

INSERT

HAIL 20" OAK
PEABODY COORDINATES
N: 572,963.77'
E: 3,210,426.6A'
ROWLAND A-52
REV. GAS WELL

HAIL 12" OAK
1" = 200'

FILE NO BMS 2-R

DRAWING NO _____

SCALE 1" = 1,000'

MINIMUM DEGREE OF ACCURACY 1:2500

PROVEN SOURCE OF ELEVATION PC-66 EL. 1596.91'

PERBODY COAL CO. MONTGOMERY DIV.

CO: 081 FMT: 837

Loc Digitized from OGIS 7.5' Mylar

QUAD: 547 DATE: 12-JUN-90

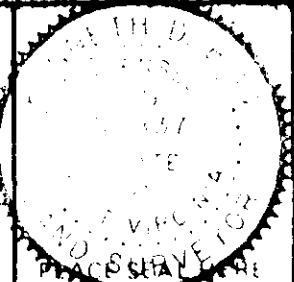
LAT: 37 50.0 Miles South: 0.04

LONG: 81 32.5 Miles West: 0.93

MENT OF MINES

(SIGNED) Kenneth D. Piro

RPE _____ LLS 837-SU



47 DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV 6

2-88



DATE JUNE 14 1989

OPERATOR'S WELL NO ROWLAND A-52 REV. G.W. No. 1995

API WELL NO 47 081

STATE 0837 COUNTY Revised

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE OIL _____ GAS LIQUID INJECTION _____ WASTE DISPOSAL _____

IF GAS PRODUCTION STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 2712.57' WATERSHED HAZY CREEK - MARSH FORK - BIG COAL RIVER

DISTRICT MARSH FORK COUNTY RALEIGH

QUADRANGLE PILOT KNOB

LEASE OWNER ROWLAND LAND CO. ACREAGE P/O 47,340.87

GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE _____

LEASE NO WV-389

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 DEVONIAN SHALE ESTIMATED DEPTH _____

