

ORYX ENERGY COMPANY

**CONOCO STATE #2
INDIAN BASIN (UPPER PENN) GAS POOL
EDDY COUNTY, NEW MEXICO**

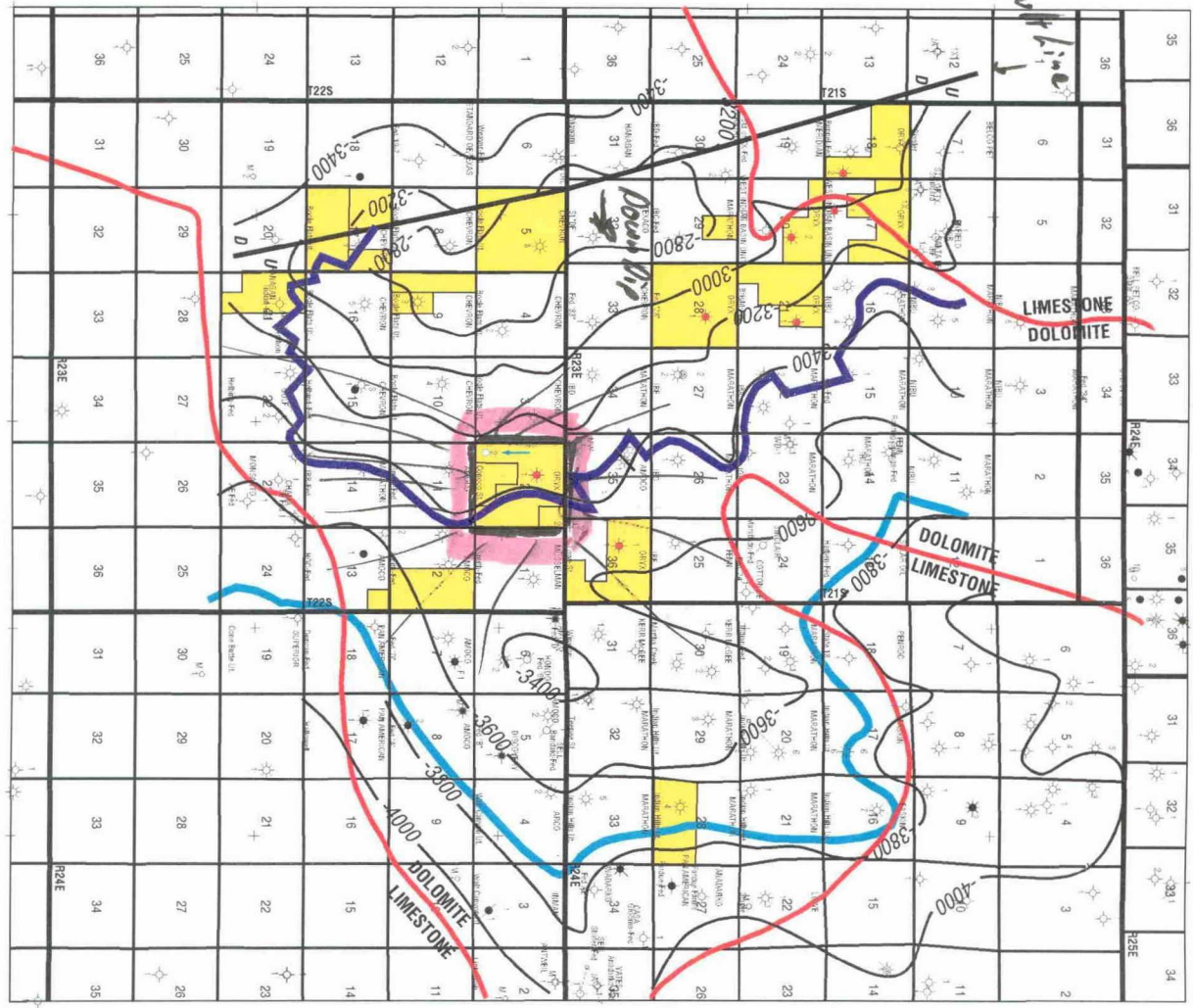
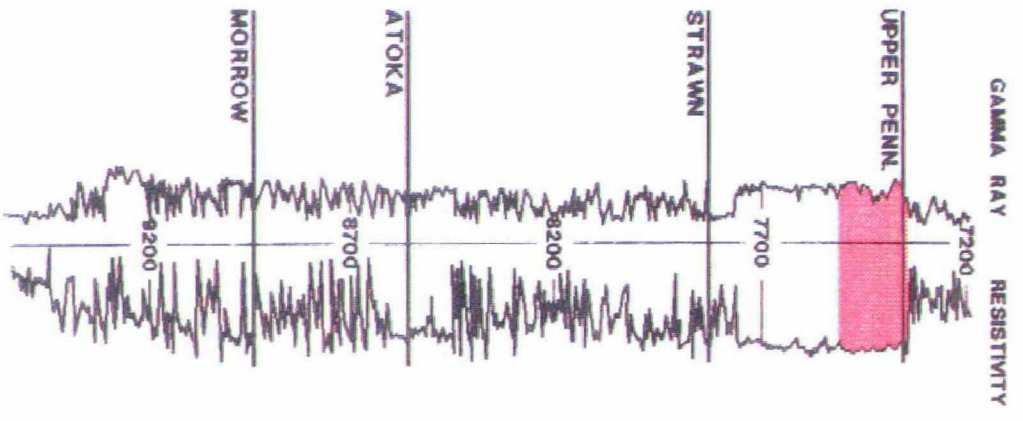
**HEARING BEFORE THE
NEW MEXICO
OIL CONSERVATION DIVISION**

CASE NO. 11189

JANUARY 19, 1995

ORYX ENERGY COMPANY-BEFORE	
EXAMINER. _____	
N.M. OIL CONSERVATION DIVISION	
CASE NO. <u>11189</u>	DATE
EXHIBIT NO. <u>8</u>	<u>1/19/95</u>

TYPE LOG



Structure - Top of Upper Penn Reservoir

- (-3778) Original Estimated Gas/Wtr Contact
- (-3450) Present Estimated Gas/Wtr Contact
- Dolomite/Limestone Boundary
- Oryx Operated Cisco Gas Wells
- Oryx Acreage



Oryx Energy Company

Indian Basin Field

Eddy County, New Mexico

Operator Map

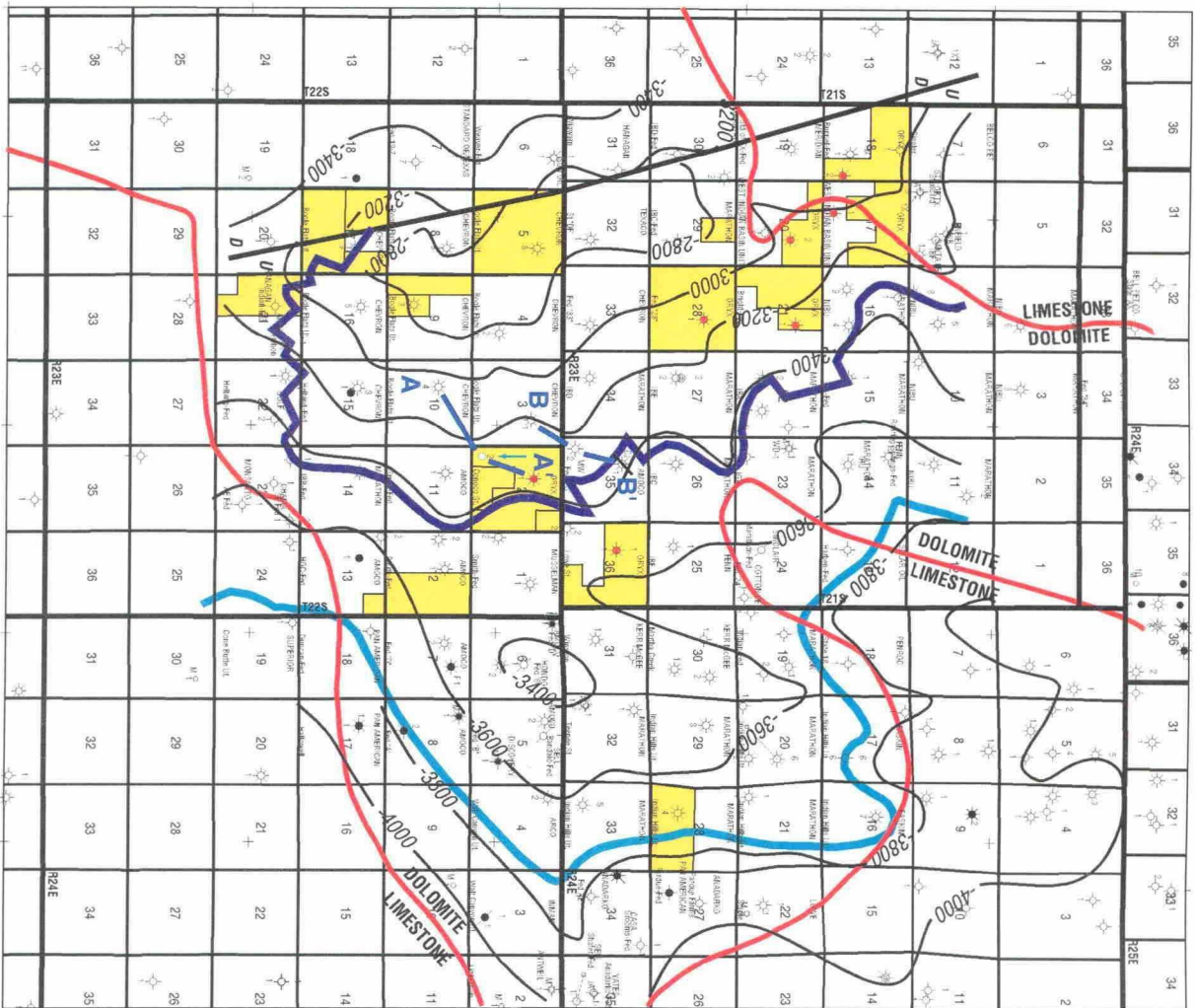
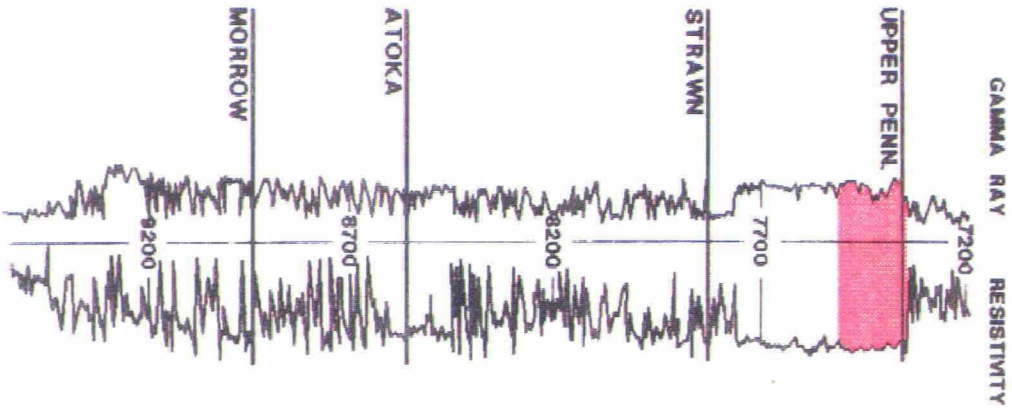


