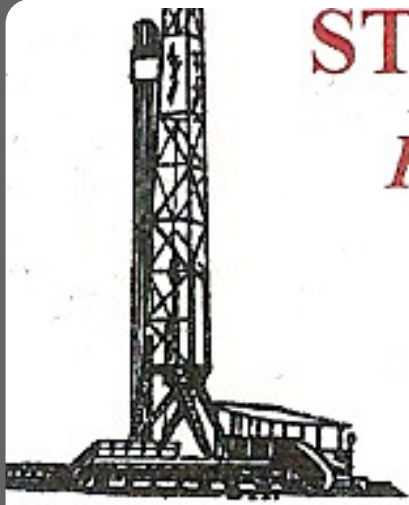


STEVEN P. MURPHY, P.G.

Petroleum Geologist (KS #228)



Cell 620.639.3030

Fax 785.387.2400

RR#1, Box 69

Otis, Kansas 67565

geomurphy@gbta.net

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Delbert #19-1
API: 15-065-24051-00-00

Location: Graham County

License Number: 8914

Spud Date: 7/31/2014

Region: Kansas

Drilling Completed: 8/6/2014

Surface Coordinates: 1150' FNL & 475' FWL (Approx. SE SW NW NW)

Section 19-T10S-R25W

Bottom Hole Coordinates: Same as above (Vertical well w/min deviation)

Ground Elevation (ft): 2536'

K.B. Elevation (ft): 2543'

Logged Interval (ft): 3450 To: TD

Total Depth (ft): LTD - 4080'

Formation: Topeka through BKC

Type of Drilling Fluid: Chemical

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: H&C Oil Operating
Address: P.O. Box 86
Plainville KS 67663

GEOLOGIST

Name: Steven P. Murphy, PG (KS License #228) & Anthony Luna
Company: Consulting Petroleum Geologist
Address: 3365 CR 390
Otis, KS 67565

LogTops (Datum)

Open-hole logging was performed by Pioneer Log-Tech. The following are formation tops w/associated datums:

Anhydrite Top - 2176 (+367)
Anhydrite Base - 2208 (+335)
Topeka - 3570 (-1027)
Heebner - 3787 (-1244)
Toronto - 3810 (-1267)
Lansing - 3826 (-1283)
Muncie Creek - 3941(-1398)
Stark - 4010 (-1467)
Base KC - 4056 (-1513)

DSTs

Drillstem testing was performed by Trilobite Testing (Hays shop):

DST #1 3848-3870 LKC ("EF")

30:30:30:30

IF: Surface blow, no return

FF: No blow, no return

Recovery: 5' Mud w/show of oil

IHP: 1872

FHP: 1827

IFP: 26-32

ISIP: 949

FFP: 25-31

FSIP: 927

BHT - 116 F

DST #2 3896-4002 LKC ("HIJK")

30:60:30:60

IF: Built to 7in, no return

FF: Built to 5in, no return

Recovery: 210' MW (85%W, 15%M)

IHP: 1921

FHP: 1873

IFP: 44-92

ISIP: 1025

FFP: 79-134

FSIP: 1020




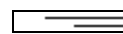


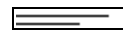
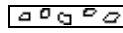





