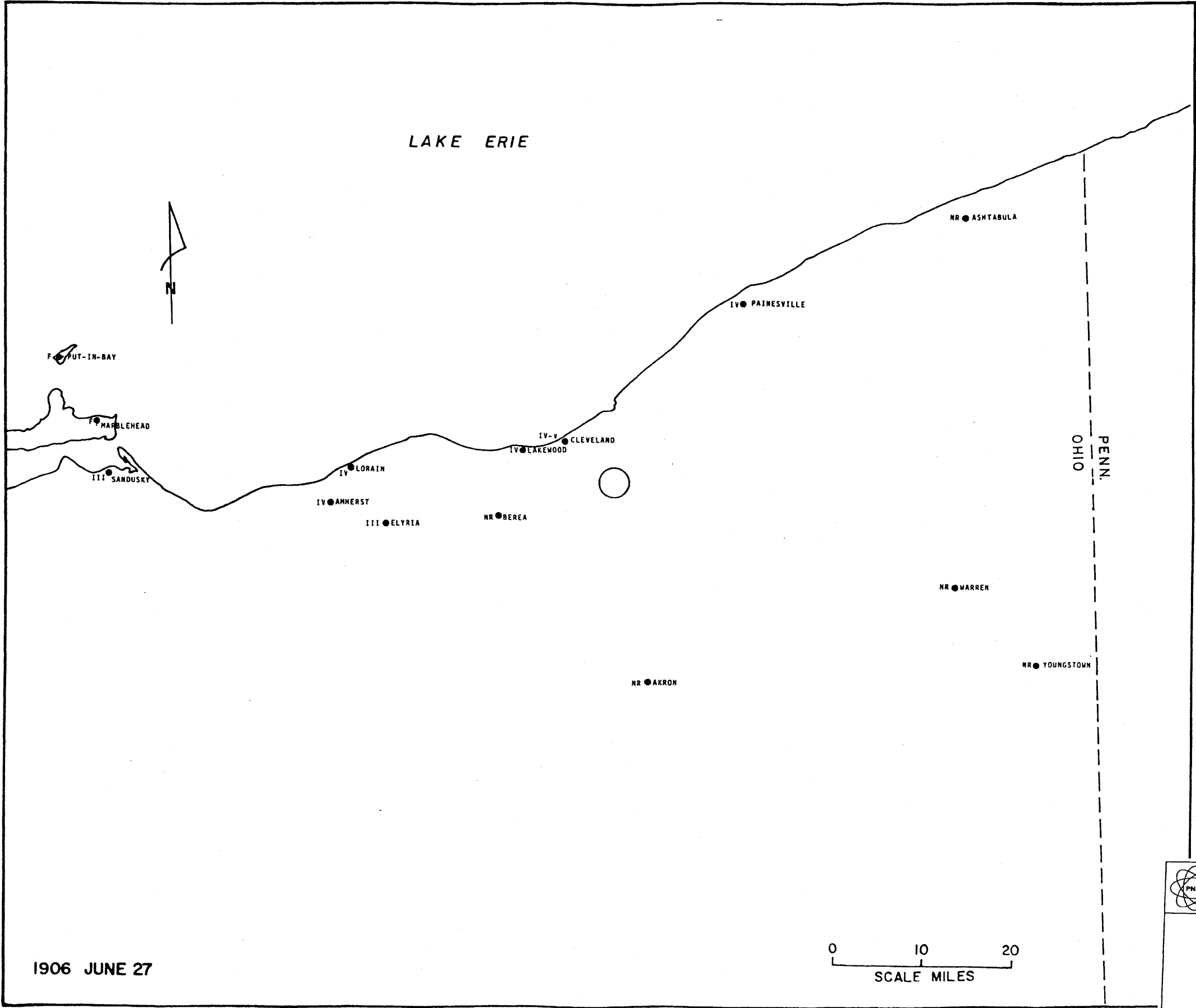
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Felt Report Map:
1885 Jan. 18

