

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

WALTER HARMAN WELL NO 1

WELL COMPLETION REPORT

This report must be submitted within 30 days after completion of the well

Elevations:

RDB: 2,799.35
Ground: 2,782.35

WELL DESCRIPTION

Permit Number.....31.....
Name of Owner Texas Eastern
Transmission Corporation

WELL LOG

State the kind of formations penetrated, their depth, their thickness, and if water-bearing

CASING AND SCREEN RECORD

State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)

PUMPING TEST

Hours Pumped
Type of Pump Used.....
Pumping Rate
Gallons per Minute.....

WATER LEVEL

Distance from land surface to water:
Before Pumping.....Ft.
When Pumping.....Ft.

APPEARANCE OF WATER

Clear
Cloudy
Taste
Odor

Height of Casing Above Land
SurfaceFt.

PUMP INSTALLED

Type
Capacity
Gallons per Minute.....
Gallons per Hour.....
Pump Column Length.....Ft.

REMARKS

Reworked well
Removed tubing.....
Ran 4 1/2" casing and
cemented inside 7"
casing. Reperforated
and acidized.

Well Was Completed
Date November 23, 1964
Well Driller.....
J. D. Gaden Signature

Recd 2/26/65

Original Completion:
April 29, 1959

Helderberg Limestone

Reworked well:
November, 1964
Formation tops corrected to
new zero.

Top - 1st Onondaga Limestone 7,650 ft.
Top - 1st Huntersville Chert 7,670 ft.
Top - 2nd Onondaga Limestone 7,708 ft.
Top - 2nd Huntersville Chert 7,741 ft.
Top - Needmore Shale 7,846 ft.
Top - Oriskany Sandstone 7,891 ft.
Top - Helderberg Limestone 8,026 ft.
70 ft. Fault at 7,708 ft.

FEET
from.....to.....

8,166 TD

Original Casing:
April 29, 1959

7" 26# J-55 and
N-80 casing

Reworked Well:
November, 1964
4 1/2" 13.50# N-80
casing

7" x 4 1/2" Packer
Baker Seal Nipple
Baker Solid Baffle
Ported Float Collar

DIAM.
(inches)

7"
4 1/2"

FEET
from.....to.....

Set at
8,139 ft.
Surface to
7,603 ft.
7,605 ft.
7,603 to
7,605'
7,603 to
7,601'

Reworked Well : Removed tubing. Perforated 7" casing at 4,400-4,402 ft.
Cemented 7" casing from 4,402 ft. to surface with 1,356 sx of diacel cement
followed by 50 sx common cement. Installed new Xmas Tree. Acidized existing
perforations 7,891 - 7,896, 7,972 - 7,990 and 8,002 - 8,024 ft. with 9,000
gals 12% HCL acid. Cleaned well to pits. Ran and set Baker Model "FA" packer
at 7,603 ft. Ran 4 1/2" casing with packer seal nipple and ported baffle
float collar. Cemented 4 1/2" casing with 347 sx diacel cement followed by
50 sx common cement. Cleaned out 4 1/2" casing. Spotted 1,000 gals. 12%
HCL in 7" casing. Perforated 7,668 - 7,690, 7,740 - 7,766, 7,780 - 7,800,
7,891, 7,896, 7,972 - 7,990, and 8,002 - 8,024 ft. Injected acid after perf-
orating. Acidized perforations with 5,000 gals. 12% HCL. Blew well with
gas and cleaned to pit. Well flowed 817 MCFD gas at 135 psi.

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

WELL COMPLETION REPORT

WALTER HARMAN UNIT, WELL NO. 1

This report must be submitted within 30 days after completion of the well

Elevation:

Ground Level: 2,782 ft.
Kelly Bushing: 2,798 ft.

Permit Number.....31

Name of Owner Texas Eastern
Transmission Corporation

WELL LOG

State the kind of formations penetrated, their depth, their thickness, and if water-bearing

CASING AND SCREEN RECORD

State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)

PUMPING TEST

Hours Pumped

Type of Pump Used.....

Pumping Rate
Gallons per Minute.....

WATER LEVEL

Distance from land surface to water:

Before Pumping.....Ft.

When Pumping.....Ft.

APPEARANCE OF WATER

Clear

Cloudy

Taste

Odor

Height of Casing Above Land

SurfaceFt.