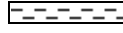

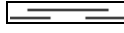

BHT - 122 F

Chlorides 58,000 ppm

COMMENTS

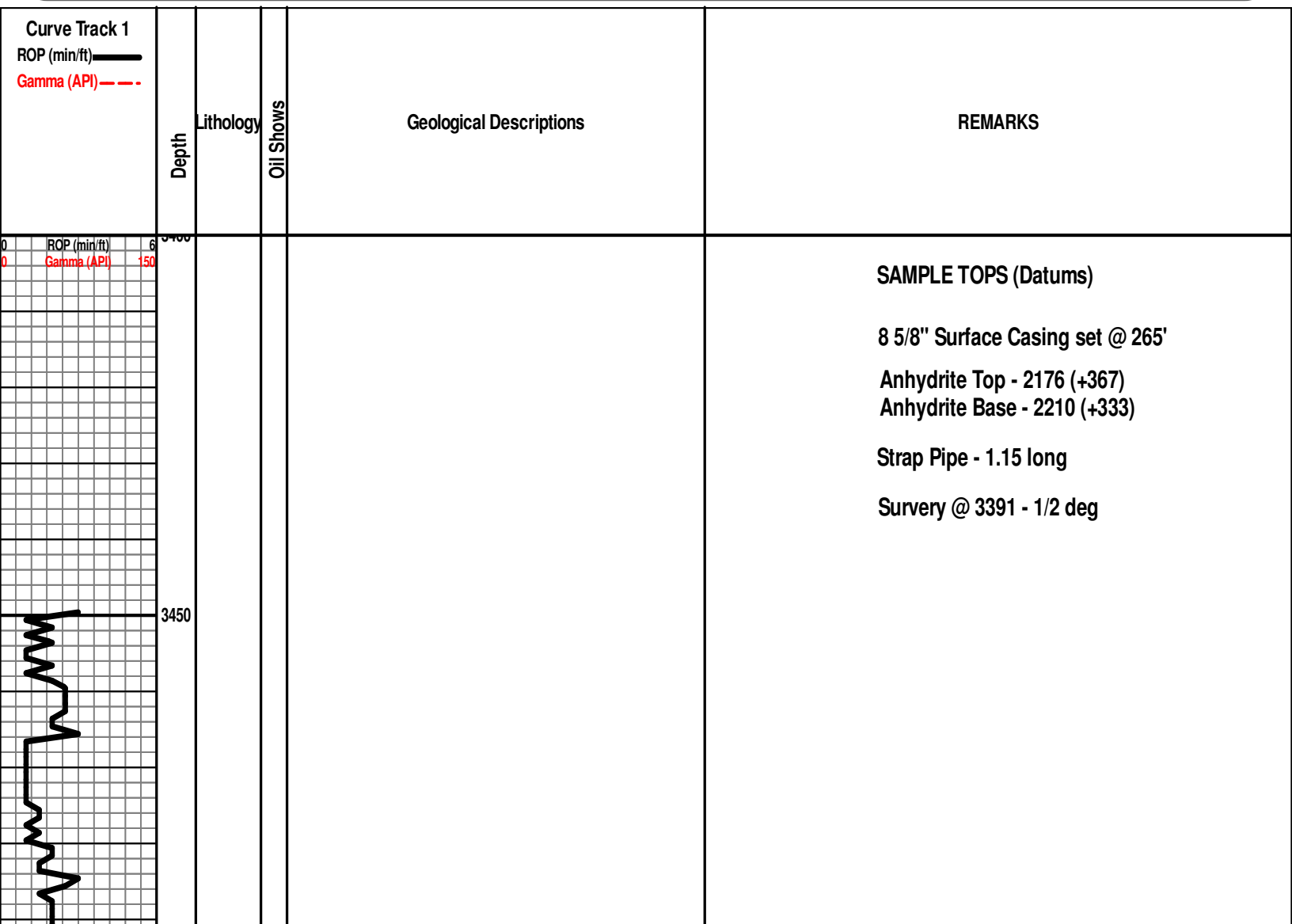
Based on sample & log analysis it was determined that this well is non-commercial and should be plugged & abandoned.

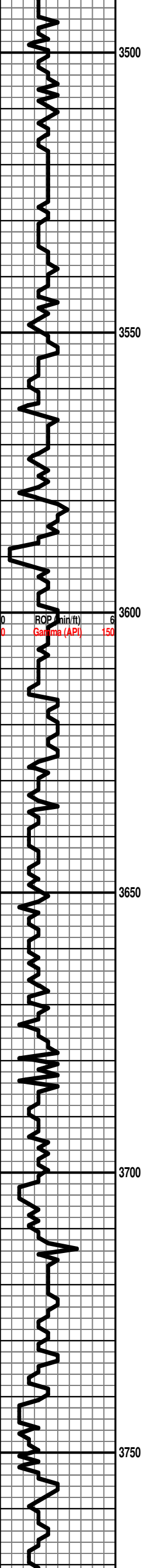
ROCK TYPES

 Anhy	 Coal	 Lmst	 Shcol
 Bent	 Congl	 Meta	 Shgy
 Brec	 Dol	 Mrlst	 Sltst
 Cht	 Gyp	 Salt	 Ss
 Clyst	 Igne	 Shale	 Till

