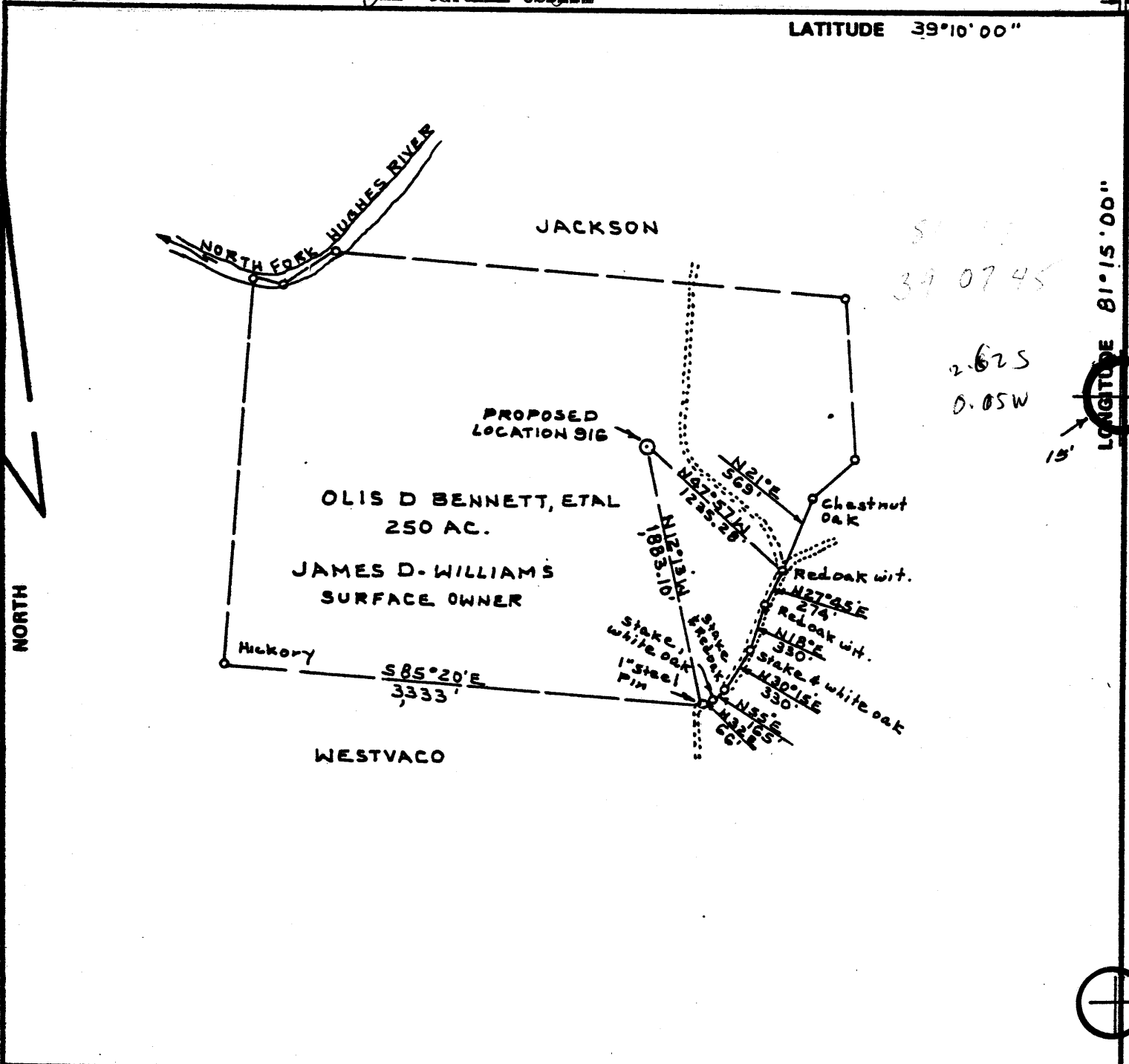


LATITUDE 39°10'00"



39 07 45
2.625
0.05W

LONGITUDE 81°15'00"

FILE NO. BK 59 P 17
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1-200
PROVEN SOURCE OF ELEVATION USGS N° 88, 1EA
EL. 668

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) C. S. Valley Jr.
R.P.E. J. L. S. 92

PLACE SEAL HERE

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

FORM IV-6 (8-78)



