

# BRAD HUTCHINSON

116 EVES DRIVE  
RUSSELL, KANSAS 67665

785-483-0492

## GEOLOGIST'S REPORT

### DRILLING TIME AND SAMPLE LOG

COMPANY <u>BRUNGARDT OIL &amp; LEASING, INC.</u> LEASE <u>HOLLAND UNIT #1</u> FIELD <u>SW SE SW SW</u> LOCATION _____ SEC <u>26</u> TWSP <u>12S</u> RGE <u>15W</u> COUNTY <u>RUSSELL</u> STATE <u>KANSAS</u>	ELEVATIONS KB <u>1802'</u> DF _____ GL <u>1797'</u> Measurements Are All From <u>Kelly Boring</u>
CONTRACTOR <u>SHIELDS OIL PRODUCERS</u> SPUD <u>5-11-2013</u> COMP <u>5-18-2013</u> RTD <u>3325</u> LTD <u>3323</u> MUD UP <u>2400'</u> TYPE MUD <u>CHEMICAL</u>	CASING SURFACE <u>8 5/8" @ 211'</u> PRODUCTION <u>None</u> ELECTRICAL SURVEYS CNL/COL DIL MEL

SAMPLES SAVED FROM 2650' TO RTD  
 DRILLING TIME KEPT FROM 2600' TO RTD  
 SAMPLES EXAMINED FROM 2650' TO RTD  
 GEOLOGICAL SUPERVISION FROM 2650' TO RTD  
 GEOLOGIST ON WELL BRAD J HUTCHINSON

FORMATION TOPS	LOG	SAMPLES	
ANHYDRITE	872 (+930)(+2)	875 (+927)	
TOPEKA	2701 (-899)(+3)	2704 (-902)	
HEEBNER	2920 (-1118)(+4)	2926 (-1124)	
TORONTO	2941 (-1139)(+4)	2946 (-1144)	
LANSING	2972 (-1170)(+4)	2974 (-1172)	
Base Kansas City	3218 (-1416)(+6)	3226 (-1424)	26
ARBUCKLE	3239 (-1437)(+1)	3242 (-1440)	
	↑ structural		
		Comparator	-0-
Reference Well:			
JOHN O. FARMER	HOLLAND "D"-1 E/2 NE NW NW, Sec. 35-125-15W		

7505

REMARKS It was recommended based on the four (4) negative drillstem tests and there being no zones worthy of any further testing, that the Howard Unit #1, be plugged and abandoned at a total log depth of 3323.(-1511)

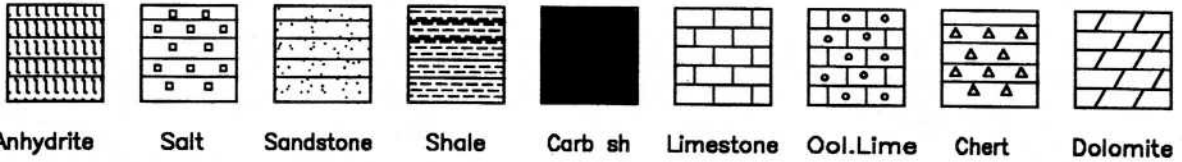
5-11-13	MIRU
5-12-13	214'
5-13-13	895'
5-14-13	1960'
5-15-13	2670'
5-16-13	3030'
5-17-13	3183'
5-18-13	3325'

Respectfully Submitted,  
 Brad J. Hutchison

Survey:	DEPTH:	DEVIATION:
	214'	3/4°
	3030'	3/4°

LOG 7702

### LEGEND



LITHOLOGY	DEPTH	DRILLING TIME (Logarithmic Scale)											SAMPLE DESCRIPTIONS	REMARK	
		.5	1	2	3	4	5	10	15	20	30				
	900														
	2600														

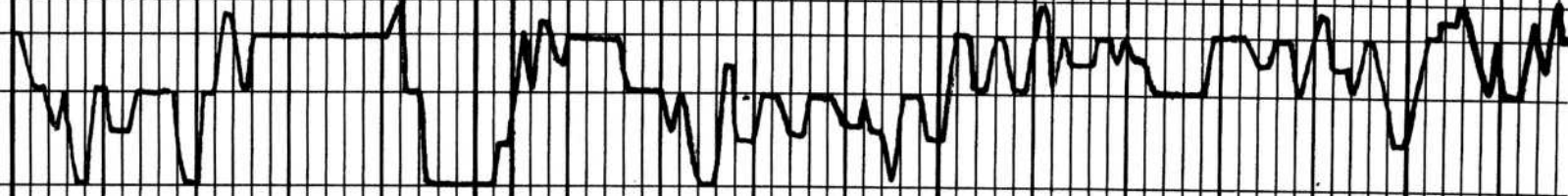
Annex 875 (1927)

