SECTION 2.0

FIGURES

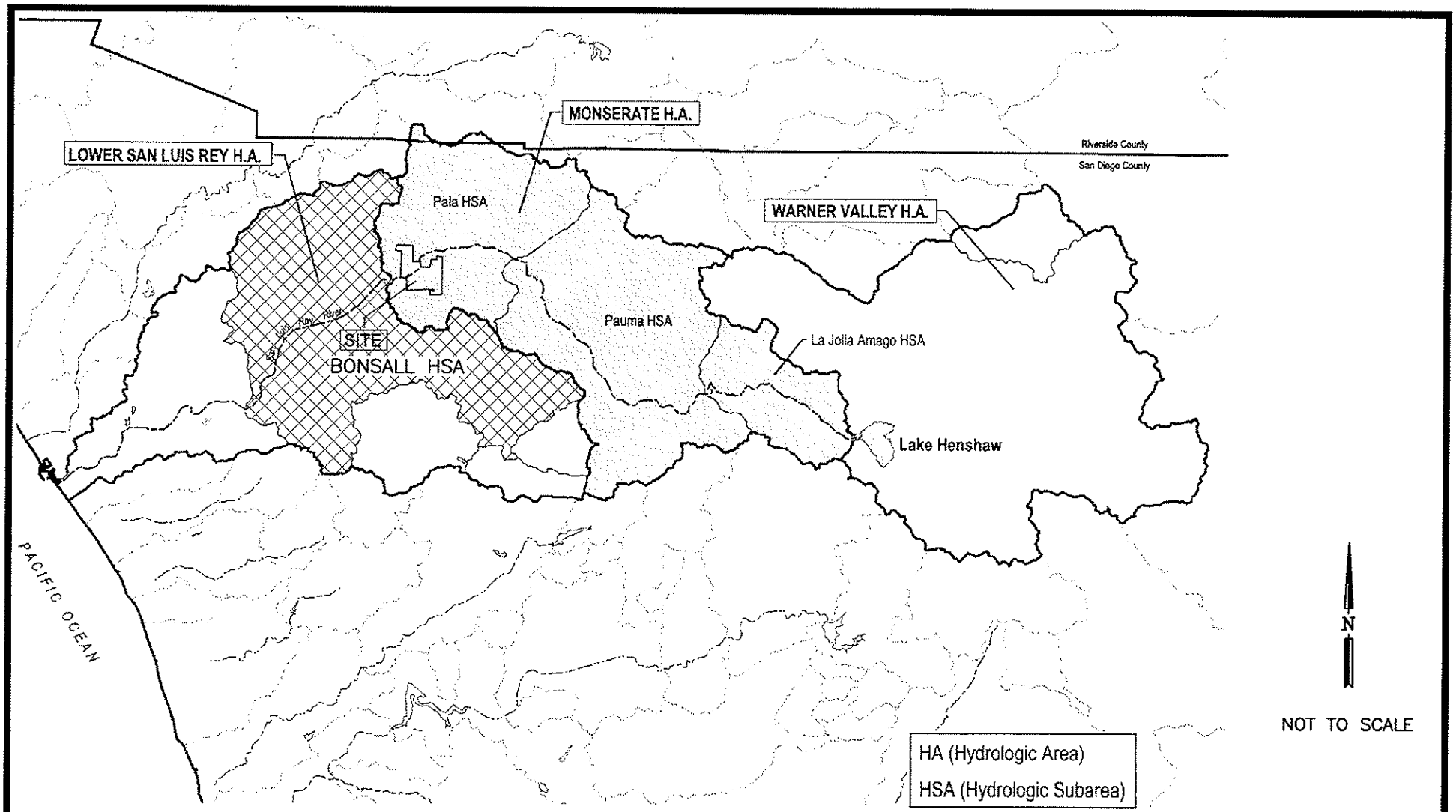

FIGURE 2–1

SAN LUIS REY HYDROLOGIC UNIT

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SAN DIEGO COUNTY, CALIFORNIA

