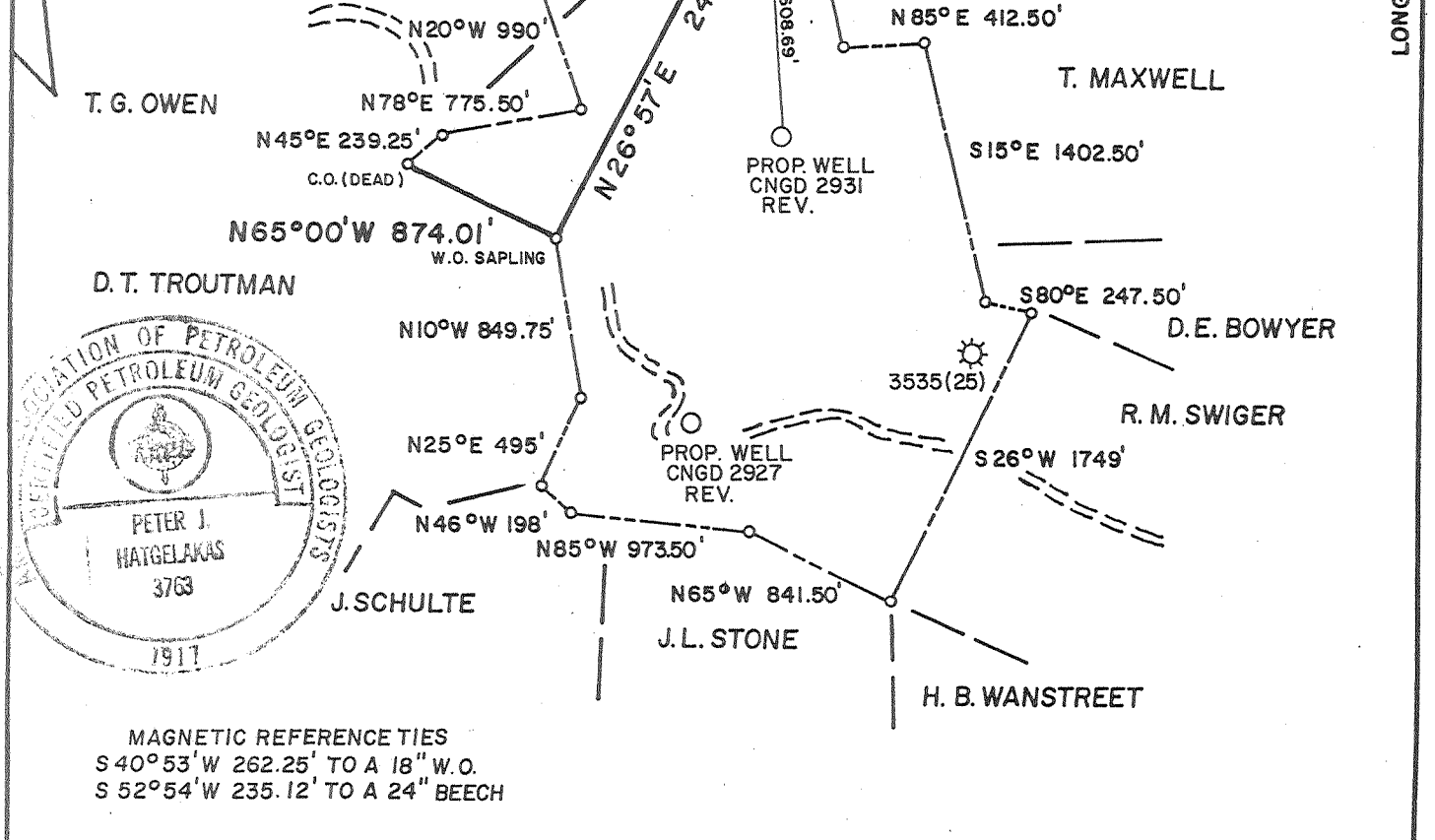
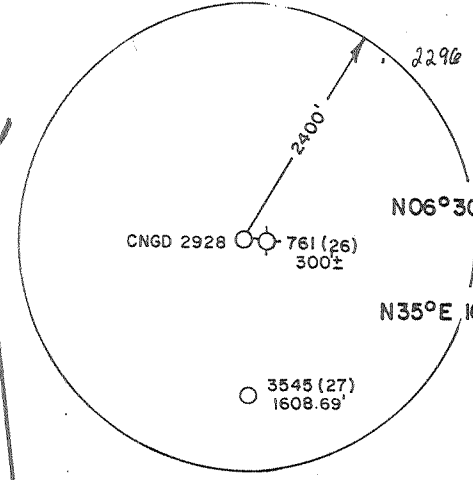
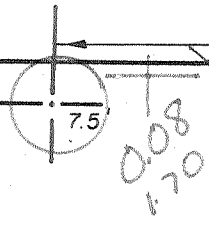


