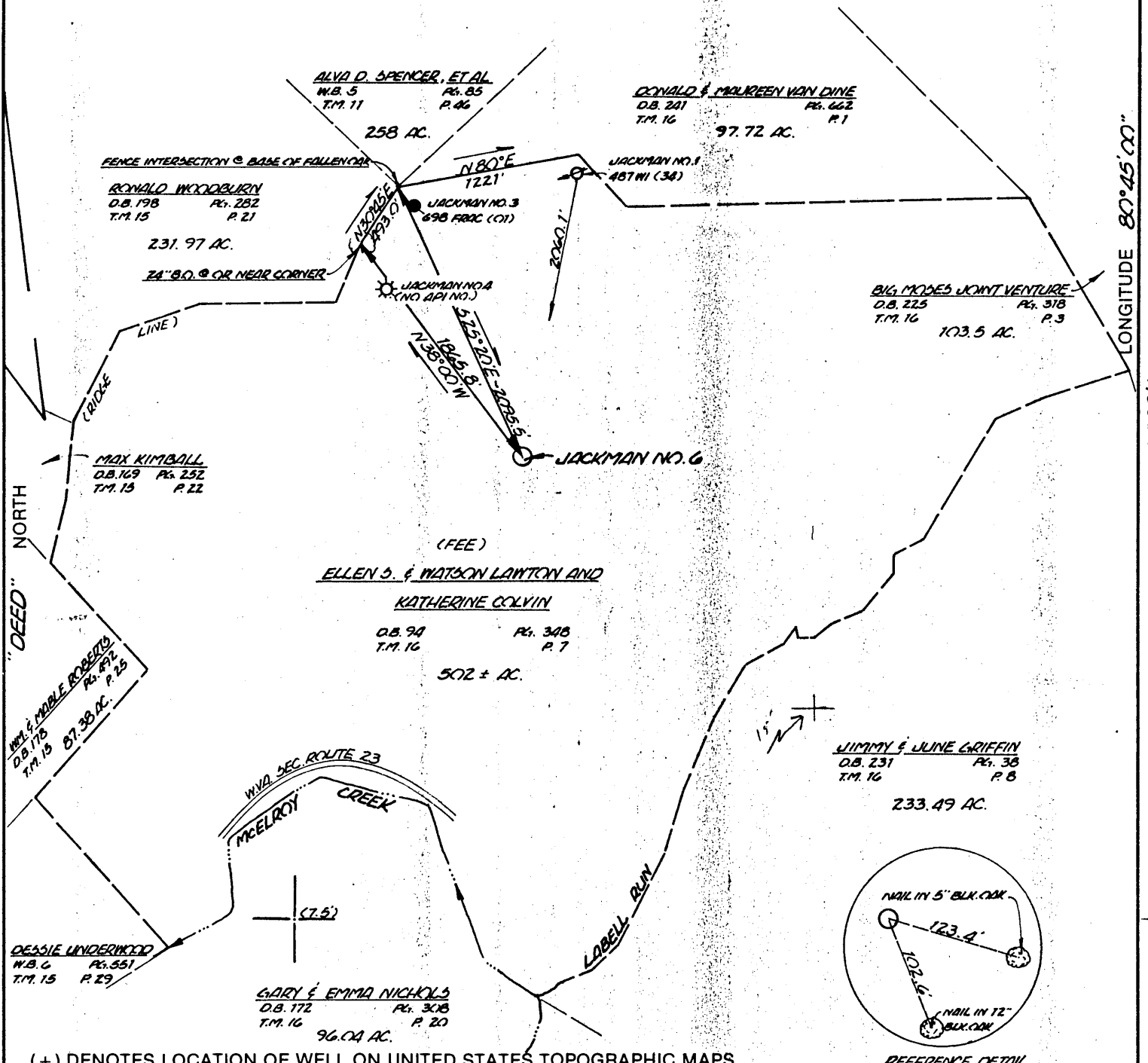


22711-8/6/84

11,700' W

LATITUDE 39° 27' 30" 30

NOTE: PROPOSED NO. 6 TO NO. 3 = 1926.7'
NO. 6 TO NO. 4 = 1509.0'

