25-31-38W

SPECIAL CORE ANALYSIS

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Basic Rock Properties
Formation Resistivity Factor At Confining Pressure
Formation Resistivity Index At Confining Pressure
Standard Mercury Injection Capillary Pressure

RESERVOIRS INC.

RESERVOIRS, INC.

GEOLOGICAL ANALYSIS • CLASTICS/CARBONATES
SINGLE WELL/FIELD/REGIONAL STUDIES
WELL COMPLETION/STIMULATION STUDIES
ROUTINE AND SPECIAL CORE ANALYSIS

1151 BRITTMORE ROAD HOUSTON, TEXAS 77043 (713) 932-7183 FAX (713) 932-0520

May 4, 1995

Mr. Todd Montgomery
Anadarko Petroleum Corporation
17001 Northchase Drive
Houston, TX 77060

Dear Mr. Montgomery:

Full diameter conventional core analysis was performed on well cores recovered from the Anadarko Petroleum Corporation, Flower A-1 Well located in Stevens County, Kansas. The test results were presented in a final report dated January 16, 1995. On the basis of the full diameter conventional core analysis data, Reservoirs, Inc., was requested and authorized to perform a special core analysis study for the above referenced well. Forty-eight (48) core plug samples, one and one half inches (1-1/2") in diameter, and one sample, one inch (1") in diameter, were drilled from the two-thirds (2/3) slabbed portion of the well cores from the depth interval of 2473 ft. to 2955 ft. Each sample was thoroughly cleaned using a hot soxhlet extraction process and the basic rock properties determined.

Twenty (20) samples were subsequently selected for special core analysis tests and a summary of the testing schedule is presented in Table 1. The following special core analyses were performed:

* Formation Resistivity Factor At Confining Pressure

* Formation Resistivity Index At Confining Pressure

* Standard Mercury Injection Capillary Pressure

A simulated formation brine based upon an analysis (Table 3) provided by Halliburton Services for the Anadarko Petroleum Corporation Tucker 3-19 Well located in Morton County, Kansas, was used during the electrical properties analyses. In addition, the confining pressure to be used during the analyses was derived from Nelson's Equation, using a reservoir pressure of 150 psig and a Poisson's Ratio (ν) of 0.30. Nelson's Equation is described separately in the section entitled "Laboratory Procedures".

Preliminary test results of the special core analyses were forwarded periodically to Mr. Todd Montgomery of the Anadarko Petroleum Corporation and to Mr. John T. Kulha of Loren & Associates as the data became available. This report presents the basic rock properties, electrical properties and mercury injection capillary pressure test results in both tabular and graphical formats. These test results supersede all previously issued preliminary test results.

The basic rock properties test results are presented in Table 2 and Figures 1 and 2. Examination of Table 2 indicates the specific permeabilities to gas ranged from 0.005 md to 589 md and the porosities ranged from 6.0 to 24.7 percent of the bulk volume. Figure 1 presents the relationship of specific permeability to gas-porosity. Grain densities and bulk densities ranged from 2.65 to 2.84 g/cc and from 2.02 to 2.54 g/cc, respectively. Figure 2 presents the relationship of bulk density-porosity.

The formation resistivity factor test results are presented in Table 4 and Figure 3. The formation resistivity factors ranged from 14.75 to 124.0 and the individual cementation exponent (m) derived for each sample ranged from 1.88 to 2.22. Figure 3 presents the composite graphical presentation of formation resistivity factor-porosity and the composite cementation exponent was m = 2.03.

Tables 5 through 24 and Figures 4 through 23 present the individual formation resistivity index-saturation relationships. The saturation exponents (n) ranged from 1.49 to 2.00 and Figure 23A presents the composite relationship of formation resistivity index-saturation for all of the samples analyzed. Several trends were apparent from the test results presented in Figure 23A. The saturation exponents (n) indicated by the dashed lines represent the minimum and maximum saturation exponents of n = 1.49 and n = 2.00.

However, sample E 103 (2772.5 ft.) illustrated by the solid line constructed through the data points presented in Figure 23A indicated an anomalously high saturation exponent, n= 3.10. The individual data obtained for this sample is presented in Table 20 and Figure 19. The cementation exponent (m) obtained for this sample during the formation resistivity factor determinations was 2.20 (Table 4), which was high but did not appear to be anomalous.

Following the formation resistivity index determinations, the sample was recleaned using methanol prior to the mercury injection analyses. It was noted that the basic rock properties were low in comparison to the original test results obtained for the sample. Geological analysis of the material indicated an abundant presence of anhydrite. Possibly, salt or sulfate precipitation may have occurred during the electrical properties testing.

A low salinity sodium chloride brine (2% NaCl) was flowed through the sample to remove the salt precipitants prior to recleaning the sample and redetermination of the basic rock properties. The basic rock properties indicated good agreement with the original data and the sample was subjected to mercury injection testing. The electrical properties obtained for this sample may be anomalous and not representative for reservoir logging characterization and should, therefore, be used qualitatively.

Standard mercury injection capillary pressure and derived pore size distribution data are presented in Tables 25 through 44 and Figures 24 through 83. Final wetting phase saturations attained at the maximum pressure of 2000 psia ranged from 1.6 to 21.4 percent of the pore volume.

It has been a pleasure to be of service to you and the Anadarko Petroleum Corporation, and Reservoirs, Inc., looks forward to working together with you on future projects. If you should have any questions pertaining to the test results, the procedures used to obtain the test results or if Reservoirs, Inc., can be of any further service, please do not hesitate to contact Mr. Steve Alexander at (713) 935-4206 or me at (713) 932-9670.

Sincerely,

RESERVOIRS, INC.

Paul Delacoe

Paul Delacoe
Manager, Special Core Analysis

PD:nlc/WPDOCS\1953.PRE

LABORATORY PROCEDURES

Sample Preparation

One and one-half inch (1-1/2") diameter core plug samples were drilled from each of the selected two-thirds (2/3) slabbed portion of the core segments using water. The ends of the sample were trimmed to form a right cylinder using a diamond rimmed sawblade and water as the sawblade coolant and lubricant. Each sample was subsequently labeled with a Reservoirs' identification using indelible ink, and cleaned using a hot soxhlet extraction process. Toluene and methanol were the solvents used during the process. The samples were subsequently dried in a conventional oven prior to determination of the basic rock properties.

Basic Rock Properties

The **bulk volume** of each core plug sample was determined by mercury immersion (Archimedes' principle) and confirmed by measuring the length and diameter of each core plug sample with calipers and calculating the bulk volume.

The **porosity** and grain density of each core plug sample was determined using the Boyle's law method and helium as the gaseous phase. The core plug sample was placed in a matrix cup (sealed chamber) of known volume. Another chamber of known volume containing helium at a preselected pressure was connected to the matrix cup. The helium expanded into the matrix cup, and an equilibrium pressure was recorded. Using Boyle's law, the grain volume of the core plug sample being tested can be determined. The grain volume subtracted from the bulk volume of the core plug sample results in the pore volume of the core plug sample. Porosity is the pore volume expressed as a percent of the bulk volume.

The **grain density** is the weight of the core material per unit volume of the core material (grain volume). The weight of the core material is determined by weighing the clean and dry core plug sample on a pan-balance at ambient conditions. The grain volume is obtained from the Boyle's law calculation.

The **specific permeability** to gas was determined by placing each core plug sample in a Hassler-type core holder. A confining pressure of 400 psig was applied to the system to prevent bypassing of the gas around the core plug sample. Nitrogen gas was injected into each core plug sample at a constant pressure until a constant flow rate of gas through the core plug sample was attained (steady-state conditions). The specific permeability to gas was calculated using the Darcy equation.

Sample Saturation (Vacuum-Pressure Method

Each clean and dried core plug sample selected for special core analysis testing was weighed and placed in a vacuum-pressure saturation chamber. The system was evacuated to a pressure of fifty (50) microns for a period of twelve (12) hours. A simulated formation brine (Table 3) was injected into the chamber until the level of the fluid was above the samples. A pressure of 1200 psig was applied to the system for a minimum of six (6) hours. The chamber was depressured and each sample was removed from the fluid and weighed. The pore volume was calculated gravimetrically using the dry weight and the saturated weight of each sample and the corresponding density of the fluid. This pore volume was compared to the pore volume previously derived by the Boyle's Law helium porosity method, to ensure one hundred percent (100%) saturation.

Formation Resistivity Factor At Confining Pressure

Each saturated sample was weighed and individually mounted in a hydrostatic core holder with a silver electrode/distribution plate at the upstream of the sample and a silver electrode/capillary pressure porous-plate at the downstream of the sample. A confining pressure of 400 psig was applied to the system to prevent bypassing of fluid around the sample.

Several pore volumes of simulated formation brine were injected through the sample to ensure the sample and system were completely saturated with the brine. The resistance of the saturated sample was determined at a frequency of 1000 Hz, using a GenRad® meter. The

determinations performed at the confining pressure of 400 psig are for the purpose of quality control.

A pipette was attached to the system, and the confining pressure was slowly increased to a confining pressure which was derived from Nelson's Equation:

$$\frac{\text{Average Depth - Reservoir Pressure}}{3} \bullet \frac{(1+\nu)}{(1-\nu)}$$

Where: Average depth is in feet
Reservoir pressure is in psig
ν = Poisson's Ratio

Given Values: Average depth = 2714 ft. (2473 - 2955 ft.)
Reservoir pressure = 150 psig
Poisson's Ratio ν = 0.30

The sample and system were allowed to stabilize for several hours. The volume of brine produced into the pipette is equivalent to the reduction in the pore volume. The porosity at confining pressure was calculated from these test results.

The resistance of the equilibrated sample was determined over a period of several hours to ensure that the sample had stabilized (ionic equilibrium). A frequency of 1000 Hz was used to determine the resistance. The resistance and the porosity at confining pressure (previously determined) and the resistance of the simulated formation brine were used to calculate the formation resistivity factor and cementation exponent (m) for each sample.

Formation Resistivity Index At Confining Pressure

Immediately following the formation resistivity factor at confining pressure test, the sample was injected with nitrogen gas. The nitrogen was injected into the sample to displace the simulated formation brine through the capillary pressure porous-plate mounted at the downstream end of the sample. The resistance of the sample was determined as a function of the corresponding volume of brine produced. The resistance was measured at a frequency of 1000 Hz. The formation resistivity indices (I), saturation exponents (n) and the corresponding water saturations were calculated from the test results.

At the conclusion of the test, the confining pressure was removed and the sample was unloaded from the core holder. The sample was weighed to gravimetrically determine the final water saturation present in the sample. This saturation was compared to the final saturation determined volumetrically at the conclusion of the test to verify the test results.

Standard Mercury Injection Capillary Pressure

Each clean and dry sample was placed in the pycnometer (injection chamber) of the mercury injection apparatus, and evacuated to 50 microns of pressure. Mercury was injected at a predetermined pressure and maintained at that pressure until capillary equilibrium was attained (mercury intrusion into the sample ceased). The pressure and the volume of mercury injected into the sample were recorded. The pressure was then increased and the procedure repeated. The range of injection pressure utilized during the standard mercury injection test was 0-2000 psia.

Pore Size Distribution

The pore size distribution was derived from the mercury injection capillary pressure data using the following equation:

$$Ri = \frac{2 \gamma \cos \theta C}{P_c}$$

Where:
- Ri = Pore Radii (microns)
- P_c = Capillary Pressure in laboratory (psia)
- γ = Interfacial Tension (dynes/cm)
- θ = Contact Angle (degrees)
- C = Conversion Constant equal to 145×10^{-3}

Leverett's J-Function was derived from the mercury injection capillary pressure data using the following equation:

$$J(S_w) = \frac{P_c}{\gamma \cos\theta} \left(\frac{k}{\phi}\right)^{\frac{1}{2}}$$

Where:
- P_c = Capillary pressure in laboratory(dynes/cm²)
- γ = Interfacial tension (dynes/cm)
- θ = Contact angle (degrees)
- k = Permeability (cm²)
- ϕ = Fractional porosity

For Air-Mercury System:

- γ = 480 dynes/cm
- Contact angle, θ = 140°
- Cosine 140° = 0.766

Table 1

TEST SCHEDULE SUMMARY

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Basic Rock Properties	Formation Resistivity Factor	Formation Resistivity Index	Mercury Injection
E 018	2473.2	X	-	-	-
E 019	2473.6	X	X	X	X
E 020	2485.2	X	X	X	X
E 021	2485.5	X	-	-	-
E 022	2505.1	X	-	-	-
E 023	2505.4	X	X	X	X
E 024	2515.6	X	-	-	-
E 025	2515.8	X	X	X	X
E 026	2516.2	X	-	-	-
E 027	2516.4	X	-	-	-
E 028	2526.1	X	X	X	X
E 029	2526.4	X	-	-	-
E 030	2531.1	X	X	X	X
E 031	2531.3	X	-	-	-
E 032	2550.5	X	X	X	X
E 033	2550.7	X	-	-	-
E 034	2556.1	X	X	X	X
E 035	2556.9	X	-	-	-
E 036	2579.2	X	-	-	-
E 037	2579.4	X	X	X	X
E 038	2618.1	X	X	X	X
E 039	2618.7	X	-	-	-
E 040	2626.7	X	-	-	-
E 041	2627.4	X	X	X	X
E 048	2641.1	X	X	X	X

Table 1 (Continued)

TEST SCHEDULE SUMMARY

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Basic Rock Properties	Formation Resistivity Factor	Formation Resistivity Index	Mercury Injection
E 049	2641.4	X	-	-	-
E 050	2658.4	X	-	-	-
E 051	2658.7	X	X	X	X
E 052	2681.7	X	X	X	X
E 053	2681.9	X	-	-	-
E 054	2700.3	X	-	-	-
E 055	2700.5	X	X	X	X
E 056	2771.9	X	-	-	-
E 057	2772.0	X	-	-	-
E 102	2772.2	X	-	-	-
E 103	2772.5	X	X	X	X
E 104	2780.2	X	-	-	-
E 105	2781.2	X	-	-	-
E 106	2781.6	X	-	-	-
E 107	2782.2	X	-	-	-
E 108	2783.4	X	-	-	-
E 042	2877.1	X	X	X	X
E 043	2877.3	X	-	-	-
E 044	2891.4	X	X	X	X
E 045	2892.0	X	-	-	-
E 046	2932.3	X	-	-	-
E 047	2932.5	X	X	X	X
E 060	2949.8	X	-	-	-
E 061	2954.9	X	X	X	X

Table 2

BASIC ROCK PROPERTIES

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
E 018	2473.2	0.362	9.3	2.80	2.54
E 019	2473.6	2.43	11.5	2.79	2.47
E 020	2485.2	48.2	20.8	2.71	2.15
E 021	2485.5	8.76	17.3	2.74	2.27
E 022	2505.1	297	24.3	2.83	2.14
E 023	2505.4	122	21.5	2.83	2.22
E 024	2515.6	426	24.2	2.84	2.15
E 025	2515.8	275	22.3	2.84	2.21
E 026	2516.2	398	24.1	2.83	2.15
E 027	2516.4	173	20.7	2.83	2.24
E 028	2526.1	128	24.7	2.83	2.13
E 029	2526.4	60.6	23.3	2.83	2.17
E 030	2531.1	1.11	17.5	2.83	2.33
E 031	2531.3	0.572	16.0	2.83	2.38
E 032	2550.5	132	24.3	2.67	2.02
E 033	2550.7	8.34	17.9	2.70	2.22
E 034	2556.1	0.129	9.0	2.75	2.50
E 035	2556.9	0.662	11.4	2.70	2.39
E 036	2579.2	5.66	16.6	2.74	2.29
E 037	2579.4	5.98	16.4	2.72	2.27

Table 2 (Continued)

BASIC ROCK PROPERTIES

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
E 038	2618.1	1.96	14.3	2.69	2.31
E 039	2618.7	1.49	15.0	2.69	2.29
E 040	2626.7	1.93	14.4	2.71	2.32
E 041	2627.4	0.894	13.2	2.71	2.35
E 048	2641.1	10.1	18.5	2.71	2.21
E 049	2641.4	8.83	18.0	2.71	2.22
E 050	2658.4	0.277	16.1	2.72	2.28
E 051	2658.7	1.66	17.9	2.71	2.22
E 052	2681.7	2.28	16.9	2.72	2.26
E 053	2681.9	1.88	17.1	2.72	2.25
E 054	2700.3	0.201	12.4	2.78	2.44
E 055	2700.5	0.413	15.2	2.77	2.35
E 056	2771.9	0.601	10.9	2.72	2.42
E 057	2772.0	0.604	10.7	2.71	2.42
E 102*	2772.2	21.8	24.3	2.77	2.10
E 103	2772.5	12.4	17.4	2.74	2.26
E 104	2780.2	0.380	17.8	2.65	2.18
E 105	2781.2	0.018	8.9	2.71	2.47
E 106	2781.6	0.592	17.4	2.68	2.21
E 107	2782.2	0.005	6.1	2.71	2.54
E 108	2783.4	0.005	6.0	2.70	2.54
E 042	2877.1	0.689	12.5	2.71	2.37

* Denotes one inch diameter sample.

Table 2 (Continued)

BASIC ROCK PROPERTIES

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
E 043	2877.3	0.485	10.6	2.71	2.42
E 044	2891.4	48.7	13.2	2.71	2.35
E 045	2892.0	87.6	15.6	2.70	2.28
E 046	2932.3	8.42	10.5	2.70	2.42
E 047	2932.5	17.2	11.7	2.70	2.38
E 060	2949.8	177	14.4	2.70	2.31
E 061	2954.9	589	14.6	2.71	2.32

Figure 1

SPECIFIC PERMEABILITY TO GAS - POROSITY RELATIONSHIP

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

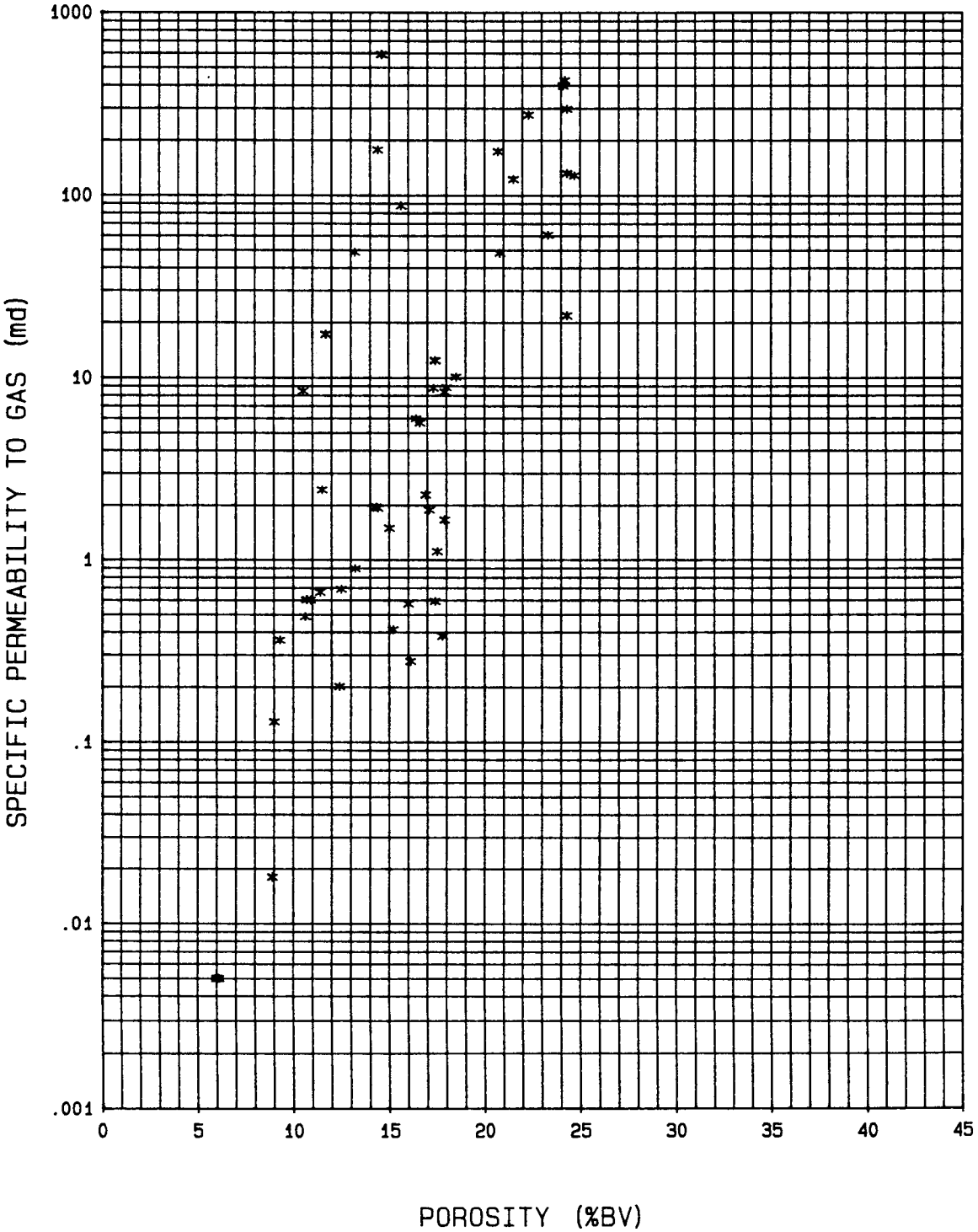

Figure 2

BULK DENSITY - POROSITY RELATIONSHIP

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

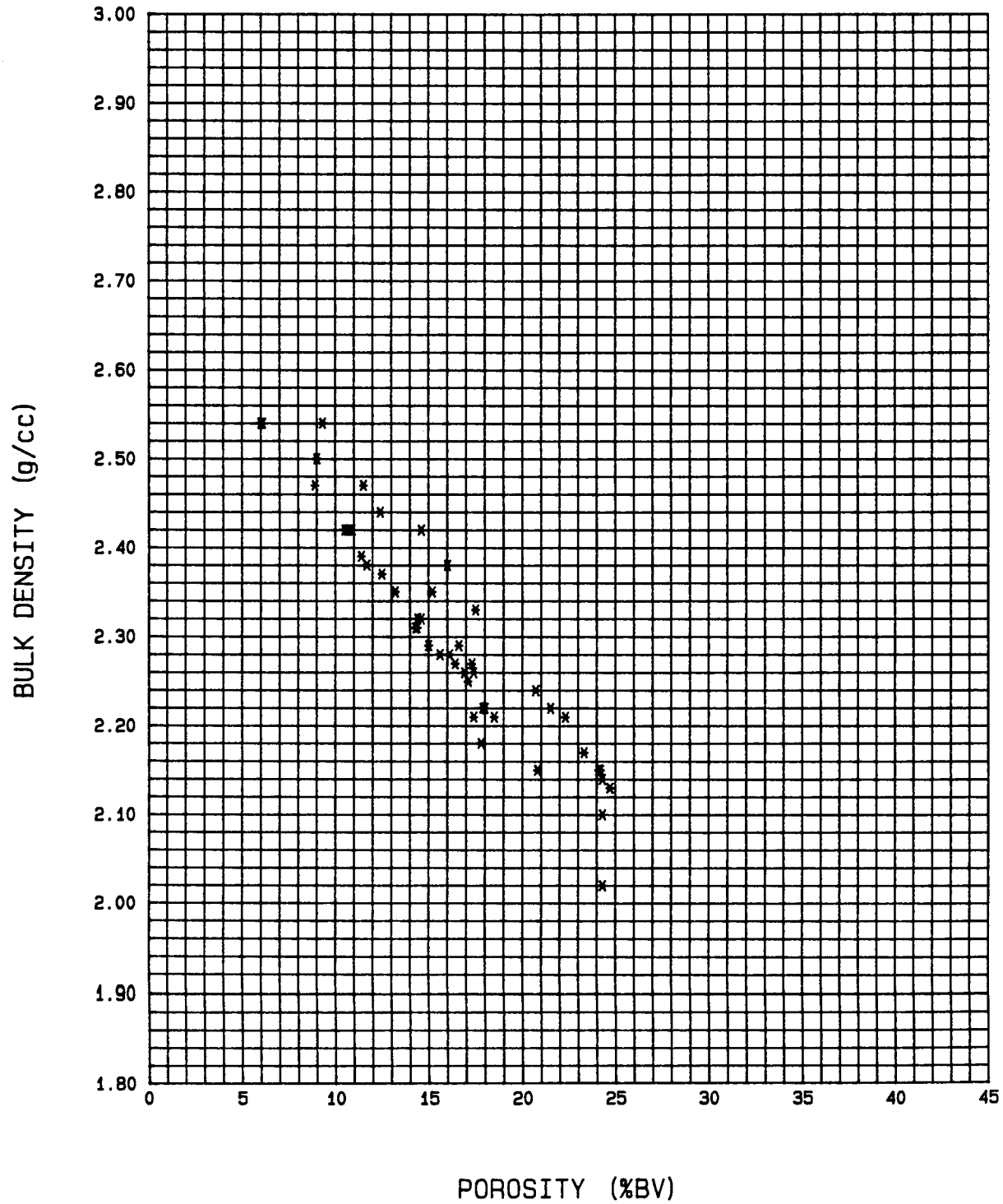

Table 3

SIMULATED FORMATION BRINE ANALYSIS*

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Constituent(s)	g/L
Sodium Bicarbonate	0.50
Sodium Sulfate	1.18
Magnesium Chloride	17.54
Calcium Chloride	16.26
Potassium Chloride	1.10
Sodium Chloride	198.20
Total Dissolved Solids:	234.78

* Denotes simulated formation brine was based upon an analysis performed by Halliburton Services in Liberal, Kansas, on March 13, 1992, for the Anadarko Petroleum Corporation, Tucker 3-19 Well, located in Morton County, Kansas.

Table 4

FORMATION RESISTIVITY FACTOR - POROSITY RELATIONSHIP

AT CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft.)	Confining Pressure (psig)	Formation Resistivity Factor (F)	Porosity (% BV)	Cementation Exponent(m)
E 019	2473.6	1590	76.98	11.3	1.99
E 020	2485.2	1590	21.03	20.4	1.92
E 023	2505.4	1590	31.47	21.2	2.22
E 025	2515.8	1590	27.72	22.1	2.20
E 028	2526.1	1590	17.75	24.5	2.05
E 030	2531.1	2590	36.45	17.3	2.05
E 032	2550.5	1590	14.75	23.9	1.88
E 034	2556.1	1590	124.0	8.8	1.98
E 037	2579.4	1590	37.07	16.0	1.97
E 038	2618.1	1590	49.78	13.9	1.98
E 041	2627.4	1590	61.08	12.8	2.00
E 048	2641.1	1590	30.70	18.2	2.01
E 051	2658.7	1590	29.00	17.5	1.93
E 052	2681.7	1590	37.72	16.6	2.02
E 055	2700.5	1590	41.29	14.9	1.95

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

Table 4(Continued)

FORMATION RESISTIVITY FACTOR - POROSITY RELATIONSHIP

AT CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft.)	Confining Pressure (psig)	Formation Resistivity Factor (F)	Porosity (% BV)	Cementation Exponent(m)
E 103	2772.5	1590	48.02	17.2	2.20
E 042	2877.1	1590	70.46	12.4	2.04
E 044	2891.4	1590	71.52	13.0	2.09
E 047	2932.5	1590	97.24	11.4	2.11
E 060	2949.8	1590	55.66	14.2	2.06

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

Figure 3

FORMATION RESISTIVITY FACTOR - POROSITY RELATIONSHIP AT CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

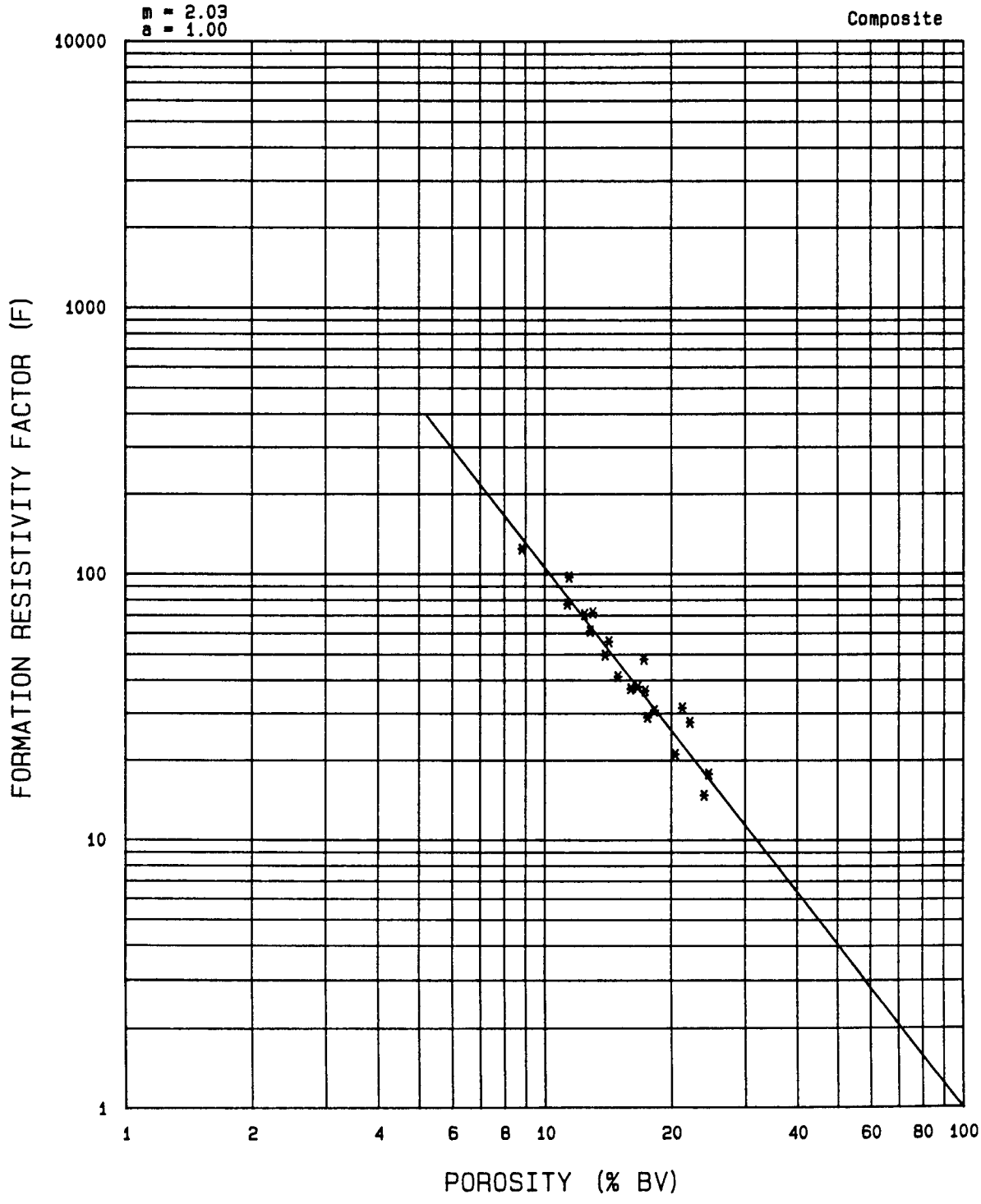

Table 5

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 019	2473.6	2.43*	11.3	1.00	100.0
				1.07	95.8
				1.21	88.4
				1.45	78.3
				1.84	66.1
				2.19	58.6
				2.47	54.3
				2.86	49.0
				3.24	44.9
				3.91	39.5
				5.46	30.6

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 4

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

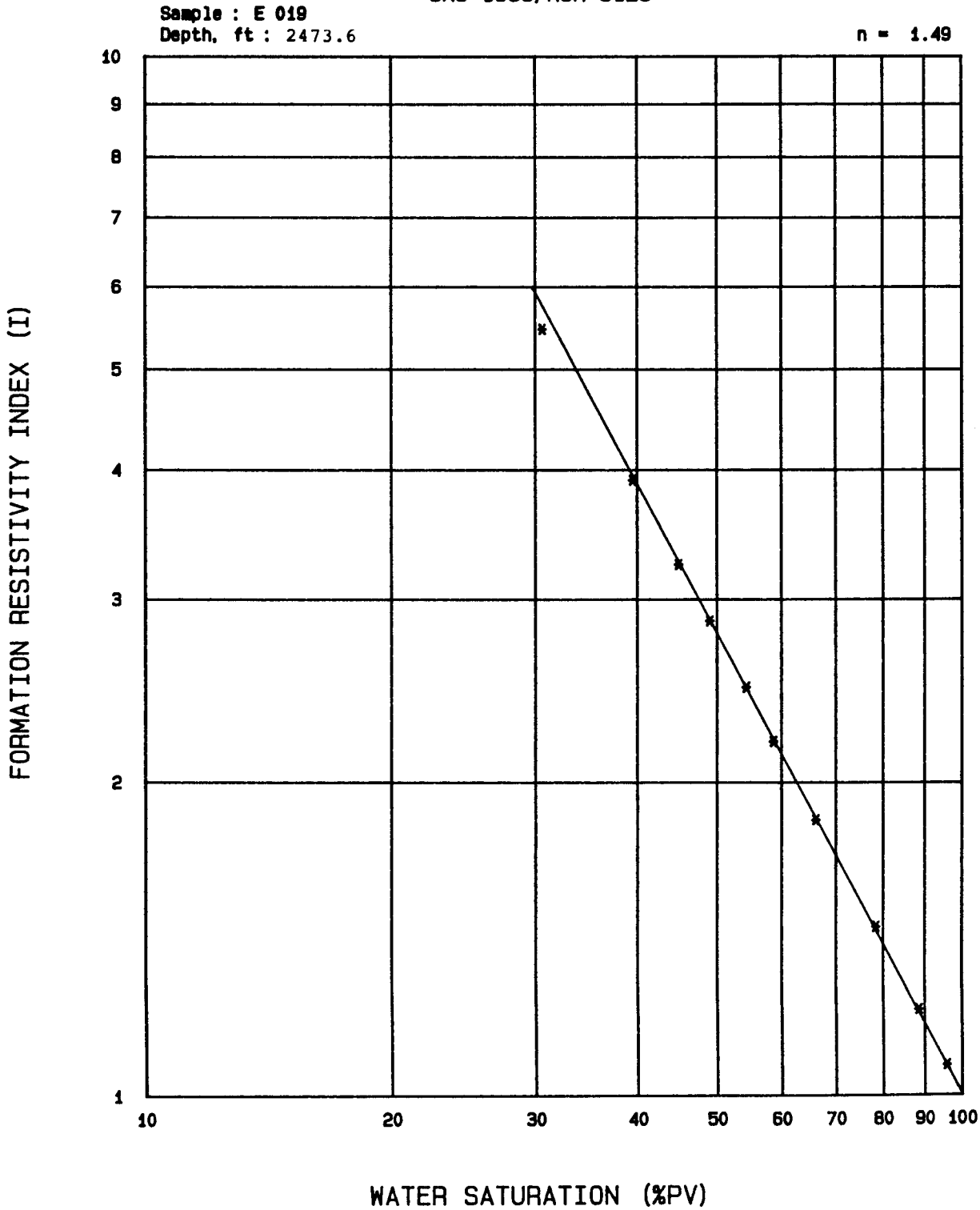

Table 6

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 020	2485.2	48.2*	20.4	1.00	100.0
				1.12	93.5
				1.35	83.0
				1.51	77.7
				1.86	67.0
				2.45	56.4
				3.03	48.8
				3.43	46.2
				4.25	40.7
				5.26	35.9
				10.48	22.8

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 5

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

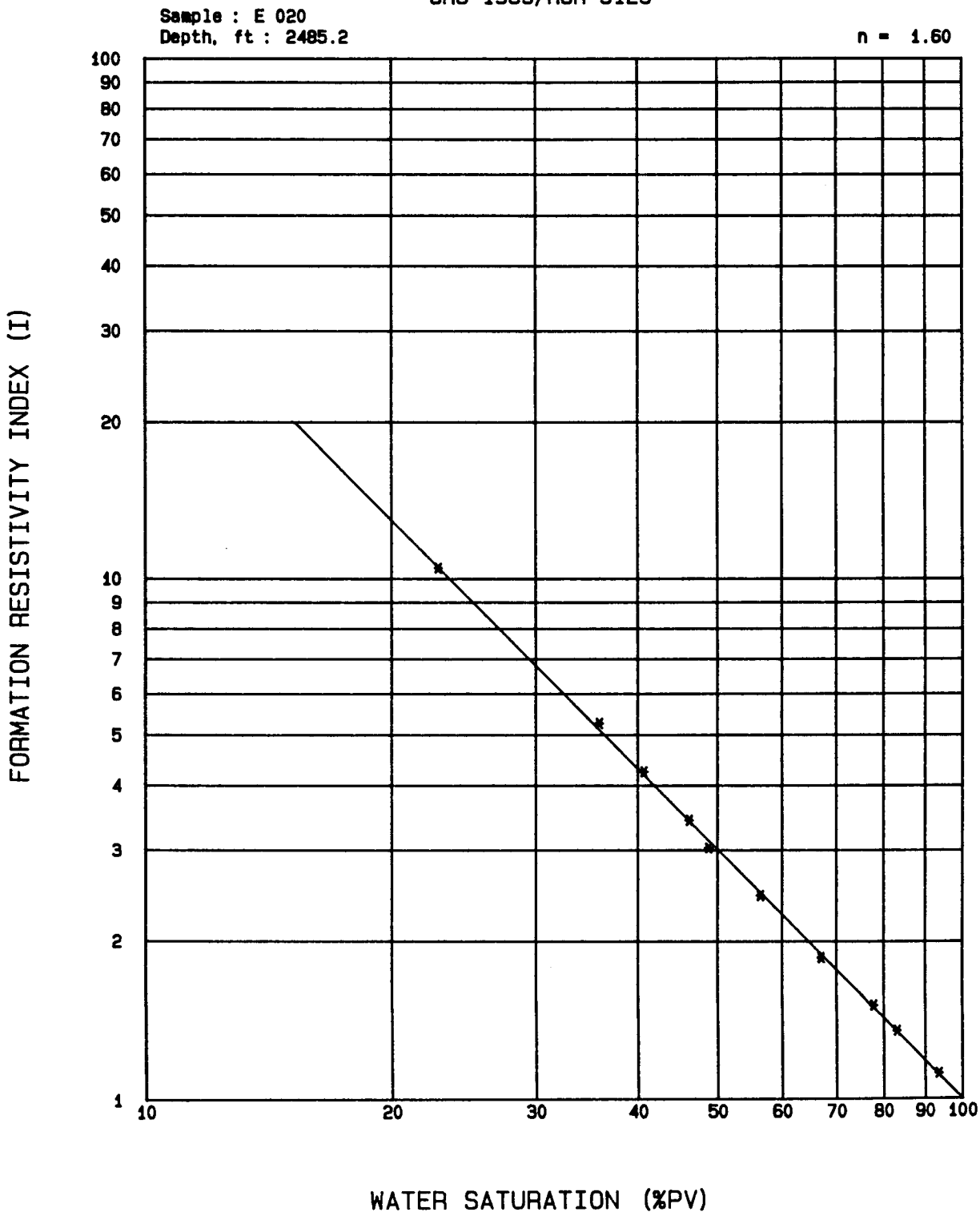

Table 7

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 023	2505.4	122*	21.2	1.00	100.0
				1.11	94.0
				1.27	86.7
				1.46	79.3
				1.63	73.8
				2.07	65.0
				2.88	52.6
				3.52	46.8
				4.62	39.0
				6.48	31.0
				10.40	23.3
				13.37	20.0
				22.80	14.7

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 6

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

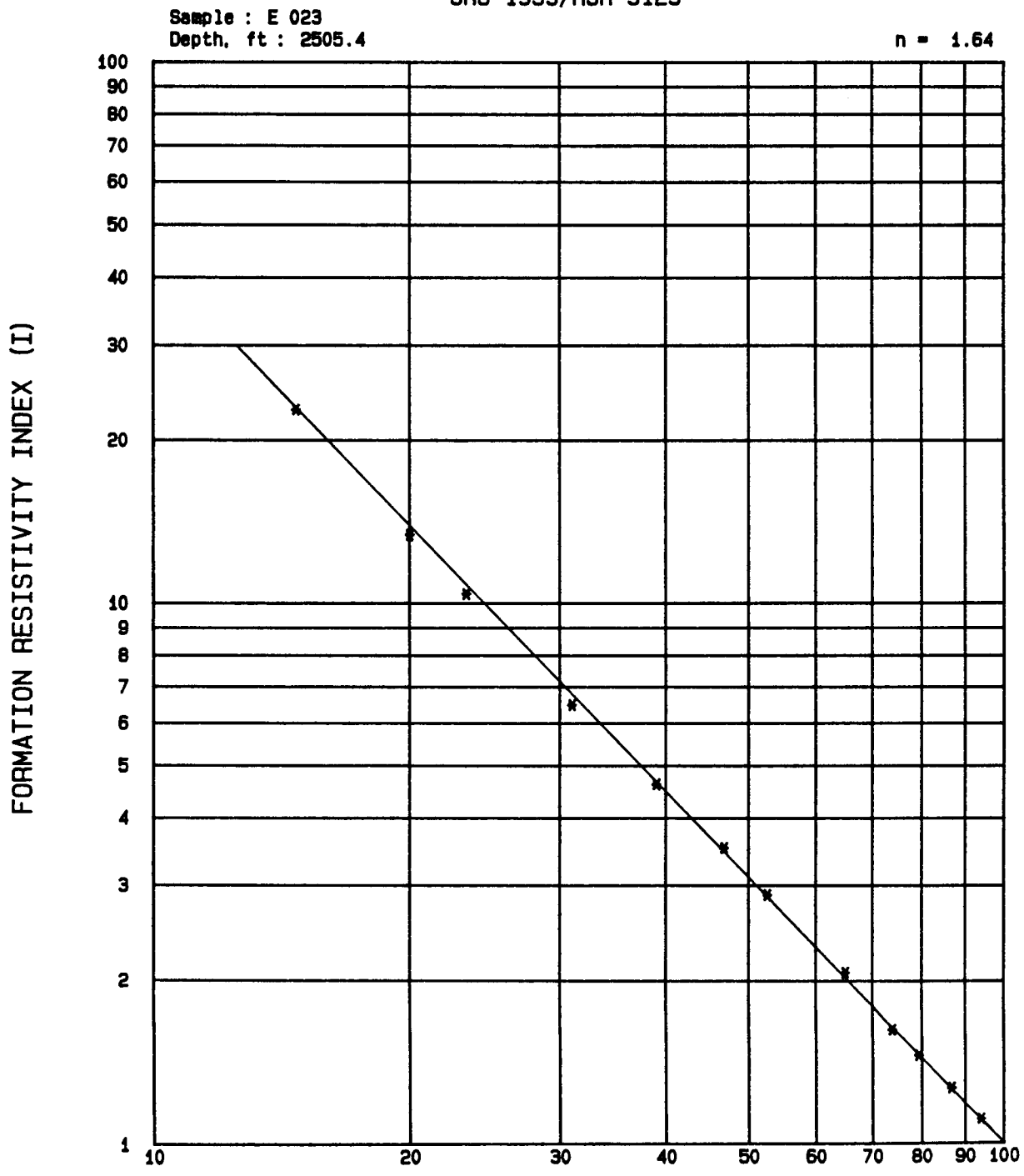

Table 8

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 025	2515.8	278*	22.1	1.00	100.0
				1.09	95.3
				1.43	81.0
				1.56	77.0
				2.00	65.7
				2.48	57.9
				3.00	50.6
				3.58	45.3
				4.57	39.4
				7.69	29.3
				8.93	27.0
				10.82	23.7
				37.41	11.8

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 7

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

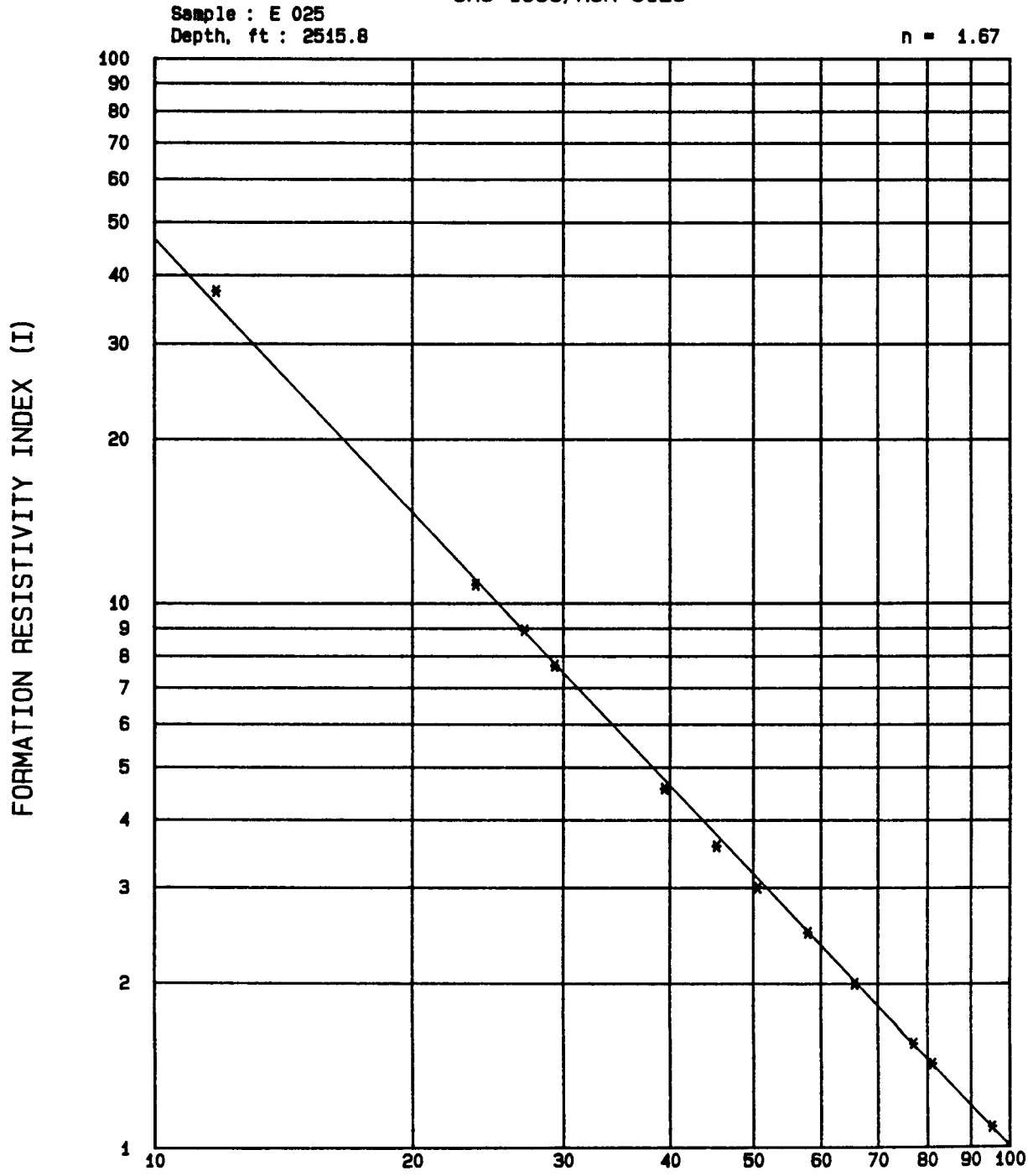

Table 9

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 028	2526.1	128*	24.5	1.00	100.0
				1.10	94.4
				1.23	88.7
				1.39	82.9
				1.56	77.3
				1.70	73.1
				2.24	60.8
				3.02	51.1
				3.62	45.9
				5.00	36.0
				7.07	29.6
				9.83	24.8
				26.68	13.0

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit.
Permeability to gas measured at 400 psig confining pressure.