Figure 2D D-8



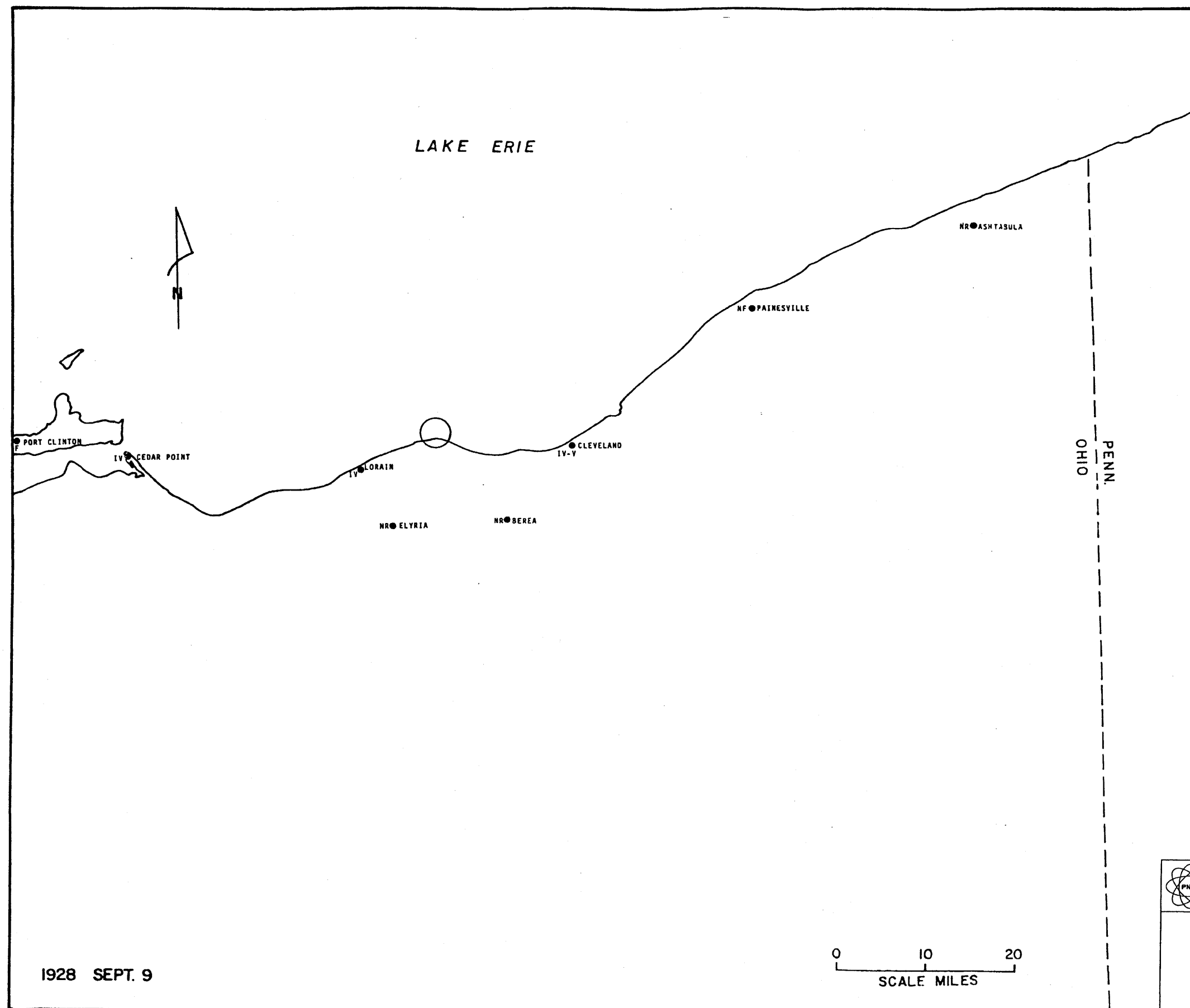
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Felt Report Map:
1906 June 27