Proposed Oryx Energy
Conoco State #2

ORYX ENERGY COMPANY-BEFORE
EXAMINER: *S. Sogard*
N.M. OIL CONSERVATION DIVISION
CASE NO. 11189 DATE 1/19/95
EXHIBIT NO. 2



TYPE LOG



**Structure - Top of Upper Penn Reservoir
Cross Section Index**

- (-3778) Original Estimated Gas/Wtr Contact
- (-3450) Present Estimated Gas/Wtr Contact
- Dolomite/Limestone Boundary
- Oryx Acreage
- Oryx Operated Cisco Gas Wells



Oryx Energy Company

**Indian Basin
Field**

Eddy County, New Mexico

Operator Map

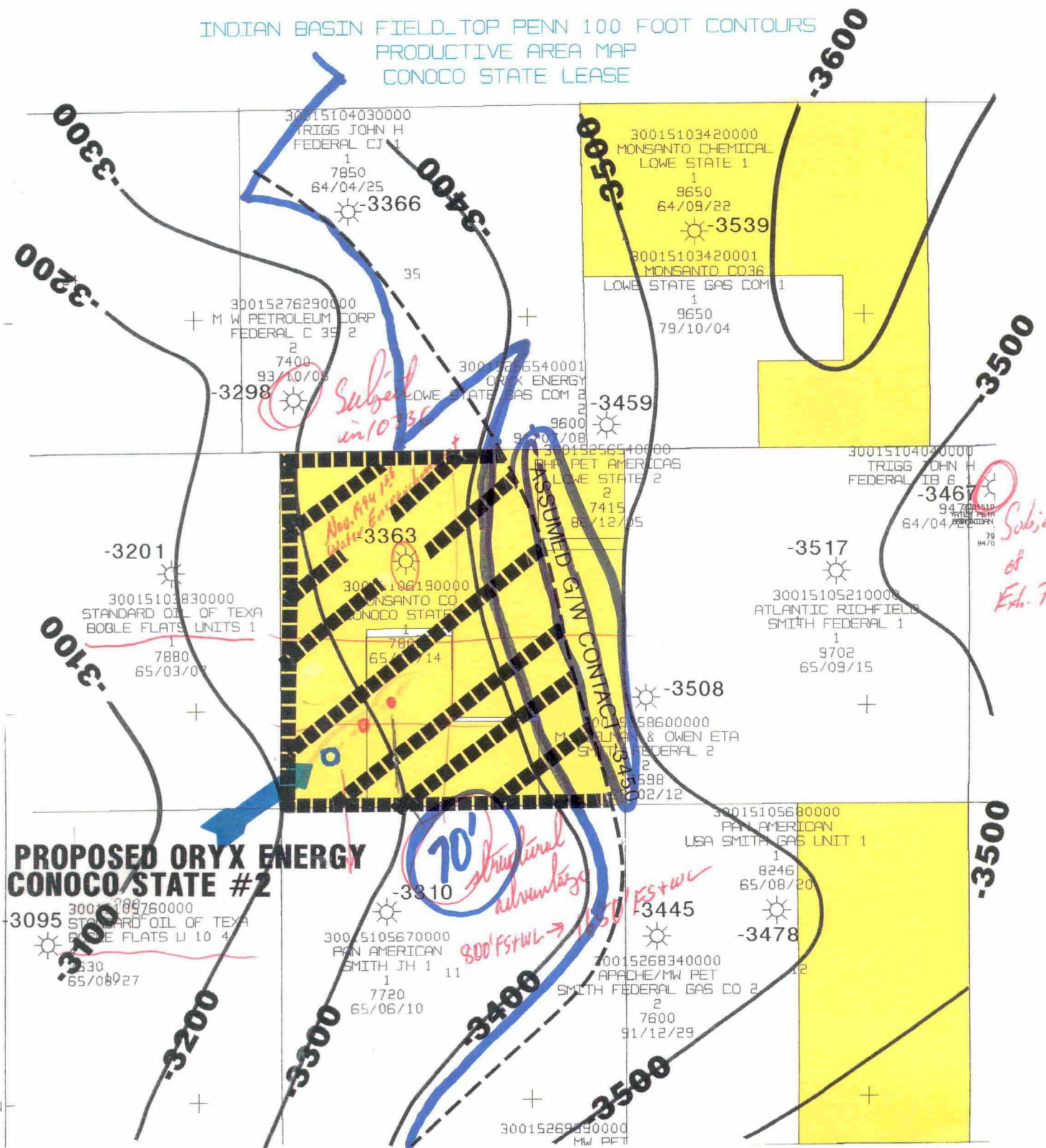


Proposed Oryx Energy
Conoco State #2

ORyx ENERGY COMPANY-BEFORE
EXAMINER, Stoeger
N.M. OIL CONSERVATION DIVISION
CASE NO. 11769 DATE 1/19/95
EXHIBIT NO. 3



INDIAN BASIN FIELD TOP PENN 100 FOOT CONTOURS
 PRODUCTIVE AREA MAP
 CONOCO STATE LEASE



**PROPOSED ORYX ENERGY
 CONOCO STATE #2**

██████████ TOTAL PRODUCTIVE ACRES
 CONOCO STATE LEASE
 TOTAL ACRES = 487.3

----- PRESENT GAS/WATER CONTACT

ORYX ENERGY COMPANY-BEFORE EXAMINER, <i>Stegner</i>	
N.M. OIL CONSERVATION DIVISION	
CASE NO. <u>11189</u>	DATE
EXHIBIT NO. <u>4</u>	<u>1/19/95</u>

1 INCH = 2000 FEET
 CONOCO STATE #1 PERFS
 7413-7488(-3433SS TO -3508SS)

APACHE JH SMITH #1
 PERFS 7432-7468
 (-3451SS TO -3487SS)



1.02

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

CONOCO STATE #2

SUMMARY OF REQUEST

- * **ORYX ENERGY REQUESTS THE NMOCD TO GRANT AN UNORTHODOX DRILLING LOCATION IN SECTION 2 - TOWNSHIP 22 S - RANGE 23 E AT 800' FSL AND 800' FWL.**

- * **ORYX FURTHER REQUESTS AN ALLOCATION FACTOR OF .62 TO THE CONOCO STATE PRORATION UNIT.**

- * **ORYX FURTHER REQUESTS PERMISSION TO CONTINUE TO PRODUCE THE CONOCO STATE #1 WELL CONCURRENTLY WITH THE #2 WELL.**

ORYX ENERGY COMPANY-BEFORE	
EXAMINER, <u>Skagel</u>	
N.M. OIL CONSERVATION DIVISION	
CASE NO. <u>11189</u>	DATE
EXHIBIT NO. <u>8</u>	<u>1/19/95</u>

CONOCO STATE #2

BASIS OF REQUEST

*** ORYX CONTENDS THAT AS A PRUDENT OPERATOR, RESERVOIR MANAGEMENT WILL BE MAXIMIZED WITH THE USE OF TWO WELLBORES**

- **ORYX WILL SHOW EXAMPLES OF BYPASSED GAS IN THE RESERVOIR**

*** ORYX FURTHER CONTENDS THAT OUR CORRELATIVE RIGHTS WILL BE IMPAIRED IF ORYX IS NOT ALLOWED TO PRODUCE THESE WELLS CONCURRENTLY.**

- **ORYX WILL PRESENT PRODUCTION FROM OFFSET OPERATORS TO JUSTIFY THIS CLAIM.**
- **GEOLOGIC / RESERVOIR DATA WILL BE PRESENTED SHOWING THE UNEVEN ENCROACHMENT OF WATER.**

ORYX ENERGY COMPANY-BEFORE	
EXAMINER, <u>Steyner</u>	
N.M. OIL CONSERVATION DIVISION	
CASE NO. <u>1189</u>	DATE
EXHIBIT NO. <u>9</u>	<u>1/19/95</u>

