



FILE NO KDD-6-1
 DRAWING NO _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1:2500'
 PROVEN SOURCE OF ELEVATION U.S.G.S. BM W-144 EL. 748.601'

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. Pios
 RPE _____ LLS 837



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (878)

DATE 5-10 19 88
 OPERATOR'S WELL NO I.C.C. A-79X
 API WELL NO GW-2003
47 045 1123
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 - Deviated well -

WELL TYPE OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION ELEVATION 1045.27' WATER SHED MUD FORK - ISLAND CREEK - GUYANDOTTE
 DISTRICT ISLAND CREEK COUNTY LOGAN
 QUADRANGLE HOLDEN 7 1/2 401 059 6 + 15 EC
 SURFACE OWNER GEORGIA-PACIFIC ACREAGE P/O 24,580.82 AC.
 OIL & GAS ROYALTY OWNER ISLAND CREEK CORPORATION LEASE ACREAGE 35,053.47
 LEASE NO WV 486

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 4360'
 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

* Deviated Well * 1-6 Logan-Holden-Diamond (674)

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

API # 47- 45-01123

Well Operator's Report of Well Work

Farm name: GEORGIA PACIFIC CORP. Operator Well No.: A-79X, GW-2003

LOCATION: Elevation: 1045.27 Quadrangle: HOLDEN

District: ISLAND CREEK County: LOGAN
 Latitude: 6150 Feet South of 37 Deg. 52Min. 30 Sec.
 Longitude 4940 Feet West of 82 Deg. 2 Min. 30 Sec.

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

Asent: DELBERT G. OLIVER

Inspector: ARTHUR ST. CLAIR
 Permit Issued: 06/28/88
 Well work Commenced: 7-23-88
 Well work Completed: 2-28-89
 Verbal Plussings
 Permission granted on: NA
 Rotary X Cable _____ Rig
 Total Depth (feet) 6071'
 Fresh water depths (ft) Unknown

Casings & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11.75"	278'	278'	Surface
8.625"	1873'	1873'	540 cu ft
5.5"		6065'	487 cu ft
2.375"		5247'	

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Salt water depths (ft) Unknown
 Is coal being mined in area (Y/N)?
 Coal Depths (ft):

OPEN FLOW DATA

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Producing formation Lower Huron Pay zone depth (ft) 5205'
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 83/193 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests 13 Hours
 Static rock Pressure 150 psig (surface pressure) after 14 Hours
Upper Dev, Pocono,
 Second producing formation Big Lime Pay zone depth (ft) 3602'
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 110 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 180 psig (surface pressure) after 24 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: 3-15-89

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

Lower Huron: Perforated 4878-5205' (287 holes). Frac'd with 110,000# sand, 277 BLW, 865 MCF N2.
 Lower Huron: Perforated 4527-4793' (69 holes). Frac'd w/ 110,000# sand, 277 BLW, 876 MCF N2.
 Upper Devonian: Perforated 2830-3602' (94 holes). Frac'd w/ 33,700# sand, 109 BLW, 315 MCF N2.
 Pocono/Big Lime: Perforated 1894-2160' (234 holes). Frac'd w/ 20,000# sand, 183 BLW, 615 MCF N2.

WELL LOG:

<u>FORMATION</u>	<u>TOP (Ft)</u>	<u>BOTTOM (Ft)</u>
Sand	0	326
Siltstone	326	388
Sand	388	422
Siltstone	422	511
Sand	511	526
Siltstone	526	544
Sand	544	586
Siltstone	586	662
Sand	662	722
Siltstone	722	740
Sand	740	795
Siltstone	795	874
Sand	874	1139
Siltstone	1139	1408
Maxton	1408	1497
Siltstone	1497	1616
Little Lime	1616	1676
Big Lime	1676	1987
Siltstone	1987	2157
Weir	2157	2272
Shale	2272	2739
Sunbury	2739	2794
Berea	2797	2814
Devonian Shale	2814	4524
Lower Huron	4524	5212
Java	5212	5797
Rhinestreet	5797	5985

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 DEPARTMENT OF ENERGY

Deviated hole

7271

MAR 31 1989

045-1123

Issued 6/28/88 Expired 6/28/90

FORM WW-2B

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

- 1) Well Operator: 3072 OXY USA INC. 36205, 5, 401
- 2) Operator's Well Number: Island Creek A-79X, GW-2003 3) Elevation: 1045.27
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Devonian Shale 441
- 6) Proposed Total Depth: 4330 TVD; 5973 MD feet
- 7) Approximate fresh water strata depths: None 85', 210'
- 8) Approximate salt water depths: 800, 1022'
- 9) Approximate coal seam depths: 172'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work:
- 12) NEW DRILLING (DEVIATED WELL)
CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	16	H-40	65	48 MD	48 TVD	40 sx Cl A cmt
Fresh Water	11-3/4	H-40	42	240 MD	240 TVD	20 sx Cl A cmt
Coal						38 CSR18-11.3 28 CSR18-11.2.2 2% gel; 100 sx Cl A cmt
Intermediate	8-5/8	K-55	24	1750 MD	1728 TVD	215 sx Cl A cmt
Production	5-1/2	K-55	17	5973 MD	4330 TVD	390 sx Cl A foamed cmt
Tubing	2-3/8	K-55	4.7#	5973 MD	4330 TVD	38 CSR18-11.1
Liners						

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PACKERS : Kind _____
Sizes _____
Depths set _____

3072
+9
June

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond 500 blanket Agent

(Type)

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- 1) Date: June 15, 1988
- 2) Operator's well number
Island Creek A-79X, GW-2003
- 3) API Well No: 47 - 045 - 1123
State - County - Permit

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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 Georgia Pacific Corporation
Address 133 Peachtree St., NE
Atlanta, GA 30348
 - (b) Name Attn: W. C. Covington
Address _____
 - (c) Name _____
Address _____
- 6) Inspector Arthur St. Clair
Address P. O. Box 468
Benton, WV 24818
Telephone (304) 732-6227/436-4507

- 5) (a) Coal Operator:
 - Name N/A
 - Address _____
- (b) Coal Owner(s) with Declaration
 - Name Island Creek Corporation
 - Address Island Creek Division
P. O. Box 840, Holden, WV 25625
 - Name Attn: Jerry Workman
 - Address _____
- (c) Coal Lessee with Declaration
 - Name N/A
 - Address _____

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

Subscribed and sworn before me this 15th day of June, 1988

Robert P. Chandler, Jr.
 My commission expires September 11, 1992
 Notary Public
 COMMISSIONER