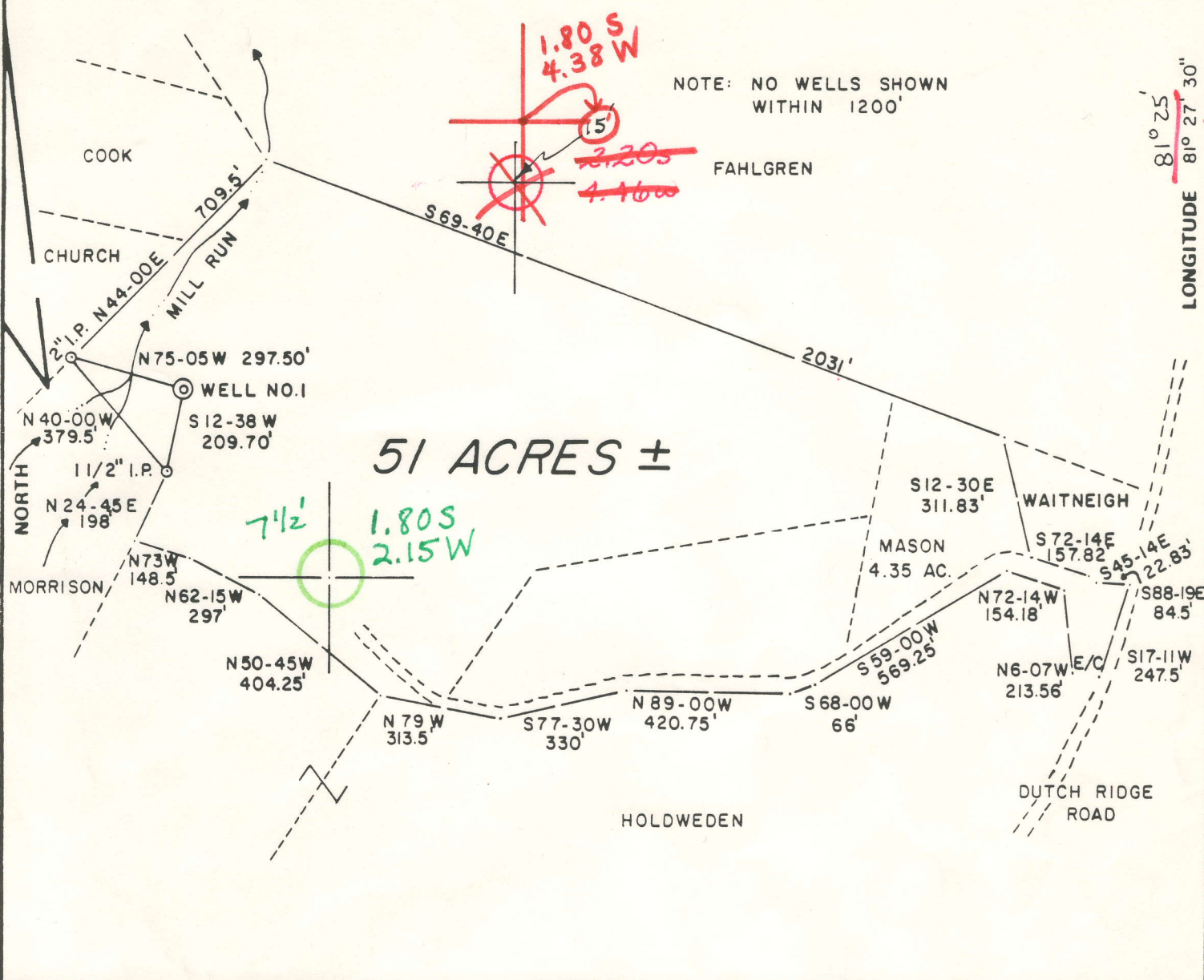


LATITUDE 39° 15' 00"

WITTE LEASE WELL NO. 1



FILE NO. 9-49
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION JUNCT. OF ROADS
 ELEV. 901'

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) Gregory A. Smith
 R.P.E. _____ L.L.S. 677

PLACE SEAL HERE

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



DATE NOV. 17, 19 82
 OPERATOR'S WELL NO. 1
 API WELL NO. 47-107-1238
 STATE WV COUNTY WOOD PERMIT

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 652' WATER SHED MILL RUN
 DISTRICT CLAY COUNTY WOOD
 QUADRANGLE KANAWHA 7.5' Elizabeth 15' NW
 SURFACE OWNER ADRIAN D. WITTE ACREAGE 46.65
 OIL & GAS ROYALTY OWNER ADRIAN D. WITTE LEASE ACREAGE 51
 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 FORMATIO MARCELLUS ESTIMATED DEPTH 4600'
 WELL OPERATOR APPCO OIL & GAS CORP DESIGNATED AGENT RICHARD H. BRUMBAUGH
 ADDRESS 100 SOUTH ORANGE ST. SUITE 909 ADDRESS 212 COURT STREET
ORLANDO, FLA. 32807 SPENCER, WV 25276

DEC 13 1982

Deep well 1.1' cement (1')



IV-35
(Rev 8-81)

Date 1/26/83
Operator's
Well No. 1
Farm Witte
API No. 47 - 107 - 1238

State of West Virginia
Department of Mines
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 /
(If "Gas," Production / Underground Storage / Deep / Shallow /)

LOCATION: Elevation: 662 K.B. Watershed Mill Run
District: Clay County Wood Quadrangle Kanawha 7.5 min.

