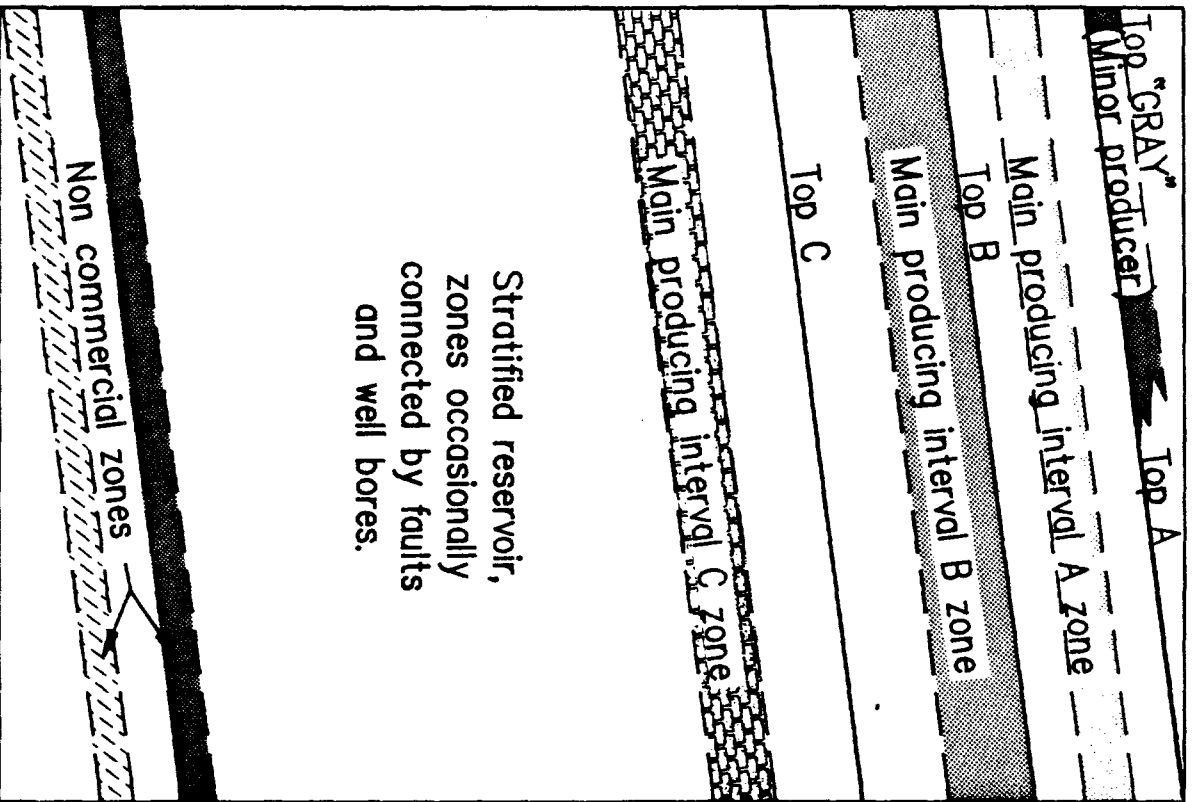


BASIC RESERVOIR MECHANICS AS PERCEIVED BY:
(from OCD cases 8946 and 8950)

APPLICANTS

OPPONENTS



(MESA GRANDE and MALLON)
A single, highly communicative reservoir, fractured vertically throughout.

(MOBIL)
Reservoir is primarily of matrix porosity. (Completion technique suggests Mobil believes production limited to zones.)

BASIC RESERVOIR MECHANICS AS PERCEIVED BY:
(FROM OCD CASES 8946 AND 8950)

APPLICANTS: B-M-G, Dugan, McHugh & Sun

The reservoir is stratified with three main producing zones. Oil is produced from fracture porosity either directly through a high capacity fracture system; or by this system indirectly draining the "tight" blocks it surrounds. A high degree of communication exists laterally within a zone; but communication vertically among zones is limited to faults and connection created by wellbores and fracture treatments.

Producing mechanism is combination solution gas drive and downstructure gravity drainage, augmented in the Canada Ojitos Unit by pressure maintenance by gas injection.

Applicants contend the gravity drainage potential is rate sensitive.

OPPONENTS: Mallon and Mesa Grande

The reservoir consists of a single unit some 600' in thickness, highly fractured and communicative.

