

FIELDS LS 2A WORKOVER

Per [unclear] 10/10

1985

CHRONOLOGICAL EVENTS

May 30 Workover procedure to add Cliffhouse and Menefee pay written and approved. Nodal Analysis indicates 2-3/8" tbg restricting flow.

Aug 27 Sundry Notice sent in for approval. Approved 8/29. *(for downhole changes)*

Sept 5 Leasesale properties takeover. Tenneco assumed control of Fields LS 2A.
1.6 MMCFD 20 BOPD.

Sept 9-10 Bottom hole pressure bomb run and well shut in for buildup. Flowing bottom hole pressure indicates 2-3/8" tubing is choking flow.

Not

Sept 17-19 Pulled and laid down 2-3/8" tubing. Ran 1-1/4" heat string to 2500'. Manifoldded flow lines to both wing valves on tubing spool. Installed 2 HLP 12A separators on location with 2-300 BBL tanks.
5.2 MMCFD 700 BOPD

(oil not condensate)

Sept 24 Notified EPNG and NMOCD of our intent to retest well.

Oct 2-3 Pressure differentials between the tubing (460 psi) and casing (300 psig), and the wellhead and separators indicated more flow restrictions. The 1-1/4" heat string was pulled and laid down. The 2-1/16" wellhead was replaced with a 4-1/16" wellhead, and 2 more HLP 12A separators and 300 BBL tanks were installed.
9.5 MMCFD 1100 BOPD

Oct 14-22 Flow period for deliverability test.
8.65 MMCFD 700 BOPD

TK?

Oct 15 Request sent to NMOCD to produce up 4-1/2" casing. Granted? 10/23.

Oct 23-29 SI F/BU. Replaced 4 HLP 12A separators with 2 HLP 10BWI Units. Installed 4" flowlines. Installed gas cooler and additional separator. Installed electronic monitoring system. Well on line 10/30.
9.4 MMCFD 500 BOPD

1986

Jan 15-16 Integrated volumes and pressures for test received from EPNG. Deliverability test form completed and submitted to NMOCD in Aztec.

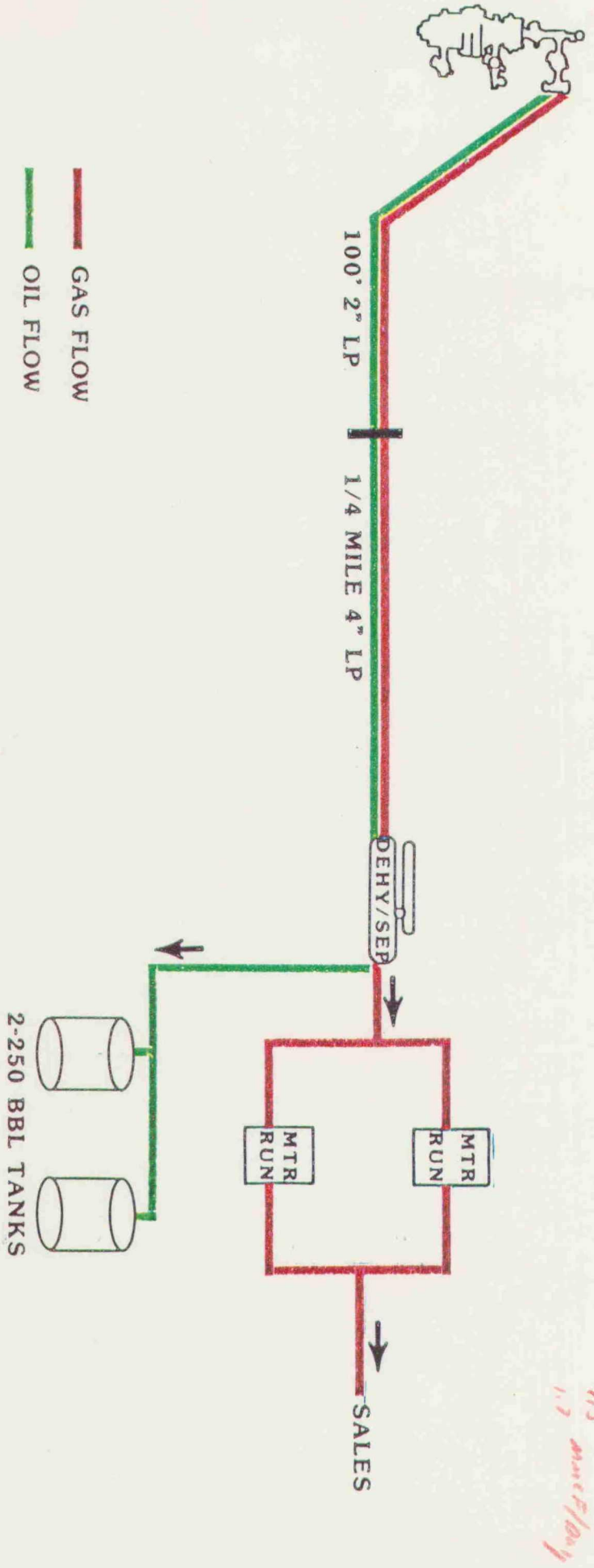
Feb 3 Proration unit shut in overproduced.