Figure 2D D-9



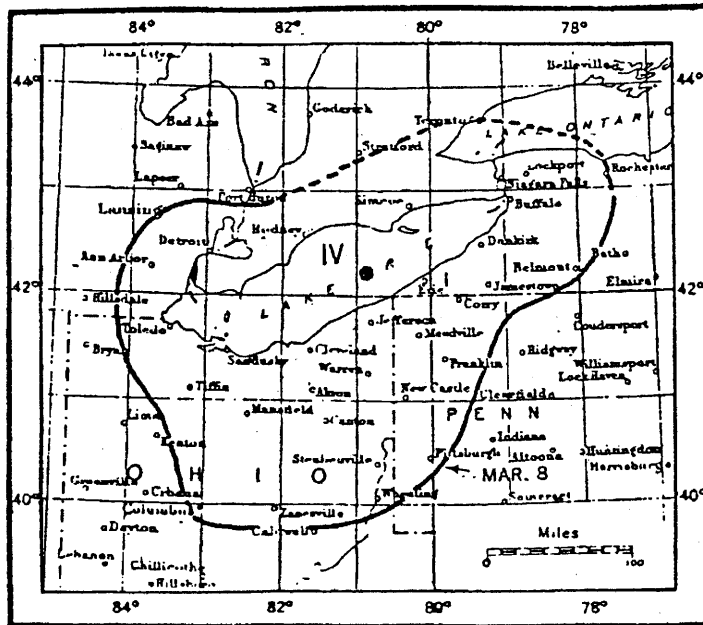
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

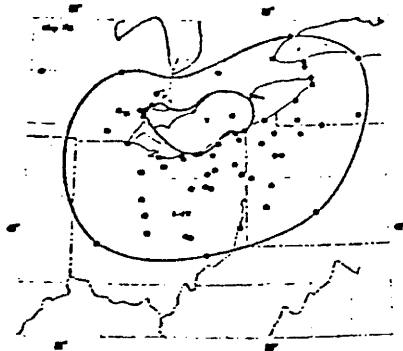
Felt Report Map:
1928 Sept. 09

Figure 2D D-10



Area affected by the Lake Erie earthquake of March 8, 1943.

Bodle, R. R., 1945, United States Earthquakes, 1943, United States Department of Commerce, Coast and Geodetic Survey, Washington, D.C., p. 7.



The Lake Erie Earthquake of March 8, 1943. A modification of Bodle (1947, fig. 4): 85,000 sq. mi.

(Rev. 12 1/03)

Docekal, J., 1971, Earthquakes of the Stable Interior with Emphasis on the Midcontinent, Ph.D. thesis, University of Nebraska

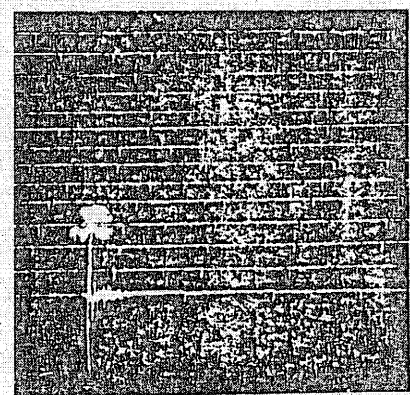
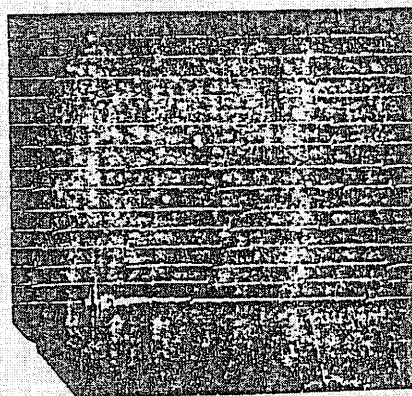