Producing mechanism for oil is vertical gravity drainage down and for gas is vertical segregation up - but no lateral movement of oil or gas.

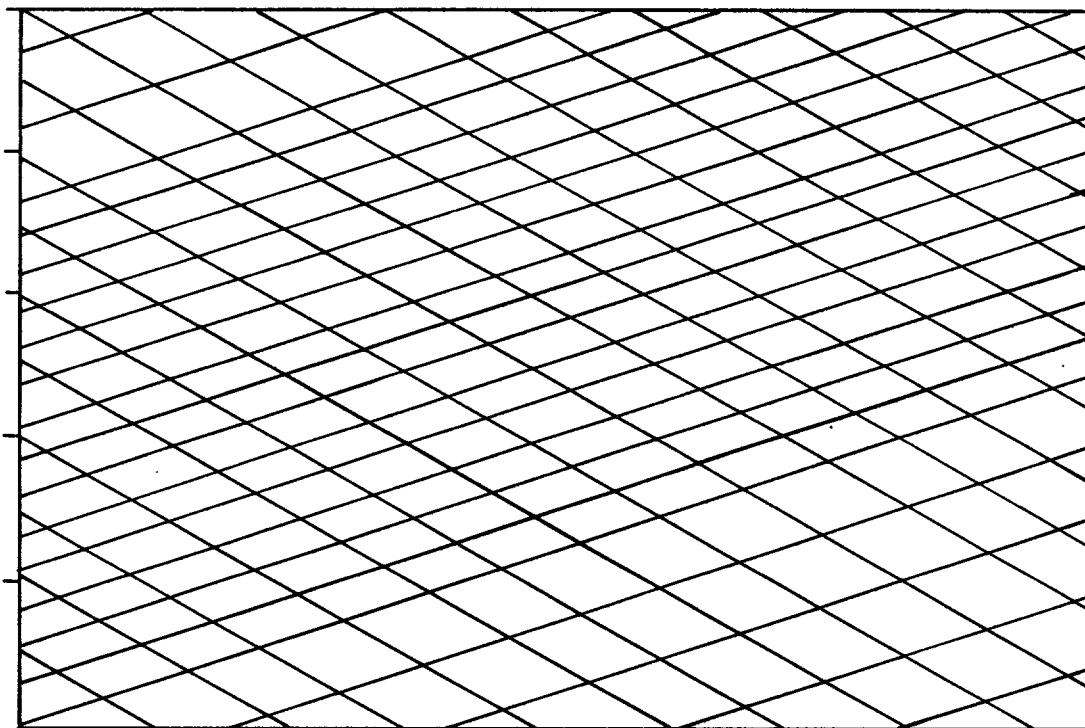
Opponents contend gravity drainage contribution is not rate sensitive.

OPPONENT: Mobil

The reservoir is primarily of matrix porosity. Mobil's drainage calculation example shows wide spacing of vertical fractures; implying that the fractures Mobil is relying on to drain the matrix may be those induced by fracture treatments.

SCHMATIC FRACTURE SYSTEM
Fracture Blocks ± 80 Ac. & 160 Ac.