1206z

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
FCO	EXHIBIT NO. _____
CASE NO.	8944

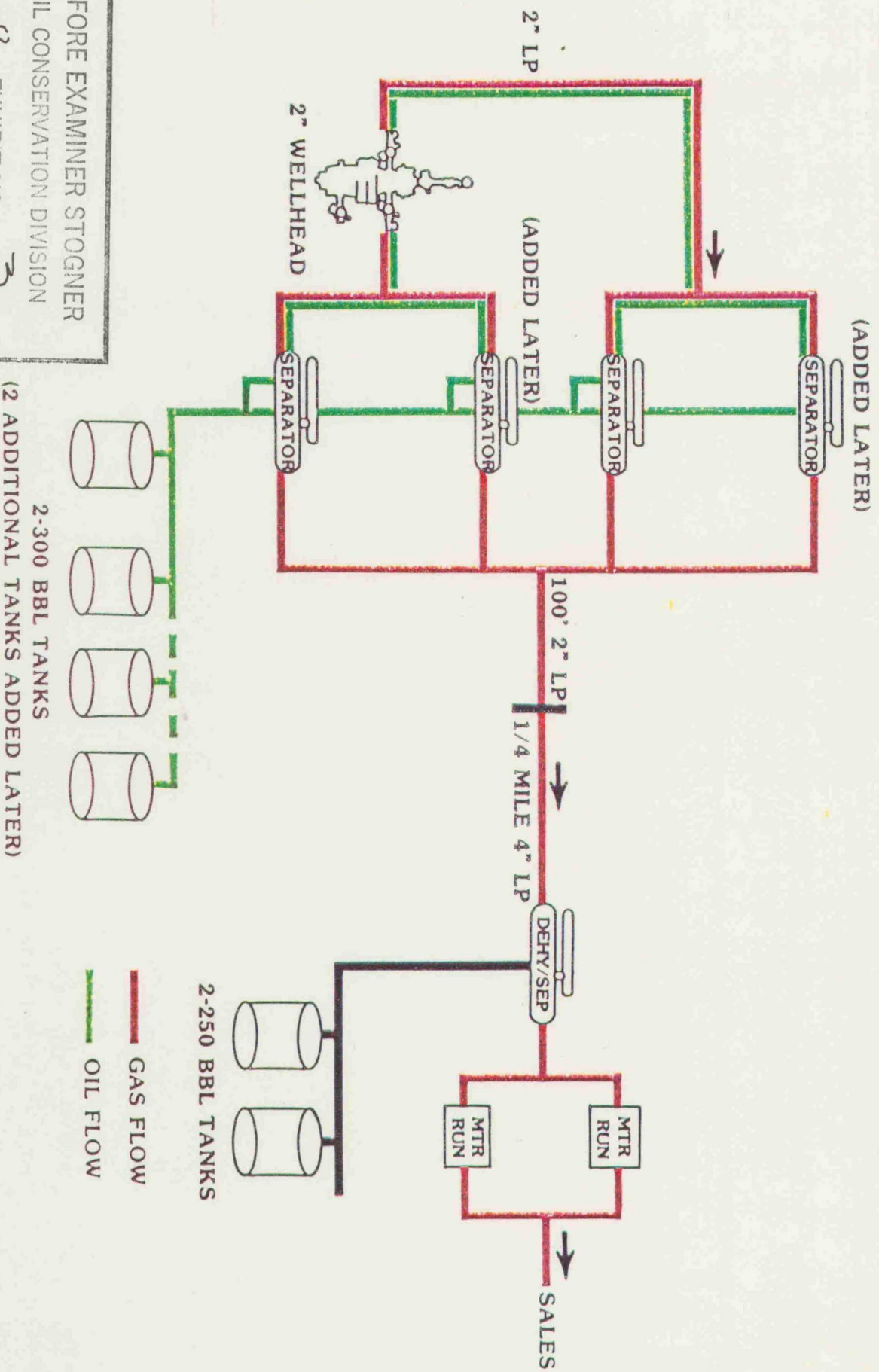
FIELDS LS 2A