Figure 8

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

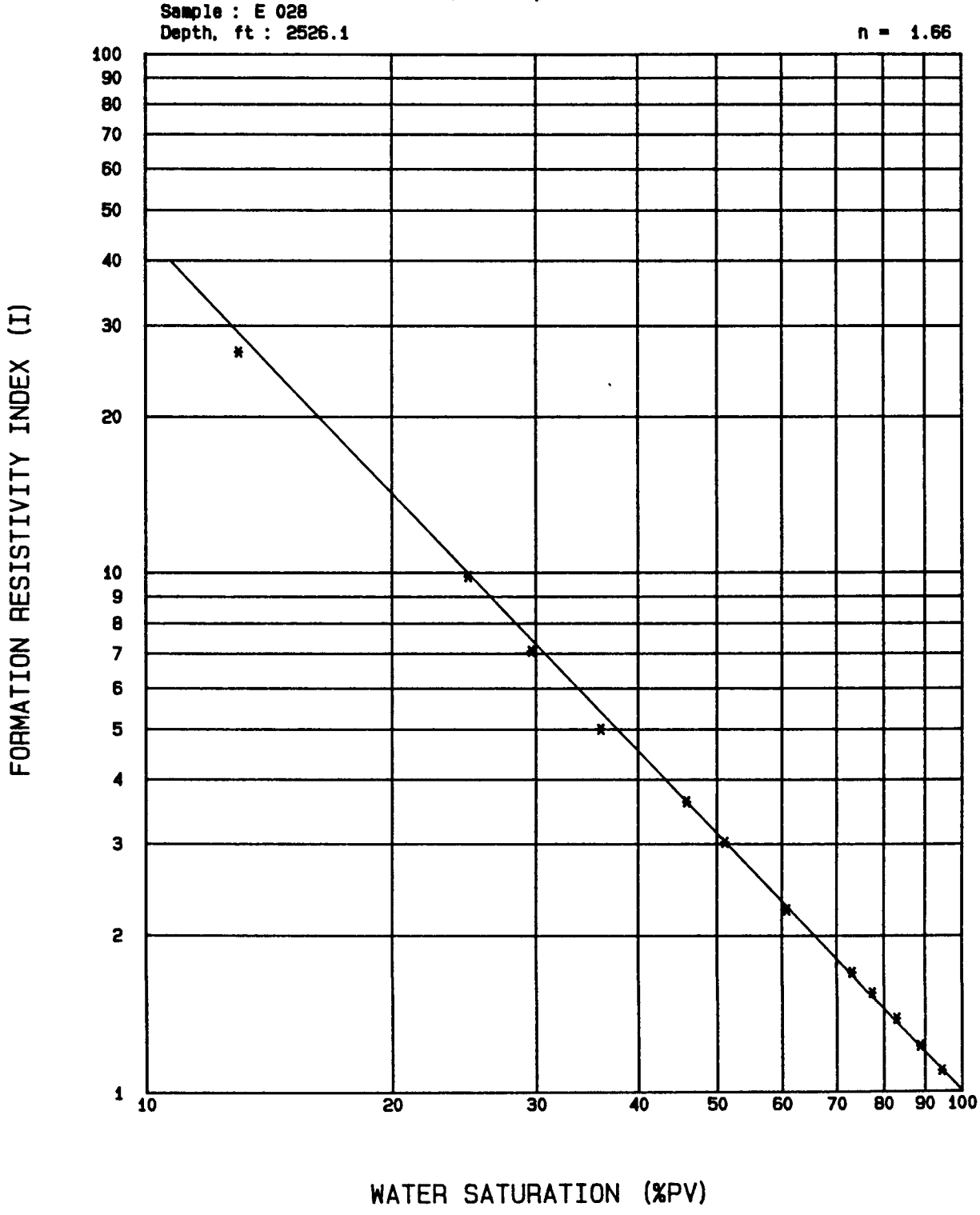

Table 10

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 030	2531.1	1.11*	17.3	1.00	100.0
				1.18	90.9
				1.53	78.2
				1.74	70.1
				2.01	64.8
				2.26	59.5
				2.49	55.5
				2.81	50.4
				3.21	46.0
				4.53	37.3

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 9

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP
AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

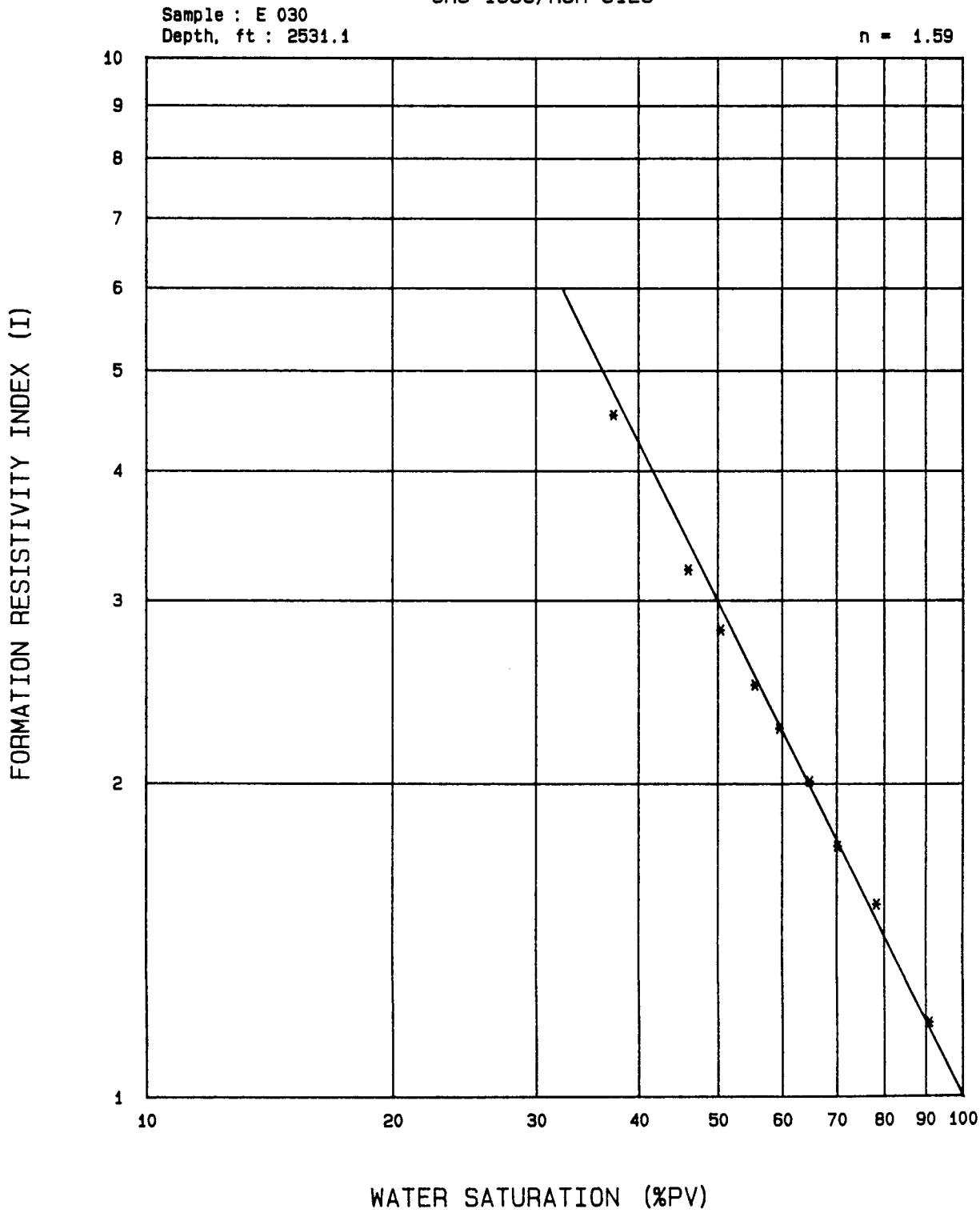

Table 11

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 032	2550.5	132*	23.9	1.00	100.0
				1.07	96.1
				1.23	88.4
				1.52	78.6
				1.80	71.1
				1.93	67.2
				2.08	63.6
				2.35	58.2
				3.32	47.2
				3.94	42.3
				4.22	40.4
				4.70	36.1
				9.07	23.6

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 10

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP
AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

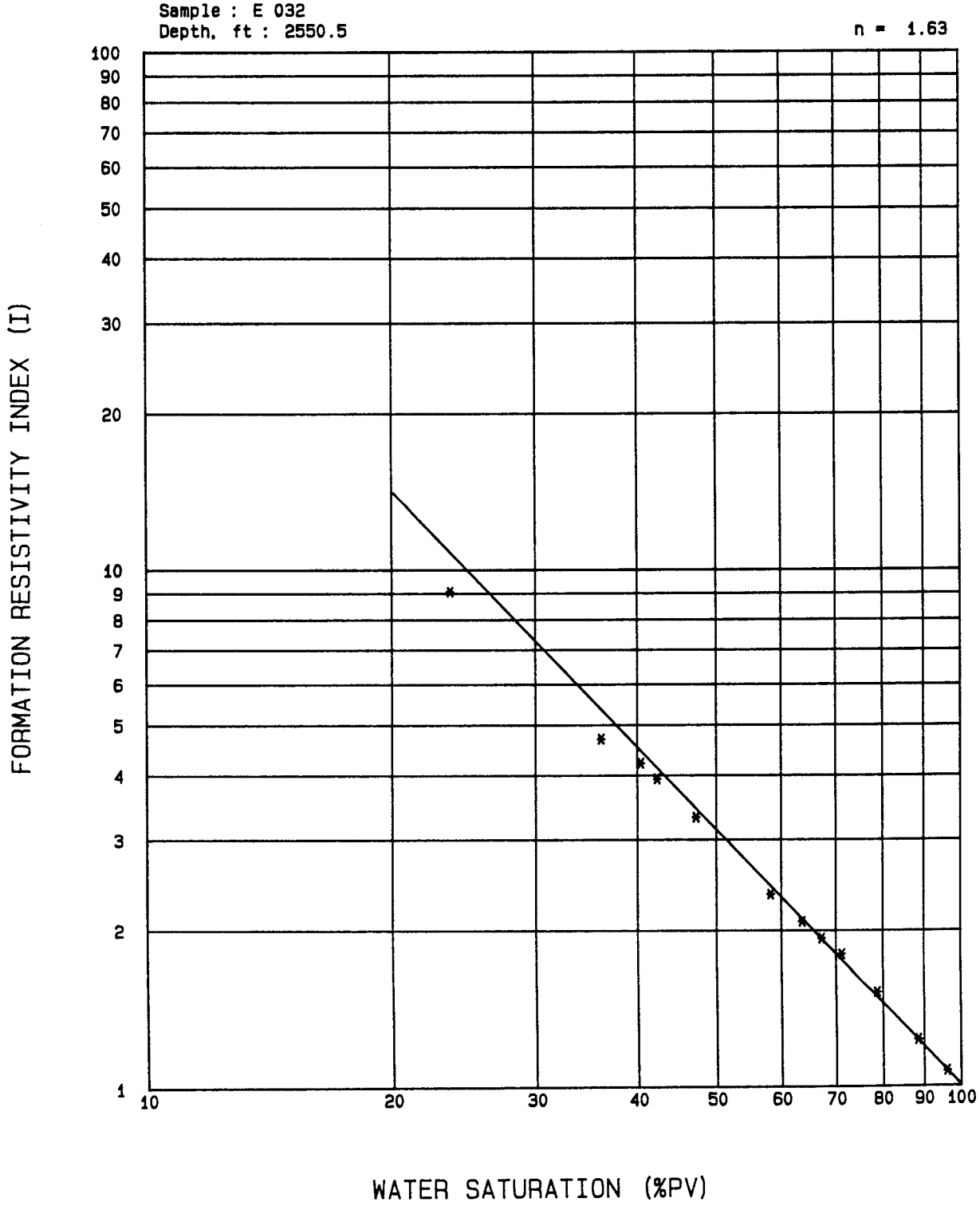

Table 12

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 034	2556.1	0.129*	8.8	1.00	100.0
				1.11	94.7
				1.20	90.9
				1.28	87.9
				1.42	83.5
				1.70	75.9
				1.92	71.2
				2.05	68.7
				2.22	65.5
				2.49	60.5
				2.77	56.7
				3.30	50.1
				3.79	46.3

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 11

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

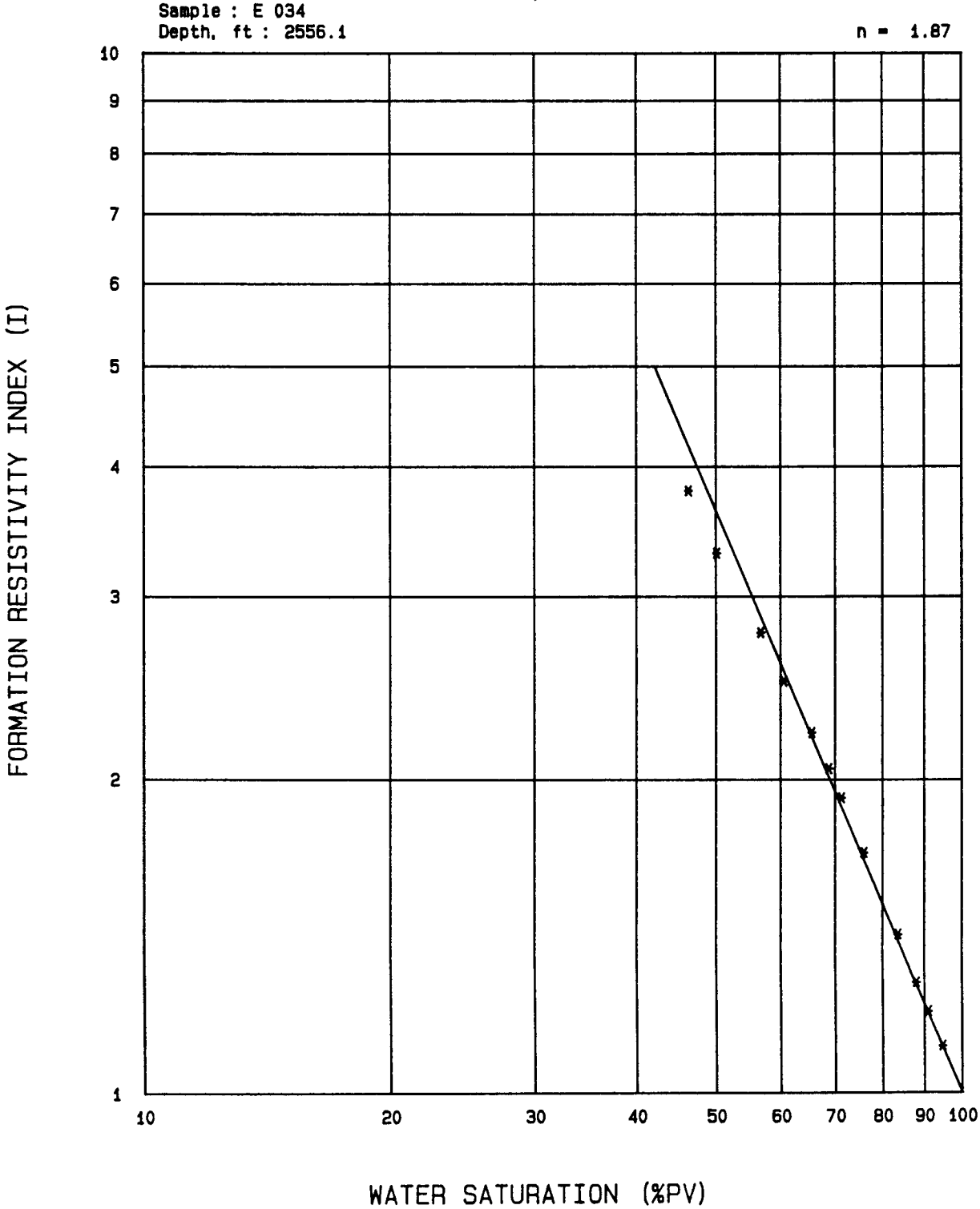

Table 13

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 037	2579.4	5.98*	16.0	1.00	100.0
				1.06	96.5
				1.25	87.1
				1.55	76.8
				1.73	72.0
				1.89	67.3
				2.41	58.0
				3.31	48.2
				4.13	41.8
				5.08	37.7
				7.02	31.2
				8.16	28.1
				11.54	22.3

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit.
Permeability to gas measured at 400 psig confining pressure.

Figure 12

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

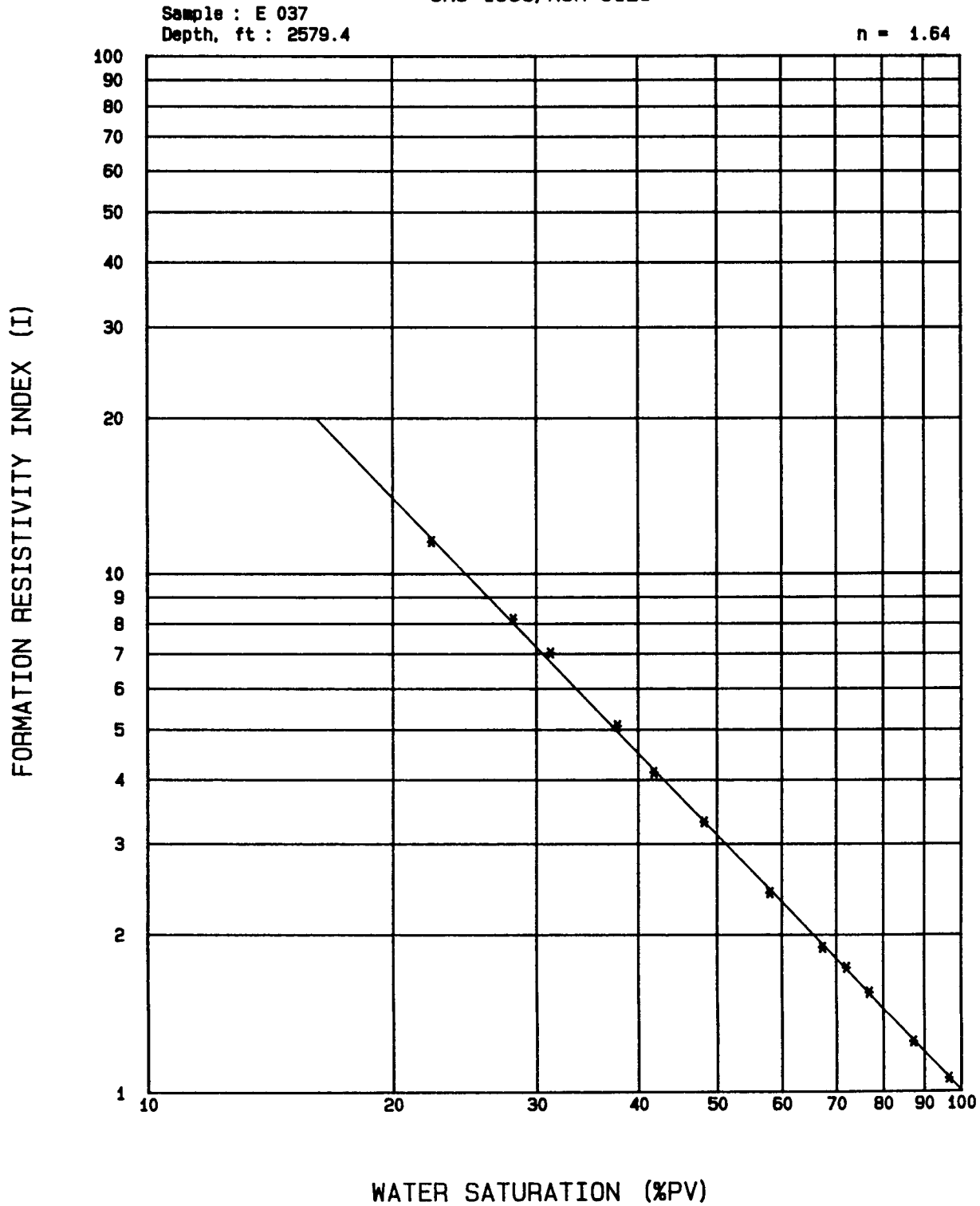

Table 14

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 038	2618.1	1.96*	13.9	1.00	100.0
				1.20	91.0
				1.34	86.0
				1.48	81.2
				1.79	73.4
				2.17	65.7
				2.60	59.6
				3.74	48.8
				7.52	32.7
				11.63	25.0

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 13

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

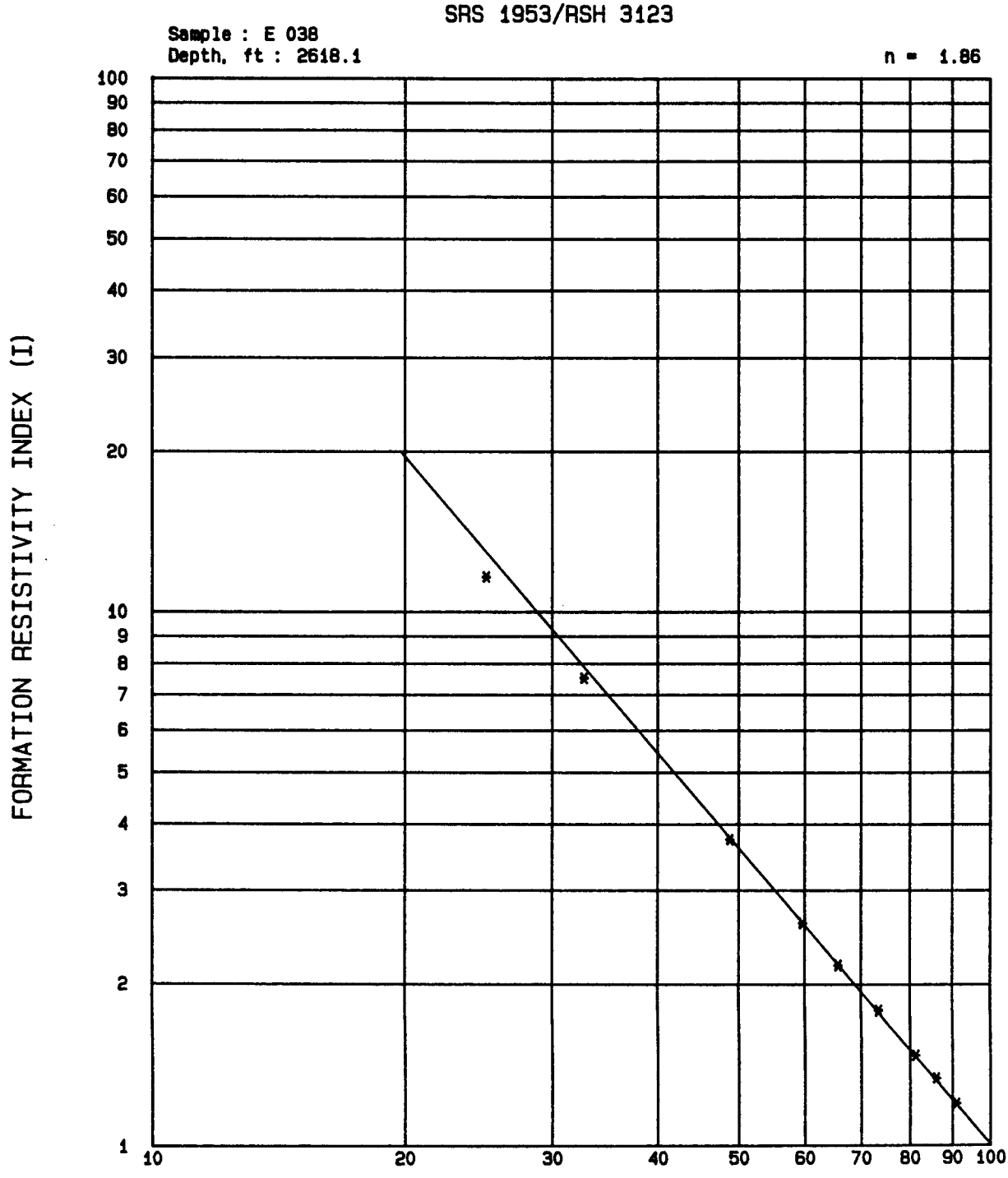

Table 15

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 041	2627.4	0.894*	12.8	1.00	100.0
				1.11	94.2
				1.22	89.3
				1.78	71.6
				2.03	65.7
				2.67	56.7
				3.30	50.2
				3.81	45.5
				4.77	40.3
				5.61	37.6
				6.56	34.1
				7.88	29.0
				9.62	25.4

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 14

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

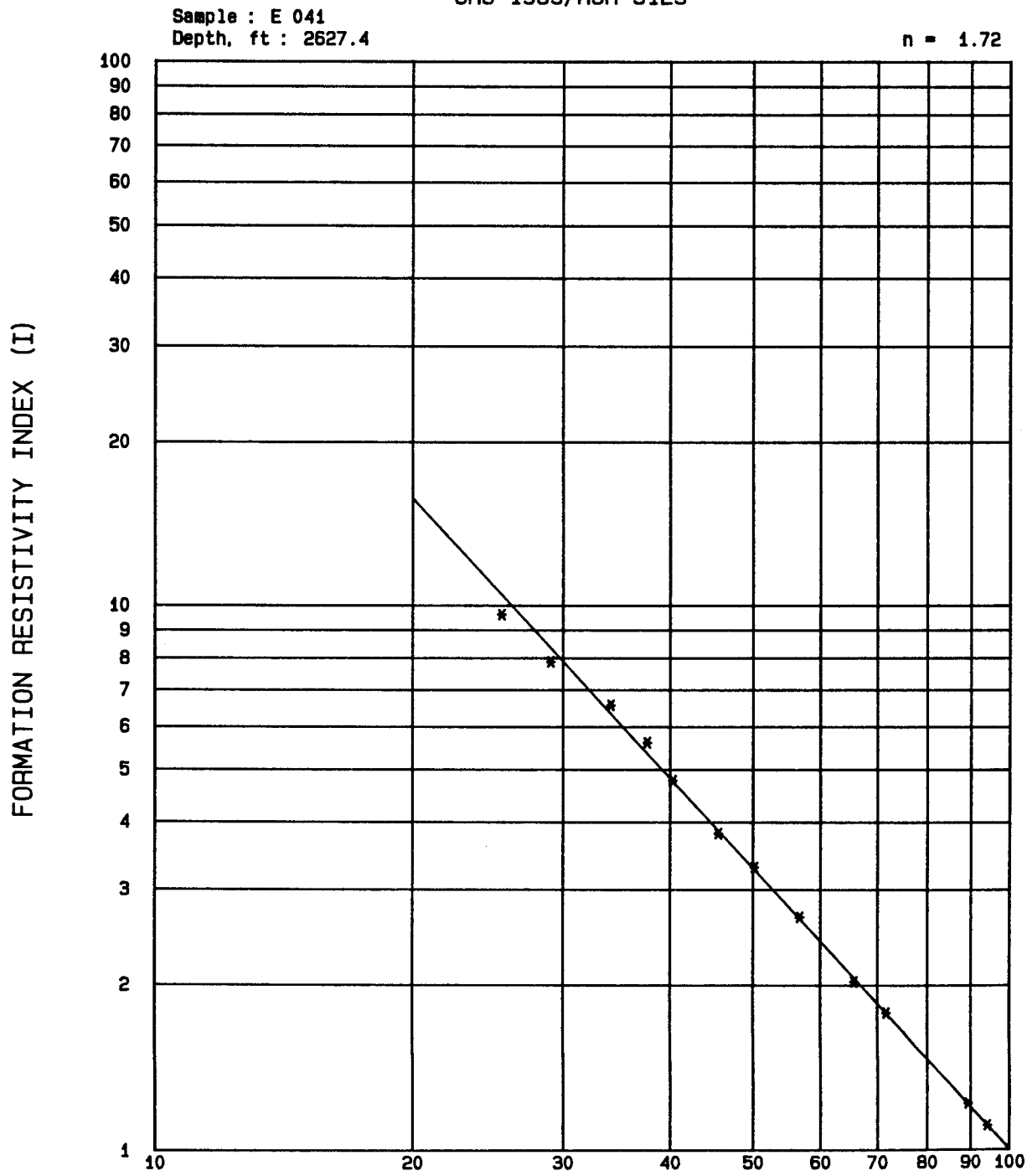

Table 16

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 048	2641.1	10.1*	18.2	1.00	100.0
				1.20	90.3
				1.32	85.4
				1.65	75.3
				1.82	71.4
				2.10	65.0
				2.75	55.1
				3.25	51.0
				4.54	42.7
				5.61	37.7
				9.67	27.8
				12.19	24.0

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit.
Permeability to gas measured at 400 psig confining pressure.

Figure 15

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

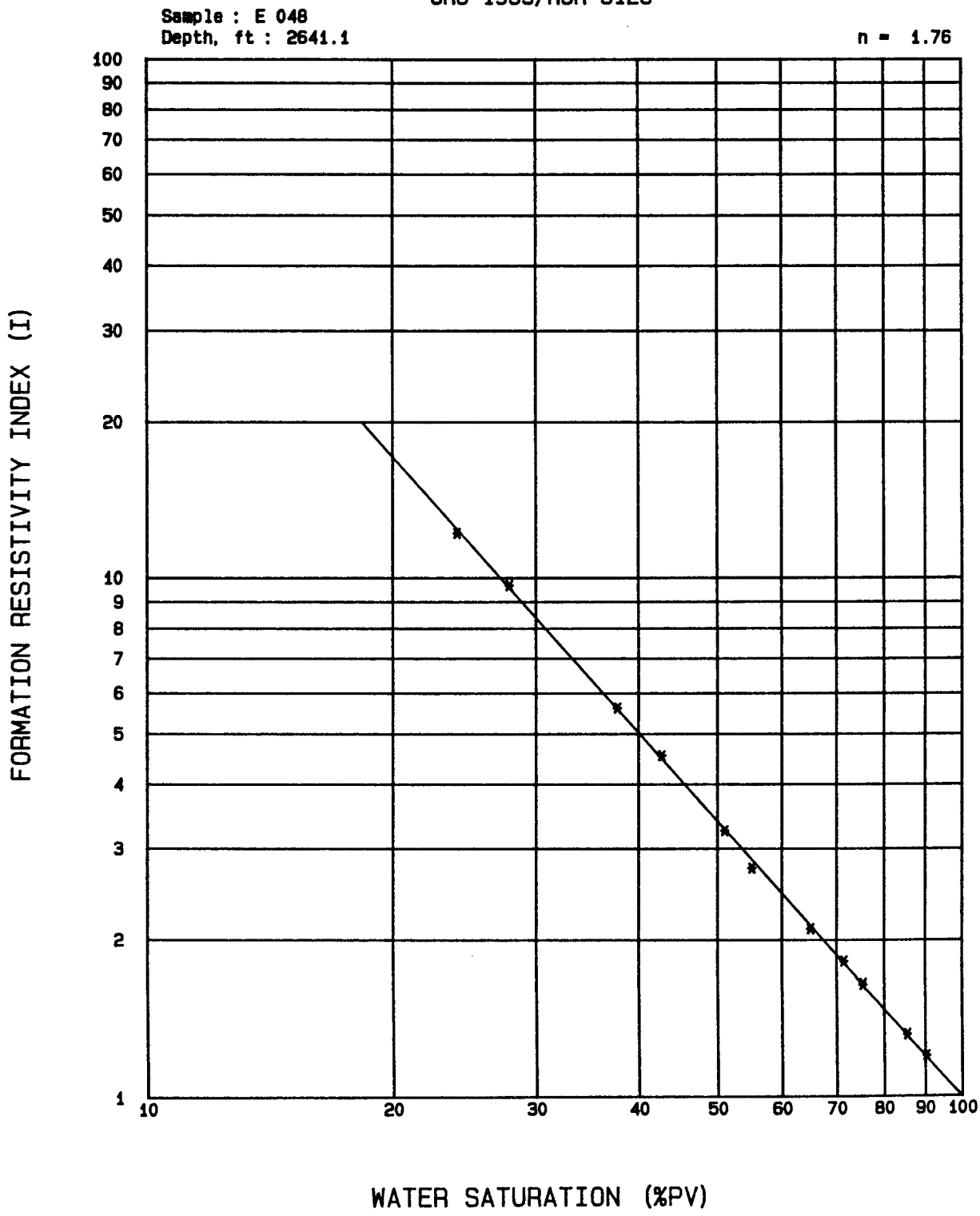

Table 17

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 051	2658.7	1.66*	17.5	1.00	100.0
				1.08	96.0
				1.36	85.2
				1.68	76.0
				2.02	68.0
				2.25	63.6
				2.43	59.9
				2.68	56.4
				2.95	53.2
				4.00	45.5

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 16

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP
AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

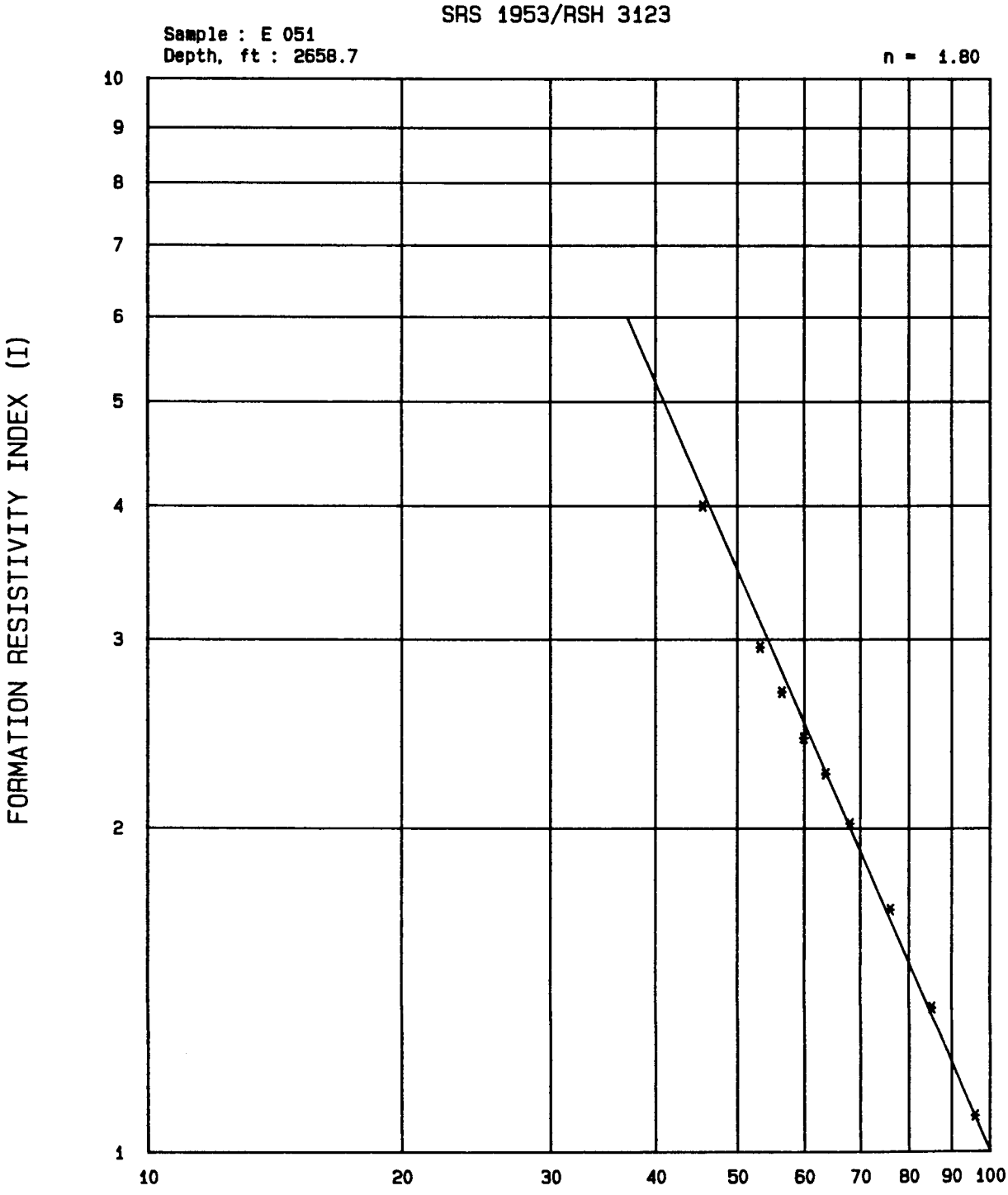

Table 18

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 052	2681.7	2.24*	16.6	1.00	100.0
				1.08	95.7
				1.21	89.9
				1.40	82.7
				1.56	77.0
				1.83	69.9
				2.41	58.4
				2.76	53.4
				3.60	45.6
				4.41	40.1
				5.54	35.2
				7.69	28.7
				9.85	23.7
				13.40	19.3

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 17

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

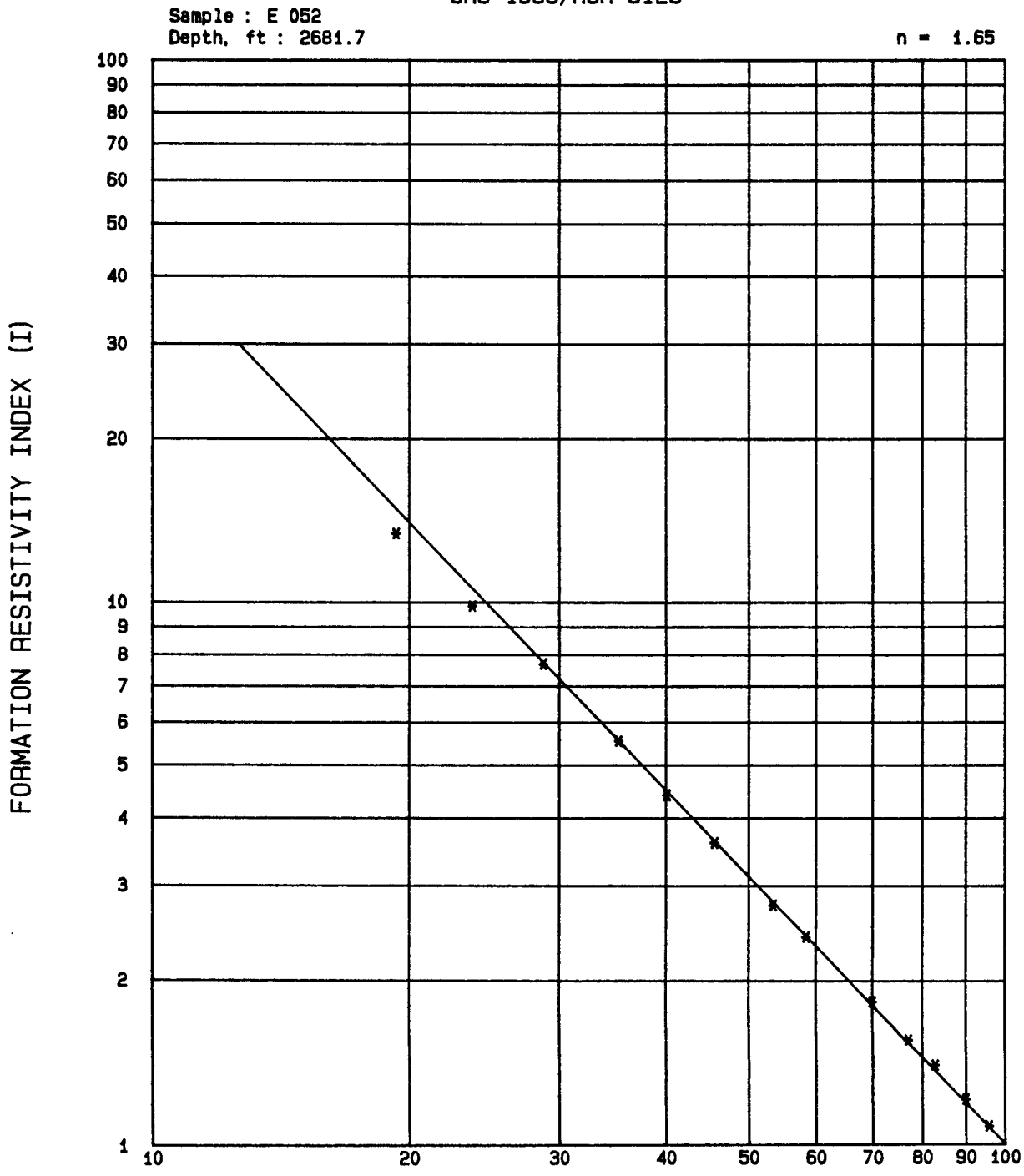

Table 19

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 055	2700.5	0.413*	14.9	1.00	100.0
				1.17	90.6
				1.28	85.5
				1.36	81.7
				1.51	75.9
				1.82	67.4
				2.13	61.1
				2.44	55.9
				2.89	50.0
				3.63	42.8
				4.15	38.8
				5.76	31.3