← Downdip

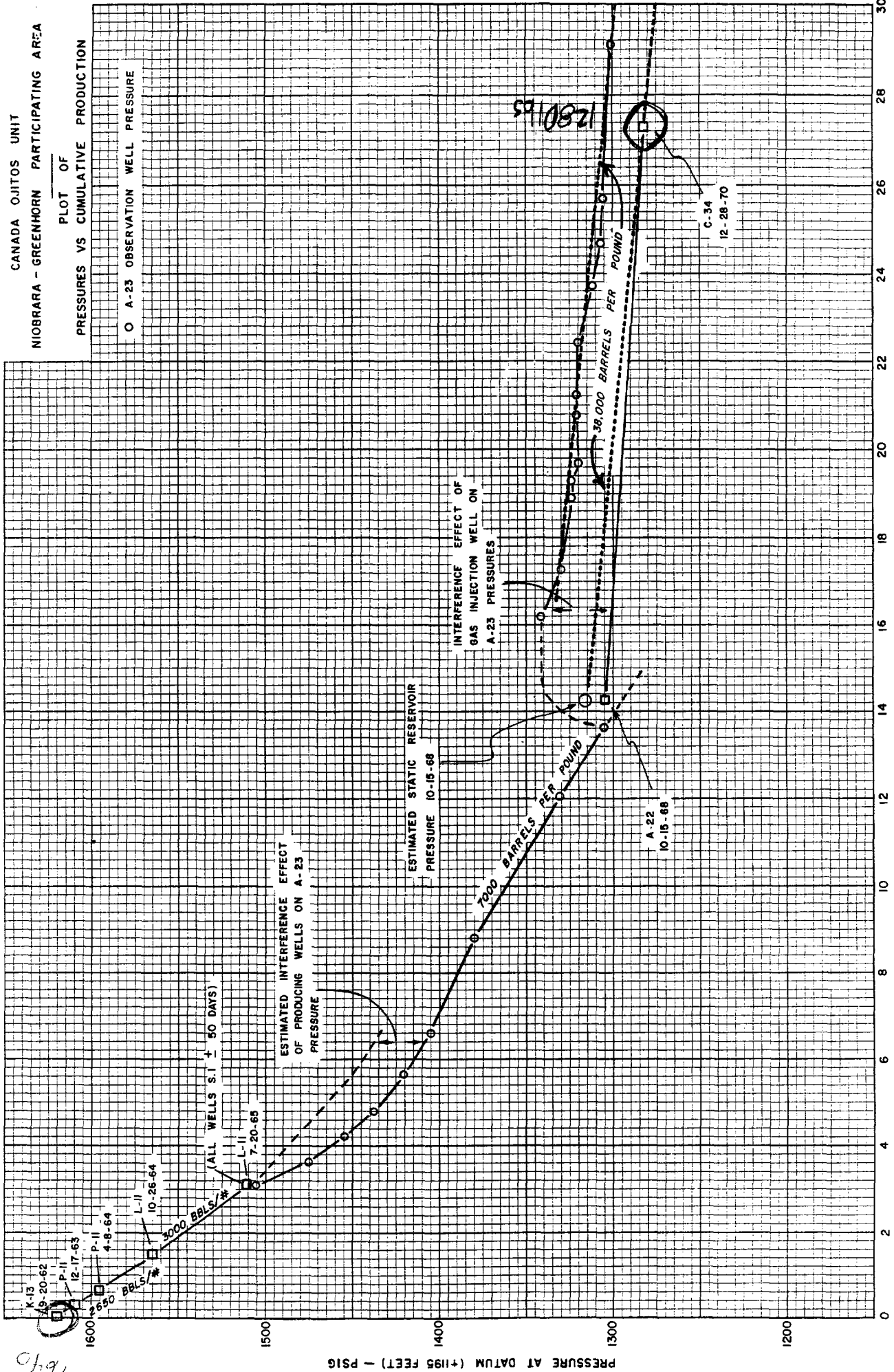


→ 1 Mile

CANADA OJITOS UNIT
 NIobrara - GREENHORN PARTICIPATING AREA

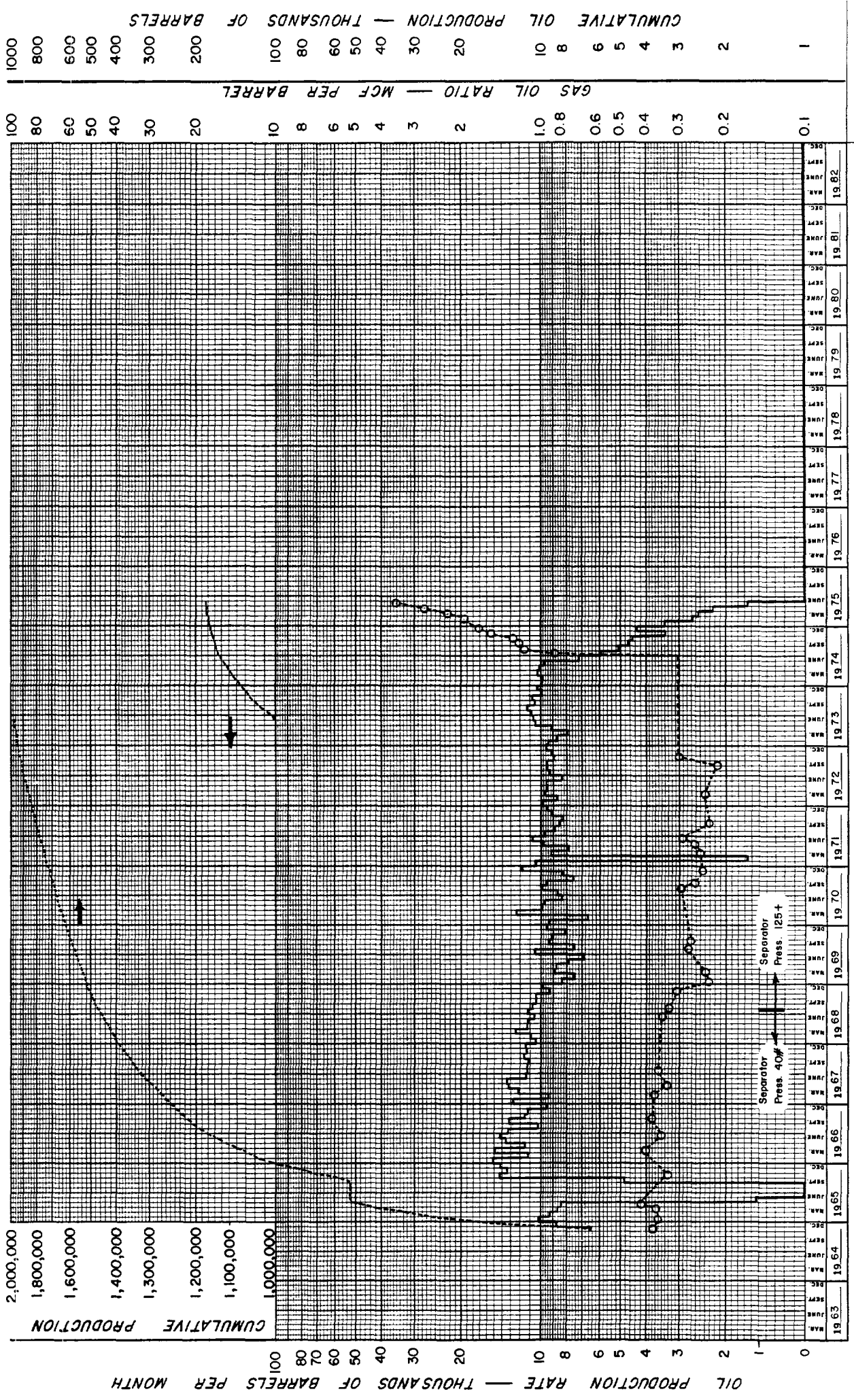
PLOT OF
 PRESSURES VS CUMULATIVE PRODUCTION

O A-23 OBSERVATION WELL PRESSURE



CUMULATIVE PRODUCTION — HUNDREDS OF BARRELS

