COLES 9/14/88

42.003.35839

PHILLIPS PETROLEUM COMPANY

UNIVERSITY HH #1

BAKKE PENN WOLCAMP FIELD

ANDREWS COUNTY, TEXAS

Blk 1, Sec 7

Western Atlas International
A Litton/Dresser Company

CORE LABORATORIES

November 18, 1987

PHILLIPS PETROLEUM COMPANY
4001 Penbrook
Midland, Texas 79702

File : 57181-15403
Subject: Core Analysis
University HH #1
Bakke Penn Wolfcamp Field
Andrews County, Texas

Gentlemen:

The subject well was cored using diamond coring equipment and mud to obtain 4 inch diameter cores from 8452 to 9046 feet from the Wolfcamp formation.

Core analysis data is presented in tabular and graphical form for your convenience. A porosity vs. permeability plot and porosity and permeability histograms were prepared for statistical evaluation. Also, a list of other Core Lab services is included that could possibly be helpful in Phillips evaluation of this or future wells.

We trust these data will be useful in the evaluation of your property and thank you for the opportunity of serving you.

Very truly yours,

CORE LABORATORIES, a subsidiary of
WESTERN ATLAS INTERNATIONAL, INC.

Wade J. Reinheimer
Laboratory Supervisor II/Geologist

WJR/yn

PHILLIPS PETROLEUM COMPANY
University HH #1
File No. 57181-15403
Procedural Page

The cores were preserved at the wellsite in a CO2 atmosphere and transported to Midland by Core Laboratories personnel.

Preserved fresh core was taken from selected intervals.

Core analysis was made from intervals requested on full diameter samples.

Fluid removal and fluid saturations a Dean Stark method.

Salt removal was achieved using methanol.

Gas expansion porosity and grain density were determined using Boyle's Law.

Air permeability was measured in two horizontal directions and vertically while the core was held in a Hassler rubber sleeve.

The core was boxed after the analysis and will remain at our Midland core storage facility (thirty days free of charge) as we await further disposition instructions.

To further enhance your evaluation of the reservoir in question, let me suggest the following Core Lab services that could possibly help your company.

1.) Thermal Extraction chromatography (TEC)
   A.)Heat is used to vaporize residual hydrocarbons from core chip samples or drill cuttings into the column of a chromatograph for measurement of richness and composition.
   B.)Both the concentration and molecular distribution of hydrocarbons show charateristic differences in rock samples from productive and non-productive intervals.
   C.)A plot of relative hydrocarbon richness and composition by depth can readily be correlated with well logs to aid in defining productive intervals and type of production to be expected from those intervals.
   D.)TEC can predict flushed zones and unswept zones in secondary recovery techniques.
2.) Capillary pressures to relate residual water saturations to porosity and permeability. At this time pore size distribution can also be measured.
3.) A.)Water-oil relative permeabilities (Kw/Ko) to calculate the fractional flow of water and fluid permeability characteristics.
   B.)Gas-oil relative permeabilities (Kg/Ko) to predict primary depletion.
4.) Electrical resistivity measurements:
   To define A, M, and N values in Archies' equation to calculate water saturations and along with logs to calculate oil in place.
5.) Petrology work:
   A.)X-Ray Diffraction
   B.)Scanning Electron Microscope (SEM)
   C.)Thin Secions:
   To define mineral constituents, their location in the pores, and to identify potential completion problems.
6.) CMS-200:
   Ability to acquire permeability and porosity at net over-burden pressures on a routine basis. Also can measure equivalent liquid permeability (K_L).
7.) Water compatability can be used to evaluate potential water used for flooding.

For more information on these or other tests, please contact your local Core Laboratories Representative, at 915-694-7761.

CORE ANALYSIS REPORT

FOR

PHILLIPS PETROLEUM COMPANY

UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD
ANDREWS COUNTY, TEXAS

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Location : 467' FWL & 467' FNL, SEC 7, BLK 1, UL SURVEY
Co,State : ANDREWS COUNTY, TEXAS

Field : BAKKE PENN WOLFCAMP FIELD
Formation : WOLFCAMP
Coring Fluid : MUD
Elevation : 3162' GL