SURFACE FLOW PRIOR TO TAKEOVER



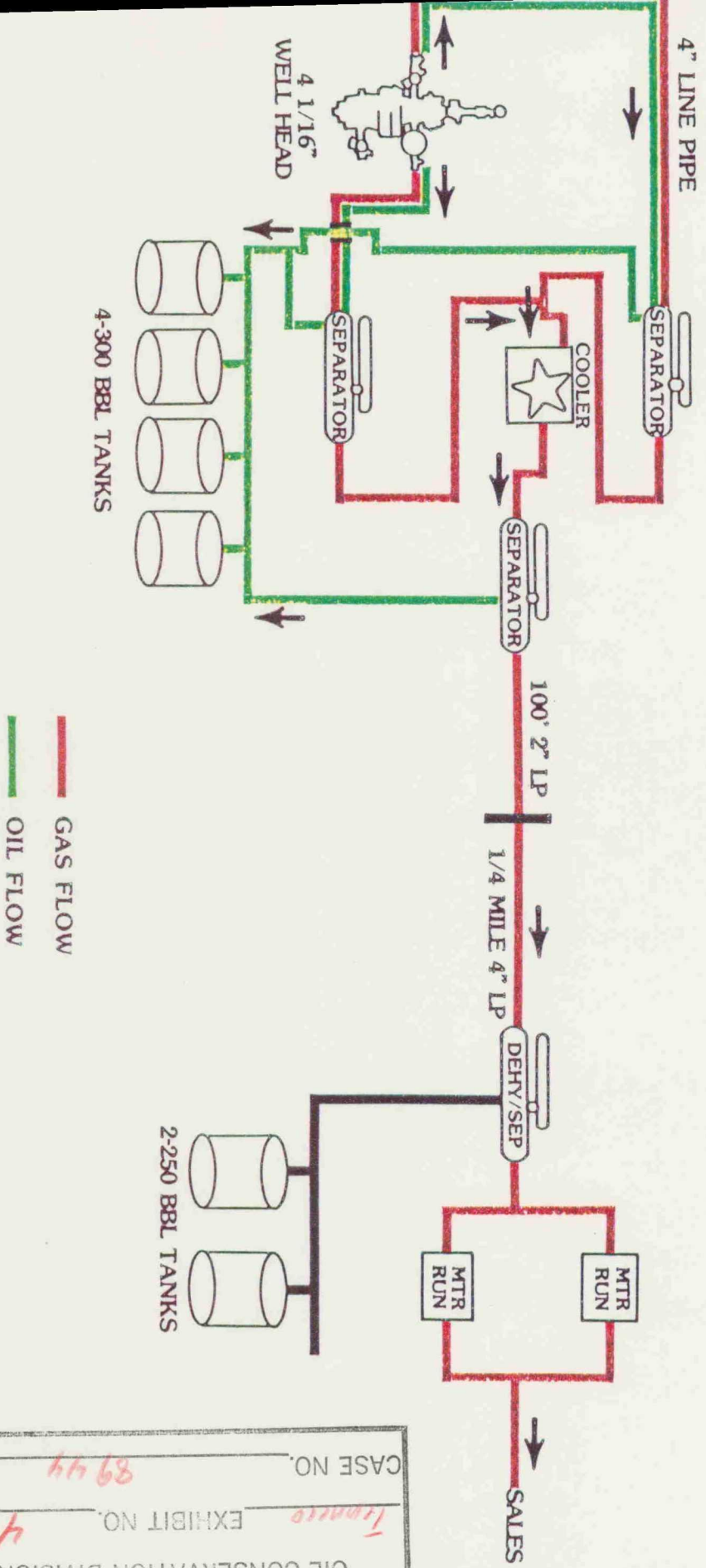
BEFORE EXAMINER STOIGNER
OIL CONSERVATION DIVISION
TCO EXHIBIT NO. 2
CASE NO. 8944

