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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY SHAKE SPARE OIL CO.

LEASE Otley #3-16

FIELD Wildcat

LOCATION N 75° FSL, 95° FWL

COUNTY 16 Twsp 14S Rge 32W

STATE Kansas

CONTRACTOR HD Drilling Rig #2

SPUD 8-15-12 COMP

RTD 4500' LTD

MUD UP 3500'

TYPE MUD Chemical

SAMPLES SAVED FROM 3600' to RTD

DRILLING TIME KEPT FROM 3600' to RTD

SAMPLES EXAMINED FROM 3650' to RTD

GEOLOGICAL SUPERVISION FROM 3700' to RTD

GEOLOGIST ON WELL Tim Priest

FORFORMATION TOPS ELECTRIC LOG SAMPLE

Anhydrite 2223 (-550)

Heeber Shale 3727 (-954)

Toronto 3752 (-979)

Lansing 3797 (-997)

DST # 1 (3763-3820')

If: BOB in 9", no return

Rec: 110 WCM(100%)

SP: 1100 ft, 1000 sops,

(3200ft, 680ft), 180 MCW

(85%W, 15%M), 240 MCW

(93%W, 7%M), 530 Total

Fps: 14-1080/112-1560

SPs: 1100/1122

HSPs: 1816/17478

BHT: 111 deg F

Chlor: 33,000ppm

DST # 2 (3816-3857')

If: BOB in 7", no return

PF: Built to 6", no return

Rec: 70' OCMW(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 15-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 3 (3893-3878')

If: Surface blow, no return

PF: Surface blow, no return

Rec: 20' WCM w/sonic oil

SP: 2000 ft, 2000 sops,

(V, 22%), 60' MW w/sonic oil

(94%W, 6%M), 530 Total

Fps: 15-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 4 (3933-3960')

If: Surface blow, no return

PF: Surface blow, no return

Rec: 20' WCM w/sonic oil

SP: 2000 ft, 2000 sops,

(V, 22%), 60' MW w/sonic oil

(94%W, 6%M), 530 Total

Fps: 15-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 5 (3959-3990')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 32-1980/219-2309

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 6 (3989-4024')

If: Surface blow, no return

PF: Surface blow, no return

Rec: 20' WCM w/sonic oil

SP: 2000 ft, 2000 sops,

(V, 22%), 60' MW w/sonic oil

(94%W, 6%M), 530 Total

Fps: 15-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 7 (4016-4074')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 20-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 8 (4043-4082')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 20-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 9 (4059-4098')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 20-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 10 (4080-4130')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 20-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 11 (4132-4181')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,

(1965ft, 105ft), Total 130'

Fps: 20-1080/112-1560

SPs: 1100/1122

HSPs: 1864/17228

BHT: 111 deg F

Chlor: 33,000ppm

DST # 12 (4132-4181')

If: BOB in 7", no return

PF: BOB in 7", no return

Rec: 20' WCM(100%)

SP: 700 ft, 700 sops,