

PATRICK J. DEENIHAN

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100 CENTINARI COX, INC.
WICHITA, K. 67278

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

OPERATOR SLAWSON EXPLORATION CO., INC.

WELL NAME JAMES A1 #4

DRILLER JIMMY

LOCATION 540' FNL, 2060' FEL

COUNTY 23 TWP. 10^S RGE. 34^W

COUNTY THOMAS STATE KANSAS

TRACTOR WIND DRILLING RIG #8

DATE 5-20-15 COMP. 3-31-15

LOG TO 3010' LOG TO 3808

LOGS SAVED FROM 3800' TO RTD

LOGS EXAMINED FROM 3800' TO RTD

LOGS EXAMINED FROM 3800' TO RTD

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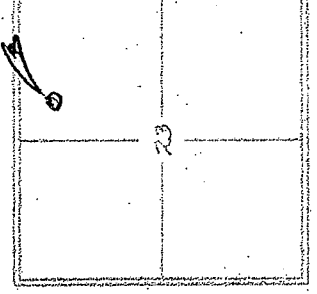
LOGS EXAMINED FROM 3800' TO RTD

ELEVATION
KB 3202'
DF
GL 3197'
Measurements Are All
From K.S.

CASING RECORD
SURFACE 298.34' OF 8"
SET @ 305'
PRODUCTION 4 1/2" CGG
GET TO TOTAL DEPT

WELL LOG SURVEYS
WEATH FORD
DIL-SP-GR
CNL-COL, ML
HIGH RESOLUTION

FORMATION	TOP	LOG	DATE	TOP	SAMPLE	DITUM	STRUCT.
							COMP.
MANORVILLE	2709		(1493)	2710	(6492)		-3
ASE/ANHY	2736		(1464)	2738	(4164)		-2
EEBNER	4891		(-884)	4895	(-893)		+2
ORONTO	4116		(-914)	4120	(-918)		+3
PASING	4130		(-928)	4140	(-938)		FIAT
MARIE CREEK	4274		(1072)	4274	(-1072)		-1
MARSHALE	4356		(1154)	4360	(1158)		75
ORIMATON	4448		(1246)	4452	(-1250)		77
WONEE	4550		(-1348)	4552	(-1351)		+2
WICK STATION	4583		(-1381)	4581	(-1379)		+4
SCOTT	4603		(-1401)	4603	(-1401)		+4
FRANK JH.	4633		(-1431)	4635	(-1433)		+3
WILSON	4676		(-1474)	4672	(-1470)		76
MISSISSIPPIAN	4750		(-1548)	4753	(-1551)		79

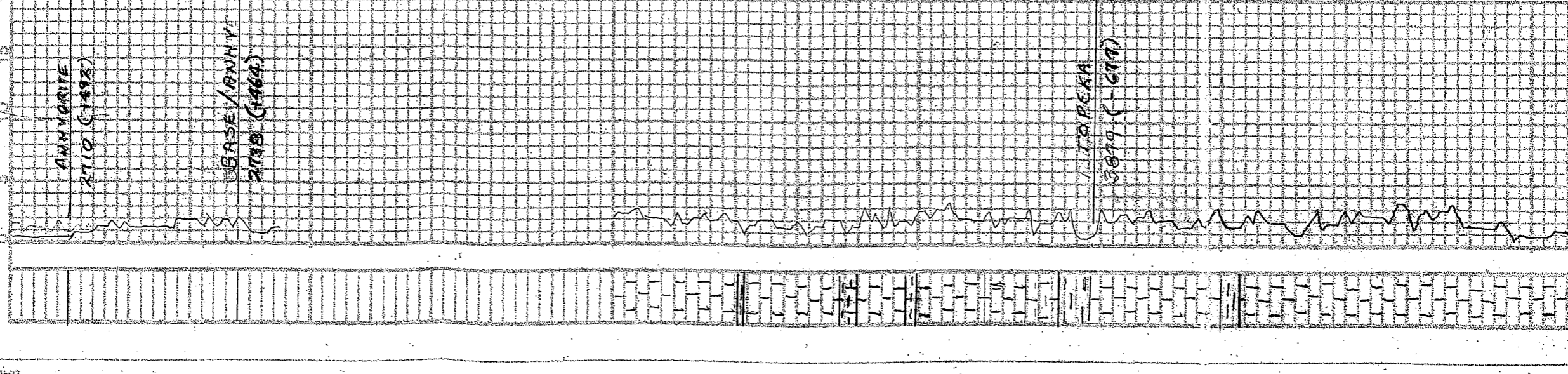


SCALE

100'