FIELDS LS 2A INTERMEDIATE SURFACE EQUIPMENT DIAGRAM



BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
T 60 EXHIBIT NO. 3
CASE NO. 8944

FIELDS LS 2A CURRENT SURFACE EQUIPMENT DIAGRAM



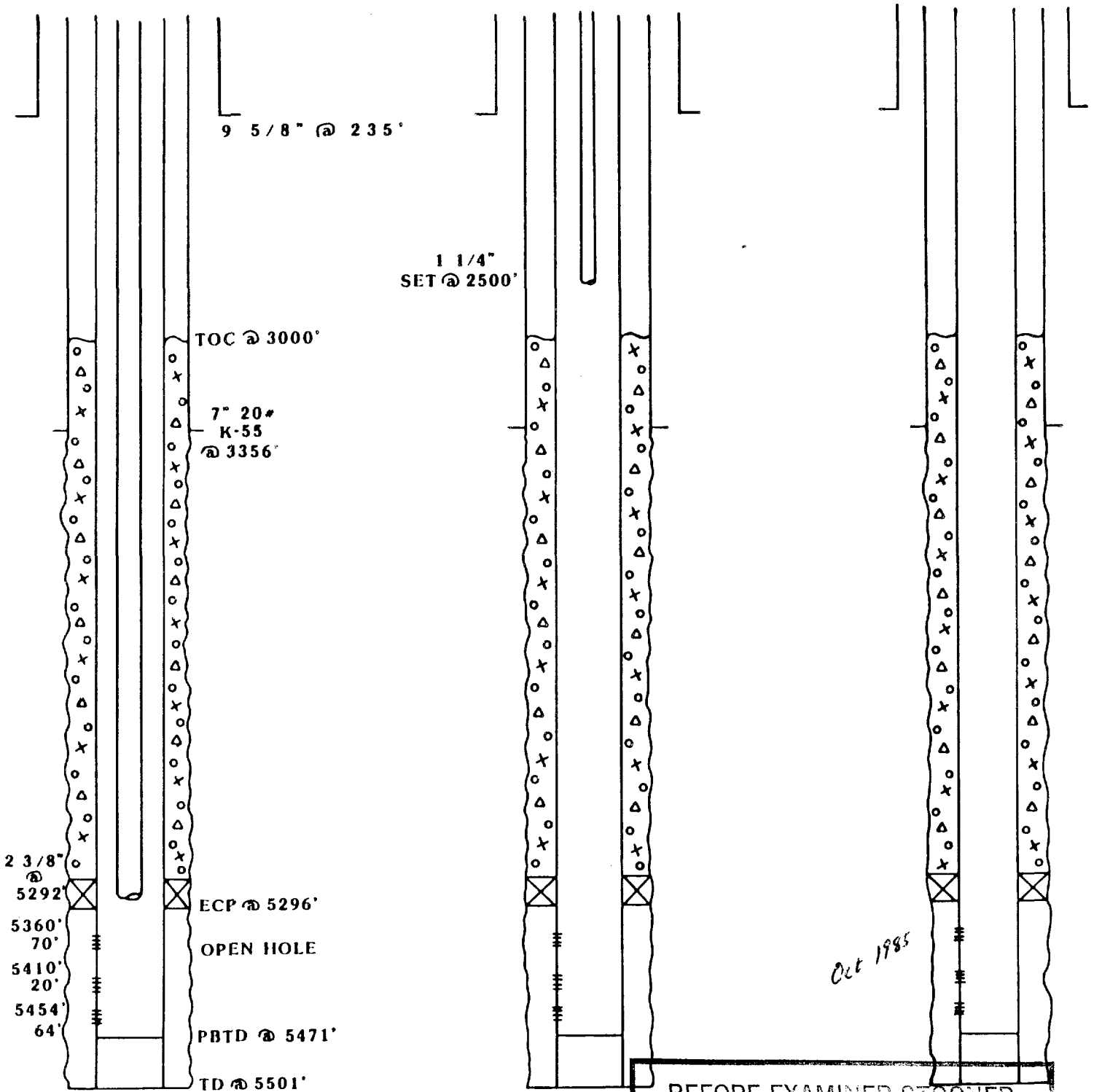
— GAS FLOW
— OIL FLOW

BEFORE EXAMINER STOGNER
 OIL CONSERVATION DIVISION
 Exhibit NO. *4*
 CASE NO. *8944*

PRIOR TO TAKEOVER
PRODUCING UP
2 3/8" TUBING

1st WORKOVER
PRODUCING UP
4 1/2" X 1 1/4" ANNULUS

2nd WORKOVER
PRODUCING UP
4 1/2" CASING



Sept. 17-19, 1985

BEFORE EXAMINER STOGNER OIL CONSERVATION DIVISION TWO EXHIBIT NO. 5 CASE NO. 8944
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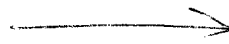


