



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

jas

FILE NO. \_\_\_\_\_  
 DRAWING NO. 2  
 SCALE 1" = 400'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Top of knob, 2300'  
NNE of location El. 1308

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) [Signature]  
 R.P.E. [Signature] L.L.S.

PLACE SEAL HERE

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE Oct. 29, 1984  
 OPERATOR'S WELL NO. Lang Bros. #1  
 API WELL NO.

47-033-3118  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1075 WATERSHED Peddler Run  
 DISTRICT Simpson COUNTY Harrison

QUADRANGLE Rosemont 7 1/2 500 Fairmont 15' SW  
 SURFACE OWNER Lloyd L. & James R. Lang ACREAGE 159.5  
 OIL & GAS ROYALTY OWNER LL & JR Lang LEASE ACREAGE 138.77

LEASE NO. 378400  
 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 BENSON ESTIMATED DEPTH 5000'  
 WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT STEVE WILLIAMS  
 ADDRESS 103 E. Main STREET BRIDGEPORT, WV 26330 ADDRESS 102 E. MAIN STREET BRIDGEPORT, WV 26330

DEC 03 1984

6-6 Bridgeport-Pruntytown (110)

FORM IV-6 (8-78)  
 H.T. HALL

COUNTY NAME  
 PERMIT

IV-35  
(Rev 8-81)

**RECEIVED**  
JAN 7 - 1985

OIL & GAS DIVISION  
**DEPT. OF MINES**



State of West Virginia  
Department of Mines  
Oil and Gas Division

Date 1/4/85  
Operator's  
Well No. #1  
Farm Lang Brothers  
API No. 47-033 - 3118

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

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

LOCATION: Elevation: 1075' Watershed Peddler Run  
District: Simpson County Harrison Quadrangle Rosemont

COMPANY PETROLEUM DEVELOPMENT CORPORATION  
ADDRESS 103 EAST MAIN ST., BRIDGEPORT, WV 26330  
DESIGNATED AGENT STEVEN R. WILLIAMS  
ADDRESS 103 EAST MAIN ST., BRIDGEPORT, WV 26330  
SURFACE OWNER Lloyd L. Lang, 213 Grand Ave. Bridgeport, WV 26330  
ADDRESS James R. Lang, 234 W. Philadelphia Ave., Bridgeport, WV 26330  
MINERAL RIGHTS OWNER Lloyd L. Lang et al  
ADDRESS 234 W. Philadelphia Ave, Bridgeport, WV  
OIL AND GAS INSPECTOR FOR THIS WORK STEPHEN CASEY  
ADDRESS RT 2, BOX 232-D JANE LEW, WV 26378  
PERMIT ISSUED NOVEMBER 21, 1984  
DRILLING COMMENCED NOVEMBER 30, 1984  
DRILLING COMPLETED DECEMBER 5, 1984

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30'	30'	cement to surface
9 5/8			
8 5/8	923'	923'	210 sks
7			
5 1/2			
4 1/2	4323'	4323'	455 sks
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Benson Depth 5000 feet  
Depth of completed well 4354 feet Rotary xx / Cable Tools      
Water strata depth: Fresh 38' feet; Salt n/a feet  
Coal seam depths: n/a Is coal being mined in the area? no

OPEN FLOW DATA  
Producing formation Benson Pay zone depth 4238-54 feet  
Gas: Initial open flow not taken Mcf/d Oil: Initial open flow     Bbl/d  
Final open flow 793 Mcf/d Final open flow     Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 1900 psig (surface measurement) after 72 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

JAN 21 1985

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
 Performed gelled H2O frac with N2 assist on Benson formation. Perforated zone with 13 shots (4238'-54'). Used 578 bbl of sand laden fluid (15,000 lb. of 80/100 sand and 40,000 lb. 20/40 sand). Used a 20 lb. gel system with 70,000 scf N2.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
GL to KB			0	10	½" stream of H2O @ 38' gas @ 1100'; no show
sand, shale, redrock			10	1192	
big lime			1192	1256	gas @ 1399'; no show gas @ 1739'; 5/10=2" w/H2O
keener			1256	1291	
big injun			1291	1341	
sand, shale			1341	1716	
50 foot			1716	1755	
sand, shale			1755	1788	
30 foot			1788	1818	
sand, shale			1818	1866	
gordon stray			1866	1880	
sand, shale			1880	1960	
Gorden			1960	1982	gas @ 2046'; 4/10=2" w/H2O
sand, shale			1982	2026	
4th sand			2026	2055	
sand, shale			2055	2128	
5th sand			2128	2158	
sand, shale			2158	2212	
bayard (lower 5th)			2212	2250	
sand, shale			2250	2825	
speechley			2825	2915	
sand, shale			2915	3058	
balltown			3058	3281	gas @ 2300'; 2/10=2" w/H2O gas @ 2600'; 2/10=2" w/H2O gas @ 2910'; 2/10=2" w/H2O gas @ 3218'; 2/10=2" w/H2O
sand, shale			3281	3386	
bradford			3386	3662	
sand, shale			3662	3885	
riley			3885	4108	
sand, shale			4108	4224	
benson			4224	4256	
sand, shale			4256	4353	
				4354	

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By:

Date:

*John P. Williams*

1/4/84

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."



1) Date: \_\_\_\_\_, 19\_\_\_\_  
 2) Operator's  
 Well No. Lang Brothers #1  
 3) API Well No. 47 - 033 - 3118  
 State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_

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

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas XX /  
 B (If "Gas", Production XX / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_ /)
- 5) LOCATION: Elevation: 1075' Watershed: Peddler Run  
 District: Simpson County: Harrison Quadrangle: Rosemont
- 6) WELL OPERATOR PETROLEUM DEVELOPMENT CORPORATION DESIGNATED AGENT STEVEN R. WILLIAMS  
 Address PO BOX 26, 103 EAST MAIN STREET Address PO BOX 26, 103 EAST MAIN STREET  
BRIDGEPORT, WV 26330 38200 BRIDGEPORT, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name STEPHEN CASEY Name \_\_\_\_\_  
 Address RT 2, BOX 232-D Address \_\_\_\_\_  
JANE LEW, WV 26378
- 10) PROPOSED WELL WORK: Drill XX / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION: BENSON
- 12) Estimated depth of completed well, 5000 feet  
 13) Approximate trata depths: Fresh, 80; 250 feet; salt, 1200 feet.  
 14) Approximate coal seam depths: 85; 480; 630 Is coal being mined in the area? Yes XX / No \_\_\_\_\_

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15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling		
Conductor	11 3/4	H-40	42#	x		30'		Kinds
Fresh water								
Coal								Sizes
Intermediate	8 5/8	J-55	20#	x		900'	900'	cement to surface (neat cmt)
Production	4 1/2	J-55	10.5#	x		5000'	5000'	Depths set
Tubing								Perforations:
Liners								Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-033-3118 Date November 21, 19 84

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
<u>116</u>	<u>MW</u>	<u>TS</u>	<u>TS</u>	<u>835</u> <u>268</u>

*Margaret Hassel*  
 Administrator, Office of Oil and Gas

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