

3

GEOLOGICAL COMPLETION LETTER

GENERAL

DATE: 3/22/66

PROJ. NO. & AREA: WO 9108, ACCIDENT Field, GARRETT County, MARYLAND

OPERATOR & FARM: TETCO #1 Ella Collier - OWDD

LOCATION: 14,200' N 39°35' Latitude & 5350' W 79°17'30" Longitude. Maryland coordinates:
N 659,799.43' & E 149,093.96'. Sc: 2025' NW #1 Schlossnagle gas well.

CONTRACTOR: Delta Drilling Company

SPUD DATE: 6-1-60

DATE DRLG. COMP: 6-25-60

TOTAL DEPTH: 7351' Driller
7355' Logger

ELEVATIONS: 2411' KB
2399' Gr

<u>CASING:</u>	<u>SIZE</u>	<u>DEPTH</u>	<u>AMOUNT</u>
	13-3/8"	23'	Unknown
	10-3/4"	521'	"
	7"	6961'	Cmt w/200 sx common + 60 sx gel
	4-1/2"	7351'	Unknown

<u>SURVEYS:</u>	<u>TYPE</u>	<u>INTERVAL</u>	<u>DATE</u>	<u>COMPANY</u>
	Gamma Ray	0-6974'	10-20-54	Schlumberger
	Directional	200-6950'	10-20-54	"
	Laterolog	6965-7349'	6-15-60	"
	Microlaterolog	6974-7354'	6-15-60	"
	Temperature	5000-7337'	6-18-60	"
<u>COMPLETION:</u>	Perf. Depth Control	7000-7323'	6-20-60	"

Perforations: 7084-98' w/56 shots Final Gauge FARO 5000[±] MCFGPD
7046-76' w/120 shots SITP 1974

~~ABANDONMENT:~~ 7172-80' w/32 shots Completed: 6-25-60
7210-38' w/56 shots
7246-80' w/136 shots
7289-94' w/10 shots

GEOLOGICAL

STRATIGRAPHY:

<u>MARKER</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>SOURCE</u>
1st Benson Sandstone	3126'	- 721' *	Gamma Ray
2nd Benson Sandstone	3203'	- 798' *	"
Fully Limestone	6052'	2667' *	"

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COMPLETION:

Perforations:	7084-98' w/56 shots	Final Gauge FARO 5000 [±]	MCFGPD
	7046-76' w/120 shots	SITP 1974	
	7008-28' w/80 shots		

~~ABANDONMENT:~~

	7172-80' w/32 shots	Completed:	6-25-60
	7210-38' w/56 shots		
	7246-80' w/136 shots		
	7289-94' w/10 shots		

GEOLOGICAL

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<u>MARKER</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>SOURCE</u>
1st Benson Sandstone	3126'	- 721' *	Gamma Ray
2nd Benson Sandstone	3203'	- 798' *	"
Tully Limestone	6052'	-3647' *	"
Onondaga Limestone	6980'	-4569'	Laterolog
Huntersville Chert	7003'	-4592'	"
Needmore Shale	7132'	-4721'	"
Oriskany Sandstone	7171'	-4760'	"
Helderberg	7284'	-4873'	"
80' [±] Fault	3202'	- 797' *	Gamma Ray
175' [±] Fault	6460'	-4055' *	"
35' [±] Fault	7032'	-4621'	Laterolog

* Based on original KB 2405'.

PAY SECTIONS:

<u>OVERALL</u>	<u>N.E.P.</u>	<u>CHARACTER</u>
7003-7132' Huntersville Chert	N. A.	Fracture
7171-7284' Oriskany Sandstone	"	"

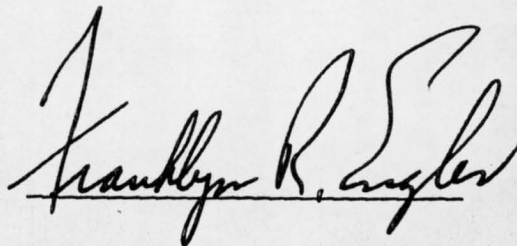
POSSIBLE PAYS: None

<u>OVERALL</u>	<u>N.E.P.</u>	<u>REMARKS</u>
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REMARKS: This workover was performed by Gas Division. Flow rate prior to workover 2690 MCFGPD. Flow rate after workover 5000[±] MCFGPD.

Pf. 7008-7294' stimulated w/10,000 gal MCA and 31,500 gal water + 12,500# sand and 200 perf balls. Formation breakdown 4600#.

Well was deepened from 6977' to 7351'.



cc: J. B. Williams
W. H. Justice
H. R. Moseley
M. J. Popovich
C. J. Maki

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

Ella Collier No. 1 Rework

WELL COMPLETION REPORT

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

July 11, 1960

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)

Reworked with Rotary Tools.