REMARKS	DEPTH	SAMPLE DESCRIPTION
	2700	7:00 AM DEPTH 3-22-15 MARK SET SURFACE 3-23-15 DRILLING UNDERWAY 3-24-15 = 2635' * 3-25-15 = 3565' * 3-26-15 = 4170' * 3-27-15 = 4244' * 3-28-15 = 4398' * 3-29-15 = 4592' * 3-30-15 = 4711' * 3-31-15 = 4810'
	3800	LS, CRN. TAN. - FN. XCN TO CHALKY No show SH. GRV. - ARGIL
	50	LS, CRN. TANN, V. GRV. - KAN. SP. F. S. TO TAN. GR. 80, SHALTY No show
	50	SH. VARI. COLOR ARGIL SH. GRV. ORG. BRN. - ARGIL
	50	LS, LT GRV. - CRN. SUBSCHALKY TO MICR. ORG. F. S. L. MICR. ORG. ORG. No show
	50	SH. LT GRV. ORG. BRN. GRAN. ORG. ORG. SUBS.
	50	SH. GRV. BRN. BROWNISH GRN. ARGIL F. S. GRN.
	50	LS, CRN. LT GRV. - MICR. ORG. F. S. L. ORG. TO 100, SUB. ORG. NO. SHOW
	3900	LS, BRN. LT GRV. - FN. XCN TO MICR. ORG. NO. SHOW LS, GRV. - CRN. MICR. F. S. L. TO MICR. ORG. NO. SHOW LS, CRN. - SUBSCHALKY TO CHALKY SAMPLE 250. SH. ES. WHITE No show
	50	LS, CRN. TAN. - F. MICR. ORG. - XCN. MICR. F. S. L. ORG. SUBSCHALKY TO SHOW

DRILLING TIME



4000

SH, VARI. COLOR - ARGIL
SH, BLACK CARB., SCL. PYRITIC
LS, WHIT. CRM. AT GRAY - CHALKY, FINE FOL.
XEN. NO. SHOW
LS, WHIT. GRAY, TAN. OR DUSK. MICEL.
TO P. TAN. XEN. - NO. SHOW

SH, GRAY, BRN., LT. GRN. ARGIL

LS, GRN. TO LT. GRAY - P. TAN. XEN. SCL.
CHALKY, NO. SHOW

SH, BLACK CARB.

LS, WHIT. CRM. P. TAN. XEN. FINE
SCL. CHALKY NO. SHOW IN PART
CHALKY NO. DEPTH

SH, GRAY, BRN. - ARG.

LS, WHIT. CRM. - MICRO TO TAN. XEN.
SCL. FINE. NO. SHOW

LS, GRN. GRAY, BRN. - DENSE MICRO
XEN. RAILROAD FOL., SUB. CHALKY
NO. SHOW

SH, BLACK CARB.

LS, GRAY CRM. - DENSE MICRO - XEN.
SUB. CHALKY NO. SHOW
SH, AROUND VARI. COLOR GRN.
GRAY BRN. BLACK, ORANGE
ARGIL

LS, TAN. TO LT. GRAY, MICRO - FINE
AND MICRO - TAN. SCL. CHALKY
VERY DENSE NO. SHOW

LS, GRN. - TAN. TAN. XEN. - P. SORTED, OOL.
MICRO TO LARGE SIDEWALK
NO. SHOW

SH, GRAY, DK. GRAY, BLACK & ORG.,
ARGIL

LS, WHIT. CRM. LT. GRAY - TAN. XEN. FINE
OOL. FOL. INTER. XEN. TAN. -
RED. DENSE - FINE. TAN. GRAY
MICRO - TAN. P. FINE. TAN. GRAY
NO. SHOW. NO. FINE. TAN. GRAY
ORANGE. DENSE. AND TAN. GRAY
SYRTE. ON EDGE. OF GRANULAR
LS

SH, VARI. COLOR. - BRN. GRN. GRAY
QUARTZ ARGIL - SAMPLES WASH
CHOCOLATE. BRN.

