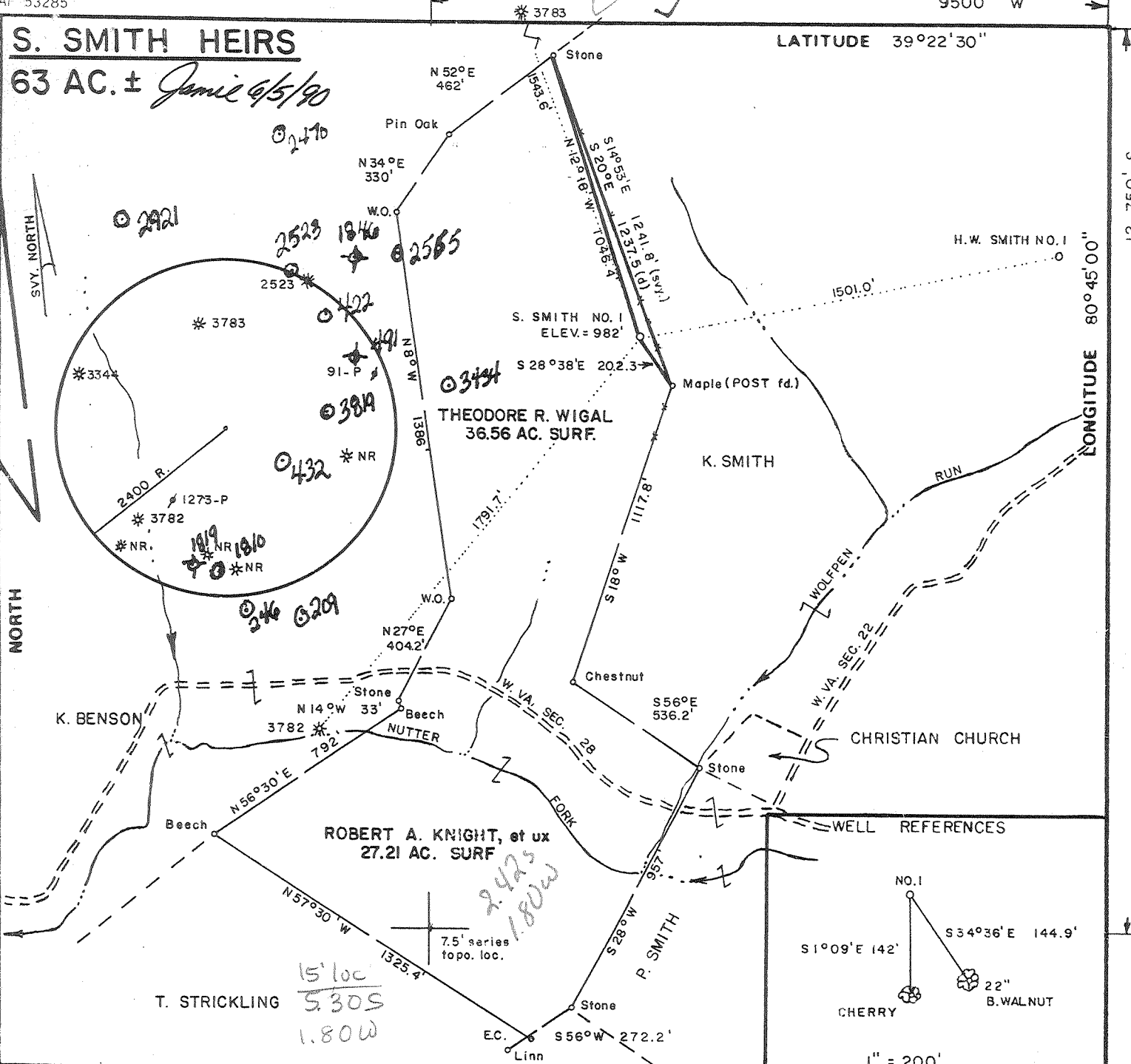


# S. SMITH HEIRS

63 AC. ± *Janie 6/5/90*

LATITUDE 39°22'30"



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION Jct. of Rd. Sec. 28 & 22  
 1700 ± SE of Loc. Elev. = 801'

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.  
*Mark C. Echard*  
 (SIGNED) MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490

PLACE SEAL HERE

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



DATE MAY 9, 19 90  
 OPERATOR'S WELL NO. ONE  
 API WELL NO. 47 - 017 - 3823  
 STATE VA COUNTY DODDRIDGE 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 982' WATERSHED NUTTER FORK  
 DISTRICT WEST UNION 8 COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION 7.5' 45' EC

SURFACE OWNER THEODORE R. WIGAL ACREAGE 36.56 of 63.75  
 OIL & GAS ROYALTY OWNER S. SMITH HRS. LEASE ACREAGE 63.75  
 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 BENSON - RILEY ESTIMATED DEPTH 5500'±  
 WELL OPERATOR D.A.C. DESIGNATED AGENT KENNETH MASON JUN 11 1990  
 ADDRESS P.O. BOX 99 ADDRESS P.O. BOX 99  
ALMA, W. VA. 26320 ALMA, W. VA. 26320

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: WIGAL, THEODORE S. Operator Well No.: S. SMITH #1

