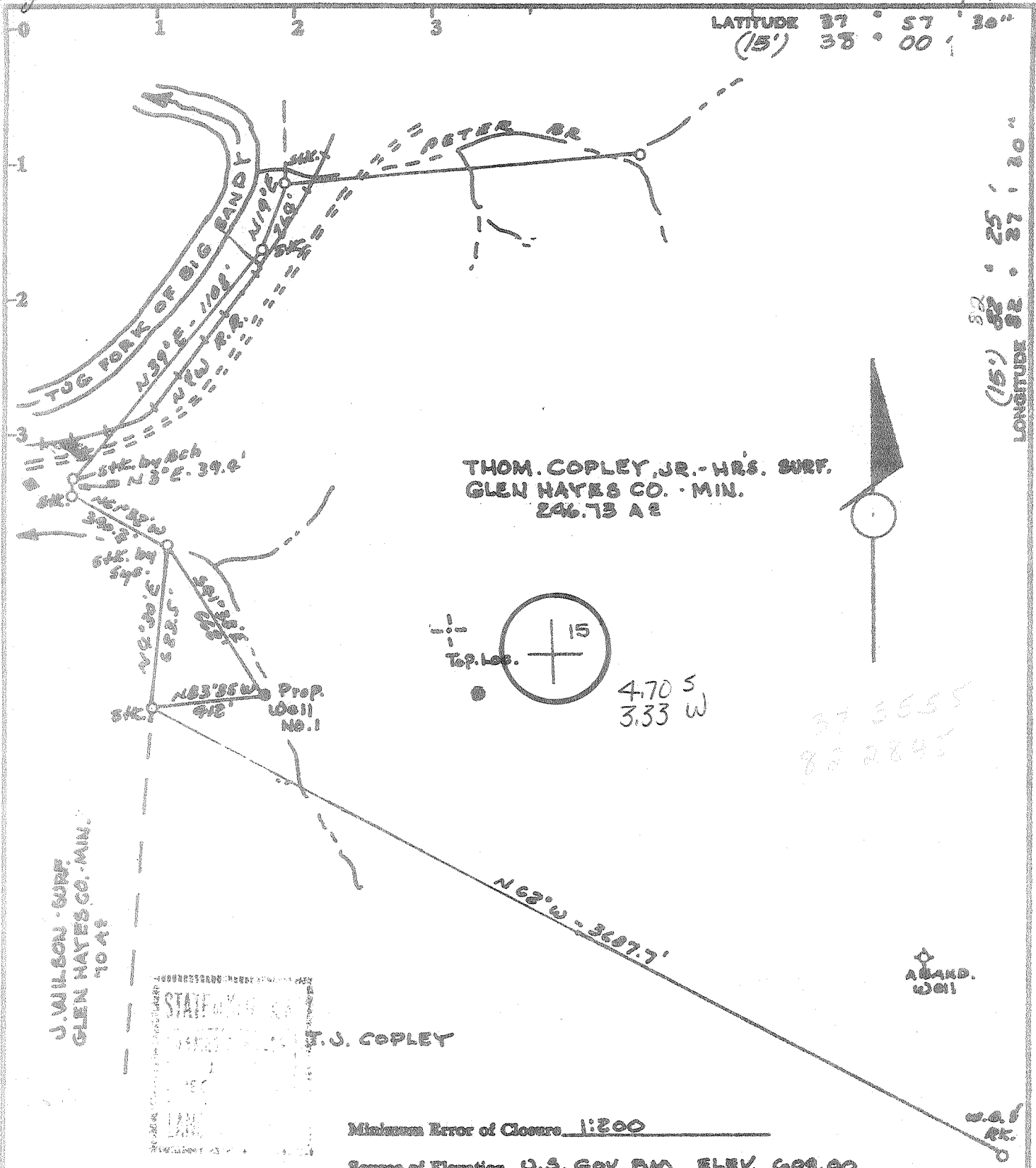
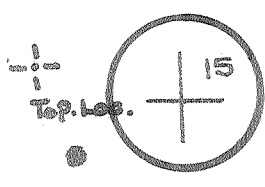


