

DATE 3/6/86

CARD

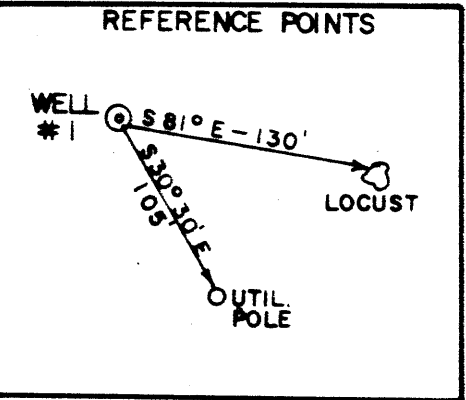
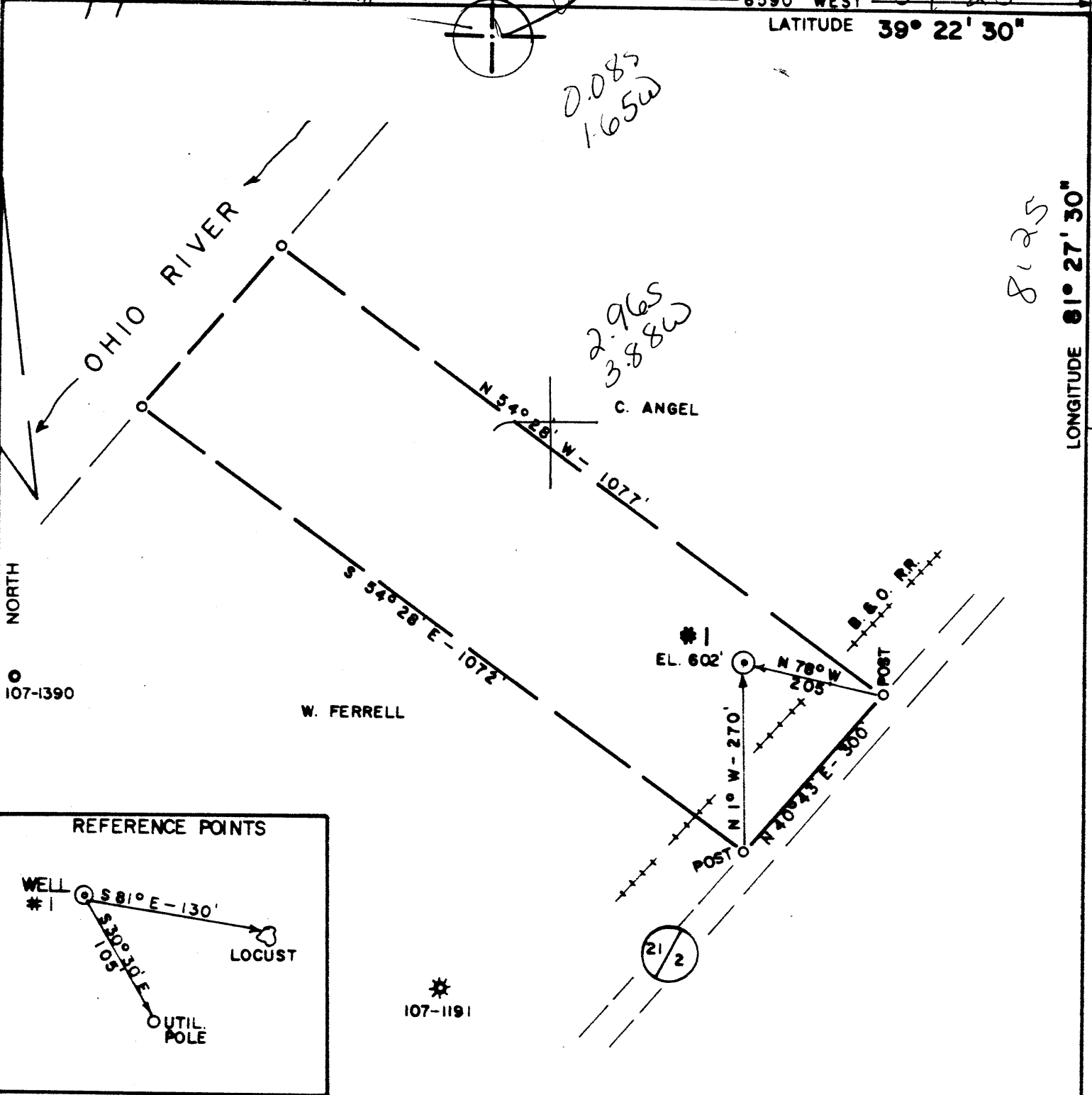
D'OT

8590' WEST

39 25

LATITUDE 39° 22' 30"

LONGITUDE 81° 27' 30"