Killed well with mud and found bottom at 7253' - Drilled sand and lime from 7253 to 7351

Ran 4 1/2" OD - 13.5# N-80 casing to 7343' and cemented with 95 sacks of Uniflo cement.

Perforated chert and sand. Acid fractured with 31,000 gal. of 5% acid and 12,500# of sand. - Calculated open flow 10,000 MM cu. ft. per day. - Shut in pressure 1986 psi.

FEET

from.....to.....

DIAM.

(inches)

FEET

from.....to.....

Permit Number..... 34.....

Name of Owner
William E. Snee and 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 Surface Ft.

PUMP INSTALLED

Type

Capacity
Gallons per Minute.....

Gallons per Hour.....

Pump Column Length..... Ft.

REMARKS

see Permit No. G-3

Well Was Completed

Date 6-27-60

William E. Snee

Solp permit #3 34

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

JUNE 3, 1960

ELLA COLLIER NO. 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. _____	COUNTY <u>Garrett</u>															
POST OFFICE <u>510 Gallatin Bank Bldg.</u> <u>Uniontown, Pa.</u>	NEAREST POST OFFICE <u>Accident, Md.</u> Distance from Post Office <u>3,600'</u> Direction from Post Office <u>S 45° E</u>															
PERMIT TO DRILL WELL NOT TO BE FILLED IN BY APPLICANT PERMIT NO. <u>34 (Thirty-Four)</u>	APPROXIMATE DEPTH OF WELL (feet) <u>from</u> <u>7255' to 7500'</u> METHOD OF DRILLING <u>Rotary</u>															
The permit is herewith granted subject to the conditions stipulated. <i>Joseph T. Singenally, Jr.</i> Director	DEEPEST GEOLOGIC FORMATION WELL WILL BE DRILLED <u>Helderberg</u>															
Date <u>June 7, 1960</u>	DISTANCE OF WELL LOCATION TO NEAREST BUILDING (feet) <u>310'</u>															
Special conditions that may apply:	NUMBER OF SHIFTS PER DAY <u>3</u>															
	<table border="1"> <thead> <tr> <th data-bbox="852 1207 1266 1270">LICENSED DRILLER IN CREW OF EACH SHIFT</th> <th data-bbox="1282 1207 1469 1270">NAME</th> <th data-bbox="1282 1239 1469 1281">ADDRESS</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="2"><u>Auburn Bryant, tool pusher, and Ralph Wright, Jr.,</u></td> </tr> <tr> <td></td> <td colspan="2"><u>Stanley S. Nebraska and P. G. Hancock, drillers,</u></td> </tr> <tr> <td></td> <td colspan="2"><u>are applying for licenses as drillers.</u></td> </tr> <tr> <td></td> <td colspan="2"><u>These names may be supplied later but before drilling begins</u></td> </tr> </tbody> </table>	LICENSED DRILLER IN CREW OF EACH SHIFT	NAME	ADDRESS		<u>Auburn Bryant, tool pusher, and Ralph Wright, Jr.,</u>			<u>Stanley S. Nebraska and P. G. Hancock, drillers,</u>			<u>are applying for licenses as drillers.</u>			<u>These names may be supplied later but before drilling begins</u>	
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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.

This is a request for a permit to deepen a gas well which we drilled in 1954 under Permit No. 3. We expect to deepen from present T. D. of 7255' (in Oriskany) about 250' to the Helderberg, for a total depth of 7500' more or less. The land is still owned by original lessor, Ella B. Collier, and Bond was furnished with original application in 1954.

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

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

Ella Collier Pool #1 Well
Garrett County, Maryland

WELL COMPLETION REPORT

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

WELL DESCRIPTION

WELL LOG		CASING AND SCREEN RECORD		
State the kind of formations penetrated, their depth, their thickness, and if water-bearing		State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)		
Elevation 2045.5' D.F.	FEET	DIAM. (inches)	FEET	
	from.....to.....			
Red Rock	0 75	13 3/8" OD Casing	to 23'	
Red Rock & Sand	75 305	10 3/4" OD Casing	to 521'	
light red sand	305 360	7 " OD Casing	to 6961'	
sand, white	360 431			
slate & shells, gray	431 515	Fresh water at 80',		
sand, red	515 590	2 bbl. per hour.		
slate & shells, red	590 780			
slate & shells, gray	780 845	Fresh water at 100',		
slate & shells, red	845 1015	hole full.		
slate & shells, gray	1015 1190			
slate & shells, red	1190 1260			
slate & shells, gray	1260 1275			
sand, gray	1275 1292			
slate, red	1292 1305			
slate, white	1305 1340			
lime, white	1340 1375			
slate shells, white	1375 1674			
lime, white	1674 1780			
slate shells, white	1780 2530			
sand, white	2530 2552			
slate & shells, white	2552 2862			
sand, gray	2862 2890			
slate shells, gray	2890 3079			
lime, white	3079 3095			
slate shells, gray	3095 3122			
sand	3122 3190	Salt water at 3125' & 3130',		
slate & shells	3190 3225	10 bbl. per day.		
sand, gray	3225 3270			
slate & shells, gray	3270 3330			
lime, gray	3330 3367			
skate shells	3367 3500			
shale, light brown	3500 3535			
slate & shells, gray	3535 3744			
gritty lime	3744 3770			
slate & shells, gray	3770 4336	Gas pocket at 4235'		
lime, gray	4336 4416			
slate & shells	4416 4845			
slate, brown	4845 4915			
slate & shells, gray	4915 5460			
brown shale	5460 5850			
slate & shells, gray	5850 5910			
slate & shells, dark brown	5910 5952			
lime, dark	5952 5962			
limey shale, black	5962 6130			

