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GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG


OPERATOR RTAS OPERATING, LLC
 BASE GARDEN CITY B-#26-19
 ELD DARNE
 LOCATION NE-SW/4E (60'x1/2'x60'x1/2')
 EC. 19 TWP. 22S RGE. 35W
 COUNTY FINNEY STATE KS
 DIRECTOR PROBATIONER EXPLORATION RIS #2
 DATE 5-28-12 COMP. 6-04-12
 LOG TO 4950'
 LOGS TIME KEPT FROM N/A TO N/A
 LOGS TIME KEPT FROM 3700' TO RTD
 LOGS EXAMINED FROM 3900' TO RTD
 LOGS SUPERVISION FROM 3700' TO RTD
 LOG UP 3513' TYPE AND CHEMICAL
 LOG # 15-055-22144-00-00

ELEVATION 2908'
 KB 2908'
 DF 2900'
 G 2900'
 Measurements Are All KB
 From KB

CASING RECORD
 SURFACE 8 5/8" O 320'
 PRODUCTION 4 1/4" TO 70'

WELL LOG SURVEYS
 CNO, DTI, MICRO, PE

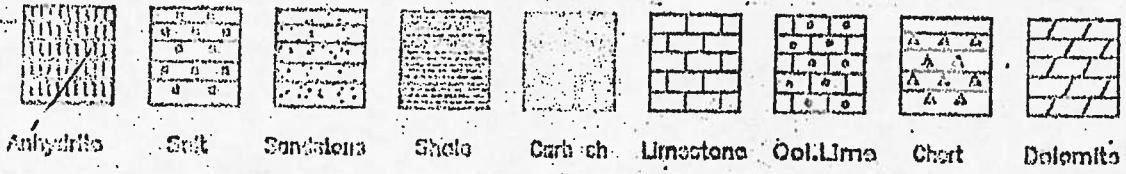
SUPERIOR WELL SERV



REMARKS IT IS HARD TO DETERMINE THE POTENTIAL OR NON-POTENTIAL OF THIS WELL PAST 4450' DO TO V-POOR SAMPLE CONDITIONS - PREDOMINANTLY SHALE CAVINGS, HOWEVER, WE NOTED GAS KICKS & B-LOG CALCULATIONS & SEVERE REVERSAL OF STRUCTURAL POSITION; CLOSE PROXIMITY TO PRODUCTION IT IS RECOMMENDED & AGREED UPON BY ALL PARTIES CONCERNED THAT PRODUCTION CAS BE SET TO FURTHER EVALUATE THIS WELL.

RESPECTFULLY SUBMITTED,
 BY PATRICK J. DENNENHAN
Patrick J. Dennenhan
 PETROLEUM GEOLOGIST

LEGEND



SCALE " = 100'

DRILLING TIME	DEPTH	SAMPLE DESCRIPTION	REMARKS
		7:00 AM DEPTH	
		HIRU-5-19-12	
		5-20-12-1722	
		5-21-12-2509	
		5-22-12-3354	
		5-23-12-OPEN WELL 5-27-12	
		5-29-12-3330	
		5-28-12-3925	
		5-29-12-4214	
		5-30-12-4448	
		5-31-12-4448	
		6-01-12-4448	
		6-02-12-4490	
		6-03-12-4758	
		6-04-12-4950	

REFERENCE WELL FOR STRUCTURAL CORRELATION: PROBATIONER EXPLORATION, LTD - GARDEN CITY 48 1/8-19 1-SE 1/4 NW 1/4 NE

24 50

6-02-12=4490

6-03-12=4758

6-04-12=4950

2500

HERRINGTON

2504 (+404)

KRIDER

2536 (+372)

2550

WINDFIRE

2592 (+386)

2600

30

DISPLACED MUD @ 3515'

3700

3700

50

3800

HEBNER 5M
3800 (-898)

50

LANSING
3855 (-947)

3900

START SAMPLES

SAMPLES ARE NOT GOOD
V-FN=NO VISABLE STONS

- ✓
- ✓
- ✓
- ✓

50

3900

START SAMPLES

SAMPLES ARE NOT GOOD
V-FN-NO VISABLE SHOWS

✓

✓

✓

✓

✓

✓

✓

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✓

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✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

