DOE-
R.F.
CORE LABORATORIES

CORE ANALYSIS REPORT
FOR
Eaton Operating Co., Inc.
Willis Hulin No. 1 SWD
South Erath
Vermilion, Louisiana

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PROCUREMENT DIV.

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CORE LABORATORIES

Company : Eaton Operating Co., Inc.
 Well : Willis Hulin No. 1 SWD
 Location :
 Co, State : Vermilion, Louisiana

Field : South Erath
 Formation :
 Coring Fluid : Water Base
 Elevation :

File No.: 57162-15509
 Date : 24-Feb-1989
 API No.:
 Analysts: Molyneux, Molnar

SIDEWALL CORE ANALYSIS RESULTS

SAMPLE REC.	DEPTH	PERMEABILITY (SIDEWALL)	PERMEABILITY (KLINKENBERG)	POROSITY (FLUIDS)	SATURATION		PROBABLE PRODUCTION CODE	SATURATION		GAS DETECTOR UNITS	CRITICAL WATER SATURATION	SILT & CLAY	DESCRIPTION
					(PORE VOLUME) OIL	WATER		(BULK VOLUME) OIL	GAS				
in	ft	md	MD	%	%	%		%	%		%	%	
1.1	3647.0	1650.	1600.00	35.3	0.0	86.8	Water	0.0	4.7	0.	40.	21	Sd f gr sshy no flu
1.1	3657.0	2710.	2630.00	35.0	0.0	86.0	Water	0.0	4.9	0.	39.	18	Sd f gr ssly no flu
1.0	3687.0	1810.	1750.00	34.8	0.0	87.3	Water	0.0	4.4	0.	39.	15	Sd f gr sshy no flu
1.0	3722.0	1280.	1230.00	33.3	0.0	89.8	Water	0.0	3.4	0.	38.	21	Sd vf-f gr sshy no flu
0.8	3732.0	2990.	2910.00	34.5	0.0	87.0	Water	0.0	4.5	0.	38.	10	Sd f gr cln no flu
0.6	3984.0	2960.	2880.00	35.6	0.0	87.1	Water	0.0	4.6	0.	39.	16	Sd f-m gr ssly no flu
0.6	3999.0	3250.	3170.00	35.9	0.0	87.5	Water	0.0	4.5	0.	40.	14	Sd f-m gr ssly no flu
0.4	4019.0	4820.	4740.00	35.4	0.0	88.4	Water	0.0	4.1	0.	39.	7	Sd f-m gr cln no flu
0.6	4024.0									0.			Mudcake w/Sd
0.8	4034.0	2480.	2400.00	35.2	0.0	89.2	Water	0.0	3.8	0.	39.	19	Sd f-m gr ssly no flu
1.0	4074.0	8.5	6.50	22.6	0.0	83.2	Low Perm	0.0	3.8	0.	71.	57	Sd vf gr vshy lam (C 25%Sd) slty no flu
0.4	4094.0	5230.	5150.00	36.0	0.0	91.7	Water	0.0	3.0	0.	40.	3	Sd m gr cln no flu
0.8	4114.0	5.5	4.10	22.0	0.0	87.2	Low Perm	0.0	2.8	0.	73.	84	Sd vf gr vshy lam (F 10%Sd) no flu
0.6	4144.0	1980.	1920.00	33.7	0.0	90.2	Water	0.0	3.3	0.	38.	21	Sd f-m gr ssly no flu
0.8	4164.0	2350.	2270.00	32.8	0.0	92.2	Water	0.0	2.6	0.	37.	14	Sd f gr ssly no flu
0.8	4244.0	72.0	63.00	26.4	0.0	89.4	Water	0.0	2.8	0.	56.	62	Sd vf gr shy slty no flu
0.8	4274.0	3920.	3860.00	32.1	0.0	88.2	Water	0.0	3.8	0.	35.	7	Sd f-m gr cln no flu
1.0	4284.0	1140.	1090.00	31.4	0.0	85.9	Water	0.0	4.4	0.	36.	18	Sd vf-f gr sshy ssly no flu
1.0	4299.0	2550.	2470.00	34.8	0.0	89.9	Water	0.0	3.5	0.	39.	14	Sd f gr sshy no flu
1.0	4327.0	2810.	2730.00	35.4	0.0	91.1	Water	0.0	3.2	0.	39.	9	Sd f gr cln no flu
1.0	4404.0	1090.	1040.00	32.0	0.0	89.8	Water	0.0	3.3	0.	37.	19	Sd vf-f gr sshy ssly no flu
1.0	4444.0	3130.	3050.00	35.8	0.0	90.6	Water	0.0	3.4	0.	40.	7	Sd f gr cln no flu
1.1	4465.0	2780.	2700.00	34.5	0.0	90.0	Water	0.0	3.4	0.	38.	11	Sd f gr ssly no flu
0.8	4509.0	2100.	2040.00	32.3	0.0	92.9	Water	0.0	2.3	0.	36.	12	Sd f gr ssly no flu
0.5	4534.0	4690.	4610.00	34.7	0.0	87.8	Water	0.0	4.2	0.	38.	6	Sd f-m gr cln no flu
1.0	4684.0	801.	761.00	31.6	0.0	90.1	Water	0.0	3.1	0.	39.	24	Sd vf-f gr sshy slty no flu
1.0	4694.0	1650.	1600.00	32.5	0.0	90.4	Water	0.0	3.1	0.	37.	18	Sd f gr sshy no flu

