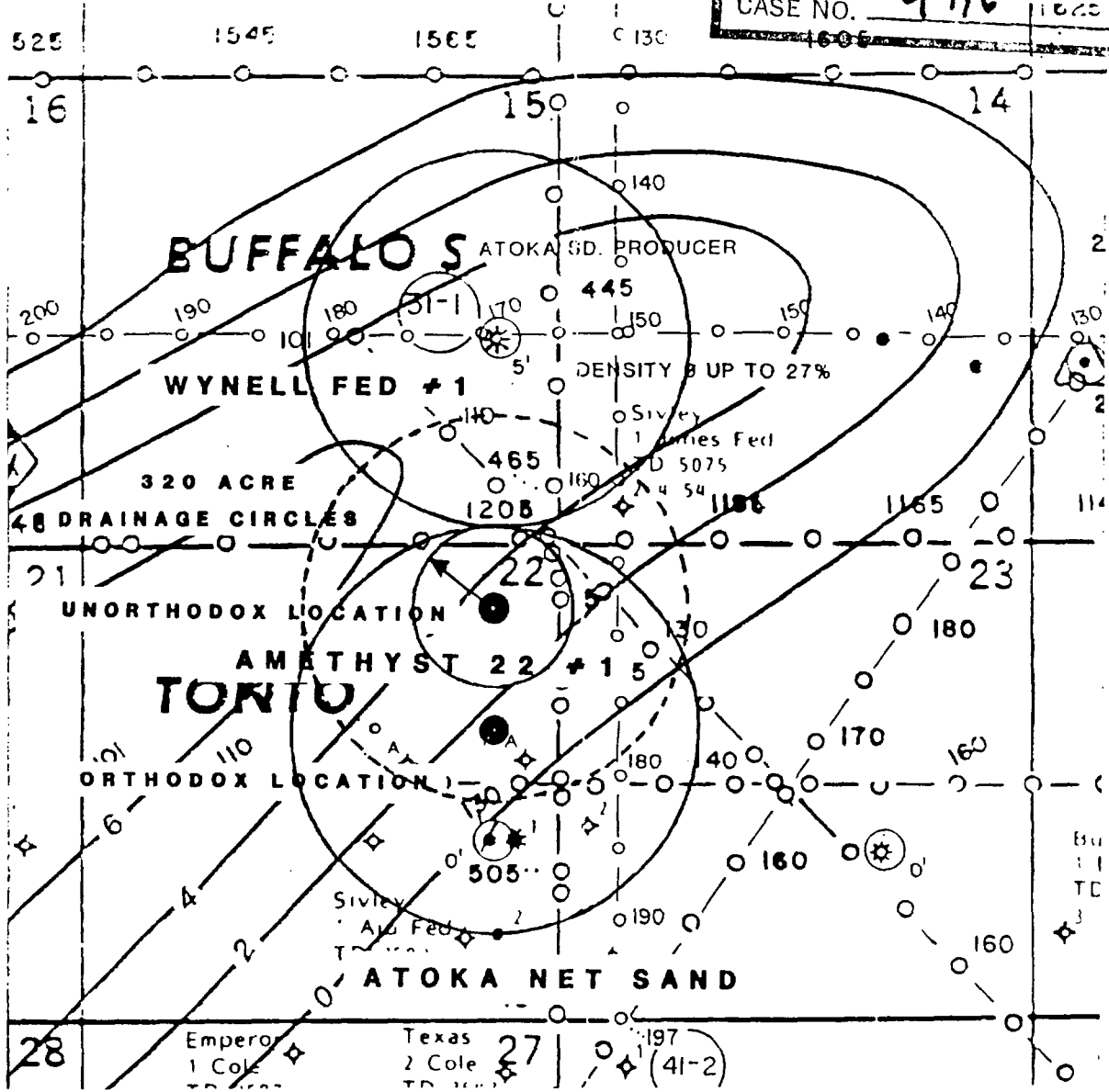


ALLOWABLE CALCULATION - NO FLOW BOUNDARY BEFORE EXAMINER
 AMETHYST 22 #1 - UNORTHODOX LOCATION
 STATE OF NEW MEXICO OIL CONSERVATION DIVISION
 CASE NO. 9796
 HEARING DATE: NOVEMBER 15, 1989
 EXHIBIT NO. 11

Mitchell
 CASE NO. 9796
 EXHIBIT NO. 11



A no flow boundary between the Wynell Federal #1 and 660 FEL and 1980 FNL orthodox location would exist 126 ft north of the section line. The Amethyst 22 #1 unorthodox location would have a drainage radius of 726 ft to achieve the same boundary.

$$\text{Drainage area} = \frac{(\pi)(726)^2}{43,560} \text{ acres} = 38 \text{ acres}$$

Drainage area for a well is directly proportional to flow rate. To limit drainage area to 38 acres, allowable factor is $38/320 = .119$
 Penalty is $(1-.119) \times 100 = 88\%$