

CHARLES SCHMALTZ

CONSULTING GEOLOGIST
WICHITA, KANSAS

REPORT LOG

COMPANY: **BORE OIL CO**

WELL: **MUNSTERMANN #4**

LOCATION: **13251 E 11th St, E1M**

SEC: **19** T1S R15 REF: **32W**

COUNTY: **RAWLINS**

STATE: **KANSAS**

APR: **15-153-2172-00-00**

NO. COMPANY: **MORSEMAN MUD CO. INC.**

CONTRACT: **WPA DRILLING CO. RLS #10**

DATE: **9 DEC 2015** CANCELED: **15 DEC 2015**

SPRINK: **8 1/2" @ 30"** (CEILING RECORD: N/A)

WELL DEPTH: **4350**

WELL DEPTH: **4350**

FORMATION TOPS & STRUCTURAL POSITION

FORMATION: **ANHYDRITE -TOP** 2839

FORMATION: **ANHYDRITE -BASE** 2879

FORMATION: **TOPEKA** 3838

FORMATION: **OREAD** 3944

FORMATION: **DOUGLAS** 3970

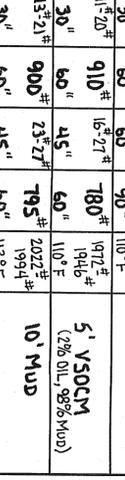
FORMATION: **LANSING** 3995

FORMATION: **BKC** 4252

FORMATION: **TOTAL DEPTH** 4350

REFERENCE WELL FOR STRUCTURE: **BORE OIL CO, MUNSTERMANN #3**

W/2 SW SW, SEC 19-T1S-R15M, RAWLINS CITY, KS



FORMATION TOPS & STRUCTURAL POSITION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DUAL	STRUCTURAL POSITION
ANHYDRITE -TOP	2839	2839	4182	-1
ANHYDRITE -BASE	2879	2879	4182	-2
TOPEKA	3838	3838	4009	+1
OREAD	3944	3944	4012	+2
DOUGLAS	3970	3970	4015	+4
LANSING	3995	3995	4018	+4
BKC	4252	4252	4127	+5
TOTAL DEPTH	4350	4350	4350	-79

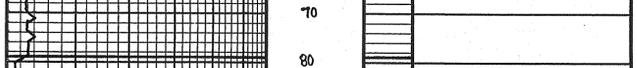
NO.	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS	PIPE STRAP: @ 4065 - 0.81 LONG @ 3041 - 1/4 @ 4065: M/C @ 4110 - 1/4"
1	1 1/2"	SMITH	F77	3041	21/4		
2	1 1/8"	SMITH	F77	4046	6 1/4		

NO.	Interval	SP/Min	SP/Min	SP/Min	SP/Min	REMARKS
1	4065-4065	11 1/2" 18"	1053	19 5/8"	1056	5' Mud
2	4065-4110	11 1/2" 20"	910	16 2/4"	780	5' VSOCM (29% OIL, 95% MUD)
3	4110-4210	13 1/2" 21"	900	23 5/8"	795	10' MUD

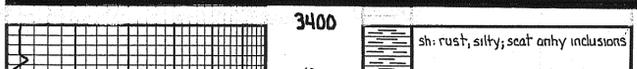
DRILL STEM TESTS

NO.	Interval	SP/Min	SP/Min	SP/Min	SP/Min	REMARKS
1	4065-4065	11 1/2" 18"	1053	19 5/8"	1056	5' Mud
2	4065-4110	11 1/2" 20"	910	16 2/4"	780	5' VSOCM (29% OIL, 95% MUD)
3	4110-4210	13 1/2" 21"	900	23 5/8"	795	10' MUD

LEGEND



DRILLING TIME IN MINUTES PER FOOT



LITHOLOGY

DEPTH

SAMPLE DESCRIPTIONS

REMARKS

2800

10

20

30

40

2850

60

70

80

90

3400

10

20

30

40

3450

60

70

80

90

3500

10

20

30

40

3550

60

70

80

90

3600

10

20

30

40

3650

60

70

80

90

3700

10

20

30

40

3750

60

70

80

90

3800

10

20

30

40

3850

60

70

80

90

3900

10

20

30

40

3950

60

70

80

90

4000

10

20

30

40

4050

60

70

80

90

4100

10

20

30

40

4150

60

70

80

90

4200

10

20

30

40

4250

60

70

80

90

4300

10

20

30

40

4350

DEPTH

SAMPLE DESCRIPTIONS

REMARKS

2800

10

20

30

40

2850

60

70

80

90

3400

10

20

30

40

3450

60

70

80

90

3500

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3600

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3800

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3950

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4000

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4050

60

70

80

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4100

10

20

30

40

4150

60

70

80

90

4200

10

20

30

40

4250

60

70

80

90

4300

10

20

30

40

4350

DEPTH

SAMPLE DESCRIPTIONS

REMARKS

2800

10

20

30

40