OTHER SYMBOLS

OIL SHOW	 Dead	INTERVAL	EVENT
 Even	 Gas	 Core	 Conn
 Spotted		 Dst	 Rft
 Ques			 Sidewall





3500

3550

3600

3650

3700

3750

Topeka 3542 (-999)

LS: wht-crm-gry, vfxln, sl ool, NS

LS: wht-crm-gry, fxln, sl ool, sl fos, NS

LS: same as above

SH: gry-grn-brn

LS: wht-tan-gry, fxln, sl fos, NS

SH: blk, carb

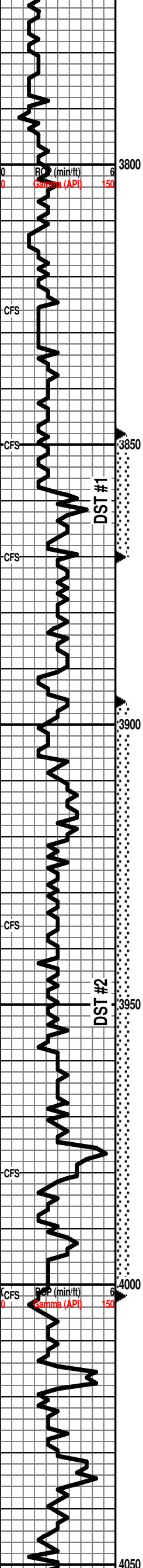
Heebner 3746 (-1203)

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-brn

Toronto 3769 (-1226)

LS: wht-crm-gry, vfxln, sl cherty, sl fos, sl cherty, NS



SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

Lansing 3788 (-1245)

LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS

SH: gry-grn-brn-blk

LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS
 LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-blk

LS: wht-tan-gry, vfxln, sl fos, NS

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-brn-blk

DST #1 3848-3870 LKC ("EF")
 30:30:30:30
 IF: Surface blow, no return
 FF: No blow, no return
 Recovery: 5' Mud w/show of oil
 IHP: 1872 FHP: 1827
 IFP: 26-32 ISIP: 949
 FFP: 25-31 FSIP: 927
 BHT - 116 F

LS: wht-crm-gry, fxl, sl fos, fr intr-ool por, sl vug, vssfo, sl odor

LS: same as above

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

LS: wht-crm-gry, vfxln, sl fos, NS

LS: same as above

SH: blk, carb

Muncie Creek 3907 (-1364)

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, pr-fr por, oolitic, tr fo on brk, wk odor

LS: same as above

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

SH: gry-grn-brn

DST #2 3896-4002 LKC ("HIJK")
 30:60:30:60
 IF: Built to 7in, no return
 FF: Built to 5in, no return
 Recovery: 210' MW (85%W, 15%M)
 IHP: 1921 FHP: 1873
 IFP: 44-92 ISIP: 1025
 FFP: 79-134 FSIP: 1020
 BHT - 122 F
 Chlorides - 58,000 ppm

LS: wht-crm-gry, vfxln, pr intr-ool por, nsfo, dense, spotty stn, no odor

SH: gry-grn-brn-blk

SH: same as above

LS: wht-crm-gry, vfxln, fos, dense, rare stn, nsfo, no odor

SH: blk

Stark 3977 (-1434)

SH: gry-grn-brn

LS: wht-tan-gry, vfxln, sl cherty, sl fos, spotty stn, dense, nsfo, no odor

LS: wht-gry, vfxln, pr ool por, tight, tr fo on brk, no odor

SH: blk

SH: gry-grn-brn

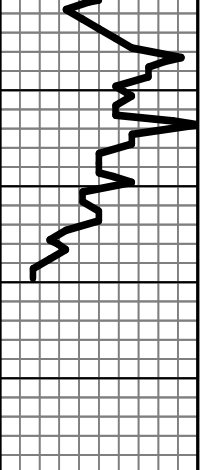
LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS

LS: wht-tan-gry, vfxln, sl cherty, sl ool, sl fos, NS

BKC 4019 (-1476)

SH: gry-grn-brn

SH: same as above



4100

LS: wht-crm-gry, vfxln, sl cherty, sl ool, NS

LS: same as above

SH: gry-grn-brn-blk

SH: gry-grn-brn

RTD - 4080'

LTD - 4080'

Survey @ 4080 - 3/4 deg