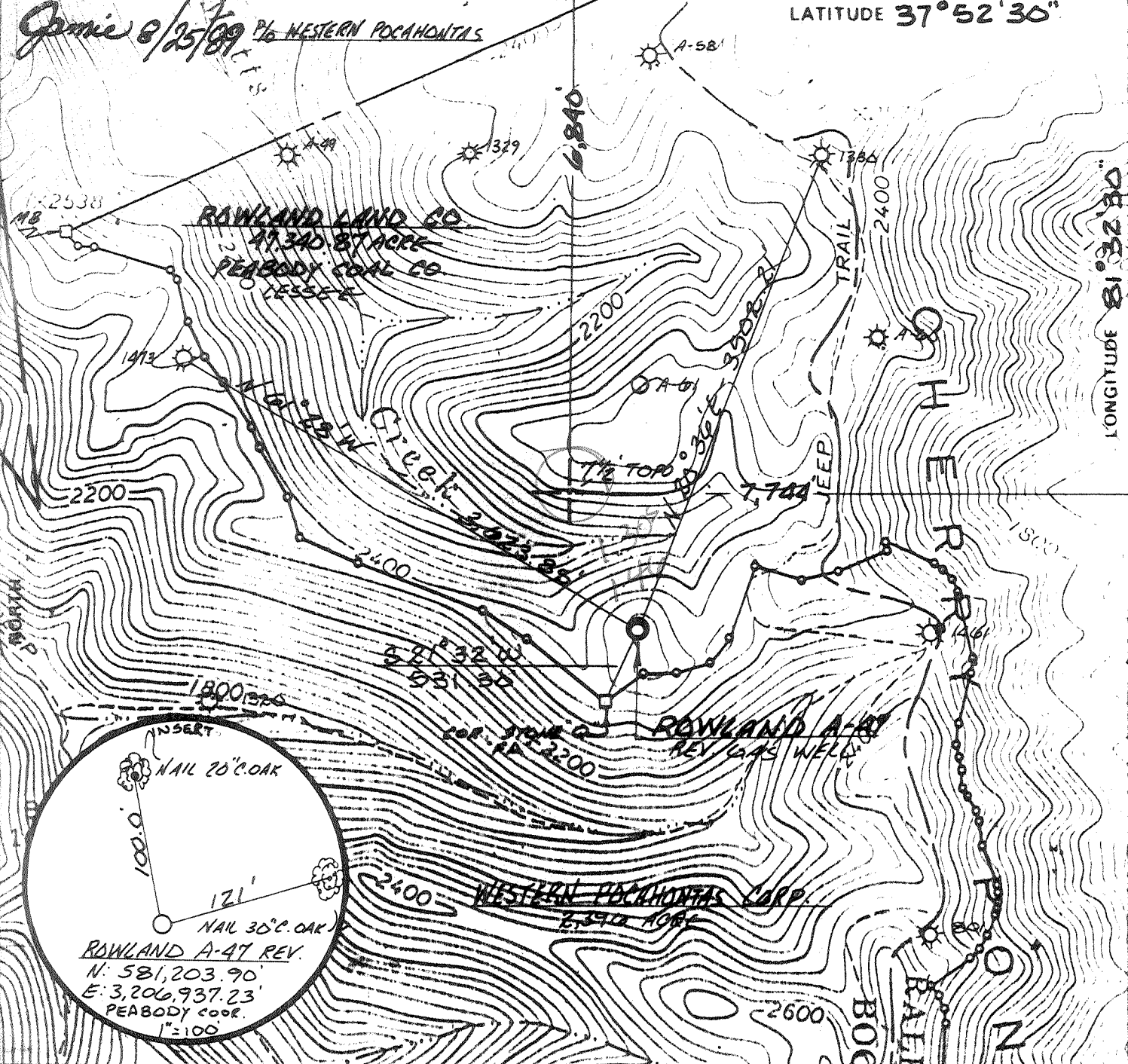


Opmie 8/25/89

1/2 WESTERN POCAHONTAS

LATITUDE 37° 52' 30"

LONGITUDE 81° 32' 30"



FILE NO. BMS 2-R
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1:2500'
 PROVEN SOURCE OF ELEVATION STA. PC-66 EL. 1596.91 FROM PEABODY COAL CO. MONTECAL DIV.