JS 2/5/88

9075'

LATITUDE 39° 10' 00"  
B.H. SCHWARTZMAN

(+ ) DENOTES LOCATION OF WELL ON U.S.G.S. TOPOGRAPHIC MAP

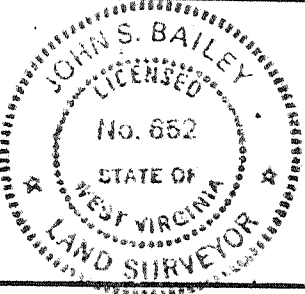


LONGITUDE 80° 42' 30"

DODDRIDGE COUNTY PERMIT

**MSES consultants, inc.**  
FILE NO. MSES 87-764  
DRAWN BY RVS/JSB  
SCALE 1"=1000'  
MIN. DEGREE OF ACCURACY 1 IN 200  
PROVEN SOURCE OF ELEVATION  
RD. JCT. ELEV. 922' 6200' SW OF LOC.

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 S. Bailey  
R.P.E. \_\_\_\_\_ L.L.S. 652



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION



DATE DECEMBER 16, 19 87  
OPERATOR'S WELL NO. CNGD 2928 REV.  
API WELL NO. 47 - 017 - 3627  
STATE            COUNTY            PERMIT           

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1183.70' WATERSHED TOMS FORK OF MEATHOUSE FORK  
DISTRICT NEW MILTON 6 Vadis WC COUNTY DODDRIDGE  
QUADRANGLE NEW MILTON 7.5' 511 12.34 NEAREST TOWN LEOPOLD  
SURFACE OWNER DOLORES HINTERER ACREAGE 204.40  
OIL & GAS ROYALTY OWNER LOUISA FISHER LEASE ACREAGE 204  
LEASE NO. DV-11706

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 ALEXANDER ESTIMATED DEPTH 5640' FEB 16 1988  
WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
ADDRESS P.O. BOX 15746 142 ADDRESS ROUTE 2 BOX 698  
PITTSBURGH, PA. 15244 BRIDGEPORT, W.V. 26330

FORM IV-6

6-5 Porto Rico (Stout) (134)



IV-35  
(Rev 8-81)

Date September 13, 1988  
Operator's  
Well No. 2928  
Farm L. Fisher  
API No. 47 - 017 - 3627

**RECEIVED** State of West Virginia  
Department of Mines  
Oil and Gas Division  
SEP 30 1988

DIVISION OF OIL & GAS WELL OPERATOR'S REPORT  
DEPARTMENT OF ENERGY 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 \_\_\_ / Shallow X /)

LOCATION: Elevation: 1183.70 Watershed Toms Fork of Meathouse Fork  
District: New Milton County Doddridge Quadrangle New Milton 7.5'

COMPANY CNG Development Company

ADDRESS P. O. Box 15746  
Pittsburgh, PA 15244

DESIGNATED AGENT Rodney J. Biggs

ADDRESS Rt. 2 Box 698  
Bridgeport, WV 26330

SURFACE OWNER Delores Hinterer

ADDRESS Rt. 1  
New Milton, WV 26411

MINERAL RIGHTS OWNER Louisa Fisher

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK \_\_\_\_\_

Mike Underwood ADDRESS Rt. 2, Box 135  
Salem, WV 26426

PERMIT ISSUED Feb. 12, 1988

DRILLING COMMENCED Aug. 13, 1988

DRILLING COMPLETED Aug. 19, 1988

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"	208	208	To Surf.
9 5/8			
8 5/8	1786	1786	To Surf.
7			
5 1/2			
4 1/2	5689	5689	560 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5640 feet

Depth of completed well 5722 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 77 feet; Salt 1610 feet

Coal seam depths: --- Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Alexander Pay zone depth 5367-5560 feet  
Benson  
Halltown  
Warren 5106-5111  
2248-2264  
3506-3604

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow (581) Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure (est.) 1250 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

(Continue on reverse side)

OCT 10 1988

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

Perf. Alexander 5367 - 5560, 31 holes, .41; Benson 5106 - 5111, 18 holes, .39 HSC;  
Balltown 4240 - 4264, 24 holes, .39; Warren 3506 - 3604, 30 holes, .39.