CORE LABORATORIES

Company : Eaton Operating Co., Inc.
Well : Willis Hulin No. 1 SWD

Field : South Erath
Formation :

File No.: 57162-15509
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S I D E W A L L C O R E A N A L Y S I S R E S U L T S

SAMPLE REC.	DEPTH ft	PERMEABILITY (SIDEWALL) md	PERMEABILITY (KLINKENBERG) MD	POROSITY (FLUIDS) %	SATURATION		PROBABLE PRODUCTION CODE	SATURATION		GAS DETECTOR UNITS	CRITICAL WATER SATURATION %	SILT & CLAY %	DESCRIPTION
					(PORE VOLUME) OIL %	WATER %		(BULK VOLUME) OIL %	GAS %				
0.6	4709.0	1940.	1880.00	32.2	0.0	89.2	Water	0.0	3.5	0.	36.	12	Sd f gr sshy no flu
1.0	4744.0	5030.	4950.00	36.3	0.0	89.5	Water	0.0	3.8	0.	40.	1	Sd m gr cln no flu
0.5	4759.0	3650.	3570.00	35.0	0.0	92.9	Water	0.0	2.5	0.	39.	12	Sd f-m gr ssly no flu
1.0	5139.0	2390.	2310.00	33.1	0.0	93.7	Water	0.0	2.1	0.	37.	12	Sd f gr ssly no flu
1.0	5234.0	2140.	2080.00	32.5	0.0	94.3	Water	0.0	1.8	0.	36.	13	Sd f gr ssly no flu
0.8	5344.0	467.	437.00	28.6	0.0	91.3	Water	0.0	2.5	0.	40.	29	Sd vf-f gr shy no flu
0.6	5637.0	2210.	2150.00	34.8	0.0	88.7	Water	0.0	3.9	0.	39.	16	Sd f gr ssly slig no flu
0.6	5674.0	2910.	2830.00	32.8	0.0	90.8	Water	0.0	3.0	0.	36.	10	Sd f gr cln no flu
0.5	5834.0	2250.	2190.00	34.4	0.0	87.7	Water	0.0	4.2	0.	38.	11	Sd f gr ssly no flu
0.8	5859.0	2160.	2100.00	31.9	0.0	92.3	Water	0.0	2.5	0.	36.	10	Sd f gr ssly no flu
0.8	5864.0	2810.	2730.00	33.8	0.0	92.8	Water	0.0	2.4	0.	37.	14	Sd f-m gr ssly no flu
0.8	5874.0	3480.	3400.00	33.3	0.0	90.0	Water	0.0	3.3	0.	37.	5	Sd f-m gr cln no flu
0.6	5889.0	897.	857.00	29.4	0.0	89.9	Water	0.0	3.0	0.	36.	25	Sd f gr slty no flu
0.8	6315.0	9.6	7.40	23.3	0.0	92.2	Low Perm	0.0	1.8	0.	71.	77	Sd vf gr shy lam (G 40XSd) slty no flu
0.8	6325.0	607.	577.00	32.6	0.0	89.0	Water	0.0	3.6	0.	41.	21	Sd vf gr sshy ssly no flu
1.0	6355.0	1290.	1240.00	34.1	0.0	90.5	Water	0.0	3.2	0.	39.	24	Sd f gr s-sly no flu
0.8	6365.0	2390.	2310.00	34.7	0.0	85.5	Water	0.0	5.0	0.	39.	10	Sd f gr ssly no flu
1.0	6390.0									0.			Mudcake w/trace Sd
0.6	6400.0	1530.	1480.00	34.3	0.0	92.9	Water	0.0	2.4	0.	39.	16	Sd vf-f gr ssly no flu
0.4	6450.0									0.			Mudcake
0.6	6545.0	2520.	2440.00	35.0	0.0	90.2	Water	0.0	3.4	0.	39.	10	Sd f gr ssly no flu
0.8	6555.0	1850.	1790.00	34.0	0.0	91.2	Water	0.0	3.0	0.	38.	15	Sd f gr ssly no flu
0.8	6570.0	1820.	1760.00	33.0	0.0	83.2	Water	0.0	5.6	0.	37.	17	Sd f gr ssly no flu
2.0	6610.0	2260.	2200.00	32.4	0.0	91.1	Water	0.0	2.9	0.	36.	9	Sd f gr cln no flu

