

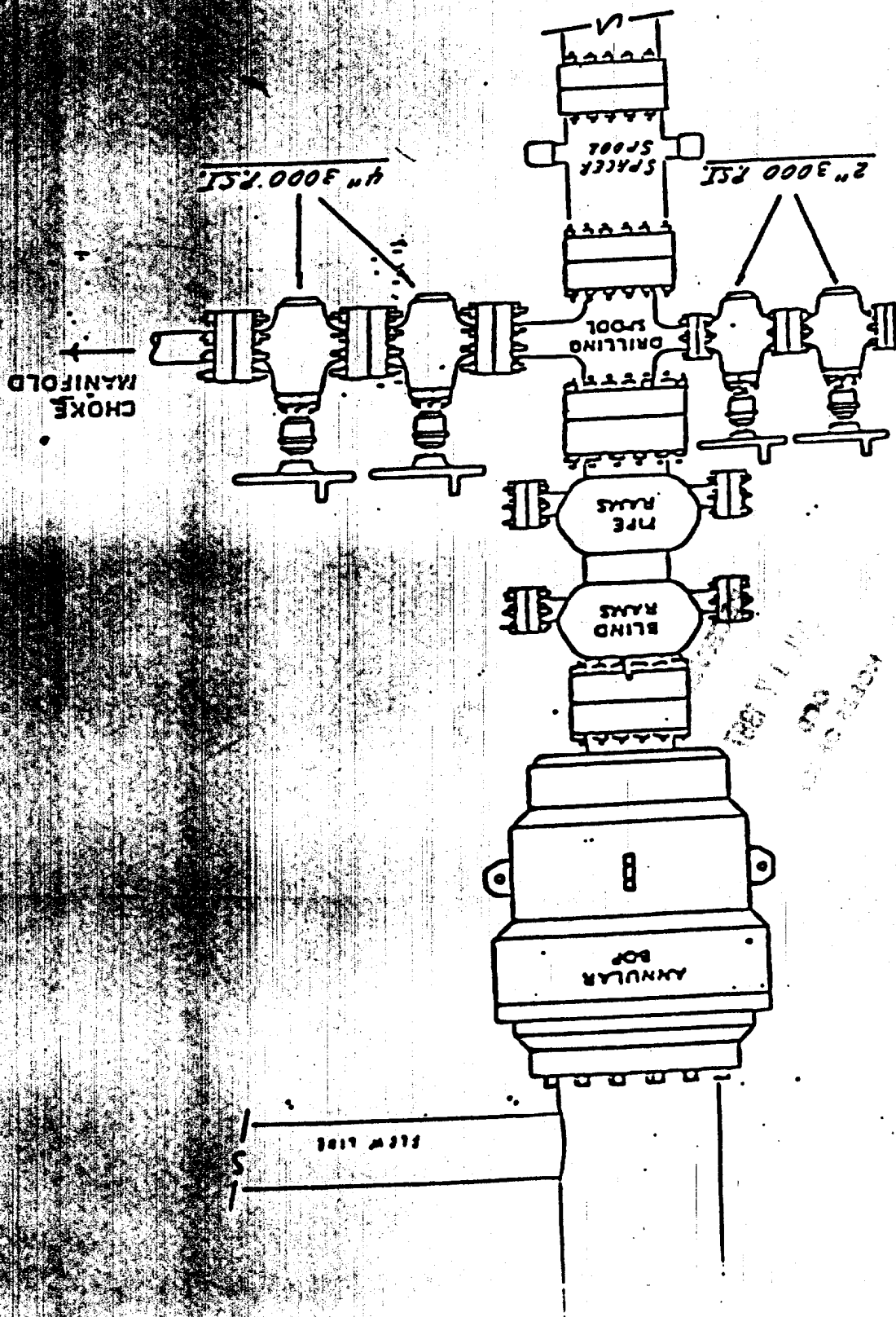
D. DUAL 4" 3000 PSI CHOKELINE - OPTIONAL

C. DUAL 2" 1500 SERIES RT KILL LINE - OPTIONAL

B. ANNULAR B.O.P. - OPTIONAL

A. PRESSURE RATING - 3,000 P.S.I.

RIG # 6 B.O.P. STACK



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113



LTR



Job separation sheet

TOM BROWN, INC.

ISLER FEDERAL #1

ISLER FEDERAL FIELD

CHAVES COUNTY, NEW MEXICO

Core Analysis

Litton

Core Lab

August 11, 1987

TOM BROWN, INC.
P.O. Box 2608
Midland, Texas 79702

File : 43202-15354
Subject: Core Analysis
Isler Federal #1
Isler Federal Field
Chaves County, New Mexico

Gentlemen:

The subject well was cored using diamond coring equipment and salt gel to obtain 4 inch diameter cores from 7412 to 7489 feet from the Abo 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 Tom Brown's 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

TOM BROWN, INC.
Isler Federal #1
File No. 43202-15354
Procedural Page

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

A Core Gamma Log was recorded for downhole E-log correlation.

