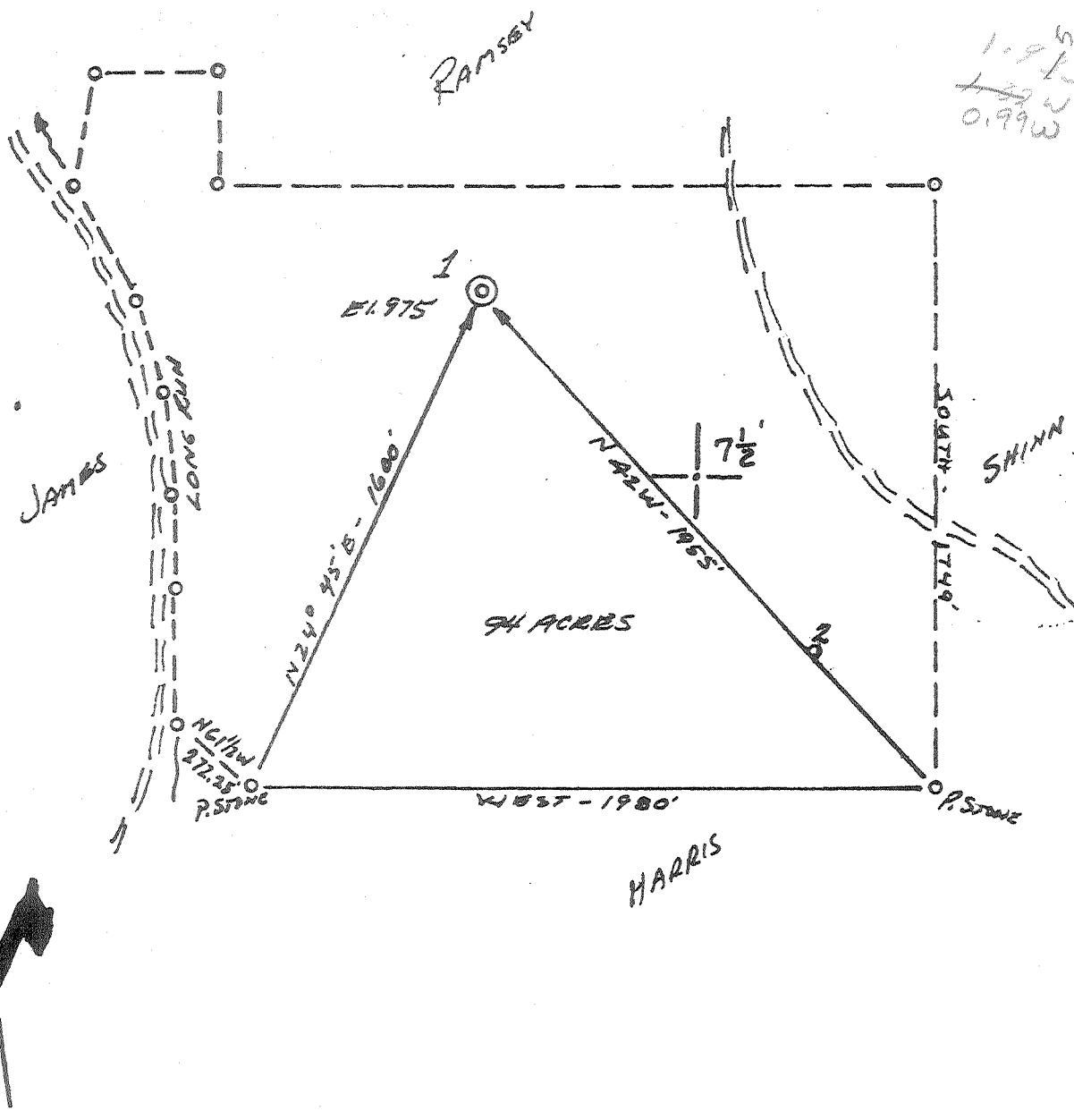
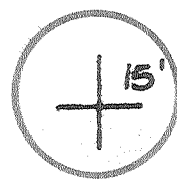


10/5/79

Latitude  $39^{\circ} 20' 00''$

10,290'S  
5260'W

Longitude  $80^{\circ} 50' 00''$



1.975  
1.975  
0.99W

ACCURACY: 1' / 1200'

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill
- Other

Formation GORDON

Est. Depth ~~2000~~ 2700'

- Oil
- Gas
- Other

Source of Elevation ARNOLD C&E. Rd. & Long Run Rd. (755)  
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 paragraphs 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

*Chet Waterman*

Company INDUSTRIAL GAS ASSOCIATES  
 Address GREENWICH CONN.  
 Surface Owner GLADYS HURST  
 Mineral Owner GLADYS HURST, ET AL.