TO: RMD/PRODUCTION
FOR: L. D. JONES
FROM: P. M. MUELLER
RE: FIELDS LS 2A
WORKOVER AND EQUIPMENT COSTS

DATE: 6/25/86

Rig Work: (Moved on well twice)
\$14379

100%



Surface Equipment:


Tangible:

Cooler	\$11,995
3 Separators	\$41,432
4 Tanks	\$15,367
Wellhead	\$14,477
4" Line Pipe	\$17,724
Monitors	<u>\$14,323</u>
	\$115,318

Intangible:

Roustabout	\$29,267
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Total Investment: \$158,964


P. M. Mueller

PMM:maj:5719W

cc: J. S. Fox
P. M. Mueller
wellfile

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
EXHIBIT NO. 6
CASE NO. _____

BEFORE EXAMINER STOGNER

OIL CONSERVATION DIVISION

T 00 EXHIBIT NO. 7

CASE NO. 8944

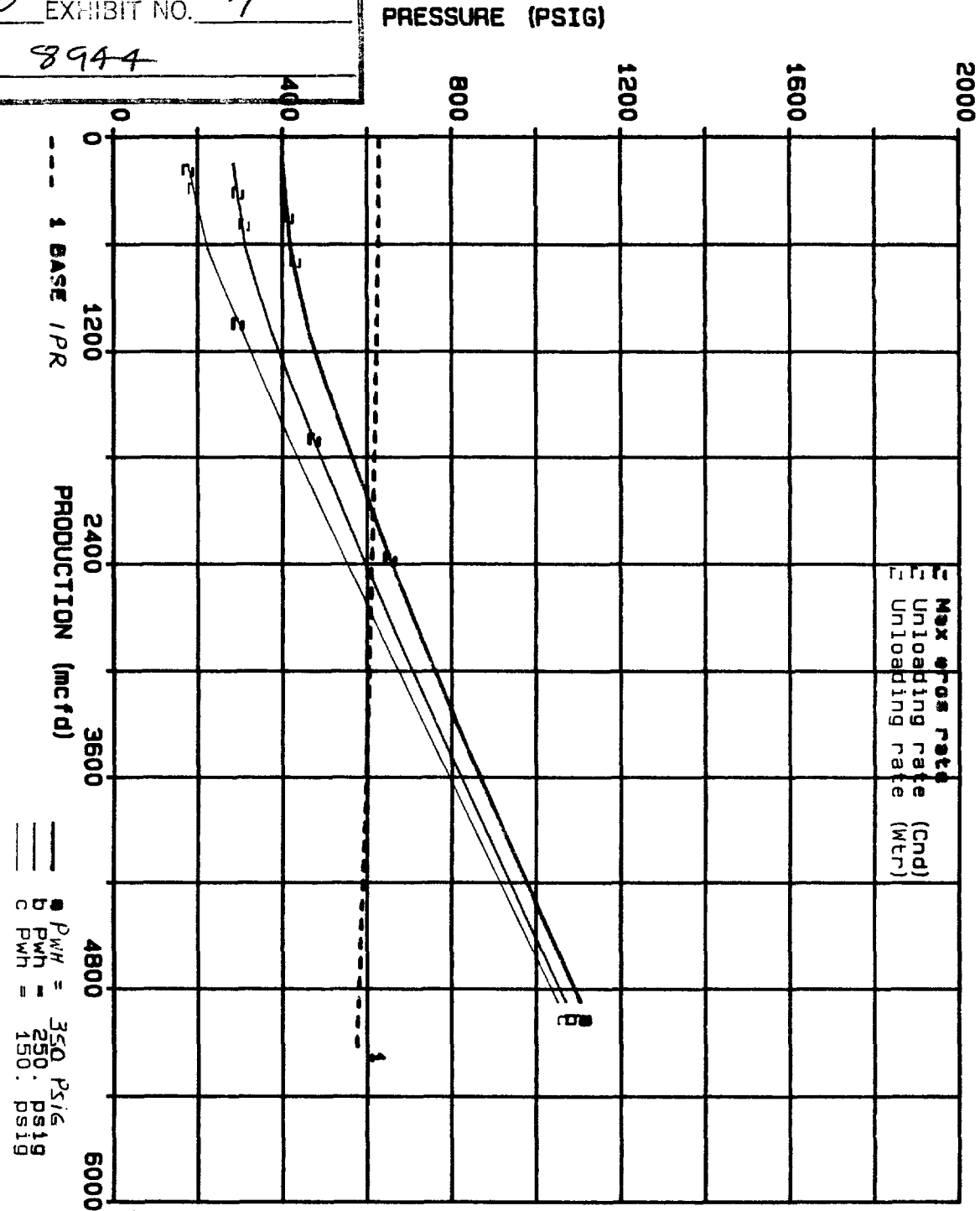
TENNECO OIL COMPANY
Systems Analysis Program