50

4006

50

RIG DOWN

4100

50

LS, HHT, GRAV, LT, GRY, SING,
V-FN-NO VISABLE SHOWS
SUB CANLEY - NO SHOW

LS, HHT, GRAV, LT, GRY, SING,
V-FN-NO VISABLE SHOWS
SUB CANLEY - NO SHOW



50

LS, WHT GRN, LT GRN - SING
P. ASSE - NO. 5100
SUB. CHALKY - NO. 5100

LS, WHT GRN, LT GRN - SING
P. ASSE - NO. 5100
SUB. CHALKY - NO. 5100

LS, WHT

LS, WHT

LS, WHT

LS, WHT

4200

SH, BLACK CARB

LS, WHT GRN - FSSG TO CHALKY
NO. 5100

LS, WHT GRN - FSSG TO CHALKY
NO. 5100

SH, BLACK CARB

SH, VAR. COLOR

SH, BLACK CARB

50

LS, WHT TO LT GRN - FSSG TO
CHALKY - NO. 5100

MUD-CO/STEVICK MUD, INC
VIS: 58 WT: 9.3 WL: 8.8
CHL: 2800 LCM: 34

SH, VAR. COLOR - PRED. GRN
7.9%

LS, WHT GRN - TAN - SING/MOTT
P. ASSE - NO. 5100
SUB. CHALKY - NO. 5100

4300

LS, TAN - GRN - SING/MOTT
P. ASSE - NO. 5100
SUB. CHALKY - NO. 5100

LS, WHT GRN - TAN - SING/MOTT
P. ASSE - NO. 5100
SUB. CHALKY - NO. 5100

BIKC
4340-61432

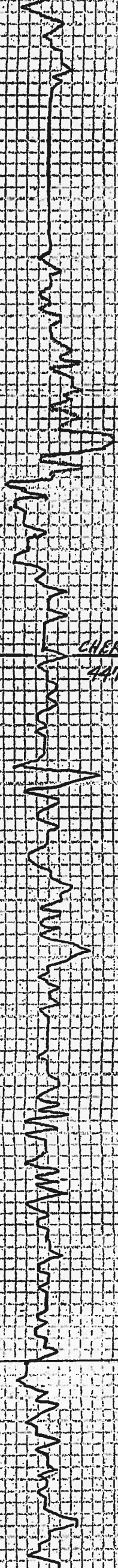
SH, BLACK CARB

50

SH, VAR. COLOR

SH, BLACK CARB

LS, GRN - TAN - SING/MOTT - V. TAN
NO. 5100 - NO. 5100



4400

LS, GRAY-TAN-SING/MOTT-V-FN
XEN-BLACK-NO SHOW

LS, WHT CRM TAN-FA-XEN-FSS
OOL IN PART-SUB-SHARK
TO CHALKY W/DEPTH

SH, BLACK CARB

LS, CRM TAN LT GRAY-SING/MOTT
CAVTO-XEN-TO V-FN-XEN
NO SHOW

SH, BLACK CARB

2 4543 = 140 UNIT TOTAL GAS
MUD-Co/SERVICE MUD, INC ✓
2 448'
VIS: 97 WT: 9.4 WL: 8.0
CH: 2800 LCM: 3"

SH, BLACK CARB

LS, TAN-GRY-SING-V-FN-XEN
NO SHOW

PREPARING TO RUN BIT TRIP
2-8:05-AM-5:31-12-PULLED
1 STAND - PULL 160,000 COULD
NOT GET THIRD-TIGHT SPOT-CARE
TO BUILD MUD-STILL NOT TIGHT

SH, BLACK CARB

TIGHT SPOT @ 1:00 PM - PULLED
LOOSE @ 7:10 AM - 5:31-12 PM
DRILL @ 2:53 - 6-2-12 PM

LS, CRM-GRY-SING-V-FN-XEN
V-ORSE-NO SHOW

CHEROKEE-SH
447B(1570)

SH, BLACK CARB

200 UNIT TOTAL GAS

LS, WHT CRM GRY-SING-SGL-
CHALKY
SH, ROUNS - WHT-SEAL

4500

LS, CRM TAN GRAY-SING/SHT-MOTT
VAN-XEN-SGL-GRY FRESH CRACK

SH, BLACK CARB

LS, GRY TAN SING-VAN-XEN-NO
SHOW

SH, VARI-COLOR-PREOM-GRY

LS, LT GRY TO GRY-SING-CRACK
TO V-FN-XEN

SH, GRYS-ARGL

MUD-Co/SERVICE MUD, INC.
VIS: 87 WT: 9.3 WL: 8.8
CH: 3000 LCM: 4"

SH, BLACK CARB

LS, GRY-SING/MOTT-NV

LS, A7A

SH, BLACK CARB, DR GRAY-GRY

LS, LT GRY-TAN-SING-VAN-XEN
DENSE NO SHOW

LS, A7A DENSE-OOL-NO SHOW

4600

SH, BLACK CARB TO VARI-COLOR

LS, TAN, LT GRY-SING-VAN-XEN
SGL-FSS-V-TIR-NO SHOW

LS, GRY-CRM-SING-VAN-XEN-
SUB-SHARK NO SHOW

SH, VARI-COLOR-ARGL

LS, CRM-SING-FA-XEN-SGL-FSS
SUB-SHARK-NO SHOW

AUTO-DRILL FLUID ADDED
GEOLOGRAPH STOPPED

LS, GRAY-SING-FIN-XLN-SLI-FSSC
SUB-CHERT-NO SHOW

SH, VARI-COLOR

LS, GRAY-SING-MICRO-XLN-TO
FRESH FSSC-CHERT NO SHOW

50

SH, BLACK, DK. GRAY, GRAY

MORROW SH
4668 (-1760)