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) Kenneth D. Pridemore
 R.P.E. _____ L.L.S. 837-JU



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



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

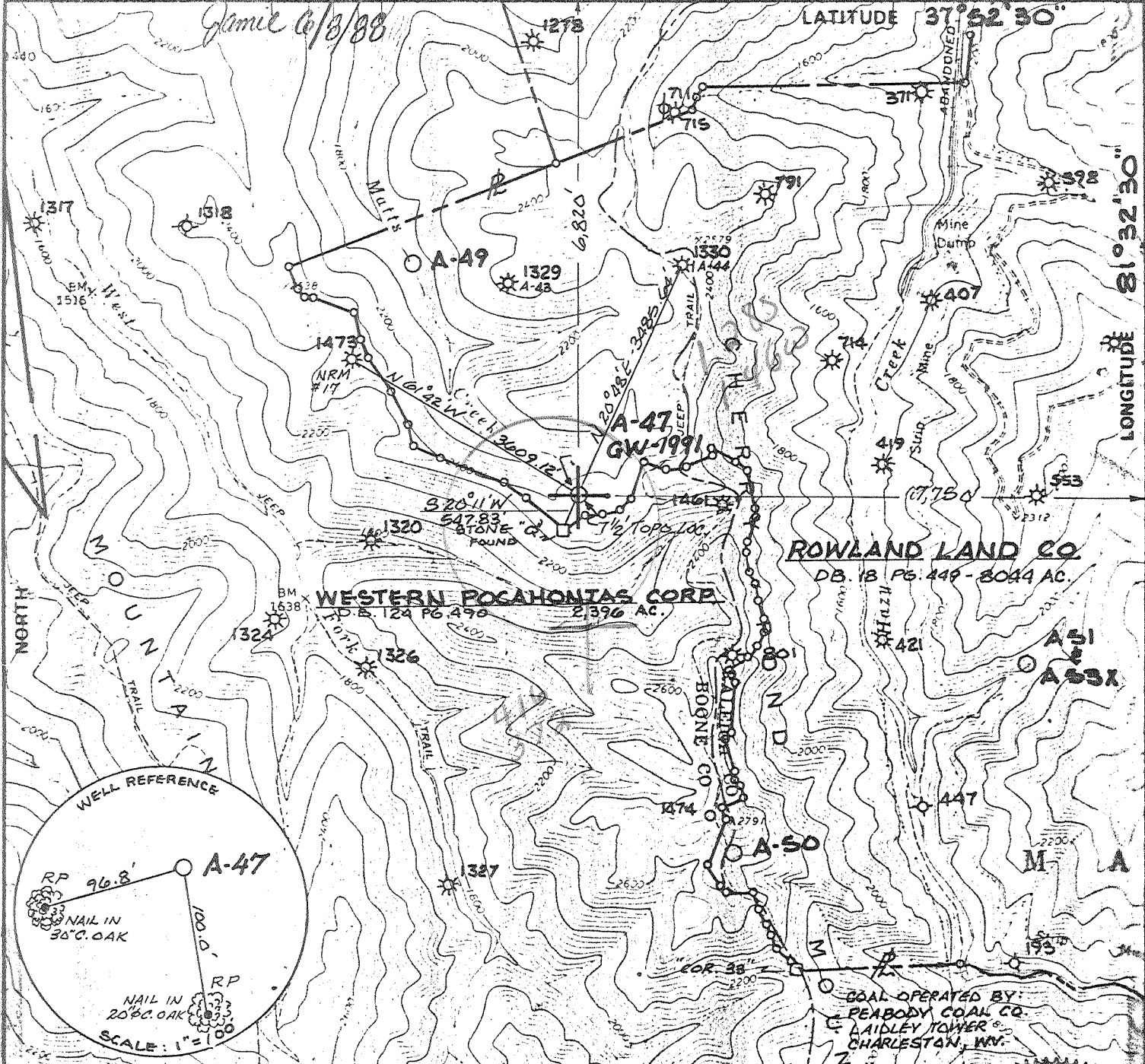
DATE JUNE 13 1989
 OPERATOR'S WELL NO. ROWLAND A-47 REV.
 API WELL NO. GW NO.
47 005 1481
 STATE COUNTY PERMIT
Revised Plat

WELL TYPE OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 IF "GAS" PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION ELEVATION 2406.74' WATER SHED MATT'S CK OF WEST FORK OF POND FORK OF LITTLE COAL RIVER
 DISTRICT CROOK COUNTY BOONE
 QUADRANGLE PILOT KNOB 7 1/2'
 SURFACE OWNER ROWLAND LAND CO. ACREAGE 1/2 47,340.87 ac.
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 693.579
 LEASE NO. WV-389
 PROPOSED WORK DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ RESTRUCTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL SPECIFY _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH _____
 WELL OPERATOR OXY USA Inc. DESIGNATED AGENT DELBERT G. OLIVER
 ADDRESS P.O. BOX 873 ADDRESS P.O. BOX 873
CHARLESTON, WV 25323 CHARLESTON, WV 25323

