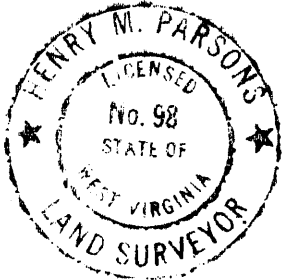


THE NEW SPOTY FROM W. WITH THE BARNEN LINES ARE CALLED FROM RECORDED DEED



2102/5
2102/13
2102/4
2102/9

Minimum Error of Closure METHODS USED SHOULD PRODUCE 1 IN 2500
 Source of Elevation U.S.G.S TRIANGULATION STATION (MACRAY ECCENTRIC 1957) WITH AN ELEVATION OF 1344

New Location X
 Drill Deeper X
 Abandonment _____
 2/27/79

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the oil and gas section of the mining laws of West Virginia."
Henry M. Parsons

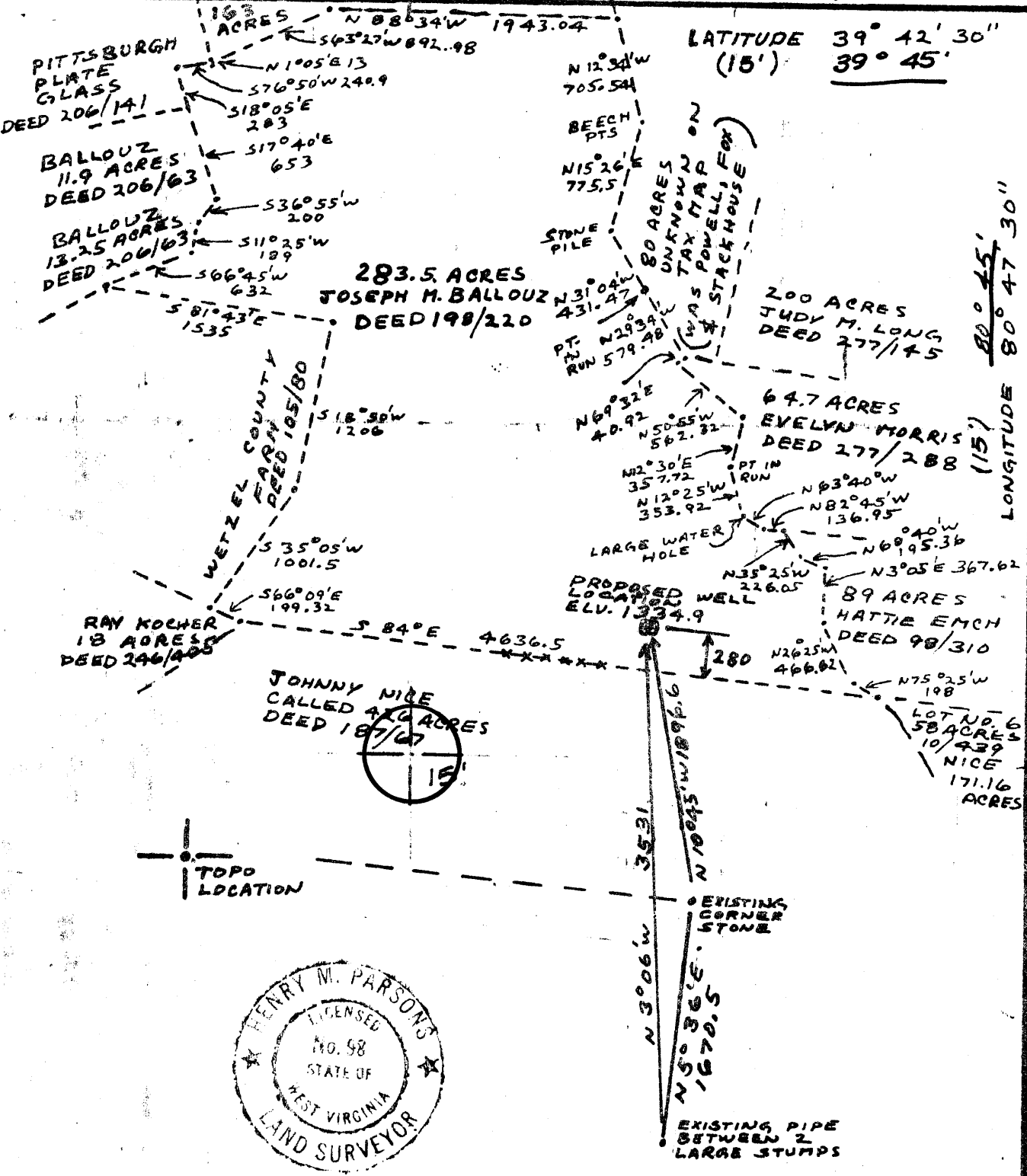
Company MOBAY CHEMICAL CORPORATION
 Address NEW MARTINSVILLE, W.VA.
 Farm JOSEPH M. BALLOUZ
 Tract _____ Acres 283.5 Lease No. _____
 Well (Farm No. BALLOUZ #1) Serial No. _____
 Elevation (Spirit Level) 1334.9 NE
 Quadrangle NEW MARTINSVILLE (T. 24 000)
 County WETZEL District MAGNOLIA
 Surveyor HENRY M. PARSONS
 Engineer's Registration No. 98
 P.M. No. 74-81 Drawing No. _____
 Date JULY 6, 1978 Scale 1" = 1000'

STATE OF WEST VIRGINIA
 Department of Mines
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 File No. WET-1147-DB

+Denotes location of well on United States topographic maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.