GeoLogic Associates
Geologists, Hydrogeologists, and Engineers

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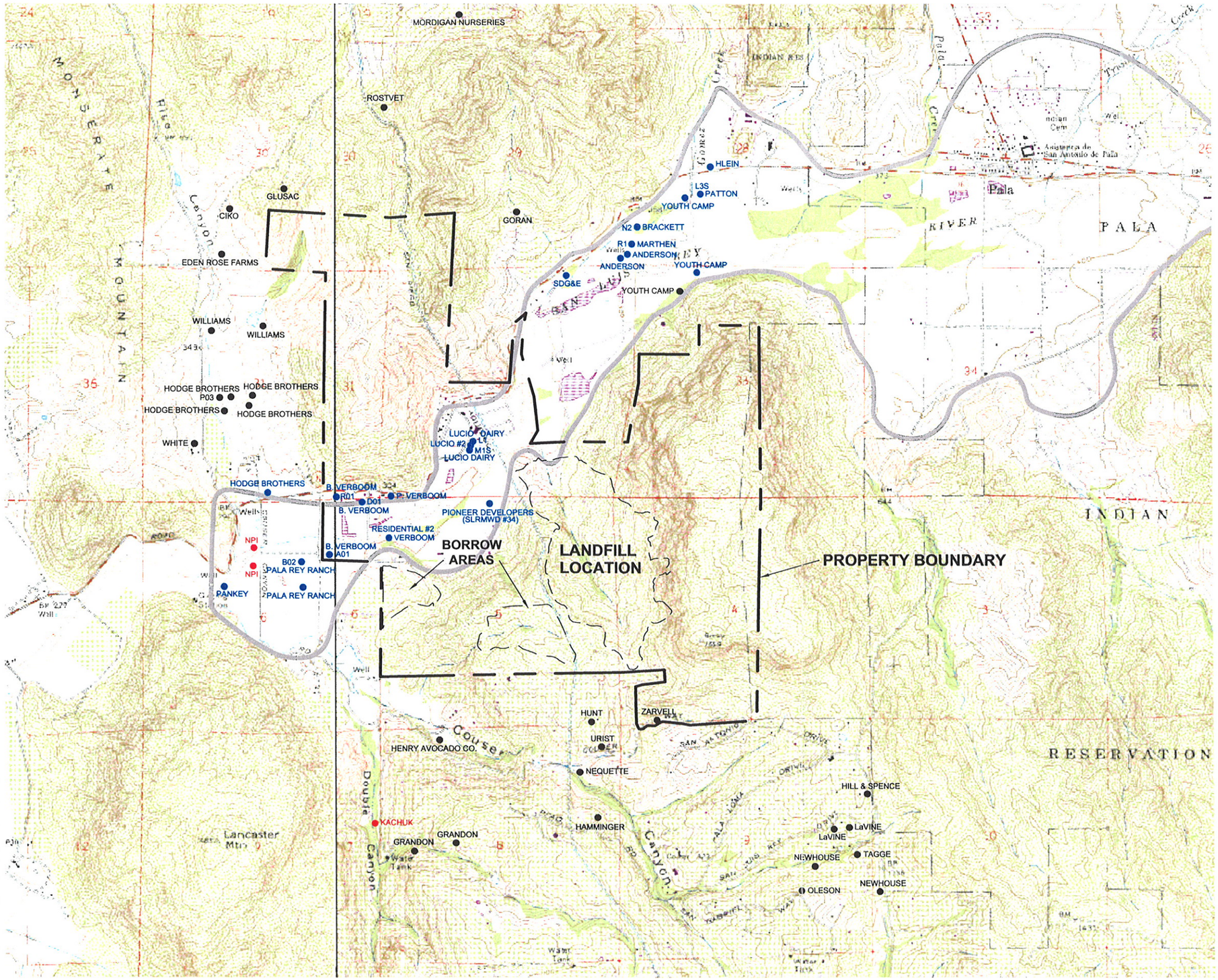
VL	MAY 2003	9539

SOURCES:
SANDAG GIS DATA, 1997
DAVID EVANS AND ASSOCIATES, INC., 1999
PCR SERVICES CORPORATION, 1999



EXPLANATION:

WHITE ● APPROXIMATE LOCATION OF LOCAL GROUNDWATER WELL SCREENED IN BEDROCK (NOT FIELD VERIFIED)

PANKEY ● APPROXIMATE LOCATION OF LOCAL GROUNDWATER WELL SCREENED IN ALLUVIUM (NOT FIELD VERIFIED)

NPI ● APPROXIMATE LOCATION OF LOCAL GROUNDWATER WELL SCREENED IN ALLUVIUM AND BEDROCK (NOT FIELD VERIFIED)

APPROXIMATE LIMIT OF PALA BASIN

REFERENCE:

USGS 7.5 MINUTE PALA (1988) AND BONSALL (1975) CALIFORNIA QUADRANGLES

CALIFORNIA DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORTS

SAN DIEGO COUNTY WATER AUTHORITY GROUNDWATER REPORT (1997)

N

APPROXIMATE SCALE: 1" = 2300'