ORYX ENERGY ACREAGE FACTOR CALCULATION PROPOSED CONOCO STATE #1 & #2

ORYX ENERGY IS REQUESTING THE NMOC D APPROVE AN ACREAGE FACTOR OF .62 FOR GAS ALLOWABLE PURPOSES. ORYX REQUESTS THIS FACTOR BE APPLIED TO THE UNIT LOCATED IN SECTION 2 - T22S - R23E. THIS NUMBER IS CALCULATED BY AVERAGING THE FOLLOWING METHODS :

- (1) PRODUCTIVE ACREAGE - BASED ON A DETAILED GEOLOGIC EVALUATION, SECTION 2 IS ESTIMATED TO HAVE 487 PRODUCTIVE ACRES :

$$487 / 640 = .76 \text{ (76 \% OF SECTION)}$$

- (2) DISTANCE RATIO METHOD - THE PERCENT DISTANCE FROM THE LEASELINE FOR THE PROPOSED UNORTHODOX LOCATION COMPARED TO A REGULAR LOCATION :

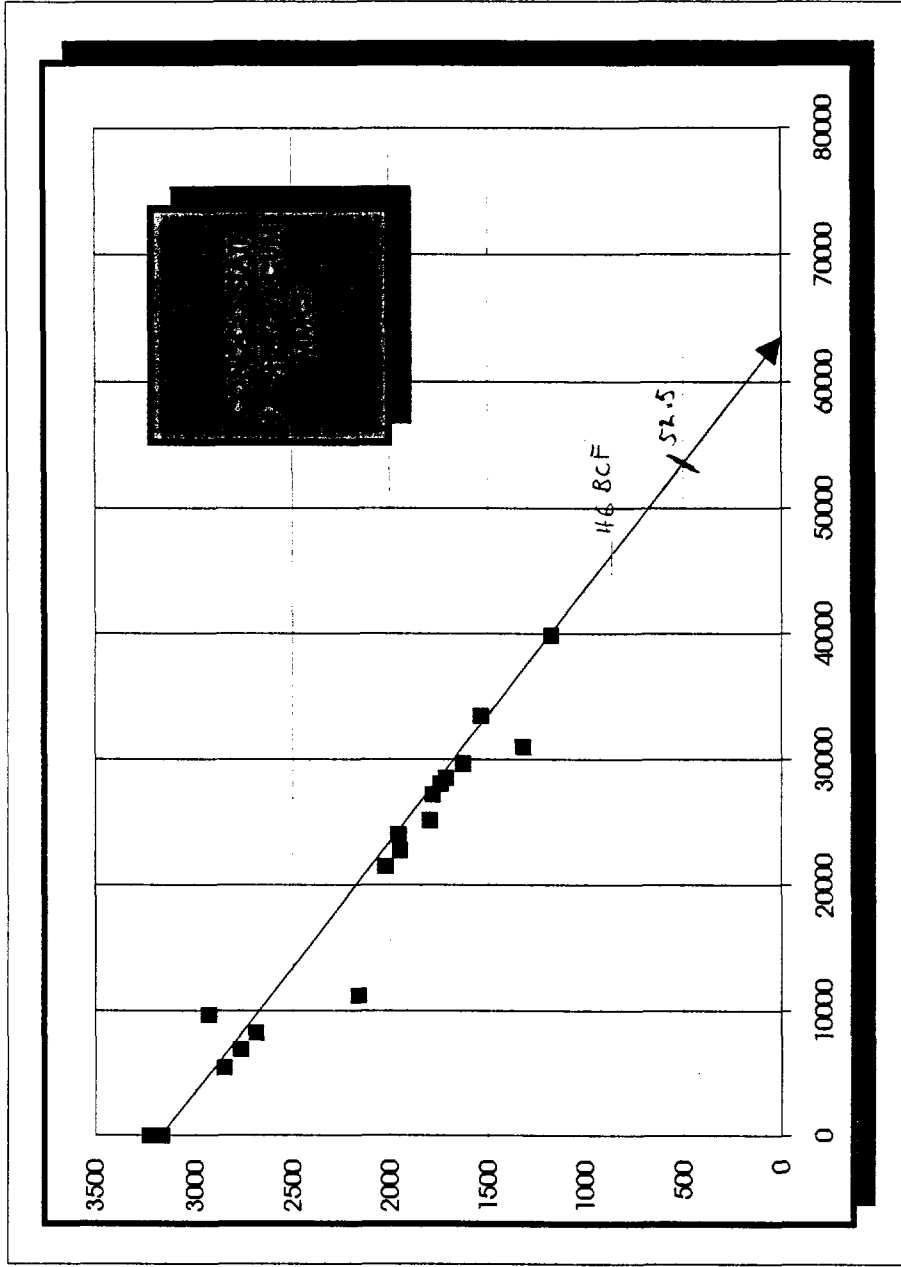
$$800' / 1650' = .48 \text{ (48 \% OF DISTANCE)}$$

THE AVERAGE OF THE ABOVE METHODS IS .62.

ORYX ENERGY COMPANY-BEFORE EXAMINER. _____	
N.M. OIL CONSERVATION DIVISION	
CASE NO. <u>11189</u>	DATE
EXHIBIT NO. <u>10</u>	<u>1/19/95</u>

CONOCO STATE #1

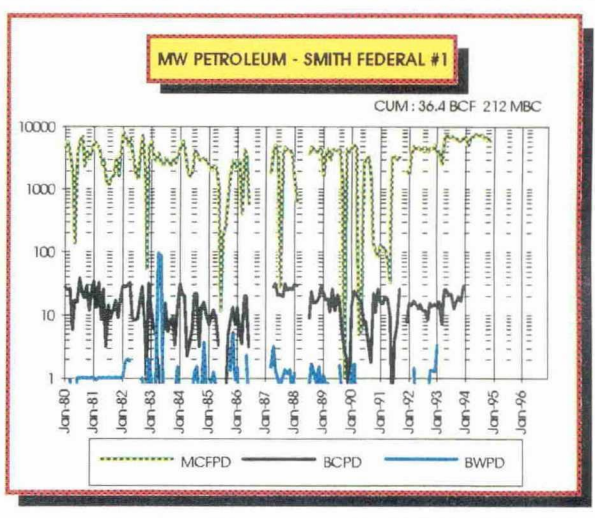
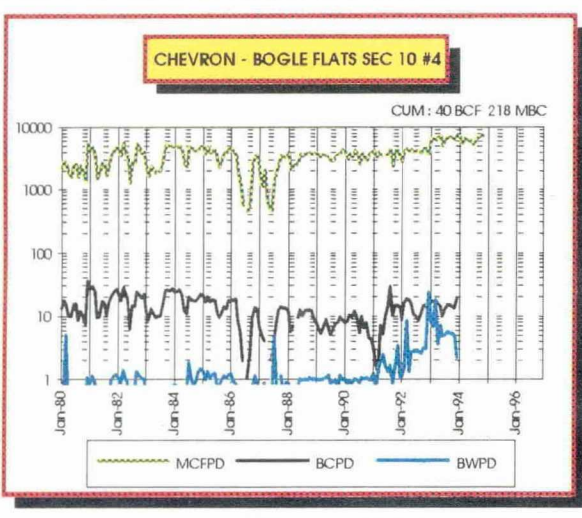
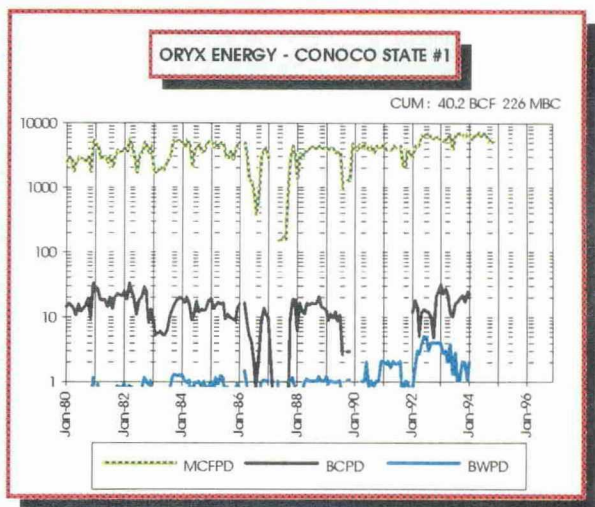
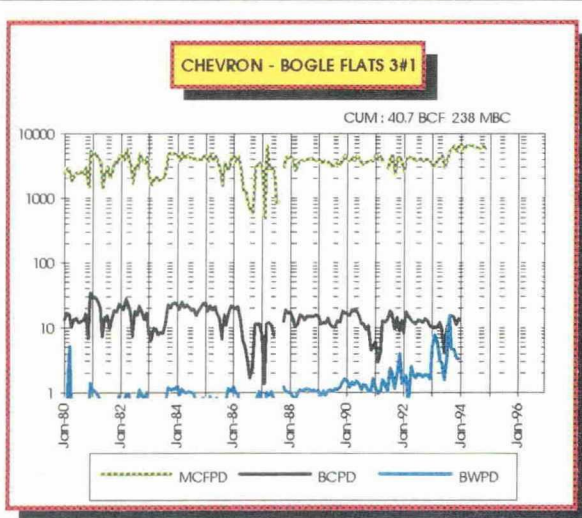
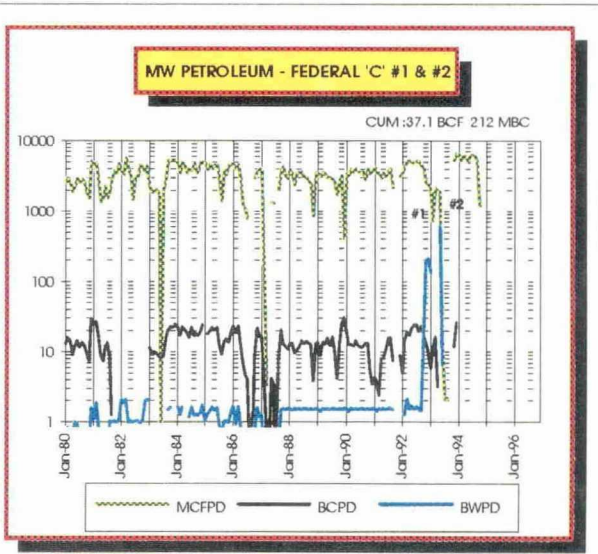
CUM MMCF	BHP/Z	DATE	BHP	Z
0	3226	10/7/65	2609	0.8087
0	3167	6/21/66	2559	0.8080
5435	2850	8/15/70	2298	0.8063
6923	2765	8/30/71	2230	0.8065
8268	2685	8/17/72	2168	0.8074
9718	2925	8/15/73	2358	0.8062
11249	2157	7/18/74	1768	0.8197
21559	2021	8/24/81	1667	0.8248
22829	1947	8/22/82	1612	0.8279
24080	1955	10/5/83	1618	0.8276
25190	1792	5/31/84	1460	0.8147
27230	1779	10/2/85	1488	0.8364
28067	1742	8/10/86	1460	0.8381
28535	1713	9/1/87	1439	0.8400
29700	1626	9/1/88	1374	0.8450
30989	1317	7/26/89	1140	0.8656
33500	1534	9/14/91	1305	0.8507
39925	1175	9/1/94	1000	0.8511