SH, ROUND VARI-COLOR (TRC OF
BLACK CARB)

SH, A)A - POOR SAMPLES

SH, A)A - POOR SAMPLES

MORROW SO
4700 (-1792)

4700

SH, BLACK TO DK GRAY (N) CLEAR (N)
BLACK OIL STN. NO. 50 - NO FLUID
PT. 2000 - 1 - POOR SAMPLES

SS, CLEAR FIN TO MED GRN-CONST
TO FINEST 500 RD TO RD
TRC OF 500 RD BEAR - 1-541
OOL - CORE TO 01356 IN HAND
SYSTEM SCOTT TAPOR

4320 UNIT TOTAL GAS

MISSISSIPPIAN
4723 (-1815)

SH, GRAY-BLK-VARI-COLOR
TRC OF 35 A)A

* 279 UNIT TOTAL GAS

REN ON GEOLOGRAPH
NOT WORKING

LS, GRAY-GRY-FIN-XLN-SLI-FSSC
NO SHOW - ROUND SH - GRYS

MUD-CD / SERVICE MUD. INC ✓
D 4760
VIS: 56 WT: 9.3 WC: 8.8
CML: 2500 - LCM: 20

50

LS, GRAY-DENSE CRYPTO-XLN-
NO SHOW - AROUND GRAY SH

WORK ON PUMP @ 4658 FOR 1HR

* 240 UNIT TOTAL GAS:

LS, A)A INCREASE IN FSSC
TO OOL

DOWN WORKING ON PUMP - 1HR.

SH, BLACK CARB TO VARI-COLOR
ARON.

LS, GRAY-SING-FIN-XLN-TO 2LN
FSSC-SLI-CHERT-ROUND
VARI-COLOR-SHALE-TRC OF
SPOTTY BLACK HEAD OIL
STN ON Y. FEW PGS.
ROUND VARI-COLOR SHALE

180 UNIT TOTAL GAS

4800

210 UNIT TOTAL GAS

LS, LT-GRAY SUB-CHERT FSSC
SLI-CHERT-NO SHOW

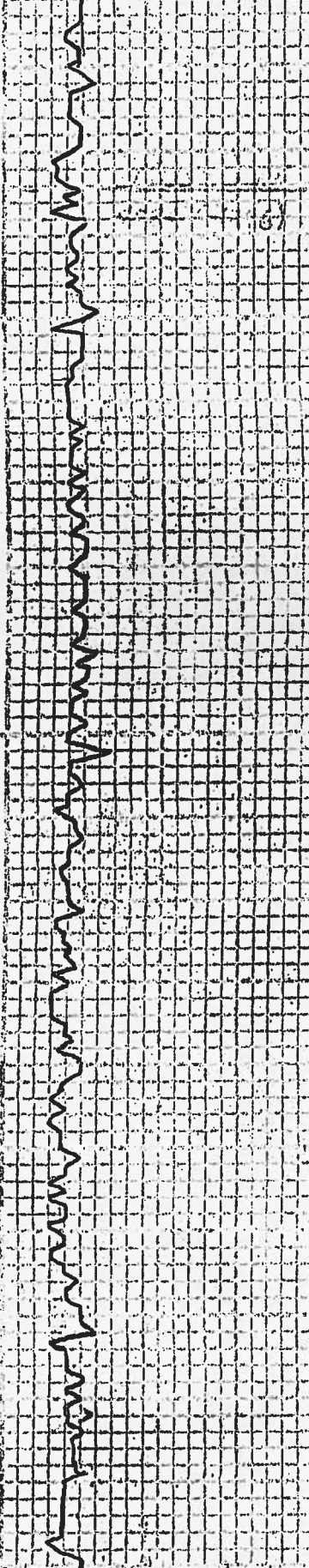
LS, A)A

50

LS, A)A - CRYPTO-XLN-TITE

4900

LS, A)A



4800

LS, A7A INCREASE IN P. 1332
TO 006

SH, BLACK CARB TO VARI-COLOR
AR. 046

LS, WHI-SING - IN-XIA TO XIN
P. 334 - SHI-CHERTY - ABOVE
VARI-COLOR SHALE - TR. OF
SPOTTY BLACK SAND OIL
STN ON V. FEW PGS.
ABOVE VARI-COLOR SHALE

* 240 UNIT TOTAL GAS:
DOWN WORKING ON PUMP - 1HR.

180 UNIT TOTAL GAS

210 UNIT TOTAL GAS

LS, LT-GRY SUB-CHERTY P. 330
SHI-CHERTY - NO. 3100

LS, A7A

LS, A7A - CRYSTO-XIN-TITE

4900

LS, A7A

LS, CRM TO GRY - MOTT/SING
DENSE CRYSTO-XIN TO XIN
CHERTY SHI - P. 334 IN PART
NO SHOW

RTD REACHED @ 12:10 AM
ON - 06-04-12

RTD = 4950
LYD = 4871

LS, A7A