FIGURE 2-2

KNOWN WELLS WITHIN 1 MILE RADIUS

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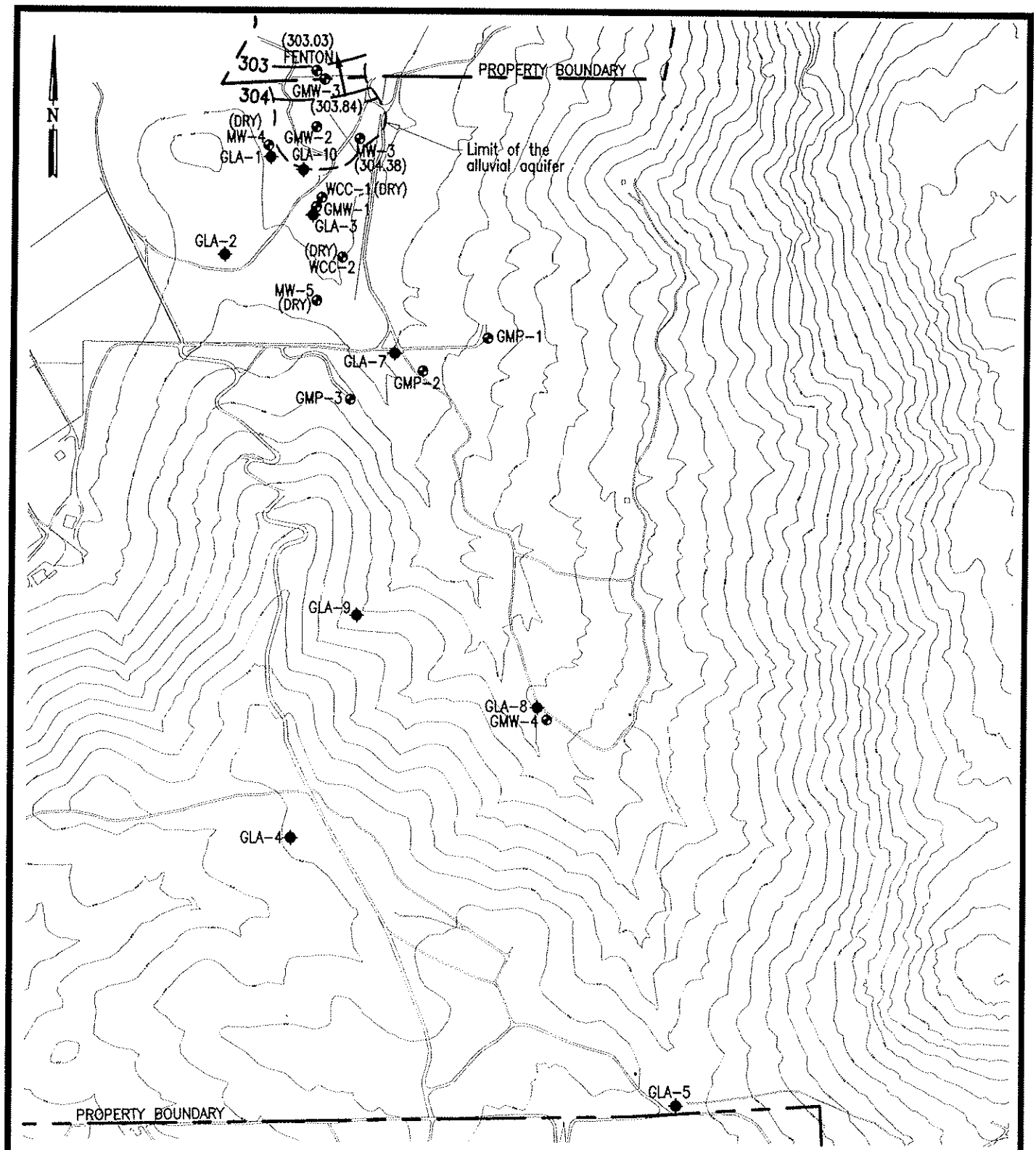

GRAPHIC SCALE

350 0 175 350 700

(in feet)

1 inch = 700 ft.

EXPLANATION:

- MONITORING WELL BY GLA
- MONITORING WELL BY OTHERS
- 304 WATER TABLE ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

FIGURE 2-3A

CONFIGURATION OF THE WATER TABLE IN THE ALLUVIAL AQUIFER ON 12/16/96

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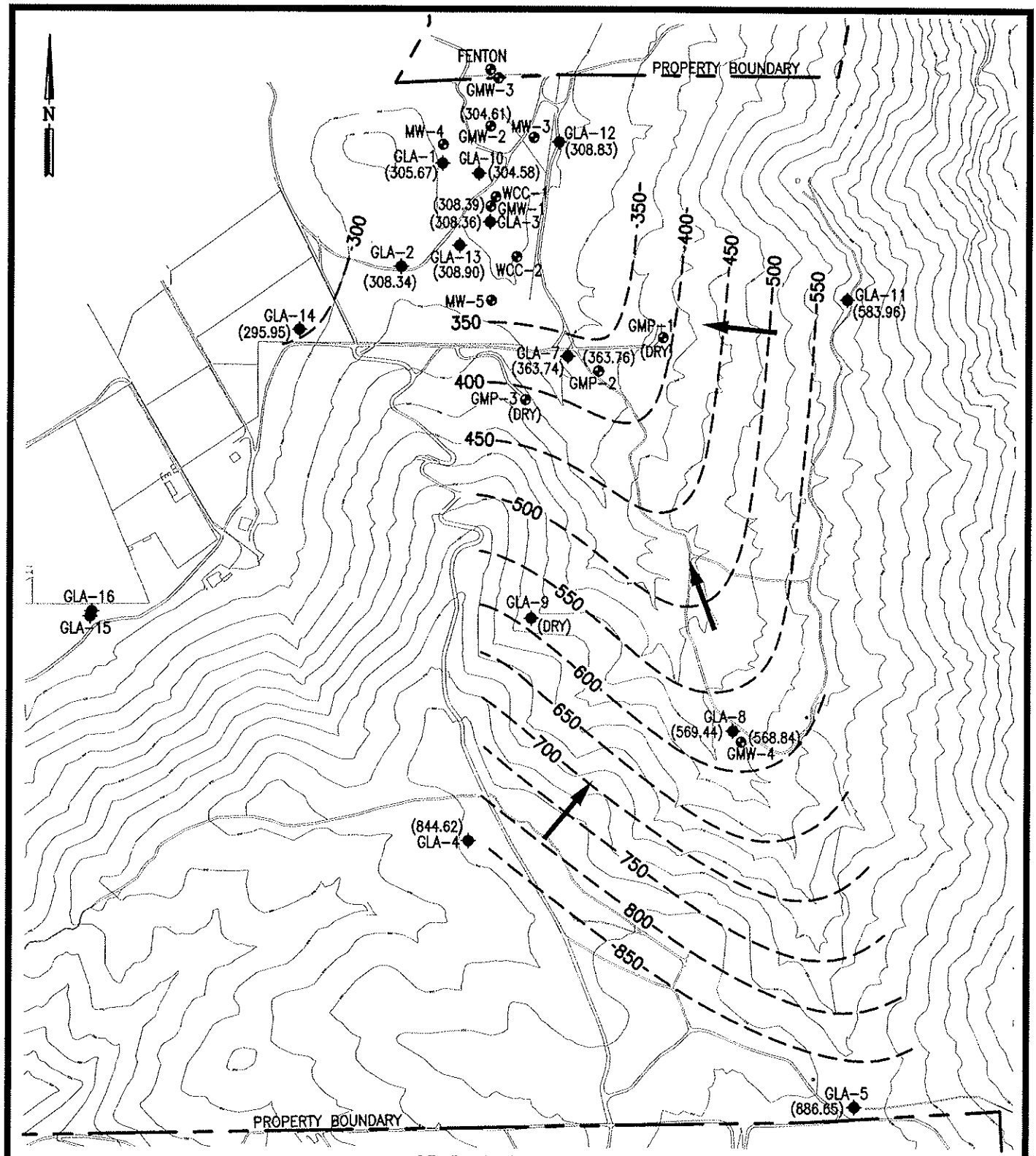