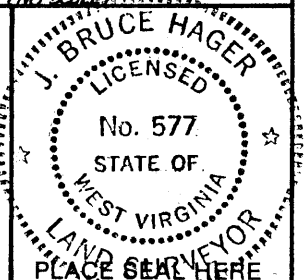


LONGITUDE 80° 45' 00" 5
14,200' S

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 8400-27
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1' IN 2000'
 PROVEN SOURCE OF ELEVATION EXIST. JACKMAN NO. 1 WELL; EL. 1103.27

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 JUNE 15, 19 84
 OPERATOR'S WELL NO. BENJ. JACKMAN NO. 6
 API WELL NO. _____

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 1147.6 WATERSHED LABELL RUN OF MCELROY CREEK OF MIDDLE ISLAND CR.
 DISTRICT MCELROY COUNTY TYLER
 QUADRANGLE SHIRLEY 7.5'

SURFACE OWNER ELLEN S. & WATSON LAWTON AND KATHERINE COLVIN ACREAGE 502 ±
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 502 ±
 LEASE NO. _____

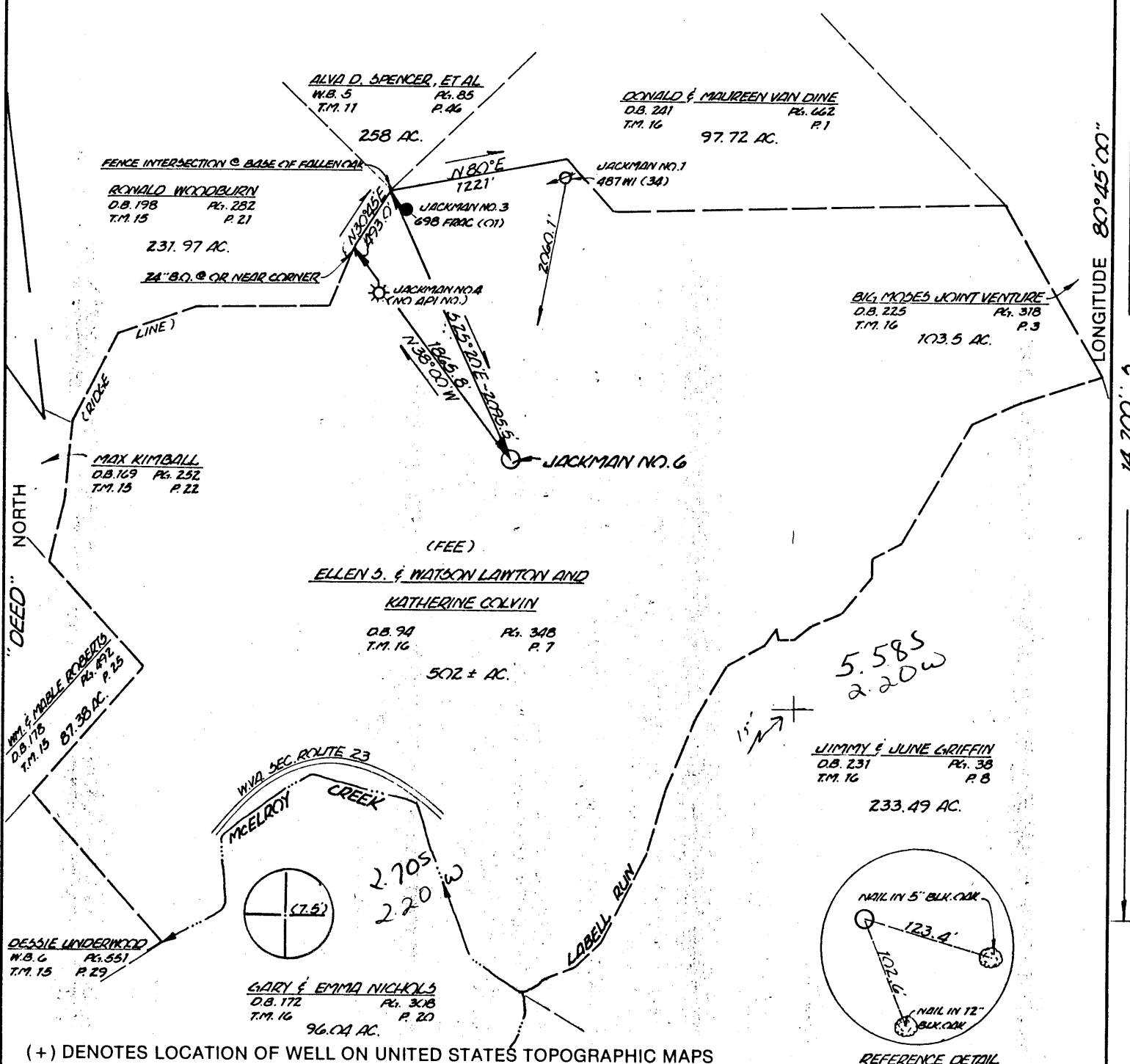
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5500'
 WELL OPERATOR QUAKER STATE OIL REF. CORP. DESIGNATED AGENT CARL J. CARLSON
 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101