PERRY NUCLEAR POWER PLANT

Felt Report Map:
1943 Mar. 09

Figure 2D D-11

EVENT: MARCH 9, 1943
STATION: JOHN CARROLL UNIV., CLEVELAND
HORIZONTAL COMPONENTS
ESTIMATED DISTANCE: \approx 20 MILES



(Rev. 12 1/03)



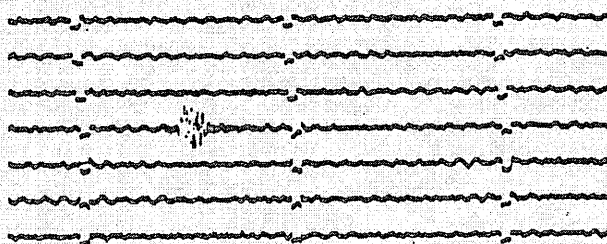
PERRY NUCLEAR POWER PLANT

John Carroll University
Seismogram: 1943 Mar. 09

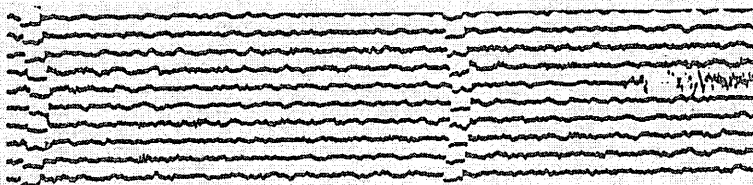
Figure 2D D-12

EVENT: DECEMBER 3, 1951
STATION: JOHN CARROLL UNIV., CLEVELAND
ESTIMATED DISTANCE: * 20 MILES

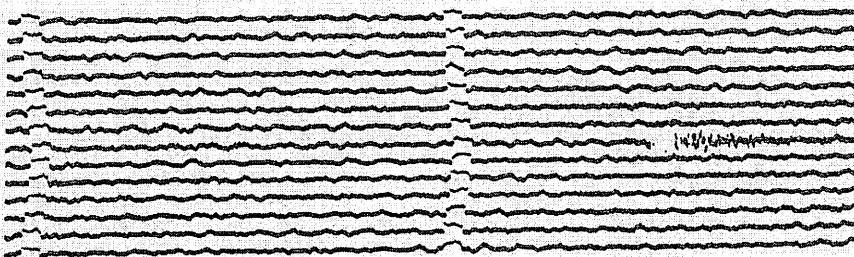
VERTICAL



NORTH-SOUTH



EAST-WEST



(Rev. 12 1/03)



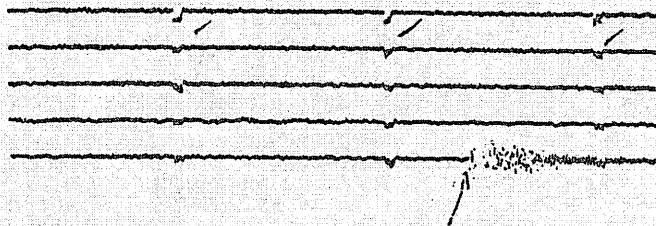
PERRY NUCLEAR POWER PLANT

John Carroll University
Seismograms: 1951 Dec. 03

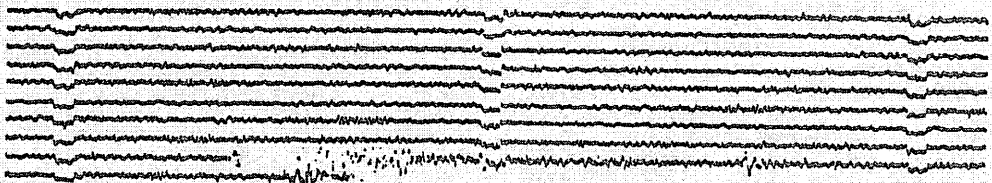
Figure 2D D-13

EVENT: MAY 26, 1955
STATION: JOHN CARROLL UNIV., CLEVELAND
ESTIMATED DISTANCE: ≈ 13 MILES (DR. E. WALTER)