-Denotes one inch spaces on border line of original tracing. **47-103**

THE NEW SURVEY SOLID LINES ARE FROM 1978 MAR. 1978 THE BROKEN LINES ARE CALLS FROM RECORDED DEED



LATITUDE 39° 42' 30" (15') 39° 45'

LONGITUDE 80° 45' 80° 47' 30" (15')



Minimum Error of Closure METHODS USED SHOULD PRODUCE 1 in 2500
 Source of Elevation U.S.G.S. TRIANGULATION STATION (MCCRAY ECCENTRIC 1957) WITH AN ELEVATION OF 1344

New Location
 Drill Deeper _____
 Abandonment _____

"I, the undersigned, hereby certify that this map is correct, to the best of my knowledge and belief and shows all the information required by paragraph _____ of the oil and gas section of the mining laws of West Virginia."
Henry M. Parsons

Company MOBAY CHEMICAL CORPORATION
 Address NEW MARTINSVILLE, W.VA.
 Farm JOSEPH M. BALLOUZ
 Tract _____ Acres 283.5 Lease No. _____
 Well (Farm) No. BALLOUZ #1 Serial No. _____
 Elevation (Spirit Level) 1334.9
 Quadrangle NEW MARTINSVILLE (N. 24000)
 County WETZEL District MAGNOLIA
 Surveyor HENRY M. PARSONS
 Engineer's Registration No. 98
 File No. 74-81 Drawing No. _____
 Date JULY 6, 1978 Scale 1" = 1000'

STATE OF WEST VIRGINIA
 Department of Mines
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 File No. WET-1147
 NE
 Denotes location of well on United States Topographic Maps, scale 1 to 25,000 latitude and longitude lines being represented by border lines as shown.
 Denotes one inch space on border line of original tracing. 47-103

3500'

2102
1935
768

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

Date: November 29, 1979

FORM LV-35
(Reverse)

Operator's Well No. #1 Ballouz

WELL OPERATOR'S REPORT
OF

API Well No. 47 - 103 - 1147
State County Permit

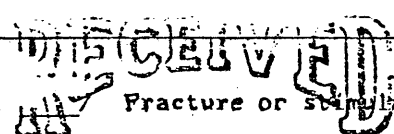
[08-78]

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: 1334.9' Watershed: Haynes Run
District: Magnolia County: Wetzel Quadrangle: New Martinsville

WELL OPERATOR Mobay Chemical Corporation DESIGNATED AGENT Mobay Chemical Corporation
Address Penn Lincoln Parkway West Address New Martinsville, WV 26155
Pittsburgh, PA 15205



PERMITTED WORK: Drill / Convert / Drill deeper / Redrill / Fracture or stimulate
Plug off old formation / Perforate new formation / DEC - 3 1979
Other physical change in well (specify) _____

OIL & GAS DIVISION
DEPT. OF MINES

PERMIT ISSUED ON February 22, 1979

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Phillip Tracy
Address Middlebourn, WV

GEOLOGICAL TARGET FORMATION: Alexander Depth 5100 feet

Depth of completed well, 3751 feet Rotary / Cable Tools

Water strata depth: Fresh, NA feet; salt, 1850 feet.

Coal seam depths: 993-997 Pgh. Coal Is coal being mined in the area? No

Work was commenced March 1, 1979, and completed April 12, 1979

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		
Conductor								Kinds
Fresh water	11 3/4"		42	X		358	358	
Coal								Sizes
Intermediate	8 5/8"		24	X		2124	2124	100 sks Neat + 4% CaCl-4% gel to surf.
Production	4 1/2"		10.5	X		3751	3751	375 sks RFC
Tubing	1 1/2"			X		2929	2929	
Liners								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation Weir SS/Gordon SS Pay zone depth 2490-2555/2923-3616

Gas: Natural initial open flow, 0/75 Mcf/d Oil: Initial open flow, _____ Bbl/d
Weir Final open flow, 180 Mcf/d Final open flow, _____ Bbl/d
Gordon
Warren Time of open flow between initial and final tests, N/A hours

Static rock pressure, 835 psig (surface measurement) after 60 hours shut in

[If applicable due to multiple completion--]

Second producing formation Warren SS Pay zone depth 3616-55 feet

Gas: Natural initial open flow, 0 Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, NA Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, NA hours

Static rock pressure, 400 psig (surface measurement) after 36 hours shut in

[08-78]

36-17 MFCB
(3614740)

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

Perforations-Warren: 3640-44 & 3626-30 18 holes Frac: Dowell mud acid 500 gal. Breakdown pressure 1800 psi.