GRAPHIC SCALE

350 0 175 350 700

(in feet)

1 inch = 700 ft.

EXPLANATION:

- MONITORING WELL BY GLA
- MONITORING WELL BY OTHERS
- 750 PIEZOMETRIC SURFACE ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

FIGURE 2-3B

CONFIGURATION OF THE PIEZOMETRIC SURFACE IN THE FRACTURED BEDROCK AQUIFER ON 3/14 & 3/15/00

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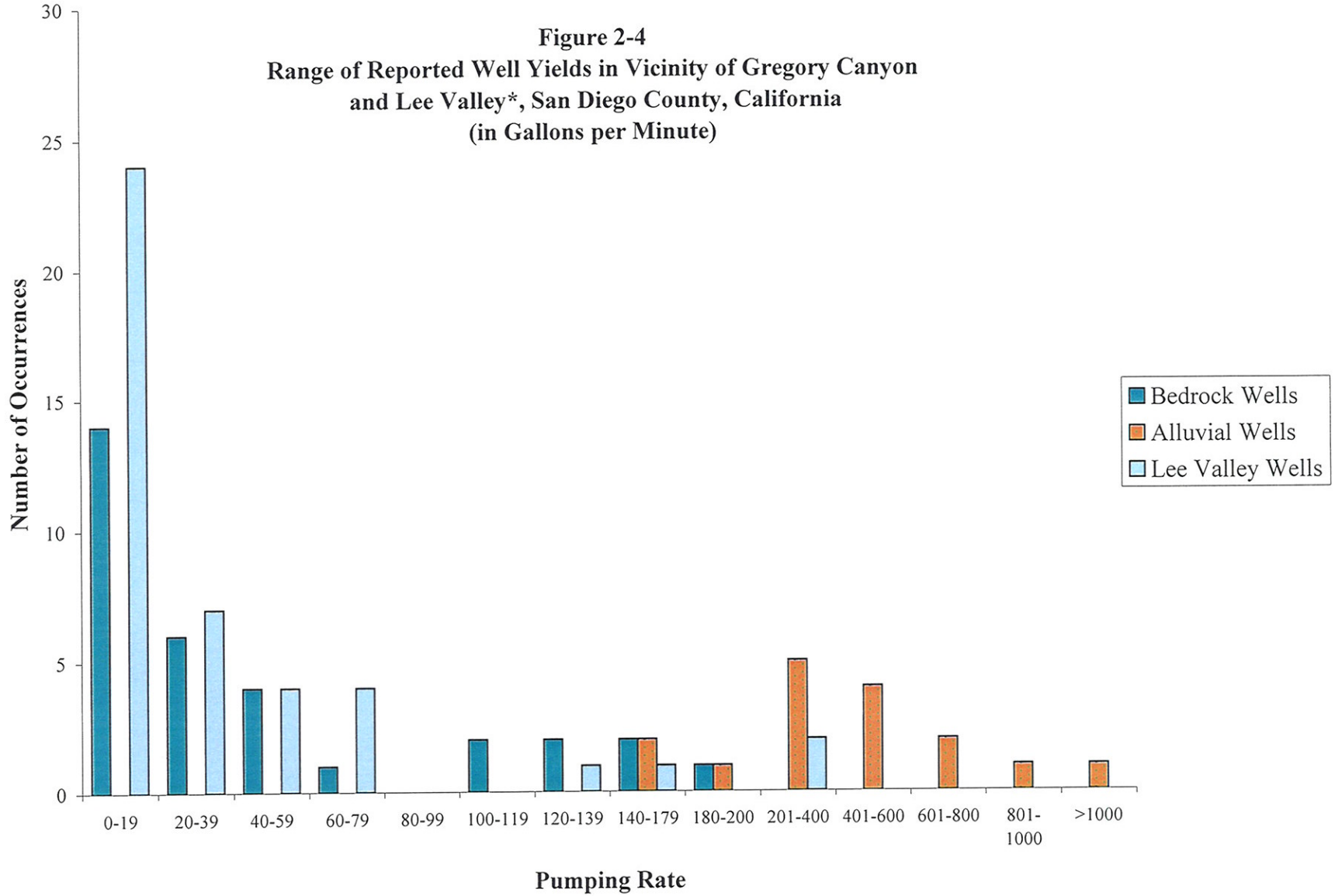
Figure 2-4
Range of Reported Well Yields in Vicinity of Gregory Canyon and Lee Valley*, San Diego County, California (in Gallons per Minute)



*From Kaehler and Hsieh, 1994, USGS Water-Supply Paper 2394.