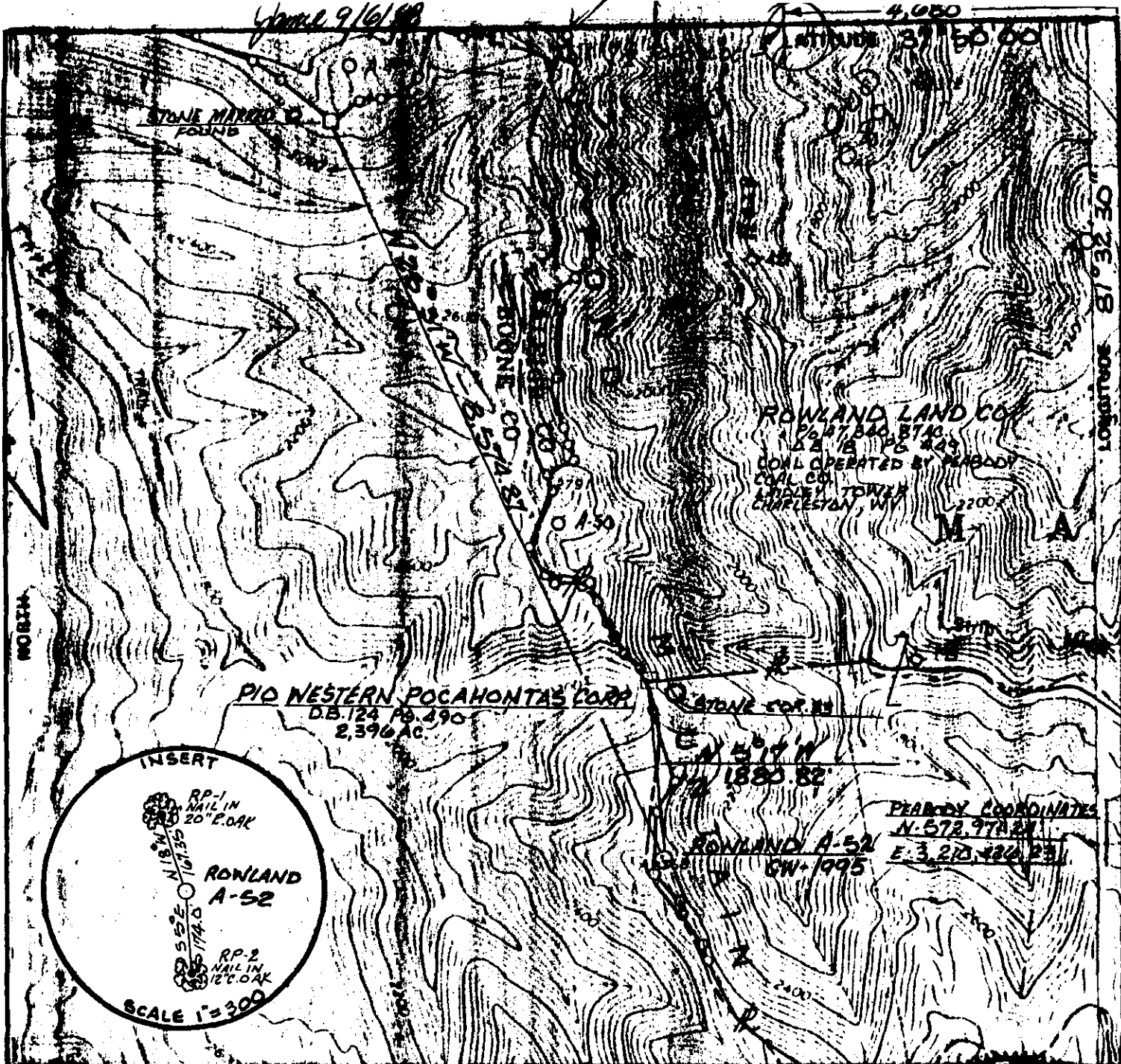
WELL OPERATOR OXY USA Inc. DESIGNATED AGENT DELBERT G. OLIVER

ADDRESS P.O. BOX 873 ADDRESS P.O. BOX 873

CHARLESTON, W.V. 25323 CHARLESTON, W.V. 25323

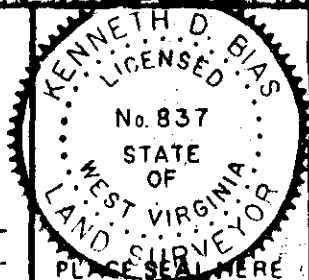
SEP 1 1989

6-6 unrounded (24)



FILE NO KDB-6-1
 DRAWING NO _____
 SCALE 1" = 1500'
 MINIMUM DEGREE OF ACCURACY 1:2500'
 PROVEN SOURCE OF ELEVATION PC 60 IN HAZY CK. PEABODY COAL CO. DATUM IS BASED ON U.S.G.S

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. _____ U.L.S. 837



(1) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8/81)



DATE 7-20 1988
 OPERATOR'S WELL NO RLC-A-52
 API WELL NO 8W 1995
47 - 081 - 0837
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE OIL _____ GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF GAS) PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION ELEVATION 2,712.51' WATERSHED HAZY CK. OF MARSH FK. OF BIG COAL RIVER
 DISTRICT MARSH FORK 2 COUNTY RALEIGH
 QUADRANGLE PILOT KNOB 547 0069 Knob SE
 SURFACE OWNER ROWLANDS LAND CO. ACREAGE 8,229.337 P/O 47,340.87 AC.
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 8229.337 AC.
 LEASE NO W.V.-389

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 DEVONIAN SHALE ESTIMATED DEPTH 7205'
 WELL OPERATOR OXY USA Inc. DESIGNATED AGENT DELBERT G. OLIVER SEP 19 1988
 ADDRESS BOX 873 3072 ADDRESS BOX 873
CHARLESTON, W.V. 25323 CHARLESTON, W.V. 25323