© 1985

Well: FIELDS LS 2A
Loc:
Desc: EFFECT OF COMPRESSOR 2 3/8 TBG

07-07-1986
File: FLDS-1
JSF

FIGURE 1



Max Gross Rate
Unloading rate (Cnd)
Unloading rate (Wtr)

Legend:
● P_{wH} = 350 PSIG
○ P_{wH} = 250 PSIG
□ P_{wH} = 150 PSIG

INPUT DATA

WC= 5.0 %
 API= 45.0
 Sggas= .660
 Sgwtr= 1.050
 GLR= 50000. scf/B
 TMD= 5360 ft
 TYD= 5360 ft
 IDTbg= 1.995 in
 Ed= .005000 in
 Twh= 90. deg F
 Tbh= 165. deg F
 Pr= 630. psig
 Tres= 175. deg F
 Re= 1500. ft
 Rw= 30.00 ft
 H= 25 ft
 Hp= 25 ft
 Porg= 14.0 %
 Kfm= 200.000 md
 Skln= -1.0
 SPF= 3.0
 Dperfm= .380 in
 Lperfm= 10.00 in
 KcKt= .60

Inflow Curve Qmax
1 Jones

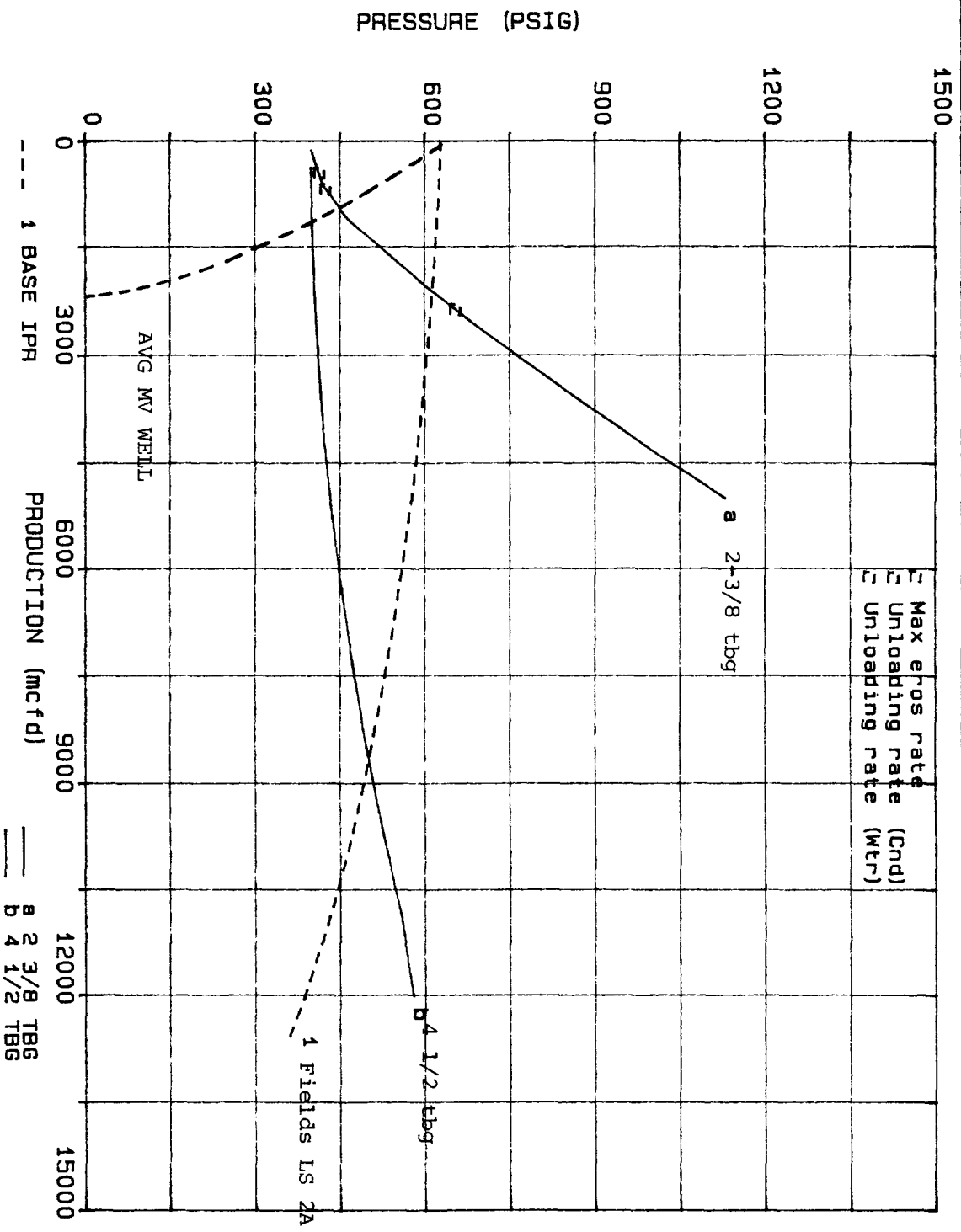
Outflow Curve Pwh
 a FundFlow-A 350
 b FundFlow-A 250
 c FundFlow-A 150