ORYX ENERGY COMPANY-BEFORE
 EXAMINER: _____
 N.M. OIL CONSERVATION DIVISION
 CASE NO. 11189 DATE 1/19/95
 EXHIBIT NO. 11

LRP 1/13/95

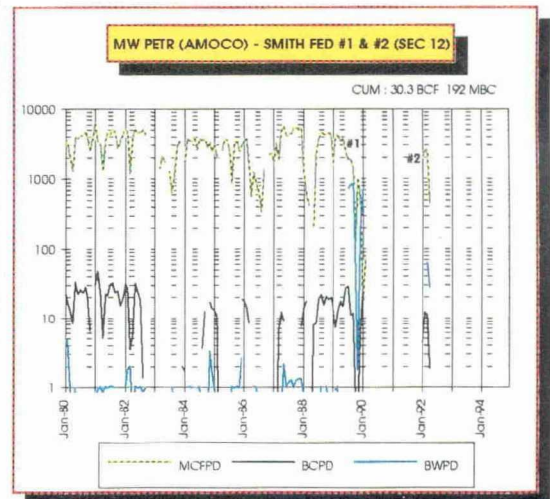
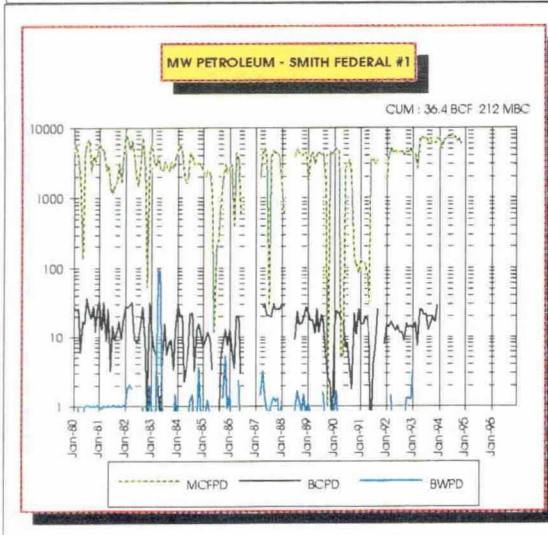
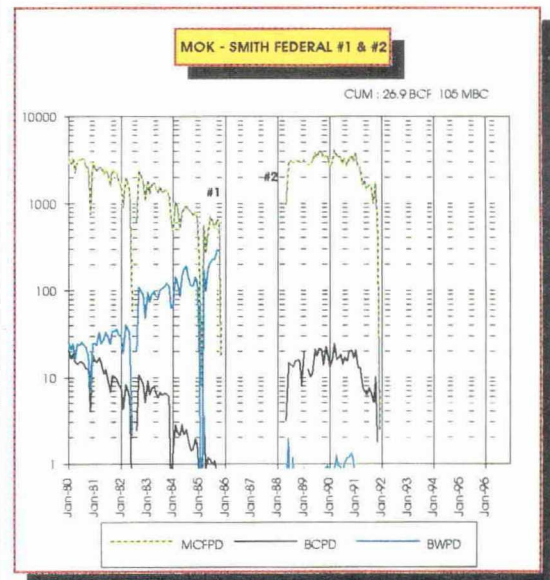
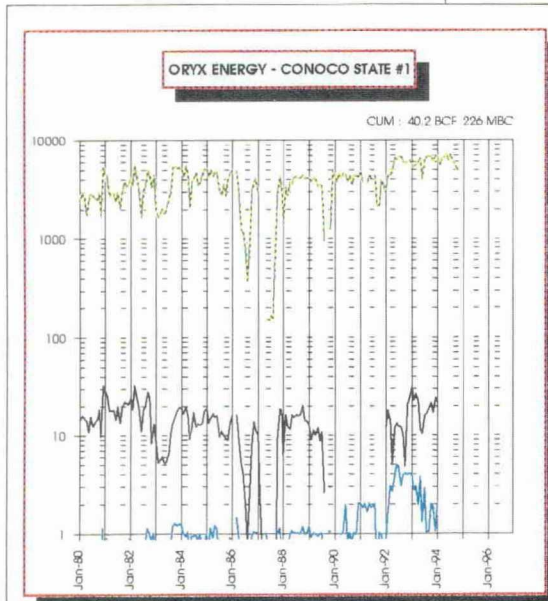
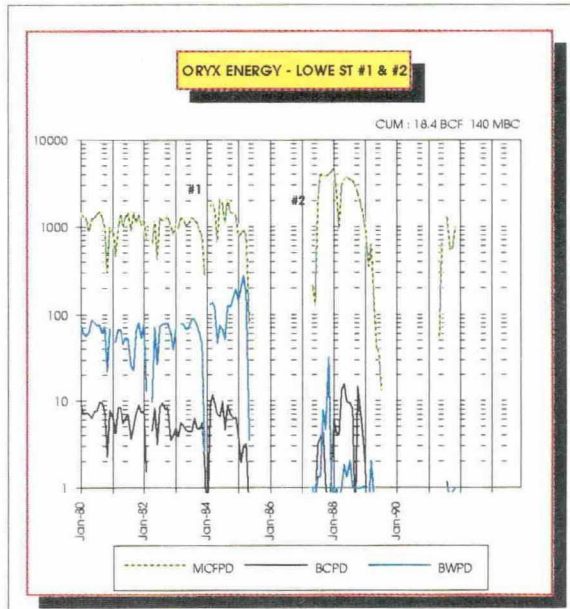
INDIAN BASIN FIELD
EDDY COUNTY, NM



ORYX ENERGY COMPANY-BEFORE
EXAMINER, *Stagner*
N.M. OIL CONSERVATION DIVISION
CASE NO. 11189 DATE
EXHIBIT NO. 12 1/19/95

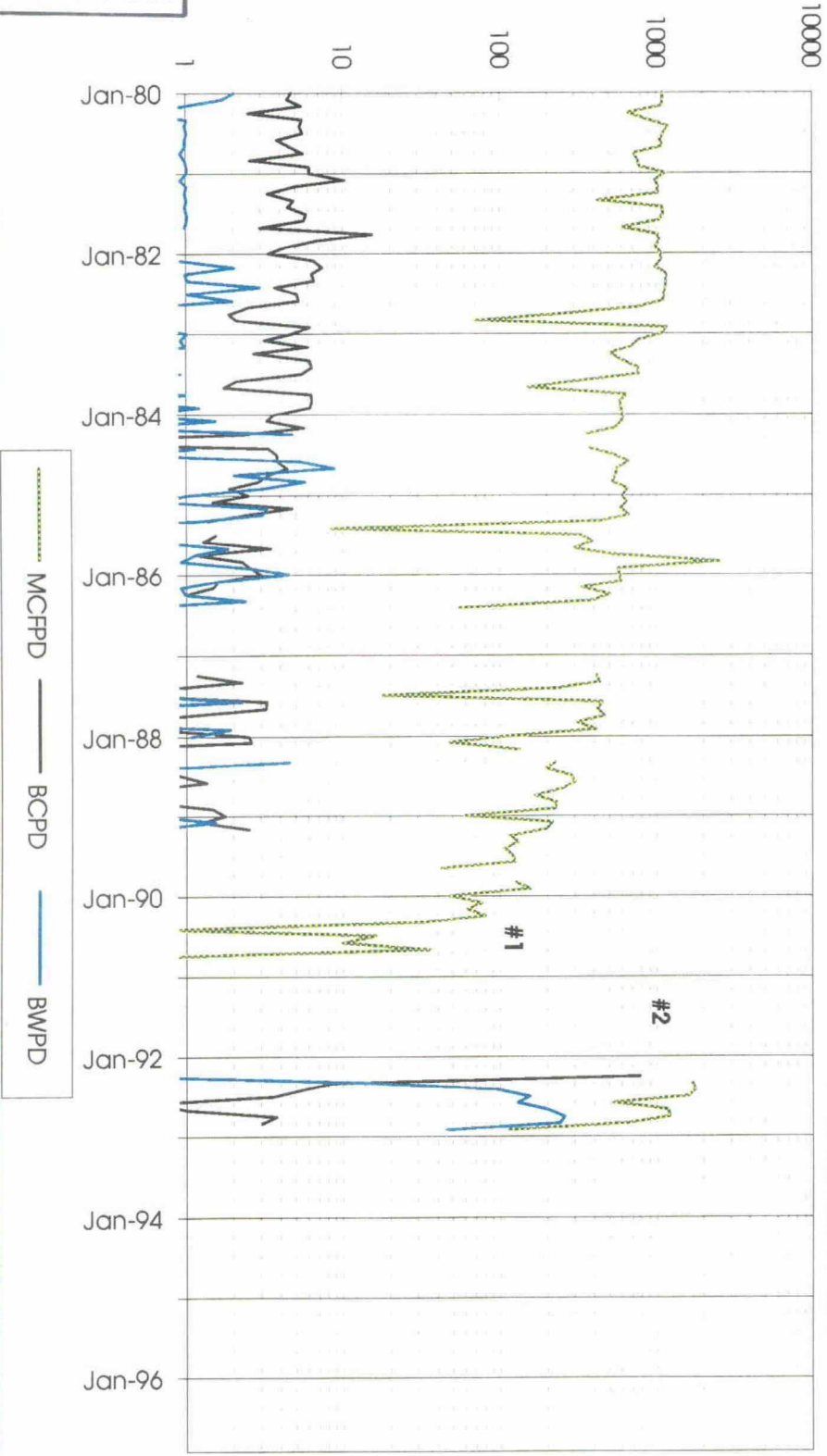
INDIAN BASIN FIELD
EDDY COUNTY, NEW MEXICO

