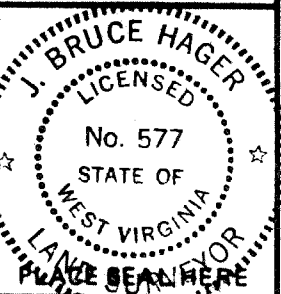


FILE NO. 8331-4
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1" IN 1500'
 PROVEN SOURCE OF ELEVATION RISE WELL - L.C. WILSON '15
ELEV.: 927'

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) J. Bruce Hager
 R.P.E. _____ L.L.S. 577



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE APRIL 11, 19 83
 OPERATOR'S WELL NO. WIWA
 API WELL NO. 47-039-3955-LI-P
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 898' WATER SHED WILLS CREEK OF LITTLE SANDY CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK 7.5'; CLENDENIN 15'
 SURFACE OWNER W.R. JENNINGS ACREAGE 139.91
 OIL & GAS ROYALTY OWNER L.C. WILSON, ET AL LEASE ACREAGE 279
 LEASE NO. W-1099
 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 BIG INJUN ESTIMATED DEPTH 2073'
 WELL OPERATOR QUAKER STATE OIL REF. CORP. DESIGNATED AGENT CARL J. CARLSON
 ADDRESS P.O. BOX 1327 ADDRESS P.O. BOX 1327

KAN. 3955 LI

JUN 1 1983

1715, 5-2-83

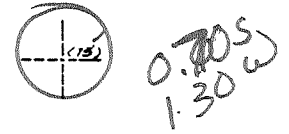
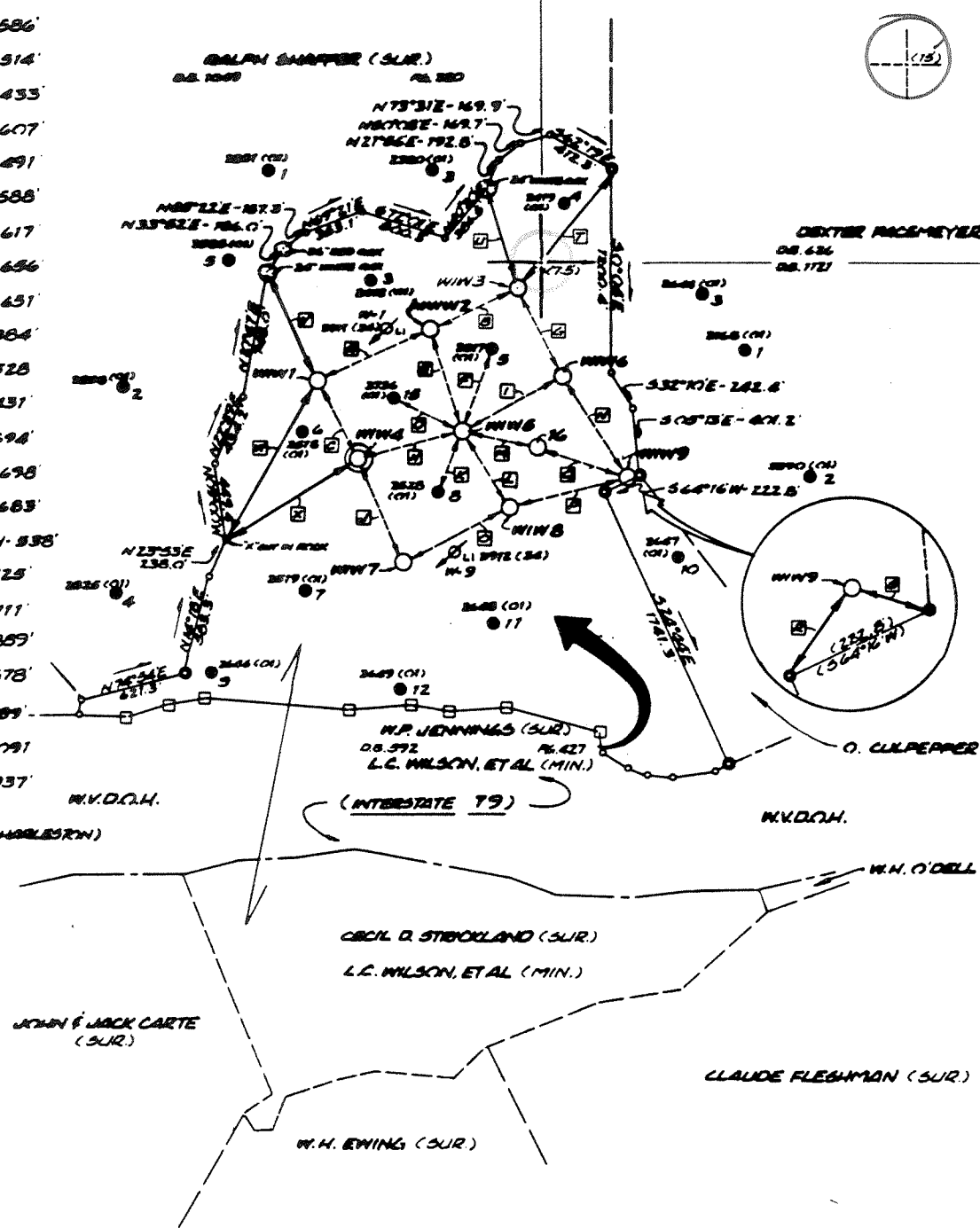
6950' W