6-6 unnamed (10)



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

DIVISION OF OIL & GAS Well Operator's Report of Well Work
DEPARTMENT OF ENERGY
Farm name: ROWLAND LAND CO., LTD. Operator Well No.: A-52, GW-1995

LOCATION: Elevation: 2712.57 Quadrangle: PILOT KNOB

District: MARSH FORK County: RALEIGH
Latitude: 10 Feet South of 37 Deg. 50Min. 0 Sec.
Longitude 4690 Feet West of 81 Deg. 32 Min. 30 Sec.

Company: OXY USA, INC.
P. O. BOX 873
CHARLESTON, WV 25323-0873

Agent: DELBERT G. OLIVER

Inspector: RODNEY G. DILLON
Permit Issued: 08/21/89
Well work Commenced: 10-20-88
Well work Completed: 8-2-89 (Includes Coal
Verbal Plugging (partial) Partial Plugging)
Permission granted on: 6-2-89
Rotary X Cable _____ Rig
Total Depth (feet) 7255'
Fresh water depths (ft) 112'
Salt water depths (ft) 5700'

Is coal being mined in area (Y/N)? Y
Coal Depths (ft): 1025-36'; 1130-36'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size Fresh Wtr 13.375"	78'	78'	
Coal 9.625"	1820'	1820'	660 Cu Ft
Intermediate 7.0"	3801'	3801'	570 Cu Ft
Production 4.5"	-	7243'	Partial Plug: 177 Cu Ft Existing: 366 Cu Ft Above Total: 543 Cu Ft
Tubing 2.375"	-	3404'	Top of Partial Plug @ 3460'

OPEN FLOW DATA

Producing formation Maxon-Ravencliff Pay zone depth (ft) 3010-3392'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 292 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 48 Hours
Static rock Pressure 335 psig (surface pressure) after 120 Hours
(Current Production: 110 MCFPD) Lower Huron, Gordon Sand & Upper Devonian
Second producing formation Shale Abandoned Pay zone depth (ft) 4790-6347'
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.

Delbert G. Oliver, Appalachian Project Manager
For: OXY USA, INC.

By: Delbert G. Oliver
Date: September 18, 1989

081 837

WELL LOG

<u>FORMATION</u>	<u>TOP (FT)</u>	<u>BOTTOM (FT)</u>
SAND	0	230
SILTSTONE	230	306
SAND	306	409
SILTSTONE	409	555
SAND	555	630
SILTSTONE	630	725
SAND	725	824
SILTSTONE	824	1025
COAL	1025	1036
SILTSTONE	1036	1130
COAL	1130	1136
SILTSTONE	1136	1182
SAND	1182	1280
SILTSTONE	1280	1300
SAND	1300	1316
SILTSTONE	1316	1403
SAND	1403	1434
SILTSTONE	1434	1520
SAND	1520	1584
SILTSTONE	1584	1654
SAND	1654	1692
SILTSTONE	1692	1730
SAND	1730	1759
SILTSTONE	1759	1982
SAND	1982	2028
SHALE	2028	2078
SILTSTONE	2078	2256
SAND	2256	2318
SILTSTONE	2318	2362
SAND	2362	2423
SILTSTONE	2423	2510
SAND	2510	2529
SHALE	2529	2561
SILTSTONE	2561	2850
RAVENCLIFF	2850	3042
SILTSTONE	3042	3092
AVIS L.S.	3092	3128
SHALE	3128	3198
UPPER MAXTON	3198	3386
MIDDLE MAXTON	3386	3474
SILTSTONE	3474	3662
LITTLE LIME	3662	3758
BIG LIME	3758	4104
SILTSTONE	4104	4194
UPPER WEIR	4194	4248
LOWER WEIR	4248	4356
SHALE	4356	4586
SUNBURY	4586	4600
DEVONIAN SHALE	4600	4788
GORDON	4788	4801
DEVONIAN SHALE	4801	5694
LOWER HURON	5694	6348
JAVA	6348	6776
RHINESTREET	6776	7200
MARCELLUS	7200	7229