ORYX ENERGY COMPANY-BEFORE
EXAMINER, *S. S. S.*
N.M. OIL CONSERVATION DIVISION
CASE NO. 11189 DATE 1/19/95
EXHIBIT NO. 13



MW PETROLEUM - HOC FEDERAL #1 & #2

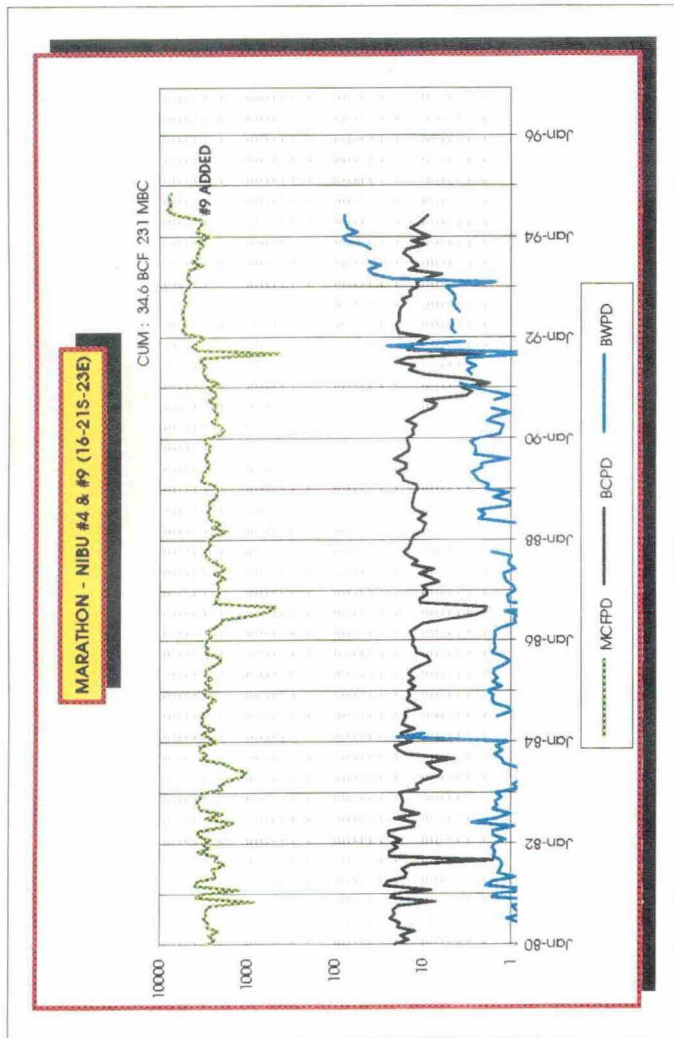
CUM : 8.5 BCF 79 MBC



..... MCPCD
———— BCPD
———— BWPD

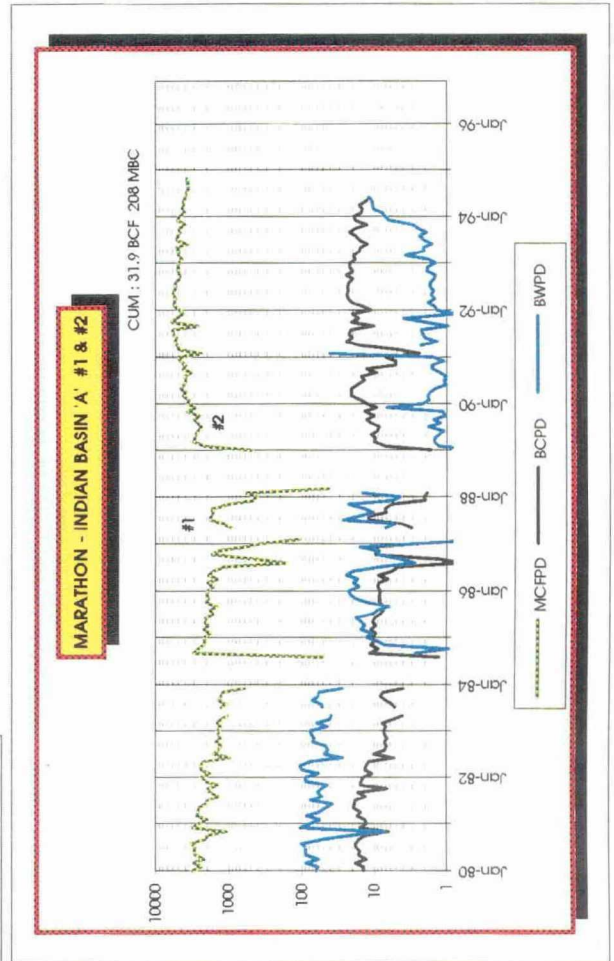
EXHIBIT NO.	14
CASE NO.	1189
DATE	11/5/95
N.M. OIL CONSERVATION DIVISION	
EXAMINER: <i>Stephens</i>	
ORIX ENERGY COMPANY-BEFORE	