LS, WHIT. CRM. GRN. SRT. - DENSE MICRO
XEN. SUB. CHALKY - BRN. SH
SPATE

LS, WHIT. GRAY, GRN. OOL. TO
SPATE
LS, VARI. FINE. GRAY, GRN. OOL. TO
SPATE. NO. SHOW. TAN. IS
DENSE. GRN. TO BLACK. OOL.
FOL. F. 9000. OIL. 8000
TO - 1500. WITH 9000. 8000. 8000
GRAN. TAN. GRAY. TO BRN. GRN.
OOL. 3000. 3000. 3000. 3000

SH, BLACK CARB. GRN. GRAY. TAN. GRN. ARGIL
RED. ARGIL
LS, WHIT. MICEL. XEN. CHALKY. TRC. OF
OOL. TO OOL. OF OOL. BLACK. TAN.
NO. SHOW. NO. SHOW. NO. SHOW.

SH, BLACK CARB.

LS, WHIT. GRAY, GRN. SCL. CHALKY. NO. SHOW

SH, GRAY BRN. GRN. - ARGIL

LS, WHIT. ST. GRAY - TAN. XEN. - NO. SHOW

SH, VARI. COLOR, ARGIL

LS, WHIT. CRM. LT. GRAY - TAN. XEN. SCL.
CHALKY. NO. SHOW. CHALKY
OOL. NO. SHOW

HEBNER

4095 (893)

TO RANTO

4100 (918)

-OFS-

LANSING

4140 (938)

"A"

"B"

-OFS-

-OFS-

"D"

"E"

"F"

DST #1 (4163 - 419
90" - 45" 301 - 454
150: 800 M 2 M) 10 RTA
FF: 800 M 302 - 800 A
REG: 2356' TOTAL
124' NEW (90% WTA) 30%
186' SHOW (95% WTR) 104
2046' WTA (100% WTA)
IMP: 2074 FHP: 194
151: 199-707 FHP: 704
151: 1225' FHP: 12.
BWT: 1230 CWT: 88

MUD CHECK R 4190
VIS. 5% WT: 8.9
CHL: 2000 LCM: 14

4200

MUNCIE CREEK

4274 (-1072)

"H"

4300

CFS

"I"

CFS

45"

STRIP SHALE CFS

4300 (-1128) 45"

"K"

CFS

"L"

4400

BASE/45 CFT

4422 (-1222)

MARMATON

4452 (-1250)

4500

SH. BLACK CARB. ARGIL. TO SHALE. FINE GR. SAND. NO. 5. SHOWS SOME EVIDENCE FAINT IN NO. 4. NO. 3. MICRO-XLN. FABRICO. SH. BLACK. NO. SHOW.

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MUD CHECK @ 4890
VIS: 62 WT: 9.0 WL:
CAL: 19,000 LCM: 1 #

DST # 2 (4345 - 4398)
30" - 45" - 45" - 90"
IFF: 6" GRAY - NO RETURN
FPI: 128 MW - NO RETURN
REC: 220 TOTAL
NO MCW (SPOT DRILL) 65% W
180 MCW (W) 0% SPS - 05
15% MUD
FHP: 2221
IFM: 18.81
FPI: 980
RHT: 19 #

MUD CHECK @ 4621
VIS: 54 WT: 9.1 WL:
CAL: 11,000 LCM: 1 #

DST # 3 (4465 - 4515)
30" - 45" - 45" - 40"
IFF: 808 MW: 2" - 808 IN 4
FPI: 800 @ 4621 GTS
REC: 620 TOTAL
L2: CGO (25% CASE 75)

NO. 3-06-61

DST # 3 (45' - 45' - 45')
30" - 45" - 15" - 40
IFP: 800 IN 2", 800 IN 4"
RF: 800 @ open
REQ: 620' TOTAL
L2' C40 (25% GAS, 75%
A30' C40 CRACKED OIL
70% OIL)
120' NC40 (UNDER FIB)
40% OIL, 30% NUCR)
14R: 2307 FHP:
15R: 107-184 FHP:
151P: 3374 FHP:
GHT: 1270 GRAD.

