

87-2410

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PENNZOIL COMPANY
O.D. STOCKLEY NO. 193 WELL
GRANNY'S CREEK FIELD
ROANE COUNTY, W.VA.

DATE: 8-21-78
FORMATION: AS NOTED
DRLG. FLUID: FRESH WATER GEL
LOCATION:

FILE NO: 3602-009
ENGINEER: ANTWINE
ELEVATION:

WELL LOG

SMP. NO.	DEPTH	* INDICATES PLUG PERM		PERM. TO AIR MD.		POROSITY		FLUID SATS.		GR. DEN.	DESCRIPTION
		MAXIMUM	90 DEG	VERT.	GEOL. FLD.	OIL	WTR.	GR.	WTR.		

FULL DIAMETER AND CONVENTIONAL (PLUG) ANALYSIS

SMP. NO.	DEPTH	BIG LIME		BIG TRIJUN SANDSTONE		GR. DEN.	DESCRIPTION
		<0.1	0.1	<0.1	0.1		
1	1869.0-70.0	<0.1	<0.1	<0.1	1.9	2.70	LM
2	1870.0-71.0	<0.1	<0.1	<0.1	0.2	2.72	LM
3	1871.0-72.0	<0.1	<0.1	<0.1	0.4	2.72	LM, FRAC
4	1872.0-73.0	<0.1	<0.1	<0.1	0.3	2.70	LM
5	1873.0-74.0	<0.1	<0.1	<0.1	0.8	2.71	LM
6	1874.0-75.0	<0.1	<0.1	<0.1	2.2	2.79	LM, NOLO
7	1875.0-76.0	<0.1	<0.1	<0.1	0.4	2.70	LM
8	1876.0-77.0	<0.1	<0.1	<0.1	0.3	2.71	LM
9	1877.0-78.0	<0.1	<0.1	<0.1	1.0	2.71	LM
10	1878.0-79.0	<0.1	<0.1	<0.1	4.5	2.68	SD
11	1879.0-80.0	<0.1	<0.1	<0.1	4.0	2.66	SD
12	1880.0-81.0	<0.1	<0.1	<0.1	3.9	2.66	SD
13	1881.0-82.0	<0.1	6.7	0.3	6.5	2.68	SD
14	1882.0-83.0	<0.1	<0.1	0.1	9.8	2.69	SD
15	1883.0-84.0	<0.1	1.0	0.1	14.7	2.69	SD
16	1884.0-85.0	<0.1	1.8	1.2	15.9	2.67	SD
17	1885.0-86.0	<0.1	8.3	1.2	19.1	2.65	SD
18	1886.0-87.0	<0.1	27.0	21.3	21.3	2.66	SD
19	1887.0-88.0	<0.1	36.0	22.0	22.1	2.67	SD
20	1888.0-89.0	<0.1	56.0	23.3	23.3	2.68	SD

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4/2/92
F. Antwine

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PENNZOIL COMPANY
O.D. STOCKLEY NO. 193 WELL