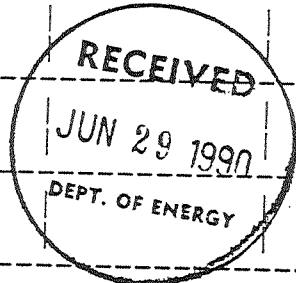
LOCATION: Elevation: 982.00 Quadrangle: WEST UNION

District: WESTUNION County: DODDRIDGE  
Latitude: 12750 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 9500 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: DRILLING APPALACHIAN CORP  
P. O. BOX 99  
ALMA, WV 26320-0099

Agent: KENNETH R. MASON

Inspector: MIKE UNDERWOOD  
Permit Issued: 06/04/90  
Well work Commenced: JUNE 8, 1990  
Well work Completed: JUNE 22, 1990  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary XXX Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) 5105  
Fresh water depths (ft) 81 feet  
652 feet  
Salt water depths (ft) 1862 feet  
Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Co. Ft.
Size			to surface
8 5/8	1205'	1205'	260
4 1/2		5051'	200
			

OPEN FLOW DATA

Producing formation BENSON SAND Pay zone depth (ft) 4917-20  
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow - Bbl/c  
Final open flow 411 MCF/d Final open flow - Bbl/c  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 1550 psig (surface pressure) after 72 Hours  
Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/c  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/c  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: DRILLING APPALACHIAN CORP.

By: Kenneth R. Mason  
Date: 6/27/90

JUL 6 1990

GEOLOGICAL WELL RECORD DATA

WELL NAME: S. E. Smith #1

PERMIT NUMBER: 47-017-3823

	TOP	BOTTOM	
SOIL	0	15	
BROKEN SAND	15	257	
SANDS AND SHALES	257	995	
DUNKARD SAND	985	1107	
1ST SALT SAND	1232	1290	
2ND SALT SAND	1580	1651	
3RD SALT SAND	1596	1624	
MAXON	1643	1667	
BIG LIME	1882	1958	
BIG INJUN SAND	1958	2060	SHOW GAS
WEIR	2212	2300	
BEREA SAND	2416	2420	
GORDON SAND	2625	2662	SHOW GAS
FIFTH SAND	2830	2835	
WARREN	3298	3333	
RILEY	4458	4514	
BENSON	4920	4924	SHOW GAS
TOTAL DEPTH	5105		

WELL TREATMENT SCHEDULE

Benson Sand 4920 - 4923 Perforated with 16 holes

Formation Break Down 3087 PSI

Hydraulic frac with Nitrogen assist  
 Average Treating Rate 17.8 barrels per min  
 468 barrels of gel treated water  
 300 sacks of 20/40 sand  
 50 sacks of 80/100 sand  
 101,000 scf of Nitrogen

Average Treating Pressure 2360 PSI

10747

017-3823  
Issued 06/04/90

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

Expires 06/04/92

- 1) Well Operator: DRILLING APPALACHIAN CORPORATION <sup>311</sup> 14425 (8) 670
- 2) Operator's Well Number: S. SMITH #1 3) Elevation: 982'
- 4) Well type: (a) Oil  / or Gas  /  
(b) If Gas: Production  / Underground Storage  /  
Deep  / Shallow  /
- 5) Proposed Target Formation(s): Benson/Riley
- 6) Proposed Total Depth: 5500± feet
- 7) Approximate fresh water strata depths: 235'
- 8) Approximate salt water depths: 1032'
- 9) Approximate coal seam depths: Possible coal blossom @ 410'
- 10) Does land contain coal seams tributary to active mine? Yes  No  <sup>1st seam</sup>
- 11) Proposed Well Work: DRILL, PERFORATE, STIMULATE NEW FORMATION
- 12)

CASING AND TUBING PROGRAM

*New Well*

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11-3/4"	H-40	42#	30'	0'	
Fresh Water						
Coal						
Intermediate	8-5/8"	J-55	20#	1200'	1200'	38CSR18-11.2.2
Production	4-1/2"	J-55	10.5#	5150'	5150'	38CSR18-11.1
Tubing						
Liners						

RECEIVED JUN 04 1990

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP

Plat  WW-9  WW-2B  Bond Clarkstone Agent

5310  
15

**RECEIVED**  
JUN 04 1990

Date: May 31, 1990  
Operator's well number  
S. E. Smith #1  
API Well No: 47 - 017 - 3823  
State - County - Permit

**RECEIVED**  
JUN 04 1990

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

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

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
  - (a) Name Theodore S. Wigan  
Address 706 55th St.  
Vienna, WV 26105
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
Address Rte 2, Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043

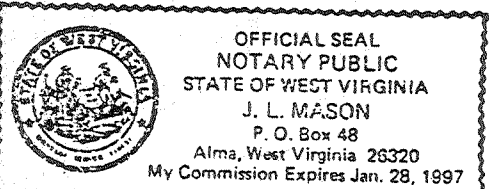
- 5) (a) Coal Operator:  
Name ---  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name ---  
Address \_\_\_\_\_
- Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name ---  
Address \_\_\_\_\_

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  
x 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 5 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 DRILLING APPALACHIAN CORPORATION  
 By: Kenneth Mason  
 Its: President  
 Address PO Box 99, Alma, WV 26320  
 Telephone (304) 758-4638



Subscribed and sworn before me this 31st day of May, 19 90  
 \_\_\_\_\_ Notary Public  
 My commission expires 1/28/97