COMPANY Apcco Oil & Gas Corporation
ADDRESS 100 S. Orange Ave.S-909 Orlando, Fla.
DESIGNATED AGENT Richard Brunbaugh
ADDRESS 212 Court St. Spencer, W.Va. 25276
SURFACE OWNER Adrian Witte
ADDRESS Rt. 9, Box 213 Parkersburg, W.Va. 26101
MINERAL RIGHTS OWNER Adrian Witte
ADDRESS Rt. 9, Box 213 Parkersburg, W.Va. 26101
OIL AND GAS INSPECTOR FOR THIS WORK
Samuel Hersman ADDRESS P.O.Box 66, Smithville, W.VA. 26178
PERMIT ISSUED
DRILLING COMMENCED 12/15/82
DRILLING COMPLETED 12/21.82
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"	300	300	to surface =67
9 5/8			
8 5/8	1754	1754	to surface =445
7			
5 1/2			
4 1/2	4672	4672	2700' fill up =605
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Shale Depth 4700'+ feet
Depth of completed well 4731' feet Rotary / Cable Tools
Water strata depth: Fresh 90'+ feet; Salt 1120' feet (Top)
Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Marcellus Shale Pay zone depth 4655-4661 feet
Gas: Initial open flow 550 Mcf/d Oil: Initial open flow -- Bbl/d
Final open flow 350 Mcf/d Final open flow -- Bbl/d
Time of open flow between initial and final tests 72 hours
Static rock pressure 1400 psig (surface measurement) after 24 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

JAN 23 1984

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

Perforations 9 .49 tru-jet perforations from 4656 to 4660 *Marcellus*

Stimulation 715 mscf nitrogen
15% HCL misted in an initial breakdown
maximum treating pressure = 3200#
initial shut-in pressure = 2650# 5 min SIP = 2500#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Permian & Pennsylvania			surface	1523	
Cow Run			.966	1040	
1st Salt Sand			1120	1137	
2nd Salt Sand			1182	1196	
3rd Salt Sand			1227	1264	
Maxton Sandstone			1447	1483	wet
Greenbriar			1523	1596	wet
Big Injun Sandstone			1611	1710	sli SG
8 5/8" casing				1754	
Siltstone & Shale			1754	2044	
Sunbury Shale			2044	2070	Coffee shale, Berea absent
Siltstone & Shale			2070	2381	
Gordon Stray			2381	2404	Trace oil fluor in samples
Siltstone & Shale			2404	3638	
Huron Member (Ohio Shale)			3638	3938	Organic shales, sli SG
Siltstone & Shale			3938	4306	
Olentangy Shale			4306	4655	Organic shales, sli SG
Marcellus Shale			4655	4661	Organic shale
<u>Onondaga Limestone</u>			4661	<u>4731</u>	
					T.D. Driller 4703 T.D. Logger 4731
					* Pipe set 11 ft. into top of Onondaga lime; well was <u>not</u> completed in the <u>Onondaga Limestone!</u>

(Attach separate sheets as necessary)

Appco Oil & Gas Corporation

Well Operator

By: *Benjamin Smeltzer*
Ben Smeltzer, Geologist O.S.I.

Date: January 26, 1983

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



1) Date: NOV. 29, 19 82
 2) Operator's Well No. WITTE #1
 3) API Well No. 47 107 1238
 State County Permit

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 652' Watershed: HILL RUN
 District: CLAY County: RITCHIE Quadrangle: KANAWHA 7.5'
- 6) WELL OPERATOR APPCO OIL & GAS CORP. 11) DESIGNATED AGENT RICHARD H. BRUMBAUGH
 Address 100 S. ORANGE ST., SUITE 909 Address 212 COURT ST.
ORLANDO, FL. 32807 SPENCER, WV. 25276
- 7) OIL & GAS ROYALTY OWNER ADRIAN D. WITTE 12) COAL OPERATOR _____
 Address RT. 9 BOX 213 Address _____
PARKERSBURG, WV. 26101
- 8) SURFACE OWNER ADRIAN D. WITTE 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address RT. 9 BOX 213 Name _____
PARKERSBURG, WV. 26101 Address _____
 Acreage 46.65 Name _____
 Address _____
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name SAMUEL N. HERSMAN Name _____
 Address P.O. BOX 66 Address _____
SMITHVILLE, WV. 26178
- 15) PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, DEV. ONONDAGA LIMESTONE
- 17) Estimated depth of completed well, _____ feet
- 18) Approximate water strata depths: Fresh, 90' feet; salt, _____ feet.
- 19) Approximate coal seam depths: n/a Is coal being mined in the area? Yes _____ / No X /

20) 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	<u>11.3/4</u>			<u>X</u>			<u>830'</u>	<u>to fill up</u>		Kinds
Fresh water	<u>8.5/8</u>			<u>X</u>		<u>1700'</u>	<u>1700'</u>	<u>not fill up</u>		
Coal										Sizes
Intermediate										
Production	<u>4 1/2</u>			<u>X</u>		<u>4800</u>	<u>5300'</u>	<u>200</u>	<u>200</u>	Depths set
Tubing										
Liners										Perforations: Top Bottom

21) EXTRACTION RIGHTS

Check and provide one of the following:

- Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____
 My Commission Expires _____

Signed: _____
 Its: _____

OFFICE USE ONLY

DRILLING PERMIT

Permit number 47-107-1238

Date December 3, 19 82

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. 10) 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.)

Permit expires August 3, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee

Administrator, Office of Oil and Gas