DATE: 8-21-78
FORMATION: AS NOTED

FILE NO: 3602-409
ENGINEER: ANTWINE

SMP NO.	DEPTH	PERM. TO AIR MD. MAXIMUM	90 DEG VERT.	POROSITY GEX. FLD.	FLUID OIL	SATS. WTR.	GR. DEN.	DESCRIPTION
21	1809.0-90.0	42.0	31.0	8.4	18.6	2.67	SD	SD
22	1890.0-91.0	34.0	15.0	10.6	16.6	2.67	SD	SD
23	1891.0-92.0	<0.1	<0.1	1.7	14.6	2.66	SD	SD
24	1892.0-93.0	15.0	9.1	3.3	16.6	2.68	SD	SD
25	1893.0-94.0	23.0	1.2	21.0	16.6	2.69	SD	SD
26	1894.0-95.0	20.0	25.0	13.0	21.4	2.71	SD,SL/LMY	SD,SL/LMY
27	1895.0-96.0	27.0	20.0	9.9	20.4	2.69	SD,SL/LMY	SD,SL/LMY
28	1896.0-97.0	27.0	11.0	6.2	19.7	2.68	SD	SD
29	1897.0-98.0	16.0	15.0	8.0	20.9	2.69	SD	SD
30	1898.0-99.0	18.0	16.0	2.0	17.4	2.69	SD	SD
31	1899.0-00.0	23.0	6.9	0.0	15.8	2.71	SD,SL/LMY	SD,SL/LMY
32	1900.0-01.0	10.0	6.3	0.2	17.7	2.71	SD,SL/LMY	SD,SL/LMY
33	1901.0-02.0	15.0	13.0	0.2	17.5	2.71	SD,SL/LMY	SD,SL/LMY
34	1902.0-03.0	14.0	10.0	0.2	17.5	2.71	SD,SL/LMY	SD,SL/LMY
35	1903.0-04.0	14.0	10.0	0.2	17.5	2.71	SD,SL/LMY	SD,SL/LMY
36	1904.0-05.0	14.0	10.0	0.2	17.5	2.71	SD,SL/LMY	SD,SL/LMY
37	1905.0-06.0	6.1	6.1	0.0	15.8	2.69	SD,SL/LMY	SD,SL/LMY
38	1906.0-07.0	2.0	2.0	0.0	15.8	2.69	SD,SL/LMY	SD,SL/LMY
39	1907.0-08.0	0.4	0.4	0.2	17.7	2.71	SD,SL/LMY	SD,SL/LMY
40	1908.0-09.0	0.4	0.4	0.2	17.5	2.71	SD,SL/LMY	SD,SL/LMY
41	1909.0-10.0	1.0	0.3	0.2	17.6	2.71	SD,SL/LMY	SD,SL/LMY
42	1910.0-11.0	1.0	0.3	0.2	17.6	2.71	SD,SL/LMY	SD,SL/LMY
1911.0-12.0 NOT ANALYZED								
43	1912.0-13.0	<0.1	<0.1	<0.1	16.5	2.69	SD,SL/LMY	SD,SL/LMY
44	1913.0-14.0	<0.1	<0.1	<0.1	15.6	2.68	SD	SD
45	1914.0-15.0	0.2	0.1	<0.1	16.8	2.74	SD,DOLO	SD,DOLO
46	1915.0-16.0	<0.1	<0.1	0.1	14.2	2.79	SD,DOLO	SD,DOLO
47	1916.0-17.0	0.2	<0.1	0.1	16.1	2.75	SD,DOLO	SD,DOLO
48	1917.0-18.0	<0.1	<0.1	<0.1	7.2	2.76	SD,DOLO	SD,DOLO
49	1918.0-19.0	<0.1	<0.1	<0.1	3.8	2.85	DOLO	DOLO

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

PERMEABILITY VS POROSITY

WELL : O.D. STOCKLEY NO. 193 WELL
 COUNTY, STATE: ROANE COUNTY, W.VA.

COMPANY: PENNZOIL COMPANY
 FIELD : GRANNEY'S CREEK FIELD

AIR PERMEABILITY : MD - 90 DEGREE
 POROSITY : PERCENT

(UNCORRECTED FOR SLIPPAGE)
 (GAS EXPANSION)

DEPTH INTERVAL	RANGE & SYMBOL	PERMEABILITY MAXIMUM	PERMEABILITY MINIMUM	POROSITY MAX. MIN.	POROSITY AVERAGE	PERMEABILITY AVERAGES ARITHMETIC HARMONIC GEOMETRIC
1882.0 - 1911.0	1 (.)	100.0	1.00	24.0 10.0	10.9	13 5.0 9.2

EQUATION OF LINE RELATING PERMEABILITY TO POROSITY :

LOGK = (SLOPE)(POROSITY) + LOG OF INTERCEPT
 K = ANTILOG((SLOPE)(POROSITY) + LOG OF INTERCEPT)

RANGE EQUATION OF THE LINE

**POROSITY DEVIATION MINIMIZED FOR SELECTED PERMEABILITIES:
 (SOLID LINE)**

1 PERM = ANTILOG((0.22594) (POROSITY) + -3.31550)

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