

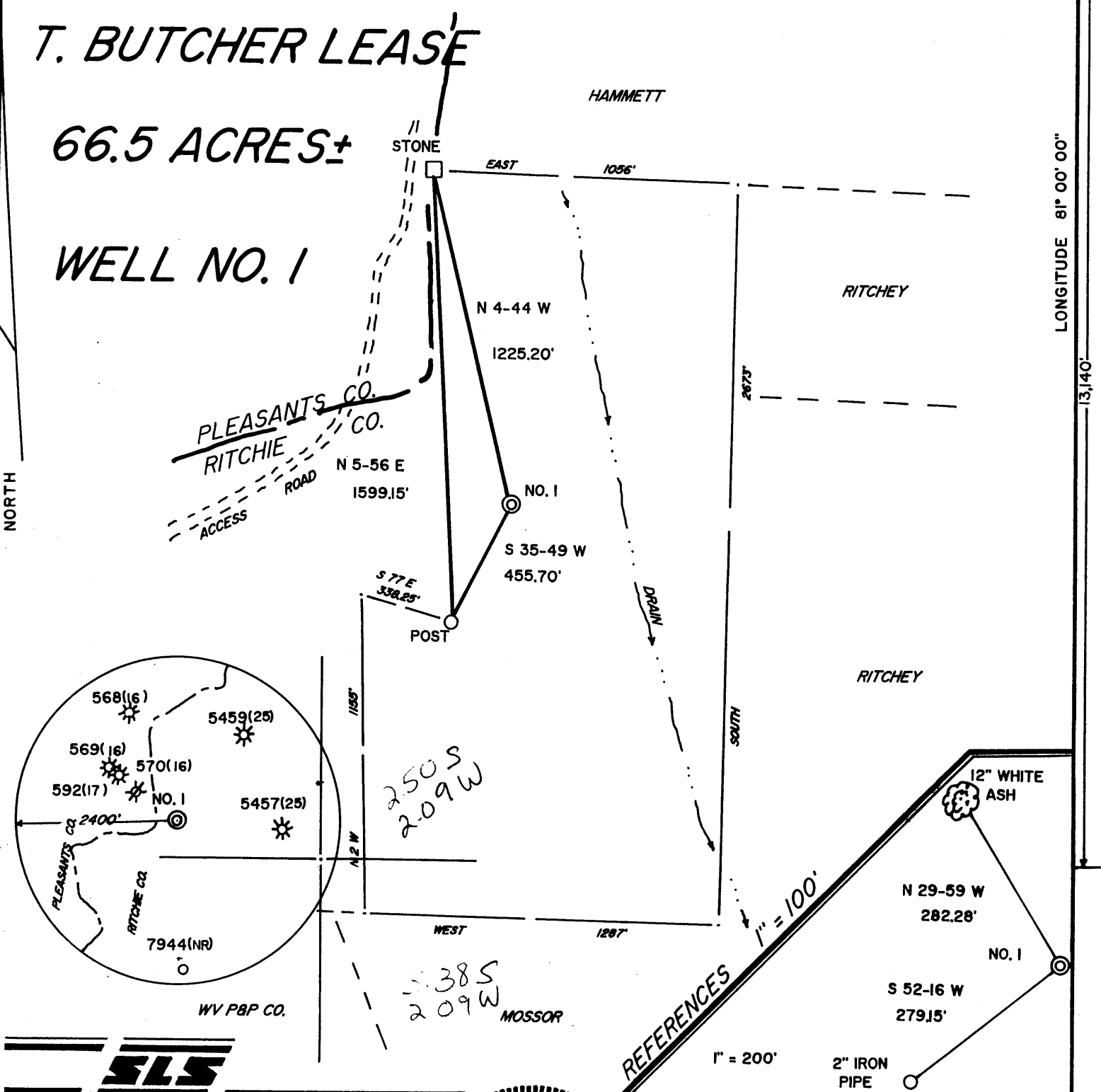
T. BUTCHER LEASE

66.5 ACRES±

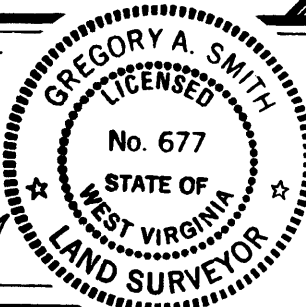
WELL NO. 1

NORTH

LONGITUDE 81° 00' 00"



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 ENERGY.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MAY 30, 19 91
 OPERATORS WELL NO. T. BUTCHER NO. 1
 API WELL NO. 47 - 085 - 8061
 STATE COUNTY PERMIT

L.L.S. 677 Gregory A. Smith

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2673 (36-32)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION IIII' SCALE 1" = 500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1018' WATERSHED BONDS CREEK DISTRICT CLAY 1 COUNTY RITCHEY QUADRANGLE ELLENBORO 7.5'

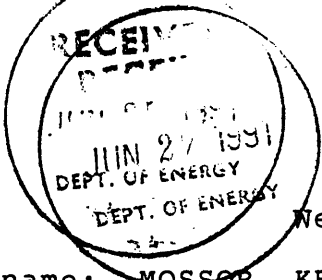
SURFACE OWNER KENNETH T. MOSSOR ACREAGE 66.5
 ROYALTY OWNER T. BUTCHER HEIRS ET. AL. LEASE ACREAGE 66.5

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5600' JUN 7 1991

WELL OPERATOR PARDEE GAS CO. 4568 DESIGNATED AGENT WILLIAM CARPENTER
 ADDRESS PO BOX 4119 PARKERSBURG, WV. 26101 ADDRESS PO BOX 4119 PARKERSBURG, WV. 26101

COUNTY NAME PERMIT



State of West Virginia
 DEPARTMENT OF ENERGY
 Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: MOSSOR, KENNETH & LORENA Operator Well No.: T. BUTCHER #1

LOCATION: Elevation: 1018.00 Quadrangle: ELLENBORO

District: CLAY County: RITCHIE
 Latitude: 13140 Feet South of 39 Deg. 22Min. 30 Sec.
 Longitude 11000 Feet West of 81 Deg. 0 Min. 0 Sec.