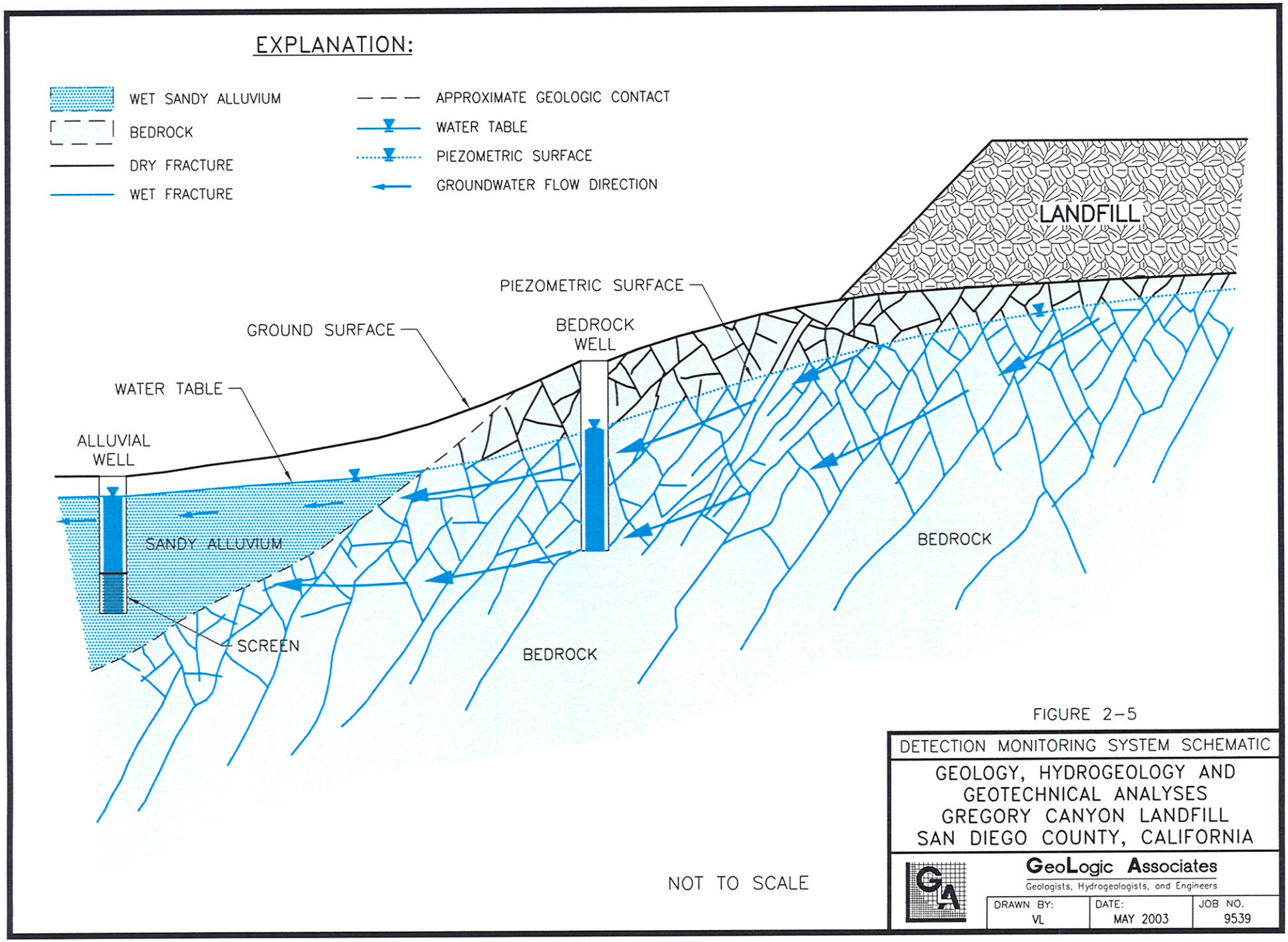


FIGURE 2-5

DETECTION MONITORING SYSTEM SCHEMATIC

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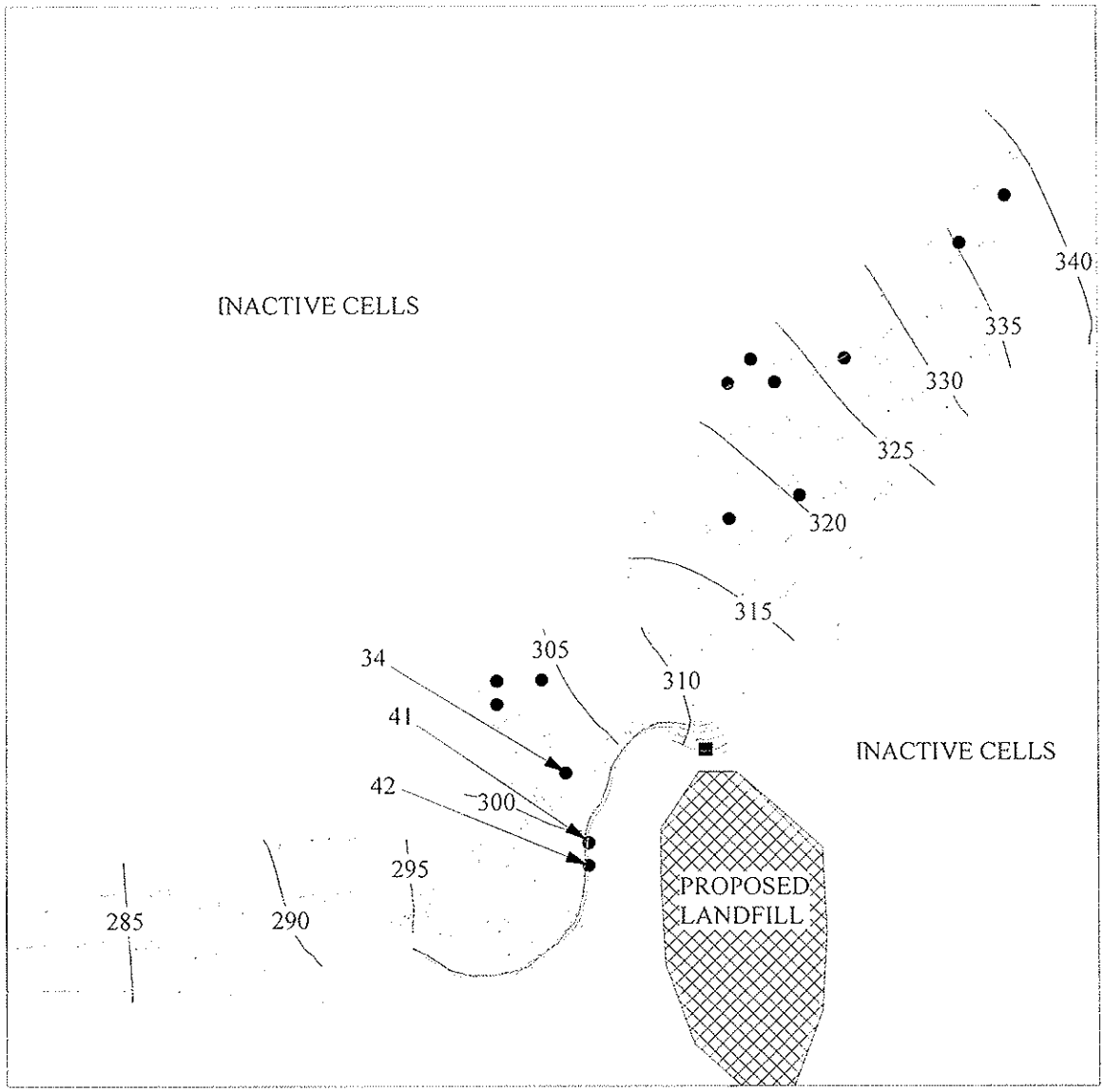

Case 1. Equipotential levels similar to the ones measured currently (approximately 10 feet lower than ground surface)

2,000 feet