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 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

TD. 7255

081-837 A²

09/25/1989

Details of original completion perforated intervals, fracturing or stimulating, physical change, etc.:

Lower Huron	Perforated 5587-6347' (128 holes). Frac'd with 50,000# sand, 133 BLW, 725 MCF N ₂ .
Upper Devonian	Perforated 4790-5370' (80 holes). Frac'd with 50,000# sand, 133 BLW, 738 MCF N ₂ .
Maxon-Ravencliff	Perforated 3010-3392' (66 holes). Frac'd with 50,000# sand, 123 BLW, 980 MCF N ₂ .

The work order for the manner of partially plugging this well was as follows:

- (1) Received verbal approval to partially plug well from Mike Lewis, WV Dept. of Energy, Oil and Gas Division.
- (2) Notified State Inspector, Rodney Dillon, of proposed work.
- (3) Moved in and rigged up Well Tech Rig #290 and Dowell Schlumberger cementing equipment.
- (4) Ran in hole with 2-3/8" tubing to 6350'. Mixed and pumped 70 sacks Class A cement (15.6 ppg, 1.18 cu ft/sk) down 2-3/8" tubing. Slurry volume = 14.7 bbl. Abandoned Lower Huron (5735-6347'; 128 holes) with cement plug from 6350' to 5404'.
- (5) Pulled out of hole with 2-3/8" tubing to 5372'. Mixed and pumped 55 sacks Class A cement (15.6 ppg, 1.18 cu ft/sk) down 2-3/8" tubing. Slurry volume = 11.6 bbl. Abandoned Gordon Sand and Upper Devonian Shale (4790-5370'; 80 holes) with cement plug from 5372' to 4628'.
- (6) Ran in hole with Baker 7" X 2-3/8" 3BB Model "K-1" cement retainer and 2-3/8" tubing. Set retainer at 3598'. Mixed and pumped 25 sacks Class A cement (15.6 ppg, 1.18 cu ft/sk) down 2-3/8" tubing. Slurry volume = 5.3 bbl. Pumped 20 sacks cement (4.2 bbl) through retainer. Pulled 2-3/8" tubing out of retainer. Pumped 5 sacks cement (1.1 bbl) on top of retainer.
- (7) Set 2-3/8" tubing at 3404'. Produced well from Maxon Sand (3386-3392'; 25 holes) and Ravencliff Sand (3010-3020'; 41 holes).

SEE ATTACHED LOG OF WELL

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

081-837

WELL LOG

<u>FORMATION</u>	<u>TOP (FT)</u>	<u>BOTTOM (FT)</u>
RAVENCLIFF	2850	3042
SILTSTONE	3042	3092
AVIS L.S.	3092	3128
SHALE	3128	3198
UPPER MAXTON	3198	3386
MIDDLE MAXTON	3386	3474
SILTSTONE	3474	3662
LITTLE LIME	3662	3758
BIG LIME	3758	4104
SILTSTONE	4104	4194
UPPER WEIR	4194	4248
LOWER WEIR	4248	4356
SHALE	4356	4586
SUNBURY	4586	4600
DEVONIAN SHALE	4600	4788
GORDON	4788	4801
DEVONIAN SHALE	4801	5694
LOWER HURON	5694	6348
JAVA	6348	6776
RHINESTREET	6776	7200
MARCELLUS	7200	7229

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

7634

MAR 31 1989





ROWLAND LAND CO. A-52

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

Lower Huron: Perforated 5587-6347 (128 Holes).
 Frac'd W/50,000# Sand, 133 BLW, 726 MCFN₂.

Upper Devonian: Perforated 4790-5370 (80 Holes).
 Frac'd W/50,000# Sand, 133 BLW, 738 MCFN₂.