Preserved fresh core was taken from selected intervals.

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

Fluid removal and fluid saturations were determined using controlled temperature vacuum retort techniques.

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

Air permeability was measured in two horizontal directions 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 characteristic 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 (K_w/K_o) to calculate the fractional flow of water and fluid permeability characteristics.
 - B.) Gas-oil relative permeabilities (K_g/K_o) to predict primary depletion.
- 4.) Electrical resistivity measurements:
To define A, M, and N values in Archie's 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 Sections:
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 compatibility 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.

Litton

Core Lab

CORE ANALYSIS REPORT

FOR

TOM BROWN, INC.

ISLER FEDERAL #1
ISLER FEDERAL FIELD
CHAVES COUNTY, NEW MEXICO

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operations, or profitability of any oil, gas, coal or other mineral, property, well or sand in connection with which such report is used or relied upon.

TOM BROWN, INC. DATE : 7-28-87 FILE NO. : 43202-15354
 ISLER FEDERAL #1 FORMATION : ABO API WELL NO. :
 ISLER FEDERAL FIELD DRLG. FLUID: SALT GEL LABORATORY : MIDLAND, TEXAS
 CHAVES COUNTY, NEW MEXICO LOCATION : 1980' FWL & 660' FNL, SEC. 3, T-10-S, R-30-E

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MAXIMUM	PERM 90 DEG	HE POR	OIL% FOR	WTR% FOR	GRAIN DEN M	DESCRIPTION
CORE NO. 1 7412.0-7430.0 CUT 18' REC 17'								
1	7412.0-13.0							NA SH DOLC
2	7413.0-14.0	2163.	0.03	1.6	0.0	90.0	2.85	DOL SL/LMY SL/ANHY FOSS
3	7414.0-15.0	0.33	0.31	3.2	0.0	93.3	2.85	DOL ANHY SHLAM
4	7415.0-16.0	0.22	0.22	2.1	0.0	88.9	2.79	DOL ANHY STY
5	7416.0-17.0	0.08	0.06	1.3	0.0	88.2	2.83	DOL SL/ANHY
6	7417.0-18.0	0.14	0.07	2.7	0.0	87.5	2.87	DOL ANHY SHLAM
7	7418.0-19.0	0.38	0.27	2.0	4.9	85.4	2.83	DOL SL/ANHY SHLAM
8	7419.0-20.0	1.5	0.29	2.7	34.6	57.7	2.85	DOL ANHY SHLAM
9	7420.0-21.0	0.98	0.92	1.7	19.2	57.7	2.83	DOL SL/ANHY SL/CHTY F
10	7421.0-22.0	5.5	3.5	2.5	8.0	84.0	2.84	DOL CHTY SL/ANHY F
11	7422.0-23.0	0.02	0.02	2.6	7.7	73.1	2.85	DOL SL/ANHY
12	7423.0-24.0	0.08	<0.01	3.2	6.9	75.9	2.85	DOL
13	7424.0-25.0	2.1	0.02	3.6	25.6	65.1	2.83	DOL CHTY SL/ANHY
14	7425.0-26.0	0.34	0.32	2.4	6.9	82.6	2.85	DOL
15	7426.0-27.0	1.0	0.15	3.0	17.9	75.0	2.85	DOL STY
16	7427.0-28.0	3.0	0.22	2.2	18.2	69.7	2.88	DOL SL/ANHY VF PP
*	7428.0-29.0	<0.01		1.8	8.0	76.0	2.80	DOL VF PP
	7429.0-30.0							LOST CORE
CORE NO. 2 7430.0-7489.0 CUT 59' REC 59'								
17	7430.0-31.0	<0.01	<0.01	2.3	25.0	50.0	2.85	DOL SL/ANHY SL/SHY F
18	7431.0-32.0	12.	8.2	2.4	20.0	55.0	2.83	DOL ANHY SHY F

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TOM BROWN, INC.
ISLER FEDERAL #1

DATE : 7-28-87
FORMATION : ABO

FILE NO. : 43202-15354
API WELL NO.:

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MAXIMUM	PERM 90 DEG	HE POR	OIL% POR	WTR% POR	GRAIN DEN M	DESCRIPTION
19	7432.0-33.0	0.16	0.04	1.6	36.8	47.4	2.86	DOL SHY SL/ANHY
20	7433.0-34.0	0.45	0.38	1.0	8.7	82.6	2.89	DOL V/ANHY SL/SHY
21	7434.0-35.0	1.4	0.93	1.7	16.7	62.5	2.85	DOL SL/ANHY SL/SHY F VF
22	7435.0-36.0	1.9	0.35	1.5	15.4	69.2	2.86	DOL ANHY SL/SHY VF
23	7436.0-37.0	0.58	0.54	1.1	10.5	84.2	2.85	DOL SL/ANHY VF
24	7437.0-38.0	1.8	0.81	1.2	0.0	78.9	2.84	DOL SL/ANHY F VF
	7438.0-39.0							NA SH SL/DOLC F
25	7439.0-40.0	<0.01	<0.01	2.7	0.0	92.0	2.77	DOL SHY
26	7440.0-41.0	32.	2.3	3.0	0.0	93.3	2.82	DOL VF
27	7441.0-42.0	0.20	0.16	3.9	0.0	98.1	2.82	DOL ANHY
28	7442.0-43.0	1.8	1.6	4.6	0.0	98.2	2.82	DOL SL/ANHY
29	7443.0-44.0	<0.01	<0.01	3.1	0.0	91.2	2.81	DOL SL/ANHY
30	7444.0-45.0	<0.01		3.5	0.0	90.9	2.81	DOL
31	7445.0-46.0	<0.01	<0.01	5.3	0.0	94.8	2.82	DOL SL/ANHY
32	7446.0-47.0	<0.01		7.7	0.0	93.9	2.85	DOL SL/ANHY VF SH-INCL
33	7447.0-48.0	<0.01	<0.01	8.6	0.0	92.7	2.88	DOL F SHLAM
34	7448.0-49.0	<0.01	<0.01	5.5	0.0	89.7	2.82	DOL SL/SHY F
35	7449.0-50.0	<0.01		4.9	0.0	95.5	2.80	DOL VF
36	7450.0-51.0	0.08		8.0	0.0	69.8	2.82	DOL SL/ANHY F VF SHLAM
37	7451.0-52.0	25.	1.5	11.6	11.8	51.8	2.80	DOL V/CHTY SL/ANHY VF
38	7452.0-53.0	7.0	4.9	20.2	18.8	40.6	2.86	DOL SL/ANHY VF
39	7453.0-54.0	1.4	1.4	13.0	19.1	30.9	2.85	DOL SL/ANHY
40	7454.0-55.0	0.86	0.67	10.8	5.3	42.6	2.83	DOL SL/ANHY
41	7455.0-56.0	2.3	2.2	13.3	17.3	34.1	2.84	DOL SL/ANHY
42	7456.0-57.0	4.7	4.3	13.9	16.8	35.6	2.83	DOL SL/ANHY SL/CHTY SL/F
43	7457.0-58.0	3.8	2.9	17.9	18.4	34.1	2.86	DOL SL/LMY SL/ANHY
44	7458.0-59.0	3.7	3.4	16.0	13.8	39.4	2.86	DOL SL/LMY SL/ANHY
45	7459.0-60.0	2.8	2.6	15.2	16.8	52.1	2.86	DOL SL/LMY SL/ANHY SL/F
46	7460.0-61.0	3.4	3.4	19.6	17.1	33.9	2.87	DOL SL/ANHY
47	7461.0-62.0	7.2	6.3	16.2	11.8	44.1	2.86	DOL SL/LMY SH-INCL

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TOM BROWN, INC.
ISLER FEDERAL #1

DATE : 7-28-87
FORMATION : ABO

FILE NO. : 43202-15354
API WELL NO.:

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MAXIMUM	PERM 90 DEG	HE POR	OILZ POR	WTRZ POR	GRAIN DEN M	DESCRIPTION
S 48	7462.0-63.0	4.4	2.5	16.9	12.1	36.8	2.85	DOL SL/LMY
S 49	7463.0-64.0	2.0	1.8	16.7	18.5	33.8	2.88	DOL SL/ANHY
S 50	7464.0-65.0	2.0	1.6	15.2	12.1	36.8	2.85	DOL SL/LMY SL/ANHY STY
S 51	7465.0-66.0	1.6	1.5	11.9	6.7	51.5	2.86	DOL SL/LMY SL/ANHY VF STY
S 52	7466.0-67.0	1.4	1.1	10.7	7.9	48.3	2.83	DOL SL/LMY SL/ANHY SL/F
S 53	7467.0-68.0	0.39	0.16	9.8	2.4	57.8	2.86	DOL SL/ANHY
S 54	7468.0-69.0	1.8	1.4	14.8	11.9	43.3	2.86	DOL SL/ANHY
S 55	7469.0-70.0	4.6	3.2	15.7	8.3	46.3	2.86	DOL SL/ANHY
S 56	7470.0-71.0	1.7	1.4	12.7	5.1	61.6	2.83	DOL SL/ANHY SL/F STY
S 57	7471.0-72.0	0.84	0.72	14.3	2.7	59.0	2.85	DOL SL/ANHY FOSS
S 58	7472.0-73.0	1.4	1.1	11.3	2.0	75.4	2.86	DOL ANHY
S 59	7473.0-74.0	1.2	0.85	12.7	2.1	71.1	2.84	DOL SL/ANHY STY
S 60	7474.0-75.0	4.6	2.1	10.0	1.6	69.0	2.84	DOL SL/ANHY VF STY
S 61	7475.0-76.0	0.31	0.17	8.5	0.6	65.7	2.85	DOL SL/LMY SL/ANHY SL/F STY
S 62	7476.0-77.0	0.68	0.62	11.6	0.0	71.1	2.85	DOL SL/ANHY
S 63	7477.0-78.0	0.38	0.34	11.3	0.0	70.1	2.85	DOL SL/ANHY
S 64	7478.0-79.0	1.2	1.0	11.8	0.0	76.7	2.85	DOL SL/ANHY
S 65	7479.0-80.0	0.36	0.29	8.1	0.0	59.2	2.85	DOL SL/LMY
S 66	7480.0-81.0	0.43	0.26	6.8	0.0	52.1	2.85	DOL SL/LMY
S 67	7481.0-82.0	0.21	0.16	7.2	0.0	52.2	2.84	DOL SL/LMY
S 68	7482.0-83.0	0.23	0.18	6.1	0.0	53.8	2.86	DOL ANHY SL/LMY
S 69	7483.0-84.0	0.13	0.05	7.2	0.0	56.8	2.86	DOL ANHY SL/LMY
S 70	7484.0-85.0	0.04	0.04	6.8	0.0	56.0	2.84	DOL ANHY SL/LMY
S 71	7485.0-86.0	0.04	0.04	5.8	0.0	60.9	2.84	DOL ANHY SL/LMY
S 72	7486.0-87.0	0.04	0.02	2.1	0.0	74.3	2.84	DOL LMY SL/ANHY
S 73	7487.0-88.0	<0.01	<0.01	1.3	0.0	84.2	2.83	DOL LMY SHLAM
* 74	7488.0-89.0	<0.01		1.6	0.0	75.0	2.77	DOL V/LMY F VF

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TOM BROWN, INC.
ISLER FEDERAL #1

DATE : 7-28-87
FORMATION : ABO

FILE NO. : 43202-15354
API WELL NO.:

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MAXIMUM	PERM 90 DEG	HE POR	OIL% POR	WTR% POR	GRAIN DEN M	DESCRIPTION
-----	-----	-----	-----	-----	-----	-----	-----	-----

* INDICATES PLUG PERMEABILITY

S INDICATES A PRESERVED SAMPLE

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

LITHOLOGICAL ABBREVIATIONS

ANH(Y)	ANHYDRITE, ANHYDRITIC	IM(Y)	LIMESTONE, LIMY
ARK	ARKOSE, ARKOSIC	MG	MEDIUM GRAINED
BAN	BAND, BANDED	MTX	MATRIX
BREC	BRECCA, BRECCIATED	NA	INTERVAL NOT ANALYZED (AT REQUEST OF CLIENT)
CALC	CALCITE, CALCAREOUS	NOD	NODULE, NODULAR
CARB	CARBONACEOUS	COL	COLLITIC
CG	COARSE GRAINED	PISO	PISOLITIC
CHK(Y)	CHALK, CHALKY	PP	PINPOINT POROSITY
CHT(Y)	CHERT, CHERTY	PT	PARTING
CONGL	CONGLOMERATE, CONGLOMERITIC	PYR	PYRITE, PYRITIC
CXLN	COARSELY CRYSTALLINE	SD(Y)	SANDSTONE, SANDY
DNS	DENSE	SH(Y)	SHALE, SHALY
DOL(C)	DOLOMITE, DOLOMITIC	SHR	SOLID HYDROCARBON RESIDUE
F	RANDOMLY ORIENTED FRACTURES	SL/	SLIGHTLY
FG	FINE GRAINED	SILT(Y)	SILT, SILTY
FOSS	FOSSILIFEROUS	STY	STYLOLITE, STYLOLITIC
FR	FRIABLE	SUC	SUCROSIC
FXLN	FINELY CRYSTALLINE	SUL	SULPHUR
GAL	GALENA	TBEA	TOO BROKEN FOR ANALYSIS
GLAUC	GLAUCONITE, GLAUCONITIC	TRIP	TRIPOLITE
GRAN	GRANITE	V/	VERY
GYP	GYPSUM, GYPSIFEROUS	VF	PREDOMINANTLY VERTICALLY FRACTURED
HF	PREDOMINANTLY HORIZONTALLY FRACTURED	V	VUGULAR
INC	INCLUSION	XBD	CROSSEDDED
INTBD	INTERBEDDED	XLN	MEDIUM CRYSTALLINE
LAM	LAMINATED	XTL	CRYSTAL

