

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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION WELL 47-017-2309  
 ELEV. 991.28'

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) *John Strickling*  
 R.P.E. \_\_\_\_\_ L.L.S. 715

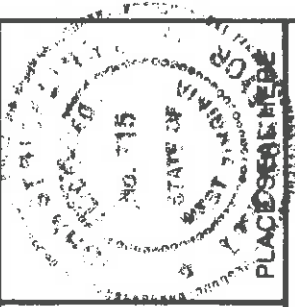
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW

LOCATION: ELEVATION 897' WATERSHED ARNOLDS CREEK  
 DISTRICT CENTRAL COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION, W.VA. 7 1/2' 4 1/2' 569  
 SURFACE OWNER WILLIAM DEMASTUS  
 OIL & GAS ROYALTY OWNER H. H. HILEY HEIRS LEASE ACREAGE 140  
 LEASE NO. \_\_\_\_\_

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 BIG INTUM ESTIMATED DEPTH 2020'  
 WELL OPERATOR HUGH SPENCER 5370 DESIGNATED AGENT HUGH SPENCER  
 ADDRESS WEST UNION, W.VA. 26456 ADDRESS WEST UNION, W.VA.



DATE 1 OCTOBER 19 84  
 OPERATOR'S WELL NO. 2  
 API WELL NO. \_\_\_\_\_  
 STATE COUNTY PERMIT  
 47 017 3382

COUNTY NAME \_\_\_\_\_ PERMIT DEC 03 1984

6-6 Green wood (89)



Date JAN. 7, 1988  
 Operator's Well No. H.H. Hiley #2  
 Farm H.H. Hiley  
 API No. 47-017-3382

State of West Virginia  
 DEPARTMENT OF ENERGY  
 Oil and Gas Division

WELL OPERATOR'S REPORT  
 OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 897' Watershed ARNOLDS CREEK  
 District: CENTRAL County Dodderidge Quadrangle West Union, W.V. 7 1/2

COMPANY SPENCER ENTERPRISES  
 ADDRESS Box 143, Smithburg, W.V. 26436  
 DESIGNATED AGENT Hugh K. Spencer  
 ADDRESS Center Point, Starke, West Union, W.V.  
 SURFACE OWNER William Demastus  
 ADDRESS Central Station, W.V.  
 MINERAL RIGHTS OWNER H.H. Hiley Heirs  
 ADDRESS West Union, W.V. 26456  
 OIL AND GAS INSPECTOR FOR THIS WORK MIKE UNDERWOOD ADDRESS RL 2, Box 135, Salem, W.V.

PERMIT ISSUED \_\_\_\_\_

DRILLING COMMENCED Dec. 27, 1984

DRILLING COMPLETED JAN. 4, 1985

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_

Casing & Tubing Size 20-16 Cond.	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
13-10"	20'		
9 5/8			
8 5/8		166.65	75 sacks SURFACE
7			
5 1/2			
4 1/2		2184.95	170 sacks 500 lb.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Injun Depth 1830-1870 feet

Depth of completed well 2298 feet Rotary  / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 40' 390' feet; Salt N/A feet

Coal seam depths: N/A Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 1830-1870 feet  
 Gas: Initial open flow N/A Mcf/d Oil: Initial open flow 1 Bbl/d  
 Final open flow N/A Mcf/d Final open flow 1 Bbl/d

Time of open flow between initial and final tests N/A hours

Static rock pressure N/A psig (surface measurement) after N/A 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

**FEB 1 1988**

(Continue on reverse side)

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

WATER FRAC (1 stage)  
 Perforated 1830-1870  
 500 Gal. HCl Acid  
 20/40 Sand cut 500