Frac 1st stage - Water - Breakdown 2220, 819 bbl Clean Fluid, 500 gal Acid, Ave Rate 32,  
Ave Pr. 2230, 70,000# 20/40 Sand, Ave HHP. 2000#.

2nd stage - Water - Breakdown 2800, 569 bbl Clean Fluid, 500 gal Acid, Ave Rate 22.5 BPM,  
Ave Pr. 2180, 30,000# 20/40 Sand.

3rd stage - Water - Breakdown 1880, 406 bbl Clean Fluid, 500 gal acid, Ave Rate 34 BPM,  
Ave Pr. 2480#, 12,500# 20/40 Sand.

4th stage - Water - Breakdown 1650, 648 bbl Clean Fluid, 500 gal Acid, Avg Rate 32 BPM,  
Ave Pr. 1720#, 29,500# 20/40 Sand, Ave HHP 2600.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and c
Fill			0	5	
Sand, Shale & RR			5	2111	Damp @ 77'
L. Lime			2111	2132	1/4" stream water @ 1610'
Pencil Core			2132	2164	
B. Lime			2164	2200	
Sand			2200	2216	
B. Injun			2216	2220	
Shale			2220	2434	
Weir			2434	2444	
Sand & Shale			2444	2630	
Berea			2630	2640	
Sand & Shale			2640	2826	
Gordon			2826	3014	
4th Sand			3014	3036	
Sand & Shale			3036	3204	
Bayard			3204	3212	
Shale			3212	3483	
Warren			3483	3552	
2nd Warren			3552	3620	
Sand & Shale			3620	3686	
U. Speechley			3686	3753	
Sand & Shale			3753	4234	
Balltown			4234	4254	
Sand & Shale			4254	4664	
Bradford			4664	4727	
Sand & Shale			4727	5026	
Riley			5026	5041	
Sand & Shale			5041	5114	
Benson			5114	5130	
Sand & Shale			5130	5230	
Leopold			5230	5240	
Sand & Shale			5240	5360	
Alexander			5360	5384	
Sand & Shale			5384	5722	

**RECEIVED**  
SEP 30 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

See attached sheet

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By:

*Rod Began*

Date: September 13, 1988

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."

CNGD 2928  
Farm: L. Fisher  
API #47-017-3627

RECEIVED  
SEP 30 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

LOG TOPS

---

Big Lime	2166	2306
Big Injun	2306	2318
Weir	2435	2540
Berea	2640	2650
Warren	3470	3516
Benson	5106	5160
✓Alexander	5366	5458

OCT 10 1988

Issue 2/195  
-cp 2/2/95

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

- 1) Well Operator: CNG Development Company 10110, 6, 570
- 2) Operator's Well Number: CNGD 2928 Rev. 3) Elevation: 1183.7
- 4) Well type: (a) Oil \_\_\_/ or Gas X/  
(b) If Gas: Production X/ Underground Storage \_\_\_/  
Deep \_\_\_/ Shallow X/
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5640 feet
- 7) Approximate fresh water strata depths: 142, ~~7~~, 116', 676', 776'
- 8) Approximate salt water depths: 1717
- 9) Approximate coal seam depths: -
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_/ No X/  
*From Doddridge 761, 2296, 3535*
- 11) Proposed Well Work:
- 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	11-3/4	H-40	42	200	200 <i>CTS</i>	38CSR18-11.3 To surface
Coal						
Intermediate	8-5/8	X-42	23	1800	1800 <i>CTS</i>	38CSR18-11.3 To surface
Production	4-1/2	J-55	10.5	5640	5640	200-400 sks
Tubing	1-1/2	CN-55	2.75			
Liners						

**RECEIVED**  
JAN 27 1988

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

21334

Fee(s) paid: *[Signature]* Well Work Permit *[Signature]* Reclamation Fund *[Signature]* WPCP  
*[Signature]* Plat *[Signature]* WW-9 *[Signature]* WW-2B *[Signature]* Bond 50 Blanket *[Signature]* Agent

(Type)

**RECEIVED**  
JAN 27 1988

3)  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: January 14, 1988  
Operator's well number  
CNGD 2928 Rev.  
API Well No: 47 - 017 - 3627  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Delores Hinterer  
Address Rt. 1  
New Milton, WV 26411  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Same as surface owner  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector Mike Underwood  
Address Route 2, Box 135  
Salem, WV 26426  
Telephone (304)-782-1043