File No.: 57181-15403
Date : 9-14-87
API No. :
Analysts: OLSON

CORE ANALYSIS RESULTS

SAMPLE NUMBER		DEPTH ft	PERMEABILITY (MAXIMUM) Kair md	PERMEABILITY (90 DEG) Kair md	PERMEABILITY (VERTICAL) Kair md	POROSITY (HELIUM) %	SATURATION (PORE VOLUME) OIL %	SATURATION (PORE VOLUME) WATER %	GRAIN DENSITY gm/cc	DESCRIPTION
					CORE NO. 1 8452.0-8459.0 CUT 7' REC 6'					
		8452.0- 58.0								NA Lim v shy sh lam
		8458.0- 59.0								Lost core
					CORE NO. 2 8459.0-8474.0 CUT 15' REC 15'					
		8459.0- 74.0								NA Lim v shy foss
					CORE NO. 3 8474.0-8528.0 CUT 24' REC 24'					
S	1	8474.0- 75.0	0.84	0.77	0.04	0.8	0.0	71.4	2.69	Lim sli shy
S	2	8475.0- 76.0	<.01	<.01	<.01	0.2	12.1	56.7	2.70	Lim foss
S	3	8476.0- 77.0	0.37	0.17	0.07	0.5	15.6	72.9	2.70	Lim styl
S	4	8477.0- 78.0	0.03	0.03	0.18	2.5	26.9	25.9	2.72	Lim foss
S	5	8478.0- 79.0	1.10	0.50	0.06	6.5	24.2	29.2	2.69	Lim foss
S	6	8479.0- 80.0	0.53	0.35	0.22	4.4	37.7	22.2	2.70	Lim foss
S	7	8480.0- 81.0	0.21	0.13	0.05	3.3	38.1	26.7	2.69	Lim sli cht foss
S	8	8481.0- 82.0	0.20	0.14	0.13	3.1	30.3	27.2	2.70	Lim sli cht foss
*	9	8482.0- 83.0	<.01		<.01	1.1	27.3	60.8	2.69	Lim vert frac
S	10	8483.0- 84.0	0.04	0.02	<.01	3.2	25.9	21.9	2.73	Lim vert frac foss
S	11	8484.0- 85.0	0.02	<.01	<.01	6.0	26.5	20.3	2.76	Lim vert frac foss
S	12	8485.0- 86.0	2.90	1.80	1.80	11.3	23.6	13.6	2.71	Lim p.p. foss
S	13	8486.0- 87.0	2.80	1.30	1.40	12.5	31.7	12.5	2.70	Lim vert frac sli vug foss
S	14	8487.0- 88.0	1.10	0.98	1.90	13.2	24.6	11.4	2.70	Lim p.p. foss
S	15	8488.0- 89.0	1.10	1.00	1.50	13.0	22.2	12.3	2.71	Lim p.p. foss
	16	8489.0- 90.0	2.20	1.40	2.70	14.0	23.2	11.2	2.71	Lim p.p. foss

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Field : BAKKE PENN WOLFCAMP FIELD
Formation : WOLFCAMP
File No.: 57181-15403
Date : 9-14-87

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH ft	PERMEABILITY (MAXIMUM) Kair md	PERMEABILITY (90 DEG) Kair md	PERMEABILITY (VERTICAL) Kair md	POROSITY (HELIUM) %	SATURATION (PORE VOLUME) OIL %	SATURATION (PORE VOLUME) WATER %	GRAIN DENSITY gm/cc	DESCRIPTION
S 17	8490.0- 91.0	13.0	5.60	3.50	11.4	29.7	15.0	2.71	Lim vert frac p.p. foss styl
S 18	8491.0- 92.0	9.40	1.10	1.90	10.5	30.9	13.0	2.69	Lim vert frac p.p. foss
19	8492.0- 93.0	5.80	5.60	0.07	8.6	30.7	16.2	2.70	Lim vert frac foss
S 20	8493.0- 94.0	1.10	0.51	1.50	7.9	32.2	16.0	2.70	Lim vert frac foss
S 21	8494.0- 95.0	8.20	1.10	6.70	6.4	24.5	22.8	2.71	Lim vert frac p.p. styl
S 22	8495.0- 96.0	0.78	0.59	1.90	8.9	34.0	15.7	2.71	Lim p.p. foss styl
S 23	8496.0- 97.0	15.0	0.26	7.80	9.3	34.9	13.7	2.70	Lim vert frac p.p.
S 24	8497.0- 98.0	0.43	0.39	0.11	10.1	30.5	13.8	2.71	Lim foss styl
S 25	8498.0- 99.0	0.60	0.53	0.06	10.8	35.7	10.5	2.70	Lim p.p. foss
S 26	8499.0- 00.0	0.13	0.04	0.04	6.7	16.4	18.3	2.72	Lim p.p. foss
27	8500.0- 01.0	0.68	0.50	0.40	11.1	37.1	10.0	2.71	Lim p.p. foss
S 28	8501.0- 02.0	0.38	0.31	0.06	10.4	22.1	12.2	2.71	Lim p.p. foss
S 29	8502.0- 03.0	0.31	0.08	<.01	8.8	22.1	14.5	2.73	Lim p.p. foss
S 30	8503.0- 04.0	0.10	0.06	0.43	9.4	34.3	14.5	2.70	Lim p.p. foss styl
S* 31	8504.0- 05.0	2.70		3.30	11.3	30.3	20.5	2.71	Lim vert frac
S* 32	8505.0- 06.0	12.0		6.00	9.9	34.8	25.0	2.70	Lim vert frac p.p.
S* 33	8506.0- 07.0	1.30		13.0	13.8	30.6	33.6	2.72	Lim vert frac p.p. foss
S 34	8507.0- 08.0	0.82	0.62	66.0	5.3	5.6	30.2	2.67	Lim vert frac foss
S 35	8508.0- 09.0	1.20	0.60	1.90	8.2	31.7	16.2	2.72	Lim p.p. foss styl
S 36	8509.0- 10.0	77.0	70.0	4.90	22.1	28.0	29.3	2.73	Lim sli vug foss
S* 37	8510.0- 11.0	1.40			23.9	40.2	42.5	2.72	Lim vert frac sli vug foss
S 38	8511.0- 12.0	40.0	6.10	79.0	11.4	5.0	29.5	2.74	Lim vert frac sli vug foss
S 39	8512.0- 13.0	0.79	0.36	0.05	8.1	7.7	31.9	2.71	Lim sli vug foss
S 40	8513.0- 14.0	76.0	66.0	3.10	24.9	28.7	26.1	2.73	Lim sli vug foss
41	8514.0- 15.0	21.0	7.20	2.90	5.8	16.9	44.9	2.69	Lim vert frac sli vug foss
S* 42	8515.0- 16.0	0.01			4.6	16.0	34.0	2.70	Lim vert frac sli vug
S 43	8516.0- 17.0	10.0	4.10	3.20	10.3	21.5	31.5	2.72	Lim vert frac p.p. foss
S 44	8517.0- 18.0	0.13	0.07	<.01	1.3	2.9	64.3	2.70	Lim vert frac foss styl
45	8518.0- 19.0	0.04	<.01	0.07	2.0	46.3	34.5	2.71	Lim foss styl