PUMP INSTALLED

Type

Capacity

Gallons per Minute.....

Gallons per Hour.....

Pump Column Length.....Ft.

REMARKS

Reworked Well.....

Did not deepen.....

Cemented 7" casing to surface. Ran 4 1/2"

liner inside 7" casing.

Treated Oriskany and Chert Perforations

Well Was Completed

Date November 23, 1964

Well Driller.....

J. D. Gaden Signature

Formations Penetrated During original drilling 1959:	FEET		DIAM. (inches)	FEET	
	from.....to.....			from.....to.....	
Top 1st Onondaga Limestone	7,642'		7	0-8,139'	
Top 1st Huntersville Chert	7,661'				
Top 2nd Onondaga Limestone	7,714'				
Top 2nd Huntersville Chert	7,732'				
Top Needmore Shale	7,836'				
Top Oriskany Sandstone	7,884'				
Top Helderberg Limestone	8,020'				
Total Depth	8,166				

Rework 1964:

Pulled 2 3/8" Tubing. Perforated 7" casing at 4401 ft. Circulated behind 7" casing, and cemented 7" casing from 4401 ft. to surface with 1356 cu ft. Diacel Cement and 60 cu ft. Common Cement. Installed new well head equipment. Ran and set Baker Model "FA" Packer in 7" casing at 7,603 ft. Ran 4 1/2" casing and set same in packer details:

Baker Seal Nipple 4 1/2" 7,603'
Baker Float Collar 4 1/2" 7,601'
8 Baker Casing Centralizers
13.5# N-80 LT&C 4 1/2 0-7,601'

Cemented 4 1/2" casing inside 7" casing through ported float collar at 7,601 ft. with 347 sx Diacel Cement and 50 sx Common Cement. Acidized perforations at 7668'-7,690'; 7740'-7766'; 7780-7800'; (all Chert) and 7,891-7,896'; 7,972'-7,990'; and 8,002'-8,024' (all Oriskany) with 15,000 gallons 12% HCL. Cleaned well to pits. Well flowing 817 MCFD gas at 135 psi.

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

Walter Harman Unit #1
Garrett County, Maryland

The Johns Hopkins University
BALTIMORE 18, MARYLAND

WELL COMPLETION REPORT

This report must be submitted within 30 days after completion of the well

Elevation 2800' K.B.

WELL DESCRIPTION

WELL LOG

State the kind of formations penetrated, their depth, their thickness, and if water-bearing

CASING AND SCREEN RECORD

State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)

	FEET		DIAM. (inches)	FEET	
	from.....to.....			from.....to.....	
Sand Stone	0-	46'	16"OD Casing to 38'		
Sand-Gravel	46-	59'	11 3/4" OD Casing		
Sandy Shale	59-	104'	to	1 042'	
Sand	104-	228	7" OD Casing to	8139'	
Sand-Shale	228-	413	2 3/8" OD Tubing		
Red Rock	413-	495	to	8012'	
Shale	495-	687			
Red Rock	687-	774			
Sand	774-	804			
Red Rock	804-	869	Salt Water @	3780'	
Lime	869-	899	Salt Water @	3912'	
Red Rock	899-	1070			
Shale	1070-	1140			
Sand	1140-	1150	7" OD Casing was set through		
Shale	1150-	2048	the Producing Zones and		
Lime	2048-	2070	perferated at the following depths		
Shale	2070-	3660	in the Chert		
Sand Benson	3660-	3690	7668 to 7690		
Shale	3690-	3780	7740 to 7760		
Sand	3780-	3805	7780 to 7800		
Shale	3805-	3912	This Chert Zone was Fractured		
Sand	3912-	3948	Before Perferating the Oriskany		
Shale	3948-	3964	Zone.		
Sand	3964-	4098	Oriskany Perferated at,		
Shale	4098-	4987	7891-7896		
Shale & Sand	4987-	6140	7972-7990		
Shale	6140-	6800	8002-8024		
Limey Shale	6800-	6845			
Tully Lime	6845-	6860	Oriskany Zone wasn't fractured.		
Shale	6860-	7566			
Lime	7566-	7587	Total Gas After Completion		
Shale	7587-	7639	2, 800, 000 cu. ft.		
Brown Break	7639-	7642			
Onondaga Lime	7642-	7661			
Chert	7661-	7697			
Shale	7697-	7711			
Brown Break	7711-	7714			
Onondaga	7714-	7732			
Chert	7732-	7836			
Shale	7836-	7884			
Oriskany Sand	7884-	8020			
Helderburg Lime	8020-	8166			

Permit Number 31

Name of Owner
William E. Snee &
Orville Eberly

PUMPING TEST

Hours Pumped
Type of Pump Used.....
Pumping Rate
Gallons per Minute.....