Maxon-Ravencliff: Perforated 3010-3392 (66 Holes).
 Frac'd W/50,000# Sand, 123 BLW, 980 MCFN₂.

WELL LOG

<u>FORMATION</u>	<u>TOP (FT)</u>	<u>BOTTOM (FT)</u>
SAND	0	230
SILTSTONE	230	306
SAND	306	409
SILTSTONE	409	555
SAND	555	630
SILTSTONE	630	725
SAND	725	824
SILTSTONE	824	1025
COAL	1025	1036
SILTSTONE	1036	1130
COAL	1130	1136
SILTSTONE	1136	1182
SAND	1182	1280
SILTSTONE	1280	1300
SAND	1300	1316
SILTSTONE	1316	1403
SAND	1403	1434
SILTSTONE	1434	1520
SAND	1520	1584
SILTSTONE	1584	1654
SAND	1654	1692
SILTSTONE	1692	1730
SAND	1730	1759
SILTSTONE	1759	1982
SAND	1982	2028
SHALE	2028	2078
SILTSTONE	2078	2256
SAND	2256	2318
SILTSTONE	2318	2362
SAND	2362	2423
SILTSTONE	2423	2510
SAND	2510	2529
SHALE	2529	2561
SILTSTONE	2561	2850

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MAR 29 1989

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

MAR 31 1989

(con't)

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

- 1) Well Operator: OXY USA INC. 36205, 2, 546
- 2) Operator's Well Number: Rowland Land Co. A-52, GW 1995 3) Elevation: 2735.43'
- 4) Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 7205 feet
- 7) Approximate fresh water strata depths: None 281'
- 8) Approximate salt water depths: None 3092'
@ 211-214'
- 9) Approximate coal seam depths: 385', 1020' (Mined Out), 1145', 1255' (Mined Out)
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill Devonian Shale 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	20"	H-40	90	50'	50'	Surface
Fresh Water	13-3/8"	H-40	48	400'	400'	Surface
Coal	9-5/8"	K-55	36	1350'	1350'	380CSR18-11.3 Surface
Intermediate	7"	K-55	23	3770'	3770'	380CSR18-11.2.2 Surface
Production	4-1/2"	K-55	11.6	7205'	7205'	380SR18-11.1 400 cu ft
Tubing	2-3/8"	J-55	4.7	7135'	7125'	
Liners						

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 AUG 26 1988

PACKERS : Kind _____
 Sizes _____
 Depths set _____

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

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

30080

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: August 1, 1988
Operator's well number
Rowland Land Co. A-52, GW 1995
API Well No: 47 - 081 - 0837
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|--|---|
| <p>4) Surface Owner(s) to be served:
 (a) Name <u>Rowland Land Company, LTD</u>
 Address <u>1033 Quarrier St., Room 301</u>
 <u>Charleston, WV 25301</u>
 (b) Name <u>Attn: David R. Pollitt</u>
 Address _____
 (c) Name _____
 Address _____</p> | <p>5) (a) Coal Operator:
 Name <u>Peabody Coal Company / Toby Waller</u>
 Address <u>P. O. Box 1233</u>
 <u>Charleston, WV 25324</u>
 (b) Coal Owner(s) with Declaration
 Name <u>Rowland Land Company, LTD</u>
 Address <u>1033 Quarrier St., Room 301</u>
 <u>Charleston, WV 25301</u>
 Name <u>Attn: David R. Pollitt</u>
 Address _____
 (c) Coal Lessee with Declaration
 Name <u>Peabody Coal Company / Toby Waller</u>
 Address <u>P. O. Box 1233</u>
 <u>Charleston, WV 25324</u></p> |
| <p>6) Inspector <u>Rodney Dillon</u>
 Address <u>P. O. Box 1526</u>
 <u>Sophia, WV 25921</u>
 Telephone (304)- <u>683-3989/465-1911</u></p> | |

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
xy 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)
xx 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 *Delbert G. Oliver*
 Its: Project Manager
 Address P. O. Box 873
Charleston, WV 25323
 Telephone (304) 344-8383

Subscribed and sworn before me this 24 day of August, 1988

Donald J. Bay
 My commission expires June 11, 1989

 Notary Public

FORM WR-38
 (Affidavit of Plugging)

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS WELLS DIVISION

PARTIAL
 AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE 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.