INDIAN BASIN FIELD
EDDY COUNTY, NEW MEXICO



SECTION 16 - 21S - 23E

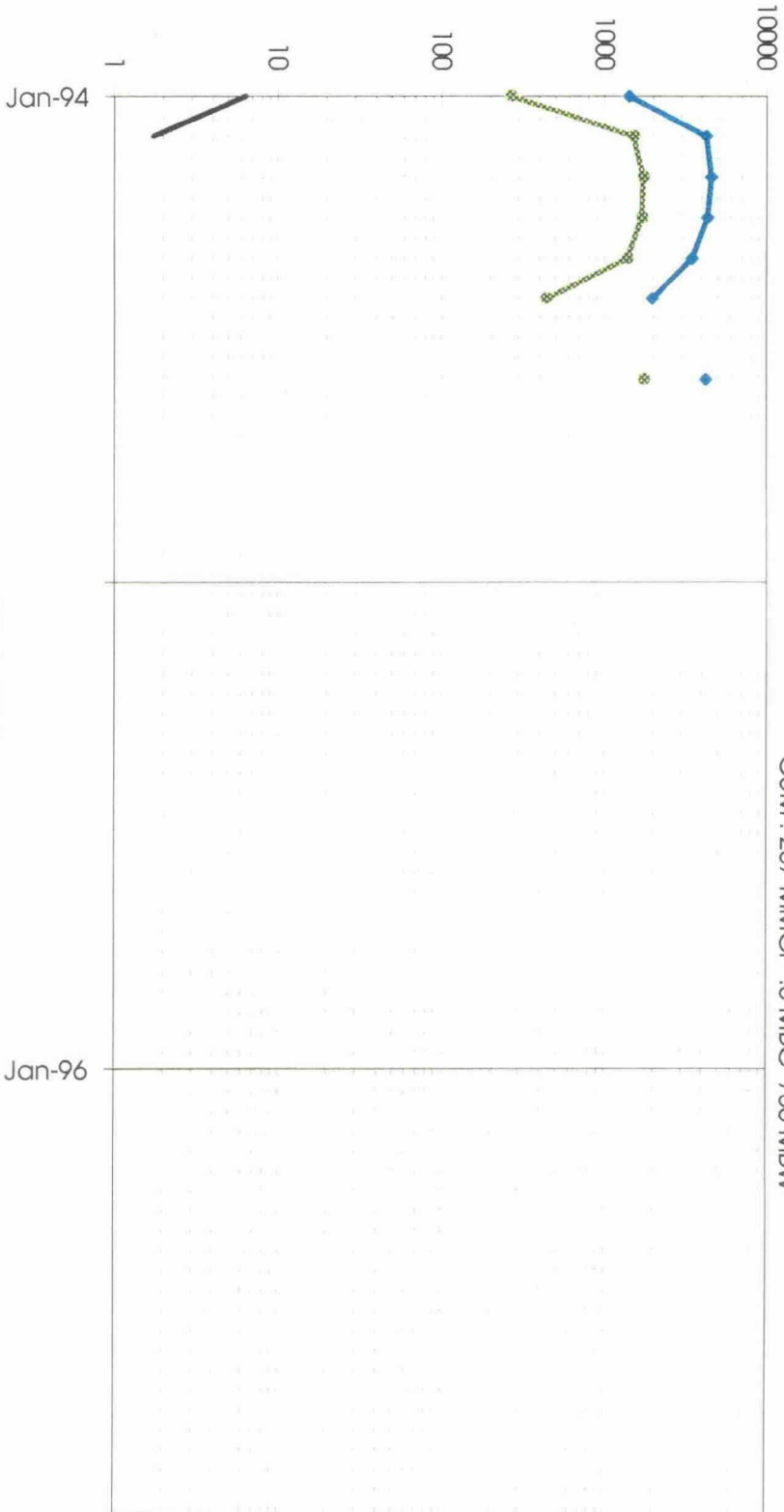
SECTION 22 - 21S - 23E



ORYX ENERGY COMPANY-BEFORE
EXAMINER, _____
N.M. OIL CONSERVATION DIVISION
CASE NO. 11189
EXHIBIT NO. 15
DATE 1/19/95

YATES PETROLEUM - BRANNIGAN ANF # 1

CUM : 267 MMCF .3 MBC 736 MBW



MCFPD
 BCPD
 BWPD

ORYX ENERGY COMPANY-BEFORE
 EXAMINER _____
 N.M. OIL CONSERVATION DIVISION
 CASE NO. 11189
 EXHIBIT NO. 16 DATE 1/19/85

INDIAN BASIN

WATER ENCROACHMENT EXAMPLE #1

WIBU #1

GL: 4037'
 KB: 10' AGL

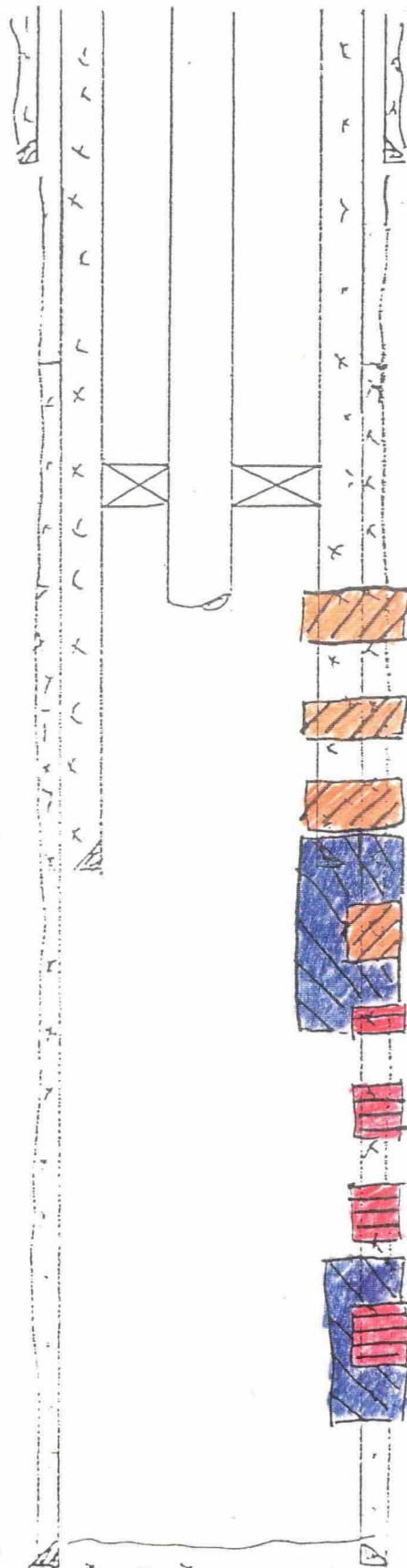
9 5/8", 32# csg. @ 1574'
 (cont'd w/ 920 sxs)

TOC @ 6571' (calc.)
 in 8 3/4" hole, 300 sxs.

4 1/2", 11.35# K55 @ 7365'
 (cont returns to surface)

ORYX ENERGY COMPANY-BEFORE EXAMINER.	
N.M. OIL CONSERVATION DIVISION	
CASE NO. 11189	DATE
EXHIBIT NO. 17	1/19/95

5 1/2" 15.5# 17# csg. @ 7392'
 (cont'd w/ 2020 sxs)



2 7/8", 6.5# J-55
 3rd + 6g.
 ② 'X' nipple @ 7170'
 ③ Model R' plcr @ 7180'
 Perfs

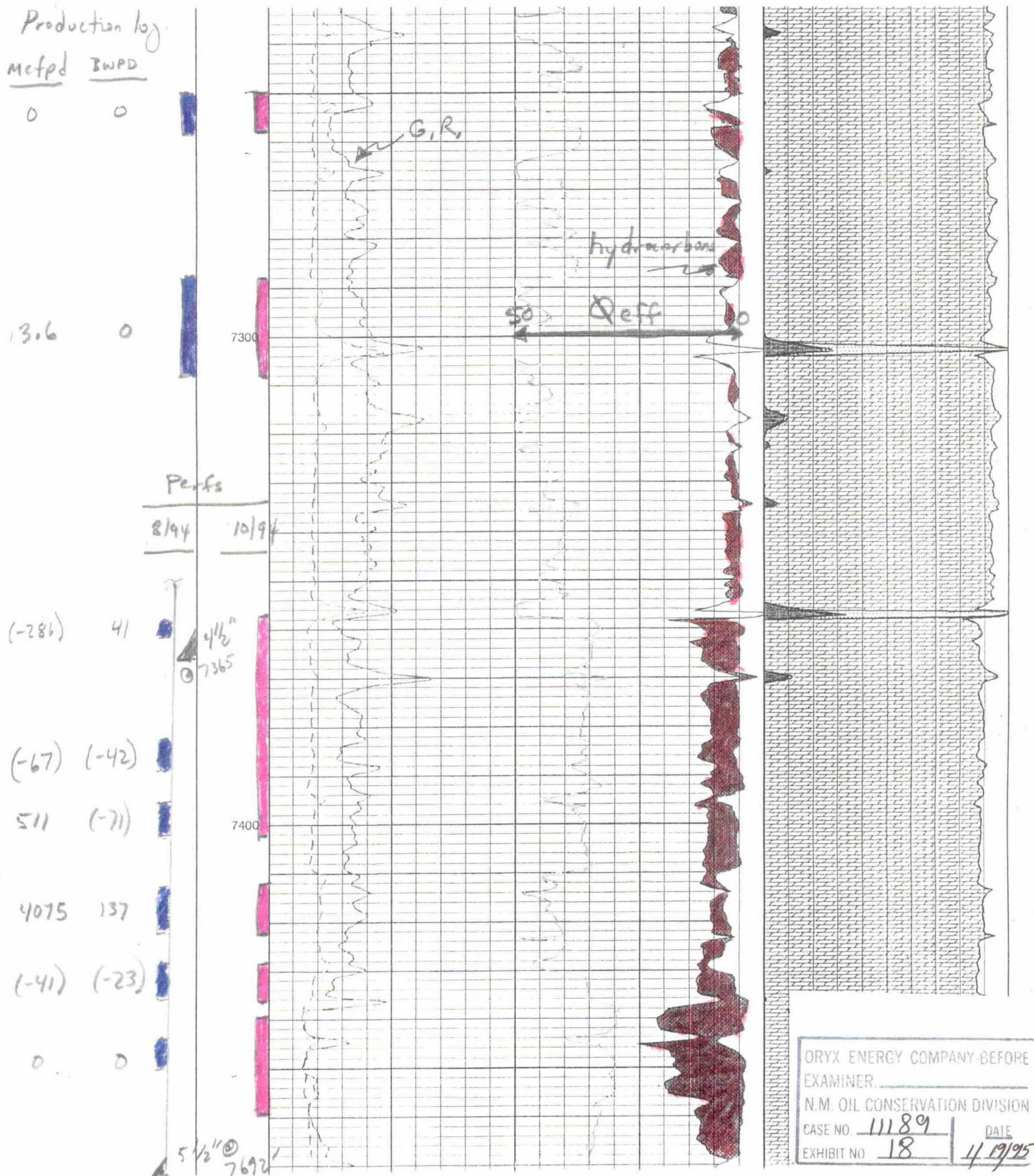
'63	'92	'94
4spf	6spf	6spf

7250'
 ↓
 7258'
 7288'
 ↓
 7308'
 7357'
 ↓
 7362'
 7363'
 7382'
 ↓
 7388'
 7396'
 ↓
 7402'
 7412'
 ↓
 7422'
 7428'
 ↓
 7436'
 7444'
 ↓
 7450'
 7439'
 ↓
 7459'