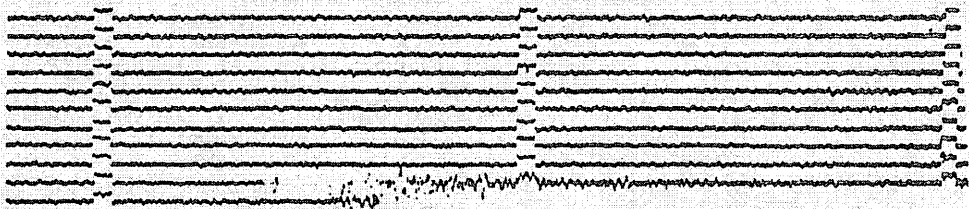
VERTICAL



NORTH-SOUTH



EAST-WEST



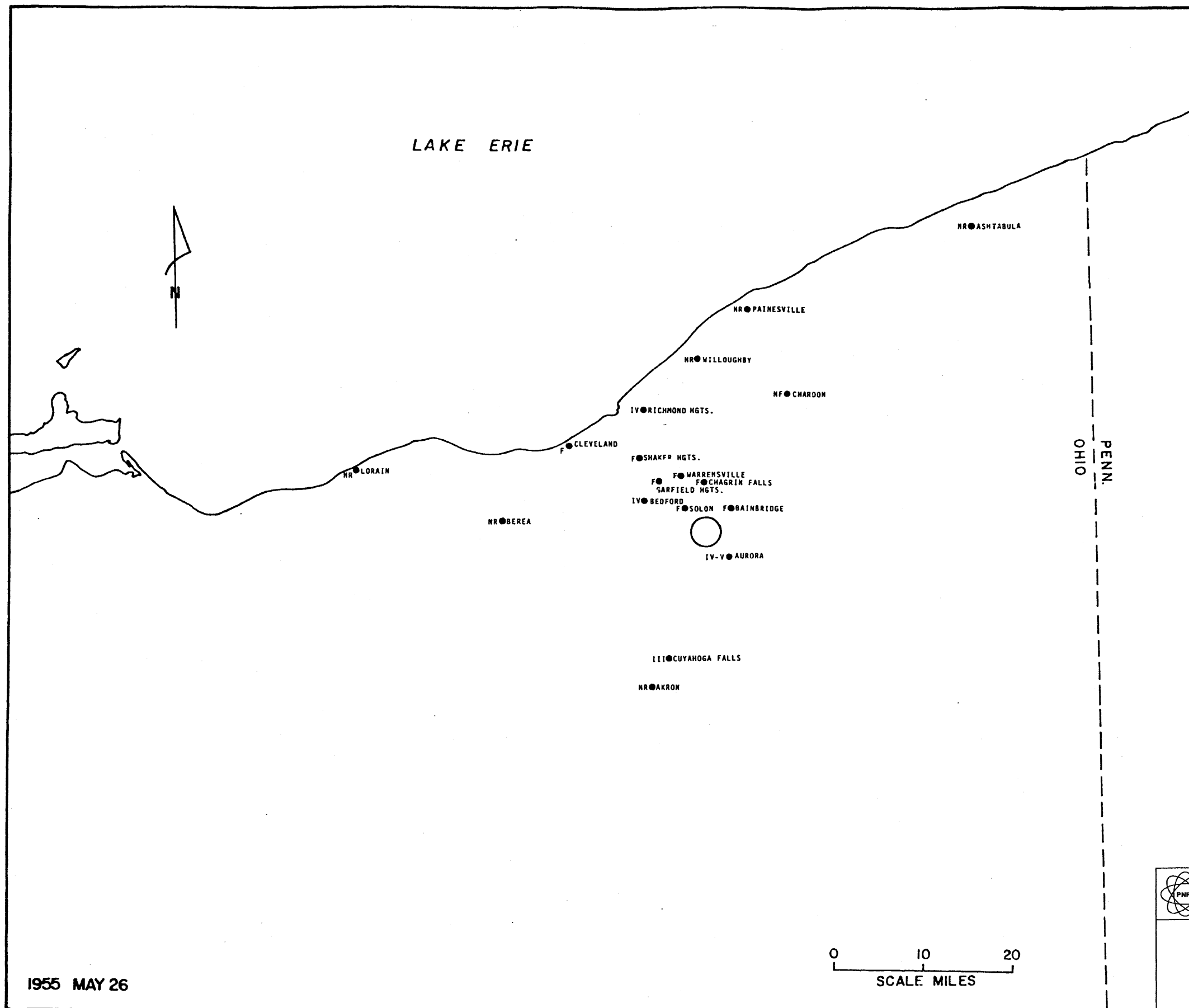
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