THE FIRST WORD IN THE DESCRIPTION COLUMN OF THE CORE ANALYSIS REPORT DESCRIBES THE ROCK TYPE. FOLLOWING ARE ROCK MODIFIERS IN DECREASING ABUNDANCE AND MISCELLANEOUS DESCRIPTIVE TERMS.

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Core Lab

TOM BROWN, INC.
ISLER FEDERAL #1
CHAVES COUNTY, NEW MEXICO

DATE : 7-28-87
FIELD: ISLER FEDERAL FIELD

FILE NO: 43202-15354
ANALYST: REINHEIMER

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Litton

Core Lab

TOM BROWN, INC.
ISLER FEDERAL #1
CHAVES COUNTY, NEW MEXICO

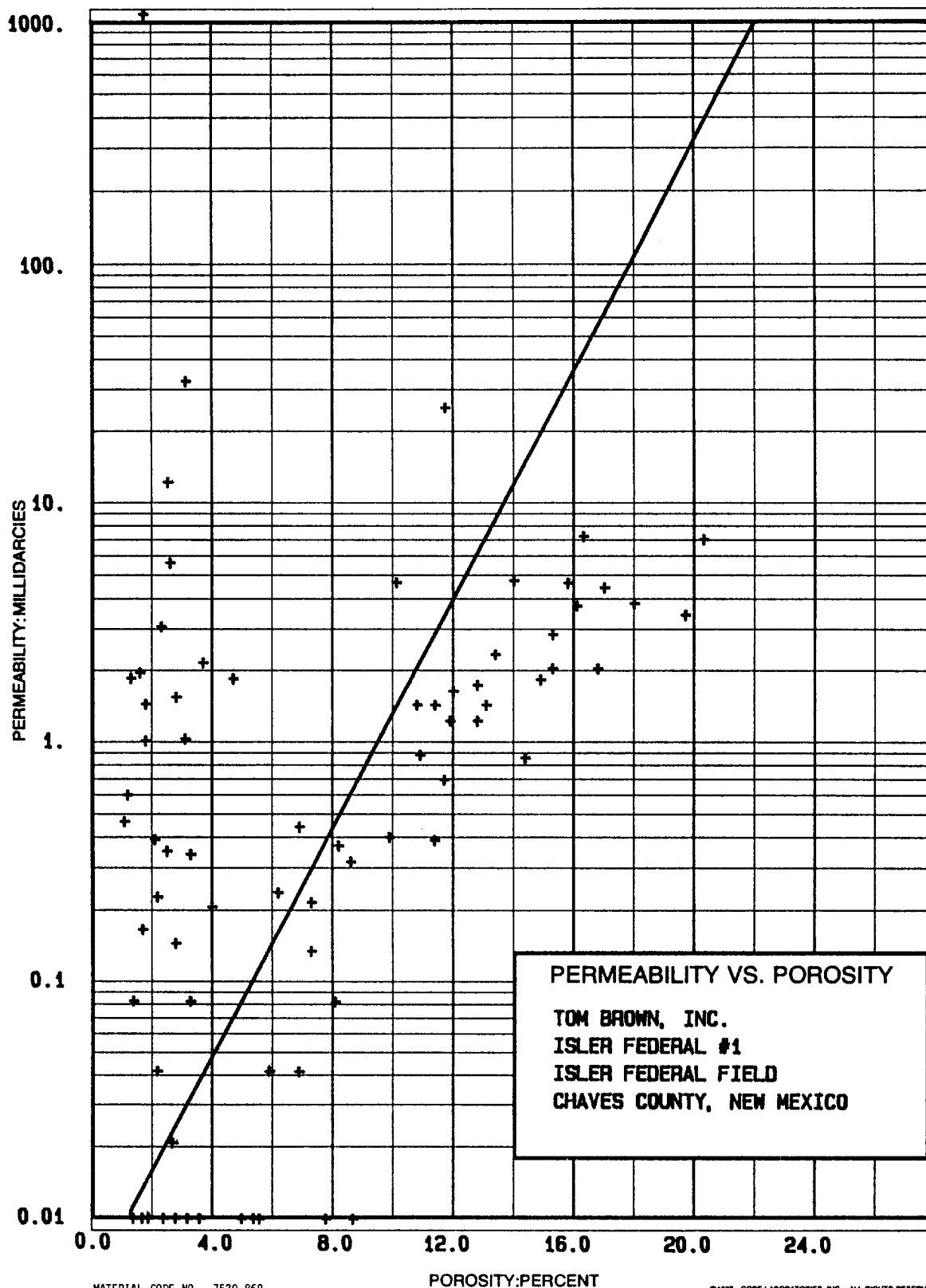
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FIELD: ISLER FEDERAL FIELD