- Pumping well
- Hypothetical point of release
- 315 Equipotential line (in feet amsl)
- Groundwater flow velocity vectors
- Release pathway

FIGURE 2-6A

TWO-DIMENTIONAL FLOW MODEL 1, CONTAMINANT TRANSPORT PATH (TYPICAL LEVELS)

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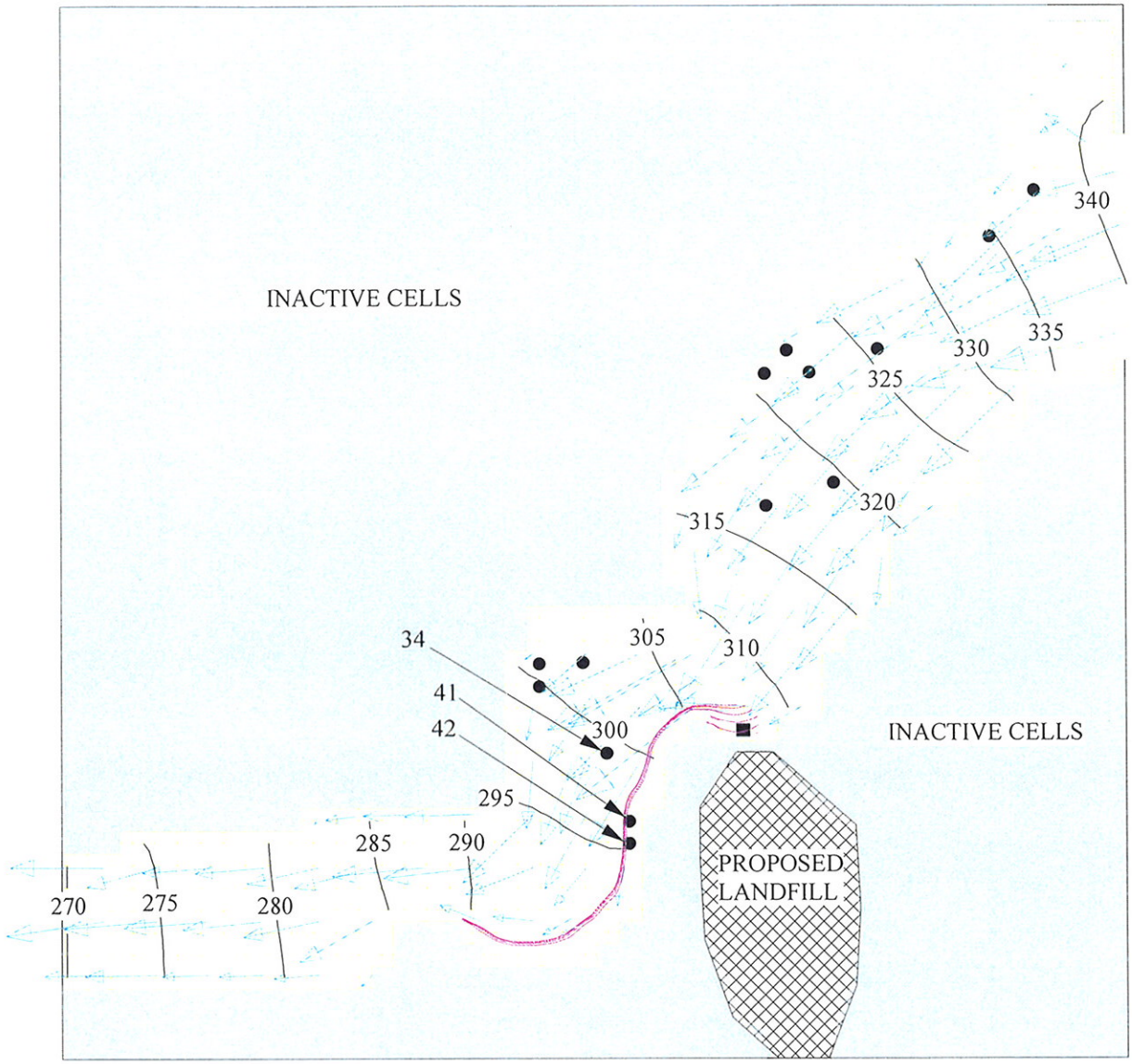