MUD CHECK @ 452'
VIS: 57 WT: 9.1 WL: 8
CHL: 14,000 LCM: 18

DST # 4 (4649' - 4'
30" - 45" - 45" - 9'
IFP: 800 IN 12" - 40 R
14R: 808 IN 18" - 40 R
REC: 387' TOTAL - 913
15' C40 (30% GAS, 70%
124' GMC. (30% GAS, 70%
248' GMC. (35% GAS, 35%
IMP: 2488 FHP:
15R: 44-115 FHP:
151P: 782 FHP:
GHT: 122' CME: 11,
GRAVITY = 25

L2, A/R INCREASE IN CRACK
SH. VARI-COLOR
SH. BLACK CRACK
L2, CRACK CRACK AND W/ OIL
GAYSHALA

CHERT, WAT. CRACK CRACK, MOSTLY
FIB. CRACK, SOME WITH IMPER
COLLIES AND SH. NO. 3
L2, CRACK CRACK, CRACK, CRACK
OIL NO. 3

L2, CRACK CRACK, CRACK, CRACK
AND SH. NO. 3

L2, CRACK CRACK, CRACK, CRACK
AND SH. NO. 3

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AND SH. NO. 3

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AND SH. NO. 3

RAHWEE

4552 (-1300)

MYRICK STATION

4501 (-1370)

CFS

F15007

4003 (-1401)

4600

CHAROKEE SHALE

4635 (-1435)

JOHNSON

4672 (-1476)

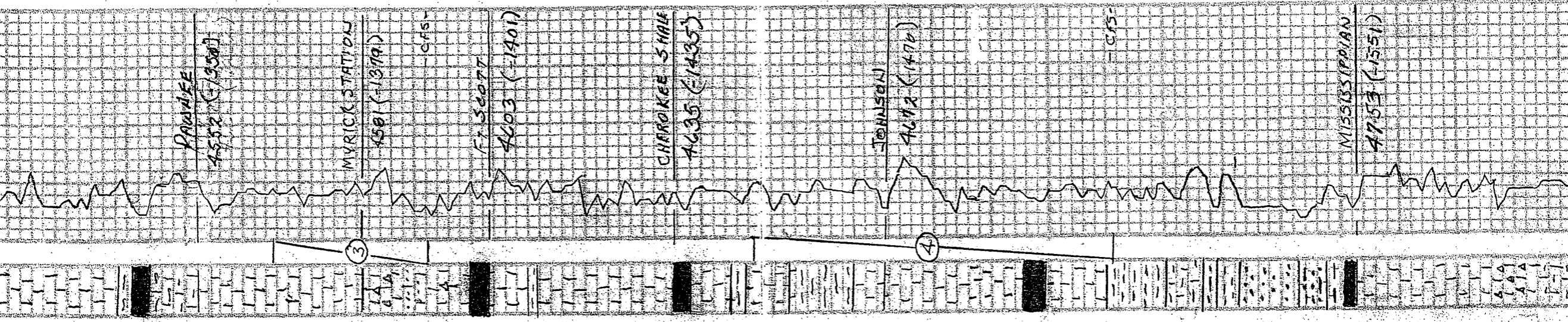
CFS

MISSISSIPPIAN

4753 (-1551)

4700

80



15 WHIT (N) X 10 TO CHARITY GRAY
MUDS, SLIM SL. TO 200' TO 200'
OF YELLOW & REDDISH ARG. CHART
NO. 5 (10 L)

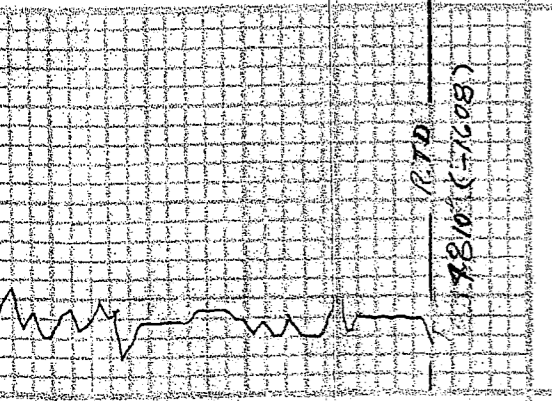
15. 17.71 M SAMPLES WASH MINT
& SPARKING GRAY SHALE

574. 17.71 M SAMPLES WASH MINT
& SPARKING GRAY SHALE

T.D. REACHED 10:00 P.M.

SAMPLE DESCRIPTION

DEPTH



100
90
80
70
60
50
40
30
20
10
0

CORRECTION

10
20
30
40
50
60
70
80
90
100

DEPTH

CORRECTION