COUNTY NAME TYLER
PERMIT 1088-FRAC

FORM IV-6 (8-78)
H.T. HALL

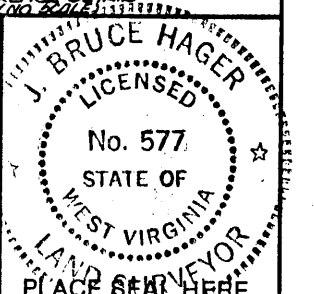
NOTE: PROPOSED NO. 6 TO NO. 3 = 1926.7'
 NO. 6 TO NO. 4 = 1509.0'



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 8400-27
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1' IN 2000'
 PROVEN SOURCE OF ELEVATION EXIST. JACKMAN NO. 1 WELL; EL. 1103.27

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 JUNE 15, 19 84
 OPERATOR'S WELL NO. BEN G. JACKMAN NO. 6
 API WELL NO. _____

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 1147.6 WATERSHED LABELL RUN OF MCELROY CREEK OF MIDDLE ISLAND CR.
 DISTRICT MCELROY 5 COUNTY TYLER
 QUADRANGLE SHIRLEY 7.5 607 133 1 NE 3

SURFACE OWNER ELLEN S. & WATSON LAWTON AND KATHERINE COLVIN ACREAGE 502 ±
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 502 ±
 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) _____

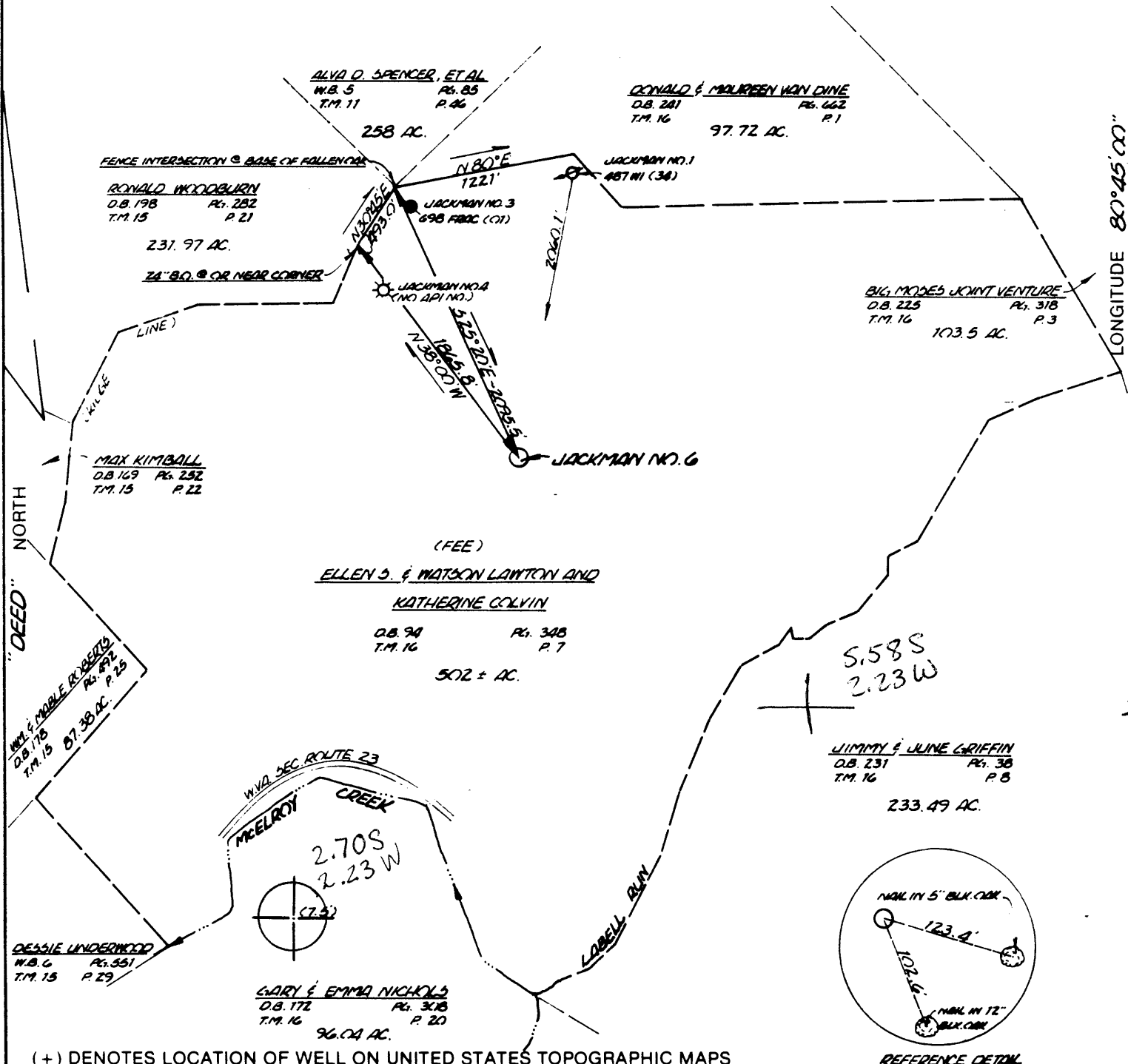
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5500'
 WELL OPERATOR QUAKER STATE OIL REF. CORP DESIGNATED AGENT CARL J. CARLSON
 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101