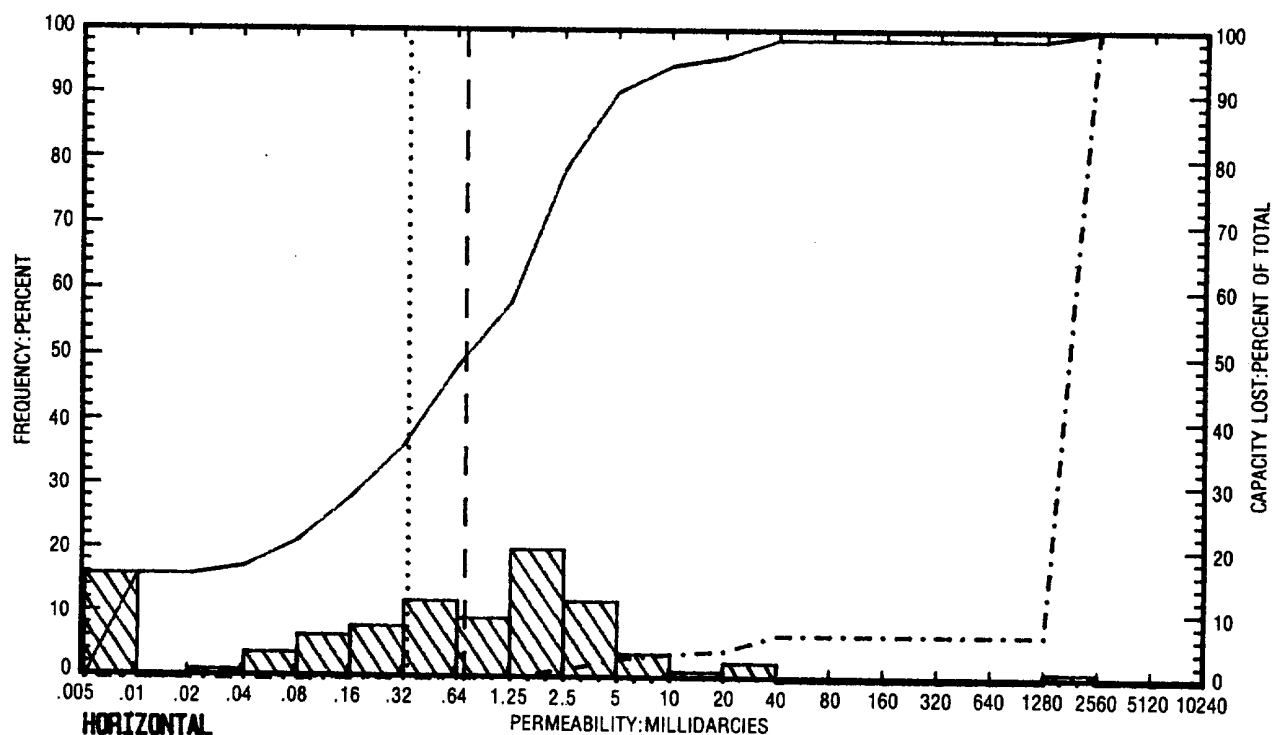
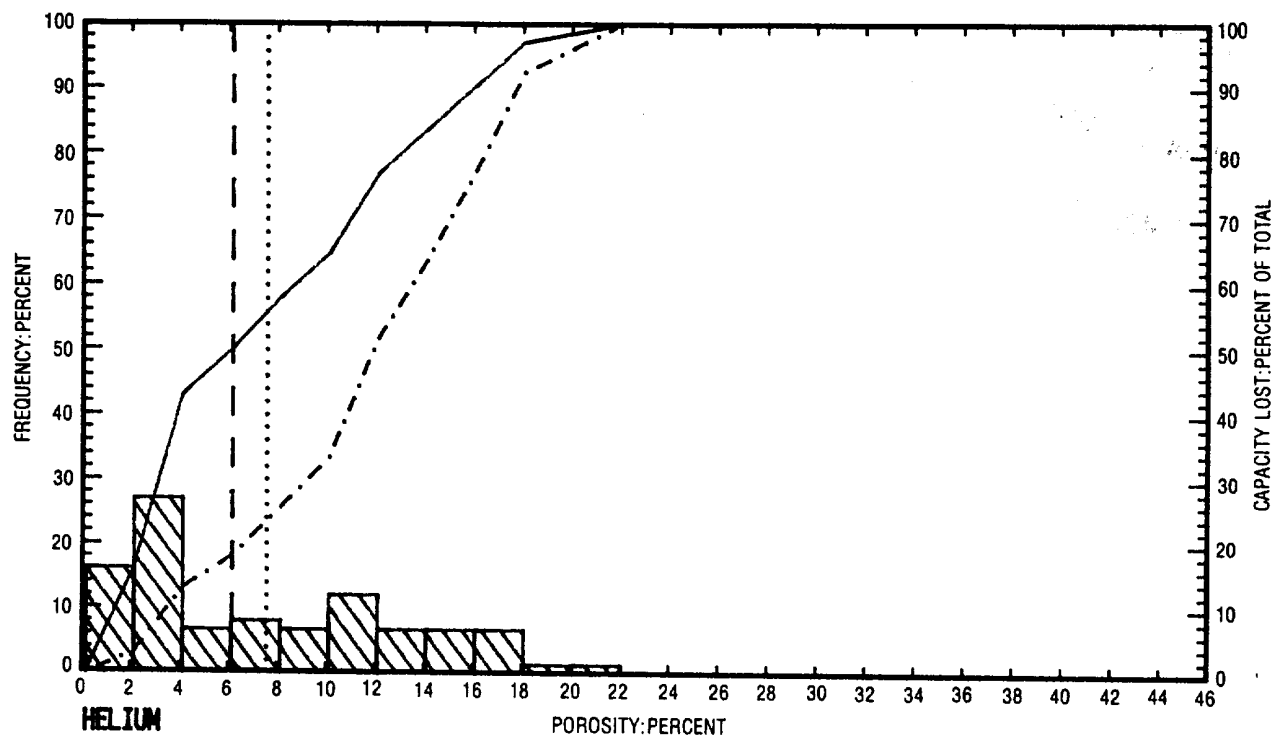
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PERMEABILITY AND POROSITY HISTOGRAMS