<u>PEABODY COAL COMPANY / TOBY WALLER</u> Coal Operator or Owner	<u>OXY USA INC.</u> Name of Well Operator
<u>P. O. BOX 1233, CHARLESTON, WV 25324</u> Address	<u>P. O. BOX 873, CHARLESTON, WV 25323</u> Complete Address
<u>ROWLAND LAND COMPANY, LTD/ATTN: DAVID POLLITT</u> Coal Operator or Owner	<u>AUGUST 16 1989</u> WELL AND LOCATION
<u>1033 QUARRIER STREET, RM. 301, CHARLESTON, WV 25301</u> Address	<u>MARSH FORK</u> District
<u>ROWLAND LAND COMPANY LTD/ATTN: DAVID POLLITT</u> Lease or Property Owner	<u>RALEIGH</u> County
<u>1033 QUARRIER STREET, RM. 301, CHARLESTON, WV 25301</u> Address	WELL NO. <u>A-52</u>
	<u>ROWLAND LAND COMPANY, LTD</u> Farm
PARTIAL STATE INSPECTOR SUPERVISING PLUGGING	<u>RODNEY DILLON</u>

AFFIDAVIT

STATE OF WEST VIRGINIA,

County of KANAWHA ss:

DONALD W. FRYHOFFER, OXY USA INC. and LOUIS H. DILLON, DOWELL SCHLUMBERGER 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 OXY USA INC., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 2ND day of (partial) AUGUST, 19 89, and that the well was partially plugged and filled in the following manner:

Sand or Zone Record Formation	Filling Material	Plugs Used Size & Kind	Casing	
			CSG PULLED	CSG LEFT IN
LOWER HURON 5735-6347' 128 HOLES IN 4-1/2" CASING	70 SACKS CLASS A CEMENT	SLURRY VOLUME = 14.7 BBL (BALANCED PLUG)	NONE	ALL
GORDON SAND & UPPER DEVONIAN SHALES 4790-5370'; 80 HOLES IN 4-1/2" CASING	55 SACKS CLASS A CEMENT	SLURRY VOLUME = 11.6 BBL (BALANCED PLUG)		
ABOVE ZONES RECEIVED AUG 29 1989	25 SACKS CLASS A CEMENT. BAKER 7" X 2-3/8" 3BB MODEL "K-1" CEMENT RETAINER SET AT 3598'	SLURRY VOLUME = 5.3 BBL. 20 SACKS (4.2) BBL PUMPED THRU RETAINER. 5 SACKS (1.1 BBL) DISPLACED ON TOP OF RETAINER.		
DIVISION OF OIL & GAS DEPARTMENT OF ENERGY				
Coal Seams		Description of Monument		
(Name) 1025'-1036'	CEMENTED BEHIND 7" CASING.	NOT APPLICABLE, PARTIAL PLUGGING.		
(Name) 1130'-1136'				
(Name)				
(Name)				

and that the work of partial plugging and filling said well was completed on the 2ND day of AUGUST, 19 89. **SEP 1 1989**

And further deponents saith not.

Sworn to and subscribed before me this 16TH day of AUGUST, 19 89.

Donald W. Fryhofer
 DONALD W. FRYHOFFER, OXY USA INC.
Louis H. Dillon
 LOUIS H. DILLON, DOWELL SCHLUMBERGER
James J. [Signature]
 Notary Public

My commission expires:

June 1, 1999

Permit No. 081-0837-PF

