

CORE ANALYSIS REPORT

FOR

PENNZOIL COMPANY

H. CASTO, NO. 108-151  
GRANNY'S CREEK FIELD  
CLAY COUNTY, WEST VIRGINIA

#1184

Mike M'Com

COAL COMPANY CLAY #1184  
 B. CASTO NO. 108 WELL  
 HENRY'S CREEK FIELD  
 MORGAN COUNTY, WEST VIRGINIA

DATE: 10-18-76  
 FORMATION: AS NOTED  
 DRILLING FLUID: FRESH MUD - SEE FOOT NOTE  
 LOCATION: HENRY DISTRICT OF ER 15, N 80 DEG 45 MIN

FILE NO: 3602-253  
 ENGINEER: ANTWINE  
 ELEVATION: 984.96 KB

\* INDICATES PLUG PERM

S INDICATES PRESERVED SAMPLE

DEPTH	PERM. TO AIR MD.		VERT.	POROSITY		FLUID SATS.		GR. DEN.	DESCRIPTION
	MAXIMUM	90 DEG		GEX.	FLD.	OIL	WTR.		

FULL DIAMETER ANALYSIS

BIG INJUN FORMATION

1	1865.5-66.5	0.3	0.3	<0.1	9.4	22.2	61.5	2.65	SANDSTONE
2	1866.5-67.5	0.6	0.6	<0.1	6.6	21.5	59.4	2.67	SANDSTONE
3	1867.5-68.5	0.8	0.7	<0.1	11.9	15.0	67.0	2.66	SANDSTONE
4	1868.5-69.5	8.9	8.3	7.1	8.6	17.3	48.7	2.67	SANDSTONE
5	1869.5-70.5	1.7	1.7	0.3	11.2	14.2	62.1	2.67	SANDSTONE
6	1870.5-71.5	3.7	3.7	1.1	14.3	12.9	56.0	2.67	SANDSTONE
7	1871.5-72.5	2.4	1.4	<0.1	11.3	15.3	68.4	2.68	SANDSTONE
8	1872.5-73.5	2.1	2.0	<0.1	15.9	12.2	64.4	2.67	SANDSTONE
9	1873.5-74.5	1.7	1.5	0.2	15.7	12.8	67.0	2.65	SANDSTONE
10	1874.5-75.5	3.9	3.7	0.3	16.8	17.8	62.3	2.65	SANDSTONE
11	1875.5-76.5	2.3	2.1	0.1	16.4	9.4	67.0	2.64	SANDSTONE
12	1876.5-77.5	4.8	4.4	3.4	17.8	8.9	62.9	2.64	SANDSTONE
13	1877.5-78.5	5.6	5.3	4.3	18.5	8.7	61.7	2.67	SANDSTONE
14	1878.5-79.5	3.8	3.8	2.6	17.6	11.5	61.0	2.67	SANDSTONE
15	1879.5-80.5	8.0	7.7	8.5	19.0	11.1	59.2	2.66	SANDSTONE
16	1880.5-81.5	7.2	7.1	7.5	18.2	10.8	57.5	2.68	SANDSTONE
17	1881.5-82.5	5.9	5.8	3.5	17.9	8.2	63.1	2.64	SANDSTONE
18	1882.5-83.5	4.0	3.8	3.5	20.2	7.5	57.7	2.73	SANDSTONE, TR PYRITE
19	1883.5-84.5	6.3	6.3	6.2	18.8	8.1	61.8	2.65	SANDSTONE
20	1884.5-85.5	5.2	5.1	5.7	19.2	11.8	57.3	2.69	SANDSTONE
21	1885.5-86.5	3.2	3.1	1.7	18.0	12.3	59.6	2.68	SANDSTONE
22	1886.5-87.5	3.4	3.1	2.2	18.1	13.0	57.7	2.69	SANDSTONE
23	1887.5-88.5	4.8	4.7	5.1	18.8	12.7	56.5	2.67	SANDSTONE

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CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