Permit Number... 3
Name of Owner
Snee & Eberly

PUMPING TEST
Hours Pumped.....
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
Type.....
Capacity
Gallons per Minute.....
Gallons per Hour.....
Pump Column Length.....Ft.

REMARKS
.....
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.....
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.....
.....
Well Was Completed
Date Jan. 20, 1955
Well Owner, Snee & Eberly
[Signature]
Signature

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

Ella Collier Pool #1 Well
Garrett County, Maryland

WELL COMPLETION REPORT Page 2

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

WELL DESCRIPTION

WELL LOG		CASING AND SCREEN RECORD		
State the kind of formations penetrated, their depth, their thickness, and if water-bearing		State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)		
(continued)	FEET	DIAM. (inches)	FEET	
	from.....to.....		from.....to.....	
Lime shells, gray	6130 6226			
sand, gray	6226 6250			
slate & shells, gray	6250 6292			
brown shale	6292 6375			
slate & shells, light brown	6375 6495			
shale, dark brown	6495 6560			
slate & shells, gray	6560 6678			
shale, dark gray	6678 6841			
crinkley lime, dark	6841 6858			
lime, light gray	6858 6876			
shale & limey shells, black	6876 6936			
black lime & pyrite	6936 6959			
Brown Break	6959 6961			
Onondago lime	6961 7000			
Chert, dark gray	7000 7010			
chert, gray	7010 7015			Gas at 7015' - 4 MCF per day
chert, light gray	7015 7026			
chert, gray	7026 7050			
chert, light gray	7050 7070			
chert, gray	7070 7080			Gas at 7073-7075 - 20 MCF
chert, dark gray	7080 7104			per day total.
dark chert & black slate	7104 7125			
shale, dark gray	7125 7172			Gas at 7172-7173' - 800 MCF
Oriskany Sand, light	7172 7182			per day total.
Oriskany Sand, darker	7182 7237			
Oriskany Sand, light	7237 7255			T.D.
				Gas at 7249-7255' - 3,669 MCF
				per day total.
				Shut in pressure 3025 psi
				3025 psi

Permit Number 3
Name of Owner
Snee & Eberly

PUMPING TEST
Hours Pumped.....
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
Type.....
Capacity
Gallons per Minute.....
Gallons per Hour.....
Pump Column Length.....Ft.

REMARKS
.....
.....
.....
.....
.....

Well Was Completed
Date 1-20-1955
Well Owner Snee & Eberly
W. E. Eberly
Signature

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

Collier # 1

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

OWNER <u>SNEE & EBERLY</u>	LOCATION OF WELL								
STREET or R.F.D. <u>208 Union Trust Bldg.</u>	COUNTY <u>GARRETT</u>								
POST OFFICE <u>Uniontown, Pennsylvania</u>	NEAREST POSTOFFICE <u>ACCIDENT</u>								
<p>PERMIT TO DRILL WELL</p> <p>NOT TO BE FILLED IN BY APPLICANT</p> <p>PERMIT NO. <u>Three (3)</u></p> <p>The permit is herewith granted subject to the conditions stipulated.</p> <p><i>John T. Kingman</i> Director</p> <p>Date <u>June 30, 1954</u></p> <p>Special conditions that may apply:</p>	<p>Distance from Post Office <u>3,600'</u></p> <p>Direction from Post Office <u>S 45° E</u></p>								
	APPROXIMATE DEPTH OF WELL (feet) <u>7200'</u>								
	METHOD OF DRILLING <u>Cable tool</u>								
	DEEPEST GEOLOGIC FORMATION WELL WILL BE DRILLED <u>Helderberg</u>								
	DISTANCE OF WELL LOCATION TO NEAREST BUILDING (feet) <u>310'</u>								
	NUMBER OF SHIFTS PER DAY <u>2</u>								
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<p>These names may be supplied later but before drilling begins</p>									

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SCHEDULE ATTACHED

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