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 18

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

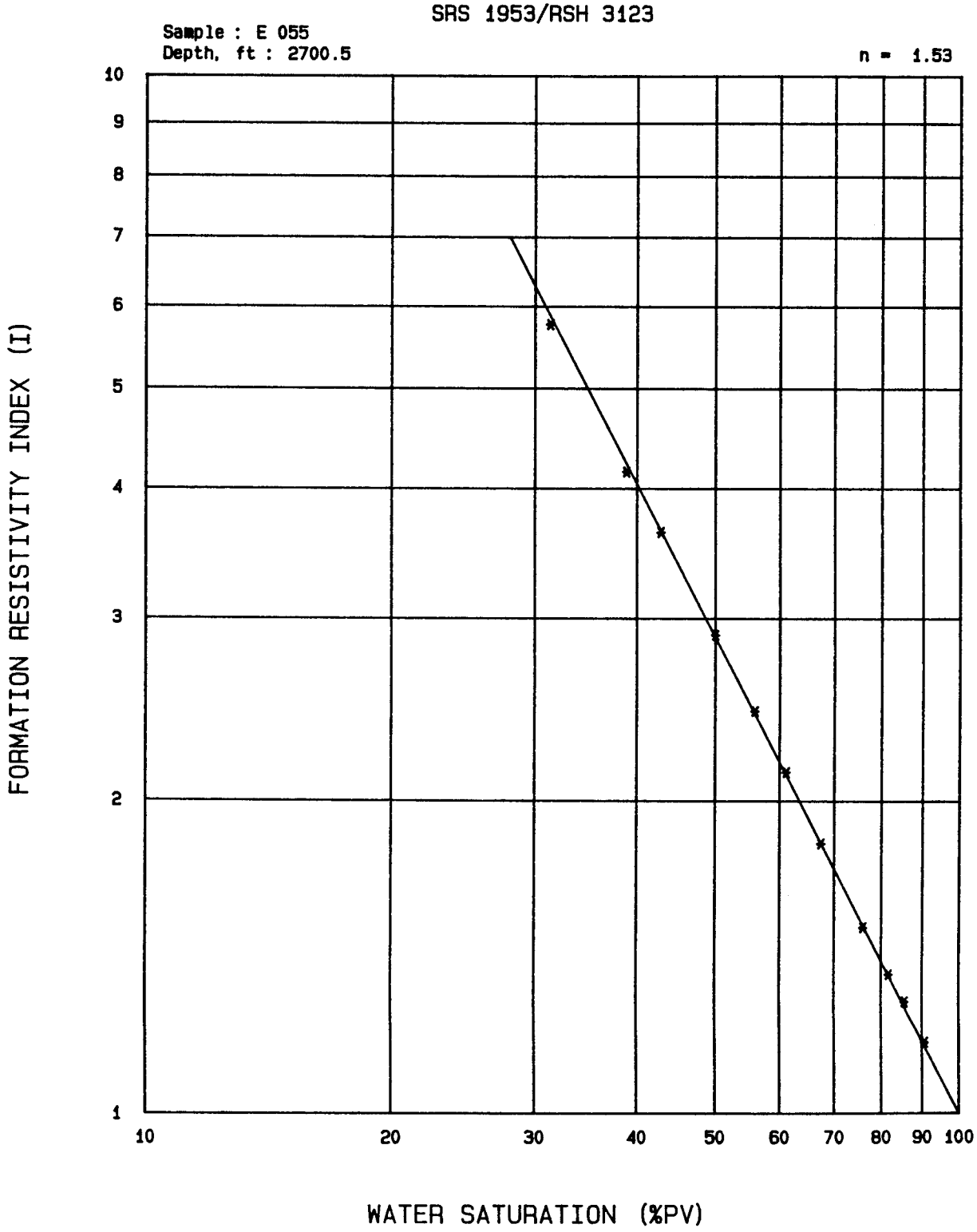

Table 20

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 103	2772.5	12.4*	17.2	1.00	100.0
				1.23	93.0
				1.56	85.2
				1.98	79.2
				2.58	73.8
				3.75	66.9
				4.92	62.0
				8.23	53.7

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 19

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

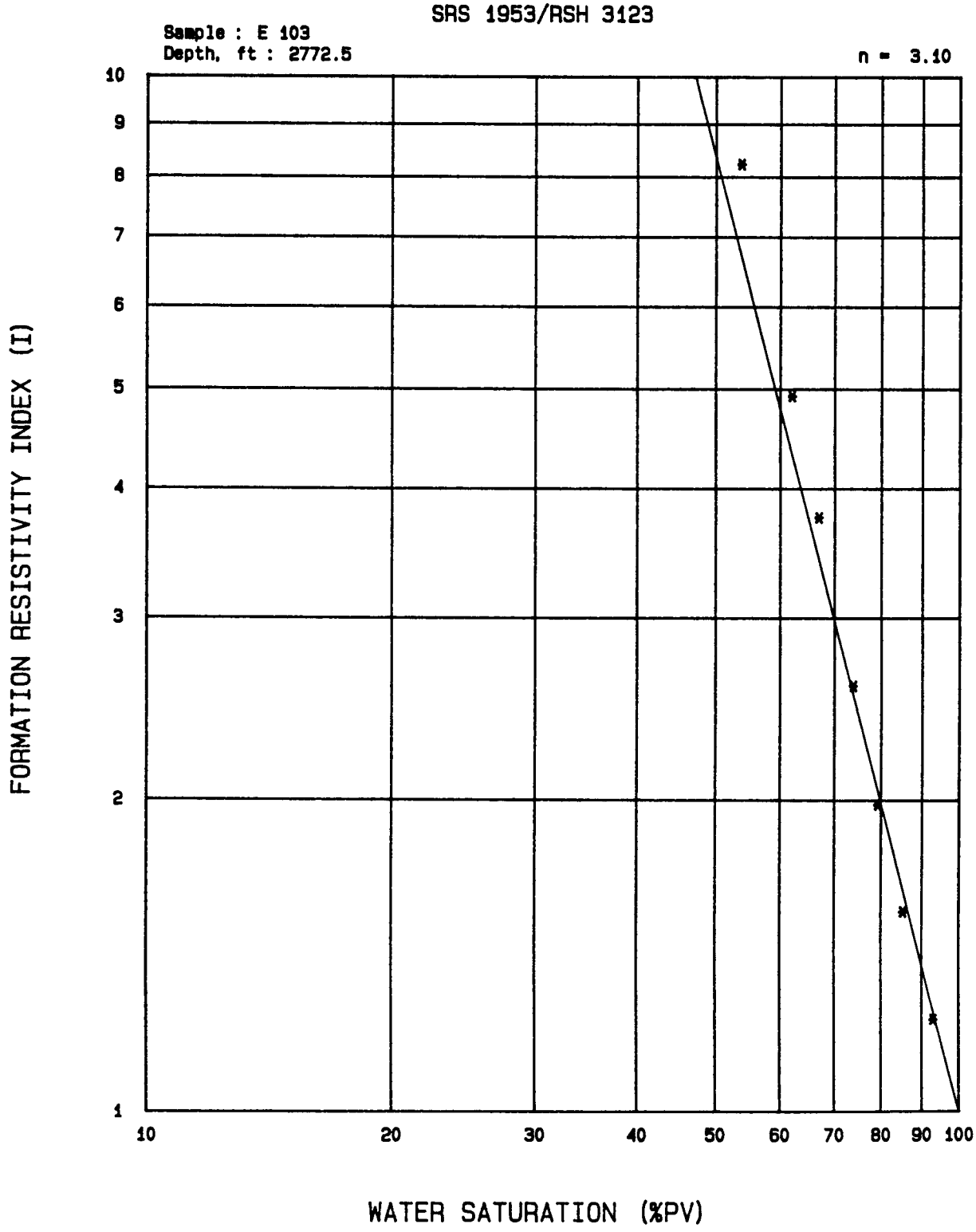

Table 21

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 042	2877.1	0.689*	12.4	1.00	100.0
				1.08	95.8
				1.45	81.2
				1.90	69.2
				2.22	62.5
				2.86	55.1
				3.30	49.8
				3.72	46.6
				4.47	40.7
				5.78	36.6

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 20

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

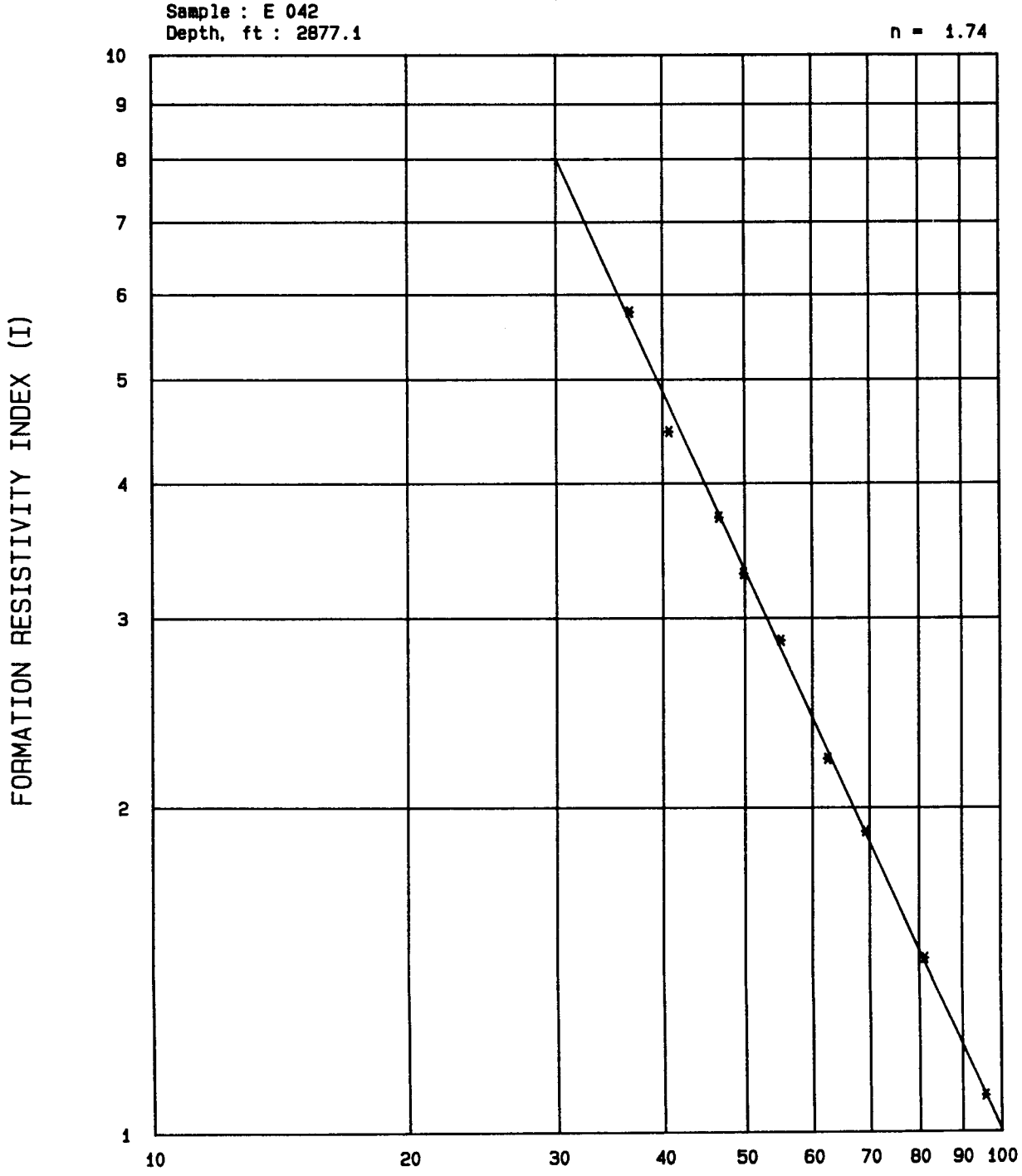

Table 22

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 044	2891.4	48.7*	13.0	1.00	100.0
				1.17	91.8
				1.33	85.2
				1.42	80.4
				1.65	75.0
				1.95	68.7
				2.34	62.1
				2.73	56.0
				3.07	53.1
				3.58	47.8
				4.06	44.4
				6.14	34.5
				8.07	31.2
				12.17	24.1

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 21

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

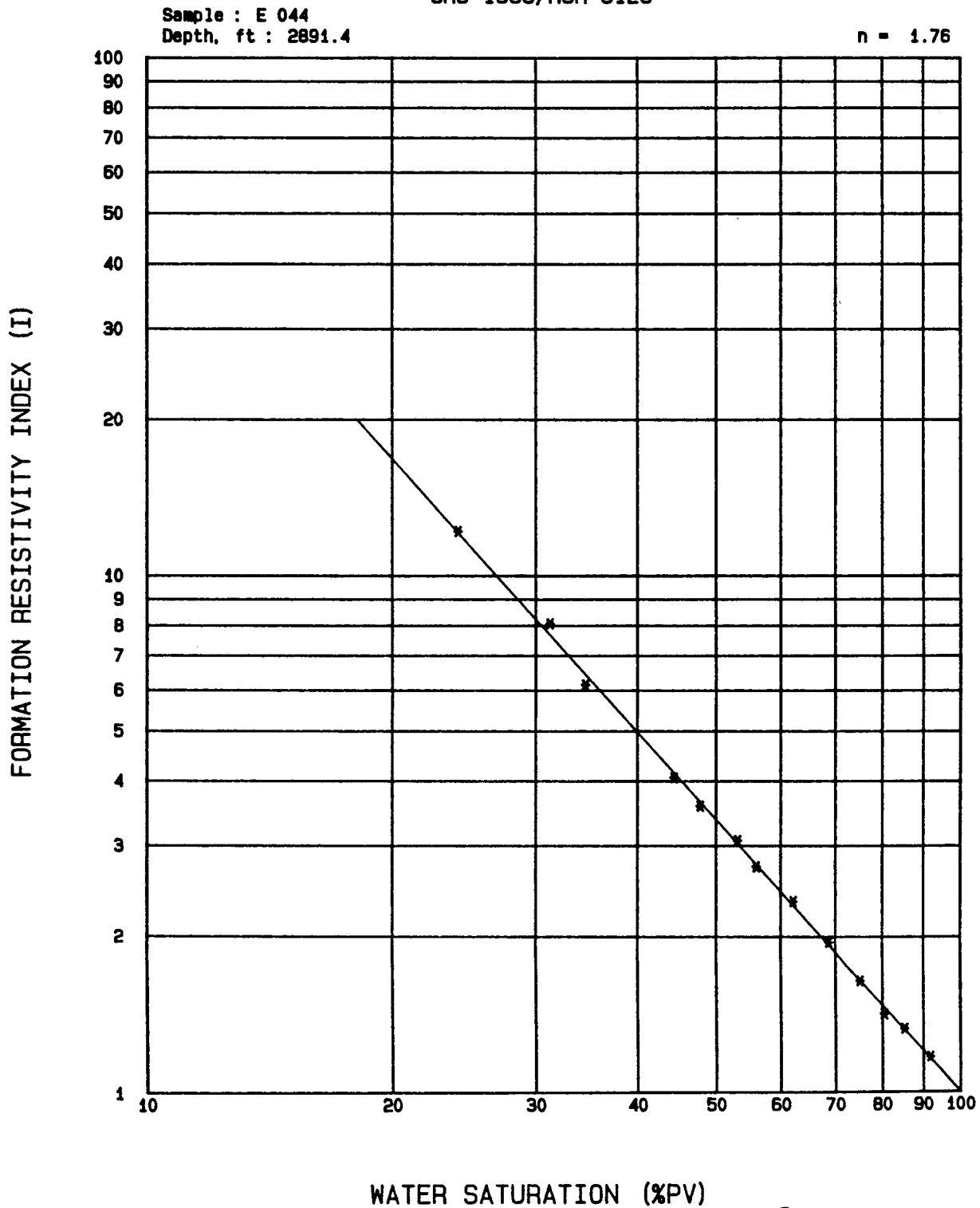

Table 23

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
E 047	2932.5	17.2*	11.4	1.00	100.0
				1.21	90.5
				1.44	82.5
				1.67	77.0
				1.93	71.0
				2.14	66.9
				2.61	59.4
				3.52	50.0
				4.27	44.8
				5.19	41.1
				6.13	37.6
				8.20	31.3
				10.01	26.9

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 22

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

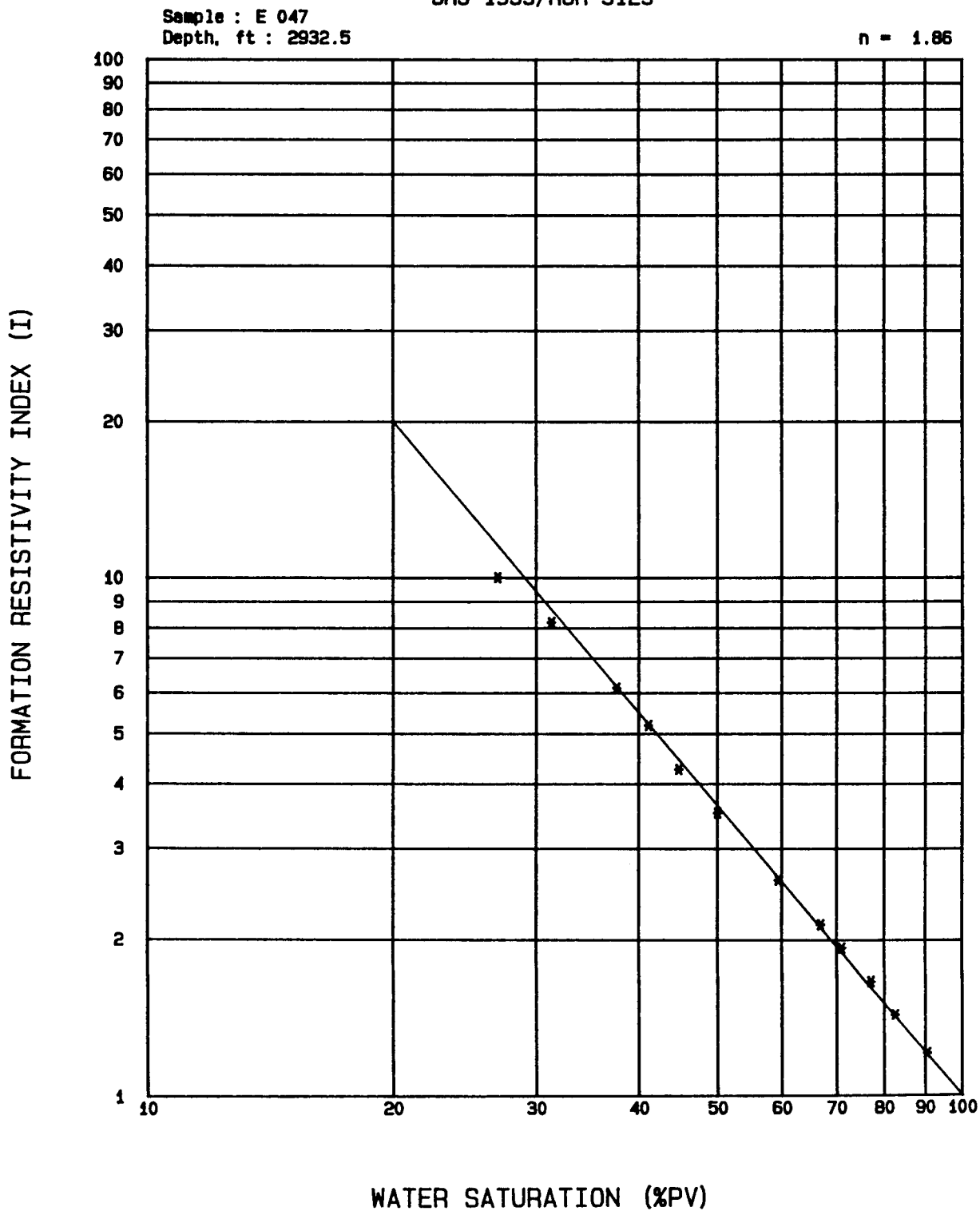

Table 24

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP

AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1853/RSH 3123

Sample	Depth (ft)	Permeability To Gas (md)	Porosity (% BV)	Formation Resistivity Index (I)	Water Saturation (% PV)
A 060	2949.8	177*	14.2	1.00	100.0
				1.22	90.6
				1.46	83.0
				1.90	72.9
				2.19	67.5
				2.73	60.2
				3.08	56.8
				3.86	50.6
				5.24	42.9
				6.25	39.2
				9.49	31.8
				12.14	28.6
				16.90	24.4
				27.51	19.6

Rw = 0.045 ohm-meters @ 73 degrees Fahrenheit

* Permeability to gas measured at 400 psig confining pressure.

Figure 23

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT 1590 psig CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1853/RSH 3123

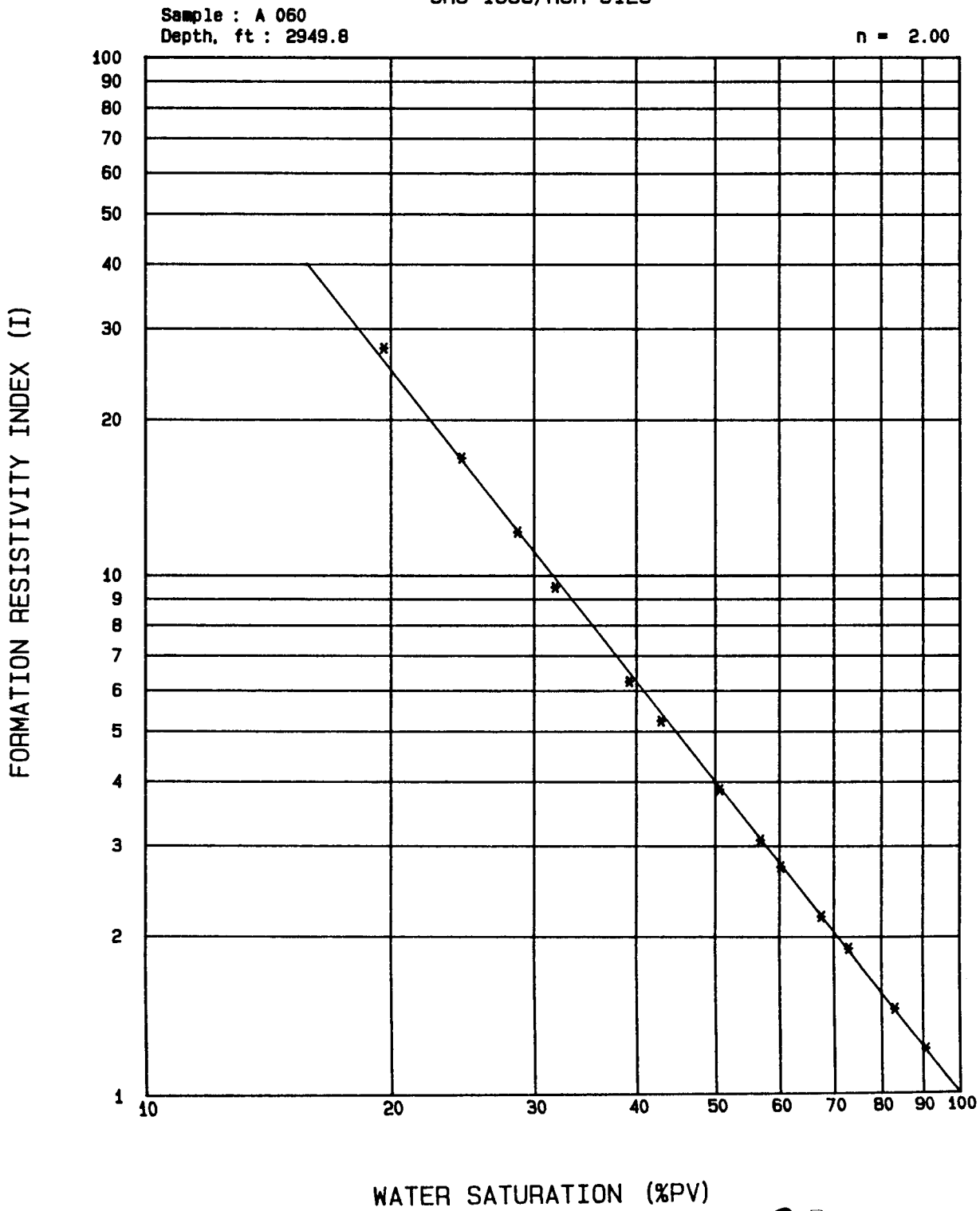

Figure 23A

FORMATION RESISTIVITY INDEX - SATURATION RELATIONSHIP AT CONFINING PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

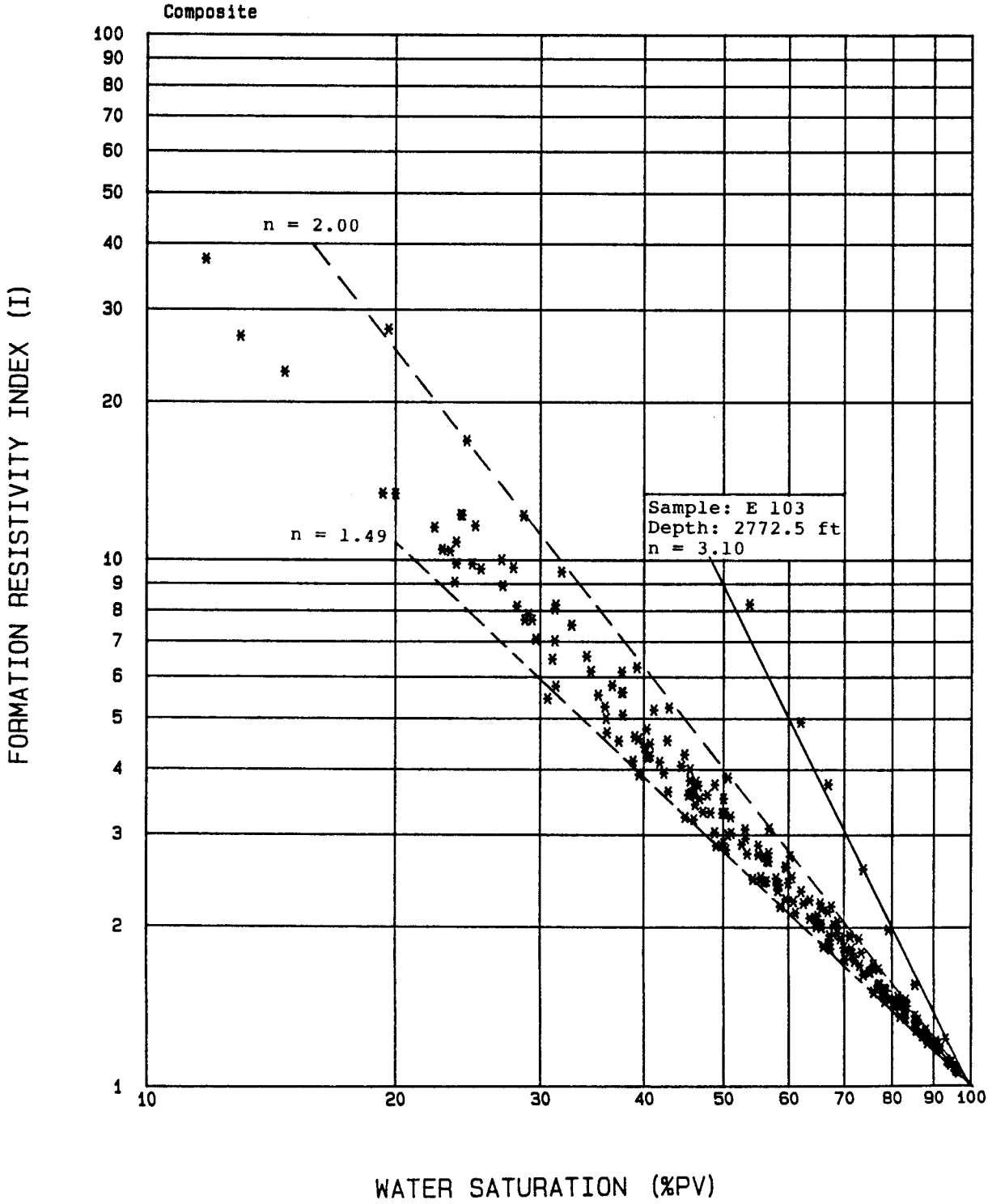

Table 25

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 019

Depth, ft: 2473.6

Porosity,% BV: 11.5

Perm. to Gas, md: 2.42

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.65	100.0	-	-
4.15	100.0	-	-
6.65	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	87.3	2.34	0.123
61.6	56.7	1.73	0.166
75.6	41.4	1.41	0.204
112	26.5	0.95	0.301
162	19.6	0.66	0.435
202	16.8	0.53	0.543
302	13.1	0.35	0.812
402	11.2	0.27	1.08
602	9.1	0.18	1.62
802	7.9	0.13	2.16
1001	7.1	0.11	2.70
1201	6.3	0.09	3.24
1501	5.6	0.07	4.04
2001	4.6	0.05	5.39

Figure 24

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

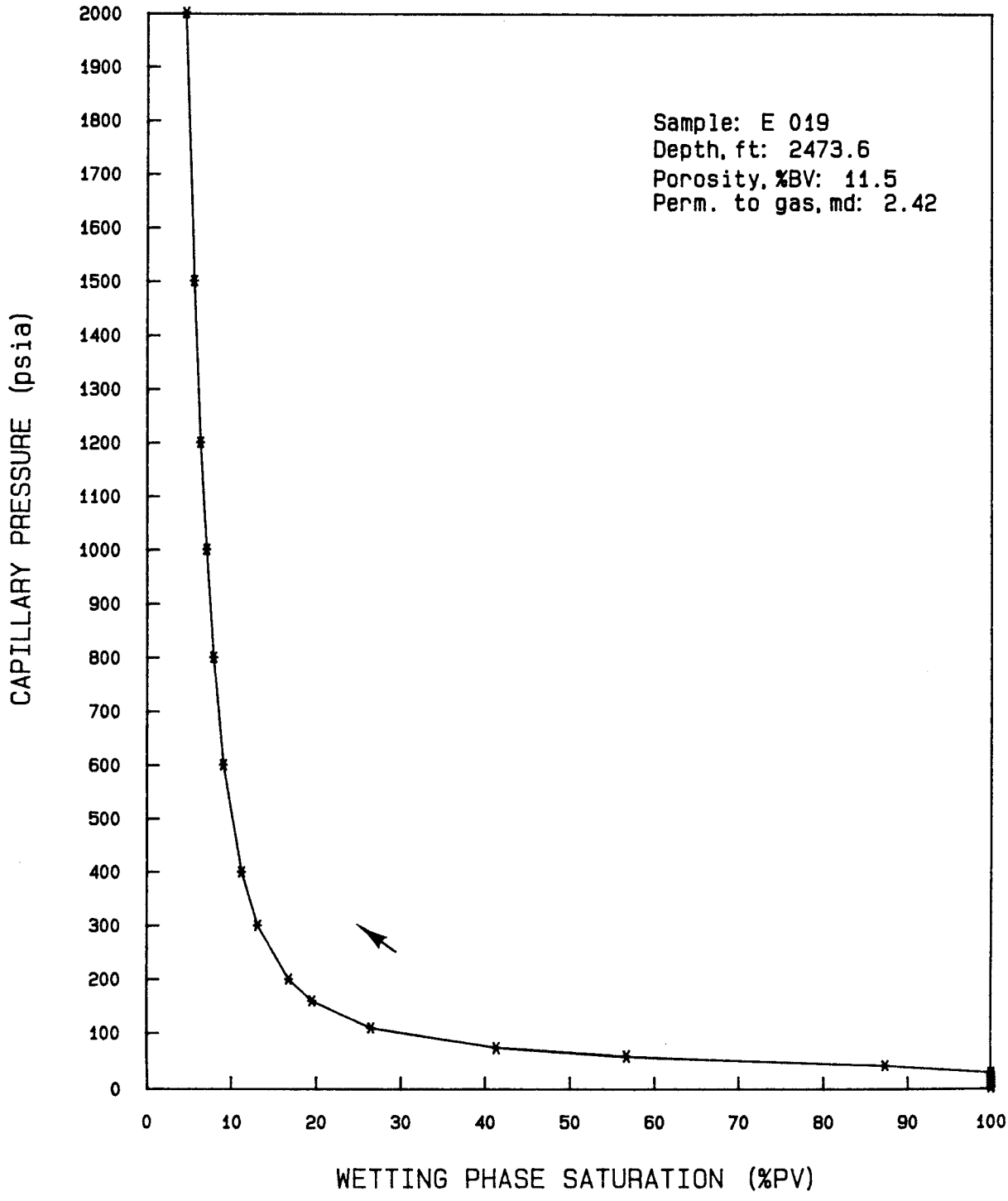

Figure 25

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

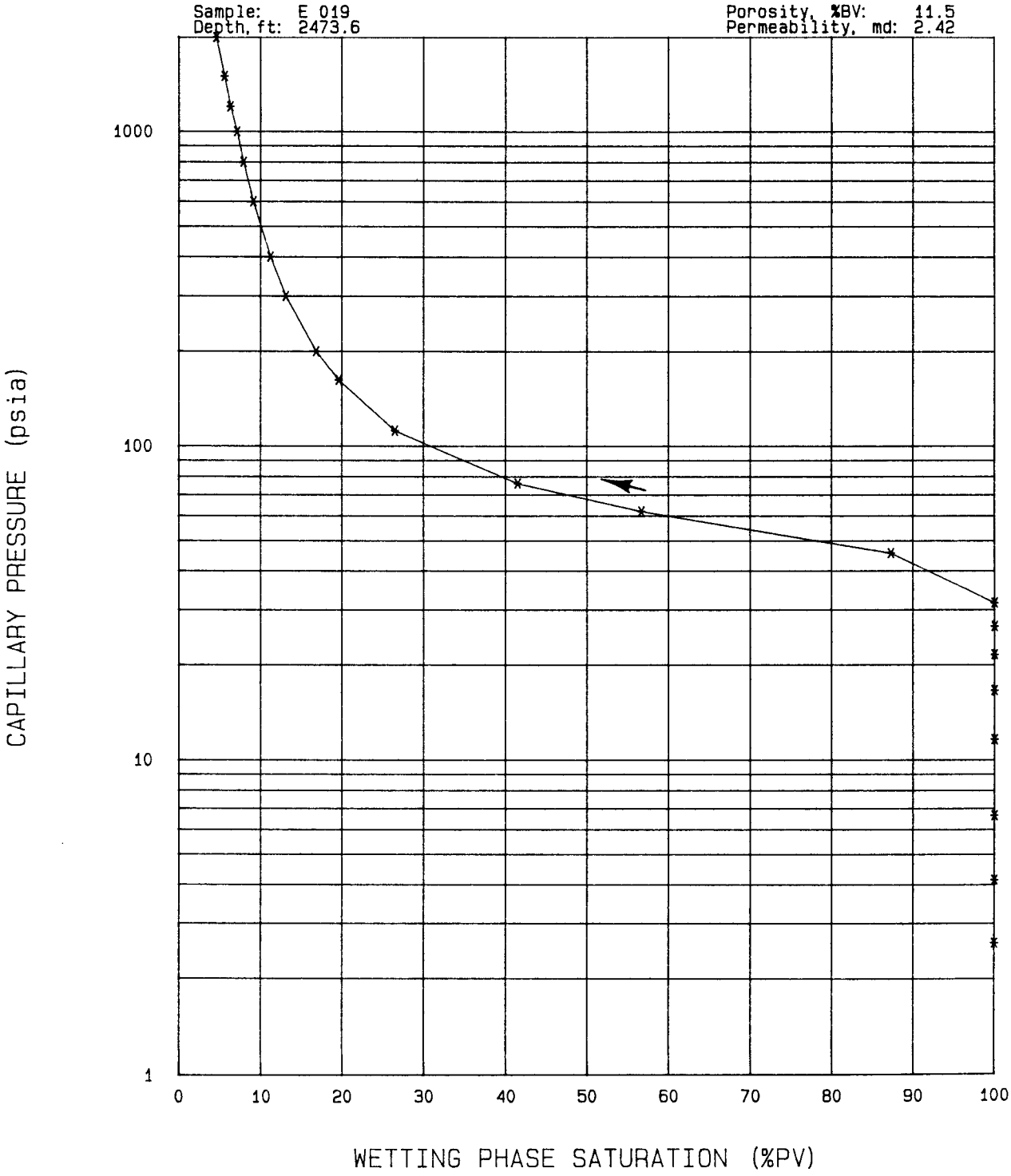

Figure 26

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

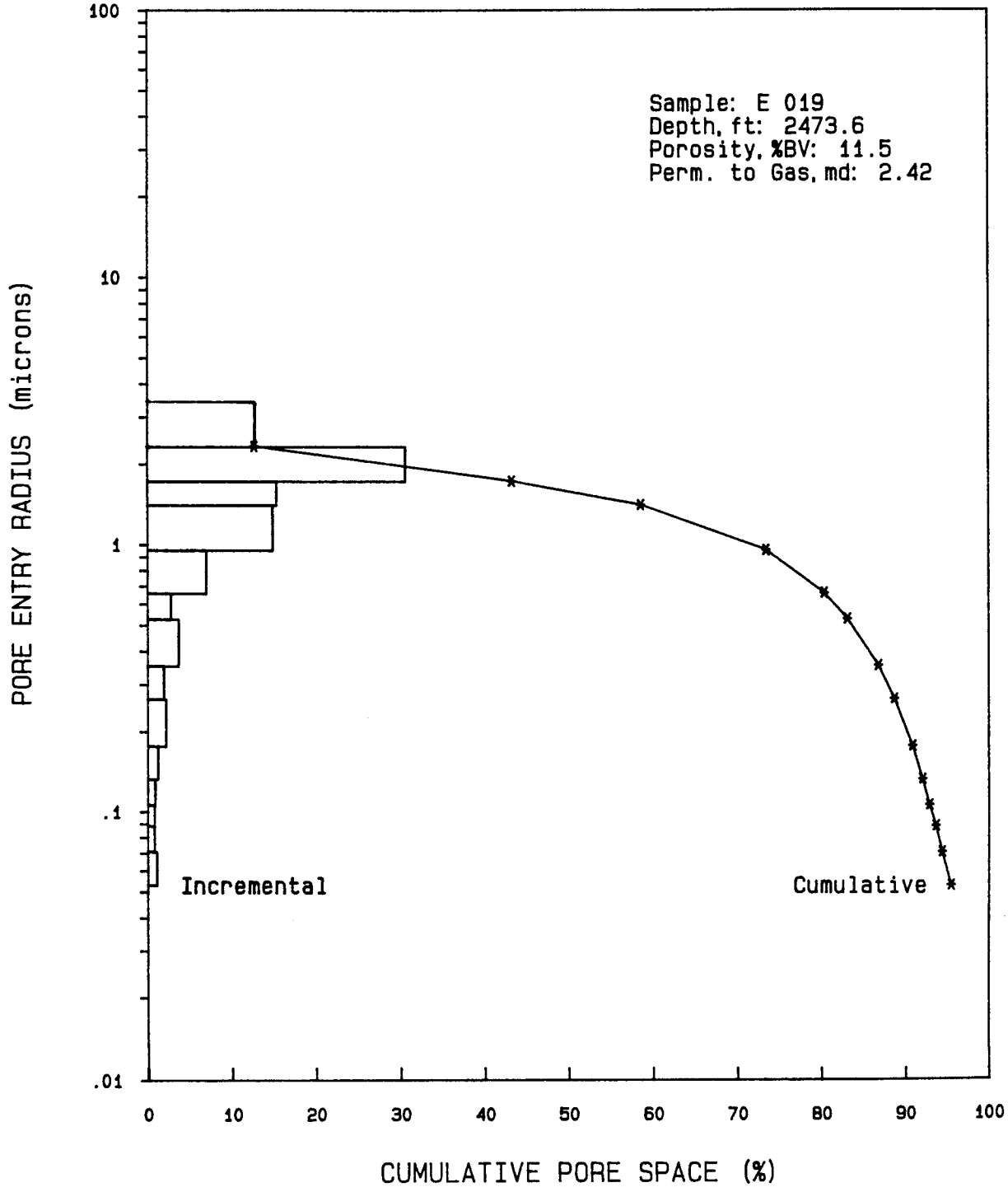

Table 26

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 020 Porosity,% BV: 20.8

Depth, ft: 2485.2 Perm. to Gas, md: 48.2

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.63	100.0	-	-
4.13	100.0	-	-
6.63	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	99.1	4.93	0.194
26.6	71.1	4.00	0.239
31.6	52.0	3.37	0.284
45.6	35.8	2.34	0.409
61.6	29.5	1.73	0.553
75.6	26.5	1.41	0.678
112	22.4	0.95	1.00
162	19.7	0.66	1.45
202	18.3	0.53	1.81
302	16.4	0.35	2.70
402	15.1	0.27	3.60
602	13.4	0.18	5.40
802	12.3	0.13	7.19
1001	11.4	0.11	8.98
1201	10.6	0.09	10.78
1501	9.7	0.07	13.47
2001	8.2	0.05	17.95