LATITUDE 36°30'00" (7.5)
36°30'00" (15)

LONGITUDE 81°25'00" (15)
81°25'00" (7.5)

- ☐ N65°56'E-724'
- ☐ N60°30'E-586'
- ☐ N30°01'W-514'
- ☐ S65°57'E-453'
- ☐ S18°22'E-607'
- ☐ S19°01'W-691'
- ☐ S24°50'E-588'
- ☐ N74°35'E-617'
- ☐ S99°34'W-686'
- ☐ N22°27'W-651'
- ☐ N21°45'E-364'
- ☐ N31°35'W-828'
- ☐ N78°44'W-431'
- ☐ S31°56'E-694'
- ☐ S63°07'W-698'
- ☐ S73°33'W-685'
- ☐ N71°18'30'W-838'
- ☐ N45°59'E-125'
- ☐ S84°56'W-111'
- ☐ S38°47'W-859'
- ☐ N17°30'W-578'
- ☐ N25°03'W-689'
- ☐ N28°58'E-1091'
- ☐ N37°02'E-937'

1982 MAGNETIC NORTH



Dexter Race-Meyer (SUR.)
DB. 426
DB. 172

532°15'E-242.6'

505°15'E-401.2'

566°16'W-222.8'

532°15'E-242.6'

505°15'E-401.2'

566°16'W-222.8'

532°15'E-242.6'

505°15'E-401.2'

566°16'W-222.8'

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505°15'E-401.2'

566°16'W-222.8'

532°15'E-242.6'

505°15'E-401.2'

566°16'W-222.8'

(I-79 TO CHARLESTON)

(INTERSTATE 79)

W.V.D.C.H.

O. CULPEPPER

W.H. O'DELL

Cecil D. Strockland (SUR.)

L.C. Wilson, et al (MIN.)

John & Jack Carte (SUR.)

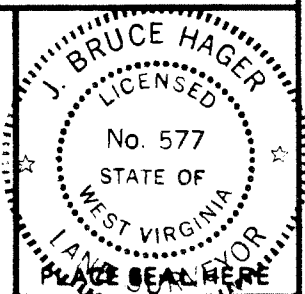
W.H. Ewing (SUR.)

Claude Flegman (SUR.)

- ⊙ - DENOTES 1/2" DIA. SOLID IRON BAR
- ☐ - DENOTES W.V.D.C.H. BENCH MARK
- - DENOTES BENCH MARK

FILE NO. 8331-4
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1" IN 1500'
PROVEN SOURCE OF ELEVATION EXIST. WELL - L.C. WILSON IS
ELEV. 927'

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) Bruce Hager
R.P.E. _____ L.L.S. 577



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE APRIL 11, 19 83
OPERATOR'S WELL NO. W.W.4
API WELL NO. _____
47 - 039 - 3955 - LI
STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 898' WATER SHED WILLS CREEK OF LITTLE SANDY CREEK
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK 7.5'; CLENDENIN 15' NW
SURFACE OWNER W.R. JENNINGS ACREAGE 139.91
OIL & GAS ROYALTY OWNER L.C. WILSON, ET AL LEASE ACREAGE 279
LEASE NO. W-1099
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 Big Inclin ESTIMATED DEPTH 2073'
WELL OPERATOR QUAKER STATE OIL REE CORP. DESIGNATED AGENT CARL J. CARLSON
ADDRESS P.O. BOX 1327 ADDRESS P.O. BOX 1327

KAN. 3955 LI

MAY 09 1983

IV-35
(Rev 8-81)

RECEIVED



Oct 1 - 1983
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date September 30, 1983
Operator's Well No. WIW #4
Farm L.C. WILSON
API No. 47 - 039 - 3955

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

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

LOCATION: Elevation: 898 Watershed Wills Creek of Little Sandy Creek
District: Elk County Kanawha Quadrangle Blue Creek