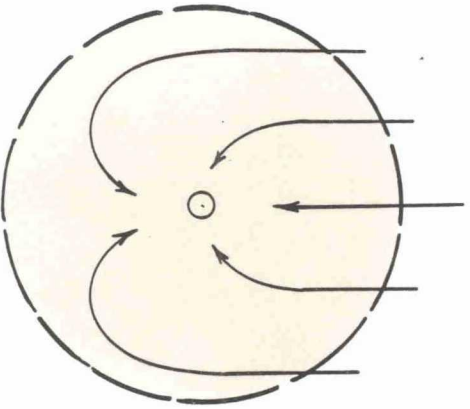
1640



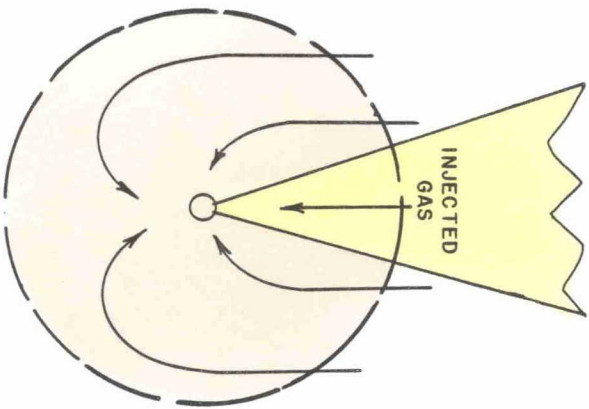
PRODUCTION HISTORY
 CANADA OJITOS UNIT WELL L-11

SCHEMATIC OIL & GAS FLOW PATTERNS
 FOR TYPICAL GRAVITY DRAINAGE DEPLETION
 UNDER GAS PRESSURE MAINTENANCE
 BEFORE & AFTER
 INITIAL GAS BREAKTHROUGH