FIGURE 2

TENNECO OIL COMPANY

Systems Analysis Program

Well: FIELDS LS 2A
 Loc: SAN JUAN BASIN
 Desc: EFFECT OF TBG SIZE



07-10-1986
 File: FLDLS
 JSF

INPUT DATA

MC= 5.0 %
 API= 45.0
 Sggas= .860
 Sgwtr= 1.050
 GLR= 50000. scf/B
 TMD= 5360 ft
 TVD= 5360 ft
 IDtbg= 1.995 in
 Ed= .005000 in
 Twh= 90. deg F
 Tbh= 165. deg F
 Pr= 630. psig
 Tres= 175. deg F
 Re= 1500. ft
 Rm= 30.00 ft
 H= 25 ft
 Hp= 25 ft
 Porg= 14.0 %
 Kfm= 200.000 md
 Skin= -1.0
 SPF= 3.0
 Dperfm= .380 in
 Lperfm= 10.00 in
 Kckf= .60

Inflow Curve Gmax
 1 Jones

Outflow Curve PMH
 a Fundflow-A 350
 b Fundflow-A 350

B & R SERVICE, INC.
P.O. BOX 1048
FARMINGTON, NEW MEXICO 87499

TENNECO OIL CO.
FIELDS 2-A
SAN JUAN COUNTY, N.M

BOMBS HUNG @ 5250'G.L.
0 HRS. @ 12:48P.M. 9-6-85
FLOW

<u>TIME</u>	<u>FBHP</u> <u>PSIG</u>
0:00	598.5
0:18	590.4
0:25	594.5
0:30	594.5
1:00	594.5
1:30	594.5
2:00	594.5
2:30	594.5
3:00	594.5
3:30	594.5
4:00	594.5
4:35	594.5