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 86-100
 DRAWING NO. _____
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1/200'
 PROVEN SOURCE OF ELEVATION WELL 107-1191 (60')

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) Chester Waterman
 R.P.E. 3788 L.L.S. _____



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE 2/28, 19 86
 OPERATOR'S WELL NO. 4
 API WELL NO. 47-107-1399
 STATE COUNTY PERMIT

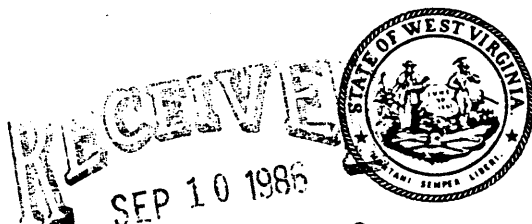
WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 602 WATER SHED OHIO RIVER
 DISTRICT WILLIAMS COUNTY WOOD
 QUADRANGLE VALLEY MILLS 7.5' 650 073 W & Y Marietta
 SURFACE OWNER T. RIFFLE ACREAGE 7.37
 OIL & GAS ROYALTY OWNER T. RIFFLE LEASE ACREAGE 7.37

PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BEREA ESTIMATED DEPTH 2400'
 WELL OPERATOR BLAUSER WELL SERVICE DESIGNATED AGENT STANLEY K. WILSON
 ADDRESS P.O. BOX 829 ADDRESS ROUTE #1, BOX 116
MARIETTA, OH 45750 BIG SPRINGS, WV 26137

MAR 10 1986

IV-35
(Rev 8-81)



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
State of West Virginia
Department of Mines
Oil and Gas Division

Date September 5, 1986
Operator's
Well No. #1
Farm Thomas Riffle
API No. 47 - 107 - 1399

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

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

LOCATION: Elevation: 602' Watershed Ohio River
District: Williams County Wood Quadrangle Valley Mills

COMPANY Blauser Well Service, Inc.
ADDRESS Marietta, OH 45750
DESIGNATED AGENT Stanley K. Wilson
ADDRESS Big Springs, WV 26137
SURFACE OWNER Thomas Riffle
ADDRESS Williamstown, WV 26187
MINERAL RIGHTS OWNER same
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Glen
Robinson ADDRESS Mineralwells, WV
PERMIT ISSUED March 6, 1986
DRILLING COMMENCED March 27, 1986
DRILLING COMPLETED April 1, 1986
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON n/a

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	250'	250'	surface
7			
5 1/2			
4 1/2	1919.78'	1919.78'	250 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Berea Depth 1950 feet
Depth of completed well 1902 feet Rotary X / Cable Tools
Water strata depth: Fresh 50 feet; Salt 1380 feet
Coal seam depths: n/a Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Berea Pay zone depth 1857 feet
Gas: Initial open flow 0 Mcf/d Oil: Initial open flow trace Bbl/d
Final open flow (35) Mcf/d Final open flow (3) Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 720 psig (surface measurement) after 168 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

SEP 15 1986
(Continue on reverse side)

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

Perforated interval 1857' - 1861' with 17 shots (.49 dia.)
 Acidize with 250 gal. 15% HCL
 Fracture well with 829 bbls. water and 51,000 lbs. 12/20 mesh sand

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand			750	850	some gas
Shale			850	880	
Sand			880	920	oil show
Sand & Shale			920	986	
Sand			986	1000	saltwater
Shale			1000	1060	
Sand			1060	1108	saltwater
Sand & Shale			1108	1380	
Big Injun Sand			1380	1482	saltwater
Shale			1482	1806	
Coffee Shale			1806	1856	
Berea Sand			1856	1860	oil & gas
Shale			1860	TD	
				TD 1920'	
				btm 4 1/2" csg	

(Attach separate sheets as necessary)

Blausser Well Service, Inc.

Well Operator

By: Paul M. Huck Sec./Treas.

Date: 9/5/86

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 10 1986

Date: Sept. 5, 1986

Operator's Well No. #1 (T. Riffle)

API Well No. 47 - 107 - 1399
State County Permit

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

**WELL OPERATOR'S REPORT
OF
INITIAL GAS-OIL RATIO TEST**

WELL OPERATOR Blauser Well Service, Inc.
Address P.O. Box 829
Marietta, OH 45750

DESIGNATED AGENT Stanley K. Wilson
Address Route 1, Box 116
Big Springs, WV 26137

GEOLOGICAL TARGET FORMATION: Berea Depth 1857 feet
Perforation Interval 1857 - 1861 feet

GUIDELINES FOR TESTING:

- 1- A minimum of gas vented or flared
- 2- A 24 hour preflow into pipelines or tanks
- 3- Uniform producing rate during the 24 hour test per test period
- 4- Measurement standards as for Form IV-39, "Report of Annual Production" (see Regulation 21.01)
- 5- Separate Form IV-36 for each producing formation in a multiple completion

TEST DATA				
START OF TEST-DATE <u>7/15/86</u>	TIME <u>9:00 am</u>	END OF TEST-DATE <u>7/16/86</u>	TIME <u>9:00 am</u>	DURATION OF TEST <u>24 hours</u>
TUBING PRESSURE <u>n/a</u>	CASING PRESSURE <u>720</u>	SEPARATOR PRESSURE <u>100 psig</u>	SEPARATOR TEMPERATURE <u>70 F</u>	
OIL PRODUCTION DURING TEST <u>3</u> bbls.	GAS PRODUCTION DURING TEST <u>35</u> Mcf	WATER PRODUCTION DURING TEST & SALINITY -- bbls. -- ppm.		
OIL GRAVITY <u>465</u> °API	PRODUCING METHOD (Flowing, pumping, gas lift, etc.) <u>flowing</u>			

GAS PRODUCTION		
MEASUREMENT METHOD FLANGE TAP <input checked="" type="checkbox"/> PIPE TAP <input type="checkbox"/> L-10 <input type="checkbox"/>	POSITIVE CHOKE <input type="checkbox"/> CRITICAL FLOW PROVER <input type="checkbox"/>	
ORIFICE DIAMETER <u>1/2"</u>	PIPE DIAMETER (INSIDE DIAM.) <u>2"</u>	NOMINAL CHOKE SIZE - IN.
DIFFERENTIAL PRESSURE RANGE <u>0 - 100</u>	MAX. STATIC PRESSURE RANGE <u>0 - 250#</u>	PROVER & ORIFICE DIAM. - IN.
DIFFERENTIAL <u>4 1/2"</u>	STATIC <u>100#</u>	GAS GRAVITY (Air-1.0) MEASURED _____ ESTIMATED _____
GAS GRAVITY (Air-1.0) <u>.65</u>	FLOWING TEMPERATURE <u>70 F</u>	GAS TEMPERATURE _____ °F
24 HOUR COEFFICIENT <u>1,700</u>	24 HOUR COEFFICIENT PRESSURE - _____ psia	

TEST RESULTS			
DAILY OIL <u>(3)</u> bbls.	DAILY WATER -- bbls.	DAILY GAS <u>(35)</u> Mcf.	GAS-OIL RATIO <u>11,666</u> SCF/STB

Blauser Well Service, Inc.
Well Operator

By: *Asw. M. Hub*

Its: Secretary/Treasurer

RECEIVED
MAR - 6 1986



1) Date: March 3, 1986
2) Operator's Well No. #1 (T. Riffle)
3) API Well No. 47 107-1399
State County Permit

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

- 4) WELL TYPE: A Oil / Gas
B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 602' / Watershed: Ohio River
District: Williams 095 / County: Wood / Quadrangle: Valley Mills 7.5'
- 6) WELL OPERATOR Dennis D. Blauser CODE: 6000 7) DESIGNATED AGENT Stanley K. Wilson
Address Blauser Well Service, Inc. Address Route 1, Box 116
P.O. Box 829, Marietta, OH 45750 Big Springs, WV 26137
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Glen P. Robinson 9) DRILLING CONTRACTOR: Name Warren Drilling
Address Route 1, #6 Mt. Pleasant Est. Address
Mineralwells, WV 26150 Dexter City, OH 45727
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Berea 395
- 12) Estimated depth of completed well, 1950 feet
- 13) Approximate strata depths: Fresh, 50 feet; salt, 1450 feet.
- 14) Approximate coal seam depths: n/a Is coal being mined in the area? Yes / No /

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	11 3/4	H-40	42	x		60'	60'	to surface	Kinds <u>By Rule 15.05</u> Sizes
Fresh water	8 5/8	H-40	20	x		250'	250'	to surface	
Coal									
Intermediate									
Production	4 1/2	J-55	10.5	x		1950'	1950'	above salt-sand	Depths set <u>AS REQUIRED BY</u> Perforations:
Tubing								<u>Rule 15.01</u>	
Lin...									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-107-1399

March 6 19 86
Date

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 March 6, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u> </u>	Agent: <u>FLB</u>	Plat: <u>MS</u>	Casing: <u>MS</u>	Fee: <u>1732</u>	WGP: <u>AS</u>	S&E: <u>AS</u>	Other: <u> </u>
-----------------------------------	-------------------	-----------------	-------------------	------------------	----------------	----------------	------------------------------------

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

John H. Hendon by Margaret J. Hesse
Director, Division of Oil and Gas
File

See the reverse side of the APPLICANTS COPY for instructions to the well operator.