(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

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 CNG Development Company  
By: [Signature]  
Its: Supervisor, Well Programs  
Address One Park Ridge Center, P.O. Box 15746  
Pittsburgh, PA 15244  
Telephone (412) 787-4117

Subscribed and sworn before me this 14th day of January, 1988

[Signature] Notary Public

My commission expires January December 19, 1988

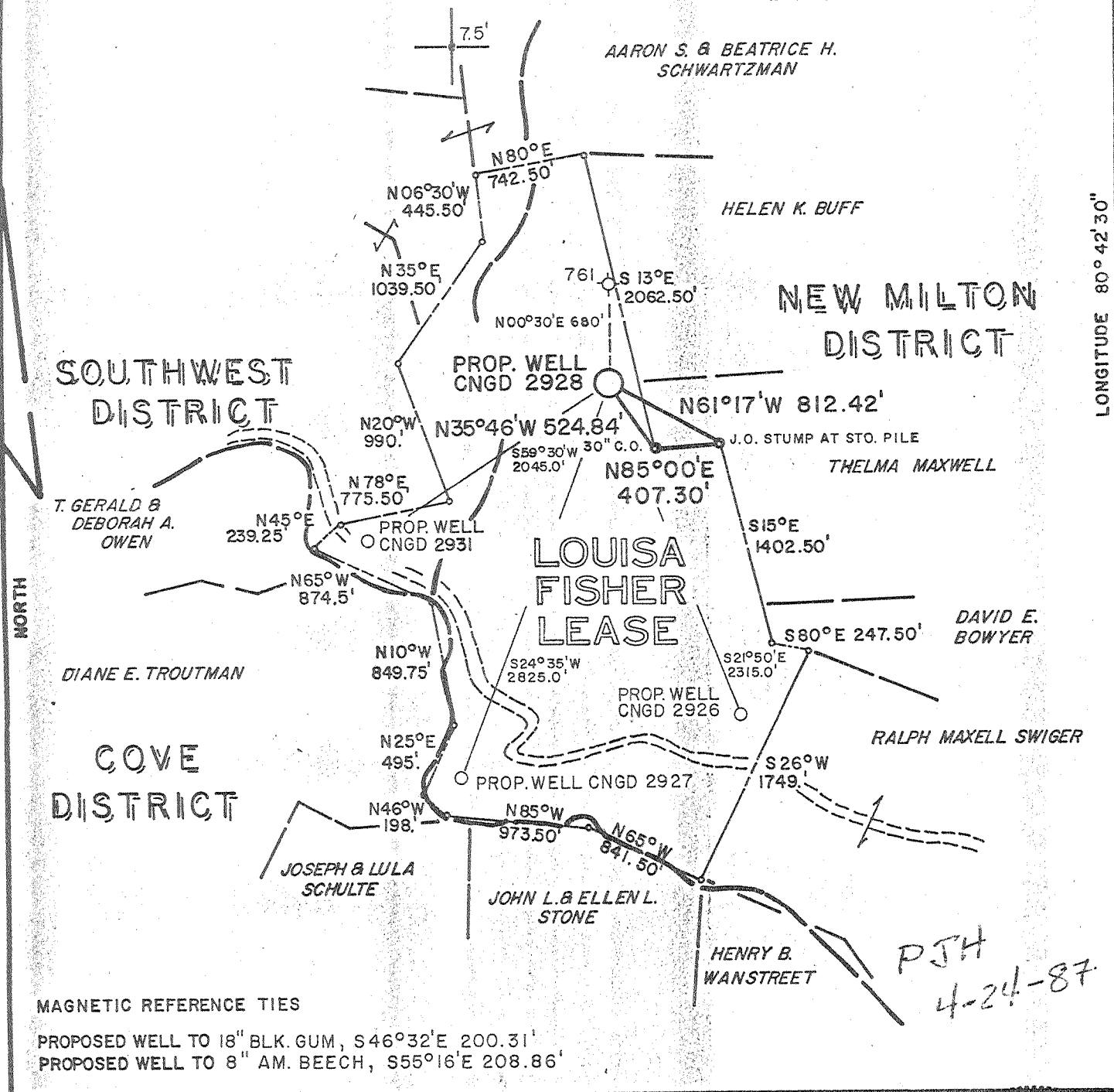
CARL G. MOUROVIC, NOTARY PUBLIC  
PITTSBURGH, ALLEGHENY COUNTY, PA  
MY COMMISSION EXPIRES DECEMBER 19, 1988