Figure 27

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

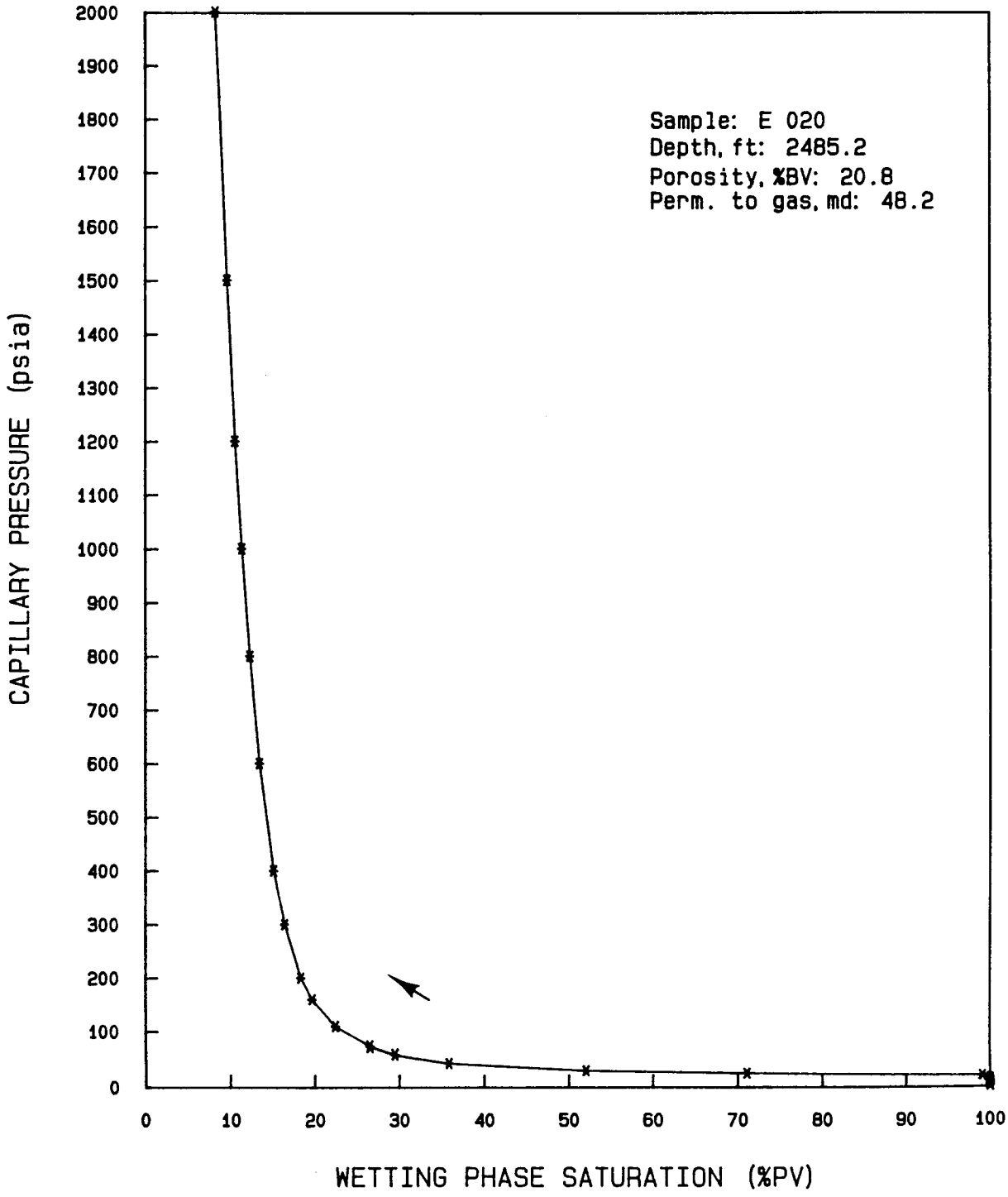

Figure 28

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

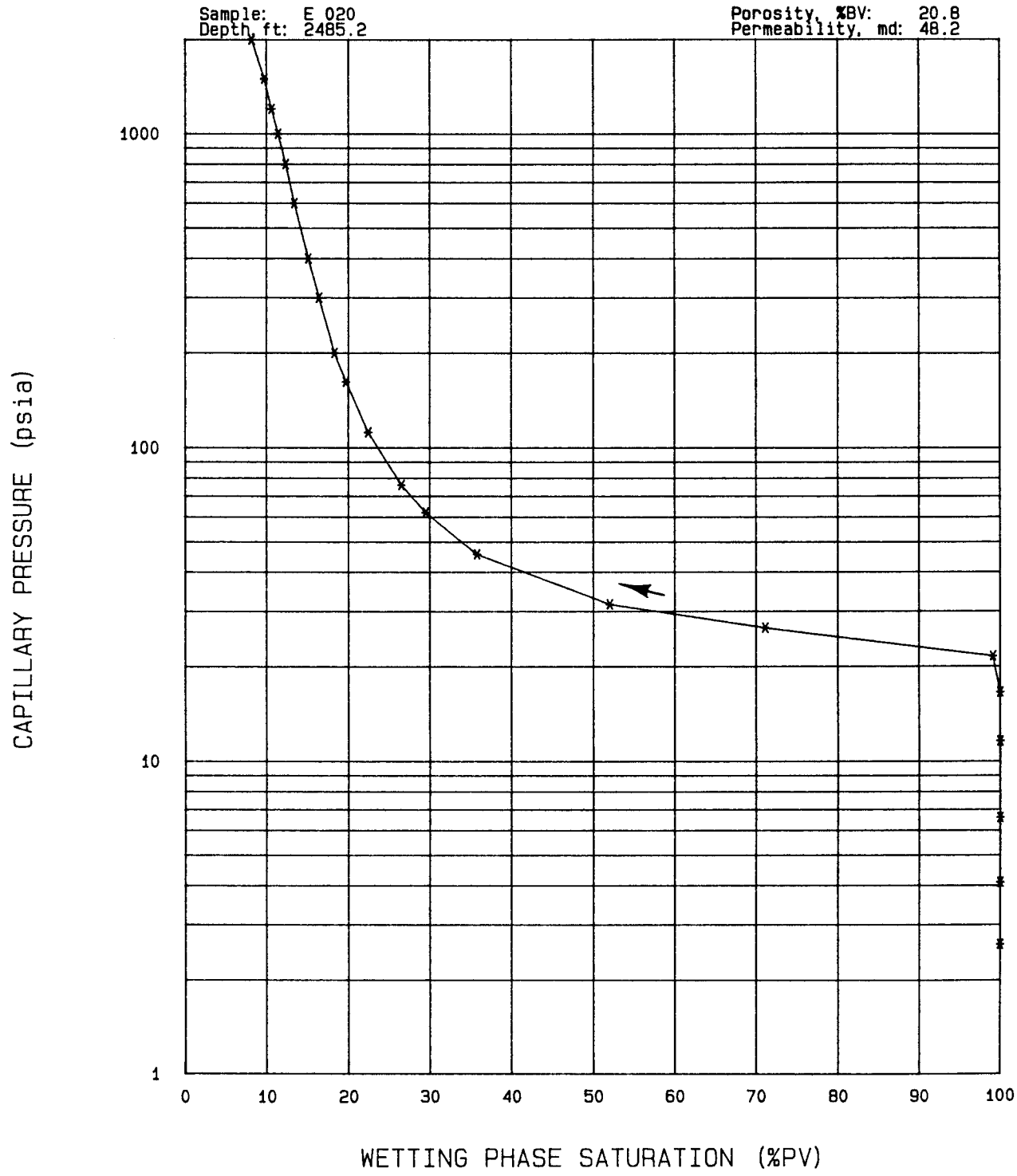

Figure 29

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

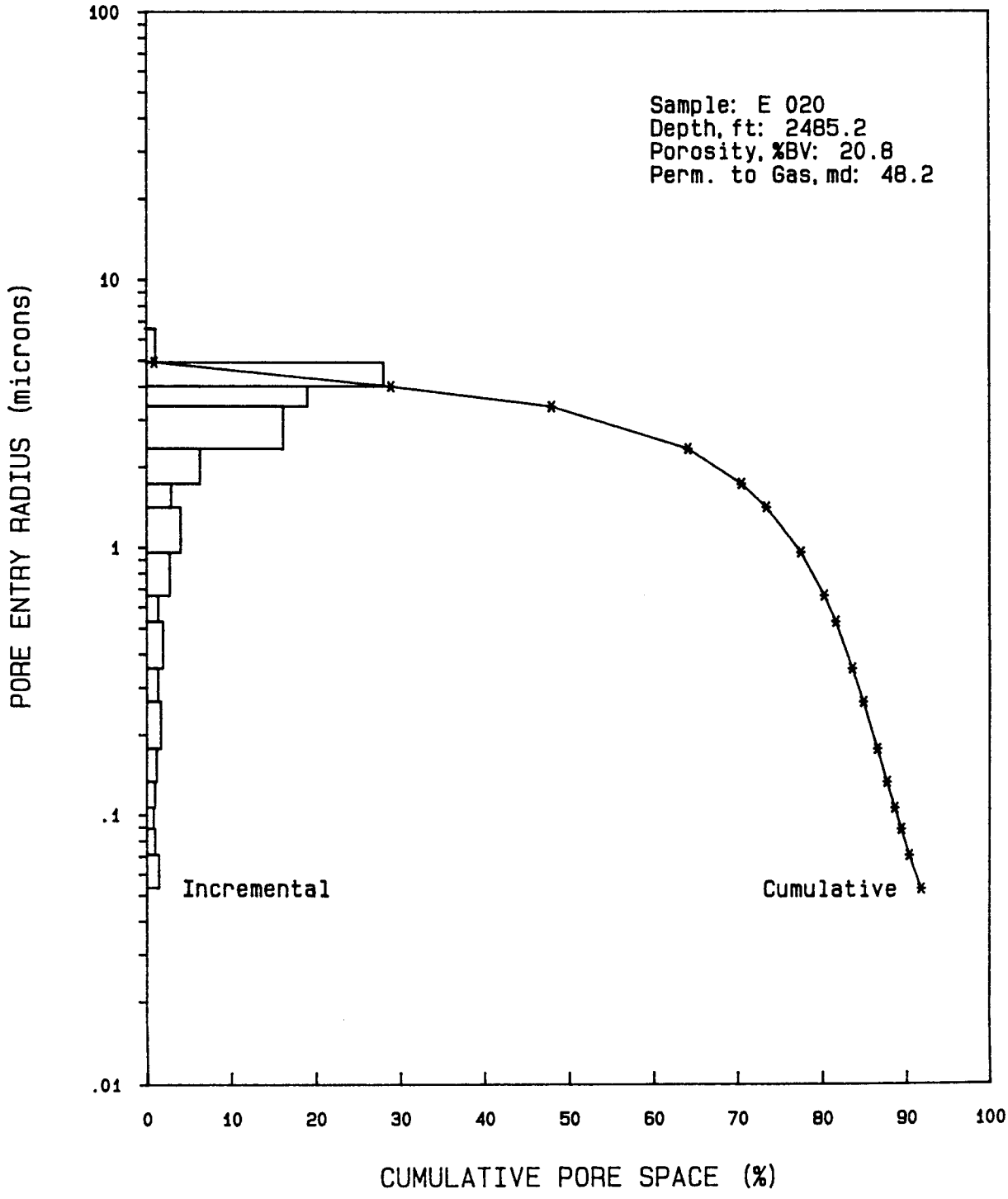

Table 27

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 023 Porosity,% BV: 21.5

Depth, ft: 2505.4 Perm. to Gas, md: 122

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.64	100.0	-	-
4.14	98.8	25.72	0.058
6.64	95.3	16.04	0.094
11.6	58.1	9.15	0.164
16.6	37.3	6.40	0.235
21.6	28.5	4.93	0.305
26.6	23.6	4.00	0.376
31.6	20.5	3.37	0.447
45.6	16.0	2.34	0.644
61.6	13.3	1.73	0.870
75.6	12.0	1.41	1.07
112	10.0	0.95	1.58
162	8.7	0.66	2.28
202	8.0	0.53	2.85
302	7.0	0.35	4.26
402	6.4	0.27	5.67
602	5.6	0.18	8.49
802	5.1	0.13	11.31
1001	4.8	0.11	14.13
1201	4.4	0.09	16.96
1501	4.1	0.07	21.19
2001	3.6	0.05	28.25

Figure 30

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

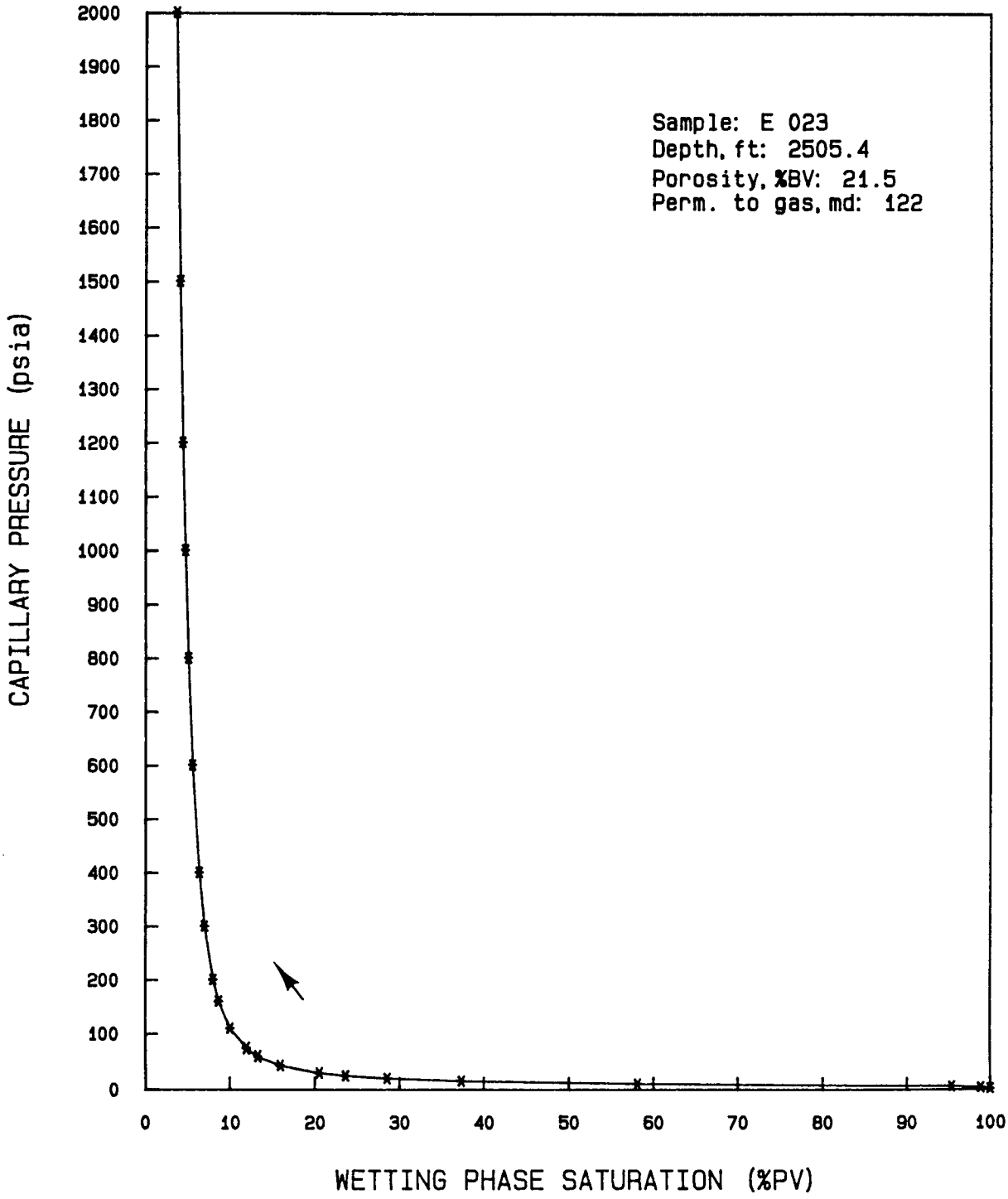

Figure 31

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

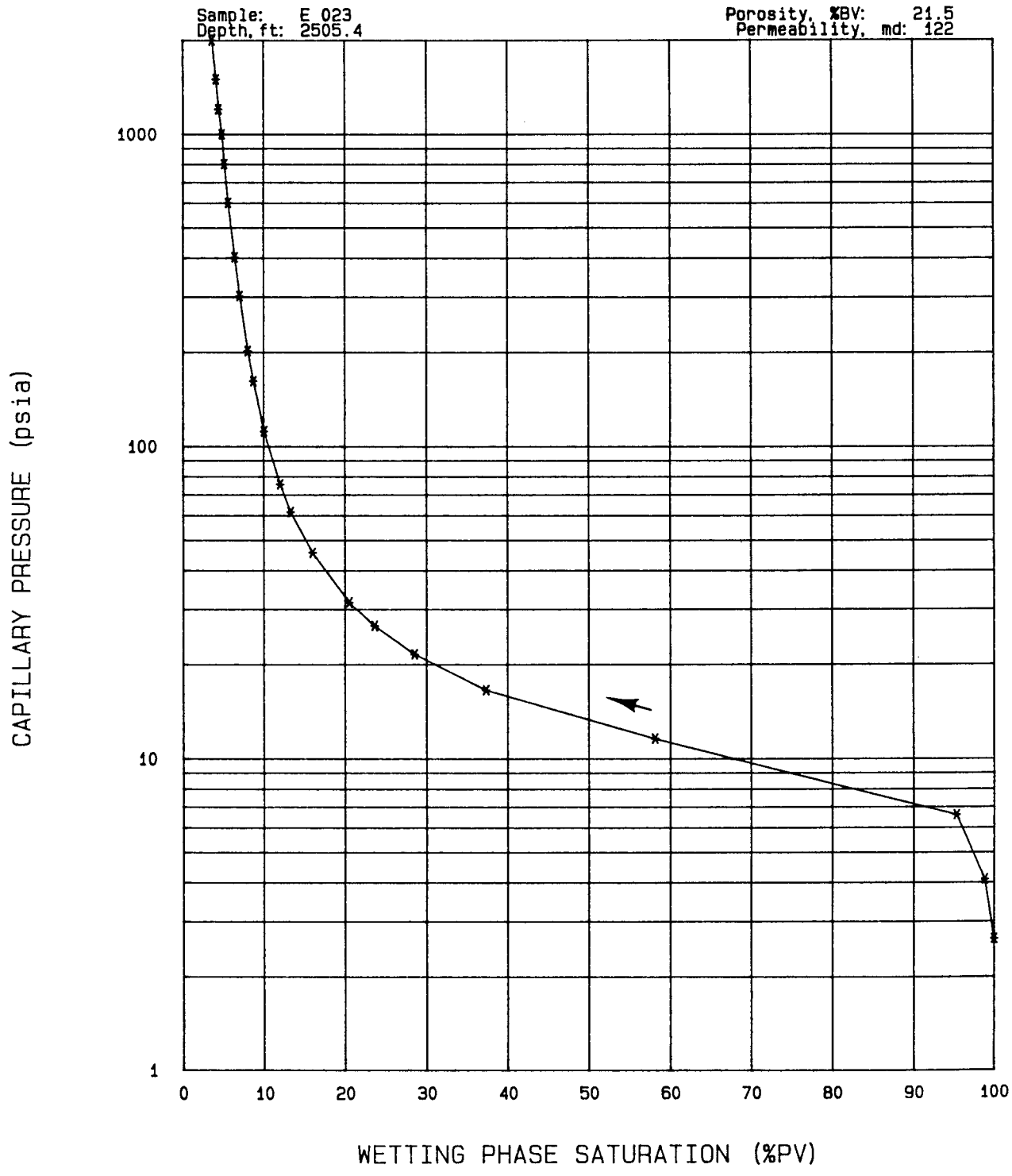

Figure 32

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

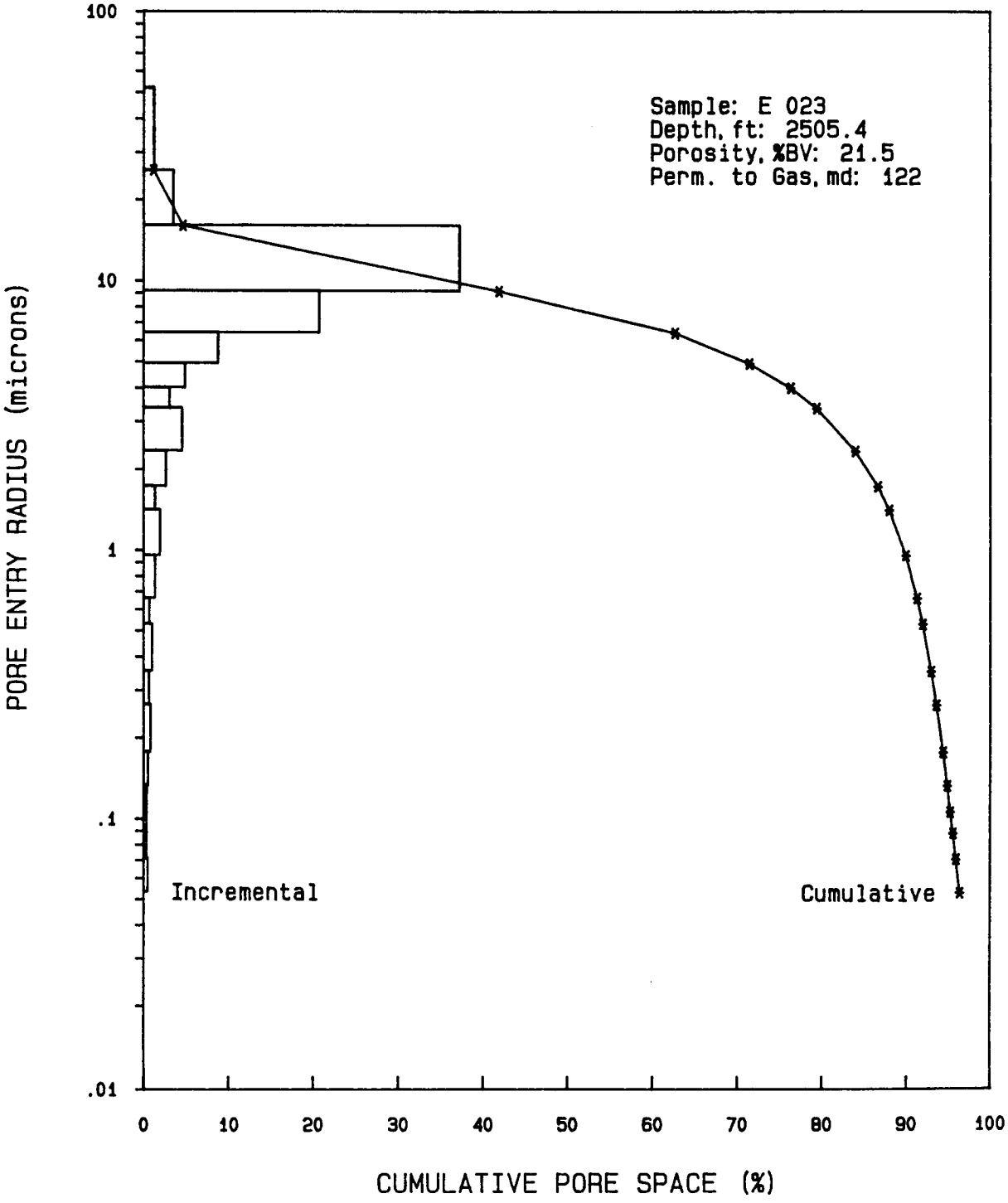

Table 28

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 025

Depth, ft: 2515.8

Porosity,% BV: 22.3

Perm. to Gas, md: 275

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.69	100.0	-	-
4.19	99.1	25.42	0.087
6.69	91.1	15.93	0.138
11.7	48.5	9.12	0.241
16.7	34.6	6.39	0.344
21.7	27.0	4.91	0.448
26.7	22.4	3.99	0.551
31.7	19.6	3.36	0.654
45.7	15.0	2.33	0.943
61.7	12.2	1.73	1.27
75.7	10.7	1.41	1.56
112	8.6	0.95	2.30
162	7.1	0.66	3.34
202	6.4	0.53	4.16
302	5.4	0.35	6.23
402	4.9	0.27	8.29
602	4.2	0.18	12.42
802	3.7	0.13	16.54
1001	3.4	0.11	20.67
1201	3.1	0.09	24.80
1501	2.7	0.07	30.99
2001	2.3	0.05	41.31

Figure 33

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

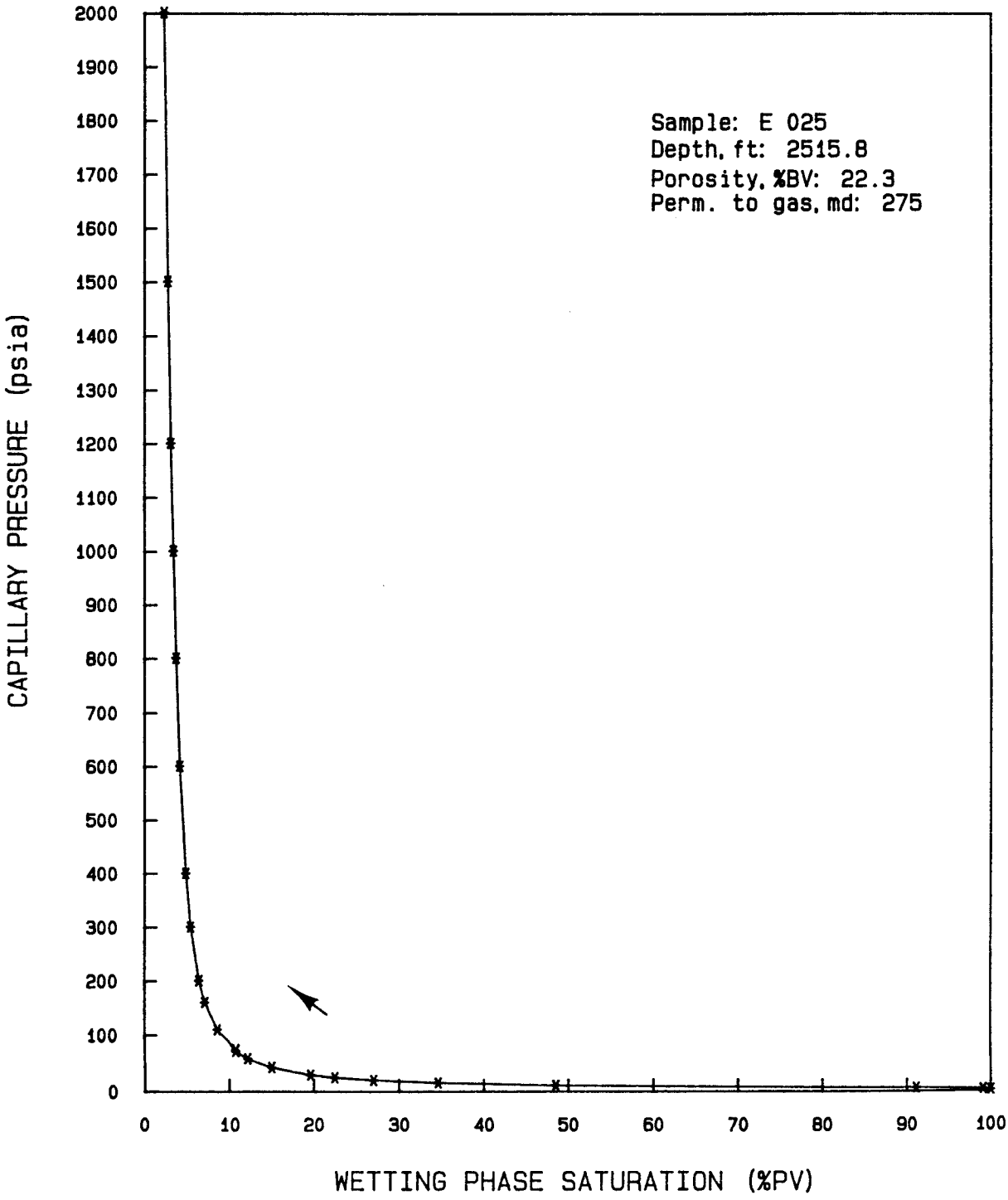

Figure 34

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

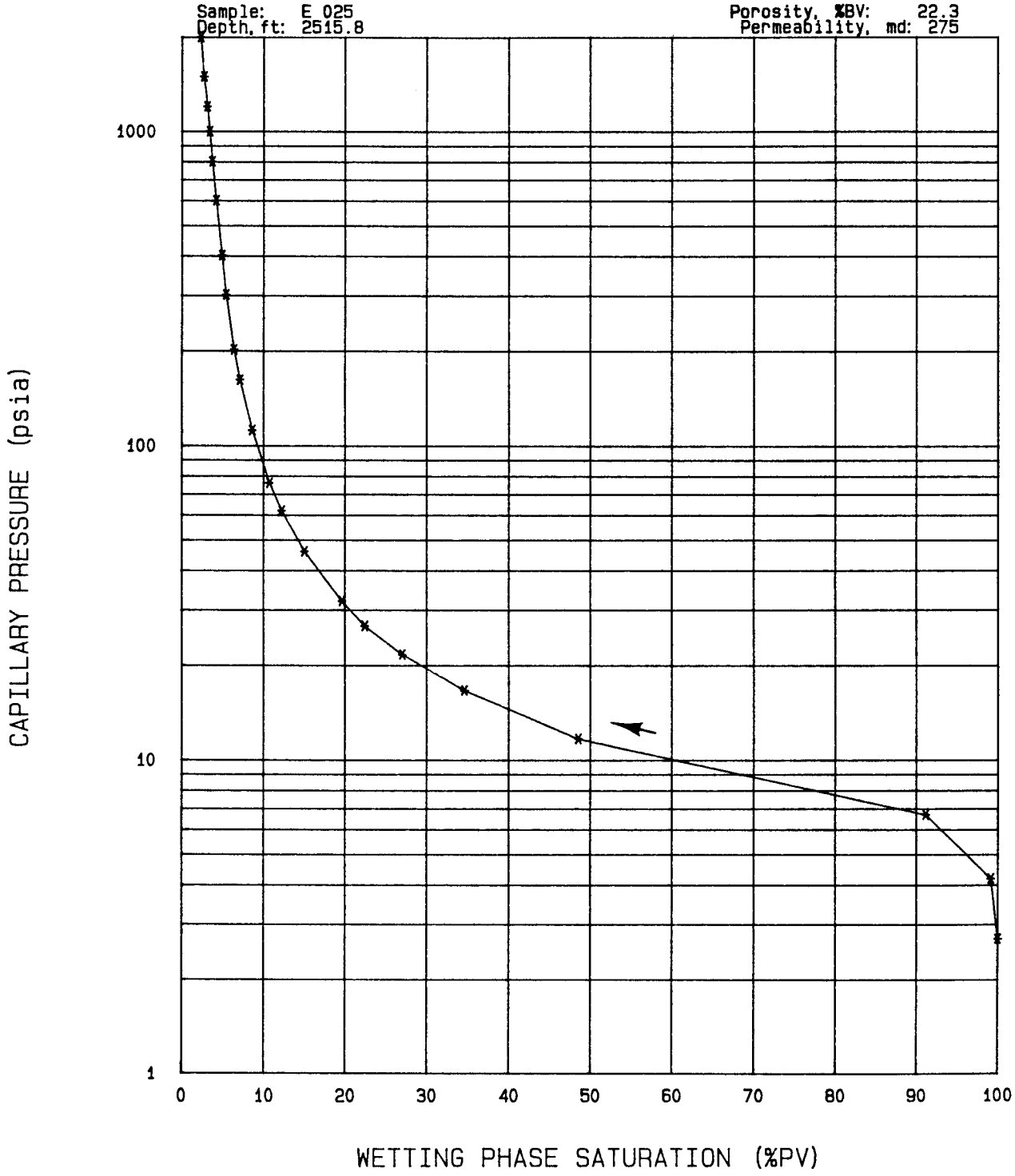

Figure 35

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

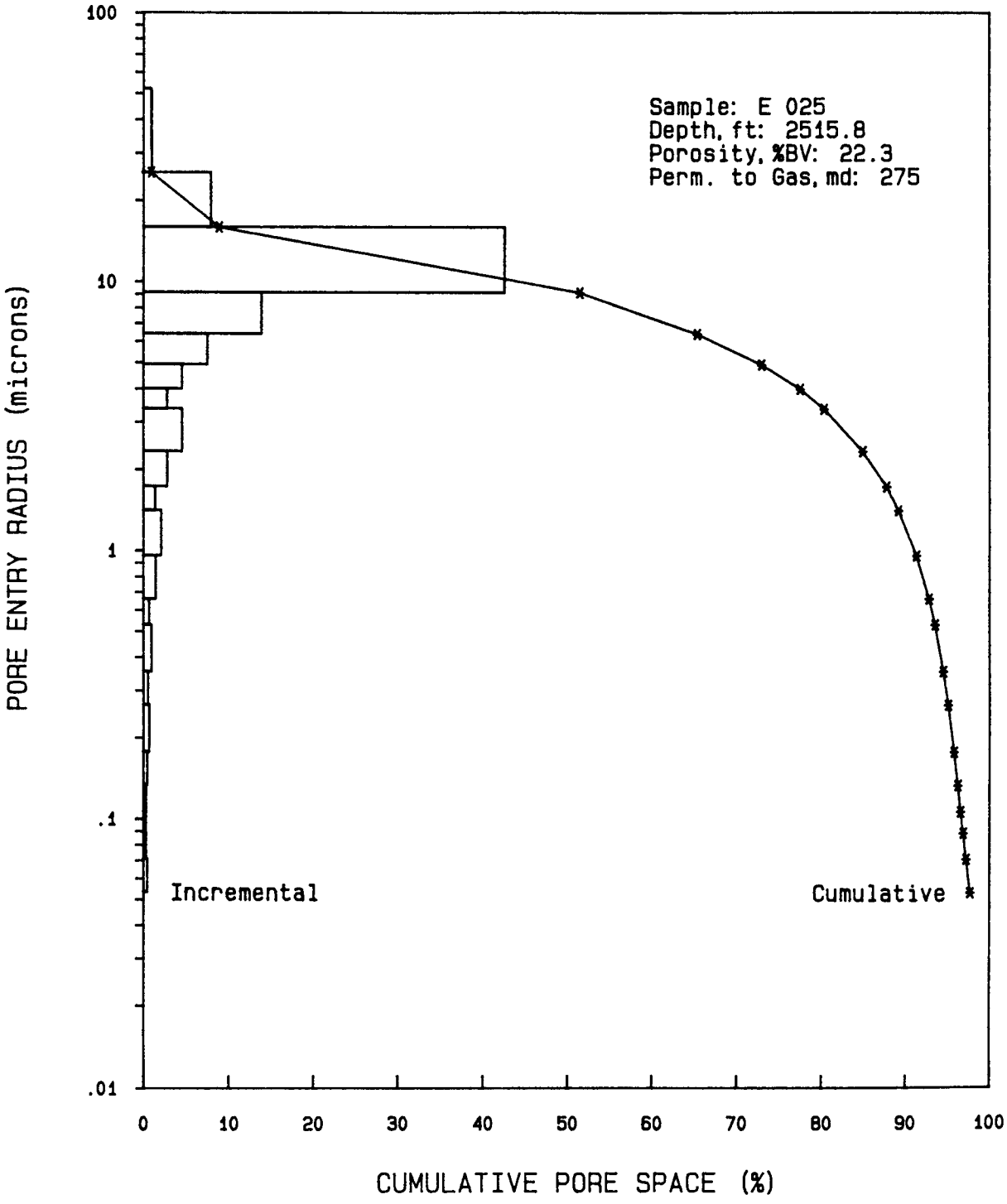

Table 29

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 028

Depth, ft: 2526.1

Porosity,% BV: 24.7

Perm. to Gas, md: 128

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.63	100.0	-	-
4.13	100.0	-	-
6.63	100.0	-	-
11.6	97.4	9.17	0.150
16.6	69.3	6.41	0.214
21.6	50.9	4.93	0.279
26.6	38.5	4.00	0.343
31.6	29.9	3.37	0.407
45.6	18.7	2.34	0.588
61.6	13.5	1.73	0.794
75.6	11.0	1.41	0.974
112	8.2	0.95	1.44
162	6.4	0.66	2.08
202	5.6	0.53	2.60
302	4.5	0.35	3.88
402	3.9	0.27	5.17
602	3.3	0.18	7.75
802	2.8	0.13	10.32
1001	2.5	0.11	12.90
1201	2.3	0.09	15.47
1501	2.0	0.07	19.34
2001	1.6	0.05	25.78

Figure 36

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

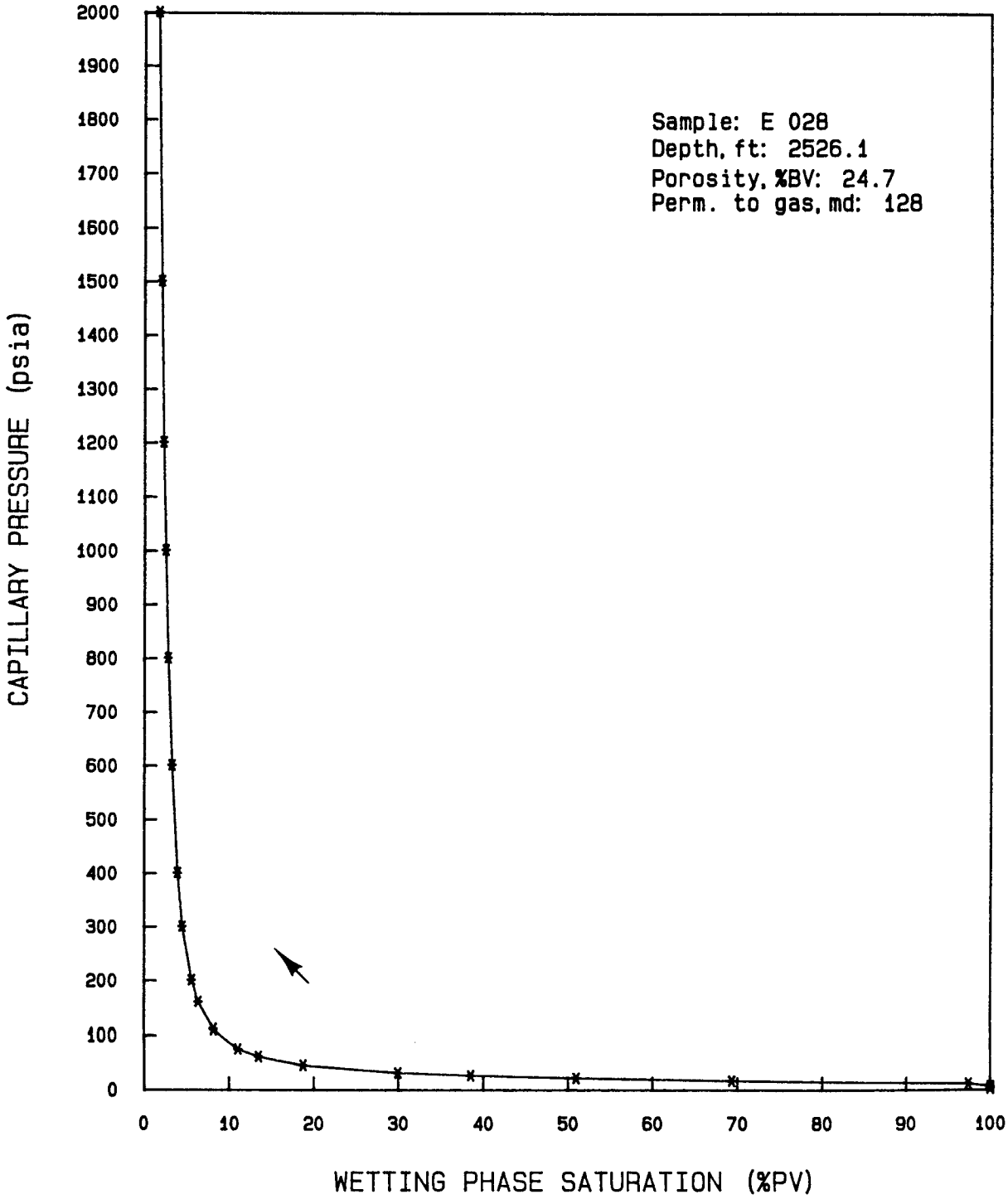

Figure 37

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

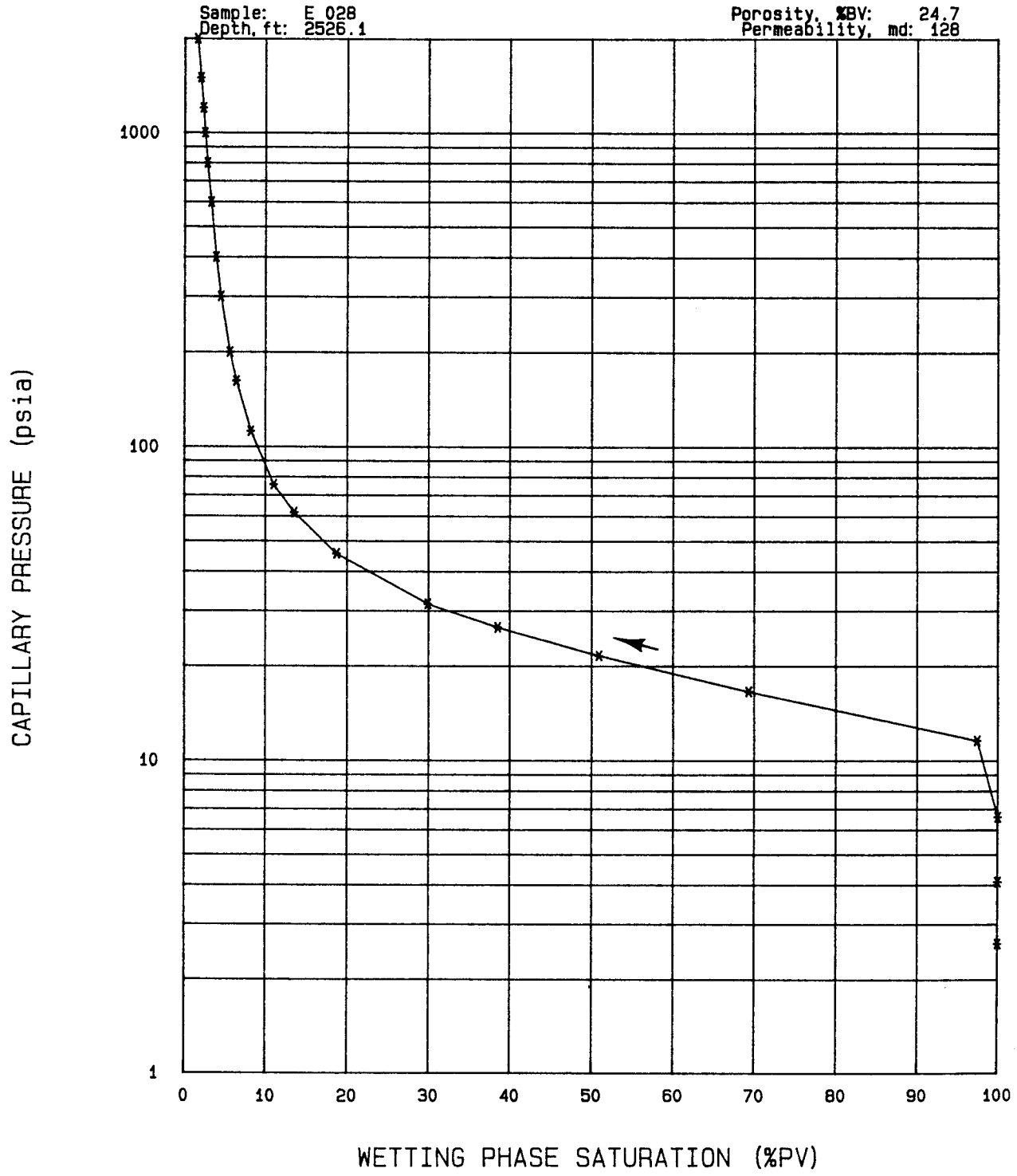

Figure 38

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

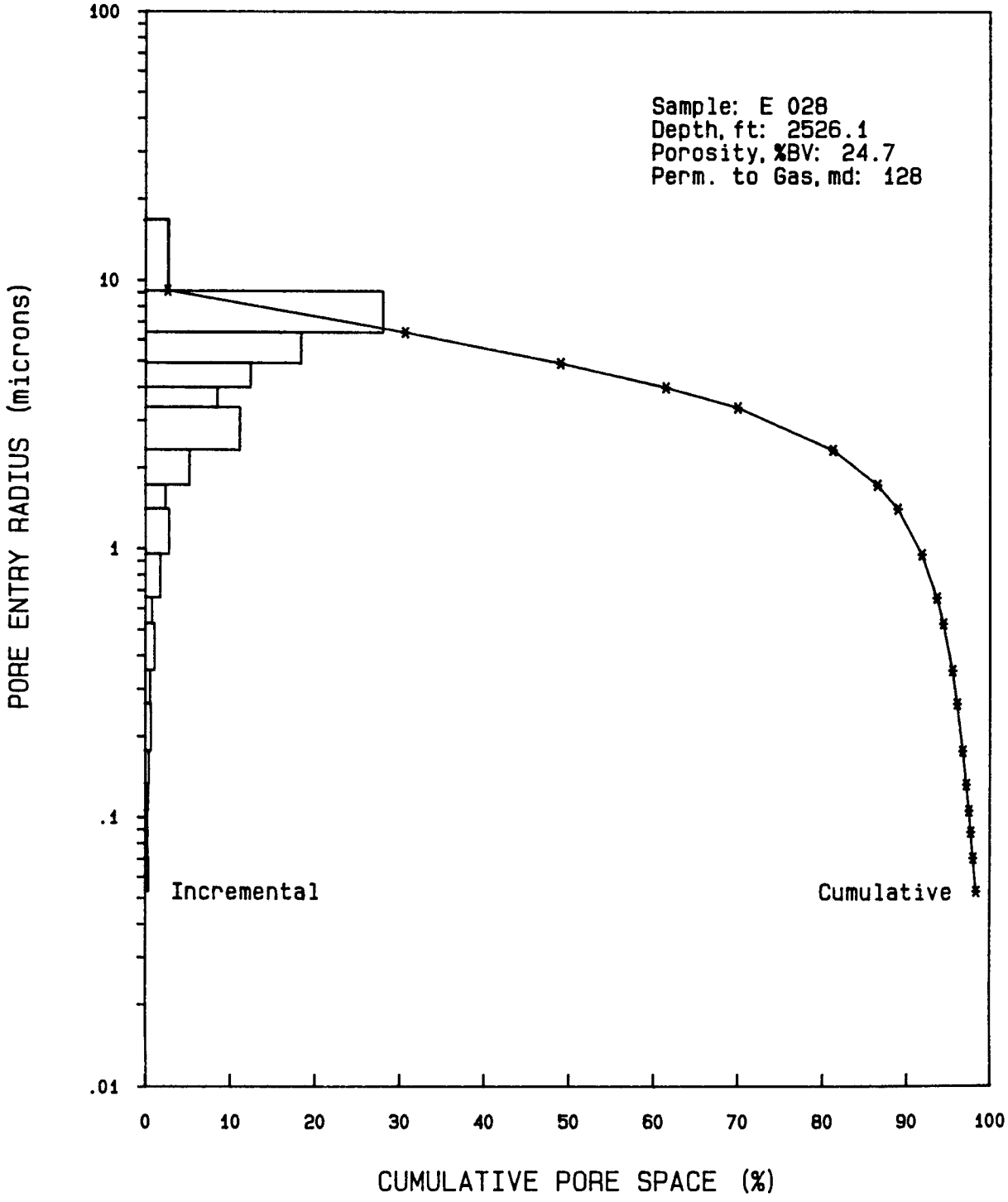

Table 30

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 030 Porosity,% BV: 17.5

Depth, ft: 2531.1 Perm. to Gas, md: 1.11

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.66	100.0	-	-
4.16	100.0	-	-
6.66	100.0	-	-
11.7	100.0	-	-
16.7	100.0	-	-
21.7	100.0	-	-
26.7	100.0	-	-
31.7	100.0	-	-
45.7	100.0	-	-
61.7	97.8	1.73	0.094
75.7	89.0	1.41	0.115
112	61.1	0.95	0.170
162	44.3	0.66	0.245
202	36.0	0.53	0.306
302	31.9	0.35	0.458
402	30.7	0.27	0.610
602	29.0	0.18	0.913
802	27.6	0.13	1.22
1001	25.8	0.11	1.52
1201	24.4	0.09	1.82
1501	22.9	0.07	2.28
2001	21.0	0.05	3.04