Note: depth 6610.0 was double shot.

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 Co, State : Vermilion, Louisiana

Field : South Erath
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S I D E W A L L C O R E A N A L Y S I S R E S U L T S

DEPTH	EXTRA COARSE GRAINED	COARSE GRAINED	MEDIUM GRAINED	FINE GRAINED	VERY FINE GRAINED	SILT & CLAY	MEDIAN GRAIN SIZE	PERMEABILITY (SIDEWALL)	POROSITY (FLUIDS)	DESCRIPTION
ft	%	%	%	%	%	%	in	md	%	
3647.0	0	0	16	54	9	21	.0068	1650.	35.3	Sd f gr sshy no flu
3657.0	0	0	19	50	13	18	.0067	2710.	35.0	Sd f gr ssly no flu
3687.0	0	0	4	76	5	15	.0063	1810.	34.8	Sd f gr sshy no flu
3722.0	0	0	2	60	17	21	.0054	1280.	33.3	Sd vf-f gr sshy no flu
3732.0	0	0	17	70	3	10	.0074	2990.	34.5	Sd f gr cln no flu
3984.0	0	0	29	50	6	16	.0084	2960.	35.6	Sd f-m gr ssly no flu
3999.0	0	0	34	51	2	14	.0090	3250.	35.9	Sd f-m gr ssly no flu
4019.0	0	0	65	27	1	7	.0102	4820.	35.4	Sd f-m gr cln no flu
4024.0										Mudcake w/Sd
4034.0	0	0	51	30	0	19	.0098	2480.	35.2	Sd f-m gr ssly no flu
4074.0	0	0	7	10	27	57		8.5	22.6	Sd vf gr vshy lam (C 25XSd) slty no flu
4094.0	0	24	60	13	1	3	.0151	5230.	36.0	Sd m gr cln no flu
4114.0	0	0	4	4	9	84		5.5	22.0	Sd vf gr vshy lam (F 10XSd) no flu
4144.0	0	0	37	40	2	21	.0085	1980.	33.7	Sd f-m gr ssly no flu
4164.0	0	0	21	64	2	14	.0081	2350.	32.8	Sd f gr ssly no flu
4244.0	0	0	0	13	25	62		72.0	26.4	Sd vf gr shy slty no flu
4274.0	0	0	69	24	1	7	.0107	3920.	32.1	Sd f-m gr cln no flu
4284.0	0	0	3	36	43	18	.0045	1140.	31.4	Sd vf-f gr sshy ssly no flu
4299.0	0	0	18	63	5	14	.0072	2550.	34.8	Sd f gr sshy no flu
4327.0	0	0	5	79	6	9	.0067	2810.	35.4	Sd f gr cln no flu
4404.0	0	0	0	52	30	19	.0050	1090.	32.0	Sd vf-f gr sshy ssly no flu
4444.0	0	2	8	73	9	7	.0074	3130.	35.8	Sd f gr cln no flu
4465.0	0	2	4	74	10	11	.0065	2780.	34.5	Sd f gr ssly no flu
4509.0	0	0	3	72	13	12	.0060	2100.	32.3	Sd f gr ssly no flu
4534.0	1	2	75	15	1	6	.0112	4690.	34.7	Sd f-m gr cln no flu
4684.0	0	0	3	29	44	24	.0043	801.	31.6	Sd vf-f gr sshy slty no flu
4694.0	0	0	3	69	10	18	.0060	1650.	32.5	Sd f gr sshy no flu