84B 5/19/87

8,950'

LATITUDE 39°10'00"

LONGITUDE 80°42'30"

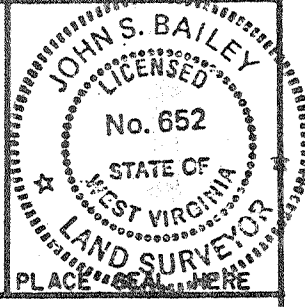


MAGNETIC REFERENCE TIES

PROPOSED WELL TO 18" BLK. GUM, S46°32'E 200.31'  
 PROPOSED WELL TO 8" AM. BEECH, S55°16'E 208.86'

FILE NO. MSES 87-764  
 DRAWN BY VSH/SARC/JSB  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION RD. JCT. ELEV. 922', 5800' SW OF LOCATION

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 S. Bailey  
 R. P. E. \_\_\_\_\_ L. L. S. 652



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



Department of Mines  
 Oil & Gas Division

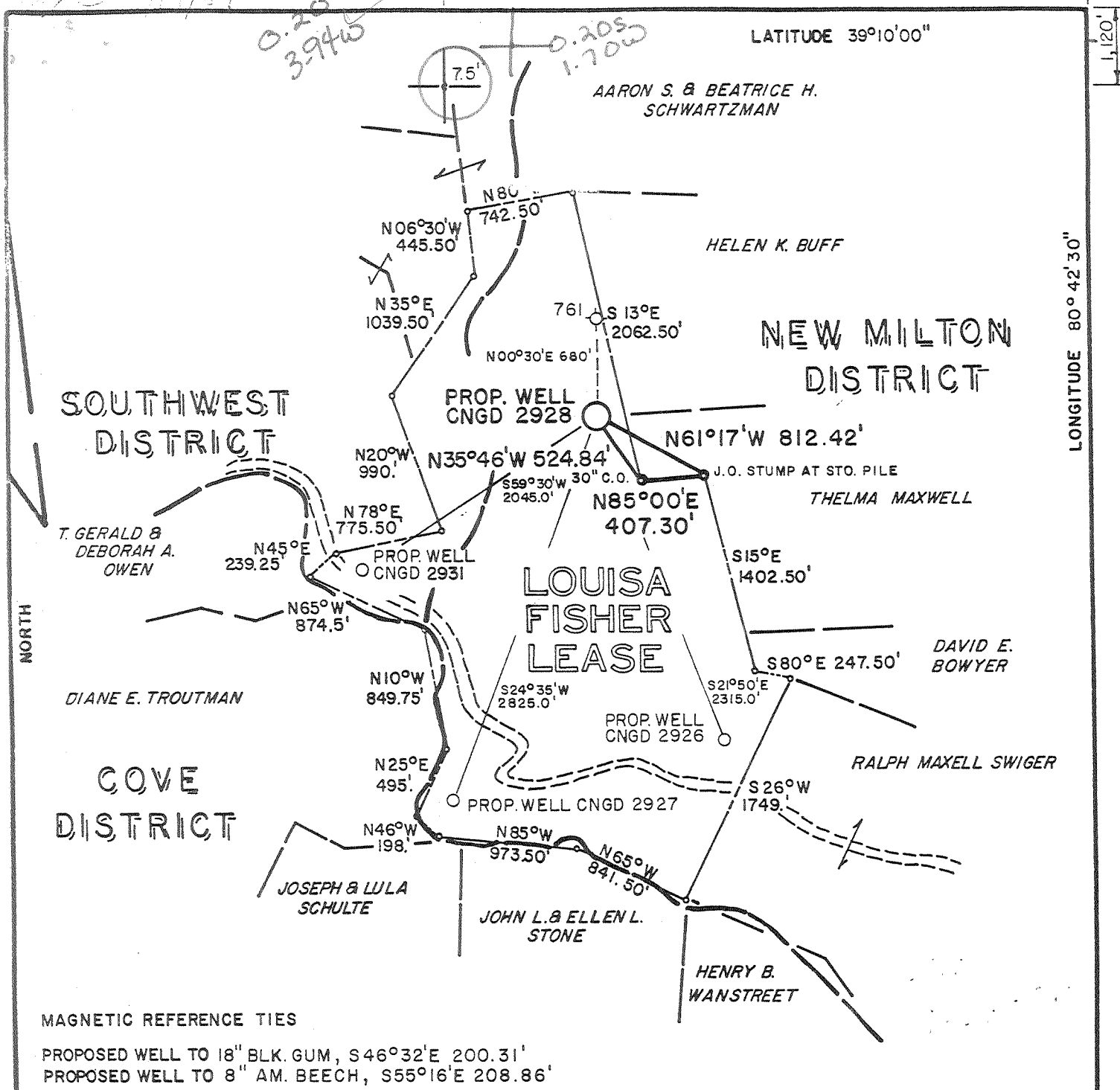
DATE MARCH 17, 19 87  
 OPERATOR'S WELL NO. CNGD 2928  
 API WELL NO. 47-017-3544  
 STATE COUNTY PERMIT