1/2/80 R



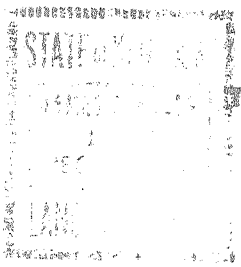
J. WILSON - SURF.
GLEN HAYES CO. - MIN.
10.49

THOM. COPLEY, JR. - HRS. SURF.
GLEN HAYES CO. - MIN.
246.73 AC



4.70 S
3.33 W

87 3555
82 2845



T. J. COPLEY

Minimum Error of Closure 1:200
Source of Elevation U.S. Gev. BM. ELEV. 609.00

LOG. BY ROAD NEAR MOUTH OF HARMONS BR.

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.

- Fracture
- New Location
- Drill Deeper
- Abandonment

Signed: *James R. Hager*
Squares N S E W

Company ELANS GAS CO.
 Address P.O. Box 1386 CHARLESTON, W.VA.
 Farm T. COPLEY JR. HRS.
 Tract _____ Acres 246.73 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 621.00
 Quadrangle W 80 7 1/2 NAUGATUCK 15' NW
 County WAYNE District LINCOLN
 Engineer J. R. HAGER
 Engineer's Registration No. KY.L.S. 1532
 File No. _____ Drawing No. _____
 Date DEC. 26, 1979 Scale 1" = 500'

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

WELL LOCATION MAP
FILE NO. 47-099-1701

+ Denotes location of well on United States Topographic Maps, scale 1 to 250,000, latitude and longitude lines being represented by border lines as shown.

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

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Date: January 10, 1981
Operator's Well No. Glenhayes #2
API Well No. 47-099-1701
State County Wayne

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL & GAS DIVISION
DEPT. OF MINES

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

WELL TYPE: Oil Gas Liquid Injection Waste Disposal
(If "Gas", Production Underground storage Deep Shallow
LOCATION: Elevation: 621.8 Watershed: Tug Fork of Big Sandy
District: Lincoln County: Wayne Quadrangle: Webb

WELL OPERATOR Elahs Gas Co. Inc. DESIGNATED AGENT Dyer Well Service Inc.
Address Box 1386 Address 629 First Huntington Bld
Charleston, W.V. 25325 Huntington, W.V. 25701

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 December 28 1979, OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Kenneth Butcher
Address RFD 1

Barboursville, W.V.
GEOLOGICAL TARGET FORMATION: Drown Shale Depth 3,000 feet
Depth of completed well, 2891 feet Rotary Cable Tools
Water strata depth: Fresh, 40 feet; salt, 500 feet.
Coal seam depths: none Is coal being mined in the area? no
Work was commenced May 24, 1980, and completed July 12, 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		
Conductor	103/4				x	28	28	None
Fresh water	8 5/8				x	305	305	Cemented and circulated to surface
Coal								
Intermediate	7				x	1,116	1,116	
Production								Design set
Tubing	2 7/8				x	2,800	2,800	Hung on packer after hole was shot
Liners								Top Bottom
								Hole shot from 1895-2890

OPEN FLOW DATA

Producing formation Brown Shale Pay zone depth 1895-2890 feet
Gas: Initial open flow, 60 Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 90 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 48 hours
Static rock pressure, 125 psig (surface measurement) after 6 hours shut in
[If applicable line 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 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