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Field : BAKKE PENN WOLFCAMP FIELD File No.: 57181-15403
Formation : WOLFCAMP Date : 9-14-87

CORE ANALYSIS RESULTS

SAMPLE NUMBER		DEPTH ft	PERMEABILITY (MAXIMUM) Kair md	PERMEABILITY (90 DEG) Kair md	PERMEABILITY (VERTICAL) Kair md	POROSITY (HELIUM) %	SATURATION (PORE VOLUME) OIL %	SATURATION (PORE VOLUME) WATER %	GRAIN DENSITY gm/cc	DESCRIPTION
S	46	8519.0- 20.0	0.06	0.06	0.13	1.9	10.8	26.8	2.73	Lim foss styl
S	47	8520.0- 21.0	2.70	0.63	0.04	2.0	3.8	40.6	2.71	Lim foss styl
	48	8521.0- 22.0	0.03	<.01	0.06	0.7	17.0	66.0	2.70	Lim vert frac foss
S	49	8522.0- 23.0	0.06	0.04	0.10	2.1	43.6	40.0	2.70	Lim foss
S	50	8523.0- 24.0	1.76	0.57	0.33	6.7	37.8	35.1	2.69	Lim foss styl
S	51	8524.0- 25.0	1.00	0.39	<.01	5.1	28.8	33.6	2.73	Lim foss
S	52	8525.0- 26.0	0.84	0.53	1.40	5.5	24.7	28.5	2.70	Lim foss styl
S	53	8526.0- 27.0	0.43	0.07	0.17	5.5	39.7	25.5	2.71	Lim foss
*	54	8527.0- 28.0	0.22			5.8	46.6	33.3	2.72	Lim vert frac foss
					CORE NO. 4	8528.0-8547.0	CUT 19'	REC 19'		
		8528.0- 30.8								NA Lim foss
		8530.8- 47.0								NA Shy lim vert frac
DR		8547.0- 56.0								Drilled interval
					CORE NO. 5	8856.0-8893.0	CUT 38'	REC 37'		
		8856.0- 71.0								NA Lim foss styl
	55	8871.0- 72.0	1.80	1.70	0.83	10.7	14.4	61.5	2.70	Lim pyr p.p. foss styl
	56	8872.0- 73.0	1.10	1.00	0.38	10.2	15.5	53.2	2.71	Lim p.p. foss styl
		8873.0- 79.0								NA Lim foss styl
	57	8879.0- 80.0	1.74	1.65	2.00	10.5	16.1	57.1	2.70	Lim p.p. foss
	58	8880.0- 81.0	0.52	0.50	0.05	7.3	12.1	58.8	2.71	Lim p.p. foss styl
		8881.0- 93.0								NA Lim shy vert frac foss styl
		8893.0- 94.0								Lost core

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Field : BAKKE PENN WOLFCAMP FIELD
Formation : WOLFCAMP
File No.: 57181-15403
Date : 9-14-87

CORE ANALYSIS RESULTS

SAMPLE NUMBER		DEPTH ft	PERMEABILITY (MAXIMUM) Kair md	PERMEABILITY (90 DEG) Kair md	PERMEABILITY (VERTICAL) Kair md	POROSITY (HELIUM) %	SATURATION (PORE VOLUME) OIL %	SATURATION (PORE VOLUME) WATER %	GRAIN DENSITY gm/cc	DESCRIPTION
					CORE NO. 6 8894.0-8954.0 CUT 60' REC 60'					
		8894.0- 96.0								NA Lim shy foss styl
		8896.0- 99.0								NA Lim v shy foss
		8899.0- 14.0								NA Lim foss styl
S	59	8914.0- 15.0	0.04	0.01	0.06	0.3	24.2	67.5	2.71	Lim foss styl
S	60	8915.0- 16.0	0.88	0.83	0.18	11.3	15.2	26.9	2.70	Lim p.p. styl
S	61	8916.0- 17.0	5.60	5.50	3.60	15.8	19.1	23.8	2.68	Lim p.p. styl
	62	8917.0- 18.0	19.6	18.2	26.0	18.6	18.8	22.0	2.68	Lim
S	63	8918.0- 19.0	32.0	30.0	67.0	19.0	18.3	22.4	2.70	Lim foss
S	64	8919.0- 20.0	23.0	17.0	27.0	15.9	12.4	23.3	2.71	Lim foss
S	65	8920.0- 21.0	6.40	4.80	1.60	11.4	12.4	29.2	2.71	Lim foss
S	66	8921.0- 22.0	0.20	0.08	<.01	0.8	0.0	91.7	2.71	Lim shy foss styl
	67	8922.0- 23.0	0.54	0.52	0.10	0.9	0.0	95.0	2.70	Lim shy foss styl
		8923.0- 38.0								NA Lim foss styl
		8938.0- 43.0								NA Shy lim foss
		8943.0- 47.0								NA Lim vert frac foss styl
		8947.0- 54.0								Lost core
					CORE NO. 7 8954.0-8987.0 CUT 33' REC 29'					
		8954.0- 54.4								NA Lim v shy sli frac
		8954.4- 64.0								NA Lim shy foss styl
		8964.0- 69.4								NA Shy
		8969.4- 73.0								NA Lim sli frac styl
S	68	8973.0- 74.0	0.47	0.43	0.31	5.4	12.8	63.2	2.72	Lim p.p. foss styl
S	69	8974.0- 75.0	36.0	26.0	52.0	11.6	9.3	44.8	2.72	Lim sli vug foss
S	70	8975.0- 76.0	21.0	15.0	26.0	11.3	9.6	45.4	2.71	Lim sli vug foss
S	71	8976.0- 77.0	0.67	0.22	1.10	11.6	6.8	43.9	2.73	Lim sli frac sli vug foss

