

State of Maryland
 Department of Natural Resources
 Energy & Coastal Zone Administration
 Tawes State Office Building
 Annapolis, Maryland 21401

Permit Number 104
 Well Number 4
 Company Texas Eastern
Transmission Corp.
 County Garrett

COMPLETION REPORT

(oil or gas well)

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

WELL DESCRIPTION - KIND OF WELL: Gas Storage
 (Oil, Gas, Other)

NAME & WELL NO. <u>McCullough #4</u>	Size of Casting and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
ELEVATION: <u>2,161'</u> GR LEASE: _____	13 3/8"	408'	408'	
DRILLING COMMENCED: <u>5-15-76</u> DRILLING COMPLETED: <u>6-30-76</u>	9 5/8"	3,044'	3,044'	
PRODUCTION: <u>Gas Storage</u>	7"	7,117'	7,117'	
	2 3/8"		7,097'	
RESERVOIR PRESSURE _____ psig _____ hrs.				
WELL TREATMENT: (Shooting, Acidizing, Fracturing, Etc.)				
<u>Acidized with 30,000 gallons 15% HCL with citric acid and FE additives.</u>				

PERFORATIONS AT:

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date)

13 3/8" @ 408' with 150 sx Thixotropic and 160 sx common, 9 5/8" @ 3,044' with Halliburton Lite and 200 sx common, 7" @ 7,117'
First stage thru shoe with 240 sx 50-50 POZ & 50 sx latex, second stage thru DV tool @ 6,067' with 1,126 sx 25-75 POZ and 50 sx Latex

RESERVOIR PRESSURE AFTER TREATMENT: _____

RESULTS AFTER TREATMENT: 4,200 MCF/D

REMARKS:

GEOPHYSICAL LOGS (Type of Geophysical Logs Run on Well)
Compensated Formation Density and Temperature

MARYLAND GEOLOGICAL SURVEY
The Johns Hopkins University
BALTIMORE, MARYLAND 21218

GEOLOGICAL LOG

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Tully Limestone	6,142	6,170				
Onondaga Limestone	6,947	6,962				
Huntersville Chert	6,962	7,085				
Needmore Shale	7,085	7,122				
Oriskany Sandstone	7,122	7,242	7120-60			
Helderberg Limestone	7,242					
Total Depth	7,250					

This completion report is accurate to the best of my knowledge.

Date 8/19, 1976

APPROVED W. J. Vaughan

By Manager - Reserves + Prod.
(Title)

COMPANY Texaco Eastern

State of Maryland
MARYLAND GEOLOGICAL SURVEY
 The Johns Hopkins University
 Baltimore, Maryland 21218

APPLICATION FOR PERMIT TO DRILL OIL OR GAS WELL

(Applications must be submitted in triplicate)

McCullough #4

<p>OWNER <u>Texas Eastern Transmission Corp.</u></p> <p>STREET or R.F.D. <u>1515 Four Gateway Center</u></p> <p>POST OFFICE <u>Pittsburgh, Pennsylvania 15222</u></p> <p style="text-align: center;">PERMIT TO DRILL WELL</p> <p style="text-align: center;">NOT TO BE FILLED IN BY APPLICANT</p> <p>PERMIT NO. <u>104</u></p> <p>The permit is herewith granted subject to the conditions stipulated.</p> <p style="text-align: center;"><i>Samuel D. Weast</i> Director</p> <p>Date <u>5/13/74</u></p> <p>Special conditions that may apply:</p> <p>GAS STORAGE WELL ONLY. NAMES OF DRILLERS MUST BE FURNISHED PRIOR TO DRILLING OF WELL.</p> <p>SEE ADDITIONAL REQUIREMENTS ATTACHED.</p>	<p>LOCATION OF WELL _____</p> <p>COUNTY <u>Garrett</u></p> <p>NEAREST POST OFFICE <u>Accident, Maryland</u></p> <p>Distance from Post Office <u>9,917.38'</u></p> <p>Direction from Post Office <u>S 29°07'56" E to NE</u></p> <p>Corner of Post Office _____</p> <p>APPROXIMATE DEPTH OF WELL (feet) _____</p> <p>METHOD OF DRILLING <u>Rotary</u></p> <p>DEEPEST GEOLOGIC FORMATION WELL WILL BE DRILLED <u>into definite Helderberg</u></p> <p>DISTANCE OF WELL LOCATION TO NEAREST BUILDING (feet) <u>There are no buildings within 1400' of well site</u></p> <p>NUMBER OF SHIFTS PER DAY <u>Three</u></p> <p>LICENSED DRILLER IN CREW OF EACH SHIFT</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; border-bottom: 1px solid black;"><u>NAME</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>ADDRESS</u></th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">to be furnished</td> </tr> <tr> <td><i>Clifford Hames, License #152</i></td> <td></td> </tr> <tr> <td><i>Wm. Kelly, Jr. " #120</i></td> <td></td> </tr> <tr> <td><i>John J. Graham " #121</i></td> <td></td> </tr> <tr> <td><i>Melvin England " #123</i></td> <td></td> </tr> </tbody> </table> <p>These names may be supplied later but before drilling begins</p>	<u>NAME</u>	<u>ADDRESS</u>	to be furnished		<i>Clifford Hames, License #152</i>		<i>Wm. Kelly, Jr. " #120</i>		<i>John J. Graham " #121</i>		<i>Melvin England " #123</i>	
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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 Attached List

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