Continued on reverse side

JUN 4 1981

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

Hole 1900-2890 was shot with 5,800 lbs. Detonite

Well 100

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
surface			0	28	
sand		hard	28	45	40 ft hole full water
slate		soft	45	50	
sand	white	hard	50	140	
slate	shell		140	200	
sand	white	hard	200	215	
slate	black	soft	215	442	gas at 360
sand	white	hard	442	469	gas at 465
slate	black	soft	469	490	
salt & sand	white	med	490	766	salt water at 500. Gas at 654.
slate	grey	soft	766	776	flowed between flows at 2.5 M.M.
sand	white	med	776	800	
slate	black	soft	800	828	
Red Rock	red	soft	828	895	
slate	white	soft	895	925	
Red Rock	red	soft	925	970	
slate shells	white	hard	970	1045	
sand	white	hard	1045	1064	
Lime shells	grey	hard	1064	1080	
Little Lime	grey	medium	1080	1100	
Pencil cave	black	soft	1100	1104	
Big Lime	white	hard	1104	1270	gas at 1218
Injun Sand	red	hard	1270	1340	gas at 1333 3 tenths 1"

E. L. ...
Operator
By *...*
Inc. *...*

NOTE: Regulation 0.004 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."

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Slate	grey	soft	1340	1430		
slate	shells	white med	1430	1783		
sand	dark	hard	1783	1843		
shell	white	hard	1843	1850		
sandy lime	grey	med	1850	1895		
shale	Brown	soft	1895	1985		
slate	white	soft	1985	2155		
shells	Brown	soft	2155	2300		
slate	white	soft	2300	2450		
shells	brown	soft	2450	2460		
slate	grey	soft	2460	2550		
shell	brown	soft	2550	2610		
slate	grey	soft	2610	2845		
shells	brown	soft	2845	2891		
<u>Coniferous Lime</u>		Black Hard	2891			

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OIL & GAS DIVISION
DEPT. OF MINES

Date _____ 19 ____

APPROVED _____ Owner

By _____
(Title)

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. Glenhayes #1

API Well No. 47 - 099 - 1701
State County Perm

WELL TYPE: Oil / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow)

LOCATION: Elevation: 621.8 Watershed: Tug Fork of Big Sandy River
District: Lincoln County: Wayne Quadrangle: Webb

WELL OPERATOR Elahs Gas Co.
Address 1386 Box
Charleston, W.V.

DESIGNATED AGENT Jack C. Dyer Jr.
Address 733 Elm St.
Barboursville, W.V.

OIL & GAS ROYALTY OWNER Glenhayes Company
Address Fort Gay, W.V.

COAL OPERATOR None
Address _____

ACREAGE 486
SURFACE OWNER Tom Copley Jr. Heirs
Address Mrs. Luther Nee
Williamson, W.V.

COAL OWNER(S) WITH DECLARATION ON RECORD:

Name Glenhayes Company
Address Fort Gay

FIELD SALE (IF MADE) TO:
Name _____
Address _____

Name _____

Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Kenneth Butcher
Address RFD #1
Barboursville, W.V.

COAL LESSEE WITH DECLARATION ON RECORD:

Name _____

Address _____

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DEC 28 1979

OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated April 27, 1979, to the undersigned well operator from Columbia Gas Transmission Corp.

[If said deed, lease, or other contract has been recorded:]

Recorded on _____, 19____, in the office of the Clerk of the County Commission of _____ County, West Virginia, in _____ Book _____ at page _____. A permit is requested as follows:

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

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

Elahs Gas Company
Well Operator
By Jack C. Dyer Jr.
Its President

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Dyer Well Service
Address 733 Elm Street
Barboursville, W.V.

GEOLOGICAL TARGET FORMATION, Brown Shale

Estimated depth of completed well, 3,000 feet Rotary, / Cable tools X

Approximate water strata depths: Fresh, feet; salt, 520 feet.

Approximate coal seam depths: 270 Is coal being mined in the area? Yes No X

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				X	x608 60'	60'		Kinds
Fresh water	8"				X	325'	325'	Cemented	to surface
Coal	7"			X		1120'	1120'	Cemented	about 50 sacks hydrostatic
Intermediate									
Production									Depths set
Tubing	2"			X		1300'	1300'	Packer Set	(Hook Wall)
Liners									Perforations:
									Top Bottom
									Formation will be shot

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-2a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be done at the well site, the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 9-2-80.

Robert L. [Signature]
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: , 19

By
Its