NEOIL COMPANY  
B. CASTO NO. 108 WFLI

DATE: 10-18-76  
FORMATION: AS NOTED

FILE NO: 3602-253  
ENGINEER: ANTWINE

P.	DEPTH	PERM. TO AIR MD.			POROSITY GEX. FLD.	FLUID SATS.		GR. DEN.	DESCRIPTION
		MAXIMUM	90 DEG	VERT.		OIL	WTR.		
24	1888.5-89.5	2.8	2.6	1.6	18.2	13.0	57.3	2.70	SANDSTONE
25	1889.5-90.5	3.3	3.3	2.3	17.5	11.9	58.6	2.65	SANDSTONE
26	1890.5-91.5	3.0	2.9	1.4	17.7	12.0	59.5	2.68	SANDSTONE
27	1891.5-92.5	2.8	2.5	1.6	17.5	9.2	62.0	2.68	SANDSTONE
28	1892.5-93.5	2.1	2.1	1.5	17.1	9.6	64.5	2.68	SANDSTONE
29	1893.5-94.5	2.2	2.0	1.6	16.6	6.0	65.7	2.67	SANDSTONE
30	1894.5-95.5	0.6	0.5	<0.1	12.5	7.7	83.8	2.63	SANDSTONE
31	1895.5-96.5	1.0	0.3	<0.1	15.0	7.2	78.2	2.72	SANDSTONE, TR PYRITE
32	1896.5-97.5	0.2	0.1	<0.1	8.5	7.2	85.8	2.69	SANDSTONE
33	1897.5-98.5	0.2	0.1	<0.1	12.7	7.3	87.1	2.71	SANDSTONE, DOLO
	1898.5-99.5	CORE NOT SUBMITTED FOR ANALYSIS							
34	1899.5-99.5	0.1	<0.1	<0.1	5.9	7.1	84.3	2.78	SANDSTONE, DOLO
	1900.5-31.0	CORE NOT SUBMITTED FOR ANALYSIS							
SQUAW SAND FORMATION									
35	1931.0-32.0	1.3	1.2	<0.1	13.9	31.7	31.2	2.69	SANDSTONE
36	1932.0-33.0	0.2	0.2	0.3	15.0	26.2	25.7	2.64	SANDSTONE
37	1933.0-34.0	1.3	1.3	0.4	15.2	26.0	25.6	2.62	SANDSTONE
38	1934.0-35.0	2.0	2.0	0.9	16.2	22.1	27.4	2.64	SANDSTONE
39	1935.0-36.0	2.5	2.5	0.4	15.7	23.2	29.3	2.63	SANDSTONE
40	1936.0-37.0	1.6	1.4	<0.1	14.1	21.3	26.9	2.64	SANDSTONE
41	1937.0-38.0	1.5	1.3	<0.1	12.3	20.4	29.2	2.64	SANDSTONE
42	1938.0-39.0	1.6	1.3	<0.1	12.9	20.1	28.6	2.64	SANDSTONE
43	1939.0-40.0	2.1	1.5	<0.1	5.4	26.4	37.9	2.65	SANDSTONE
44	1940.0-41.0	0.4	0.2	<0.1	10.5	16.5	19.5	2.64	SANDSTONE
45	1941.0-42.0	0.2	0.2	<0.1	10.3	18.0	21.2	2.64	SANDSTONE
46	1942.0-43.0	0.2	0.2	<0.1	11.1	19.0	22.6	2.65	SANDSTONE
47	1943.0-44.0	2.1	1.9	<0.1	5.9	7.5	37.5	2.61	SANDSTONE

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OIL COMPANY  
R. CASTO NO. 108 WELL

DATE: 10-18-76  
FORMATION: AS NOTED

FILE NO: 3602-253  
ENGINEER: ANTWINE

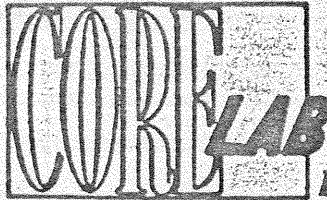
DEPTH	PERM. TO AIR MD.		VERT.	POROSITY GEX. FLD.	FLUID SATS.		GR. DEN.	DESCRIPTION
	MAXIMUM	90 DEG			OIL	WTR.		
48 1944.0-45.0	0.2	0.1	<0.1	1.2	14.5	75.5	2.67	SANDSTONE
49 1945.0-46.0	2.6	2.0	<0.1	1.2	15.0	76.7	2.67	SANDSTONE
50 1946.0-47.0	0.8	0.7	0.1	13.9	35.3	13.6	2.61	SANDSTONE
51 1947.0-48.0	0.5	0.5	<0.1	10.2	42.7	16.5	2.61	SANDSTONE
52 1948.0-49.0	0.8	0.5	<0.1	12.5	24.4	25.3	2.64	SANDSTONE
53 1949.0-50.0	1.1	1.0	<0.1	15.8	22.4	23.3	2.63	SANDSTONE
54 1950.0-51.0	2.8	1.7	0.2	15.3	22.9	23.6	2.64	SANDSTONE
55 1951.0-52.0	0.8	0.7	<0.1	8.3	25.9	27.1	2.65	SANDSTONE
56 1952.0-53.0	2.0	1.4	0.5	15.7	23.6	24.7	2.62	SANDSTONE
57 1953.0-54.0	0.6	0.5	0.1	12.8	26.4	24.0	2.64	SANDSTONE
58 1954.0-55.0	0.4	0.4	<0.1	14.0	24.4	22.2	2.65	SANDSTONE

1955.0-56.0

NO ANALYSIS - SHALE

MUD PROPERTIES: DNS=8.8 VIS=62 PH=11.0 FLD LOSS=4CC





**CORE LABORATORIES, INC.** *Petroleum Reservoir Engineering*

COMPANY PENNZOIL COMPANY FIELD GRANNY'S CREEK FILE 3602-253  
 WELL J. B. CASTO NO. 108 COUNTY CLAY DATE 10-18-76  
 LOCATION HENRY DISTRICT OTTER 15, N80° 45MIN STATE WEST VIRGINIA ELEV. 984.96' KB

# CORE-GAMMA CORRELATION

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VERTICAL SCALE: 5" = 100'

TOTAL WATER  $\alpha\alpha\alpha$   
PERCENT PORE SPACE



GAMMA RAY  
RADIATION INCREASE

PERMEABILITY  $K_a$  90°  
MILLIDARCY

POROSITY  
PERCENT

OIL SATURATION  $\alpha\alpha\alpha$   
PERCENT PORE SPACE

100.0 10.0 1.0 0.1 30 20 10 0 0 20 40 60 80



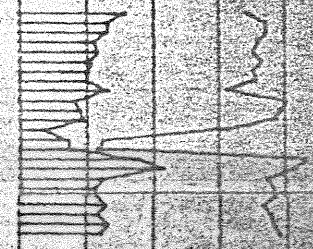
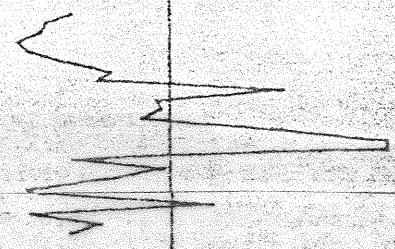


1900

1950

2000

2050



*Signature*