WATER LEVEL

Distance from land surface to water:
Before Pumping.....Ft.
When Pumping.....Ft.

APPEARANCE OF WATER

Clear
Cloudy
Taste
Odor

Height of Casing Above Land SurfaceFt.

PUMP INSTALLED

Type
Capacity
Gallons per Minute.....
Gallons per Hour.....
Pump Column Length.....Ft.

REMARKS

.....
.....
.....
.....
.....

Well Was Completed

Date 4-29-59

Well Driller
[Signature]
Signature

State of Maryland
 DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES
 The Johns Hopkins University
 Baltimore 18, Maryland

WALTER HARMAN #1 WELL

APPLICATION FOR PERMIT TO DRILL OIL OR GAS WELL
 (Applications must be submitted in triplicate)

OWNER <u>William E. Snee & Orville Eberly</u>	LOCATION OF WELL										
STREET or R.F.D. <u>510 Gallatin Bank Bldg.,</u>	COUNTY <u>Garrett</u>										
POST OFFICE <u>Uniontown, Pa.</u>	NEAREST POST OFFICE <u>Accident, Maryland</u>										
	Distance from Post Office <u>10,350'</u>										
	Direction from Post Office <u>S.22 E.</u>										
PERMIT TO DRILL WELL											
NOT TO BE FILLED IN BY APPLICANT											
PERMIT NO. <u>Thirty One (31)</u>	APPROXIMATE DEPTH OF WELL (feet) <u>11,000</u>										
The permit is herewith granted subject to the conditions stipulated.	METHOD OF DRILLING <u>Rotary</u>										
<i>J. R. [Signature]</i> Director	DEEPEST GEOLOGIC FORMATION WELL WILL BE DRILLED <u>Tuscarora</u>										
Date <u>December 16, 1958</u>	DISTANCE OF WELL LOCATION TO NEAREST BUILDING (feet) <u>600</u>										
Special conditions that may apply:	NUMBER OF SHIFTS PER DAY <u>3</u>										
	LICENSED DRILLER IN CREW OF EACH SHIFT										
	<table border="1"> <thead> <tr> <th>NAME</th> <th>ADDRESS</th> </tr> </thead> <tbody> <tr> <td>W. F. Earge</td> <td rowspan="2">} c/o Delta Drilling Company,</td> </tr> <tr> <td>P. W. Wolfe</td> </tr> <tr> <td>M. W. O'Dell</td> <td rowspan="2">} 1836 Oliver Building,</td> </tr> <tr> <td>B. V. Smith</td> </tr> <tr> <td>Robt. Wright, Jr.</td> <td>} Pittsburgh 22, Penna.</td> </tr> </tbody> </table>	NAME	ADDRESS	W. F. Earge	} c/o Delta Drilling Company,	P. W. Wolfe	M. W. O'Dell	} 1836 Oliver Building,	B. V. Smith	Robt. Wright, Jr.	} Pittsburgh 22, Penna.
NAME	ADDRESS										
W. F. Earge	} c/o Delta Drilling Company,										
P. W. Wolfe											
M. W. O'Dell	} 1836 Oliver Building,										
B. V. Smith											
Robt. Wright, Jr.	} Pittsburgh 22, Penna.										
	These names may be supplied later but before drilling begins licenses will be applied for at once.										

The names and post office addresses of the owners of the tracts of land included on the plat or map accompanying the application are to be given below.

See separate list of owners, attached hereto

NOTE

A BOND FOR \$2,500 PAYABLE TO THE STATE OF MARYLAND MUST ACCOMPANY THE APPLICATION THIS APPLICATION FORM MUST BE FILLED OUT WITH TYPEWRITER OR IN BLOCK LETTERS