50

2700

50

2800



SH gry TR lt gry  
55.1

**LOPKA 2704 (-902)**

lt gry - base Dse  
A (Eddy) TR 500

SH gry

lt CRH - WHIT chalky  
E055.1

SH brick red = pale gra

SH AA TR gry 6050  
A

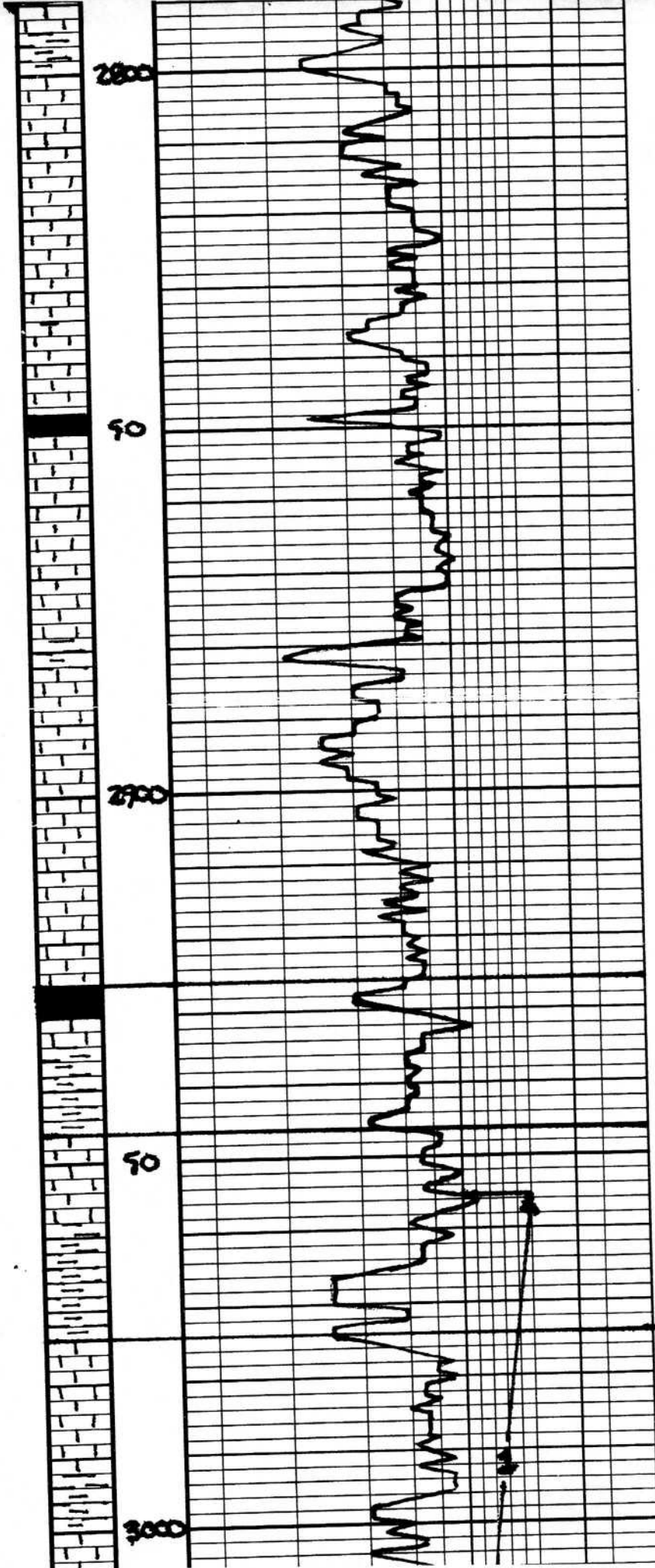
lt gry Dse 500

Same AA.

SH blk carb.