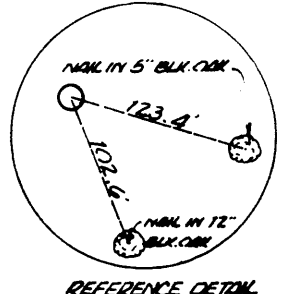
DATE MAY 27 1986

COUNTY NAME TYLER
 PERMIT 1088-F

NOTE PROPOSED NO. 6 TO NO. 3 = 1926.7' NO. 4 TO NO. 4 = 1509.0'



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS



REFERENCE DETAIL (NO SCALE)

FILE NO. 8400-27
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1' IN 2000'
 PROVEN SOURCE OF ELEVATION EXIST. JACKMAN NO. 1 WELL; FL. 1103.27

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 Hays
 R.P.E. _____ L.L.S. 577



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE JUNE 15, 19 84
 OPERATOR'S WELL NO. BEN G. JACKMAN NO. 6
 API WELL NO. 47-095-1088
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 1147.6 WATER SHED LABELL RUN OF MCELROY CREEK OF MIDDLE ISLAND CR
 DISTRICT MCELROY 5 COUNTY TYLER
 QUADRANGLE SURLEY 7.5' 607 West Union 133 NE3

SURFACE OWNER ELLEN S. & WATSON LAWTON AND KATHERINE COLVIN ACREAGE 502 ±
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 502 ±
 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 ALEXANDER ESTIMATED DEPTH 5500'
 WELL OPERATOR QUAKER STATE OIL REF. CORP. 721 DESIGNATED AGENT CARL J. CARLSON
 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101

FORM IV-6 (8-78) HT HALL

COUNTY NAME PERMIT

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Reviewed TMG
Recorded _____

Well Operator's Report of Well Work

Farm name: LAWTON, ELLEN & WATSON Operator Well No.: JACKMAN 6

LOCATION: Elevation: 1147.60 Quadrangle: SHIRLEY

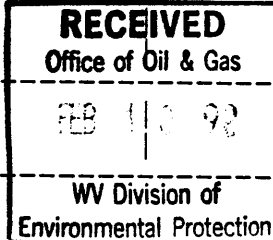
District: MCELROY County: TYLER
Latitude: 14200 Feet South of 39 Deg. 27Min. 30 Sec.
Longitude 11700 Feet West of 80 Deg. 45 Min. 0 Sec.

