

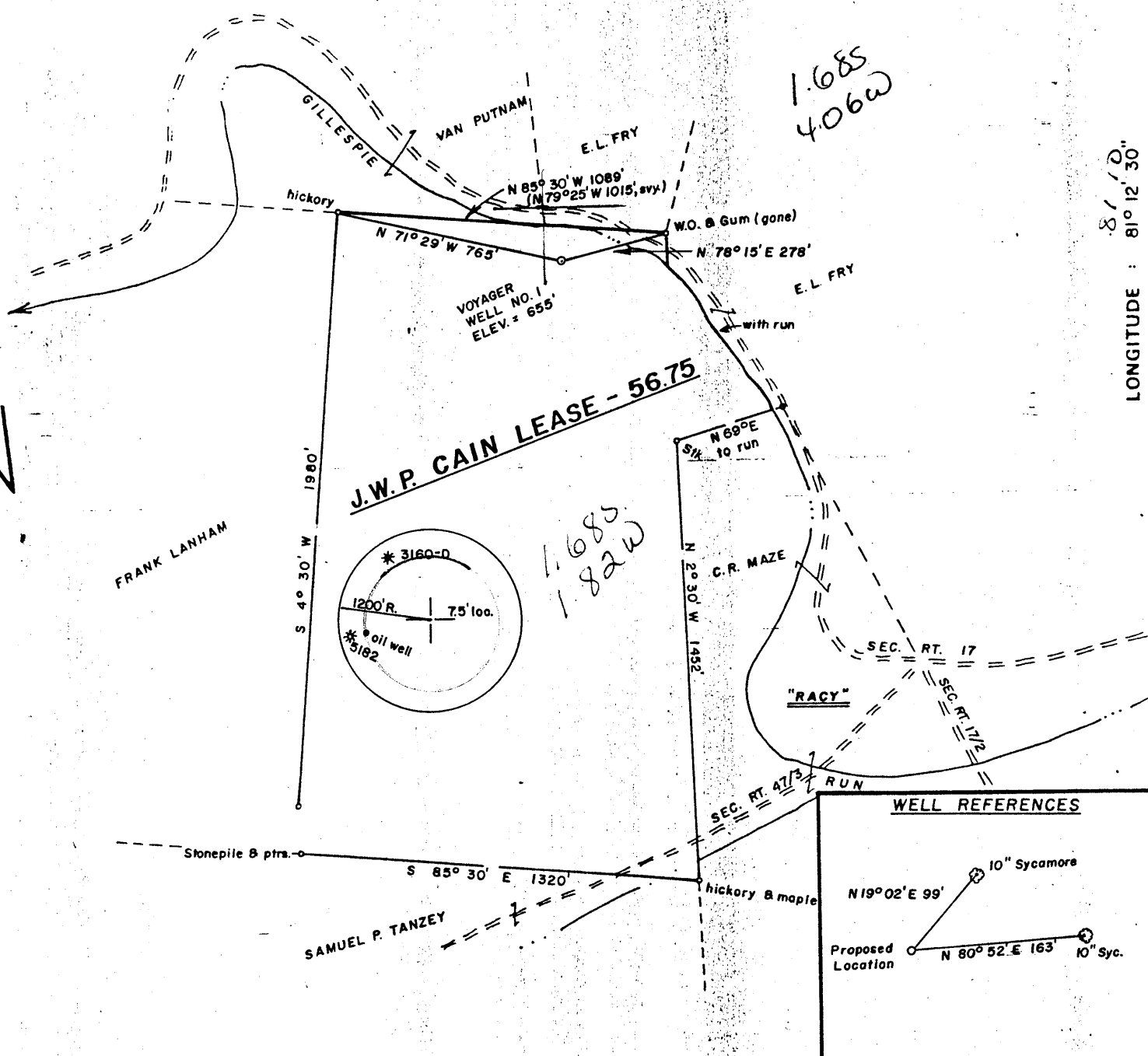
185 12/3/86

9650'

LATITUDE : 39° 10' 00"

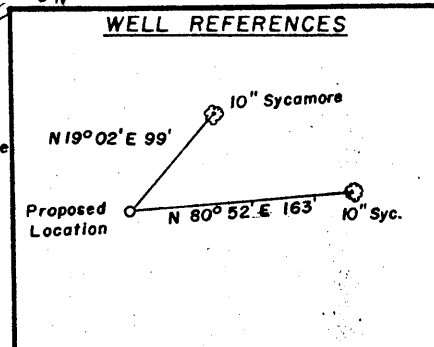
LONGITUDE : 81° 12' 30"

NORTH



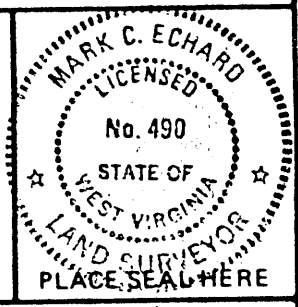
1.685  
4.06w

1.685  
1.82w



FILE NO. 12-13  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200'  
 PROVEN SOURCE OF ELEVATION Junction of Roads E. of Location, ELEV. = 685'

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.  
*Mark C. Echard*  
 (SIGNED) MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490