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Field : BAKKE PENN WOLFCAMP FIELD
Formation : WOLFCAMP
File No.: 57181-15403
Date : 9-14-87

C O R E A N A L Y S I S R E S U L T S

SAMPLE NUMBER	DEPTH ft	PERMEABILITY (MAXIMUM) Kair md	PERMEABILITY (90 DEG) Kair md	PERMEABILITY (VERTICAL) Kair md	POROSITY (HELIUM) %	SATURATION (PORE VOLUME) OIL %	SATURATION (PORE VOLUME) WATER %	GRAIN DENSITY gm/cc	DESCRIPTION
72	8977.0- 78.0	0.26	0.15	0.92	11.4	6.4	44.7	2.73	Lim frac sli vug foss
S 73	8978.0- 79.0	0.26	0.21	0.06	9.9	12.7	44.8	2.75	Lim frac sli vug p.p. foss
	8979.0- 83.0								NA Lim frac vert frac
	8983.0- 87.0								Lost core
				CORE NO. 8 8987.0-9046.0 CUT 59' REC 55'					
	8987.0- 26.0								NA Lim shy foss
74	9026.0- 27.0	0.60	0.50	1.80	4.7	14.9	49.2	2.76	Lim sli pyr vug foss styl
75	9027.0- 28.0	0.22	0.15	0.23	4.7	7.8	42.3	2.71	Lim sli pyr sli frac sli vug foss
76	9028.0- 29.0	0.09	0.08	0.07	2.4	3.1	56.4	2.73	Lim sli anhy sli pyr sli frac sli vug foss
	9029.0- 42.0								NA Lim shy sli frac p.p. foss styl
	9042.0- 46.0								Lost core