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

Agent: FRANK R. ROTUNDA

Inspector: MIKE UNDERWOOD
Permit Issued: 12/09/91
Well work Commenced: 12/12/91
Well work Completed: 12/19/91
Verbal Plugging
Permission granted on: N/A
Rotary --- Cable --- Rig
Total Depth (feet) _____
Fresh water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	1280	1280	CTS
4 1/2		2350	(1700') 150 SX
2 3/8		2130	



Salt water depths (ft) _____

Is coal being mined in area (Y/N)?
Coal Depths (ft): No

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth (ft) 2166
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow N/A MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure N/A psig (surface pressure) after N/A Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ 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.

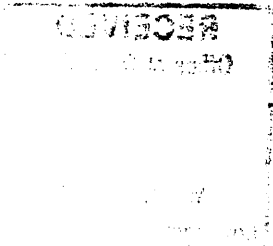
For: QUAKER STATE CORPORATION
By: Frank Rotunda
Date: 1/31/92

1992

Treatment

Perf: 2166' - 2206' with 37 holes
Frac: 553 bbl fluid and 225 SX 20/40 sand
Broke @ 2250 PSI Treated @ 31 BPM @ 2100 PSI

Well was plugged back and stimulated in the Big Injun for Disposal.



130051



IV-35
(Rev 8-81)

Date OCTOBER 15, 1984
Operator's
Well No. BEN C. JACKMAN #6
Farm E & W LAWTON; K. COLVIN
API No. 47 - 095 - 1088

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 xx / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1147.6 Watershed LABELL RUN OF McELROY CREEK OF MIDDLE ISLAND
District: MC ELROY County TYLER Quadrangle SHIRLEY 7.5' CREEK

COMPANY QUAKER STATE OIL REFINING CORPORATION

ADDRESS P.O. BOX 1327; PARKERSBURG, WV 26101

DESIGNATED AGENT CARL J. CARLSON

ADDRESS P.O. BOX 1327; PARKERSBURG, WV 26101

SURFACE OWNER E. LAWTON, 535 S. 1st, PRINCETON,

ADDRESS K. COLVIN, 212 MCKINLEY; PITTSBURGH, PA 15201

MINERAL RIGHTS OWNER SAME AS ABOVE

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____

ROBERT LOWTHER ADDRESS GENERAL DEL; MIDDLEBOURNE,

PERMIT ISSUED AUGUST 7, 1984 WV 26149

DRILLING COMMENCED AUGUST 23, 1984

DRILLING COMPLETED SEPTEMBER 3, 1984

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"			
9 5/8			
8 5/8	1280'	1280'	350 SX
7			
5 1/2			
4 1/2	5267'	5267'	275 SX
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION ALEXANDER Depth 5420-5491 feet

Depth of completed well 5515 feet Rotary XX / Cable Tools _____

Water strata depth: Fresh N/A feet; Salt N/A feet

Coal seam depths: N/A Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation BENSON, RILEY Pay zone depth 5168, 4728 feet

Gas: Initial open flow 350 Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 75 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 2000 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

NOV 19 1984

(Continue on reverse side)

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

PERFORATED FROM 5168 - 5176' WITH 16 SHOTS. FRACTURED WITH 325 BBLs. 3% KCl + N₂, 175 SX 20/40 SAND. BREAKDOWN @ 2300#. AVG. TREATING PRESSURE @ 2739#. AVG. RATE 24 BPM. ISIP 1500#.

PERFORATED FROM 4728 - 4734'; 4744 - 4751'; 4756 - 4760' WITH 34 HOLES. FRACTURED WITH 600 BBLs 3% KCl; +N₂, 350 SX 20/40 SAND. BREAKDOWN @ 1600#. AVG. TREATING PRESSURE @ 2765#. AVG. RATE @ 28.3 BPM. ISIP @ 1500#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
SILT AND SHALE			0	142	
SAND			142	180	
SILT AND SHALE			180	1778	
SAND			1778	1832	
SILT AND SHALE			1832	2000	
LITTLE LIME			2000	2014	
PENCIL CAVE			2014	2016	
BIG LIME			2016	2162	
BIG INJUN			2162	2269	
SHALE			2269	2434	
WEIR			2434	2520	
SHALE			2520	2630	
BEREA			2630	2645	
SHALE			2645	2844	
GORDON			2844	2900	
SHALE			2900	3067	
SILT			3067	3078	
SHALE			3078	3544	
WARREN			3544	3610	
SHALE			3610	4737	
RILEY			4737	4760	
SHALE			4760	5168	
BENSON			5168	5176	
SHALE			5176	5420	
ALEXANDER			5420	5491	
SHALE			5491	5515	T.D. <i>leg</i>