Company: PARDEE GAS COMPANY

4001 COLLEGE PKY. P.O. BX 4119 | Casing | Used in | Left | Cement

PARKERSBURG, WV 26104-4119

Agent: LINDA CARPENTER

Inspector: SAMUEL HERSMAN

Permit Issued: 06/03/91

Well work Commenced: 6/5/91

Well work Completed: 6/19/91

Verbal Plugging

Permission granted on:

Rotary X Cable Rig

Total Depth (feet) 5014

Fresh water depths (ft) 35

Salt water depths (ft) none reported

Is coal being mined in area (Y/N)? N

Coal Depths (ft): none reported

Size	Drilling	in Well	Fill Up Cu. Ft.
8 5/8	1070	1070	336 cuft
4 1/2	4963	4963	258 cuft

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4851-4857

Gas: Initial open flow 250 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 100 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 48 Hours

Static rock Pressure 700 psig (surface pressure) after 48 Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PARDEE GAS COMPANY

By: [Signature]
 Date: 6.24.91

JUN 28 1991

T. Butcher #1

65Q Foam FRac, Single Stage, Benson Formation

Shot 16 .39 holes from 4851 to 4857 and broke formation down at 1477 PSI using 500 gals of 15% FE Acid. Ran 40,000 lbs of 20/40 mesh sand at an average rate of 20 BPM with an average pressure of 1981 lbs. A total of 370,000 scf of nitrogen was used to attain a 65Q Foam Frac. ISIP was 1103 lbs and after 5 minutes 969 lbs.

Formation	Color	Hard/Soft	Top	Bottom	
rr & clay sand	gray		0	40	
shale	gray	med	40	55	35' 1/2-stream
yellow sand	yellow	hard	55	68	
shale	gray	soft	68	92	
sand shale	gray	med	92	105	
sand	brown	med	105	136	
red rock	red	soft	136	147	
sand shale	gray	med	147	265	
sand	gray	med	265	319	
sand shale	gray	med	319	361	
red rock	red	soft	361	373	
sand shale	gray	med	373	510	
red rock	red	soft	510	640	
sand shale	gray	med	640	720	
red rock	red	soft	720	730	
sand sahe	gray	med	730	980	
shale	red	soft	980	1020	
sandy shale	gray	med	1020	1060	
sand	lt. gray	hard	1060	1080	
shale	gray	med	1080	1648	
sand lime	gray/white	hard	1648	1660	
sandy shale	gray	med	1660	1843	
lime	white	med	1843	1928	
shale	gray	soft	1928	1936	
Injun sand	lt. gray	med	1936	2941	
Pocono	gray	soft	2941	2250	
sand shale	gray	med	2250	2700	
sand shale	gray	med	2700	3150	
shale	gray	soft	3150	3710	
sand shale	gray	med	3710	3950	
shale	gray	med	3950	4100	
sand shale	gray	med	4100	5014	

12344

095-8061

Issued

06/03/91

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

Expires 06/03/93

- 1) Well Operator: ⁴⁵⁶⁸ Pardee Gas Company 36830 (1) 337
- 2) Operator's Well Number: T. Butcher #1 3) Elevation: 1018
- 4) Well type: (a) Oil ___ / or Gas X
(b) If Gas: Production X Underground Storage ___
Deep ___ / Shallow X
- 5) Proposed Target Formation(s): ⁴³⁵ Benson
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 220'
- 8) Approximate salt water depths: none reported
- 9) Approximate coal seam depths: none reported
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X
- 11) Proposed Well Work: Drill & Stimulate new well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	8 5/8	ERW	23#	1118	1118	by rule 38 CSR 18-11.2
Coal						
Intermediate						
Production	4 1/2	ERW	10.5#	5500	5500	by rule 38 CSR 18.11-1
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

2450/15
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond CD Agent
 (Type)

1) Date: 5/30/91
2) Operator's well number
T. Butcher #1
3) API Well No: 47 - 085 - 8061
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

<p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Kenneth E. & Lorena D. Mosso</u> Address <u>Rt. 83 Box 57</u> <u>Ellenboro, WV 26346</u></p> <p>(b) Name _____ Address _____</p> <p>(c) Name _____ Address _____</p>	<p>5) (a) Coal Operator:</p> <p>Name <u>N/A</u> Address _____</p> <p>(b) Coal Owner(s) with Declaration Name _____ Address <u>N/A</u></p> <p>Name _____ Address _____</p> <p>(c) Coal Lessee with Declaration Name <u>N/A</u> Address _____</p>
<p>6) Inspector <u>Samuel Hersman</u> Address <u>Rt. 1 Box 240</u> <u>Harrisville, WV 26362</u> Telephone (304)- <u>628-3185</u></p>	

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

___ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

___ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties, by:

- ___ Personal Service (Affidavit attached)
- ___ Certified Mail (Postmarked postal receipt attached)
- ___ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Pardee Gas Company
 By: *Clayton M. Decker, Jr.*
 Its: Operations Manager
 Address P O Box 4119
Parkersburg, WV 26104
 Telephone 304-428-3471

Subscribed and sworn before me this 30 day of May, 1991

Delia Ann Brewer Notary Public
 My commission expires May 24, 1999