Case 2. Equipotential levels 20 feet lower than ground surface along the western edge of the model

- Pumping well
- Hypothetical point of release
- 315 Equipotential line (in feet amsl)
- Groundwater flow velocity vectors
- Release pathway

2,000 feet

FIGURE 2-6B

TWO-DIMENTIONAL FLOW MODEL 2, CONTAMINANT TRANSPORT PATH (10 FEET BELOW TYPICAL LEVELS)

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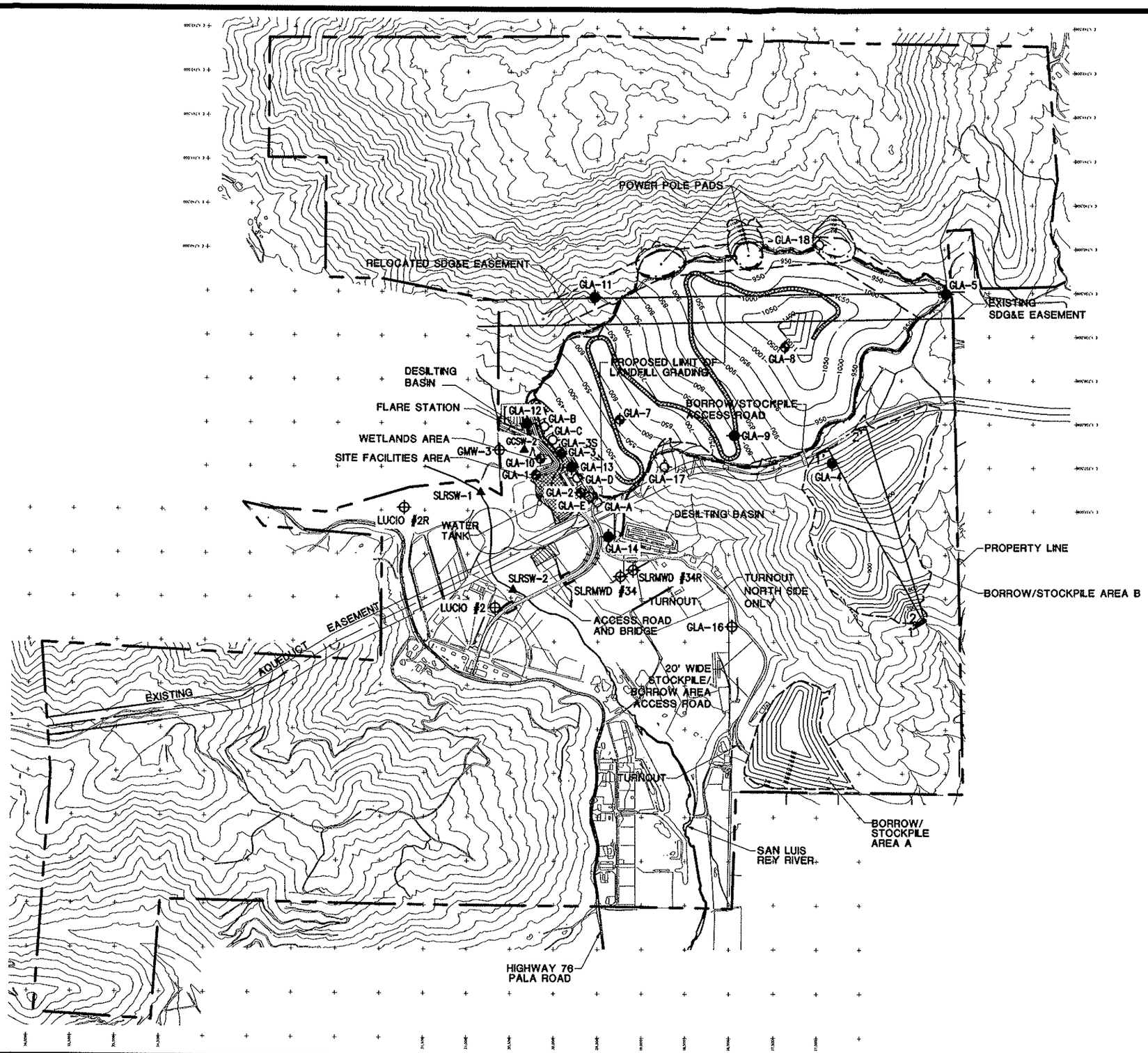