Figure 39

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

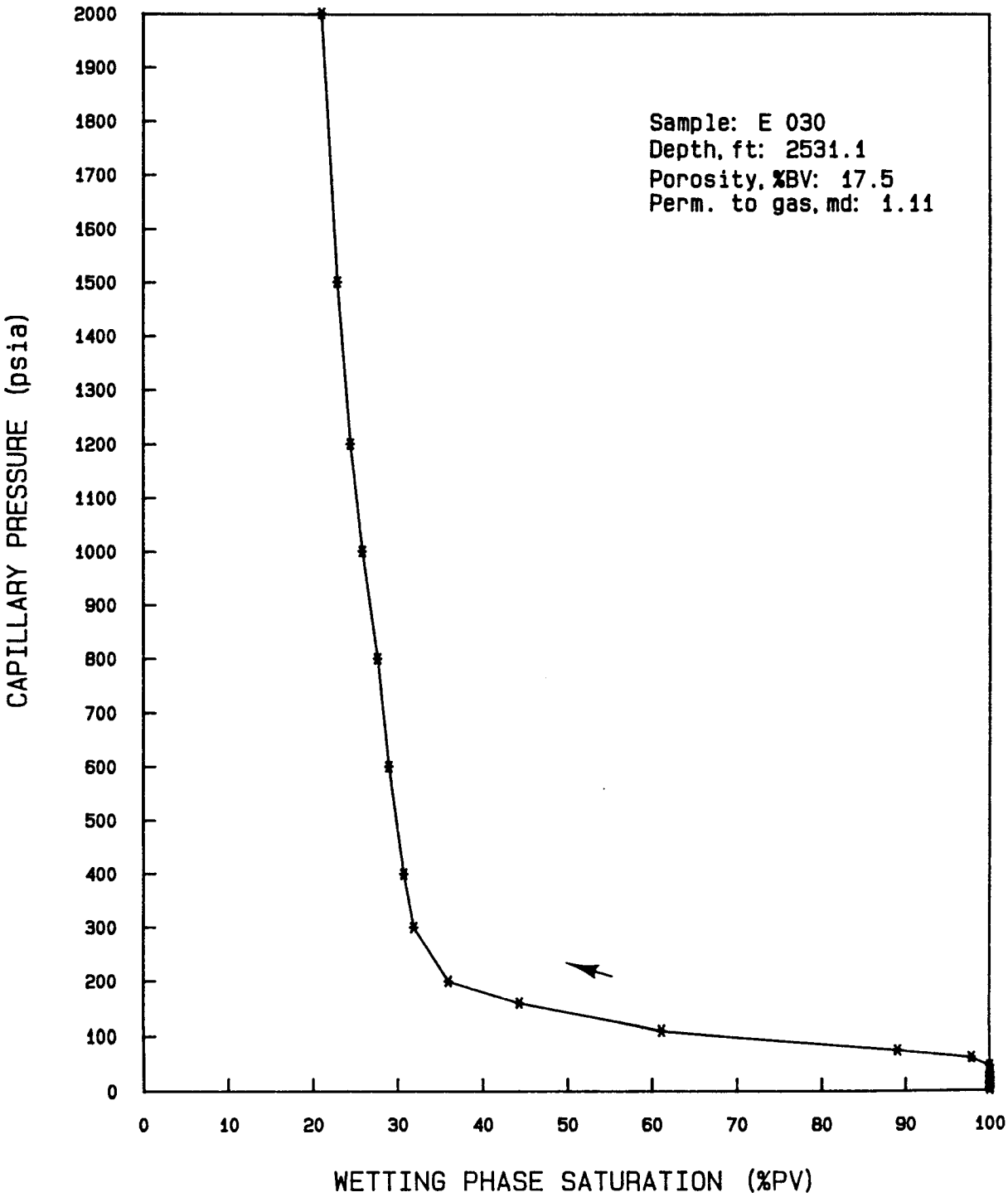

Figure 40

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

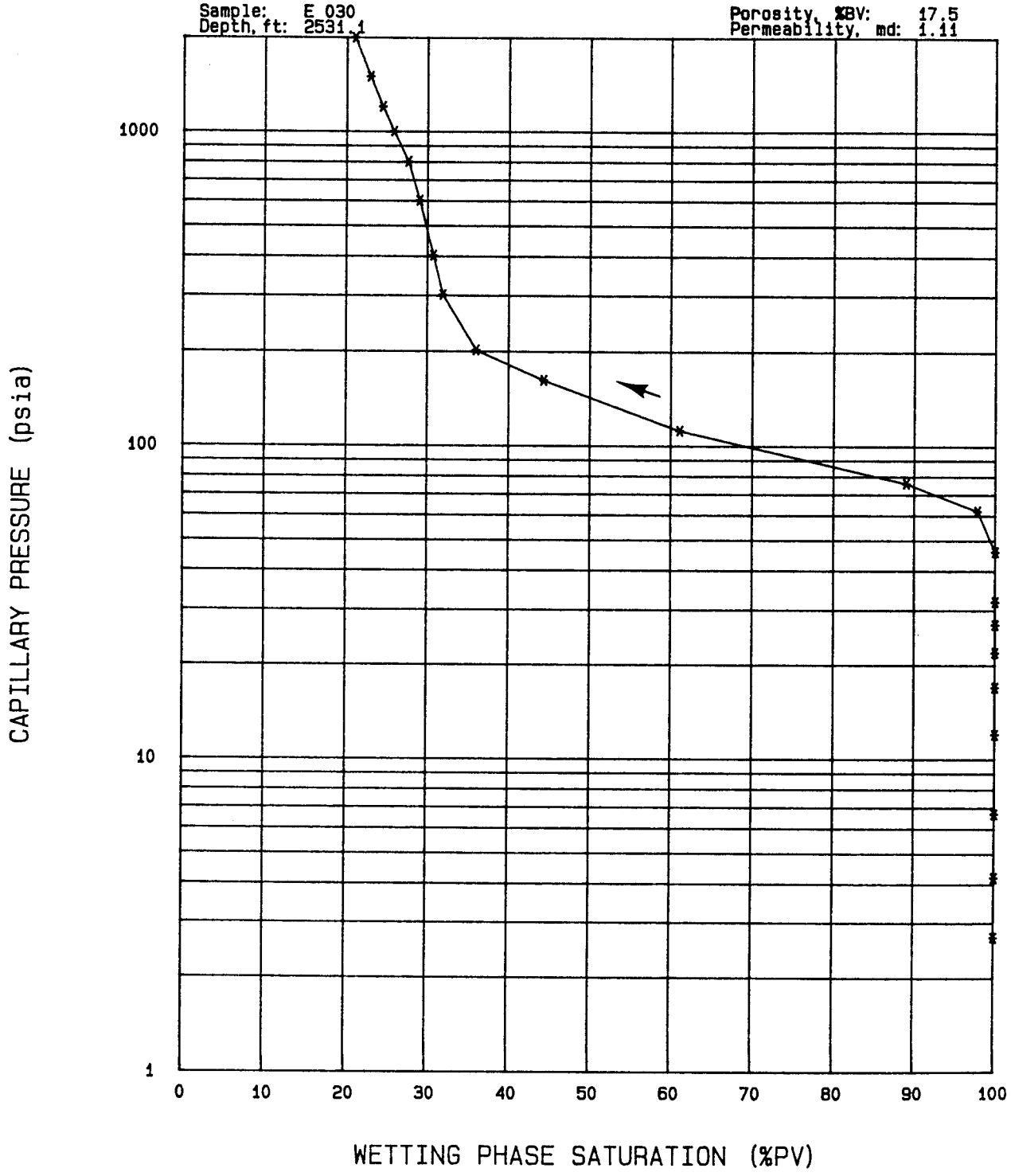

Figure 41

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

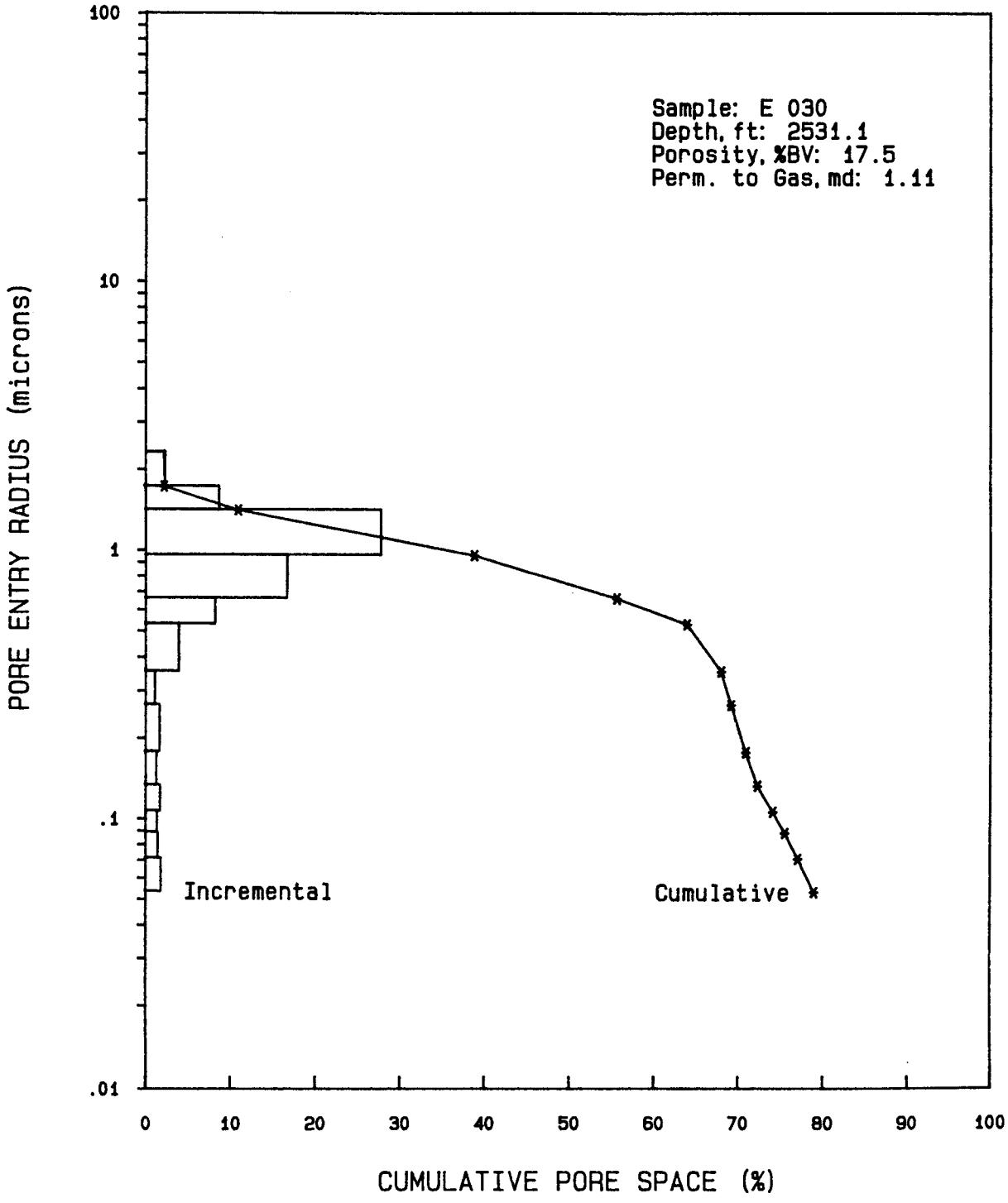

Table 31

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 032 Porosity,% BV: 24.3

Depth, ft: 2550.5 Perm. to Gas, md: 132

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.65	100.0	-	-
4.15	100.0	-	-
6.65	100.0	-	-
11.7	100.0	-	-
16.7	99.0	6.40	0.230
21.7	61.8	4.92	0.299
26.7	40.6	4.00	0.368
31.7	32.8	3.37	0.437
45.7	24.8	2.34	0.630
61.7	21.3	1.73	0.851
75.7	19.6	1.41	1.04
112	17.4	0.95	1.54
162	15.8	0.66	2.23
202	14.9	0.53	2.78
302	13.6	0.35	4.16
402	12.7	0.27	5.54
602	11.4	0.18	8.30
802	10.4	0.13	11.06
1001	9.7	0.11	13.82
1201	9.0	0.09	16.58
1501	8.1	0.07	20.72
2001	7.0	0.05	27.61

Figure 42

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

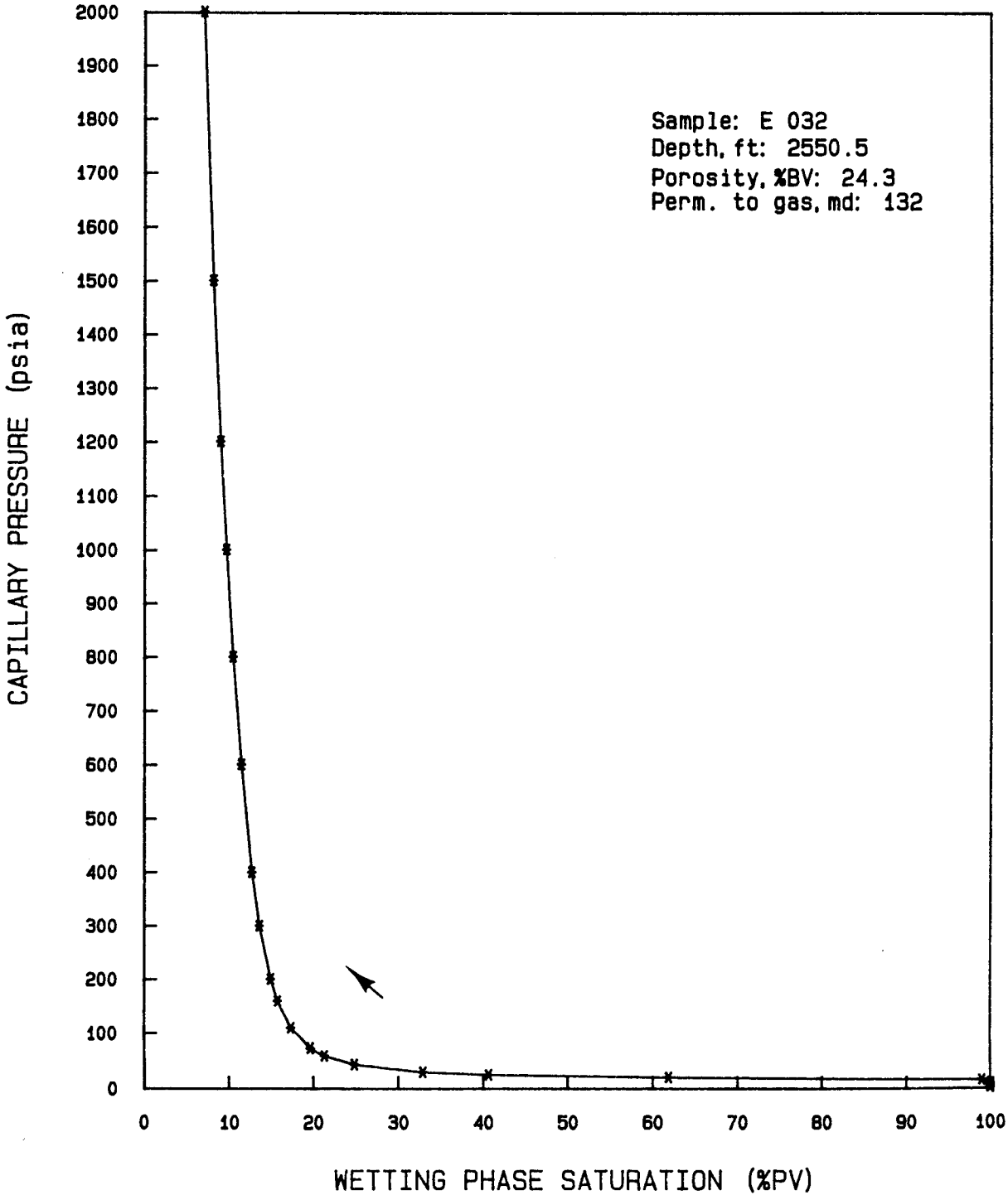

Figure 43

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

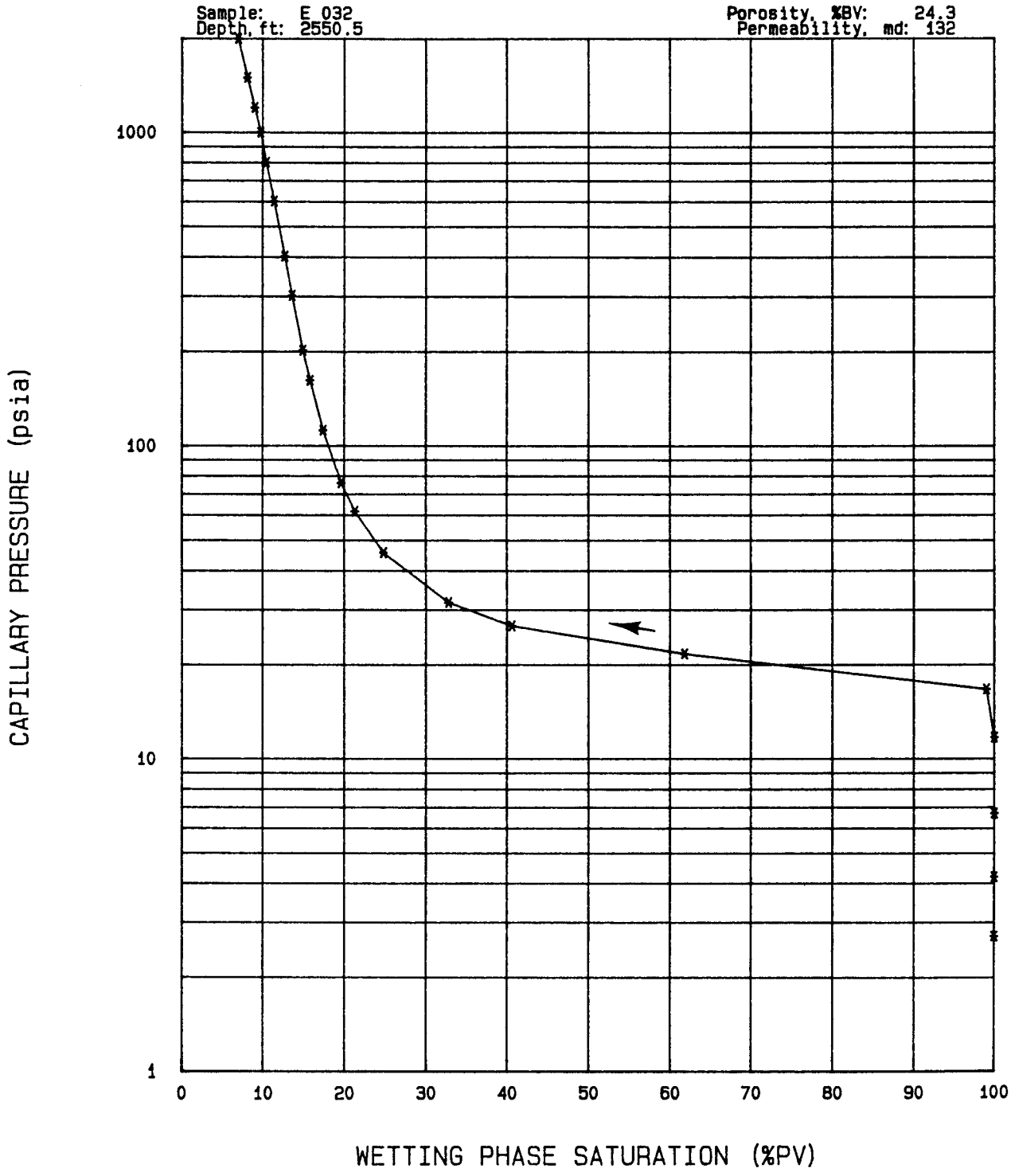

Figure 44

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

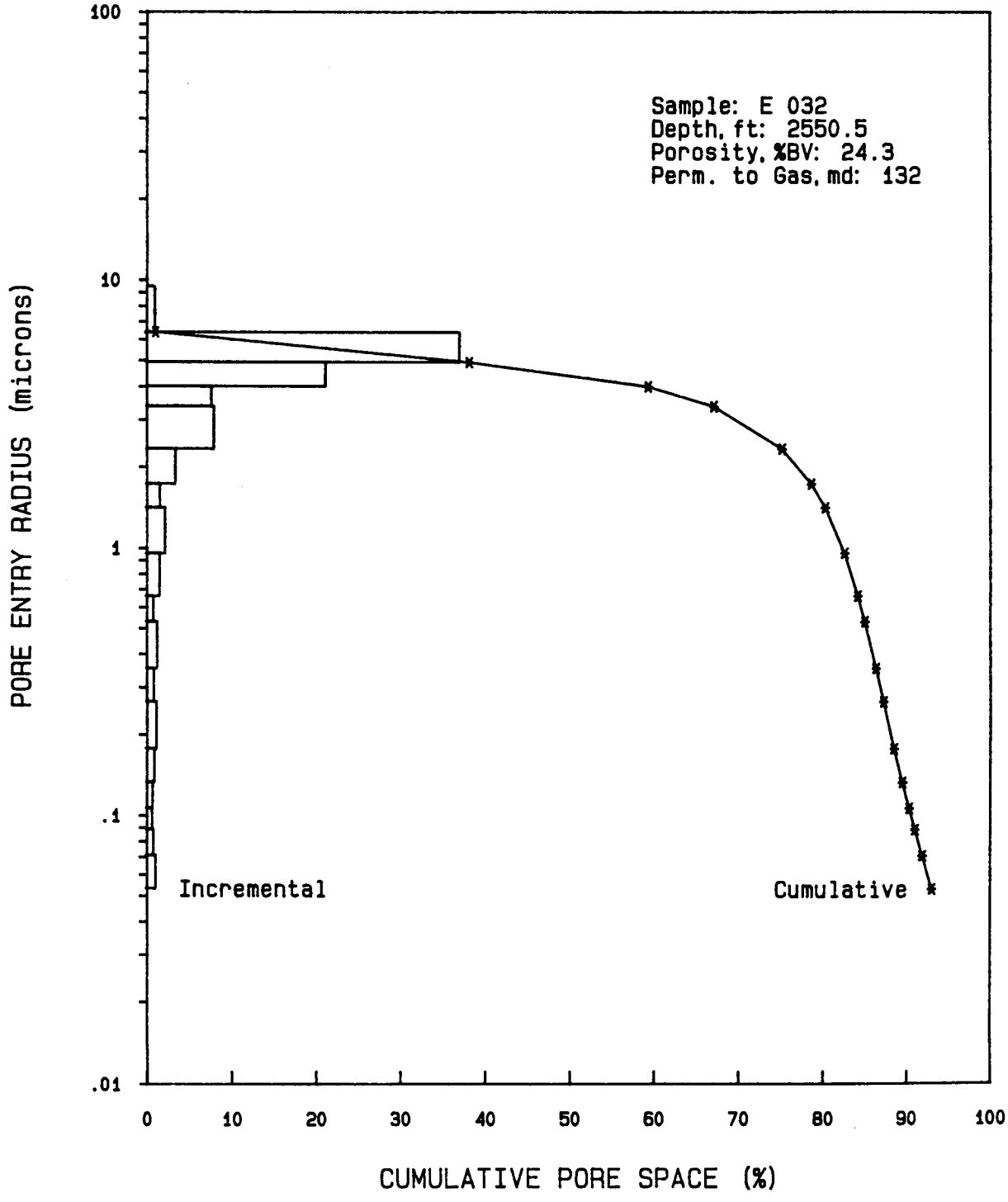

Table 32

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 034

Depth, ft: 2556.1

Porosity,% BV: 9.0

Perm. to Gas, md: 0.129

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.64	100.0	-	-
4.14	100.0	-	-
6.64	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	97.3	2.34	0.033
61.6	94.3	1.73	0.044
75.6	91.2	1.41	0.054
112	83.2	0.95	0.080
162	72.9	0.66	0.116
202	66.8	0.53	0.145
302	55.7	0.35	0.217
402	48.0	0.27	0.289
602	37.7	0.18	0.433
802	31.3	0.13	0.577
1001	27.0	0.11	0.721
1201	23.9	0.09	0.864
1501	20.6	0.07	1.08
2001	16.8	0.05	1.44

Figure 45

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

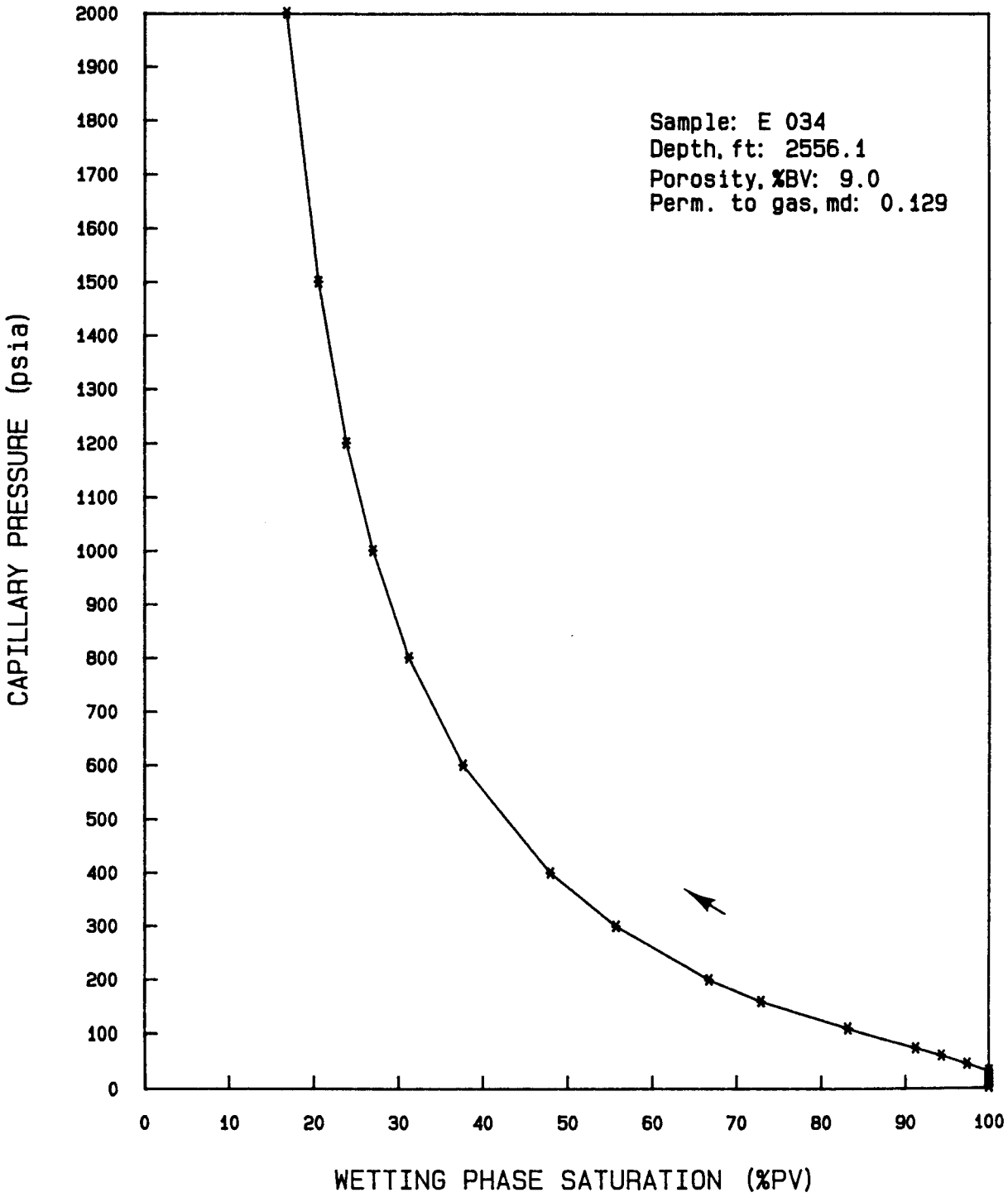

Figure 46

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

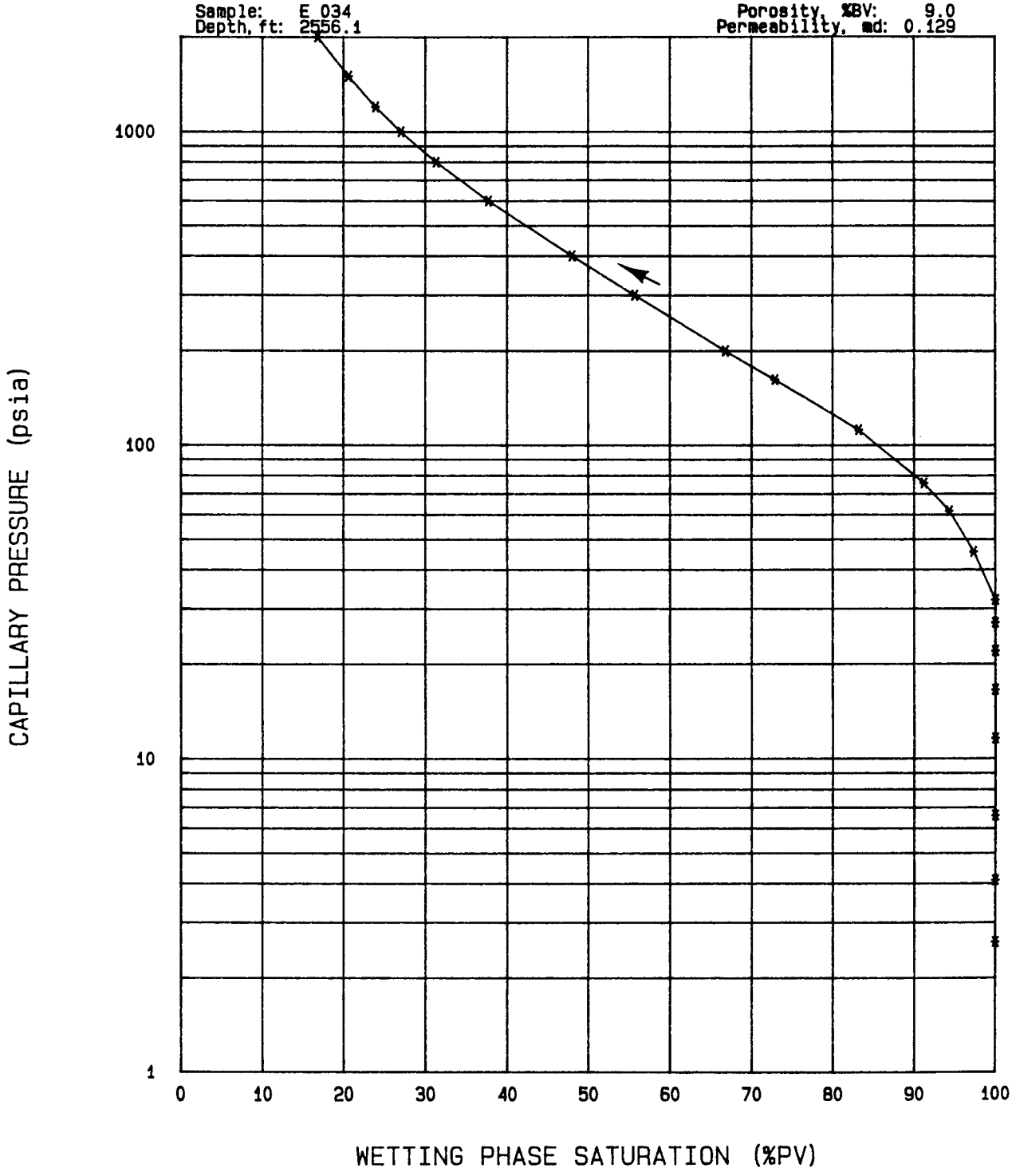

Figure 47

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

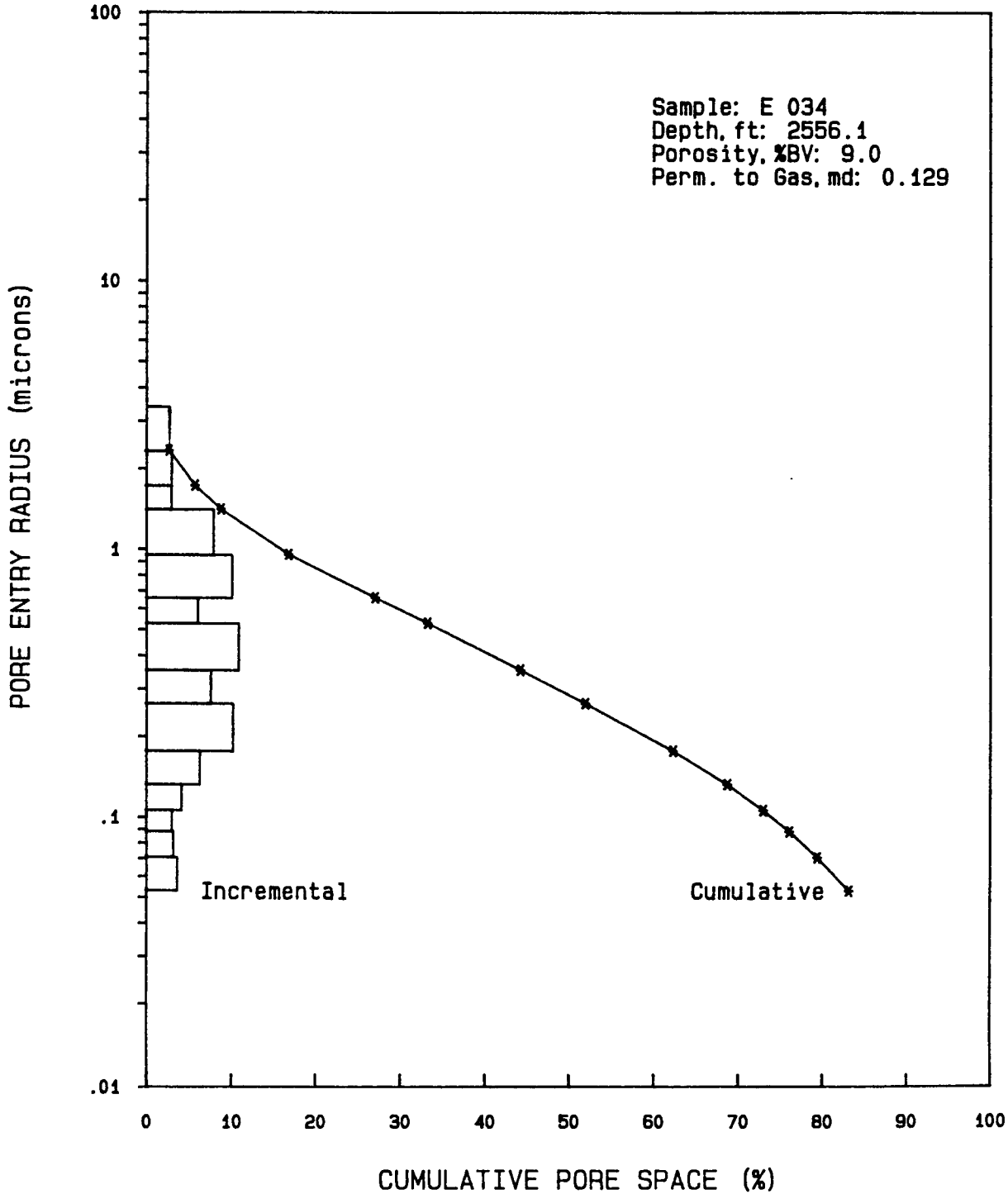

Table 33

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 037

Depth, ft: 2579.4

Porosity,% BV: 16.4

Perm. to Gas, md: 5.98

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.64	100.0	-	-
4.14	100.0	-	-
6.64	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	98.2	3.37	0.115
45.6	73.4	2.34	0.166
61.6	60.2	1.73	0.224
75.6	53.5	1.41	0.275
112	42.9	0.95	0.406
162	33.8	0.66	0.588
202	29.0	0.53	0.734
302	21.4	0.35	1.10
402	17.2	0.27	1.46
602	12.4	0.18	2.19
802	9.7	0.13	2.92
1001	8.0	0.11	3.65
1201	6.7	0.09	4.37
1501	5.4	0.07	5.47
2001	4.0	0.05	7.29

Figure 48

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

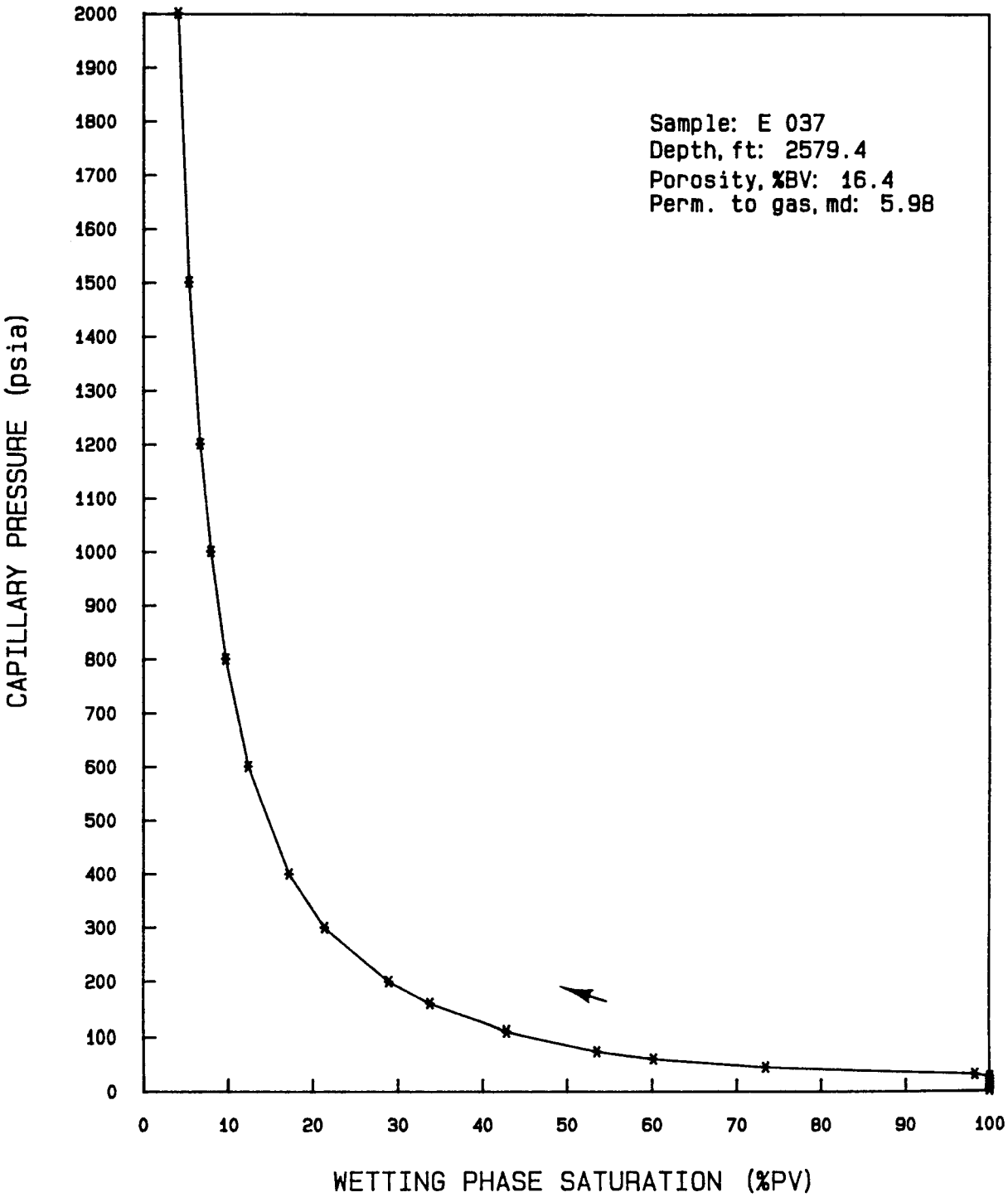

Figure 49

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

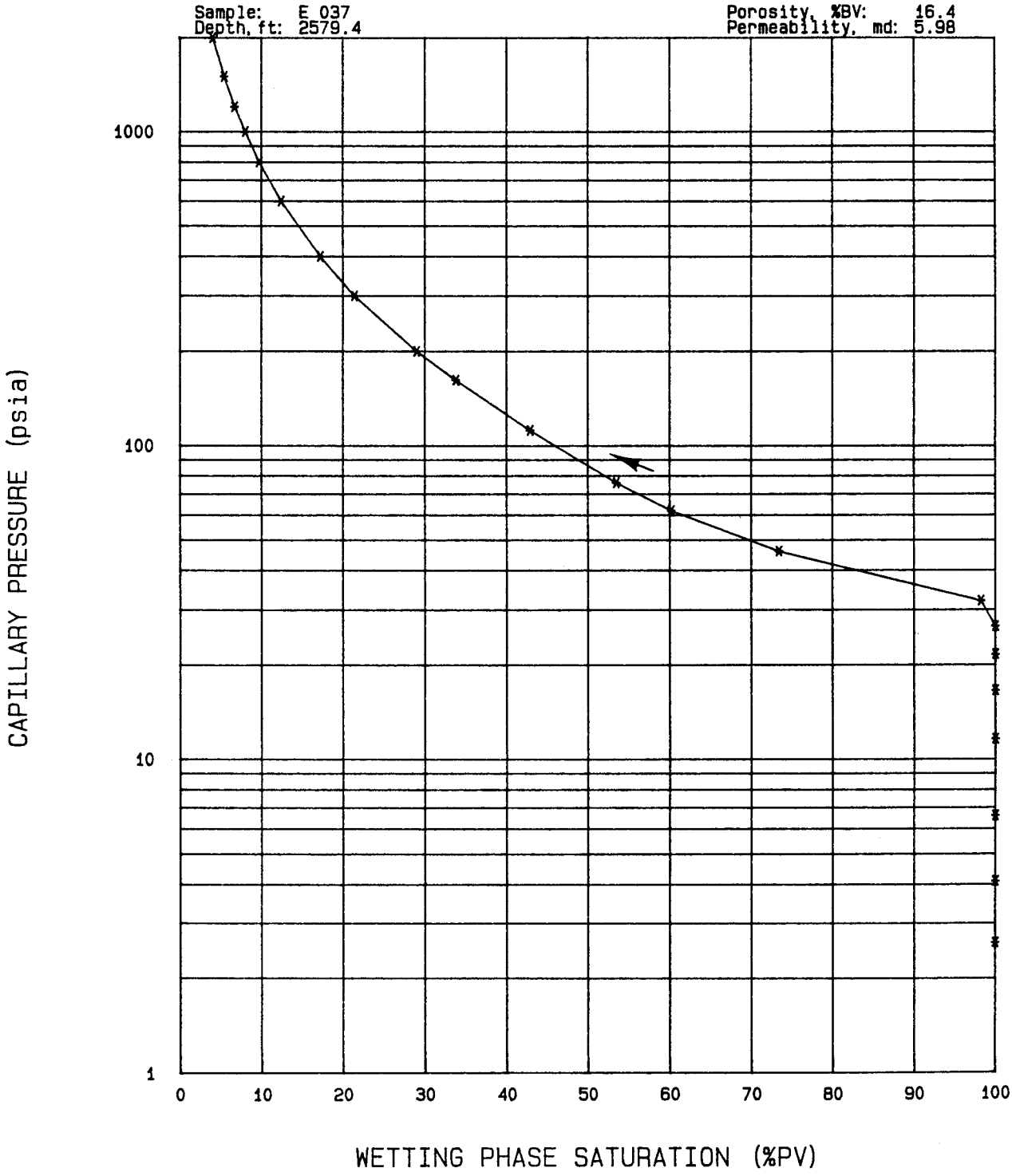

Figure 50

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

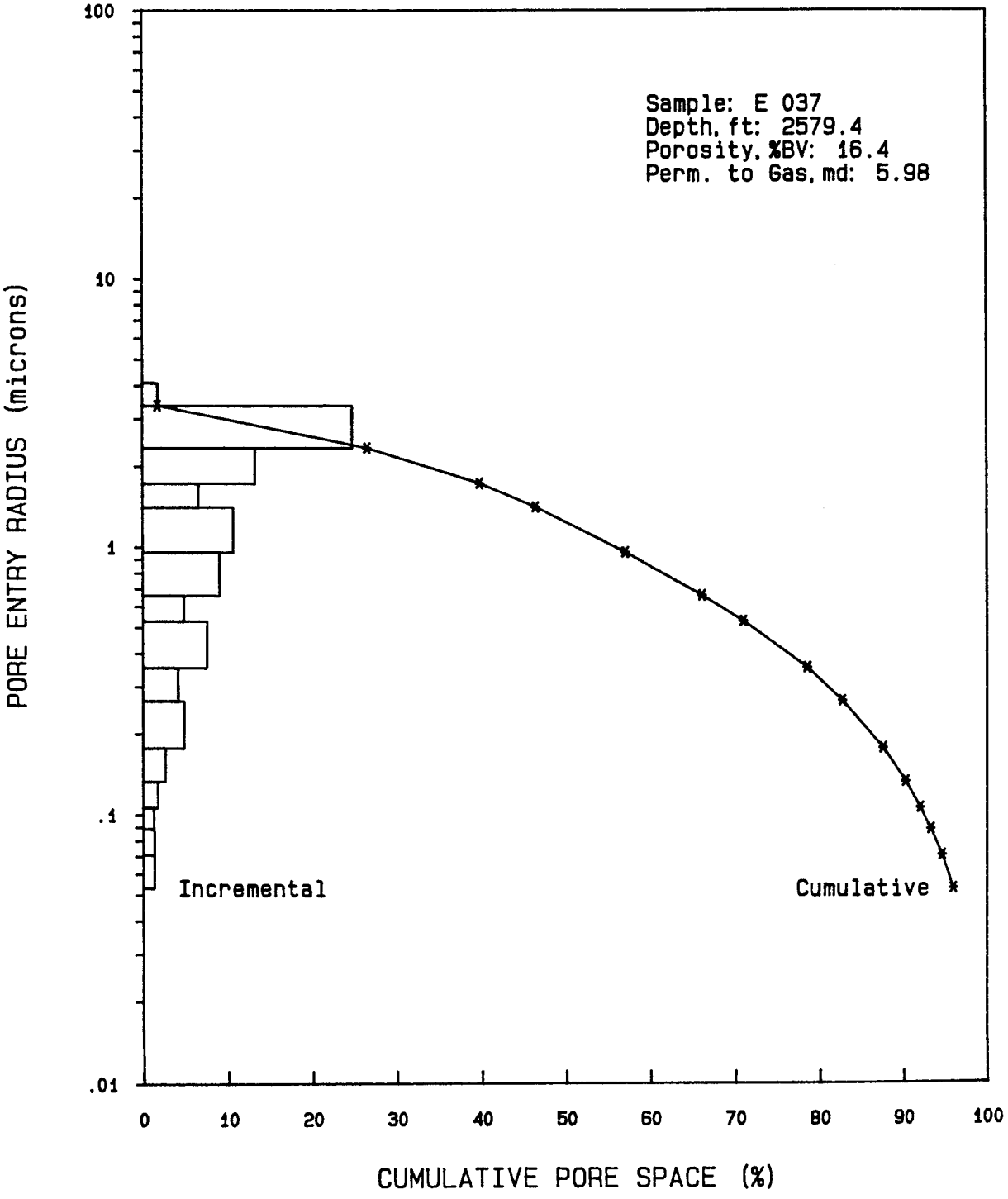

Table 34

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 038 Porosity,% BV: 14.3

Depth, ft: 2618.1 Perm. to Gas, md: 1.96

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.67	100.0	-	-
4.17	100.0	-	-
6.67	100.0	-	-
11.7	100.0	-	-
16.7	100.0	-	-
21.7	100.0	-	-
26.7	100.0	-	-
31.7	100.0	-	-
45.7	100.0	-	-
61.7	98.6	1.73	0.138
75.7	92.1	1.41	0.170
112	61.8	0.95	0.250
162	38.7	0.66	0.362
202	31.1	0.53	0.452
302	21.2	0.35	0.676
402	16.0	0.27	0.901
602	10.8	0.18	1.35
802	8.3	0.13	1.80
1001	6.7	0.11	2.25
1201	5.4	0.09	2.69
1501	4.2	0.07	3.37
2001	2.8	0.05	4.49