BEFORE BREAKTHROUGH

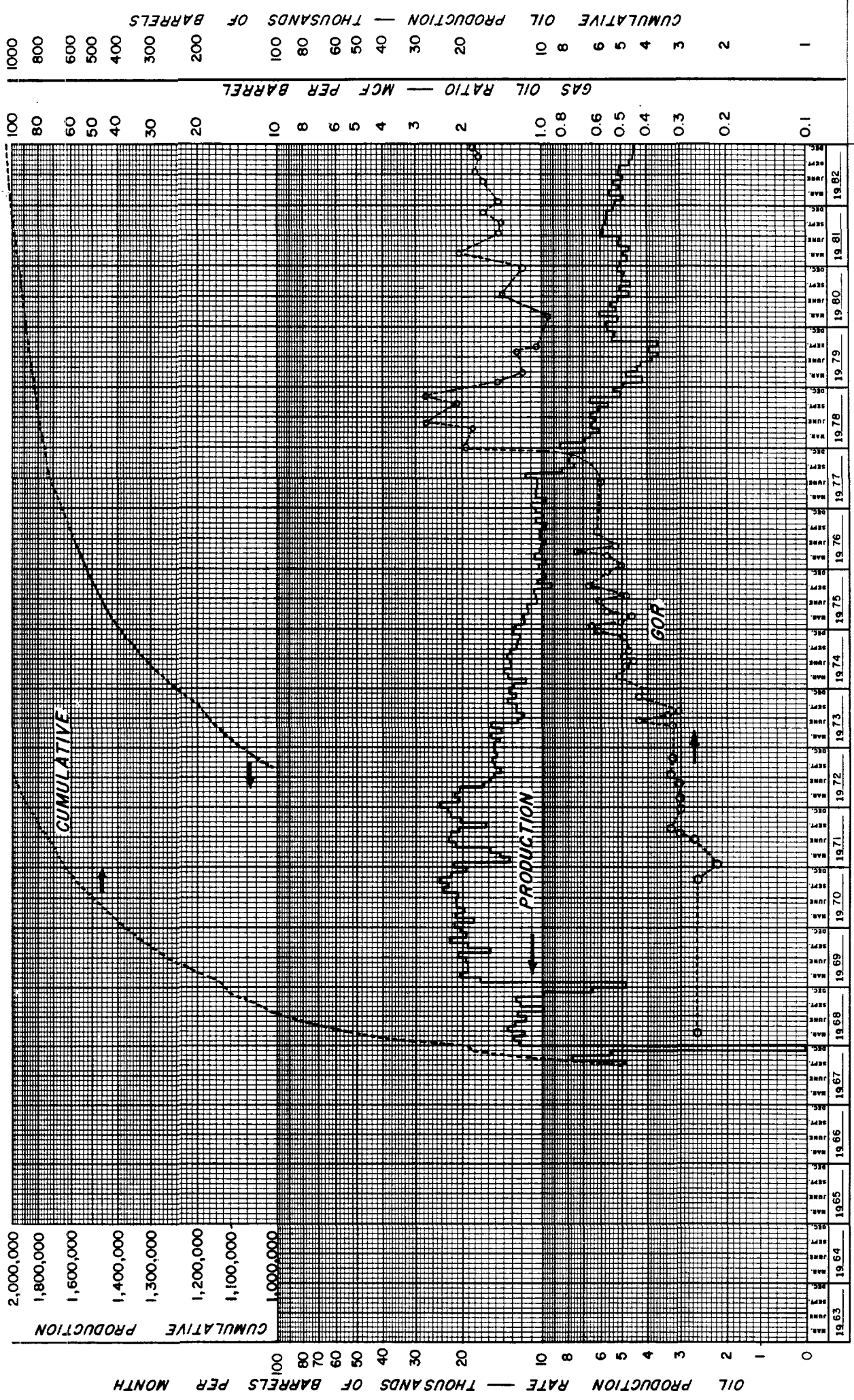


AFTER BREAKTHROUGH



DOWNDIP

NOTE: AT BREAKTHROUGH OIL
 PRODUCTIVITY IS ONLY
 SLIGHTLY DECREASED



PRODUCTION HISTORY
 CANADA OJITOS UNIT WELL E-10