John Carroll University
Seismograms: 1955 May 26

Figure 2D D-14



1955 MAY 26

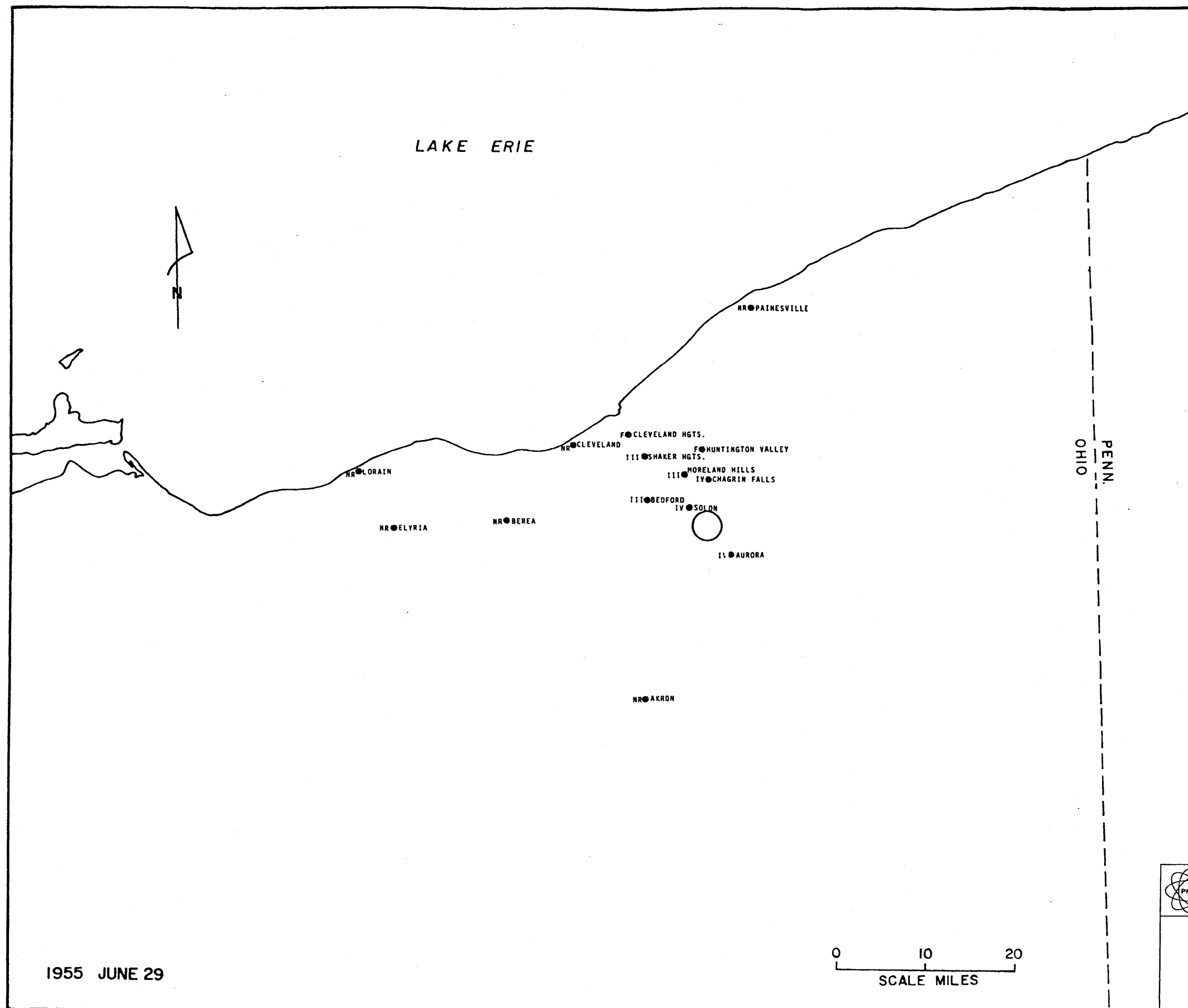
(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