Figure 51

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

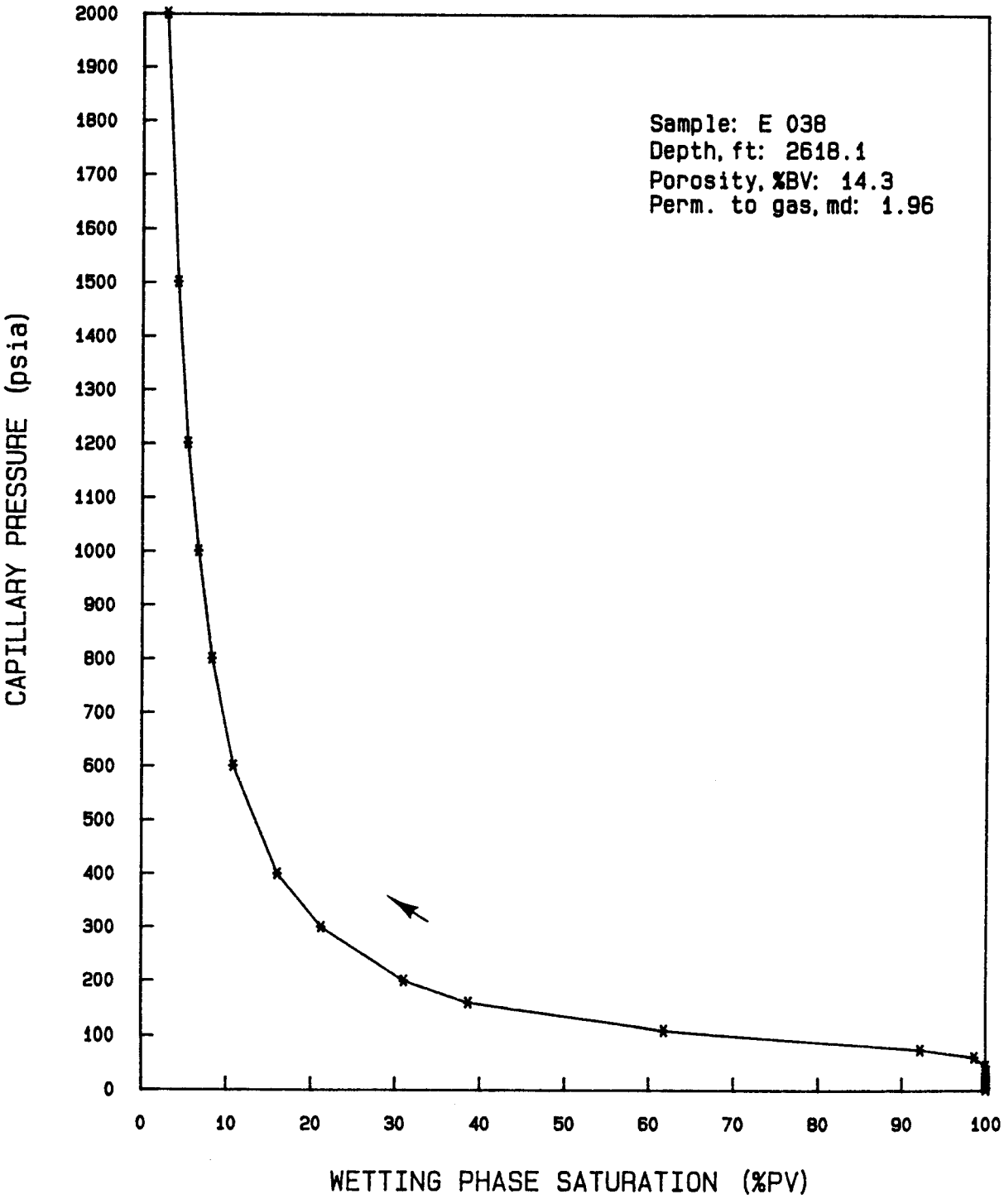

Figure 52

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

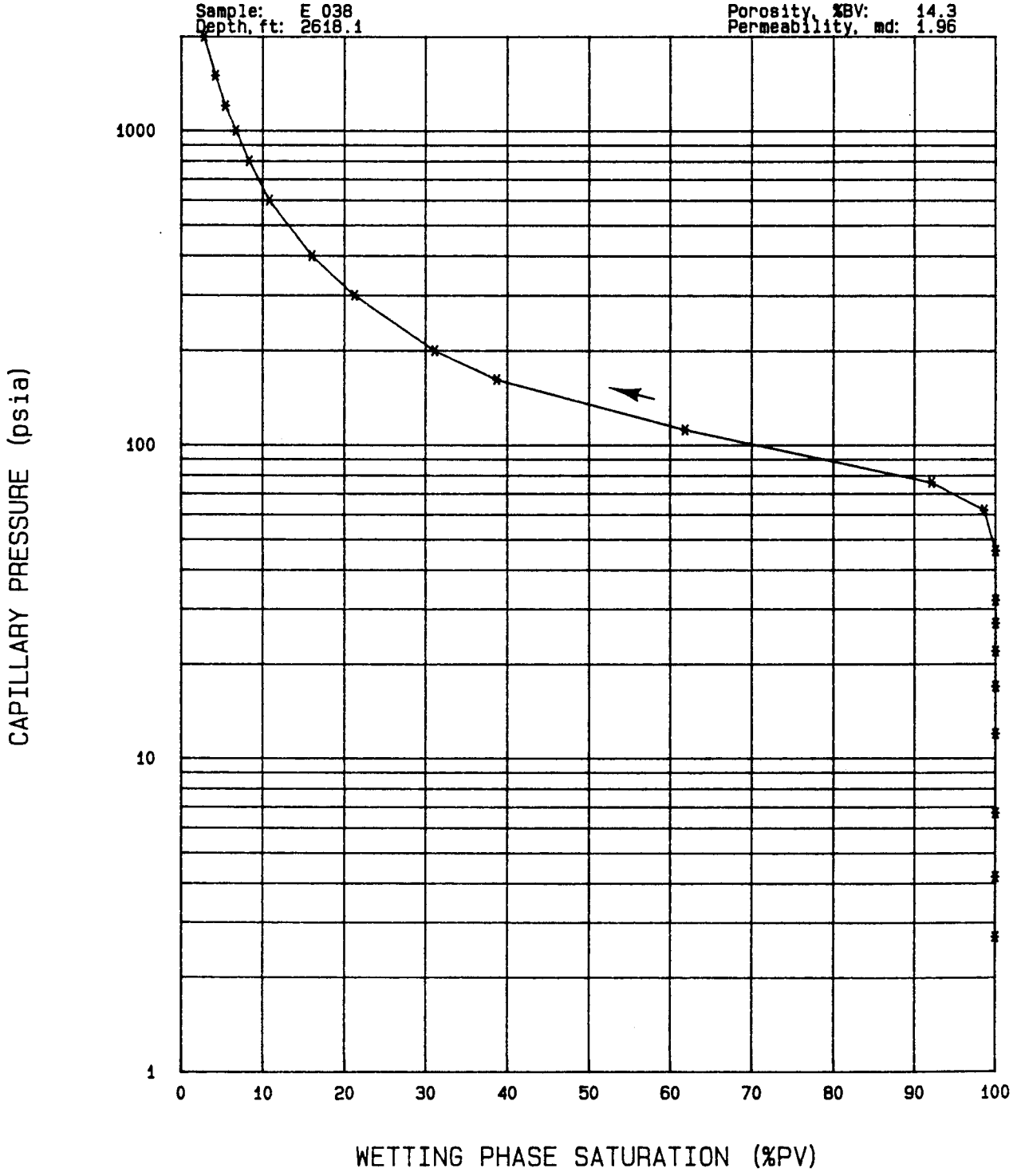

Figure 53

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

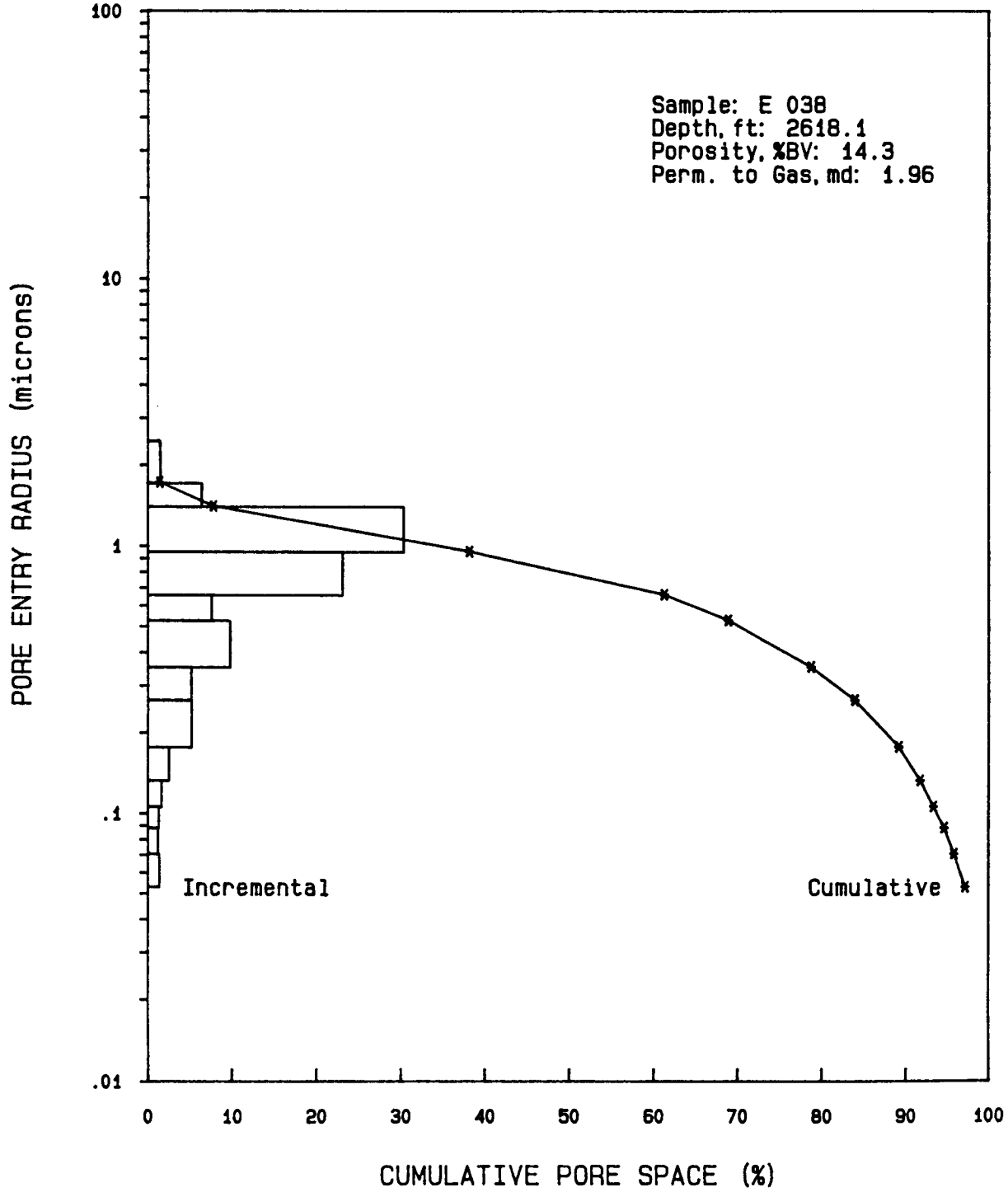

Table 35

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 041 Porosity,% BV: 13.2

Depth, ft: 2627.4 Perm. to Gas, md: 0.894

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.64	100.0	-	-
4.14	100.0	-	-
6.64	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	100.0	-	-
61.6	100.0	-	-
75.6	98.3	1.41	0.118
112	66.7	0.95	0.175
162	49.8	0.66	0.253
202	42.4	0.53	0.316
302	32.1	0.35	0.472
402	26.3	0.27	0.629
602	19.8	0.18	0.942
802	16.4	0.13	1.26
1001	14.1	0.11	1.57
1201	12.3	0.09	1.88
1501	10.5	0.07	2.35
2001	8.3	0.05	3.13

Figure 54

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

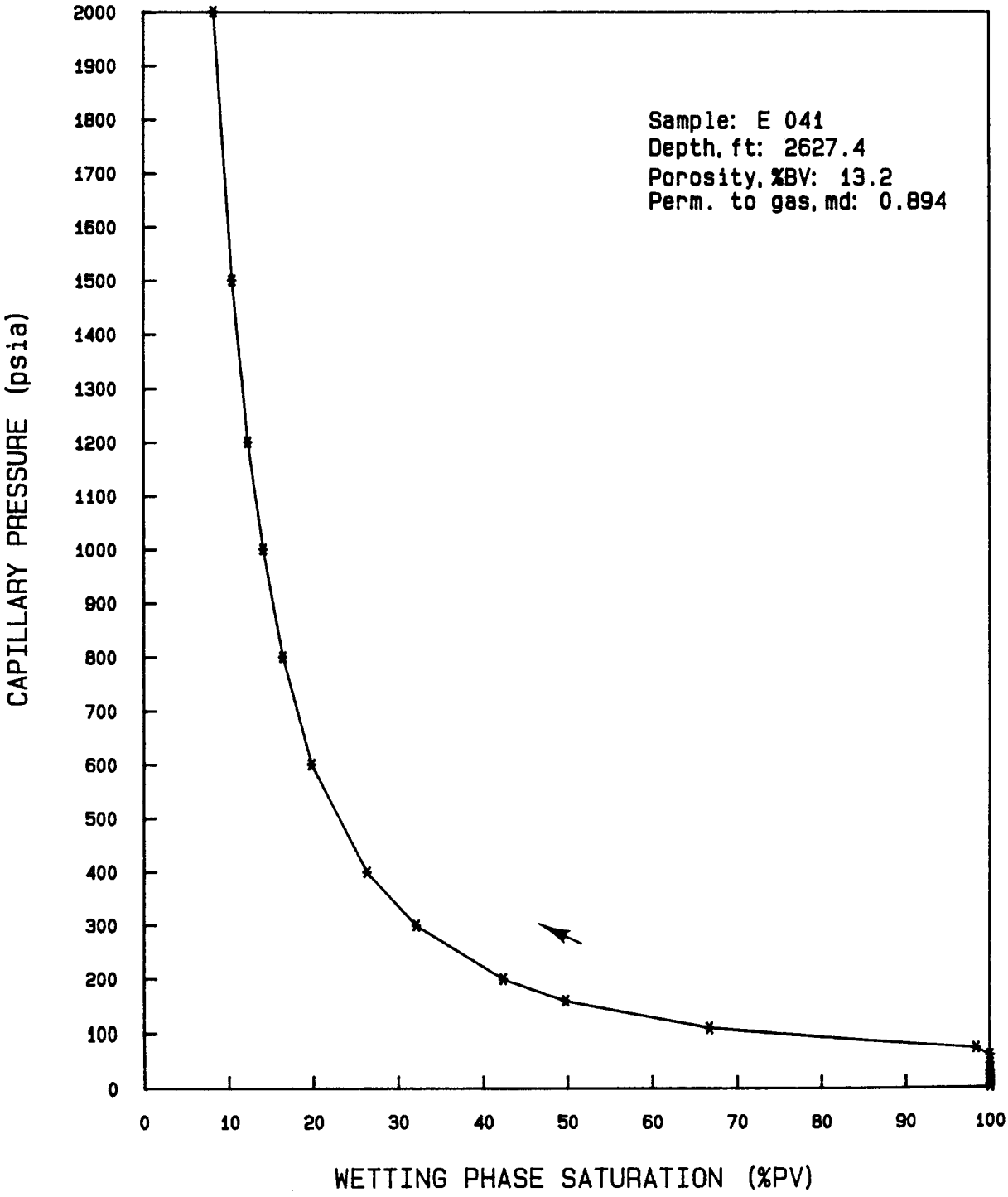

Figure 55

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

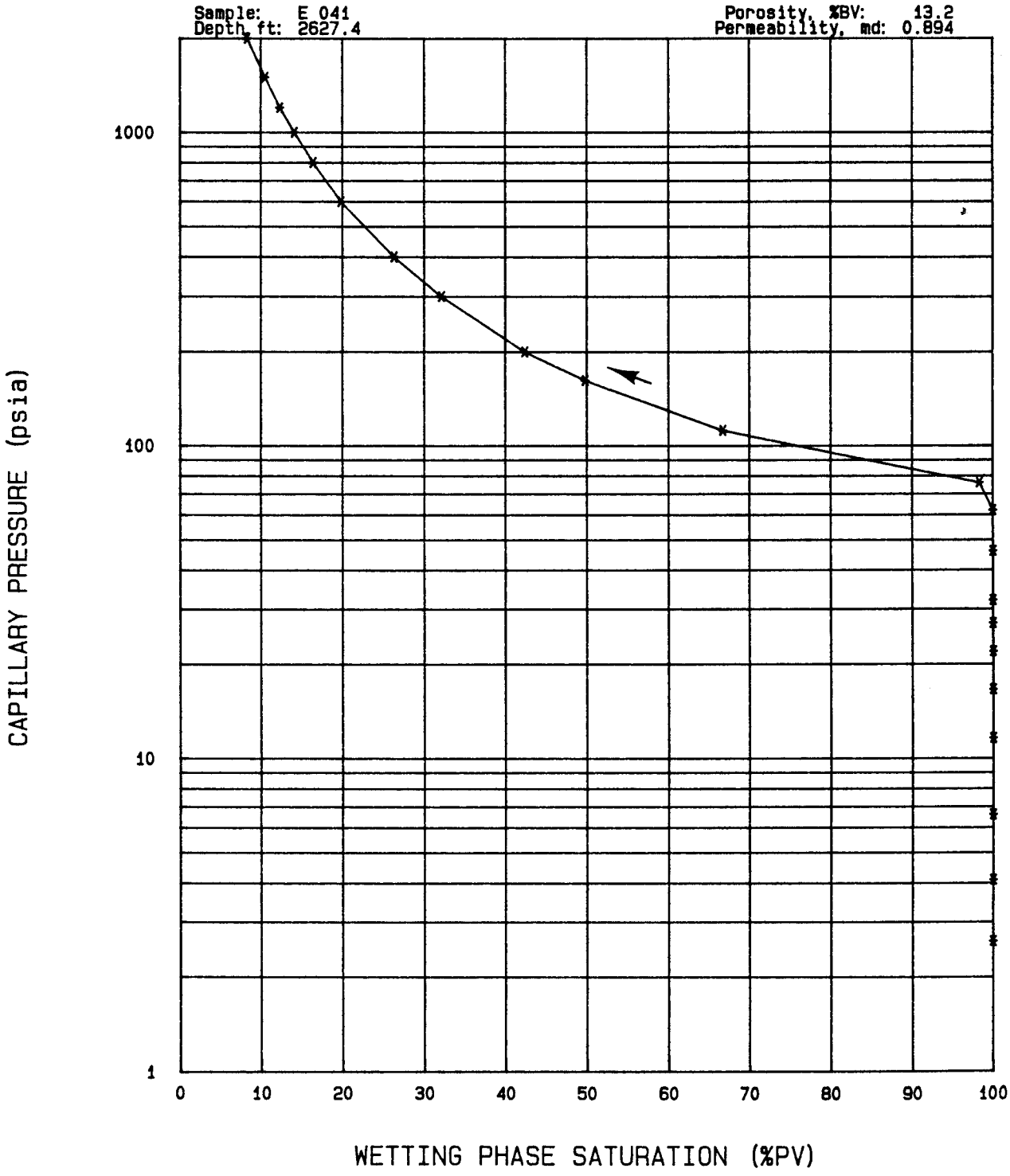

Figure 56

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

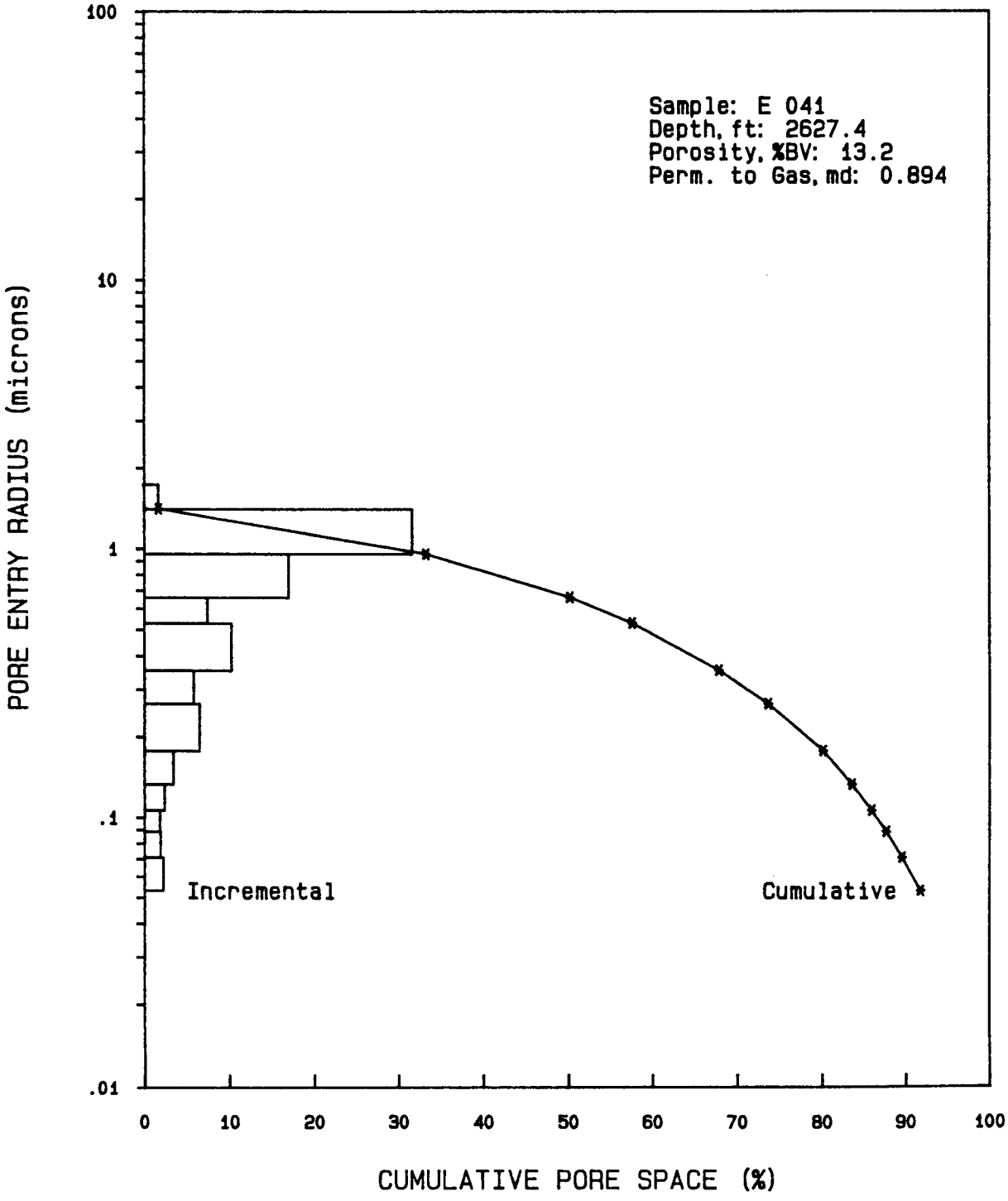

Table 36

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 048 Porosity,% BV: 18.5

Depth, ft: 2641.1 Perm. to Gas, md: 10.1

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.67	100.0	-	-
4.17	100.0	-	-
6.67	100.0	-	-
11.7	100.0	-	-
16.7	100.0	-	-
21.7	100.0	-	-
26.7	98.9	4.00	0.118
31.7	93.0	3.37	0.140
45.7	70.6	2.33	0.202
61.7	56.6	1.73	0.273
75.7	49.5	1.41	0.335
112	38.4	0.95	0.494
162	30.3	0.66	0.716
202	26.3	0.53	0.893
302	20.0	0.35	1.34
402	16.2	0.27	1.78
602	11.7	0.18	2.66
802	9.5	0.13	3.55
1001	8.0	0.11	4.43
1201	6.9	0.09	5.32
1501	5.7	0.07	6.65
2001	4.3	0.05	8.86

Figure 57

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

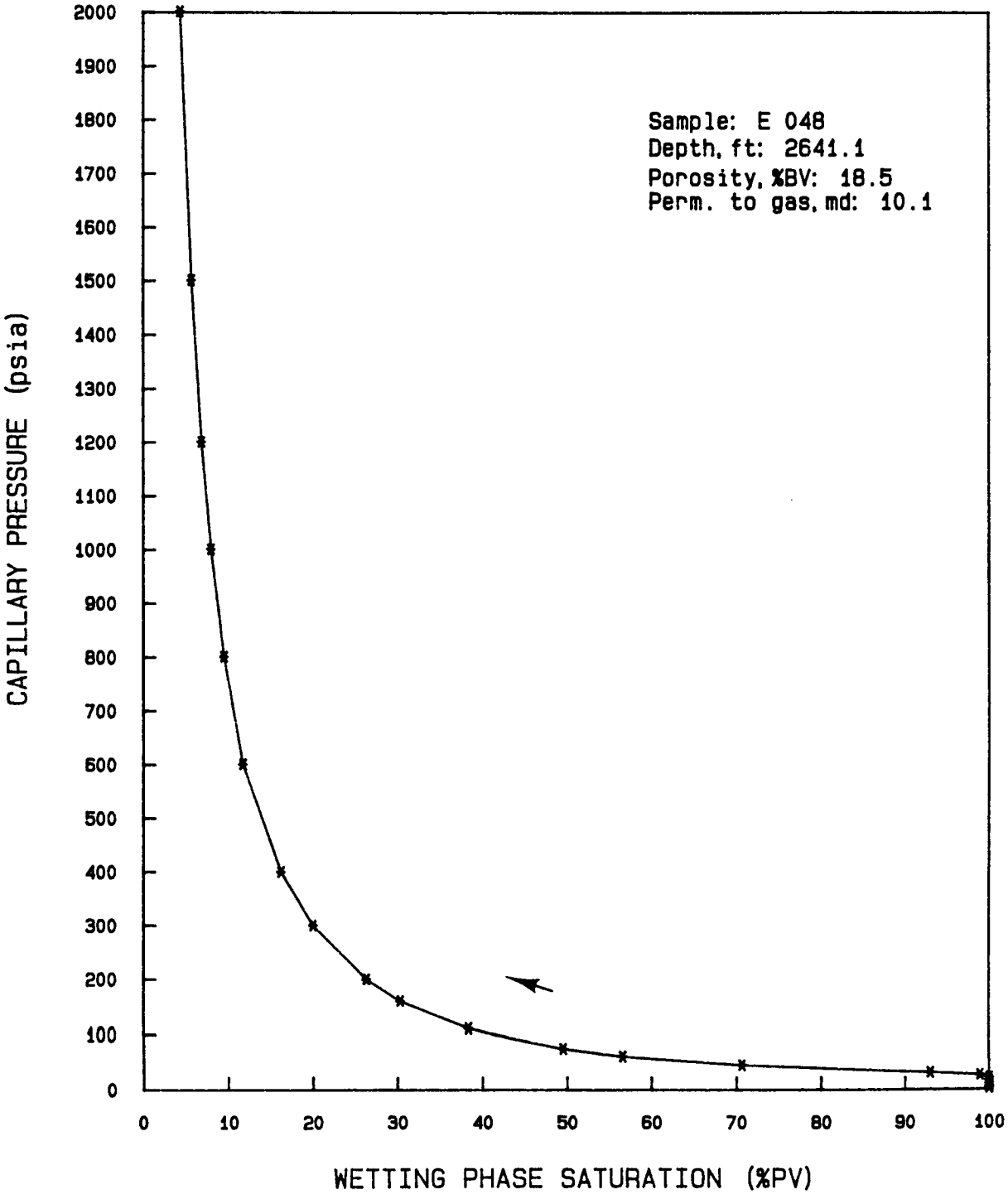

Figure 58

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

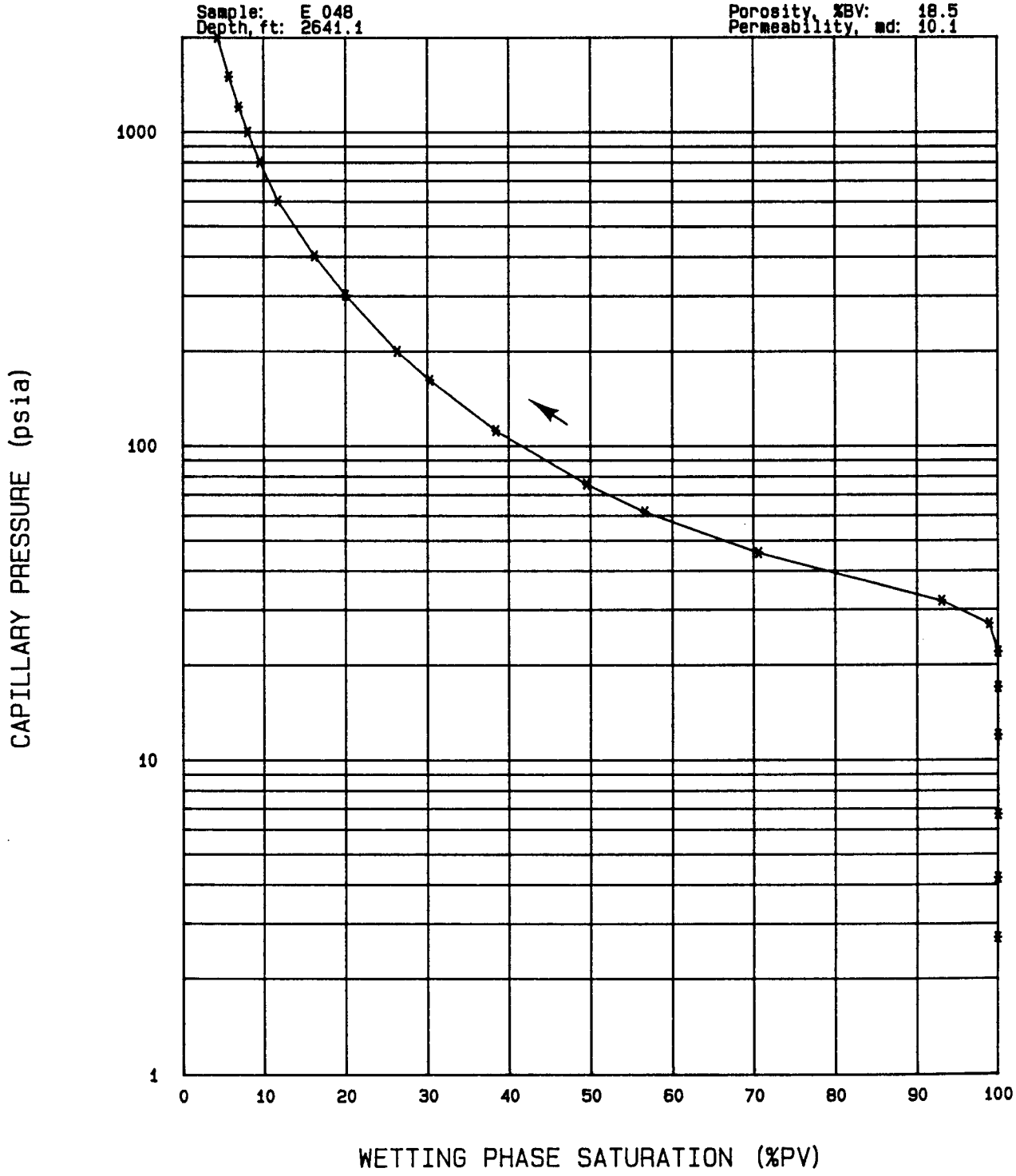

Figure 59

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

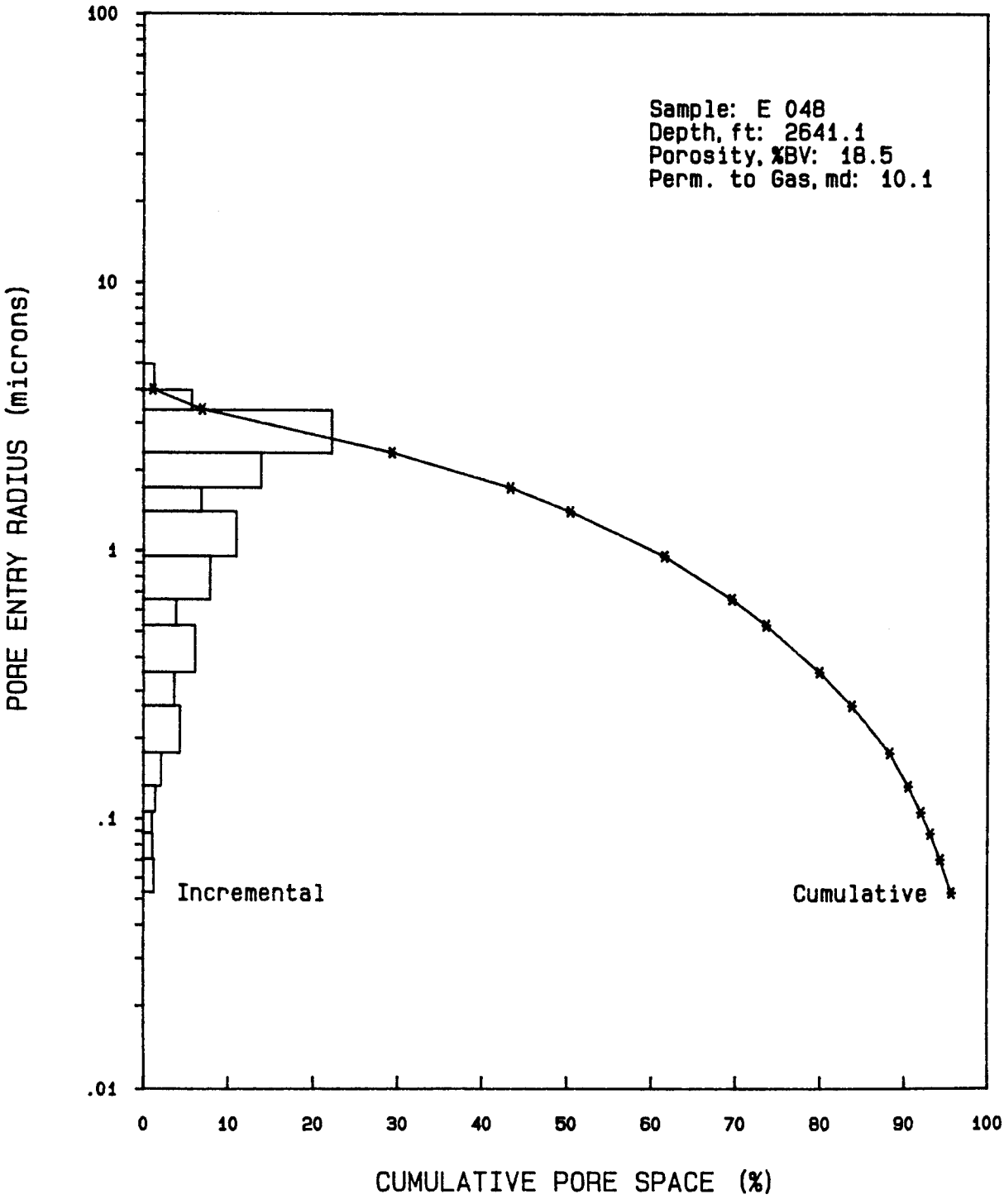

Table 37

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 051 Porosity,% BV: 17.9

Depth, ft: 2658.7 Perm. to Gas, md: 1.66

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.63	100.0	-	-
4.13	100.0	-	-
6.63	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	100.0	-	-
61.6	99.6	1.73	0.110
75.6	94.7	1.41	0.135
112	77.8	0.95	0.199
162	64.1	0.66	0.289
202	55.3	0.53	0.360
302	45.4	0.35	0.539
402	39.6	0.27	0.717
602	32.5	0.18	1.07
802	28.8	0.13	1.43
1001	26.4	0.11	1.79
1201	24.6	0.09	2.15
1501	22.6	0.07	2.68
2001	21.4	0.05	3.58

