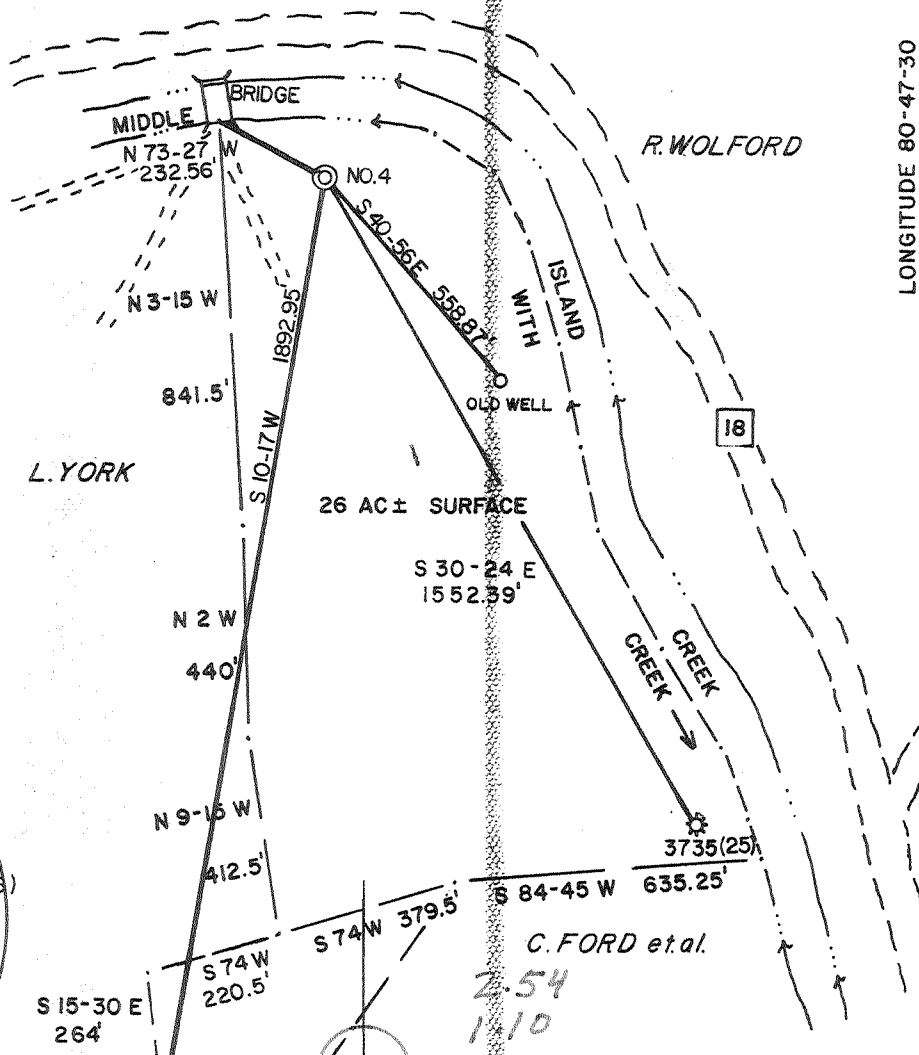
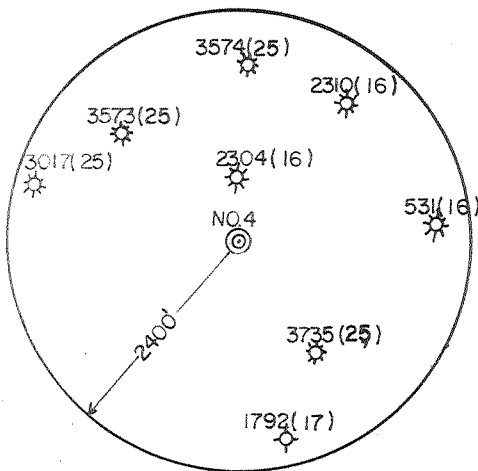


# MAXWELL HEIRS LEASE

## WELL NO. 4

### 105 ACRES ± TOTAL



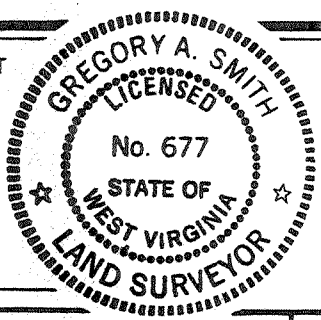
LONGITUDE 80-47-30

13500



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 ENERGY.

L.L.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE JANUARY 11, 19 90  
 OPERATORS: WELL NO. MAXWELL HEIRS NO. 4  
 API WELL NO. 47-017-3794  
 STATE COUNTY PERMIT

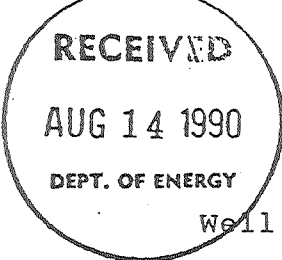
MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 2060 (28-8)  
 SCALE 1"=400'  
 PROVEN SOURCE OF ELEVATION BENCH MARK ELEV. 751'

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 743' WATERSHED MIDDLE ISLAND CREEK +15' EC  
 DISTRICT WEST UNION 8 COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'  
 SURFACE OWNER JOE McCONNEL ACREAGE 26  
 ROYALTY OWNER CHARLES MAXWELL HRS. et. al. LEASE ACREAGE 26 OF 105  
 PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION BENSON  
 ESTIMATED DEPTH 4830'

WELL OPERATOR QUAKER STATE CORP. DESIGNATED AGENT FRANK ROTUNDA  
 ADDRESS 1226 PUTNAM-HOWE DR. BELPRE, OHIO ADDRESS P.O. BOX 823 PARKERSBURG, WV 26102  
 45714 721 MAR 05 1990



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

Well Operator's Report of Well Work

Farm name: McCONNELL, JOE Operator Well No.: MAXWELL HRS.#4

LOCATION: Elevation: 743.00 Quadrangle: WEST UNION

District: WESTUNION County: DODDRIDGE  
Latitude: 13500 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 5870 Feet West of 80 Deg. 47 Min. 30 Sec.