Felt Report Map:
1955 May 26

Figure 2D D-15



(Rev. 12 1/03)



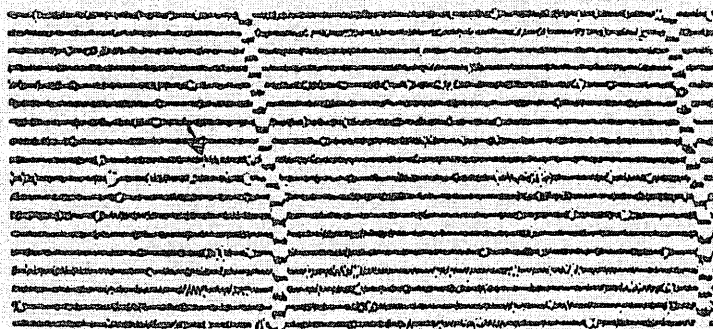
PERRY NUCLEAR POWER PLANT

Felt Report Map:
1955 June 29

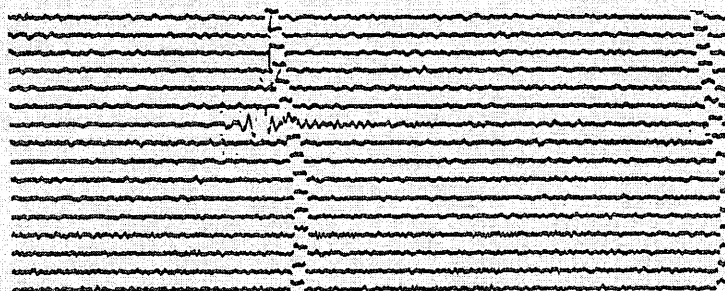
Figure 2D D-16

EVENT: MAY 1, 1958
STATION: JOHN CARROLL UNIV., CLEVELAND
ESTIMATED DISTANCE: 12 MILES (DR. E. WALTER)

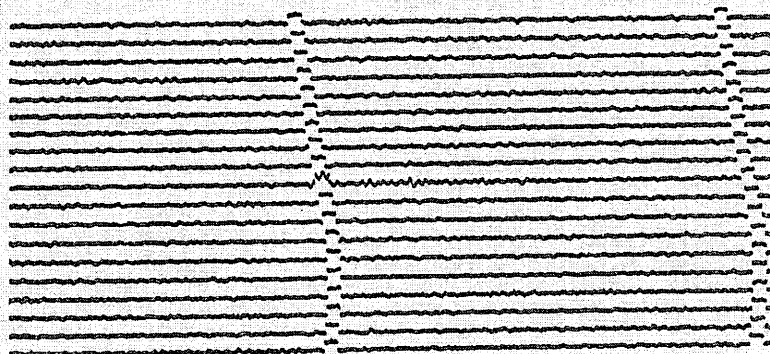
VERTICAL



NORTH-SOUTH



EAST-WEST



(Rev. 12 1/03)



PERRY NUCLEAR POWER PLANT

John Carroll University
Seismograms: 1958 May 1

Figure 2D D-17