Figure 60

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

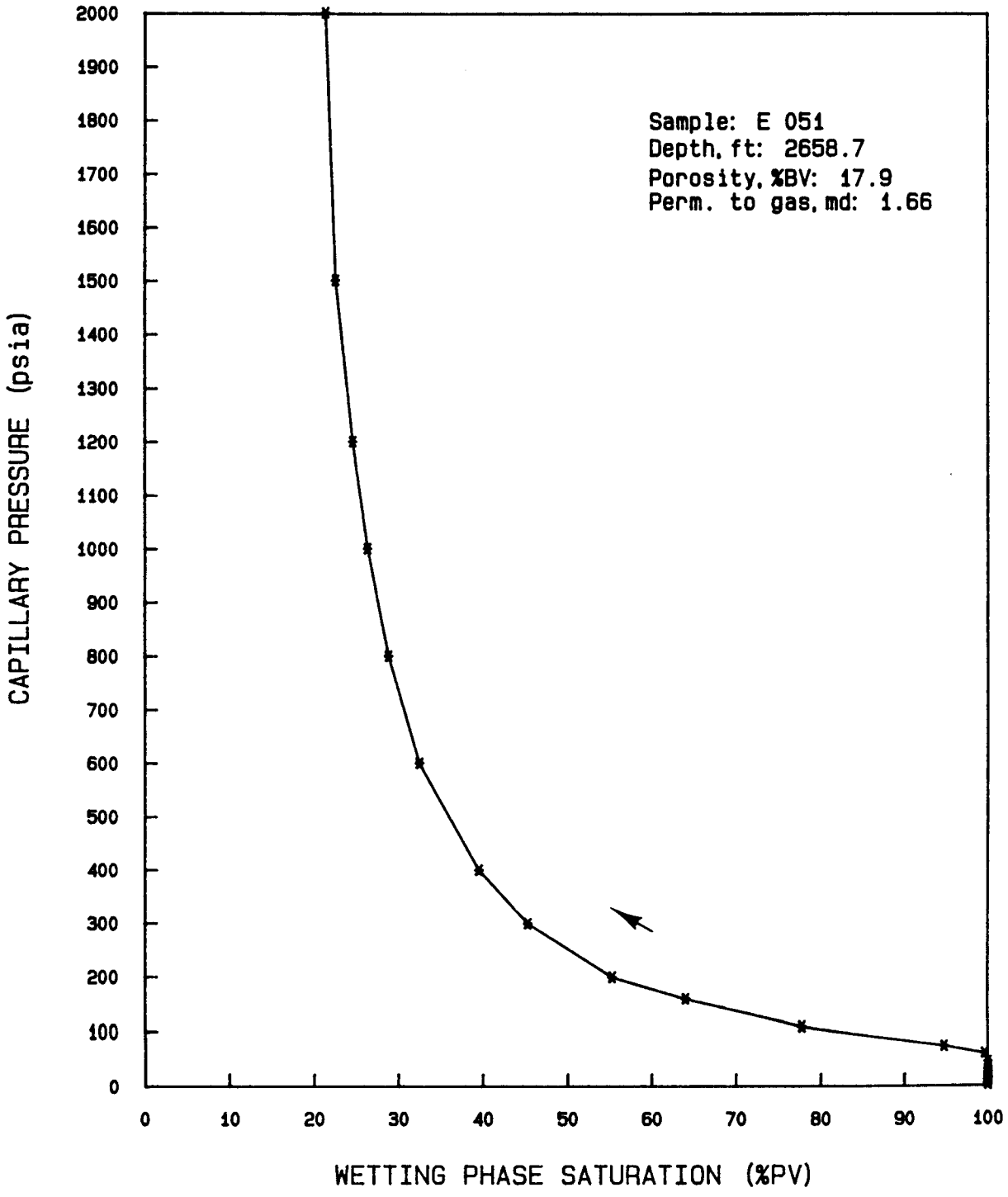

Figure 61

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

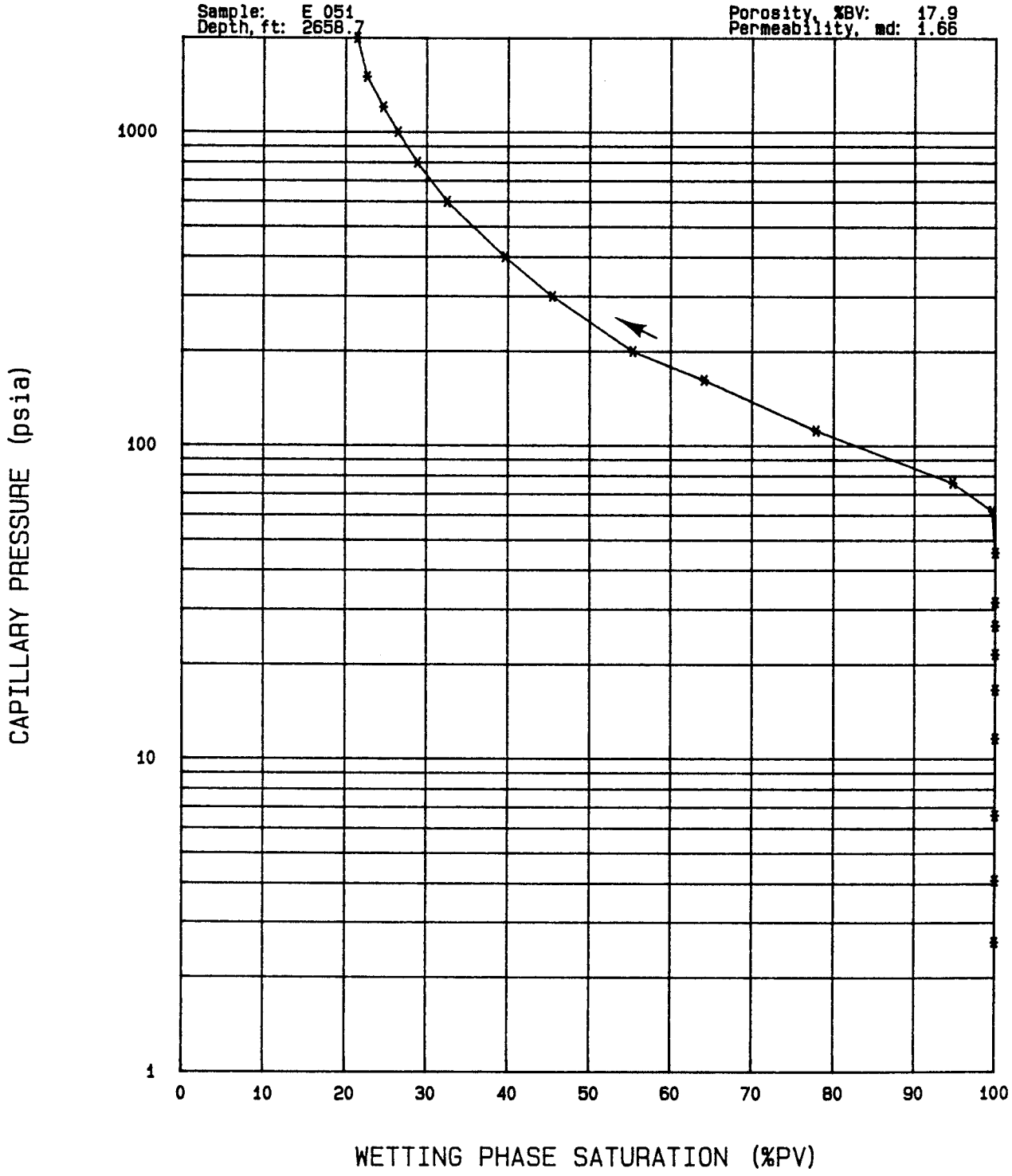

Figure 62

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

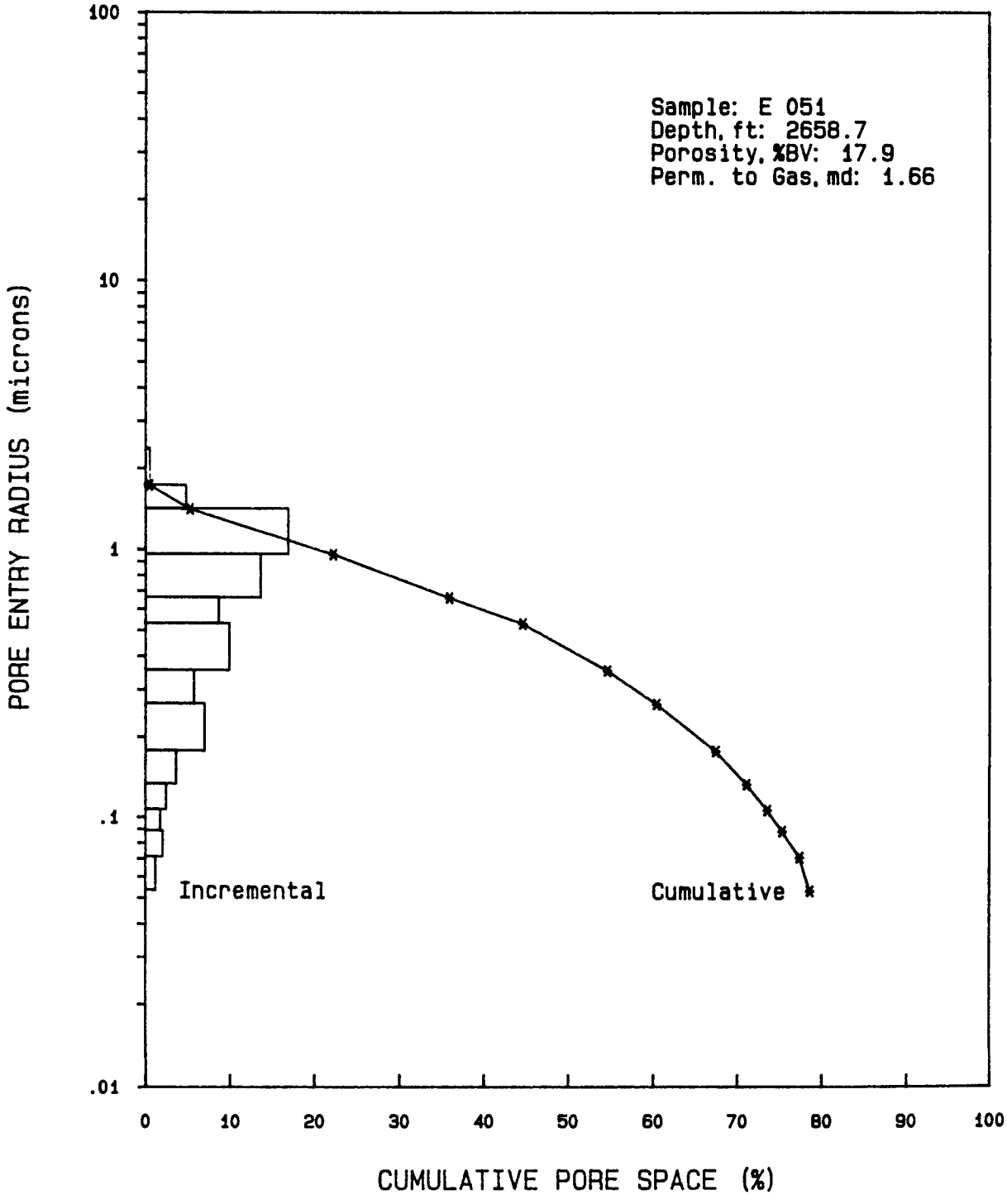

Table 38

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 052 Porosity,% BV: 16.9

Depth, ft: 2681.7 Perm. to Gas, md: 2.28

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.63	100.0	-	-
4.13	100.0	-	-
6.63	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	99.5	2.34	0.099
61.6	91.2	1.73	0.133
75.6	77.7	1.41	0.163
112	56.5	0.95	0.241
162	42.3	0.66	0.349
202	35.8	0.53	0.436
302	26.6	0.35	0.652
402	21.3	0.27	0.868
602	15.5	0.18	1.30
802	12.4	0.13	1.73
1001	10.4	0.11	2.16
1201	8.9	0.09	2.60
1501	7.4	0.07	3.25
2001	5.8	0.05	4.33

Figure 63

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

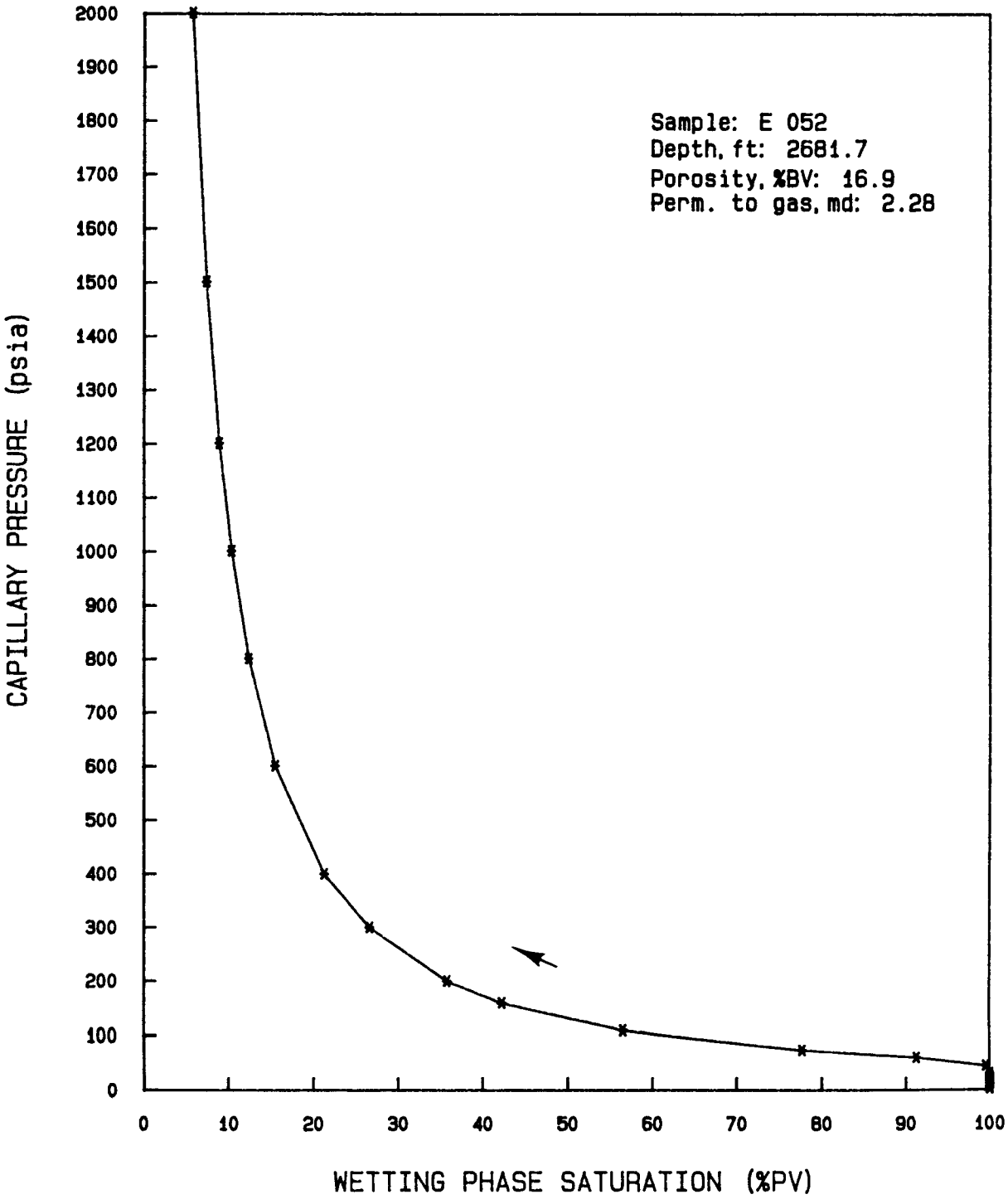

Figure 64

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

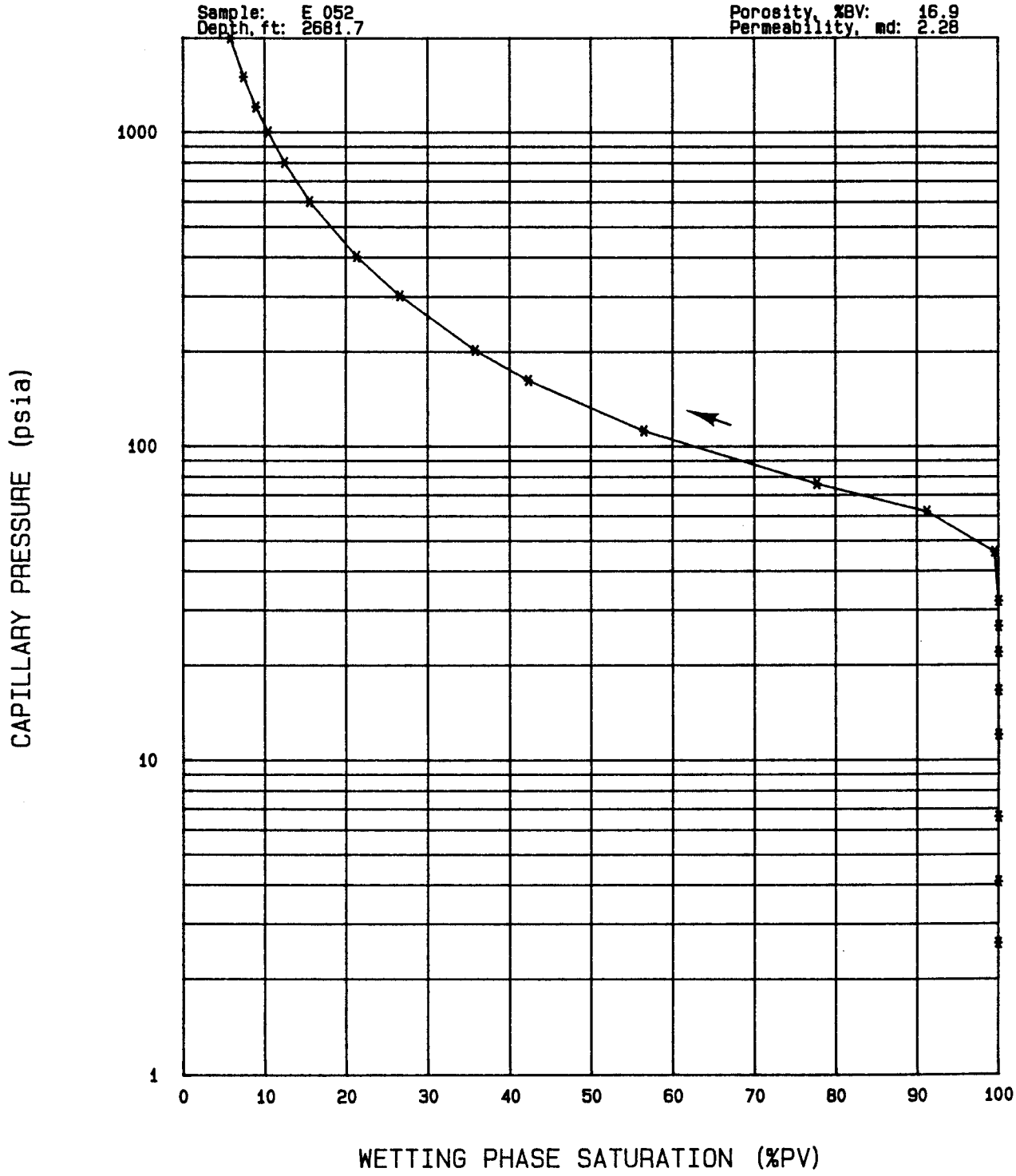

Figure 65

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

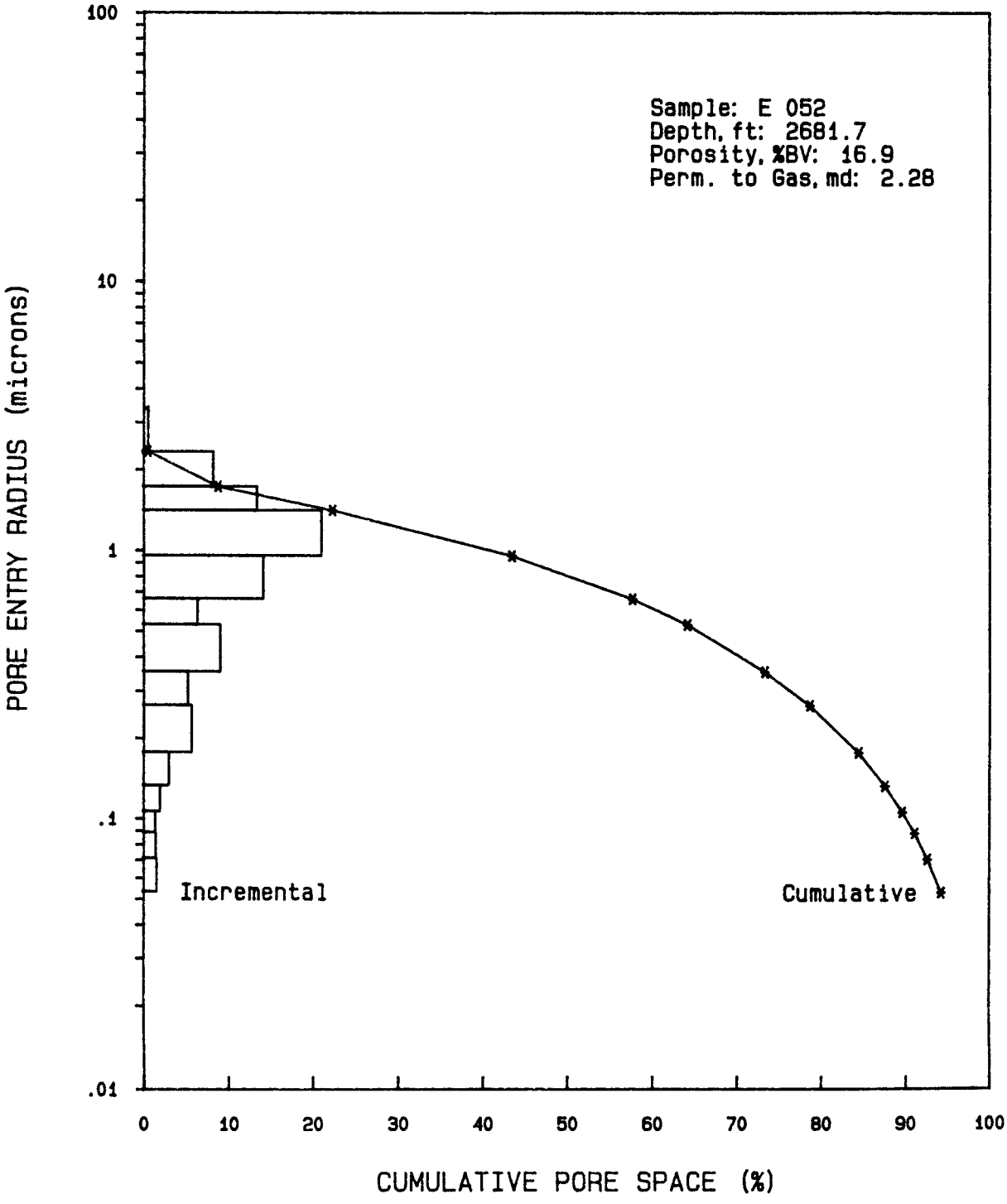

Table 39

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 055 Porosity,% BV: 15.2

Depth, ft: 2700.5 Perm. to Gas, md: 0.413

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.67	100.0	-	-
4.17	100.0	-	-
6.67	100.0	-	-
11.7	100.0	-	-
16.7	100.0	-	-
21.7	100.0	-	-
26.7	100.0	-	-
31.7	100.0	-	-
45.7	100.0	-	-
61.7	100.0	-	-
75.7	100.0	-	-
112	99.1	0.95	0.108
162	81.1	0.66	0.157
202	62.9	0.53	0.195
302	41.1	0.35	0.292
402	31.7	0.27	0.389
602	23.4	0.18	0.583
802	19.0	0.13	0.777
1001	16.3	0.11	0.971
1201	14.4	0.09	1.16
1501	12.1	0.07	1.46
2001	10.5	0.05	1.94

Figure 66

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

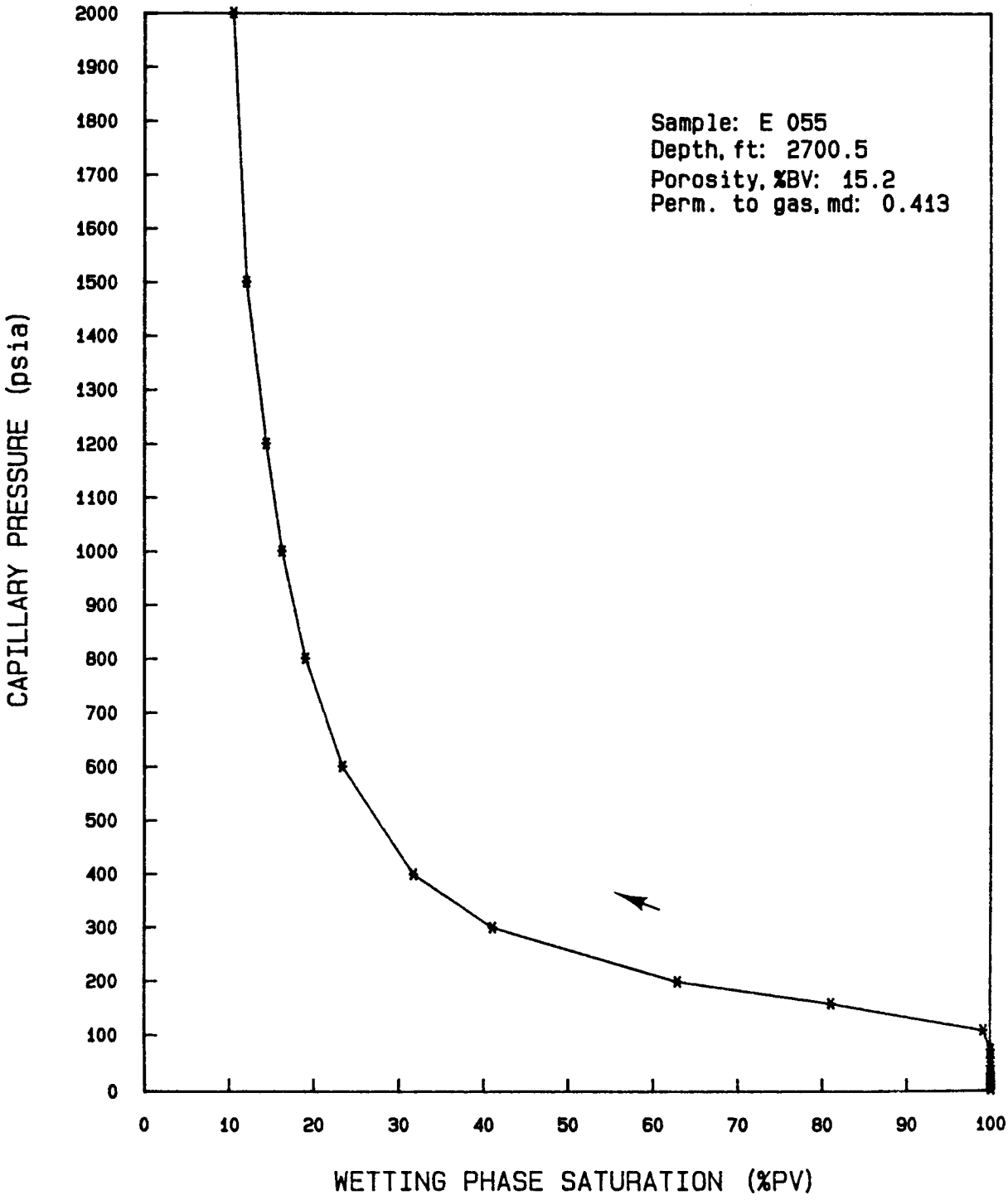

Figure 67

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

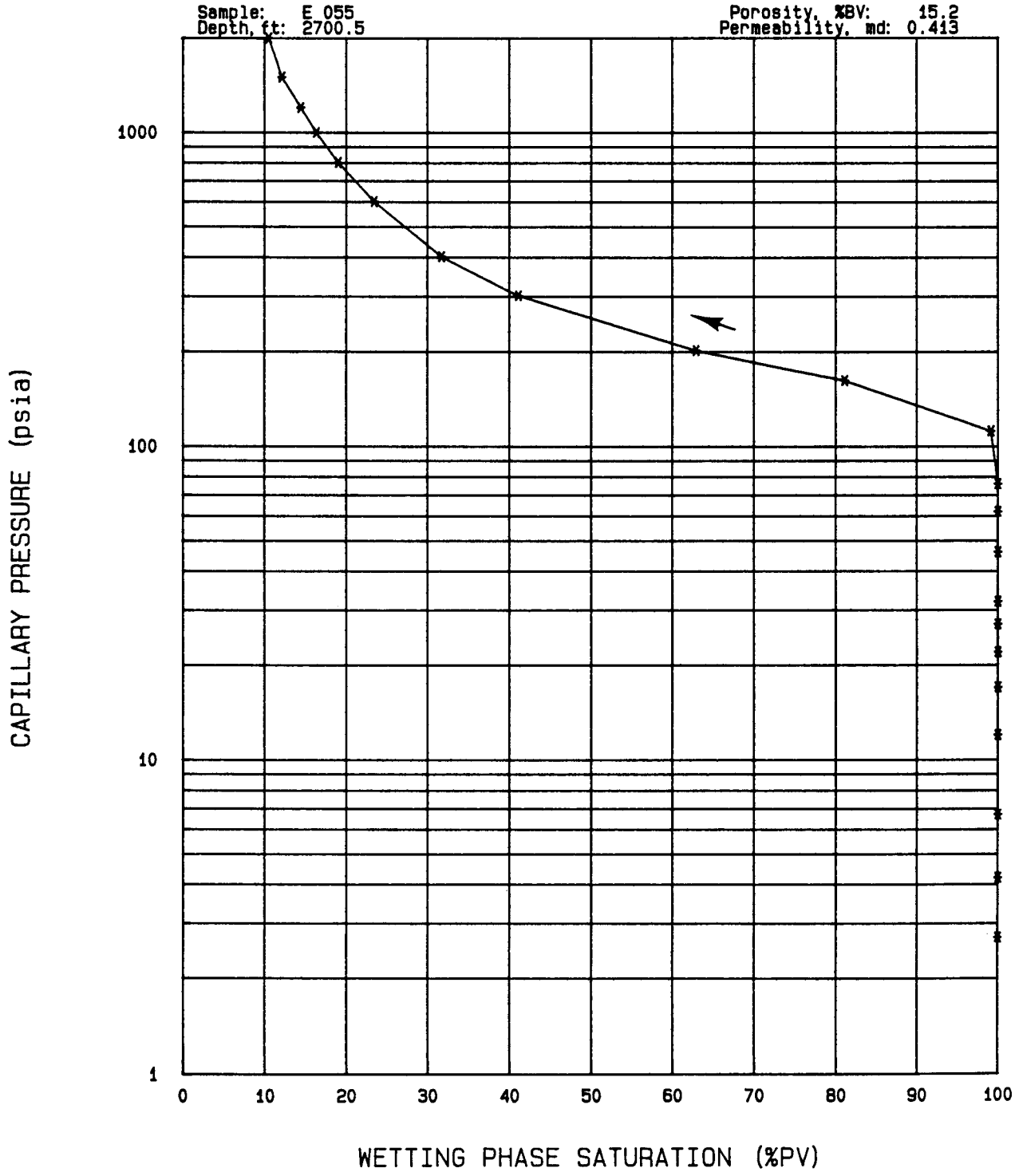

Figure 68

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

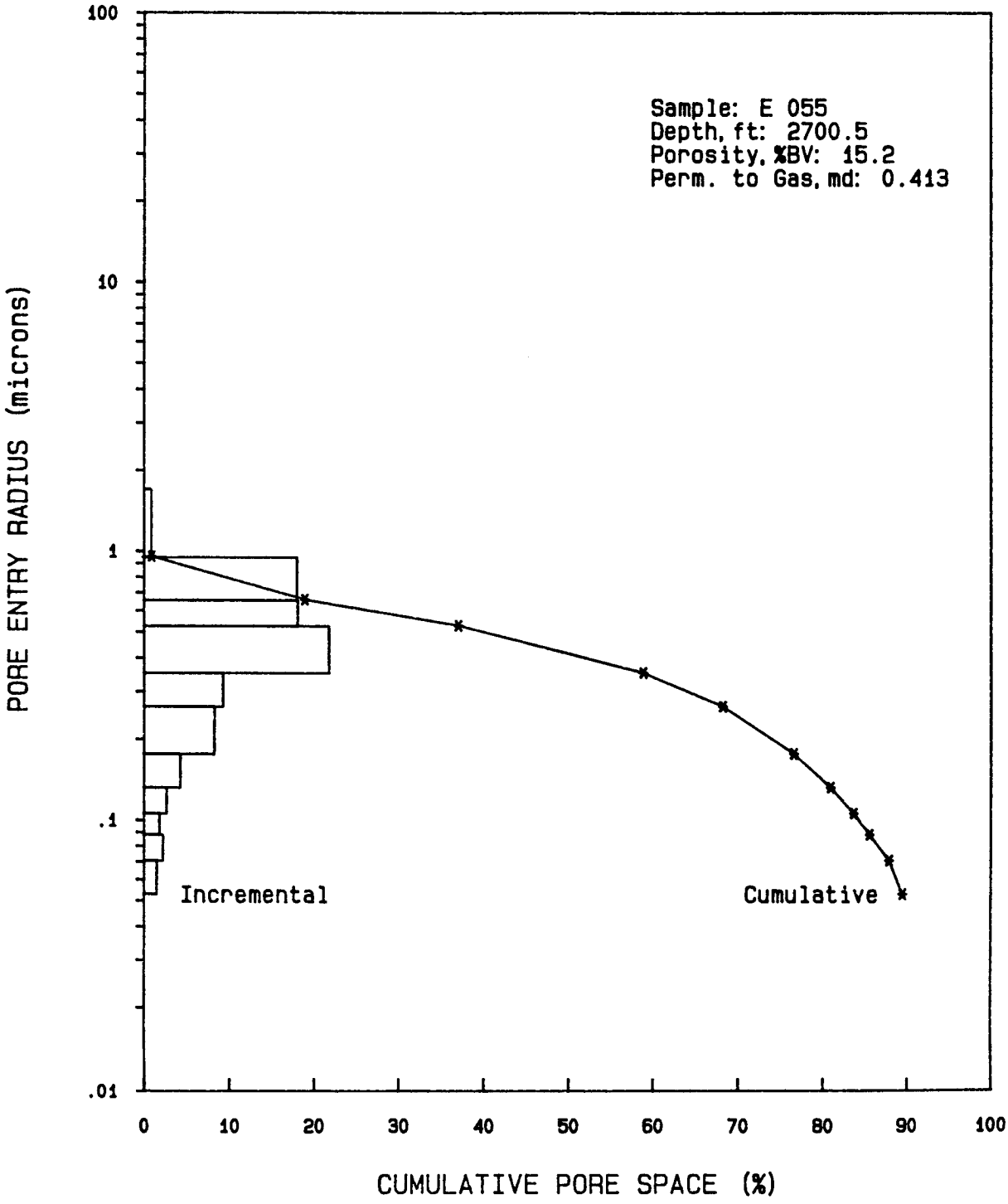

Table 40

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 103 Porosity,% BV: 17.4

Depth, ft: 2772.5 Perm. to Gas, md: 12.4

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.59	100.0	-	-
4.09	100.0	-	-
6.59	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	99.3	2.34	0.227
61.6	81.7	1.73	0.306
75.6	72.0	1.41	0.376
112	59.1	0.96	0.555
162	48.2	0.66	0.803
202	42.2	0.53	1.00
302	34.1	0.35	1.50
402	30.0	0.27	2.00
602	25.9	0.18	2.99
802	23.9	0.13	3.99
1001	22.6	0.11	4.98
1201	21.6	0.09	5.97
1501	20.5	0.07	7.47
2001	19.2	0.05	9.95

Figure 69

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

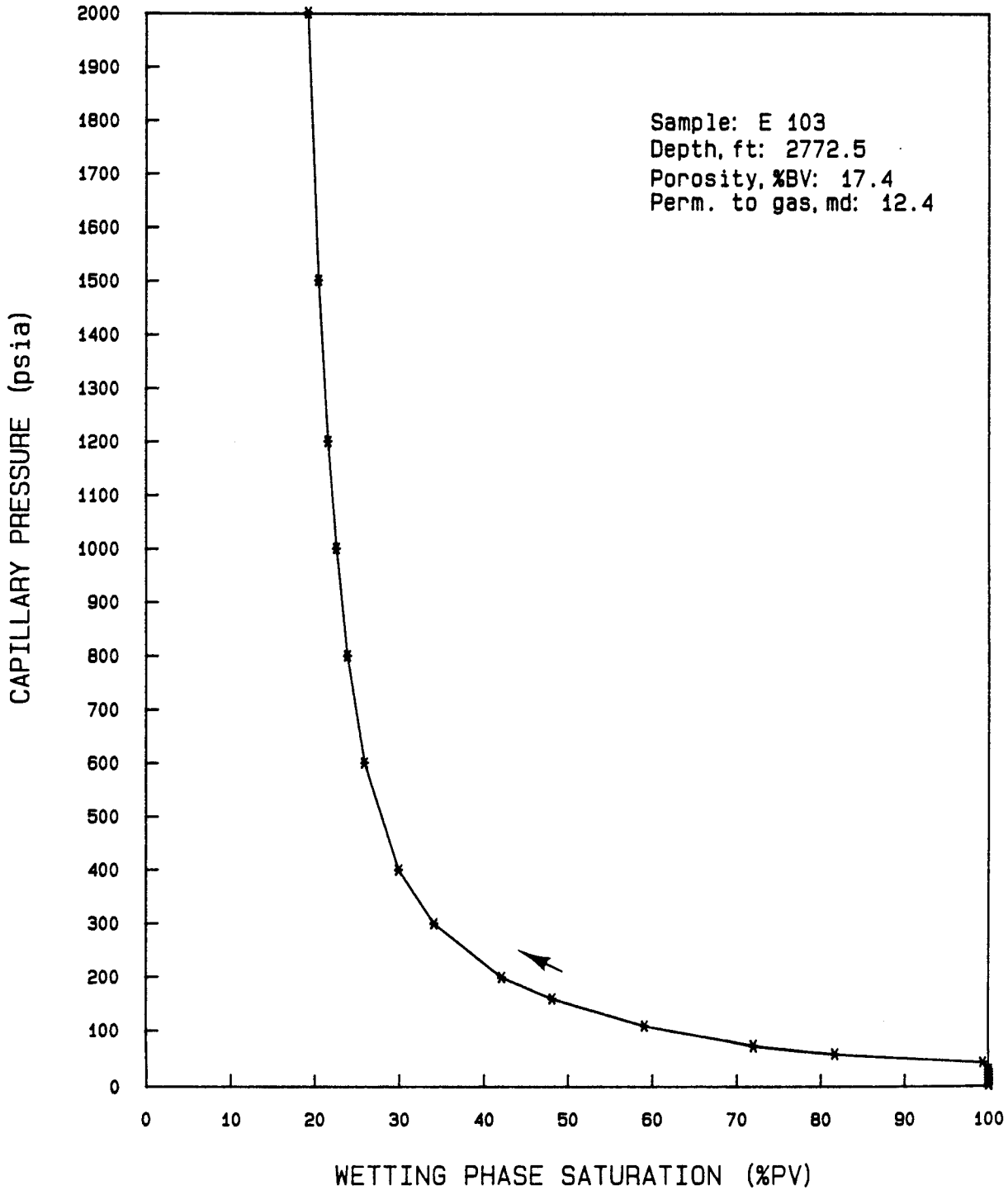

Figure 70

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

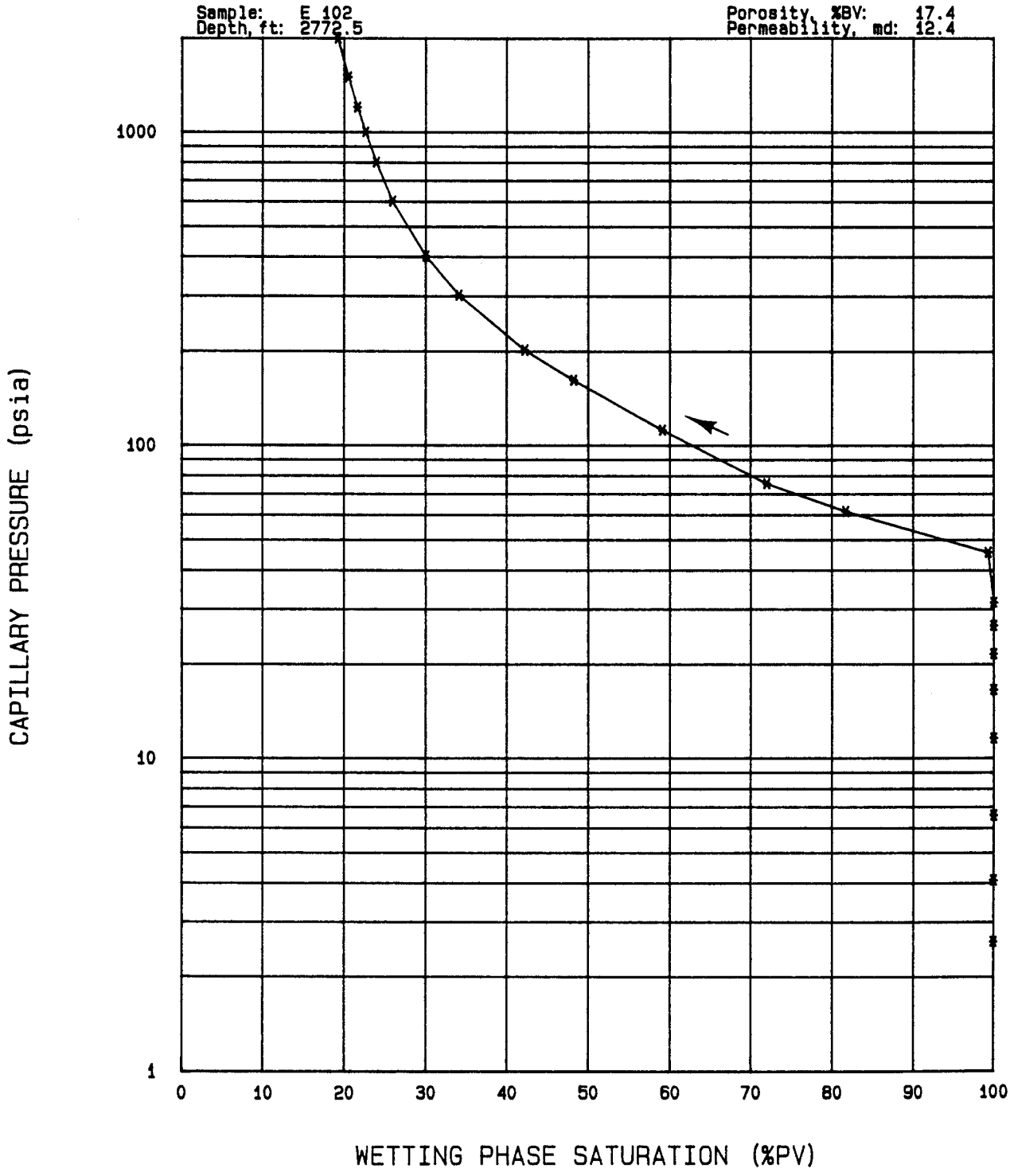

Figure 71

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

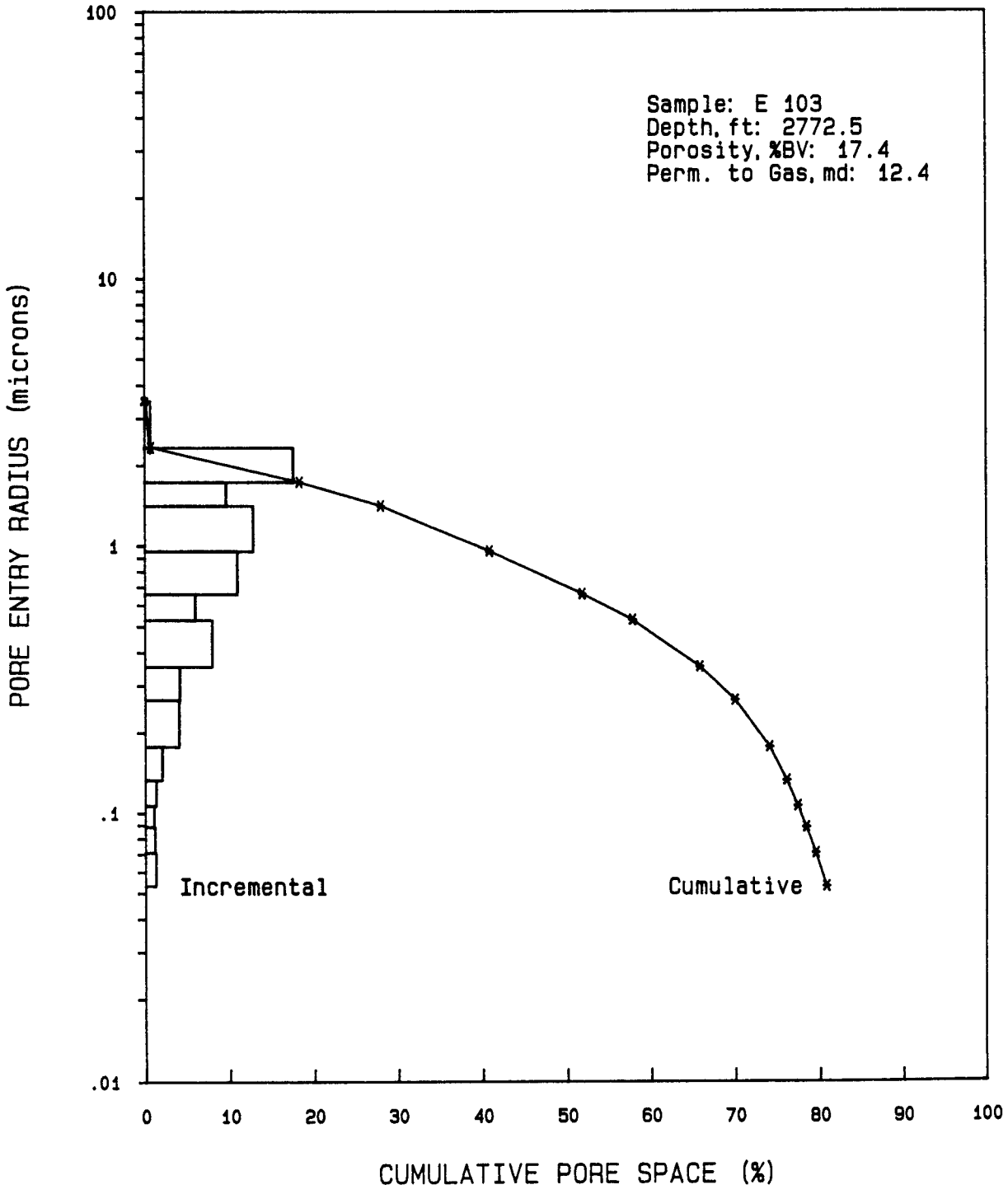

Table 41

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 042 Porosity,% BV: 12.5

Depth, ft: 2827.1 Perm. to Gas, md: 0.689

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.63	100.0	-	-
4.13	100.0	-	-
6.63	100.0	-	-
11.6	100.0	-	-
16.6	100.0	-	-
21.6	100.0	-	-
26.6	100.0	-	-
31.6	100.0	-	-
45.6	100.0	-	-
61.6	100.0	-	-
75.6	99.6	1.41	0.107
112	80.4	0.95	0.158
162	56.7	0.66	0.229
202	47.6	0.53	0.286
302	34.9	0.35	0.428
402	28.0	0.27	0.570
602	19.4	0.18	0.853
802	15.2	0.13	1.14
1001	12.4	0.11	1.42
1201	10.6	0.09	1.70
1501	8.6	0.07	2.13
2001	6.7	0.05	2.84