TOM BROWN, INC.
ISLER FEDERAL #1
ISLER FEDERAL FIELD
CHAVES COUNTY, NEW MEXICO

LEGEND

ARITHMETIC MEAN POROSITY
 GEOMETRIC MEAN PERMEABILITY
 MEDIAN VALUE
 CUMULATIVE FREQUENCY
 CUMULATIVE CAPACITY LOST
 CUMULATIVE CAPACITY LOST

PERMEABILITY VS POROSITY

COMPANY: TOM BROWN, INC. WELL : ISLER FEDERAL #1
 FIELD : ISLER FEDERAL FIELD COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

AIR PERMEABILITY : MD - HORIZONTAL (UNCORRECTED FOR SLIPPAGE)
 POROSITY : PERCENT (HELIUM)

DEPTH INTERVAL(FT)	RANGE & SYMBOL	PERMEABILITY MINIMUM MAXIMUM	POROSITY MIN. MAX.	POROSITY AVERAGE	PERMEABILITY AVERAGES ARITHMETIC HARMONIC GEOMETRIC
7413.0 - 7489.0	1 (+)	0.001 2163.0	1.0 20.2	7.4	31. 0.01 0.32

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :

$$\begin{aligned} \text{LOG}(K) &= (\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT} \\ K &= \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT}) \end{aligned}$$

RANGE EQUATION OF THE LINE

$$1 \quad \text{PERM} = \text{ANTILOG}((0.2417)(\text{POROSITY}) + -2.2809)$$

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: TOM BROWN, INC.
FIELD : ISLER FEDERAL FIELD

WELL : ISLER FEDERAL #1
COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.000 TO 2163.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS (FEET) : 7413.0 - 7489.0 INTERVAL LENGTH : 76.0
FEET ANALYZED IN ZONE : 74.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY	PERMEABILITY AVERAGES	
AVERAGE	ARITHMETIC	HARMONIC GEOMETRIC
7.4	31.	0.01
		0.32