Company:QUAKER STATE CORPORATION  
P.O. BOX 189/1226 PUTNAM HOWE  
BELPRE, OH 45714-0189

Agent: FRANK R. ROTUNDA

Inspector: MIKE UNDERWOOD  
Permit Issued: 02/26/90  
Well work Commenced: 03/27/90  
Well work Completed: 04/04/90  
Verbal Plugging  
Permission granted on: N/A  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 4157  
Fresh water depths (ft) 75  
Salt water depths (ft) 965

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
9 5/8"	176	176	C.T.S.
7"	1033	1033	C.T.S.
4 1/2"	4723	4723	300 sx.

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4642  
 Gas: Initial open flow show MCF/d Oil: Initial open flow -- Bbl/d  
 Final open flow 80 MCF/d Final open flow -- Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

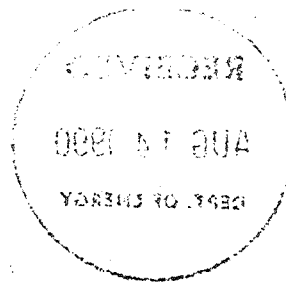
Second producing formation Riley Pay zone depth (ft) 4203  
 Gas: Initial open flow show MCF/d Oil: Initial open flow -- Bbl/d  
 Final open flow comm. MCF/d Final open flow -- Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure \_\_\_\_\_ psig (surface 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: Frank Rotunda *Frank Rotunda*  
QUAKER STATE CORPORATION

By: \_\_\_\_\_  
Date: 8/8/90

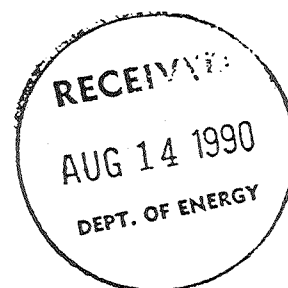
AUG 17 1990



PERF: 4642 - 4648' with 25 shots  
FRAC: 300 Bbl. foam, 475 sx. sand, 740 M SCF N2  
PERF: 4203 - 4224' with 21 shots  
FRAC: 210 Bbl. foam, 250 sx. sand, 667 M SCF N2

LOG:

shale	0 - 340
sand	340 - 380
shale	380 - 794
sand	794 - 824
shale	824 - 866
sand	866 - 888
shale	888 - 962
sand	962 - 984
shale	984 - 1110
sand	1110 - 1124
shale	1124 - 1154
Salt Sands	1154 - 1467
shale	1467 - 1574
lime	1574 - 1588
shale	1588 - 1608
Big Lime	1608 - 1684
Big Injun	1684 - 1799
shale	1799 - 1944
Weir	1944 - 2048
shale/silt	2048 - 4757



10185

017 3794  
 Issued 2/26/90  
 Expires 2/26/92  
 Page 3 of 9

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

- 1) Well Operator: Quaker State Corporation 40400(8) 670
- 2) Operator's Well Number: Maxwell Heirs #4 3) Elevation: 743
- 4) Well type: (a) Oil  / or Gas  /  
 (b) If Gas: Production  / Underground Storage  /  
 Deep  / Shallow  /
- 5) Proposed Target Formation(s): Benson 435
- 6) Proposed Total Depth: 4750 feet
- 7) Approximate fresh water strata depths: 75, 100
- 8) Approximate salt water depths: 800
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work: Drill and stimulate new well
- 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	9 5/8"	H-40	29	130	130	OK, 4 Joins C.T.S.
Coal						
Intermediate	7"	H-40	20	1020	1020	C.T.S.
Production	4 1/2"	J-55	9.5 or 10.5	4750	4750	As required by rule 38CR 18 11.1
Tubing						
Liners						

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

**RECEIVED**  
 FEB 06 1990

For Division of Oil and Gas Use Only  
 DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

19708  
 Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond 50 Surety  Agent  
 (Type)

**RECEIVED**  
FEB 08 1990  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: February 2, 1990  
Operator's well number  
Maxwell Heirs #4  
API Well No: 47 - 017 - 3794  
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 Joe McConnell  
Address Mid. Star Route Box 148  
West Union, WV 26456  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Harold Mike Underwood  
Address Rt. 2, Box 114  
Salem, WV 26426  
Telephone (304)-782-1043

5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
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 8 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 Quaker State Corporation  
By: Frank Rotunda *Frank Rotunda*  
Its: Designated Agent  
Address P.O. Box 823  
Parkersburg, WV 26102  
Telephone (614)-423-9543

Subscribed and sworn before me this 6th day of February, 1990

*David R. Perkins*  
My commission expires 6-11-90 Notary Public