COMPANY QUAKER STATE OIL REFG. CORP.
ADDRESS P.O.Box 1327, Parkersburg, WV 26102-1327
DESIGNATED AGENT Carl J. Carlson
ADDRESS Same as above
SURFACE OWNER W.P. Jennings
ADDRESS Box 142, Sissonville, WV
MINERAL RIGHTS OWNER L.C. Wilson
ADDRESS 1618 Kanawha Blvd., Charleston, WV
OIL AND GAS INSPECTOR FOR THIS WORK Craig Davidson Rt., Box 107
Duckworth ADDRESS Gassaway, WV 26624
PERMIT ISSUED 4/14/83
DRILLING COMMENCED 5/25/83
DRILLING COMPLETED 5/29/83
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 Cord.			
13-10"			
9 5/8			
8 5/8	336	336	cts
7			
5 1/2			
4 1/2	2029	2029	150 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Injun Depth 1897 - 1955 feet
Depth of completed well 2058 feet Rotary XX / Cable Tools
Water strata depth: Fresh 305 feet; Salt 1199 feet
Coal seam depths: NA Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation NA Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Ebl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Ebl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 800 psig (surface measurement) after _____ 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 _____ Ebl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Ebl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

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

Perforated from 1907 - 53 w/24 shots.
 Frac'd with 106 bbl. water and 16 sx of 20/40 sand.
 Fm. breakdown - 3000 psi
 ISIP - 800 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			0	167	
Sandstone & Siltstone			167	305	
Sandstone			305	312	
Sandstone & Siltstone			312	1199	
Salt Sand			1199	1708	
Little Lime			1708	1754	
Pencil Cave			1754	1761	
Big Lime			1761	1898	
Big Injun			1898	1955	
Shale			1955	2058 TD	

(Attach separate sheets as necessary)

QUAKER STATE OIL REFINING CORPORATION
 Well Operator
 Steve Opritza - Geologist
 By: *Steve Opritza*
 Date: 9/30/83

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."

(Obverse)
[02-83]

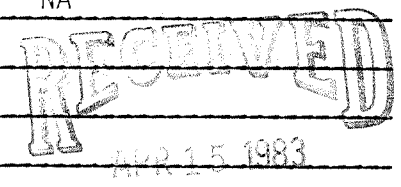
1) Date: April 14 1983
2) Operator's Well No. L.C. WILSON #WIW-4
3) SIC Code
4) API Well No. 47 - 039 - 3955 State County Permi
5) UIC Permit: _____

DRILLING CONTRACTOR
CLINT HURT & ASSOCIATES
P.O. Box 388, Elkview, WV 25071

STATE OF WEST VIRGINIA
LIQUID INJECTION OR WASTE DISPOSAL WELL PERMIT APPLICATION

For Both
DEPT. OF MINES, OFFICE OF OIL AND GAS, DNR, DIVISION OF WATER RESOURCES

- 6) WELL TYPE: Liquid Injection XX / Disposal ___ / Gas Injection ___ /
- 7) LOCATION: Elevation 898' Watershed Wills Creek of Little Sandy Creek
District Elk County Kanawha Quadrangle Blue Creek
- 8) WELL OPERATOR QUAKER STATE OIL REFG. CORP. 12) DESIGNATED AGENT Carl J. Carlson
Address P.O. Box 1327 Address P.O. Box 1327
Parkersburg, WV 26102-1327 Parkersburg, WV 26102-1327
- 9) ROYALTY OWNER L.C. Wilson 13) COAL OPERATOR NA
Address 1618 Kanawha Boulevard Address _____
Charleston, WV
- Acreage 279
- 10) SURFACE OWNER W. P. Jennings, etal 14) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name NA
Address _____
Name _____
Address _____
- 11) OIL AND GAS INSPECTOR TO BE NOTIFIED BEFORE DRILLING, AND 24 HOURS IN ADVANCE OF ANY MECHANICAL INTEGRITY TEST
Name _____
Address D. Craig Duckworth
P.O. Box 454
Mt. Lookout, W.Va. 26678
872-6165



OIL & GAS DIVISION
DEPT. OF MINES

- 15) COAL LESSEE WITH DECLARATION ON RECORD:
Name NA
Address _____
- 16) The undersigned well operator is entitled to operate for liquid injection or waste disposal purposes at the above location under a deed ___ / lease ___ / other contract XX / dated Nov. 30, 1973, to the undersigned well operator from Mareve Oil Corp.. (If said deed, lease, or other contract has been recorded:)
Recorded on Dec. 3, 1973, in the office of the Clerk of the County Commission of Kanawha County, West Virginia, in Assignment Book 82 at page 66. A permit is requested as follows:
- 17) PROPOSED WORK: Convert ___ / Drill XX / Drill deeper ___ / Fracture or stimulate ___ / Plug off old formation ___ / Other physical change in well (specify) _____
- 18) Date of first liquid injection or waste disposal: July 1, 1983.