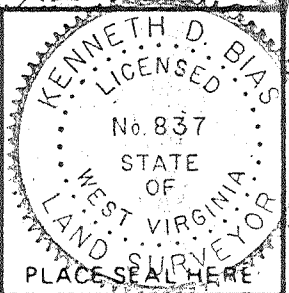
DEEP WELL

SEP 8 1989



FILE NO. KDB-1
 DRAWING NO. 6-88
 SCALE 1"=2000'
 MINIMUM DEGREE OF ACCURACY 1:2500'
 PROVEN SOURCE OF ELEVATION STA. PC-66
EL. 1596.91 (PEABODY COAL CO.)
IN HAZY CREEK.

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) Kenneth D. Bias
 R.P.E. _____ L.L.S. 837



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



DATE 4-14 19 88
 OPERATOR'S WELL NO. R.L.C.A-47, GW-1991
 API WELL NO. _____
47 - 005 - 1481
 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 X SHALLOW ___
 LOCATION ELEVATION 2,466.74' WATER SHED MATTS CK - WEST FK. - POND FK. - LITTLE COAL RIVER
 DISTRICT CROOK COUNTY BOONE
 QUADRANGLE PILOT KNOB 547 006 c Batt Knob EC
 SURFACE OWNER ROWLAND LAND CO. ACREAGE 404.13
 OIL & GAS ROYALTY OWNER ROWLAND LAND Co. LEASE ACREAGE 47,340.87
 LEASE NO. WV 389

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 DEVONIAN SHALE ESTIMATED DEPTH 6200'
 WELL OPERATOR OXY U.S.A. Inc. DESIGNATED AGENT DELBERT G. OLIVER
 ADDRESS P.O. Box 873 ADDRESS P.O. Box 873
CHARLESTON, WV 25323 3072 CHARLESTON, WV 25323

JUN 10 1988

DEEP WELL 6-6 unnamed (0)

WR RECEIVED
MAR 22 1989

09-Jun-88
API # 47- 5-01481

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

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Well Operator's Report of Well Work

Farm name: ROWLAND LAND COMPANY Operator Well No.: A-47 GW-1991

LOCATION: Elevation: 2466.74 Quadrangle: PILOT KNOB

District: CROOK County: BOONE
Latitude: 6820 Feet South of 37 Des. 52Min. 30 Sec.
Longitude: 7750 Feet West of 81 Des. 32 Min. 30 Sec.

Company: OXY USA, INC.
P.O. BOX 873
CHARLESTON, WV

Agent: DELBERT G. OLIVER

Inspector: JERRY HOLCOMB
Permit Issued: 06/09/88
Well work Commenced: 07/16/88
Well work Completed: 02/18/89
Verbal Flusings: N/A
Permission granted on: N/A
Rotary Cable _____ Rig
Total Depth (feet) 7075
Fresh water depths (ft) 700
Salt water depths (ft) _____
Is coal being mined in area (Y/N)?
Coal Depths (ft): 271-74; 1180-85;

Size	Casings & Tubings	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13.365"		391'	391'	600 cu ft
9.625"		1264'	1264'	768 cu ft
7.0"		3486'	3486'	360 cu ft
4.0"		-	7055'	300 cu ft
2.375"		-	5886'	

OPEN FLOW DATA

Producing formation: Lower Huron; Upper Devonian Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 242/623 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 31 Hours
Static rock Pressure 275 psig (surface pressure) after 43 Hours

Second producing formation: Weir-Ravencliff Pay zone depth (ft) 4122
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 381 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 400 psig (surface pressure) after 14 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.

Delbert G. Oliver, Appalachian Project Manager

For: OXY USA, INC.

By: *Delbert G. Oliver*
Date: 3-22-89

MAR 31 1989

ROWLAND LAND CO. A-47

Details of Perforated Intervals, Fracturing or Stimulating, Physical Change, Etc.

Lower Huron: Perforated 5506 - 6132' (235 holes).
Frac'd w/ 172,116# Sand, 564 BLW, 1170 MCF N₂.

Upper Devonian: Perforated 4569 - 5160 (120 holes).
Frac'd w/200,000# Sand, 385 BLW, 1125 MCF N₂.

Weir: Perforated 3983 - 4122 (83 holes).
Frac'd w/ 50,000# Sand, 123 BLW, 539 MCF N₂.

Ravencliff: Perforated 2820 - 2836 (65 holes).
Frac'd w/40,000# Sand, 111 BLW, 279 MCF N₂.