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STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: TOM BROWN, INC. WELL : ISLER FEDERAL #1
 FIELD : ISLER FEDERAL FIELD COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.) (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.0 - 2.0	12.0	1.4	0.355 181.	16.2	16.2
2.0 - 4.0	20.0	2.8	0.231 2.9	27.0	43.2
4.0 - 6.0	5.0	5.2	0.024 0.371	6.8	50.0
6.0 - 8.0	6.0	7.0	0.090 0.174	8.1	58.1
8.0 - 10.0	5.0	8.6	0.111 0.229	6.8	64.9
10.0 - 12.0	9.0	11.2	1.7 4.1	12.2	77.0
12.0 - 14.0	5.0	13.1	2.0 2.3	6.8	83.8
14.0 - 16.0	5.0	15.0	2.1 2.4	6.8	90.5
16.0 - 18.0	5.0	16.7	3.9 4.2	6.8	97.3
18.0 - 20.0	1.0	19.6	3.4 3.4	1.4	98.6
20.0 - 22.0	1.0	20.2	7.0 7.0	1.4	100.0

TOTAL NUMBER OF FEET = 74.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: TOM BROWN, INC. WELL : ISLER FEDERAL #1
 FIELD : ISLER FEDERAL FIELD COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.005 - 0.010	12.0	0.005	0.005	4.0	16.2	16.2
0.020 - 0.039	1.0	0.020	0.020	2.6	1.4	17.6
0.039 - 0.078	3.0	0.040	0.040	4.9	4.1	21.6
0.078 - 0.156	5.0	0.099	0.102	4.5	6.8	28.4
0.156 - 0.312	6.0	0.217	0.222	4.9	8.1	36.5
0.312 - 0.625	9.0	0.399	0.404	5.1	12.2	48.7
0.625 - 1.250	7.0	0.949	0.966	9.4	9.5	58.1
1.250 - 2.500	15.0	1.7	1.7	9.0	20.3	78.4
2.500 - 5.000	9.0	3.8	3.9	14.2	12.2	90.5
5. - 10.	3.0	6.5	6.6	13.0	4.1	94.6
10. - 20.	1.0	12.	12.	2.4	1.4	95.9
20. - 40.	2.0	28.	28.	7.3	2.7	98.6
1280. - 2560.	1.0	2163.	2163.	1.6	1.4	100.0

TOTAL NUMBER OF FEET = 74.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: TOM BROWN, INC. WELL : ISLER FEDERAL #1
 FIELD : ISLER FEDERAL FIELD COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.0	0.0	0.0	74.0	100.0	7.4	6.0
2.0	12.0	3.2	62.0	96.8	8.6	8.0
4.0	32.0	13.2	42.0	86.8	11.3	11.1
6.0	37.0	18.0	37.0	82.0	12.2	11.7
8.0	43.0	25.6	31.0	74.4	13.2	12.6
10.0	48.0	33.4	26.0	66.6	14.1	13.6
12.0	57.0	51.8	17.0	48.2	15.5	15.4
14.0	62.0	63.8	12.0	36.2	16.6	16.4
16.0	67.0	77.5	7.0	22.5	17.6	17.4
18.0	72.0	92.7	2.0	7.3	19.9	20.0
20.0	73.0	96.3	1.0	3.7	20.2	21.0
22.0	74.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 548.8

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: TOM BROWN, INC. WELL : ISLER FEDERAL #1
 FIELD : ISLER FEDERAL FIELD COUNTY, STATE: CHAVES COUNTY, NEW MEXICO

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	74.0	100.0	0.32	0.69
0.010	12.0	0.0	62.0	100.0	1.00	1.25
0.020	12.0	0.0	62.0	100.0	1.00	1.25
0.039	13.0	0.0	61.0	100.0	1.06	1.28
0.078	16.0	0.0	58.0	100.0	1.26	1.37
0.156	21.0	0.0	53.0	100.0	1.60	1.54
0.312	27.0	0.1	47.0	99.9	2.06	1.77
0.625	36.0	0.2	38.0	99.8	3.04	2.18
1.250	43.0	0.5	31.0	99.5	3.96	2.60
2.500	58.0	1.7	16.0	98.3	8.67	4.63
5.	67.0	3.2	7.0	96.8	24.79	14.14
10.	70.0	4.0	4.0	96.0	67.52	28.29
20.	71.0	4.5	3.0	95.5	120.08	33.64
40.	73.0	7.0	1.0	93.0	2163.00	1810.19
80.	73.0	7.0	1.0	93.0	2163.00	1810.19
160.	73.0	7.0	1.0	93.0	2163.00	1810.19
320.	73.0	7.0	1.0	93.0	2163.00	1810.19
640.	73.0	7.0	1.0	93.0	2163.00	1810.19
1280.	73.0	7.0	1.0	93.0	2163.00	1810.19
2560.	74.0	100.0	0.0	0.0	2163.00	1810.19

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 2325.16