PROPOSED WORK ORDER
THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-37 UPON COMPLETION

- 19) Estimated depth of completed well 2073' feet Rotary XX / Cable tools ___ /
- 20) Approximate water strata depths: Fresh, 293 feet; salt, 1237 feet.
- 21) Approximate coal seam depths: NA Is coal being mined in the area? Yes ___ / No XX /
- 22) GEOLOGICAL TARGET FORMATION Big Injun Depth 1896 feet(top) to 1952 feet(bottom)
a) Virgin reservoir pressure in target formation 530 psig; Source Shut-in Test (24h)
b) Estimated reservoir fracture pressure 1400 psig (BHFP)
c) Perforation intervals 1896 - 1952 Open-hole intervals None
- 23) MAXIMUM PROPOSED INJECTION OPERATIONS
Volume per hour: 20 bbl. Bottom hole pressure: 1896 psig
- 24) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED - PLUS ADDITIVES
Formation brine from Big Injun & bacteriacide, corrosion inhibitor, and scale inhibitor treated with x-cide xc-402 Spec. gravity = 0.963
- 25) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL None
- 26) FILTERS (IF ANY) 2 Stage Filter System: 75 micron cartridge vessel on main line and 5 micron cartridge vessel at the injection well.

17) CASING AND TUBING PROGRAM


CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kirks
Fresh water	8 5/8	H-40	20	xx		328' 328'	328' cts	Neat	
Coal									Sizes
Intermediate									
Production Tubing	4 1/2	J-55	9.5	xx	2073'	2073'	207 sx.		Depths set
Liners									Perforations
									Top Bottom

28) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed 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.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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.

QUAKER STATE OIL REFINING CORPORATION
Well Operator

By 
Its Carl J. Carlson
District Production Manager

W A I V E R

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____.

By: _____

Its _____

OFFICE USE ONLY

PERMIT

Permit number 47-039-3955

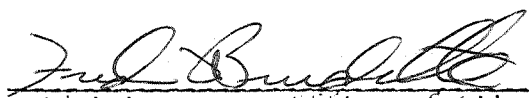
May 4 19 83
Date

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 prior to the construction of roads, locations and pits for any permitted work. (Refer to No. 10)

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 January 4, 1984 unless work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee:
<u>Blanket</u>	<u>D.K. N.P.</u>	<u>MJ</u>	<u>MJ</u>	<u>8231</u>


Administrator, Office of Oil and Gas

R-38
2-Mey-92
Division of Environmental Protection
DEC 14 92
Permitting Office of Oil & Gas

API # 47- 39-03955-P

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: JENNINGS, W. P., ETAL Operator Well No.: L.C. WILSON #4

LOCATION: Elevation: 898.00 Quadrangle: BLUE CREEK
District: ELK County: KANAWHA
Latitude: 2750 Feet South of 36 Deg. 30 Min. 0 Sec.
Longitude 6950 Feet West of 81 Deg. 25 Min. 0 Sec.

Well Type: OIL _____ GAS _____ UIC X

Company: Quaker State Corporation Coal Operator or Owner N/A
P.O. Box 189
Belpre, OH 45714

Agent: Frank Rotunda Coal Operator or Owner N/A

Permit Issued: 05/26/92

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Kanawha ss:

Leroy Bush and Roger Atkinson being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Earlos Hively Oil and Gas Inspector representing the Director, say that said work was commenced on the 22nd day of October, 1992, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
6% Gel	2029	1990		
Class A Cmt. 18 sks	1990	1753		
6% Gel	1753	1162	0-2000' 2 3/8	4 1/2 X2 3/8 R4PKR @ 2000'
Cut 4 1/2 @ 1162			0-1162' 4 1/2	1162-2029 4 1/2
Class A Cmt 47 sks	1162	1012		
6% Gel	1012	387		
Class A Cmt. 31 sks	387	287		
6% Gel	287	100		336' 8 5/8
Class A Cmt. 31 sks	100	0		

Description of monument: 5 1/2" Casing 47-39-03955-P PSA 10/22/92
and that the work of plugging and filling said well was completed on the 22nd day of October, 1992.

And further deponents saith not.

Sworn and subscribe before me this 8th day of December, 1992
My commission expires: 3-14-95

Leroy Bush
Roger Atkinson
Earlos Hively
Notary Public
DEC 18 1992

Oil and Gas Inspector: Earlos Hively
13-392