Total Sand - 15,000# 80-100 mesh sand, 1800# 20-40 mesh sand, 3,500 cu. ft. N₂

Perforations-Gordon: Frac notch 2930' Frac: Dowell mud acid 500 gal. Straddled Gordon 2884-3008' Pressure up to 2,200 psi. Let well sit overnight. CO₂ Frac Breakdown pressure 3,300 psi

Total Sand - 12,000# 80-100 mesh sand, 18,000# 20-40 mesh sand. 550 bbl. water, 10 tons CO₂

Perforations-Weir: Frac notch 2500 & 2540' Frac: Dowell mud acid 500 gal. Breakdown pressure 3,000 psi

Total Sand - 15,000# 80-100 mesh, 55,000# 20-40 mesh sand. 840 bbl. sand laden water 12.5 tons CO₂

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Coal	Bl	S	993	997	
LS	Tan	H	2103	2191	Greenbriar
SS	Wh-Gy	S-H	2191	2307	Big Injun
SH	Gy	S	2307	2488	
SS-SLST	Wh-Gy	H	2488	2555	Weir
SH	Gy	S	2555	2681	
SS	L. Gy-L. Br	H	2681	2692	Berea
SH	Brn-Gy	S	2692	2922	
SS	Wh-Gy	H	2922	2936	Gordon Gas
SH, SLST	Gy	S-H	2936	3113	
SS, SLST	Gy-Wh	H	3113	3133	5th
SH, SLST	Gy	S-H	3033	3616	
SS, SLST	Wh-Gy	H	3616	3655	Warren
SH, SLST	Gy	S-H	3655	5132	
T.D.			5132		

DEV Sh

5132
2936
2196 EXPL. KT

(Attach separate sheets to complete as necessary)

Mobay Chemical Corporation
Well Operator
By Michael Carter Geologist
Its Agent, Haddad and Brooks, Inc.

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 coal, encountered in the drilling of a well."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

AUG 14 1978

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 August 10, 1978

Surface Owner Joseph M. & Norma K. Ballouz

Company Mobay Chemical Corporation

Address 308 Main Street, New Martinsville, WV 26155

Address Penn Lincoln Pkwy. W., Pittsburgh, PA 15215

Mineral Owner same

Farm Joseph M. Ballouz Acres 283.5

Address same

Location (waters) Haynes Run

Coal Owner Joseph M. & Norma K. Ballouz

Well No. 1 Elevation 1334.9

Address same

District Magnolia County Wetzel

Coal Operator none

Quadrangle New Martinsville (1:24000)

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 12-15-78.

INSPECTOR TO BE NOTIFIED Phillip Tracy

ADDRESS Middlebourne, W. Va.

PHONE 758-4573

[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 July 21 1978 by Mobay Chemical Corp. made to Joseph M. Ballouz & Norma K. Ballouz and recorded on the 21st day of July 1978, in Wetzel County, Book 58A Page 48

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 ~~XXXX~~ ~~XXXXXX~~ 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

Very truly yours, Mobay Chemical Corporation

(Sign Name) *[Signature]*

Well Operator by Haddad and Brooks, Inc.

Penn Lincoln Parkway West
Street

Address of Well Operator Pittsburgh
City or Town

Pennsylvania 15205
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

WET-1147 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."

47-103

Signed by *[Signature]*



RECEIVED

FEB 22 1979

RECEIVED

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

AUG 14 1978

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE August 10, 1978

Surface Owner Joseph M. & Norma K. Ballouz

Company Mobay Chemical Corporation

Address 308 Main Street, New Martinsville, WV

Address Penn Lincoln Pkwy. W., Pittsburgh, PA

Mineral Owner same

Farm Joseph M. Ballouz Acres 283.5

Address same

Location (waters) Haynes Run

Coal Owner Joseph M. & Norma K. Ballouz

Well No. 1 Elevation 1334.9

Address same

District Magnolia County Wetzel

Coal Operator none

Quadrangle New Martinsville (1:24000)

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 deepening. This permit shall expire if operations have not commenced by 10-27-79.

INSPECTOR TO BE NOTIFIED Phillip Tracy

ADDRESS Middlebourne, W. Va.

PHONE 758-14573

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 July 21 1978 by Mobay Chemical Corp. made to Joseph M. Ballouz & Norma K. Ballouz and recorded on the 21st day of July 1978, in Wetzel County, Book 58A Page 48

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 XXXX XXXX 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, Mobay Chemical Corporation
(Sign Name) J. Brooks

Well Operator
by Haddad and Brooks, Inc.
Penn Lincoln Parkway West
Street
Pittsburgh
City or Town
Pennsylvania 15205
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.

47-103-1147

47-103 PERMIT NUMBER

BLANKET BOND

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

Signed by J. Brooks