WELL LOG:

<u>FORMATION</u>	<u>TOP (FT)</u>	<u>BOTTOM (FT)</u>
SAND	0	271
COAL	271	274
SAND	274	438
SILTSTONE	438	500
SAND	500	798
SILTSTONE	798	1122
SAND	1122	1163
SILTSTONE	1163	1180
COAL	1180	1185
SAND	1185	1248
SILTSTONE	1248	1328
SAND	1328	1375
SILTSTONE	1375	1628
SAND	1628	1675
SILTSTONE	1675	1715
SAND	1715	1768
SILTSTONE	1768	1842
SAND	1842	1918
SILTSTONE	1918	2111
SAND	2111	2389
SILTSTONE	2389	2455
SAND	2455	2516
SILTSTONE	2516	2642
RAVENCLIFF	2642	2854
SILTSTONE	2854	2894
AVIS L.S.	2894	2929
SILTSTONE	2929	2985
SAND	2985	3007
SILTSTONE	3007	3088
MIDDLE MAXTON	3088	3374
LOWER MAXTON	3374	3465
LITTLE LIME	3465	3556
BIG LIME	3556	3888
SILTSTONE	3888	3981
UPPER WEIR	3981	4032
SHALE	4032	4092
LOWER WEIR	4092	4151
SHALE	4151	4360

RECEIVED
MAR 22 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

MAR 31 1989

(con't)

005 1481

WELL LOG:

<u>FORMATION</u>	<u>TOP (FT)</u>	<u>BOTTOM (FT)</u>
SUNBURY	4360	4372
DEVONIAN SHALE	4372	4570
GORDON	4570	4577
DEVONIAN SHALE	4577	5486
LOWER HURON	5486	6140
JAVA	6140	6597
RHINESTREET	6597	7020
MARCELLUS	7020	7064
ONONACA	7064	7077

RECEIVED
MAR 22 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

MAR 31 1989

7118

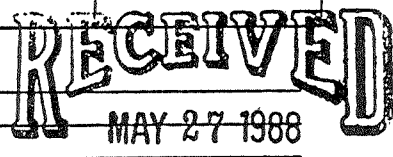
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

- 1) Well Operator: OXY USA, INC. 3072 36205, 1, 546
2) Operator's Well Number: Rowland Land Co., A-47 GW-1991 3) Elevation 2466.74'
4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production / Underground Storage / Deep / Shallow X /
5) Proposed Target Formation(s): Devonian Shale 441
6) Proposed Total Depth: 6870 feet
7) Approximate fresh water strata depths: 56', 231', 600'
8) Approximate salt water depths: None
9) Approximate coal seam depths: 266', 906', 996', 1136' 1167'-1172'
10) Does land contain coal seams tributary to active mine? Yes / No X /
11) Proposed Well Work: Devonian shale Drilling Well
12)

CASING AND TUBING PROGRAM

Table with columns: TYPE, SPECIFICATIONS (Size, Grade, Weight per ft.), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT (Fill-up (cu. ft.)). Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

PACKERS : Kind _____ Sizes _____ Depths set _____



Handwritten numbers: 30068, 15

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

Fee(s) paid: [initials] Well Work Permit [initials] Reclamation Fund [initials] WPCP
Plat [initials] WW-9 [initials] WW-2B [initials] Bond 503 lump sum [initials] Agent

RECEIVED
MAY 27 1988

Page 1 of 4
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: May 20, 1988
2) Operator's well number
Rowland A-47, GW 1991
3) API Well No: 47 - 081 - 1481
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 Rowland Land Company
Address 1033 Quarrier St., Rm. 301
Charleston, WV 25301, Attn: David Pollitt
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
Name Peabody Coal Company
Address P. O. Box 1233
Charleston, WV 25324
(b) Coal Owner(s) with Declaration
Name Rowland Land Company
Address 1033 Quarrier St., Rm. 301
Charleston, WV 25301
Name _____
Address _____
(c) Coal Lessee with Declaration
Name Peabody Coal Company
Address P. O. Box 1233
Charleston, WV 25323, Attn: Toby Wallen
- 6) Inspector Rodney Dillon
Address P. O. Box 1526
Sophia, WV 25921
Telephone (304)- 465-1911

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 4 on the above named parties, by:

- Personal Service (Affidavit attached)
- X 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 OXY USA Inc.
By: Delbert G. Oliver
Its: Project Manager
Address P. O. Box 873
Charleston, WV 25323
Telephone (304) 344-8383

Subscribed and sworn before me this 19 day of May, 1988

David J. Bay
My commission expires June 1, 1989
Notary Public