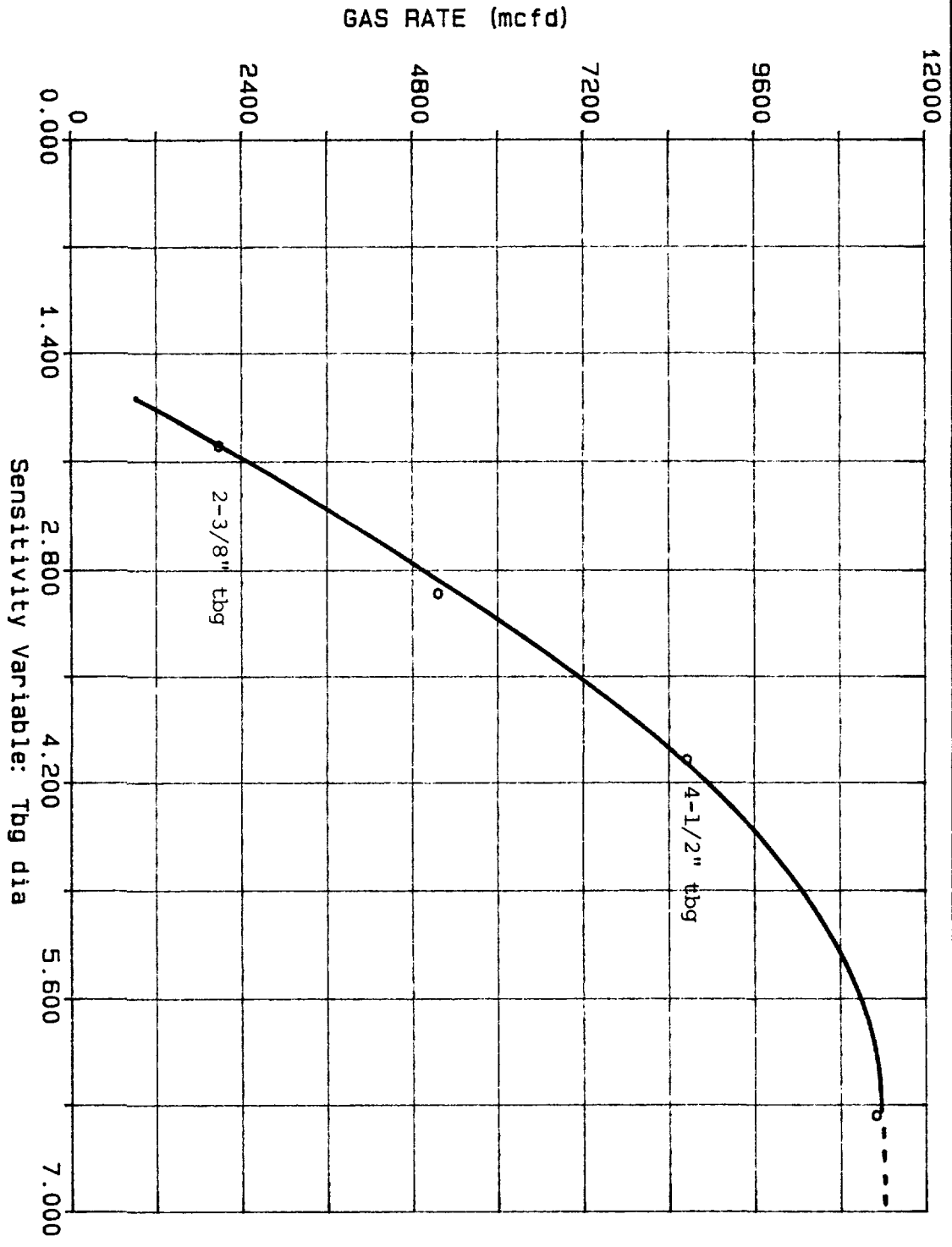
FTP = 350 PSIG
FCP = 530 PSIG
 $\Delta P_f = 595 - 350 = 245 \text{ PSI @ } 1650 \text{ MCFD @ } 20 \text{ BOPD.}$

FIGURE 3

TENNECO OIL COMPANY
Systems Analysis Program
Sensitivity Curve

Well: FIELDS LS 2A
 Loc: SAN JUAN BASIN
 Desc: EFFECT OF TBG SIZE

07-10-1986
 File: FLDLS
 JSF



INPUT DATA

WC= 5.0 %
 API= 45.0
 Sggas= .660
 SGWtr= 1.050
 QLR= 50000. scf/B

TMD= 5360 ft
 TVD= 5360 ft
 IDtbg= 1.995 in
 Ed= .005000 in
 Twh= 90. deg F
 Tbh= 165. deg F

Pr= 630. psig
 Tres= 175. deg F
 Re= 1500. ft
 Rw= 30.00 ft
 H= 25 ft
 Hp= 25 ft
 Pors= 14.0 %
 Kfm= 200.000 md
 SKIn= -1.0

SPF= 3.0
 Dperfm= .380 in
 Lperfm= 10.00 in
 KcKf= .60