S INDICATES PRESERVED SAMPLE * INDICATES PLUG PERMEABILITY

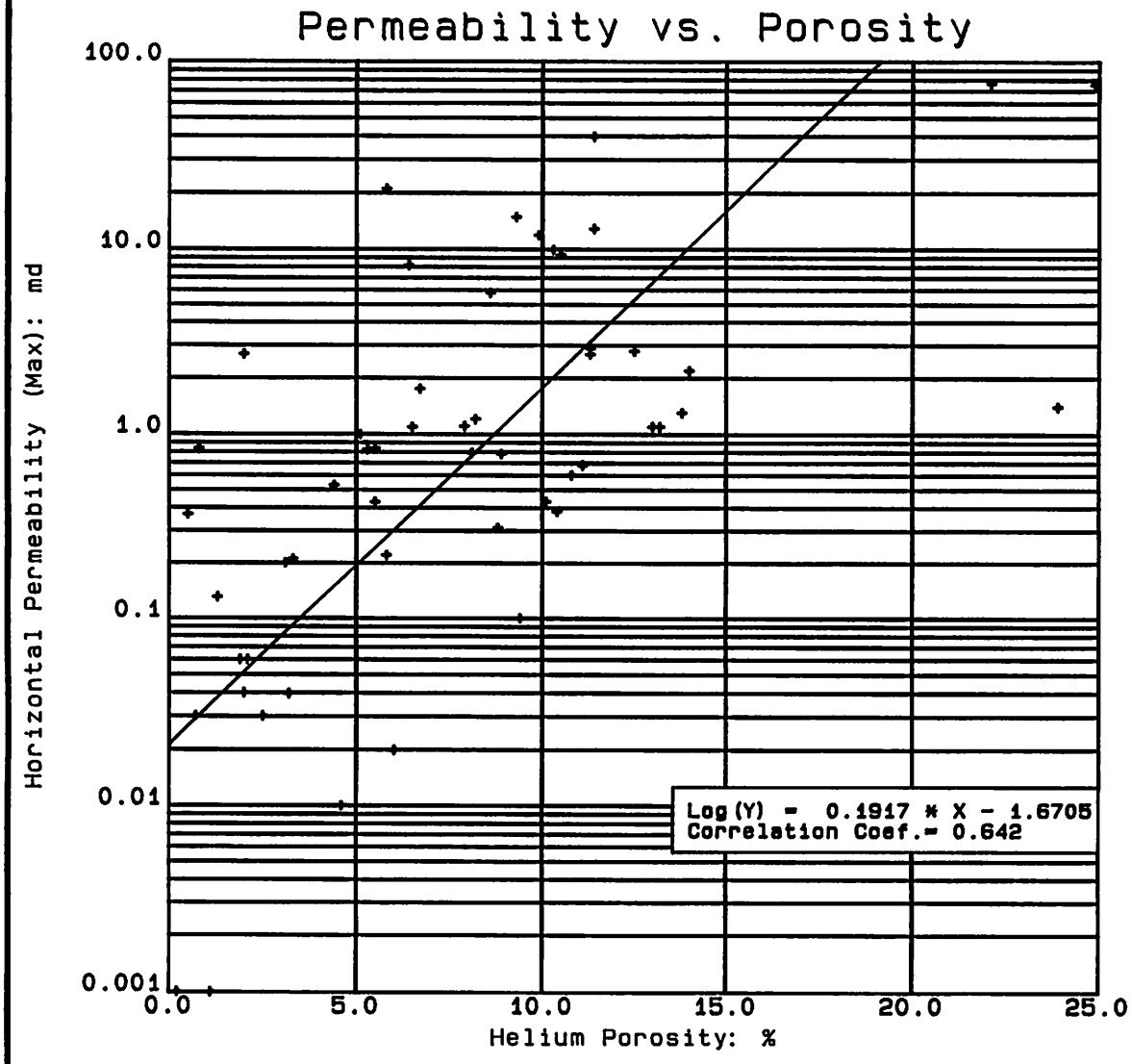
DISTRIBUTION OF FINAL REPORTS

6 cc

PHILLIPS PETROLEUM COMPANY
4001 PENBROOK
ODESSA, TX 79762
ATTN: MR. JIM BROWN

1 cc

PHILLIPS PETROLEUM COMPANY
PHILLIPS RESEARCH CENTER
140 GB
BARTLESVILLE, OK 74004
ATTN: MR. JOHN WILLIAMS



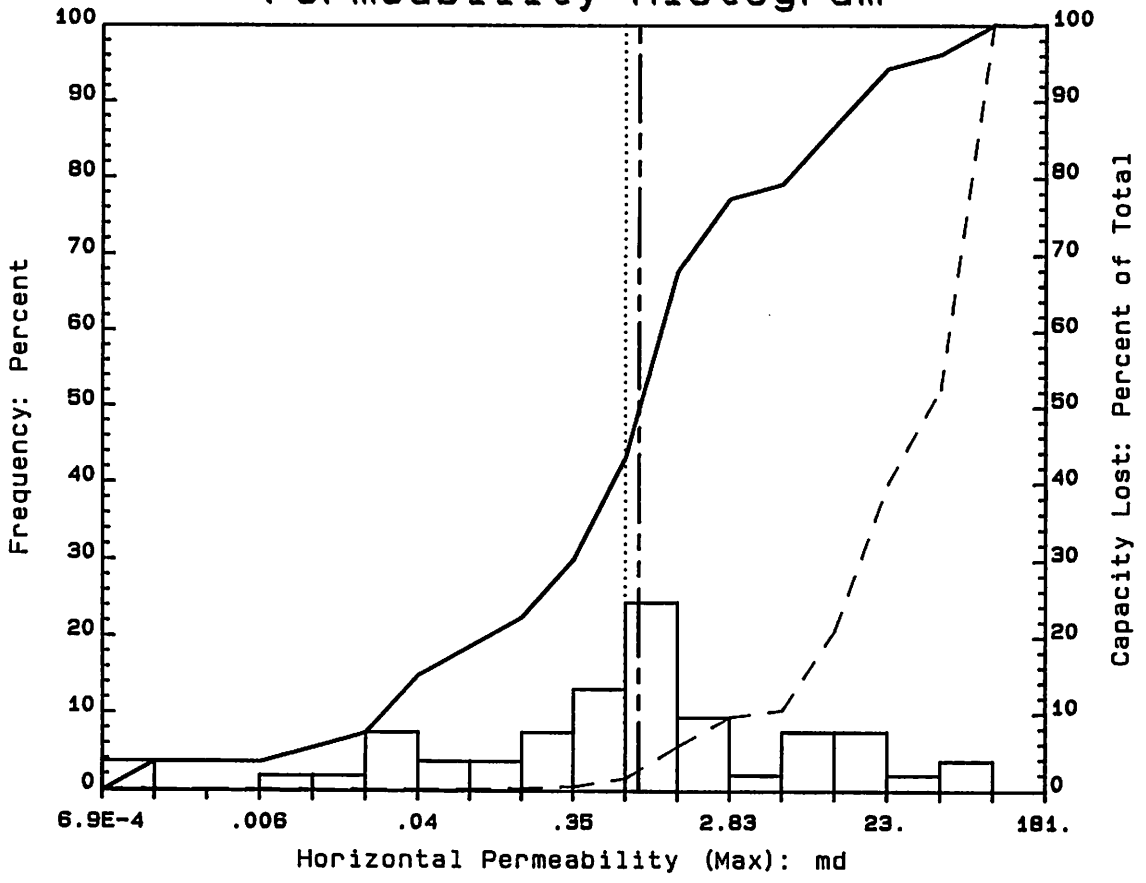
PHILLIPS PETROLEUM COMPANY
UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD

WOLFCAMP (8474-9029 feet)