SH gry pale gra.

lt WHIT FOYL 64.000  
TR 000 2 TR 001 1.500  
TR 00 00 000



sh gry pale gm.,

ls wlt FNXL bl ool  
TR ool of TR opt LT str  
TR FO FT odor

Abund gry sh - cavings -

Abund wlt chalk

sh blk carb.,

ls wlt - cream  
highly chunky

AA very chunky

sh blk carb.,

ls cream - wlt FNXL - chunky  
TR opt edge str.

ls cream chunky

Same AA

**No. 2926 (-1134)**

sh blk carb.,

sh brick rd

**(LANSING 2946 (-144))**

LS BUFF DSE

sh red disk gm gry  
- gumbo -

**LANSING 2914 (-1172)**

LS CRM - BUFF VERX  
NO VISO' scd lt ben (even  
str NEO FT odor

AA.,

sh pale gm - gry  
gumbo.,

LS CRM FNXL ool - Ford  
IND OOL - forecast of ER scd  
lt ben str - sat. sh SFO

DST-1 2955-'  
80-30-60  
KF 5"  
FF 8"  
Rec. 124' 6"  
62' GWM  
10% g 30%  
107' GV50CM  
5% g 5% O  
KTD 1425-4

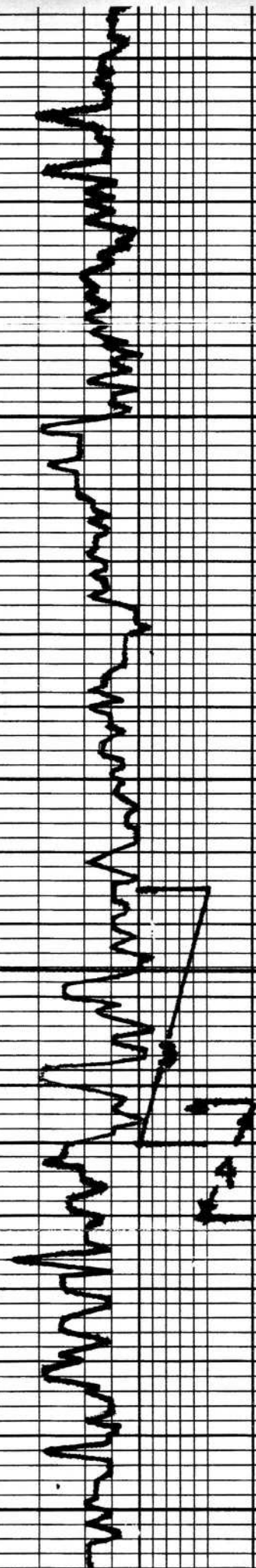
3100

50

3200

50

3300



AA

sh blk carb.,

ly buff-tan Dse.

sh gry

ly buff-csm fine  
highly sol TR spt pr  
ppd bldt bow spt  
NEO FT odor

sh gry

ly lt gry ool-sh kobs  
Dse tr v. pr spt  
sol., NEO or odor.

ly gry Dse

sh blk carb.,

ly TR-buff Dse.

sh gry gumb.

ly lt gry Dse.

sh blk carb.,

sh gry linc wht chunky  
ho. 1/2"

**BKG. 3226 (-1424)**

sh grn.,

**ARBUCKLE 3222 (-1440)**

DOLO LT BRN MDXL gd  
INT XL of gd dk brn str-  
sol gd SFO FT odor.

same AA w/ STICKS  
Dse lt BRN carb.,

DOLO CSM-LT GRY, MDXL -  
Dse spt v. b. spt lt  
brn str SFO no odor  
INC WIK chunk

DOLO AA w/ INC OF  
DOLO., DOLO ool-bac.,

DOLO BRN MDXL gd  
INT XL of



CHART PROF

DST-3 3215-3250  
30.30.0.0  
IF 1/2"  
FF PULLED TO  
REL. 30' MUD  
SIP (659)  
FP (15-19)  
MSH (1683-1569)

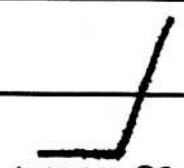


CHART PROF

DST-4 3244-3264  
15.15.30.3X  
IF 80B-4"  
FF 80B-5"  
REL. 992' MUD  
SIP (1105-1107)  
FP (32-233)(21  
MSH (1753-1598)

nr

3300

8



CES

Dolo cem - lt grey, md xl -  
 Dse spt mag, b' spt lt  
 brn str seb no odor  
 inc wk chalk

Dolo AA w/ inc pr  
 Dolo, Dolo ool-bec,

Dolo brn md xl gel  
 int xl NS

same AA TR bone  
 wht A

DST-4 3244-3260 ARE  
 15.15.30.30  
 IF 808-4"  
 EF 808-5"  
 REC. 992' MUS  
 SIP(1105-1107)  
 FP (32-233)(219-49)  
 USH(1753-1598)

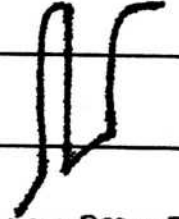


CHART PROFILE