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
RED Rock			0	10	Including indication of all fresh and salt water, coal, oil and gas
Shale			20	30	
SAND			30	30	WATER 40'
Shale			42	42	
SAND			55	55	WATER 390' Fresh
RED Rock, Shale			140	152	
SAND			152	360	WATER 390' Fresh
RED Rock			960	470	
SAND			470	512	WATER 390' Fresh
Shale			512	525	
SAND			512	525	WATER 390' Fresh
R. Shale			525	566	
SAND			525	575	WATER 390' Fresh
RED Rock			575	611	
SAND			595	611	WATER 390' Fresh
RED Rock			611	625	
SAND			611	792	WATER 390' Fresh
RED Rock, Shale			625	800	
SAND			792	800	WATER 390' Fresh
RED Rock, Shale			800	907	
SAND			800	907	WATER 390' Fresh
R.R. Shale			807	926	
SAND			807	926	WATER 390' Fresh
Shale			907	1024	
SAND			907	1024	WATER 390' Fresh
Shale			1024	1250	
SAND			1024	1325	WATER 390' Fresh
RED Rock			1250	1390	
SAND			1325	1390	WATER 390' Fresh
RED Rock			1390	1440	
SAND			1440	1583	WATER 390' Fresh
Shale			1583	1613	
SAND			1583	1613	WATER 390' Fresh
Shale			1613	1685	
SAND			1685	1713	WATER 390' Fresh
Shale			1713	1840	
SAND			1713	1859	WATER 390' Fresh
Shale			1840	1859	
SAND			1859	1867	WATER 390' Fresh
Shale			1867	1889	
SAND			1867	1889	WATER 390' Fresh
LIME			1889	1924	
SAND			1889	1924	WATER 390' Fresh
Shale			1924	1977	
SAND			1924	1977	WATER 390' Fresh
Shale			1977	2050	
SAND			1977	2050	WATER 390' Fresh
Shale			2050	2172	
SAND			2050	2172	WATER 390' Fresh
Shale			2172	2228'	

TD

(Attach separate sheets as necessary)

Hugh K. SOENNER  
 Well Operator

By: Ronald B. Spencer

Date: 1/8/88

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 lithology, encountered in the drilling of a well."

RECEIVED

1984

- 1) Date: \_\_\_\_\_ 19\_\_\_\_  
 2) Operator's Well No. \_\_\_\_\_ #  
 3) API Well No. 47 - 017 - 3382 State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_



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

OIL & GAS DIVISION

4) WELL OPERATOR WEDBERTA OF MINES   
 B (If "Gas", Production  )

5) LOCATION: Elevation: 877' / District: Central / Undergound storage  / Deep  / Shallow   
 Watershed: Arno's Creek / County: Putnam / Quadrangle: West Union, W.V. 7 1/2

6) WELL OPERATOR Hank K. Spitzer / 7) DESIGNATED AGENT Hank K. Spitzer  
 Address: Central Point, State / Address: Central Point, State

8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name: HAROLD MATE UNDERKAWAG / 9) DRILLING CONTRACTOR:  
 Address: Box 114 / Name: SPENCER EVERETT  
Salers, WV 26426 / Address: Box 143  
Salers, WV 26426 / Stimulate

10) PROPOSED WELL WORK: Drill  / deeper  / Redrill  / Perforate new formation   
 Plug off old formation  / Other physical change in well (specify) \_\_\_\_\_

11) GEOLOGICAL TARGET FORMATION, 6-6 Inyan  
 12) Estimated depth of completed well, 220 feet.  
 13) Approximate trata depths: Fresh, 110 feet; salt, \_\_\_\_\_ feet.  
 14) Approximate coal seam depths: None 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.	For drilling	Left in well		
Conductor	11"			X 30'	150'		
Fresh water	8"						
Coal			X			CTS NEAT	
Intermediate							
Production	4 1/2"		X		2200'		
Tubing							
Liners							

Perforations: \_\_\_\_\_  
 Top \_\_\_\_\_  
 Bottom \_\_\_\_\_

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47 - 017 - 3382 Date November 21, 1984

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 November 21, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
146	SW	T5	MU	29492

*Margaret J. Khan*  
 Administrator, Office of Oil and Gas

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

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