DATE JAN 23, 1981
OPERATOR'S WELL NO. 916
API WELL NO. _____
47 - 085 - 5057
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 901.70 WATER SHED NORTH FORK OF HUGHES RIVER
DISTRICT GRANT COUNTY RITCHIE
QUADRANGLE PETROLEUM S2 T5 E6
SURFACE OWNER JAMES D. WILLIAMS ACREAGE 250
OIL & GAS ROYALTY OWNER OLIS D. BENNETT, ETAL LEASE ACREAGE 250
LEASE NO. _____
PROPOSED WORK: DRILL X 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 Dev Shale ESTIMATED DEPTH 4500
WELL OPERATOR RAY RESOURCES DIV DESIGNATED AGENT Same
ADDRESS 630 COMMERCE SQUARE ADDRESS _____
CHARLESTON WVA 25301



Date 12/22/81
 Operator's Well No. 916
 Farm Bennett
 API No. 47 - 85 - 5057

RECEIVED State of West Virginia

JAN 26 1982

Department of Mines
 Oil and Gas Division

OIL AND GAS DIVISION
 WV DEPARTMENT OF MINES

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: 901.7 Watershed North Fork of Hughes River
 District: Grant County Ritchie Quadrangle Petroleum

COMPANY Ray Resources Div.
 ADDRESS 600 Commerce Sq. Chas. WV
 DESIGNATED AGENT W. E. Stover
 ADDRESS Culloden, WV
 SURFACE OWNER James Williams
 ADDRESS Maryland
 MINERAL RIGHTS OWNER Olis Bennett
 ADDRESS Parksburg, WV
 OIL AND GAS INSPECTOR FOR THIS WORK Paul Goodnight
 ADDRESS Smithville, WV
 PERMIT ISSUED 1/26/81
 DRILLING COMMENCED 1/29/81
 DRILLING COMPLETED 3/7/81

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	20	20	15 SKS
9 5/8	308	308	90 sks
8 5/8			
7	1966	1966	75 sks
5 1/2			
4 1/2			
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Dev. Shale Depth 4574 feet
 Depth of completed well 4574 feet Rotary ___ / Cable Tools
 Water strata depth: Fresh 1300 feet; Salt ___ feet
 Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Dev. Shale Pay zone depth 2332-4574 feet
 Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
 Final open flow .73 Mcf/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ hours
 Static rock pressure 500 psig (surface measurement) after 4 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

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

80 Pct. Gelatin
Top shot @ 2257'

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	104	
Red Rock		104	308	
Slate & Red Rock		308	897	
Shale		897	1250	
Sand & Shale		1250	1440	
Shale		1440	1490	water @ 1300
Sand		1490	1740	
Lime		1740	1780	
Injun Sand		1780	1840	
Red Rock - C		1840	1922	
Sand		1922	2332	
Sandy Shale	<i>DFU Sh.</i>	2332	4506	4574'-T.D.

(Attach separate sheets as necessary)

Well Operator
By: *Marius Comb*
Date: _____

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



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
JAN 26 1981

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE January 26, 1981

Surface Owner James Williams

Company Ray Resources Div. BVX (U.S.), Inc.

Address Maryland

Address 630 Commerce Sq., Chas., WV 25301

Mineral Owner Olis Bennett

Farm Bennett Acres 250

Address Parkersburg, WV

Location (waters) North Fork Hughes River

Coal Owner None

Well No. 916 Elevation 901.7

Address _____

District Grant County Ritchie

Coal Operator None

Quadrangle Petroleum

Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 9-29-81.

INSPECTOR

TO BE NOTIFIED Paul Goodnight

ADDRESS Smithville, WV

PHONE 477-3660

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated _____ 19____ by _____ made to _____ and recorded on the _____ day of _____ 19____, in _____ County, Book _____ Page _____

NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

Very truly yours, RAY RESOURCES DIV. BVX (U.S.), INC.

(Sign Name) *[Signature]*
Well Operator

630 Commerce Sq.
Street

Charleston,
City or Town

West Virginia 25301
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-085-5057

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *[Signature]*

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XXX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Ray Resources Div. BVX (U.S.), Inc. NAME Smokey Stover
 ADDRESS 630 Commerce Sq., Chas., WV 25301 ADDRESS Culloden, WV
 TELEPHONE 344-8393 TELEPHONE 743-9067
 ESTIMATED DEPTH OF COMPLETED WELL: 4500' ROTARY _____ CABLE TOOLS XXX
 PROPOSED GEOLOGICAL FORMATION: Shale
 TYPE OF WELL: OIL _____ GAS XX COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	250	250	To Surface
7	1600	1600	100 Sacks
5 1/2			
4 1/2		4500'	200 Sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 60 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS None
 IS COAL BEING MINED IN THE AREA? _____ BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.
 OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.
 We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title