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Well : Willis Hulin No. 1 SWD

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File No.: 57162-15509
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S I D E W A L L C O R E A N A L Y S I S R E S U L T S

DEPTH ft	EXTRA COARSE GRAINED %	COARSE GRAINED %	MEDIUM GRAINED %	FINE GRAINED %	VERY FINE GRAINED %	SILT & CLAY %	MEDIAN GRAIN SIZE in	PERMEABILITY (SIDEWALL) md	POROSITY (FLUIDS) %	DESCRIPTION
4709.0	0	0	1	77	10	12	.0060	1940.	32.2	Sd f gr ssly no flu
4744.0	0	11	59	23	7	1	.0112	5030.	36.3	Sd m gr cln no flu
4759.0	0	6	59	21	2	12	.0112	3650.	35.0	Sd f-m gr ssly no flu
5139.0	0	0	10	72	6	12	.0071	2390.	33.1	Sd f gr ssly no flu
5234.0	0	0	6	70	11	13	.0063	2140.	32.5	Sd f gr ssly no flu
5344.0	0	0	1	49	21	29	.0048	467.	28.6	Sd vf-f gr shy no flu
5637.0	0	0	1	74	10	16	.0061	2210.	34.8	Sd f gr ssly slig no flu
5674.0	0	2	66	19	4	10	.0107	2910.	32.8	Sd f gr cln no flu
5834.0	1	0	7	76	4	11	.0066	2250.	34.4	Sd f gr ssly no flu
5859.0	1	0	17	68	5	10	.0079	2160.	31.9	Sd f gr ssly no flu
5864.0	0	1	37	45	3	14	.0087	2810.	33.8	Sd f-m gr ssly no flu
5874.0	1	0	48	41	6	5	.0094	3480.	33.3	Sd f-m gr cln no flu
5889.0	2	1	18	51	3	25	.0079	897.	29.4	Sd f gr slty no flu
6315.0	0	0	3	7	14	77		9.6	23.3	Sd vf gr shy lam (G 40XSd) slty no flu
6325.0	0	0	2	15	62	21	.0039	607.	32.6	Sd vf gr ssly ssly no flu
6355.0	0	0	4	61	11	24	.0060	1290.	34.1	Sd f gr s-sly no flu
6365.0	0	0	11	72	7	10	.0072	2390.	34.7	Sd f gr ssly no flu
6390.0										Mudcake w/trace Sd
6400.0	0	0	3	66	15	16	.0056	1530.	34.3	Sd vf-f gr ssly no flu
6450.0										Mudcake
6545.0	0	0	9	76	4	10	.0071	2520.	35.0	Sd f gr ssly no flu
6555.0	0	0	10	65	10	15	.0068	1850.	34.0	Sd f gr ssly no flu
6570.0	1	0	20	48	14	17	.0063	1820.	33.0	Sd f gr ssly no flu
6610.0	0	1	13	70	8	9	.0074	2260.	32.4	Sd f gr cln no flu

Note: depth 6610.0 was double shot.

CORELAM™

Sidewall Core Lamination Classifications

<p>A</p> <p>Slight Laminations</p>	<p>B</p> <p>Sand Laminations</p> <p>1-3 mm thick</p>	<p>C</p> <p>Variable Laminations</p> <p>All sand laminations <5 mm thick</p>	<p>D</p> <p>Wavy/Convolute Laminations</p> <p>All sand laminations <5mm thick</p>
<p>E</p> <p>Contorted Laminations</p>	<p>F</p> <p>Sand Laminations</p> <p>3-10 mm thick</p>	<p>G</p> <p>Variable Laminations</p> <p>One or more sand laminations >5mm thick</p>	<p>H</p> <p>Wavy/Convolute Laminations</p> <p>All sand laminations >5mm thick</p>