(Attach separate sheets as necessary)

QUAKER STATE OIL REFINING CORPORATION

Well Operator

Michael C. Brannock

By: MICHAEL C. BRANNOCK

Date: OCTOBER 15, 1984

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 ~~and~~, encountered in the drilling of a well."



1) Date: April 30, 1986
 2) Operator's Well No. BEN JACKMAN #6
 3) API Well No. 47-095-1088-F
 State County Permit

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

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 1147.6' Watershed: Labell Run of McElroy Creek of Middle Island Cr
 District: McElroy 5 County: Tyler Quadrangle: Shirley 7.5' 606
- 6) WELL OPERATOR QUAKER STATE OIL CODE: 40400 7) DESIGNATED AGENT Samuel F. Barber
 Address P.O. Box 1327 Address 1226 Putnam Howe Drive
Parkersburg, WV 26101 Belpre, OH 45714
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert Lowther 9) DRILLING CONTRACTOR:
 Address General Delivery Name SMITH DRILLING
Middlebourne, WV 26149 Address P.O. Box 150
(304) 758-4764 Lawrenceville, IL 62439
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) Pull pipe/re-cement over new interval
- 11) GEOLOGICAL TARGET FORMATION, Big Injun (See attached)
- 12) Estimated depth of completed well, 2920' feet
 13) Approximate trata depths: Fresh, 397' feet; salt, 547' feet.
 14) Approximate coal seam depths: 827' Is coal being mined in the area? Yes / No /

15) 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		Kinds	Sizes
Conductor										
Fresh water	8 5/8"	H40	24	XX		1280'	1280'	335 SX		
Coal										
Intermediate										
Production	4 1/2"	J55	10.5	XX		2920'	2920'	1200' AS RE		OUTRIPPED BY RULE 15.01
Tubing	2"	J	4.5	XX		---	2900'			
Lin.										
									Perforations:	
									Top	Bottom
									2860'	2866'
									2174'	2204'

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1088-F Date May 23 19 86

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 23, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee	WPCP	S&E	Other
	<u>ALB</u>	<u>AS</u>	<u>AS</u>	<u>15412</u>	<u>AS</u>	<u>AS</u>	

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

John H. Johnston by Margaret O. Hesse
 Director, Division of Oil and Gas File

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



1) Date: JULY 5, 19 84
 2) Operator's Well No. BEN C. JACKMAN #6
 3) API Well No. 47 State -095- County 1088 Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, 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: 1147.6 Watershed: LABELL RUN OF McELROY CREEK OF MIDDLE IS. CRK.
 District: McELROY County: TYLER Quadrange: SHIRLEY 7.5'
- 6) WELL OPERATOR QUAKER STATE OIL REFINING CORP. 7) DESIGNATED AGENT CARL J. CARLSON
 Address P.O. BOX 1327 Address P.O. BOX 1327
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name ROBERT LAWTHER Name SMITH DRILLING
 Address GENERAL DELIVERY Address P.O. BOX 150
MIDDLEBOURNE, WV 26149 LAWRENCEVILLE, IL 62439
- 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, 5500' feet
 13) Approximate strata depths: Fresh, 397' feet; salt, 547' feet.
 14) Approximate coal seam depths: 827' Is coal being mined in the area? Yes

RECEIVED
 JUL 18 1984

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	DEPT. OF MINES PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	8 5/8	H40	24	X		857'±	857'±	c.t.s. by	rule 15.05
Coal									Sizes
Intermediate									
Production	4 1/2	J55	9.5	X		5500'	5500'	250 sx (est)	as req. by rule 15.01
Tubing	2	J	4.5	X			5500'		
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1088 Date August 7 19 84

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 August 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BLANKET</u>	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>11198</u>
----------------------	---------------------------	--------------------------	----------------------------	-------------------

[Signature]
 Administrator, Office of Oil and Gas

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

File

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