CANCELLED

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X)  
 LOCATION: ELEVATION 1158.4' WATER SHED TOM'S FORK OF MEATHOUSE FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON NEAREST TOWN LEOPOLD  
 SURFACE OWNER DOLORES HINTERER ACREAGE 204.40  
 OIL & GAS ROYALTY OWNER LOUISA FISHER LEASE ACREAGE 204  
 LEASE NO. DV-11706  
 PROPOSED WORK: DRILL X 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 DEVONIAN SHALE ESTIMATED DEPTH 5605'  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS P.O. BOX 15746 ADDRESS ROUTE 2, BOX 698  
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

MAR 11 1988

DODD. 3544



MAGNETIC REFERENCE TIES

PROPOSED WELL TO 18" BLK. GUM, S46°32'E 200.31'  
 PROPOSED WELL TO 8" AM. BEECH, S55°16'E 208.86'

FILE NO. MSES 87-764  
 DRAWN BY VSH/SARC/JSB  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION RD. JCT. ELEV. 922', 5800' SW OF LOCATION

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. \_\_\_\_\_ L. L. S. 652

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 No. 652  
 PLACE SEAL HERE

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



Department of Mines  
 Oil & Gas Division

DATE MARCH 17, 19 87  
 OPERATOR'S WELL NO. CNGD 2928  
 API WELL NO. 47-017-3544  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X)  
 LOCATION: ELEVATION 1158.4 WATER SHED TOM'S FORK OF MEATHOUSE FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON NEAREST TOWN LEOPOLD  
 SURFACE OWNER DOLORES HINTERER ACREAGE 204.40  
 OIL & GAS ROYALTY OWNER LOUISA FISHER LEASE ACREAGE 204  
 LEASE NO. DV-11706  
 PROPOSED WORK: DRILL X 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 DEVONIAN SHALE ESTIMATED DEPTH 5605'  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS P.O. BOX 15746 ADDRESS ROUTE 2, BOX 698  
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

JUN 1 1987





1) Date: April 29, 1987

2) Operator's Well No. CNGD 2928

3) API Well No. 47 State 017 County 3544 Permit

RECEIVED MAY 08 1987

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

- 4) WELL TYPE: A Oil / Gas X B (If "Gas", Production X / Underground storage / Deep / Shallow X)
5) LOCATION: Elevation: 1158.4 Watershed: Tom's Fork of Meathouse Fork District: New Milton C County: Doddridge 017 Quadrangle: New Milton 570
6) WELL OPERATOR CNG Development Co. CODE: 10110 7) DESIGNATED AGENT Gary Nicholas Address c/o Cheryl S. Hartle P.O. Box 15746 Pittsburgh, PA 15244 Address Crosswind Corporate Park Rt. 2, Box 698, Bridgeport, WV 26330
8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Mike Underwood Address Route 2, Box 114 Salem, WV 26426
9) DRILLING CONTRACTOR: Name Sam Jack Drilling Co. Address P.O. Box 48 Buckhannon, WV 26201
10) PROPOSED WELL WORK: Drill X / Drill deeper / Redrill / Stimulate X Plug off old formation / Perforate new formation Other physical change in well (specify)
11) GEOLOGICAL TARGET FORMATION, Alexander
12) Estimated depth of completed well, 5605 feet
13) Approximate trata depths: Fresh, -A 388 feet; salt, 91458 - feet.
14) Approximate coal seam depths: -A 238 Is coal being mined in the area? Yes - / No -
15) CASING AND TUBING PROGRAM See 017-1440 5160

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 47-017-3544

May 26 19 87 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 May 26, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

10114

Table with columns: Bond, Agent, Plat, Casing, Fee, WPCP, S&E, Other

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

Director, Division of Oil and Gas

File

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