



REF. PTS.
 S73° E 85' 16" cherry
 S34° 37' E 189' 6" Walnut

FILE NO. BK 96 P 3
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION TOP Knob 2500'
NW of location El 1002

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) C. J. Volley Jr.
 R.P.E. _____ L.L.S. 92

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE AUG 30, 1985
 OPERATOR'S WELL NO. STOVER #27
 API WELL NO. _____
47-035-2065
 STATE COUNTY PERMIT

GRI study well - "Jackson 10"

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 949.50' WATER SHED PLEASANT VALLEY RUN
 DISTRICT RIPLEY 3 COUNTY JACKSON
 QUADRANGLE KENNA 415 063 NW1
 SURFACE OWNER WALLACE STOVER ACREAGE 216.73
 OIL & GAS ROYALTY OWNER OSCAR SKEEN LEASE ACREAGE 375
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 5300
 WELL OPERATOR TXO PRODUCTION INC. DESIGNATED AGENT KENNETH TATARZYN
 ADDRESS 600 CHARLESTON NATIONAL PLAZA ADDRESS 600 CHARLESTON NATIONAL PLAZA
CHARLESTON WV 25301 889 CHARLESTON WV 25301



IV-35
(Rev 8-81)

Date November 22, 1985
Operator's
Well No. Stover "A" #1
Farm _____
API No 47 - 035 - 2065

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep X / Shallow ___ /)

LOCATION: Elevation: 947.52' Watershed Pleasant Valley Run
District: Ripley County Jackson Quadrangle Kenna

COMPANY TXO Production Corp.
ADDRESS 600 Chas.Nat.Plaza, Chas., WV 25301
DESIGNATED AGENT Kenneth W. Tatarzyn
ADDRESS 600 Chas.Nat.Plaza, Chas., WV 25301
SURFACE OWNER Wallace & Lorene Stover
ADDRESS Route 1, Box 121, Given, WV 25245
MINERAL RIGHTS OWNER _____
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Jerry
Tephabock ADDRESS Ripley, WV
PERMIT ISSUED September 10, 1985
DRILLING COMMENCED 9-14-85
DRILLING COMPLETED 9-28-85
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	864' KBM	864' KBM	240 sx
8 5/8			
7	2555' KBM	2555' KBM	190 sx
5 1/2			
4 1/2	4994' KBM	4994' KBM	290 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 5300' feet
Depth of completed well 5257' feet Rotary X / Cable Tools _____
Water strata depth: Fresh 775' feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Shale/Berea Pay zone depth 2620-4958' feet
Gas: Initial open flow 190 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 190 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 300 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)
Second producing formation _____ Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

DEC 9 1985
(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf Shale w/3-1/8" csg gun @ ^{Marcellus} 4958, 16, 11, 05, 4886, 74, 68, 4582, 76, 4436, 26, 18, 12, 4397, 92, 59, 50, 38, 4300, 4295, 90, 76, 09, 4198'. Total 24 shots.

Frac Shale w/850 mmscf N2 + 500 gal 15% HCl misted + 20 balls.

Perf Shale @ 4142, 12, 4054, 46, 36, 23, 3982, 70, 30, 06, 3888, 50, 42, 29, 3794, 74, 58, 37, 3676, 52, 10, 3582, 50, 2974'. Total 24 shots. ^{Up Dev → Huron}

Frac Shale w/840 mmscf N2 + 500 gal 15% HCl misted + 20 balls.

Perf Berea @ 2620-28'. Total 17 shots.

Frac Berea: Pmp 250 gal 15% HCl + 7M gal 75% Q foam pad + 6M gal @ 1 ppg + 7M gal @ 2 ppg + 8M gal @ 3 ppg.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Silt, sand & shale			0'	1198'	
Sand			1198'	1280'	
Silt			1280'	1404'	
Silt & Shale			1404'	1705'	
Sand (Maxon)			1705'	2050'	
Big Lime			2050'	2122'	
Shale			2122'	2142'	
Big Injun			2142'	2234'	water
Silt & Shale			2234'	2595'	
Coffee Shale			2595'	2617'	
Berea			2617'	2632'	Show of gas @ 2630'
Shale			2632'	5131'	Show of gas @ 3025, 3762, 3890, 4174,
Oriskany			5131'	5257'	4238, 4420, 5184
				TD	

from nearby BOE log:
 top thickness
 up Dev undiff 2632 1198
 big Huron 2880 500
 Java 4320 150
 Anasazi 4480 250
 Rensselaer 4730 120
 Conyer 4850 80
 Berea 4930 20
 Marcellus 4950

(Attach separate sheets as necessary)

TXO Production Corp.
 Well Operator
 By: K. Tatarzyn Kenneth W. Tatarzyn
 Date: November 22, 1985

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

RECEIVED SEP 9 1985



1) Date: August 27, 1985
2) Operator's Well No. Stover "A" #1
3) API Well No. 47 -035-2065 State County Permit

DIVISION OF OIL & GAS STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas X
5) LOCATION: Elevation: 947.52' Watershed: Pleasant Valley Run
6) WELL OPERATOR TXO Production Corp CODE: 50375 7) DESIGNATED AGENT Kenneth W. Tatarzyn
8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Jerry Tephabock
10) PROPOSED WELL WORK: Drill X / Drill deeper / Redrill / Stimulate X
11) GEOLOGICAL TARGET FORMATION, Oriskany 475
12) Estimated depth of completed well, 5300' feet
13) Approximate trata depths: Fresh, 775' feet; salt, feet.
14) Approximate coal seam depths: Is coal being mined in the area? Yes / No X

15) CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft., New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (Kinds, Sizes, Depths set, Perforations: Top, Bottom)

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-035-2065 Date September 10 1985

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires September 10, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Table with columns: Bond, Agent (AB), Plat, Casing, Fee (67845), WPCP, S&E, Other

NOTE: Keep one copy of this permit posted at the drilling location.

Signature of Jerry W. Tephabock, Director, Division of Oil and Gas