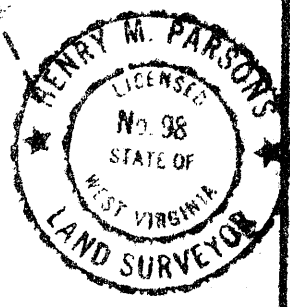


SURVEYED SOLID LINES FROM MAG. NORTH 1977
BROKEN LINES FROM DEEDS



Minimum Error of Closure METHODS USED SHOULD PRODUCE 1 IN 2500
Source of Elevation BASE ELEV. POINTS WERE 1108 AND 1092 FROM
NEAREST ROAD INTERSECTIONS SHOWN ON TOPO MAP
"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 rules and regulations of the oil and gas section of the mining laws of West Virginia." *Henry M. Parsons*

New Location
Drill Deeper
Abandonment

Company EMES PETROLEUM
 Address 409 LACONIA BLDG. WHEELING WV
 Farm CLAIR STARLEY (20 ACRE DRILLING UNIT)
 Tract _____ Acres 174 Leases No. _____
 Well (Farm) No. CLAIR STARLEY #5 Serial No. _____
 Elevation (Spirit Level) 1057 SW
 Quadrangle PADEN CITY 7 1/2 NEW MARTINSVILLE 15
 County TYLER District LINCOLN
 Surveyor HENRY M. PARSONS
 Engineer's Registration No. 98
 File No. 78-5288 Drawing No. 78-5288-D
 Date MAY 3, 1979 Scale 1"=500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. **47-095-0752**

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.
 --- Denotes one inch spaces on border line of original tracing.

3200 5th St. Sistersville (28)

JAN 8 1980

RECEIVED
 MAR 10 1981
 DEPT. OF MINES, OIL & GAS DIVISION

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

Date March 5, 1981

FORM IV-35
 (Obverse)

[08-78]

WELL OPERATOR'S REPORT
 OF

Operator's Well No. SPARK #5
 API Well No. 47-095-0752
 State County Perm

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: 1057' Watershed: Badger Run
 District: LINCOLN County: Tyler Quadrangle: Packer City, W.Va.

WELL OPERATOR Emm's Petroleum Co., Inc. DESIGNATED AGENT C. G. Rice, Inc.
 Address 119 LACONIA BLDG Address Box 353
CHARLESTON, W.VA. ST. MARYS, W.VA.

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

PERMIT ISSUED ON 10-25, 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 MIDDLEBURGH, W.VA.

GEOLOGICAL TARGET FORMATION: 5th SAND Depth 3300' feet

Depth of completed well, 3423 feet Rotary / Cable Tools

Water strata depth: Fresh, N/A feet; salt, N/A feet.

Coal seam depths: N/A Is coal being mined in the area? No

Work was commenced 1-3, 1980, and completed 1-8, 1980

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			Left in well
Conductor	10 3/4"		32.75#	X		320'	320'	175 cks	Kinds
Fresh water									
Coal									Sizes
Intermediate	7"		17"	X		1850'	1000'	120 cks	
Production	4 1/2"		125#	X			3422'	175 cks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Goodwin Pay zone depth 2841'-2889' feet

Gas: Initial open flow, N/A Mcf/d Oil: Initial open flow, 0 Bbl/d

Final open flow, 70 Mcf/d Final open flow, 0 Bbl/d

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

Static rock pressure, 2000 psig (surface measurement) after 2 1/2 hours shut in

[If applicable due to multiple completion--]

Second producing formation _____ Pay zone depth _____ feet

MAR 23 1981

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

24 - .50 shots - 6 shots @ 2846' - 2851'
 - 14 shots @ 2859' - 2872'
 - 4 shots @ 2885' - 2889'

FRACTURE

1200 BBL H₂O, 480 SKS 20/40 SAND, 120,000 SCF N₂

WELL LOG

FORMATION	Color	Hard or Soft	32 Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
1st SALT			Not Logged	1260'	Top Interval Logged
2nd SALT			1325'	1372'	
3rd SALT			1401'	1465'	
MAXON			1550'	1590'	WATER
PENCIL CASE			1705'	1755'	
Big Lime			1812'	1828'	
KEENER			1850'	1960'	
Big INJUN			1972'	2065'	
SQUAW			2082'	2090'	
WEIR			2390'	2440'	
BEREA			2442'	2444'	
GORDON			2826'	2905'	- GAS
No Formations Identifiable From Here to T.D.					

(Attach separate sheets to complete as necessary)

Emes Petroleum Co., Inc.
 Well Operator
 By [Signature]
 Its [Signature]

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

NOV 21 1979

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner Clair Starkey
Address Sistersville, W. Va.
Mineral Owner Clair Starkey
Address Sistersville, W. Va.
Coal Owner Clair Starkey
Address Sistersville, W. Va.
Coal Operator None
Address _____

DATE 11-9-79
Company Emes Petroleum Co. Inc.
Address 619 Laconia Bldg., Wheeling, W. Va.
Farm Starkey Acres 174
Location (waters) Badger Run
Well No. 5 Elevation 1057'
District Lincoln County Tyler
Quadrangle Paden City, W. Va.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All conditions 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 8-10-80.

INSPECTOR
TO BE NOTIFIED Phillip Tracy
ADDRESS Middlebourne, W. Va.
PHONE 758-4573

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 Oct. 4 1978 by John Richmond made to James T. Emes and recorded on the 4th day of Oct 19 78 in Tyler County, Book 217 Page 9

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

Very truly yours,
(Sign Name) James T. Emes
Well Operator

Signature
of
Well Operator

619 Laconia Bldg.
Wheeling
City of Town
W. Va.

*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 thereon by the department and that the same is approved and the well operator authorized to proceed.

CASH DEPOSIT
HELD BY TREASURER

47-095-0752

PERMIT NUMBER

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

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT
 NAME Maught Drilling NAME Emes Petroleum Co.
 ADDRESS Smithville, W. Va. ADDRESS Wheeling, W. Va.
 TELEPHONE 477-3333 TELEPHONE _____
 ESTIMATED DEPTH OF COMPLETED WELL: 3300' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: 5th Sand
 TYPE OF WELL: OIL _____ GAS _____ COMB. STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT LIFT UP OR SAVERS (CUBIC FT)
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 250'		250'	cement top-bottom
7 -			
5 1/2			
4 1/2 3300'		3300'	200 lbs. Perf. Top Perf. Bottom
3			Perf. Top Perf. Bottom
2			Perf. Top Perf. Bottom
Liners			

APPROXIMATE FRESH WATER DEPTHS 150 FEET _____ BALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? No 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 (X) - 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 30 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 23 of the West Virginia Code.

 For Coal Company
 Official _____