INDIAN BASIN

WATER ENCROACHMENT EXAMPLE #1

WIBU #1



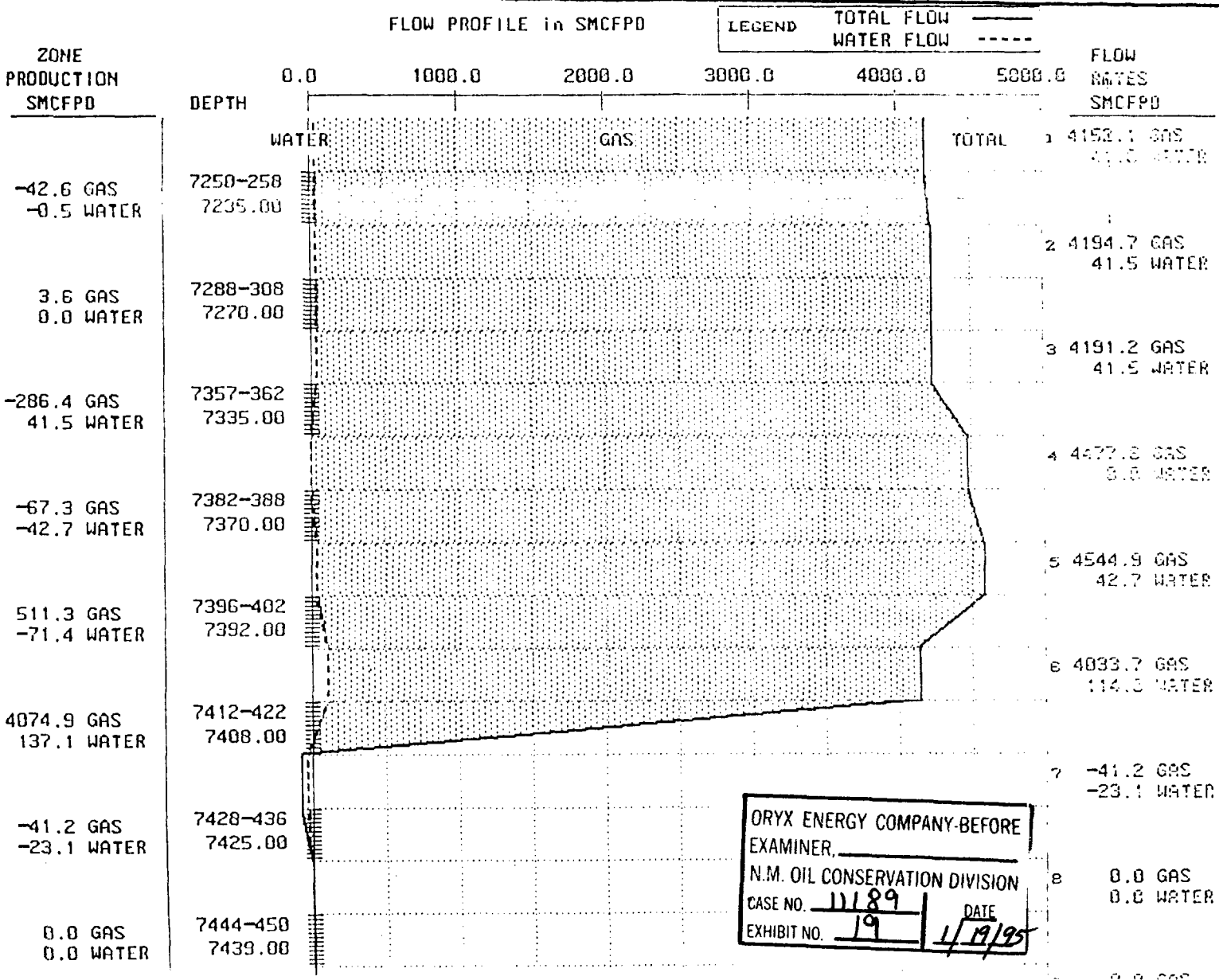
INDIAN BASIN

WATER ENCROACHMENT EXAMPLE #1

WIBU #1

PER
4.5

LOG INDICATES MAJORITY OF GAS BEING PRODUCE FROM PERFORATIONS AT 7412'-7420'. THE ZONE AT 7396'-7402' IS PRODUCING GAS AS WELL. THE REST OF UPPER PERFS. SHOW TO BE CONTRIBUTING VERY LITTLE. STATIONARY READING AT 7425' INDICATES A VERY SMALL DOWNWARD FLOW FROM 7421' TO PERFORATIONS AT 7428'-7436'. MOST OF WATER PRODUCTION IS ALSO PROBABLY COMING FROM 7412'-7422' WITH POSSIBLY A VERY SLIGHT AMOUNT PRODUCTION FROM 7428'-7436'



INDIAN BASIN

WATER ENCROACHMENT EXAMPLE #2

BOGLE FLATS #9

PERMANENT WELL BORE DATA

DATA ON THIS COMPLETION

Zero = GL = 13.9' AGL

17 1/2" Hole

13 3/8" 48# H-40 @
312' w/ 550 SKS CIRC

12 1/4" Hole

8 5/8" 32# J-55 @ 2280'
w/ 950 SKS CIRC

7 7/8" Hole

T&C @ 6163' Calc

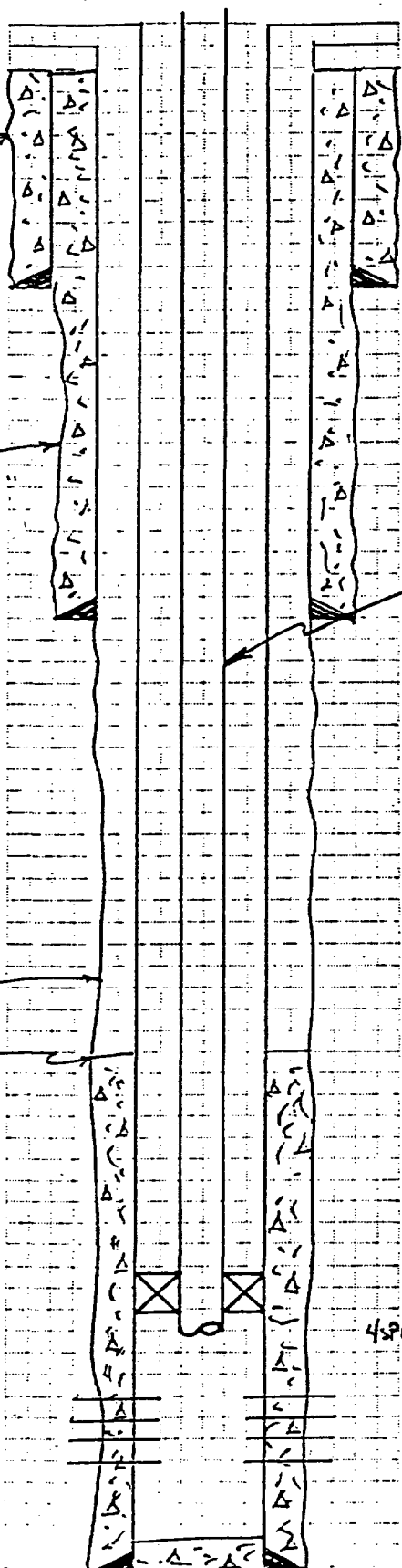
2 7/8" 6.5# J-55
Tbg @ 7000'
w/ Turned Down
3.46" COLLARS
M.L.R. PKR @ ± 6992
SNO ± 6992

Upper Penn

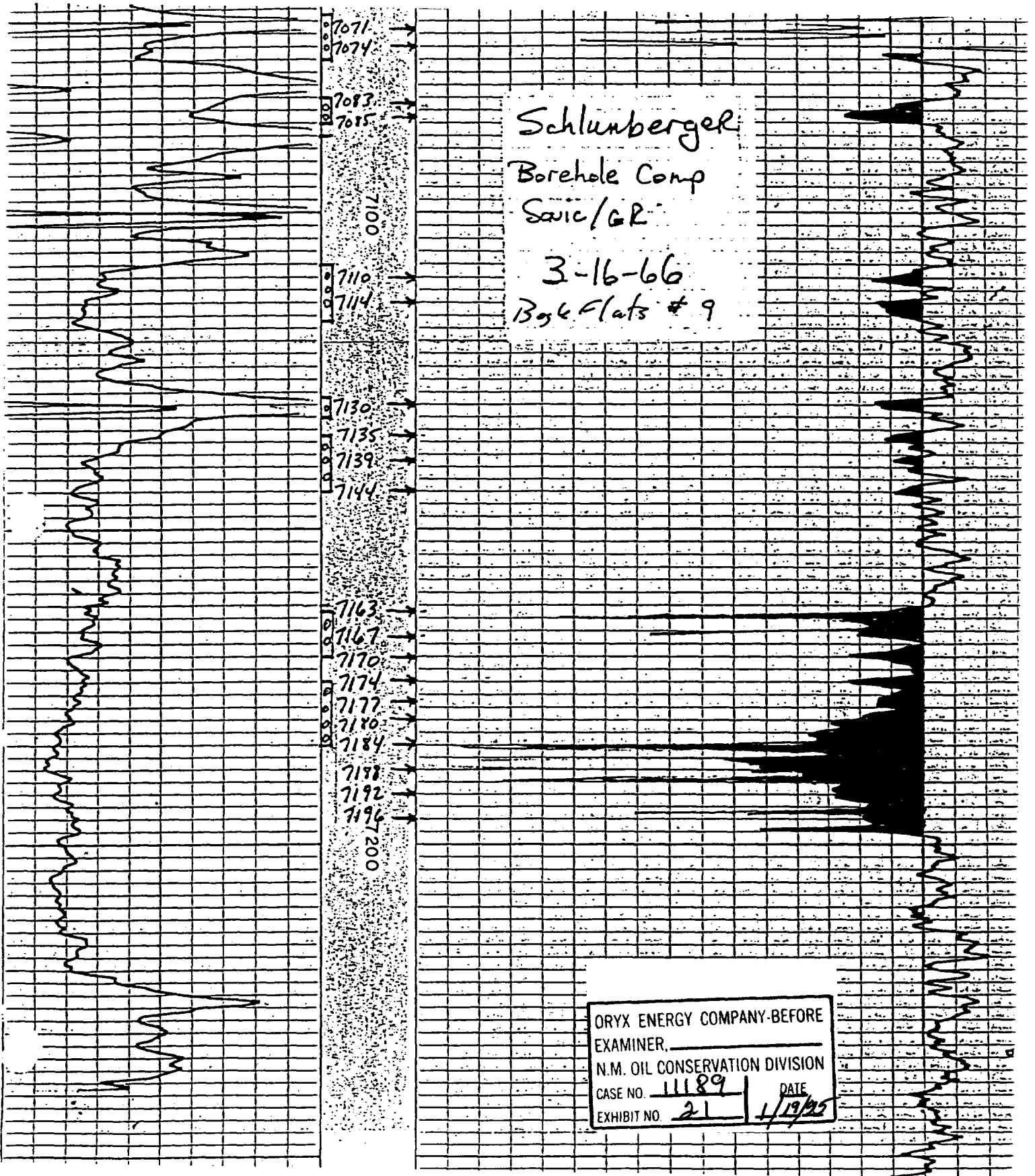
45PF { 7069-76, 82-86, 7108-15
29-32, 35-44, 63-70, 74-84
15PF { 7188, 7192, 7196