---

Well No. 1 Acres 94  
 Elevation 775 SC  
 Quadrangle WEST UNION Series 15' / 7.5'  
 County RODRIDGE District CENTRAL  
 Date 10/1/79 Scale 1" = 500'

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

WELL LOCATION MAP  
47 - 017 - 2497  
 STATE COUNTY PERMIT

+ Denotes location of well on United States Topographic Maps.  
 Engineer CHET WATERMAN OCT 22 1979  
 Engineer's Registration No. 3788 File No. 79-679

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

Date October 30, 1979

Operator's Well No. Hurst #1

API Well No. 47-017-2497  
State County Form

FORM IV-35  
(Obverse)

WELL OPERATOR'S REPORT 7  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

[08-78]

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal  /  
(If "Gas", Production  / Underground storage  / Deep  / Shallow  /  
LOCATION: Elevation: 975 Watershed: Long Run  
District: Central County: Doddridge Quadrangle: West Union 7 1/2

WELL OPERATOR Industrial Gas Associates DESIGNATED AGENT Dallas Frederick  
Address Box 1610 Address Box 13  
Greenwich, CT 06830 Nobe, WV 26158

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate  /  
Plug off old formation  / Perforate new formation  / NOV - 5 1979  
Other physical change in well (specify) \_\_\_\_\_

**RECEIVED**  
NOV - 5 1979

PERMIT ISSUED ON October 4, 1979

OIL & GAS INSPECTOR FOR THIS WORK:

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_, 19\_\_\_\_)

Name Paul Garrett  
Address 320 Beech Street  
Clarksburg, WV

GEOLOGICAL TARGET FORMATION: Injun & Weir Depth 1914-2016 feet  
Depth of completed well, 2367 feet Rotary  / Cable Tools   
Water strata depth: Fresh, 80 feet; salt, N/A feet.  
Coal seam depths: N/A Is coal being mined in the area? No  
Work was commenced October 22, 1979, and completed October 26, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-IN OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	8 5/8	CW	22	X		243	243	80 sks Class A Neat
Coal								Sizes
Intermediate								
Production	4 1/2	CW	10.5	X			2357	125 sks Depth set 2357
Tubing	1"	SML		X			2225	
Liners								Perforations: Top Bottom

OPEN FLOW DATA

Producing formation Keener pay zone depth 1910-1922  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ bbl/d  
Final open flow, 300 Mcf/d Final open flow, 2 bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours  
Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in  
[If applicable due to multiple completion--]  
Second producing formation Weir pay zone depth 2172-2295  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ bbl/d  
Final open flow, 450 Mcf/d Final open flow, 2 bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours  
Static rock pressure, 1000 psig (surface measurement) after 24 hours shut in NOV 26 1979





Petroleum Services, Inc.  
Box 4081  
Parkersburg, WV 26101

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED

OCT 4 1979

OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS DIVISION  
DEPT. OF MINES

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

DATE October 3, 1979

Surface Owner Gladys Hurst  
Address Greenwood, WV  
Mineral Owner Gladys Hurst, Etals  
Address Greenwood, WV  
Coal Owner N/A  
Address N/A  
Coal Operator N/A  
Address N/A

Company Industrial Gas Associates  
Address Greenwich, CT 06830  
Farm Hurst Acres 94  
Location (waters) Long Run  
Well No. 1 Elevation 975  
District Central County Doddridge  
Quadrangle West Union 7 1/2

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 6-5-80.

INSPECTOR  
TO BE NOTIFIED Paul Garrett  
ADDRESS 320 Beach St., Clarksburg, WV  
PHONE 622-3871

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 17 1979 by Gladys Hurst made to Petroleum Services and recorded on the 20 day of July 1979 in Doddridge County, Book 109 Page 368

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

Address  
of  
Well Operator

Very truly yours,   
(Sign Name) Industrial Gas Associates  
Well Operator  
P.O. Box 1610  
Street  
Greenwich  
City or Town  
Connecticut 06830  
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.

017-2497

PERMIT NUMBER

BLANKET BOND

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

PROPOSED WORK ORDER TO  X  DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME  Gene Stalnaker  NAME  Dallas Frederick   
 ADDRESS  Letter Gap, WV  ADDRESS  Nobe, WV   
 TELEPHONE  462-7092  TELEPHONE  354-7484   
 ESTIMATED DEPTH OF COMPLETED WELL:  2700  ROTARY  X  CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION:  Gordon   
 TYPE OF WELL: OIL  X  GAS \_\_\_\_\_ COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	240	240	Circ
7			
5 1/2			
4 1/2		2700	125 sks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS  80  FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS  None   
 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 OG - 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 ten 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 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title