(+) 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 OCTOBER 28, 1986  
 OPERATOR'S WELL NO. ONE  
 API WELL NO. \_\_\_\_\_  
47 - 085 - 7568  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 655' WATER SHED GILLESPIE RUN  
 DISTRICT GRANT 2 COUNTY RITCHIE  
 QUADRANGLE CAIRO 75 275 057 WC4 Harrisville  
 SURFACE OWNER ANDREW C. FARMER, et ux ACREAGE 56.75  
 OIL & GAS ROYALTY OWNER J.W.P. CAIN LEASE ACREAGE 56.75  
 LEASE NO. \_\_\_\_\_  
 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 6 to Gillespie Run (116)  
 TARGET FORMATION BEREA ESTIMATED DEPTH 2200  
 WELL OPERATOR VOYAGER OIL & GAS CORP. DESIGNATED AGENT DAVID A. HANLON  
 ADDRESS P.O. BOX 183 ADDRESS 108 E. MAIN STREET  
HARRISVILLE WVA 26362

DEC 8 1986

WR-35



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State of West Virginia

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

DEPARTMENT OF ENERGY Oil and Gas Division

Date June 15, 1987 Operator's Well No. #1 Farm J. W. P. Cain API No. 47 - 085 - 7568

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas X / Liquid Injection / Waste Disposal / (If "Gas," Production X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 655' Watershed Gillespie Run District: Grant County Ritchie Quadrangle

COMPANY VOYAGER OIL & GAS CORPORATION

ADDRESS P.O.Box 183, Reno, OH 45773

DESIGNATED AGENT David G. Hanlon

ADDRESS 108 E.Main St., Harrisville, WV 26362

SURFACE OWNER Andrew C. Farmer

ADDRESS Route 1, Petroleum, WV 26161

MINERAL RIGHTS OWNER Ernest Hill

ADDRESS Route 1, Petroleum, WV 26161

OIL AND GAS INSPECTOR FOR THIS WORK Samuel Hersman

ADDRESS P. O. Box 66 Smithville, WV 26178

PERMIT ISSUED 12/3/86

DRILLING COMMENCED 12/9/86

DRILLING COMPLETED 12/11/86

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

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Berea Depth 2034 feet

Depth of completed well 2119 feet Rotary X / Cable Tools

Water strata depth: Fresh 20 feet; Salt 895 feet

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

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 1555 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 40 Mcf/d Final open flow 10 Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 700 psig (surface measurement) after 24 hours shut in (If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests hours

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

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

Perf: 1634' - ;644' w/40, .39" holes  
 Frac: 40# Cross-Link Polymer w/16,800 gal water, 367 sx sand  
 Break: 1430 psig  
 Avg Treat: 1410 psig @ 8 BPM  
 ISIP: 1550 psig

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 DEPARTMENT OF ENERGY

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Surface to 100'		not logged			
Siltstone, Shale, Tr SS			100	662	7" surface csg. @ 322'
Cow Run Sandstone			662	700	No shows
Siltstone, Shale, Tr SS			700	895	
First Salt Sand			895	980	No shows
Siltstone, Shale, Coal			980	1073	
Second Salt Sand			1073	1139	No shows
Shale, Siltstone, Coal			1139	1242	
Third Salt Sand			1242	1338	
Siltstone, Shale, Coal			1338	1375	
Maxton Sandstone			1375	1484	
Greenbrier Limestone			1484	1521	Good show Oil & Gas @ 1430'
Greenbrier Sandstone			1521	1552	No shows
Big Injun Sandstone			1555	1654	Show gas & oil 1630' - 1650'
Shale, Siltstone			1654	2027	
Sunbury Shale			2027	2034	Organic
Berea Sandstone			2034	2042	Slight show of gas
Siltstone, Shale			2042	T. D.	

Coal:  
 1035' - 1040'  
 1068' - 1070'  
 1150' - 1154'  
 1170' - 1172'  
 1208' - 1210'  
 1374' - 1377'

Driller's T. D. 2132'  
 Logger's T. D. 2131'

(Attach separate sheets as necessary)

VOYAGER OIL & GAS CORPORATION

Well Operator Richard Hudson

By: [Signature]  
 Date: 6/15/87

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

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1) Date: November 12, 19 86  
2) Operator's Well No. J.W.P. CAIN #1  
3) API Well No. 47 - 085 - 7568  
State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_

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

BLANKET BOND  
#B-004374-087-86

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

- 4) WELL TYPE: A Oil  / Gas   
B (If "Gas", Production  / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow )
- 5) LOCATION: Elevation: 655' Watershed: Gillespie Run  
District: Grant 2711 County: Ritchie 085 Quadrangle: Cairo 7.5' 275
- 6) WELL OPERATOR VOYAGER OIL & GAS CODE: 31590 7) DESIGNATED AGENT DAVID G. HANLON  
Address P. O. Box 183 Address 108 East Main Street  
Reno, Ohio 45773 Harrisville, WV 26362
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Samuel Hersman  
Address P. O. Box 66  
Smithville, WV 26178
- 9) DRILLING CONTRACTOR: Name FOUTS OPERATIONS, INC.  
Address Route 2, Box 271  
Glouster, Ohio 45732
- 10) PROPOSED WELL WORK: Drill  / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate   
Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Berea 395
- 12) Estimated depth of completed well, 2200' feet
- 13) Approximate strata depths: Fresh, 35 feet; salt, 1100 feet.
- 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes \_\_\_\_\_ / No

15) 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									Kinds
Fresh water	7"			X		320'	300'	To surface	by rule 15,05
Coal									Sizes
Intermediate									
Production	4.5"		9.5#	X		2200'	2200'	As per rule	Depths set 15.01 or 220 SKS.
Tubing									Perforations:
Liners									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-085-7568 Date December 3 19 86

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
Permit expires December 3, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>1206</u> <u>1207</u> <u>156</u>	WPCP: <input checked="" type="checkbox"/>	S&F: <input checked="" type="checkbox"/>	Other: _____
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NOTE: Keep one copy of this permit posted at the drilling location.

John H. Johnston  
Director, Division of Oil and Gas  
DeWitt Morgan