Core Laboratories 6-Nov-1987

- LEGEND -
WOLFCAMP

Permeability Histogram



PHILLIPS PETROLEUM COMPANY
UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD

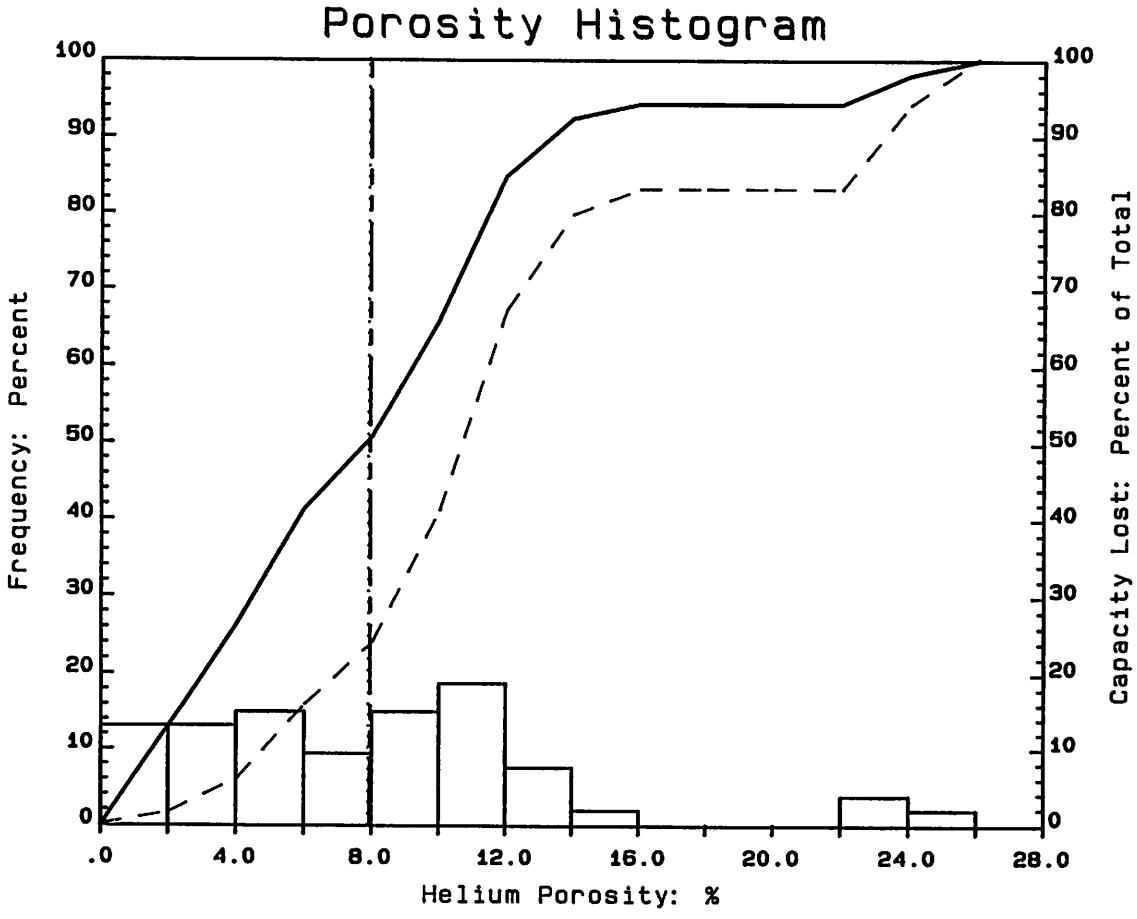
WOLFCAMP (8474-8528 feet)

Core Laboratories 6-Nov-1987

- LEGEND -

——— - Median Value (0.840)
..... Geom. Average (0.690)
——— Cumulative Frequency
— — - Cumulative Capacity Lost

53 Samples



PHILLIPS PETROLEUM COMPANY
UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD

WOLFCAMP (8474-8528 feet)

Core Laboratories 6-Nov-1987

- LEGEND -

——— - Median Value (7.9)
..... Arith. Average (7.9)
——— Cumulative Frequency
— — - Cumulative Capacity Lost

53 Samples

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1

Field : BAKKE PENN WOLFCAMP FIELD File No.: 57181-15403
Formation : WOLFCAMP Date : 9-14-87