Figure 72

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

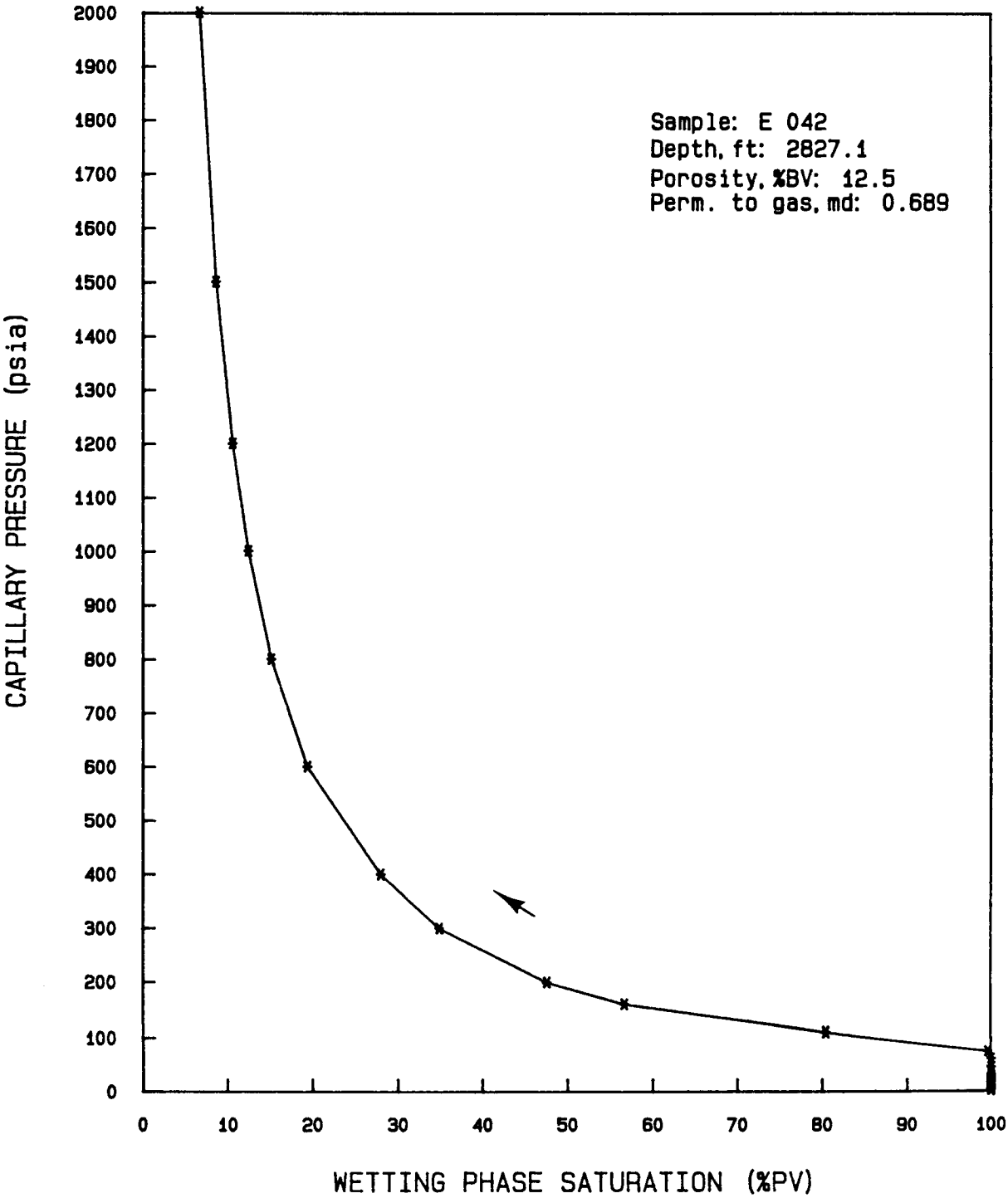

Figure 73

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

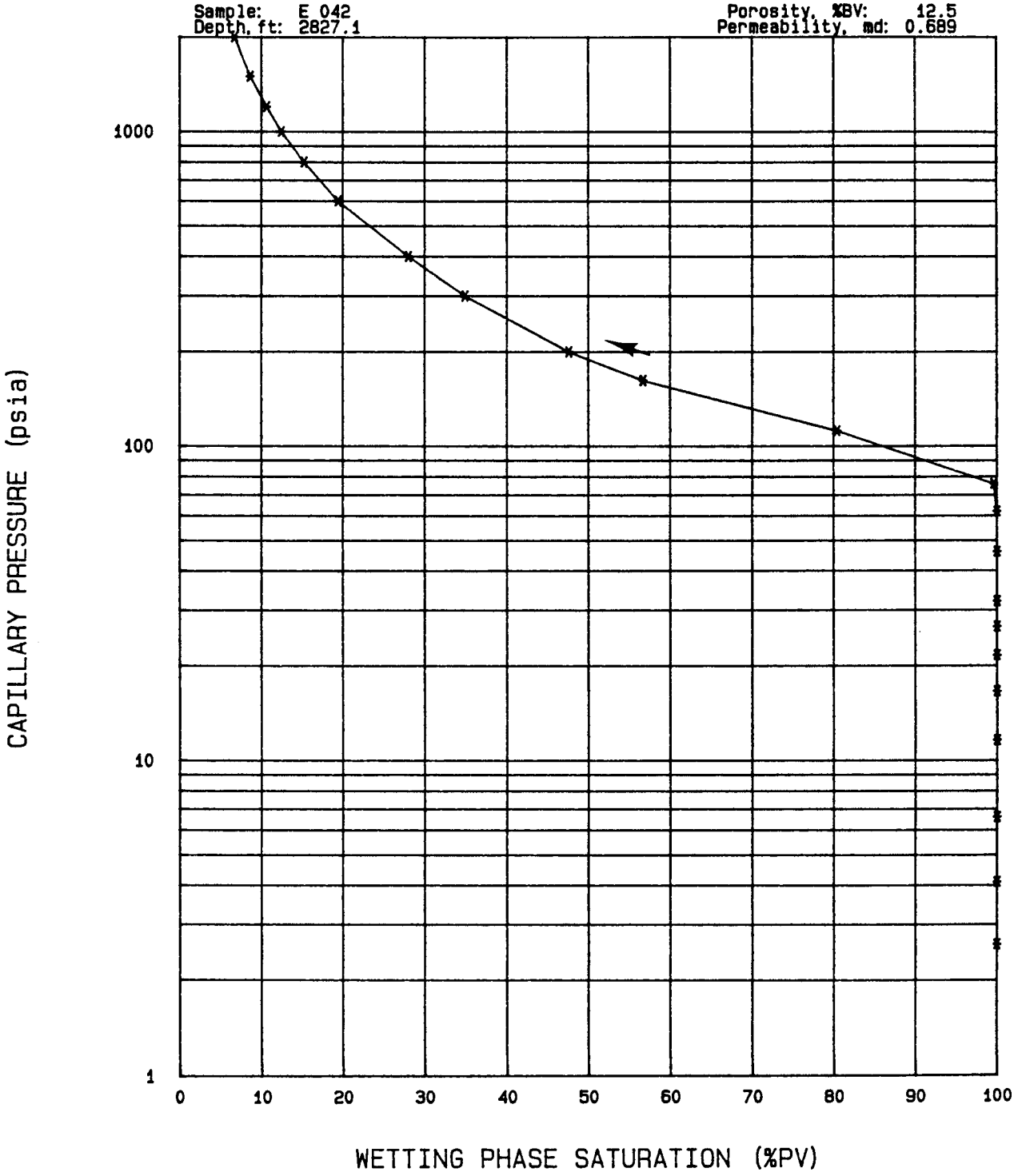

Figure 74

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

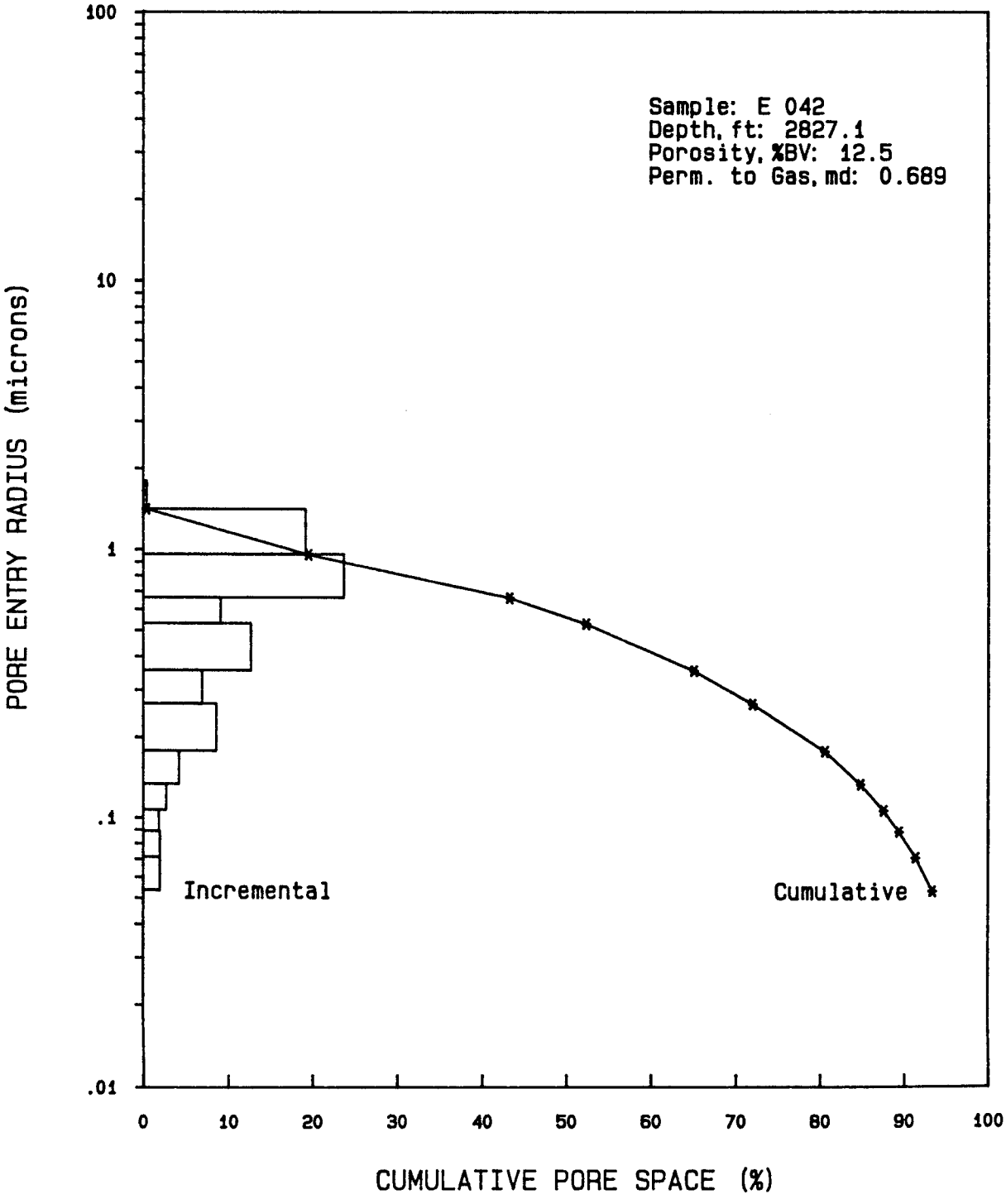

Table 42

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 044

Depth, ft: 2891.4

Porosity,% BV: 13.2

Perm. to Gas, md: 48.7

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.69	100.0	-	-
4.19	100.0	-	-
6.69	100.0	-	-
11.7	92.4	9.12	0.135
16.7	57.6	6.39	0.192
21.7	43.9	4.92	0.250
26.7	37.5	3.99	0.308
31.7	34.0	3.36	0.365
45.7	28.5	2.33	0.527
61.7	25.3	1.73	0.711
75.7	23.6	1.41	0.872
112	21.2	0.95	1.29
162	19.4	0.66	1.86
202	18.5	0.53	2.32
302	16.9	0.35	3.48
402	15.4	0.27	4.63
602	13.1	0.18	6.93
802	11.3	0.13	9.24
1001	10.1	0.11	11.54
1201	9.1	0.09	13.85
1501	8.1	0.07	17.31
2001	6.9	0.05	23.07

Figure 75

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

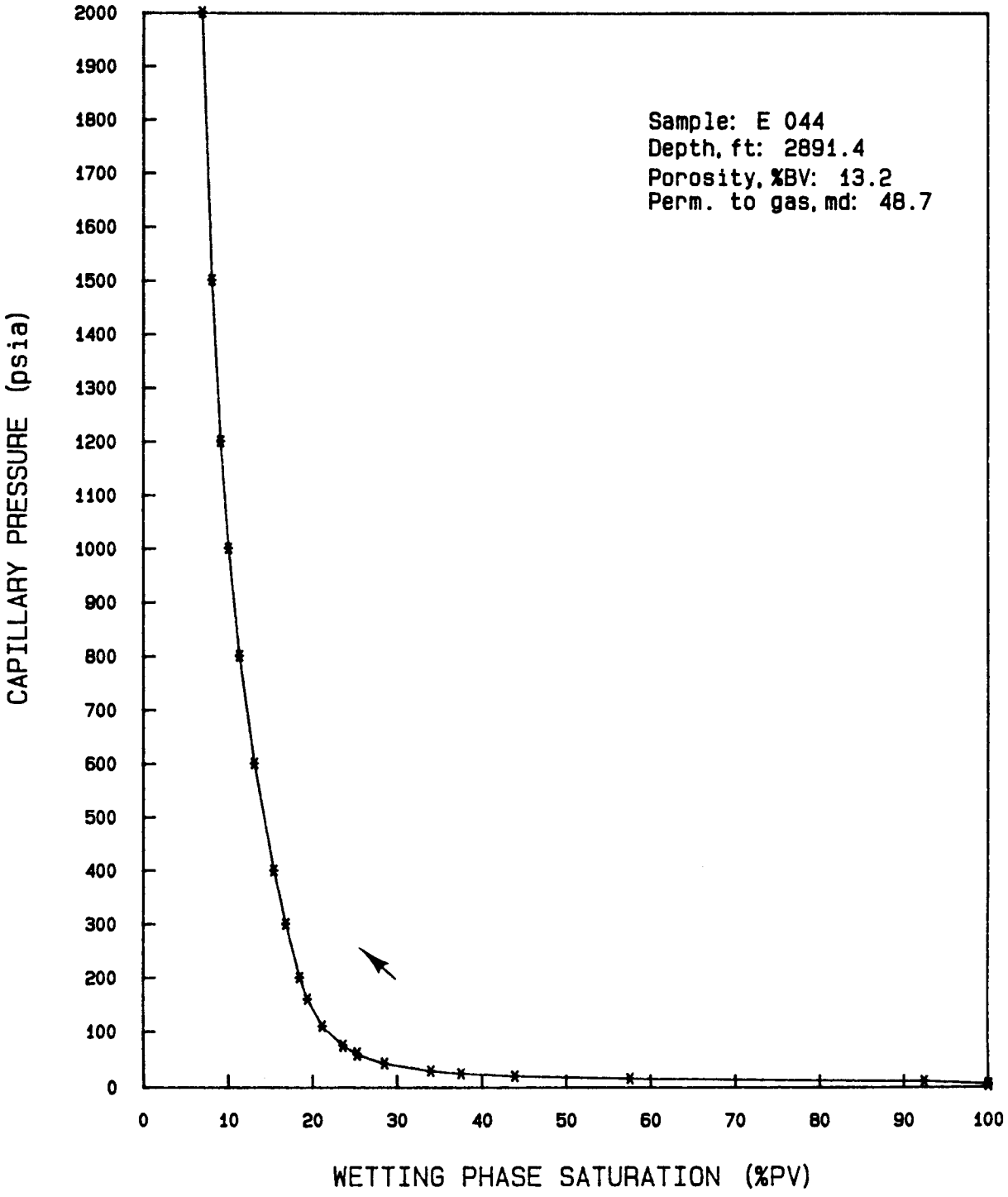

Figure 76

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

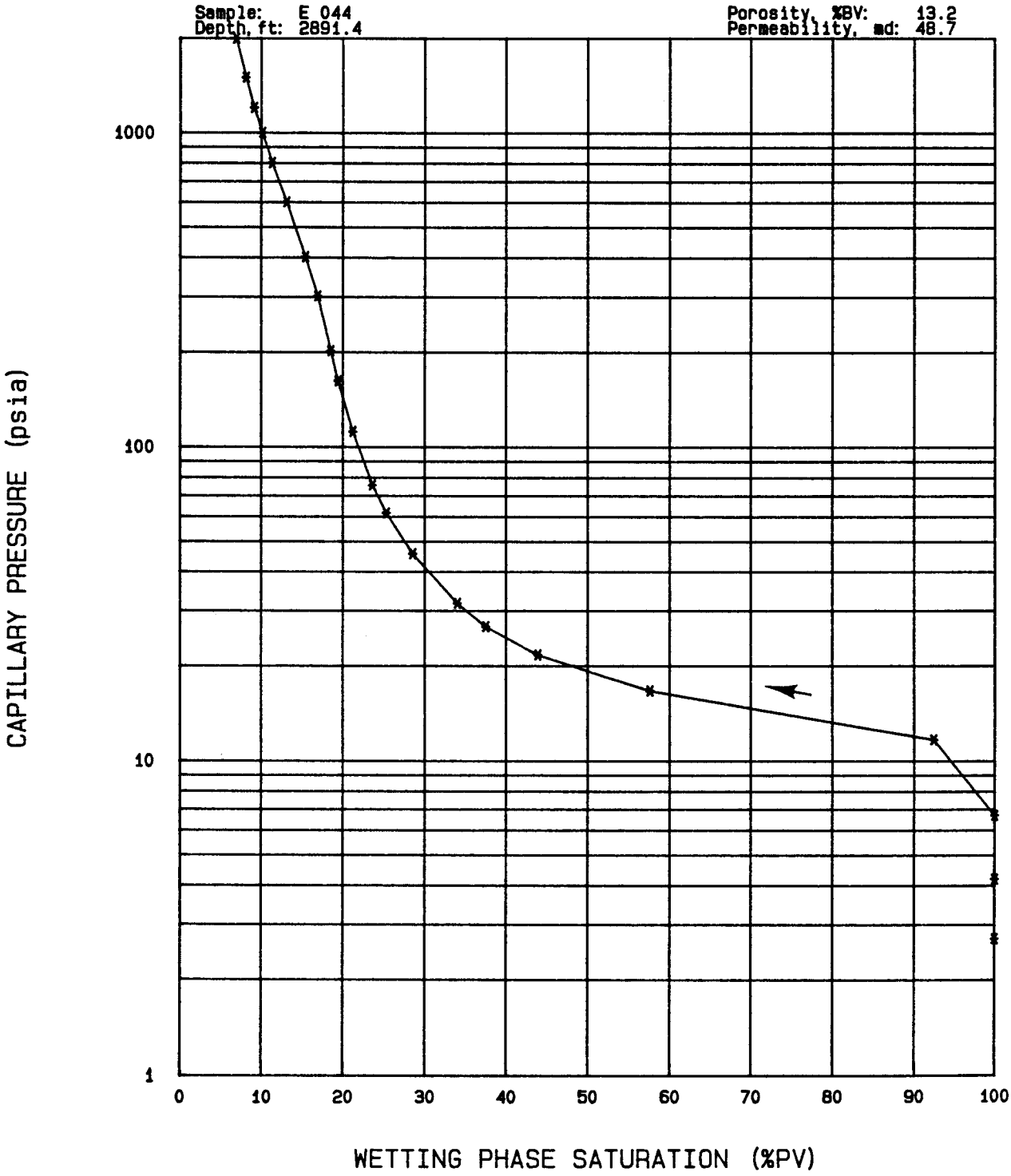

Figure 77

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

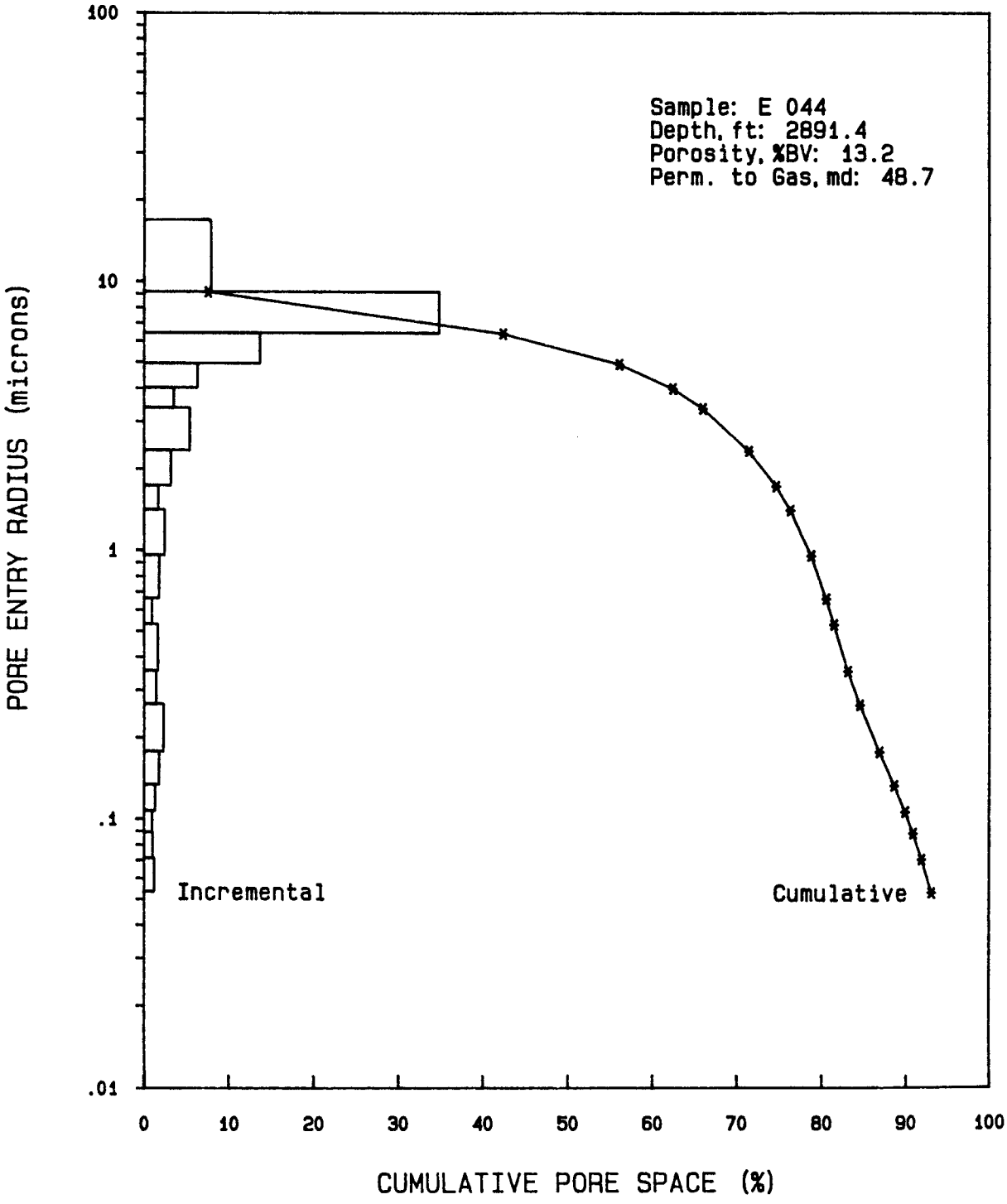

Table 43

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 047 Porosity,% BV: 11.7

Depth, ft: 2932.5 Perm. to Gas, md: 17.2

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.67	100.0	-	-
4.17	100.0	-	-
6.67	100.0	-	-
11.7	99.1	9.13	0.085
16.7	83.4	6.39	0.121
21.7	60.3	4.92	0.158
26.7	50.2	4.00	0.194
31.7	44.6	3.37	0.230
45.7	36.7	2.33	0.332
61.7	32.1	1.73	0.448
75.7	29.8	1.41	0.550
112	26.3	0.95	0.812
162	24.0	0.66	1.18
202	22.9	0.53	1.47
302	21.2	0.35	2.19
402	20.0	0.27	2.92
602	18.2	0.18	4.37
802	16.8	0.13	5.83
1001	15.4	0.11	7.28
1201	14.1	0.09	8.73
1501	12.3	0.07	10.92
2001	10.0	0.05	14.55

Figure 78

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

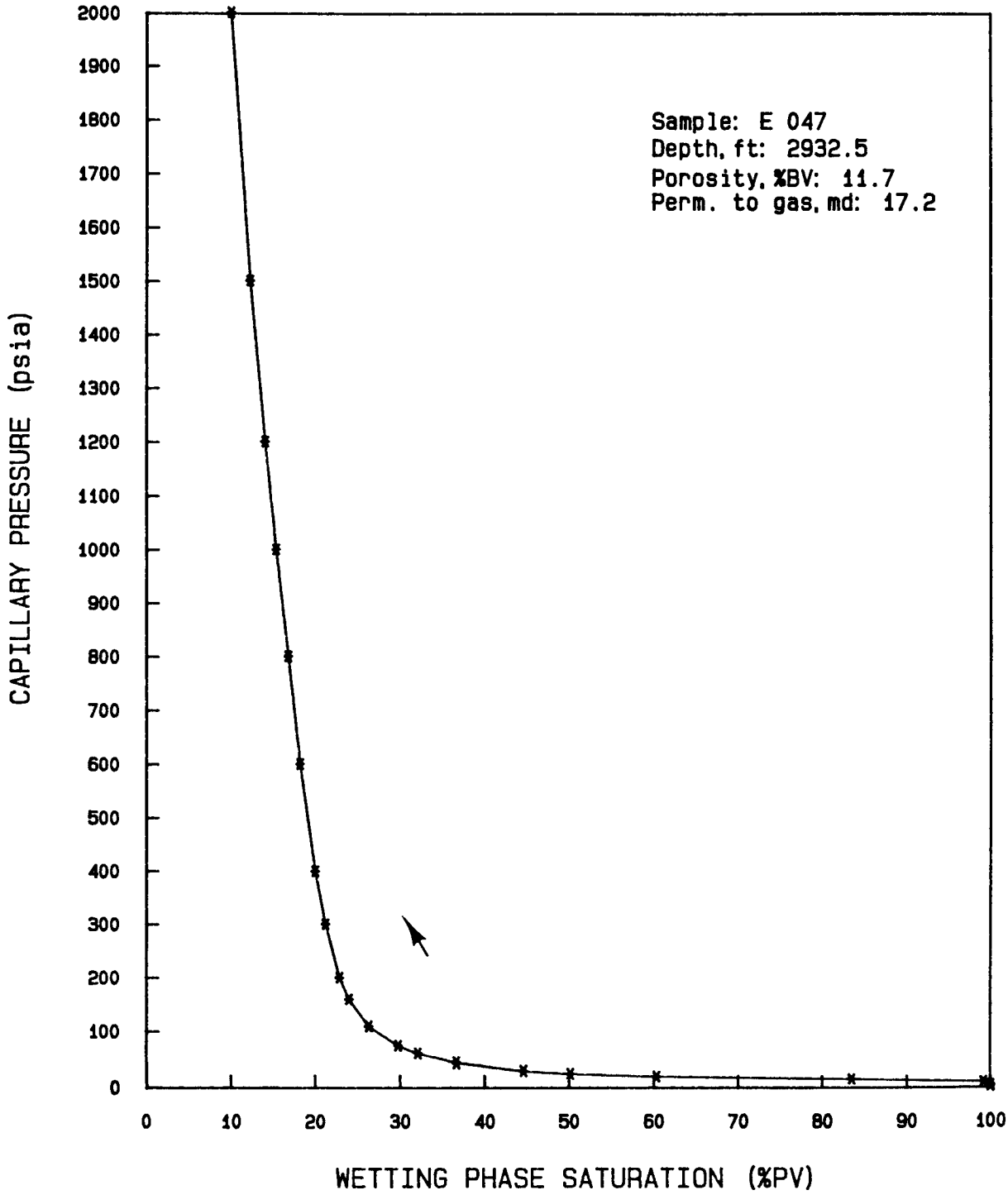

Figure 79

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

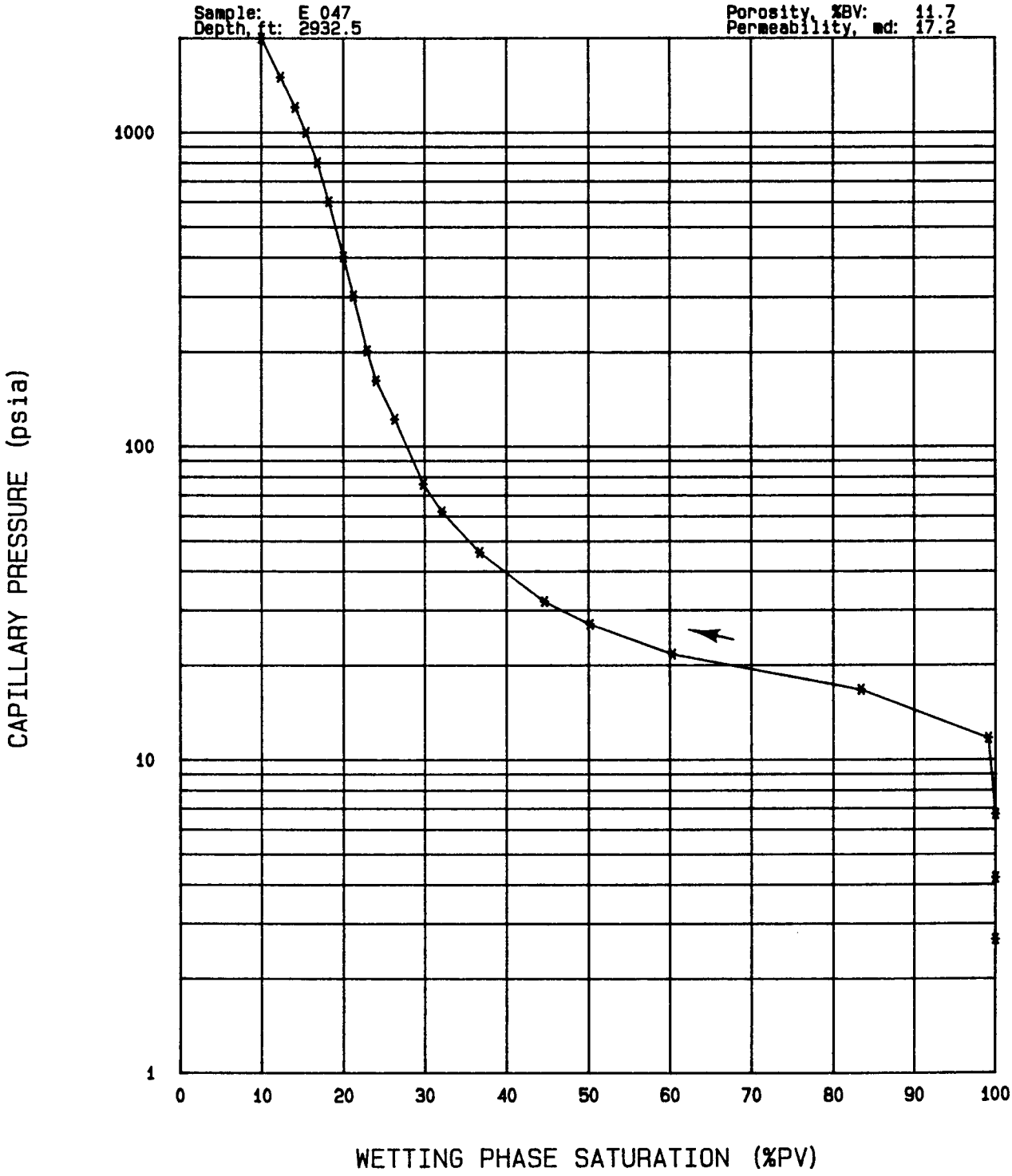

Figure 80

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

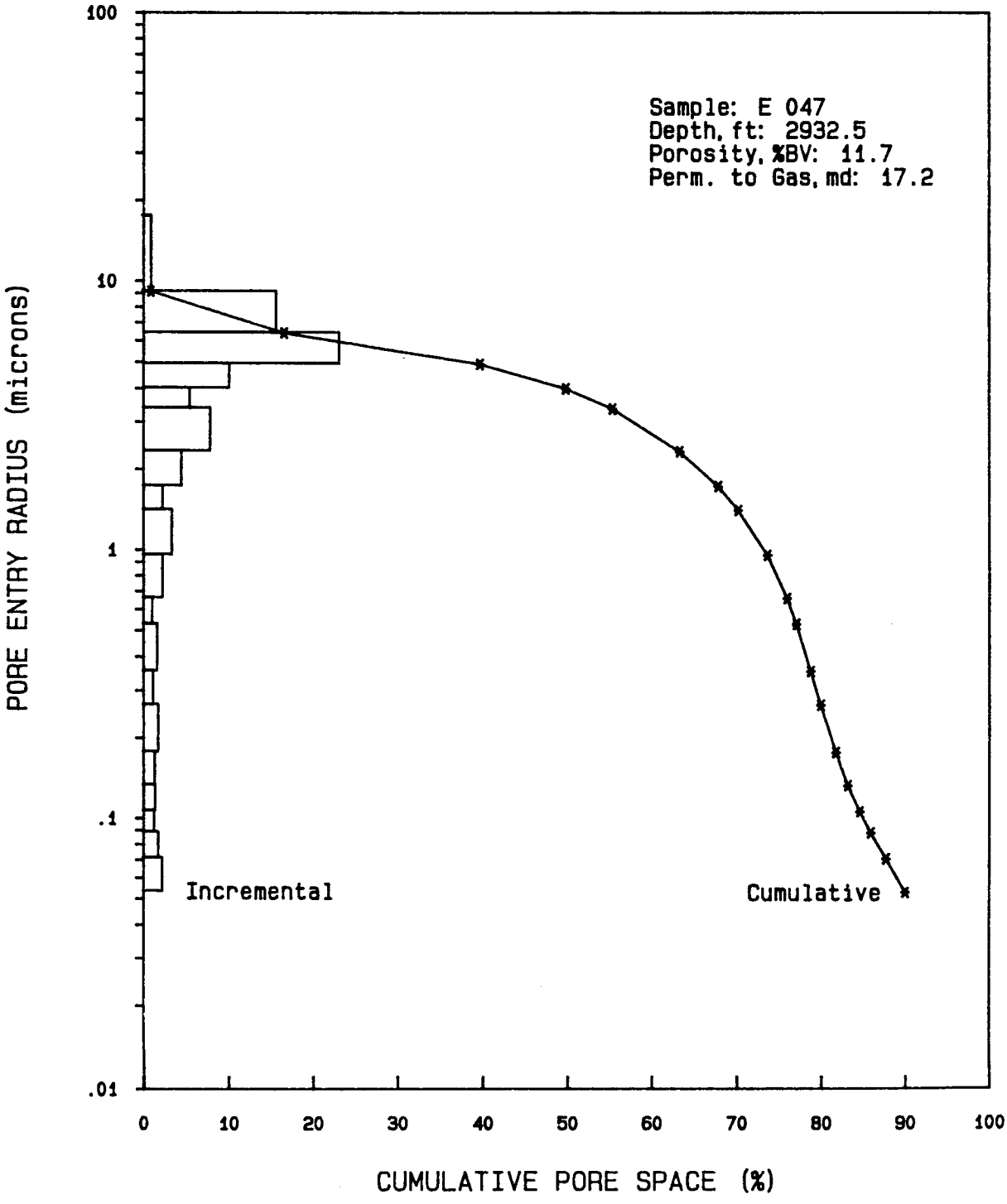

Table 44

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

Sample: E 060 Porosity,% BV: 14.4

Depth, ft: 2949.8 Perm. to Gas, md: 177

CAPILLARY PRESSURE (psia)	WETTING PHASE SATURATION (%PV)	PORE ENTRY RADIUS (microns)	LEVERETT'S J-FUNCTION
2.60	100.0	-	-
4.10	99.1	26.00	0.085
6.60	91.1	16.15	0.137
11.6	63.0	9.19	0.242
16.6	52.1	6.42	0.346
21.6	45.6	4.94	0.450
26.6	41.2	4.01	0.554
31.6	38.0	3.37	0.658
45.6	32.4	2.34	0.950
61.6	28.6	1.73	1.28
75.6	26.3	1.41	1.57
112	22.8	0.96	2.32
162	20.1	0.66	3.37
202	18.8	0.53	4.20
302	16.4	0.35	6.28
402	14.8	0.27	8.36
602	12.6	0.18	12.53
802	11.3	0.13	16.69
1001	10.4	0.11	20.86
1201	9.7	0.09	25.02
1501	9.1	0.07	31.27
2001	8.2	0.05	41.68

Figure 81

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123

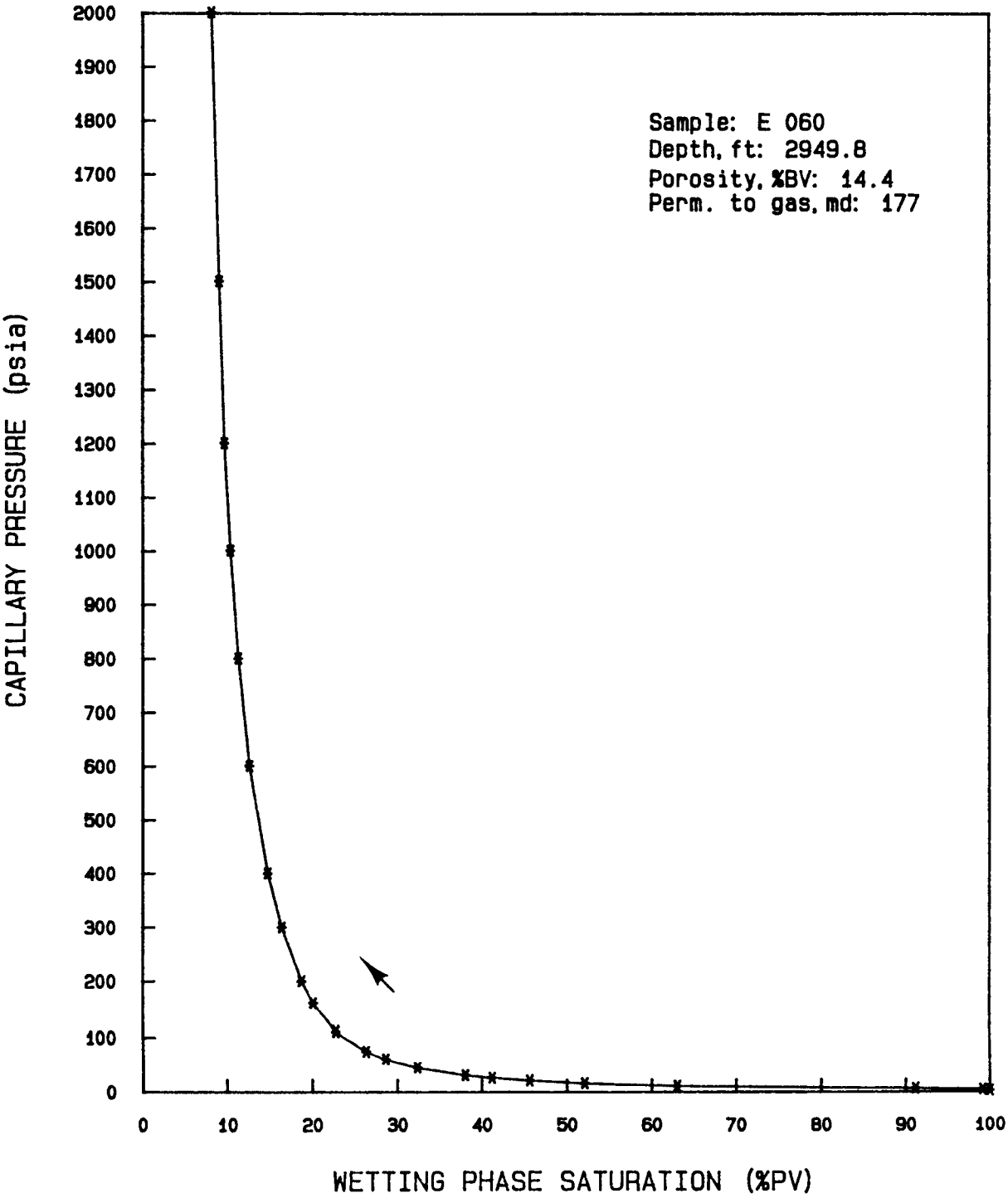

Figure 82

MERCURY INJECTION CAPILLARY PRESSURE

Anadarko Petroleum Corporation

Flower A-1 Well

Stevens County, Kansas

SRS 1953/RSH 3123

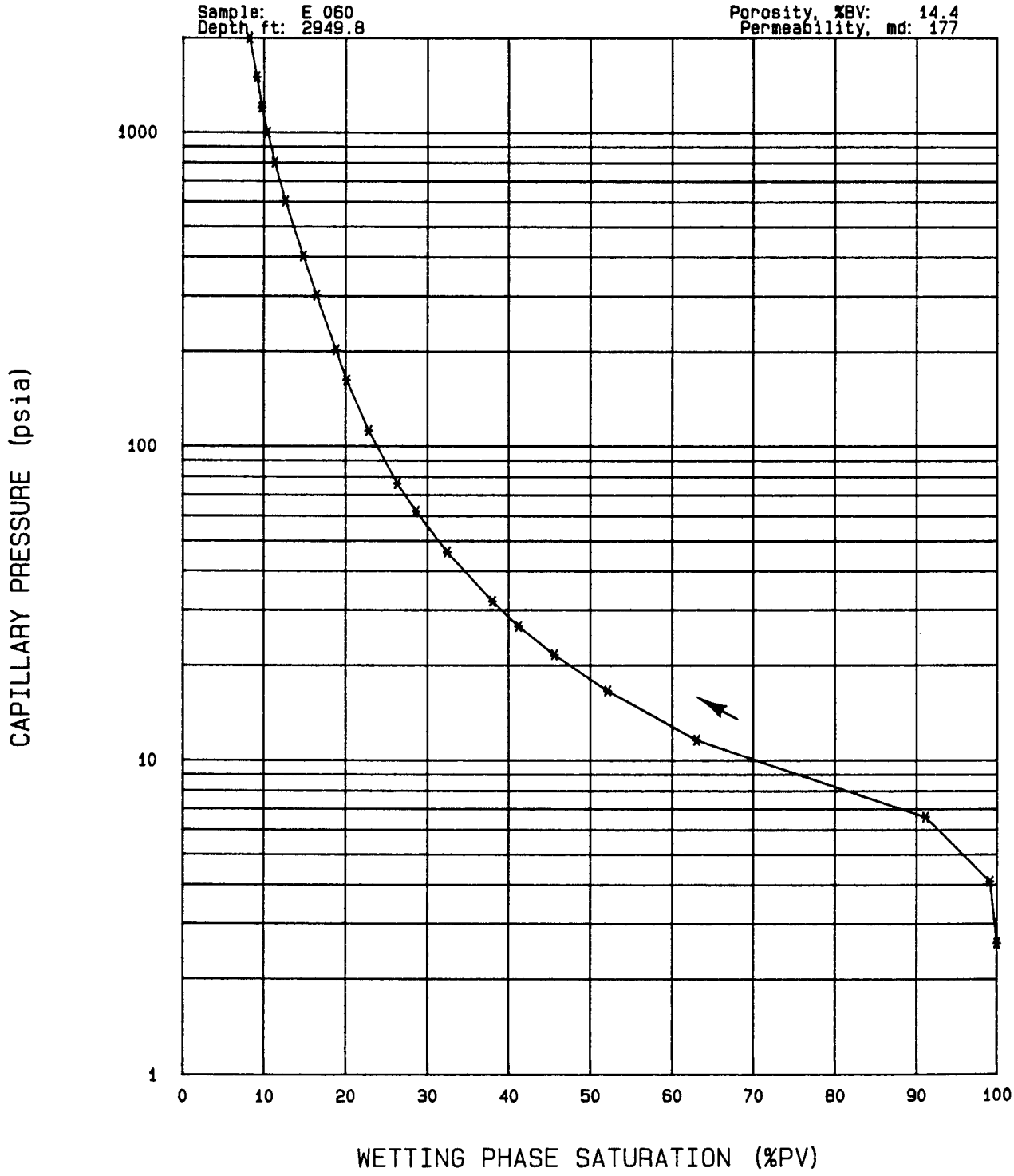

Figure 83

PORE SIZE DISTRIBUTION

Anadarko Petroleum Corporation
Flower A-1 Well
Stevens County, Kansas
SRS 1953/RSH 3123