LEGEND

- PROPERTY LINE
- APPROXIMATE LIMIT OF LANDFILL GRADING
- BORROW/STOCKPILE AREA LIMITS
- FINAL CONTOUR
- EXISTING CONTOUR
- ACCESS/HAUL ROAD
- SURFACE WATER SAMPLING LOCATION
- BEDROCK AQUIFER MONITORING WELL
- WATER LEVEL MEASURING STATION
- ALLUVIAL AQUIFER MONITORING WELL
- MONITORING WELL TO BE CONSTRUCTED
- 1 — 1' SLOPE STABILITY CROSS-SECTION LOCATION

N

GRAPHIC SCALE
600 0 300 600 1200
(in feet)
1 inch = 1200 ft.

FIGURE 2-7

PROPOSED DETECTION MONITORING NETWORK

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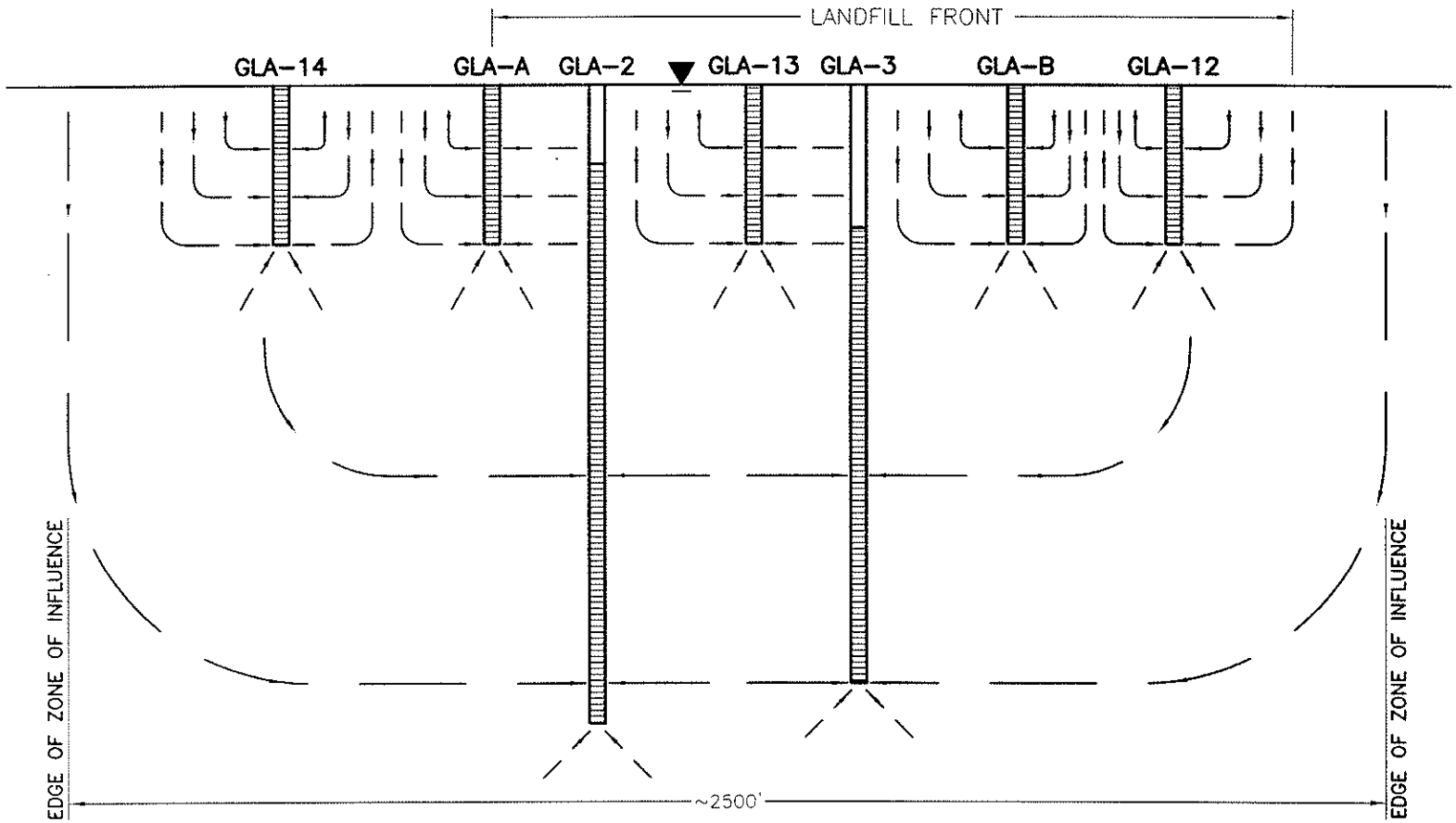

SCHEMATIC DIAGRAM OF FLOW LINES WITHIN THE ZONE OF INFLUENCE OF EACH GROUNDWATER MONITORING WELL

DRAWING SCALES
HORIZ.: 1" = 300'
VERT.: 1" = 20'

EXPLANATION:

- WATER TABLE
- GROUNDWATER FLOW DIRECTION
- WELL CASING
- WELL SCREEN

FIGURE 2-8

MONITORING WELL FLOW SYSTEM

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