TABLE I

SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA

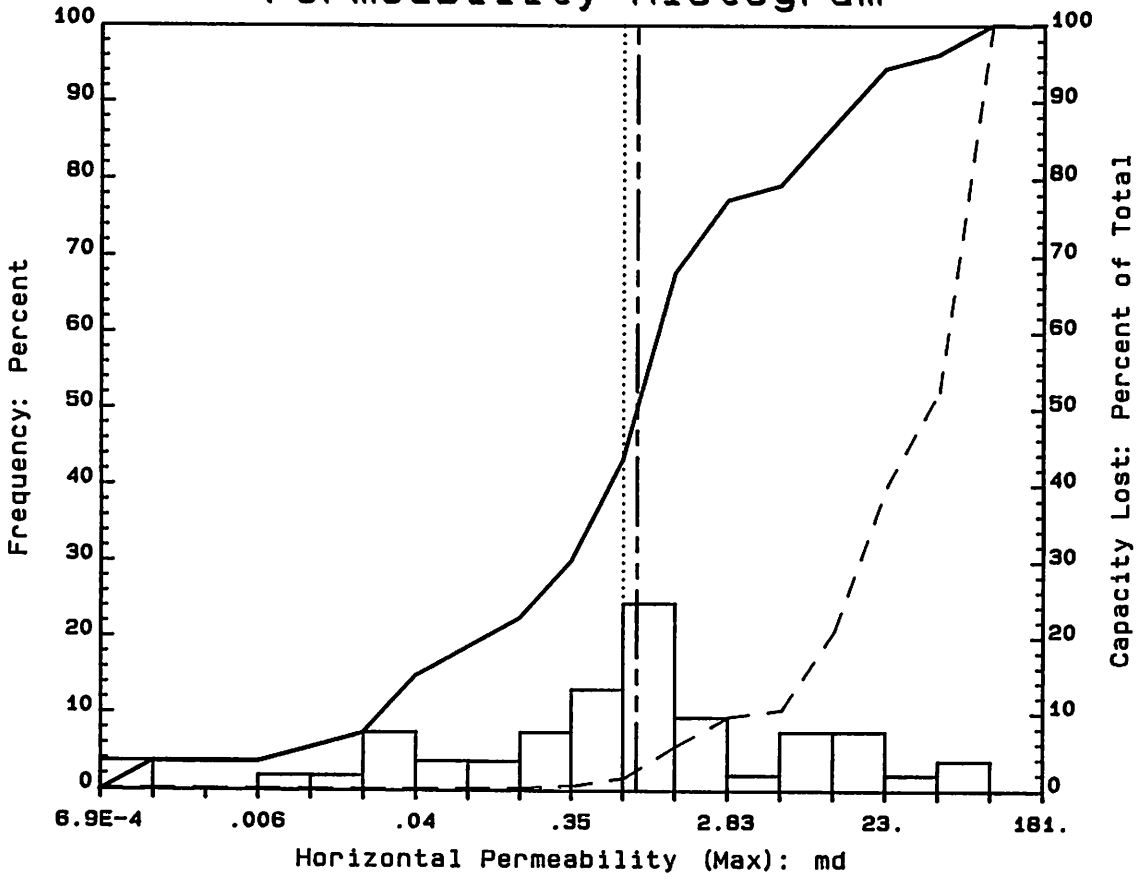
ZONE:	
Identification	WOLFCAMP
Top Depth	8474.0 ft
Bottom Depth	8528.0 ft
Number of Samples	25
DATA TYPE:	
Porosity	(HELIUM)
Permeability	(MAXIMUM) Kair
CUTOFFS:	
Porosity (Minimum)	0.0 %
Porosity (Maximum)	100.0 %
Permeability (Minimum)	0.0000 md
Permeability (Maximum)	100000. md
Water Saturation (Maximum)	100.0 %
Oil Saturation (Minimum)	0.0 %
Grain Density (Minimum)	2.00 gm/cc
Grain Density (Maximum)	3.00 gm/cc
Lithology Excluded	ZONE 1

CHARACTERISTICS REMAINING AFTER CUTOFFS

ZONE:	
Number of Samples	25
Thickness Represented	25.0 ft
POROSITY:	
Storage Capacity	179.5 ϕ-ft
Arithmetic Average	7.2 %
Minimum	0.2 %
Maximum	14.0 %
Median	7.9 %
Standard Deviation	±4.4 %
GRAIN DENSITY:	
Arithmetic Average	2.71 gm/cc
Minimum	2.69 gm/cc
Maximum	2.76 gm/cc
Median	2.70 gm/cc
Standard Deviation	±0.02 gm/cc

PERMEABILITY:	
Flow Capacity	67.8 md-ft
Arithmetic Average	2.71 md
Geometric Average	0.52 md
Harmonic Average	0.01 md
Minimum	0.00 md
Maximum	15.0 md
Median	0.84 md
Standard Dev. (Geom)	$K \cdot 10^{\pm 1.119}$ md
HETEROGENEITY (Permeability):	
Dykstra-Parsons Var.	0.818
Lorenz Coefficient	0.597
AVERAGE SATURATIONS (Pore Volume):	
Oil	28.7 %
Water	16.2 %

Permeability Histogram



PHILLIPS PETROLEUM COMPANY
UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD

WOLFCAMP (8871-9029 feet)