ORYX ENERGY COMPANY-BEFORE EXAMINER.	
N.M. OIL CONSERVATION DIVISION	
CASE NO. 11189	DATE
EXHIBIT NO. 20	1/19/95

4 1/2" 9.5# J-55 @
7263' w/ 250 SKS



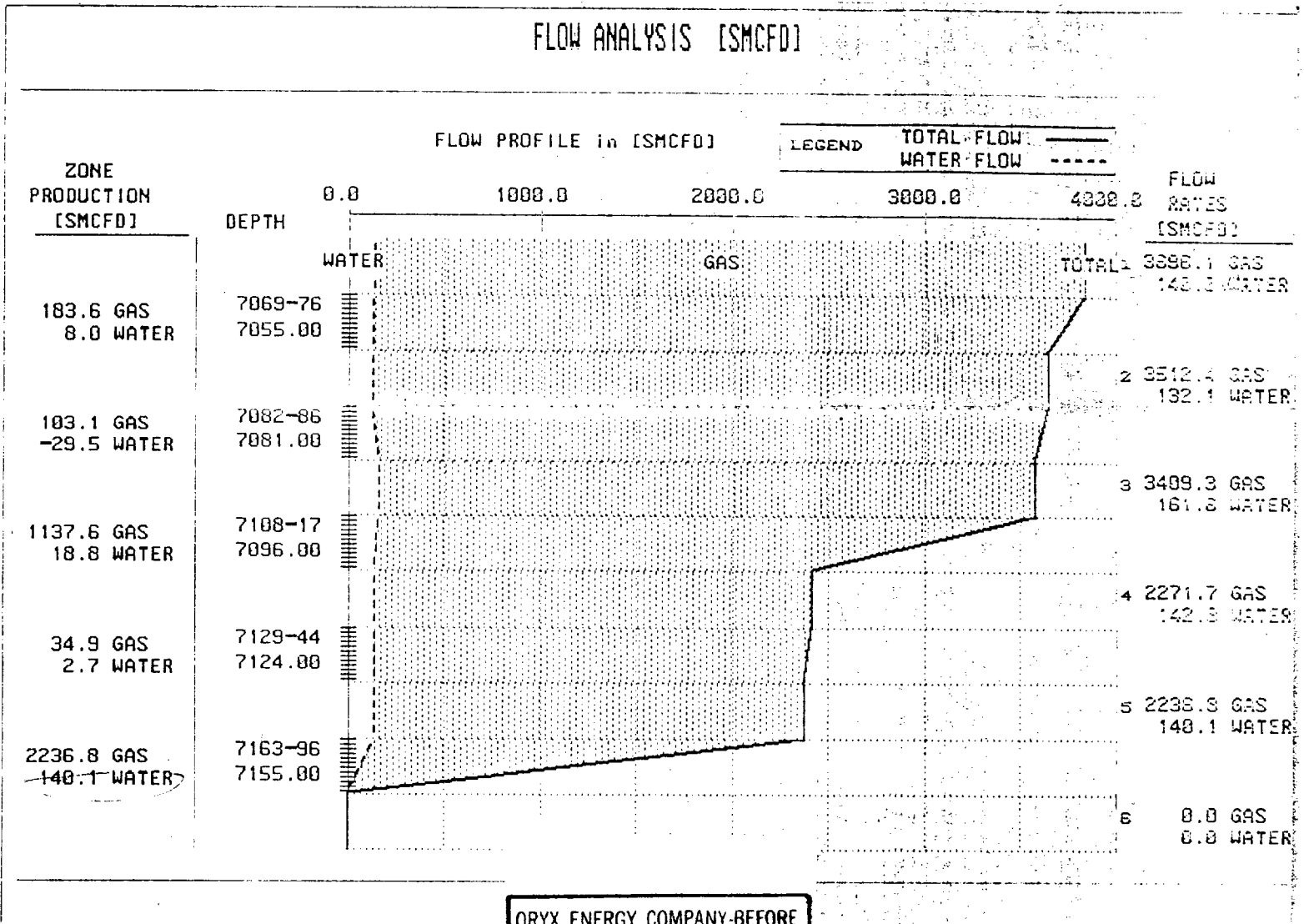
INDIAN BASIN WATER ENCROACHMENT EXAMPLE #2 BOGLE FLATS #9



INDIAN BASIN

WATER ENCROACHMENT EXAMPLE #2

BOGLE FLATS #9



ORYX ENERGY COMPANY-BEFORE EXAMINER, _____
 N.M. OIL CONSERVATION DIVISION
 CASE NO. 11189 | DATE 4/19/95
 EXHIBIT NO. 22

EQUATIONS

TIME : 15:14:38
 DATE : 89/16/94

Well : BOGLE FLATS #9

INDIAN BASIN WATER ENCROACHMENT EXAMPLE #3 BOGLE FLATS #8

STATE 'DF'

3.5 MMCFPD, 7 BOPD, 1 BWPD

FEDERAL #33

6.8MMCFPD 9BOPD, 0BWPD

BOGLE FLATS #8

4.0 MMCFPD, 7 BOPD, 300 BWPD

BOGLE FLATS #2

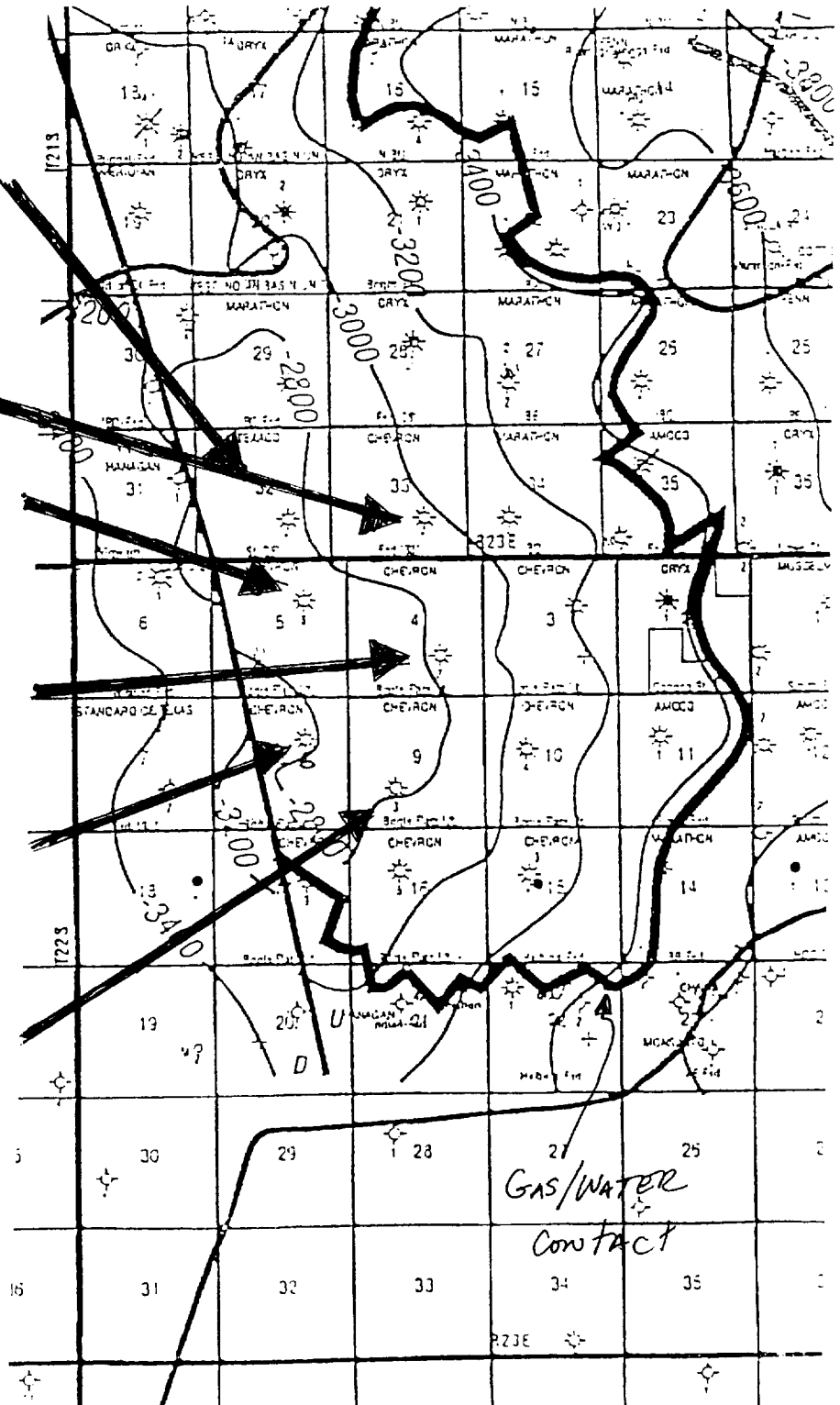
6.7 MMCFPD, 12 BOPD, 2 BWPD

BOGLE FLATS #6

7.2 MMCFPD, 7 BOPD, 8 BWPD

BOGLE FLATS #3

7.5 MMCFPD, 13 BOPD, 2 BWPD



DRYX ENERGY COMPANY BEFORE	
EXAMINER _____	
N.M. OIL CONSERVATION DIVISION	
CASE NO. 11189	DATE 11/17/95
EXHIBIT NO. 23	