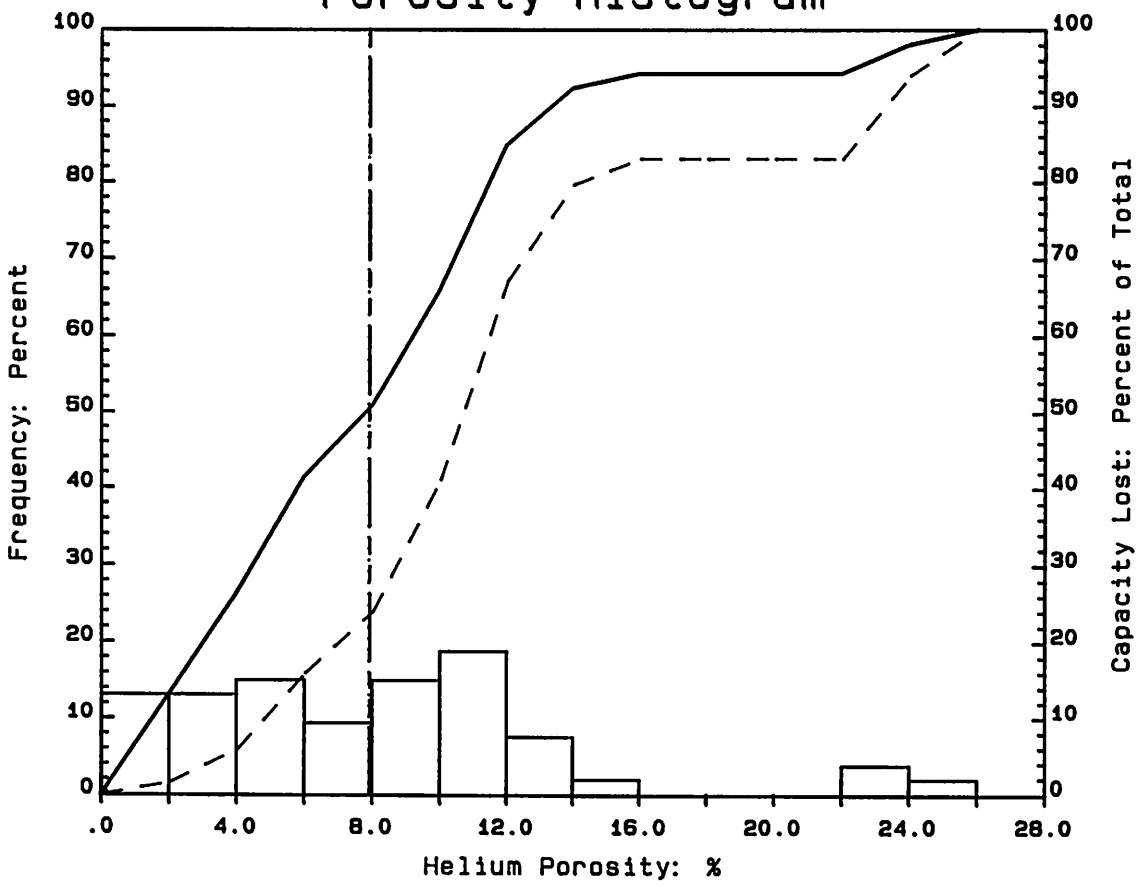
Core Laboratories 6-Nov-1987

- LEGEND -

——— - Median Value (0.840)
..... Geom. Average (0.690)
——— Cumulative Frequency
— — - Cumulative Capacity Lost

53 Samples

Porosity Histogram



PHILLIPS PETROLEUM COMPANY
UNIVERSITY HH #1
BAKKE PENN WOLFCAMP FIELD

WOLFCAMP (8871-9029 feet)

Core Laboratories 6-Nov-1987

- LEGEND -

——— - Median Value (7.9)
..... Arith. Average (7.9)
——— Cumulative Frequency
— — - Cumulative Capacity Lost

53 Samples

CORE LABORATORIES

Company : PHILLIPS PETROLEUM COMPANY
Well : UNIVERSITY HH #1
Field : BAKKE PENN WOLFCAMP FIELD File No.: 57181-15403
Formation : WOLFCAMP Date : 9-14-87

TABLE II

SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA

ZONE:
- Identification -------- WOLFCAMP
- Top Depth ---------- 8871.0 ft
- Bottom Depth ---------- 9029.0 ft
- Number of Samples -------- 21

DATA TYPE:
- Porosity ---------- (HELIUM)
- Permeability ---------- (MAXIMUM) Kair

CUTOFFS:
- Porosity (Minimum) ------- 0.0 %
- Porosity (Maximum) ------- 100.0 %
- Permeability (Minimum) --- 0.0000 md
- Permeability (Maximum) --- 100000. md
- Water Saturation (Maximum) 100.0 %
- Oil Saturation (Minimum) - 0.0 %
- Grain Density (Minimum) -- 2.00 gm/cc
- Grain Density (Maximum) -- 3.00 gm/cc
- Lithology Excluded ----- ZONE 2

CHARACTERISTICS REMAINING AFTER CUTOFFS

ZONE:
- Number of Samples ----- 21
- Thickness Represented - 21.0 ft

POROSITY:
- Storage Capacity ------ 205.4 ϕ-ft
- Arithmetic Average ---- 9.8 %
- Minimum ---------- 0.8 %
- Maximum ---------- 19.0 %
- Median ---------- 10.7 %
- Standard Deviation ---- ±5.2 %

GRAIN DENSITY:
- Arithmetic Average ---- 2.71 gm/cc
- Minimum ---------- 2.68 gm/cc
- Maximum ---------- 2.76 gm/cc
- Median ---------- 2.71 gm/cc
- Standard Deviation ---- ±0.02 gm/cc

PERMEABILITY:
- Flow Capacity --------- 152.9 md-ft
- Arithmetic Average ---- 7.28 md
- Geometric Average ----- 1.59 md
- Harmonic Average ------ 0.51 md
- Minimum ---------- 0.09 md
- Maximum ---------- 36.0 md
- Median ---------- 0.88 md
- Standard Dev. (Geom) -- $K \cdot 10^{\pm 0.821}$ md

HETEROGENEITY (Permeability):
- Dykstra-Parsons Var. -- 0.763
- Lorenz Coefficient ---- 0.601

AVERAGE SATURATIONS (Pore Volume):
- Oil ---------- 13.4 %
- Water ---------- 39.0 %