

Covey

The Well Watchers

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

Well Name: DOPITA A #16
Location: Section 31 - Township 8 South - Range 17 West
Licence Number: 15-163-24,094-00-00 Region: Rooks County, KS.
Spud Date: 8 December 2012 Drilling Completed: 14 December 2012
Surface Coordinates: 670' FSL & 1,785' FEL, SE/4

Bottom Hole
Coordinates:
Ground Elevation (ft): 1,965' K.B. Elevation (ft): 1,970'
Logged Interval (ft): 2,700' To: 3,480' Total Depth (ft): 3,480'
Formation: Oread -----> Arbuckle
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)

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

OPERATOR

Company: Trek AEC, LLC.
Address: 155 N. Market, Suite 710
Wichita, Kansas 67202
(316) 263-5785
POC:
Alan DeGood

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 217-4679

2012

DAILY DRILLING STATUS - DECEMBER

2012

12-1/4" Hole	7-7/8" Hole	7-7/8" Hole
8 Dec --- Spud @ 3pm. Drill to 262'. Run 8-5/8" casing. Set casing @ 262'. Cemented with 170sx Class A (2%CC + 2% Gel). [Allied] Cement did circulate. Plug down @ 9pm. WOC.	9 Dec --- WOC. Under surface casing @ 9 pm. 7am @ 490'. 10 --- 7am @ 2,165'. 11 --- 7am @ 2,957'. Start and 12 --- 7am @ 3,171'. Finish Core #1: (3,120'-3,180'). Core #2: (3,180'-3,240'). 13 --- Core #3: (3,240'-3,300'). 7am @ 3,253'. Start and	14 Dec --- Finish Core #4: (3,300'-3,360'). 7am @ 3,360'. Resumed Drilling @ 8:34am. RTD (3,480') @ 12:39pm. E-Log [Nabors/ Superior]

FORMATION TOPS

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Anhydrite	1,272' (+698)*	1,276' (+694')
B / Anhydrite	1,312' (+658)*	1,312' (+658')
Topeka	2,860' (-890')	2,867' (-897')
Heebner SH	3,084' (-1,114')	3,084' (-1,114')
Toronto LS	3,110' (-1,140')	3,110' (-1,140')
Lansing	3,126' (-1,156')	3,128' (-1,158')
Stark Shale	3,292' (-1,322')	3,294' (-1,324')
B / KC	3,356' (-1,386')	3,354' (-1,384')
Marmaton	3,372' (-1,402')	3,372' (-1,402')
Arbuckle	3,400' (-1,430')	3,404' (-1,434')

* Drilling Time

RTD: 3,480' LTD: 3,478' ATD: 3,478'

Rotary Depth is 0' - 3' low to Logger's Depth.

Logger's: Nabors (Superior)
Hays, Kansas

HOLE DEVIATION (262' - 3,480')

DEPTH / TVD	--- INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
262' /	---	0.75	(Surface)				
3,120' /	---	1.00	(Core #1)				
3,480' /	---	1.00	(RTD)				

CONTRACTOR

WW Drilling --- Rig #6

P.O. Box 307
Wakeeney, Kansas
Office: (785) 743-6774

Rig #6 - (785) 259-6941 Jason Richardson - (785) 259-4392

Pump: Natinal D-380
6" x 14" @ 60 SPM.
850 PSI @ Standpipe.

Reported 35M on bit @ 85 RPM while
drilling main hole
(uncorrected up to true WOB).

Drill Collars: 6" x 2.50" --- 420'.
Collar Weight: 33,180# (Dry Wt.)
Bouyance Wt: 28,833# @ 8.6ppg
Design Factor: 15%
Available WOP: 24,508#
Drill Pipe: 4-1/2" FH.

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
8 December	12-1/4"	SMITH	MA	0' / 262'	262'	4.00	65.5'
9 December	7-7/8"	SMITH F271Y	14 / 15 / 14	262' / 3,480'	3,218'	47.0	68.5

ROCK TYPES

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Granite wash
- Congl
- Dol lmst
- Silty dol

- Calc dol
- Dol 2
- Dol
- Gyp
- Igne
- Silty lmst
- Lmst 2
- Lmst
- Meta
- Mrlst
- Salt
- Shale 3
- Shale 3
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Ss 2

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

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- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks
- Dol limestone
- Silty dol
- Anhy

- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- SHOW
- Oil
- Spotted
- Ques
- Dead
- Gas
- Oil/gas
- Bed contact

STRINGER

- Dol limestone
- Silty dol
- Anhy

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Spore
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro

- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

- Mica
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STRINGER

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- Anhy
- Arg
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- Dol
- Gyp
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- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk

OTHER SYMBOLS

ACTIVITY

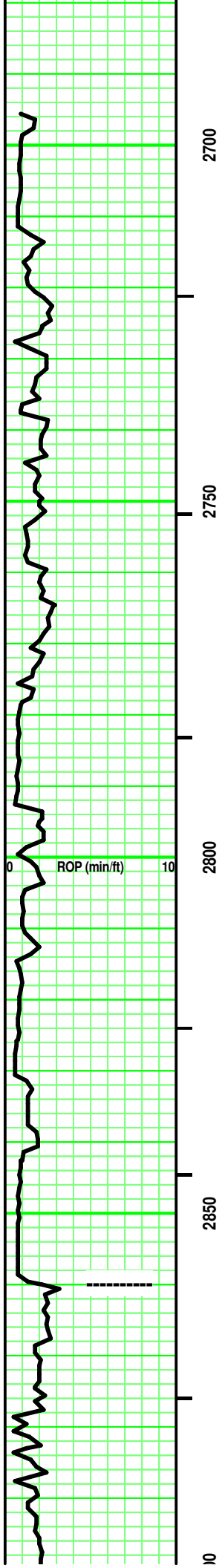
- Lost circulation
- Cfs - 2

- Cfs - 1
- Rtd
- Bit trip

EVENT

- Connection
- Rft

- Sidewall



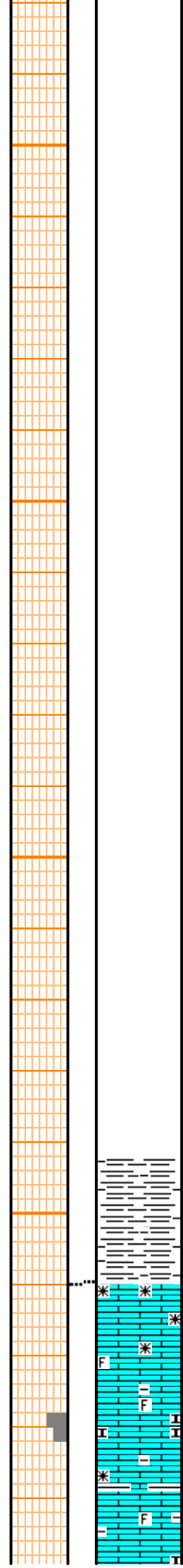
2700

2750

2800

2850

2900



SH - Med/ tr Dark Gray. Sing. Masive. soft. tr silty.

Interbedded and Intermixed LS & SH
 LS - Lt/ Med Tan. Sing/ some Mot. mixture of XF/
 Micro-xln. xln por. No/ some R-xln. No/ tr fossil
 frag. partly Friable. No/ tr vis por.

LS - Lt Tan. Sing. Crypto-xln. xln por. Firm. No/ tr
 vis por.

LS - Tans/ Off White. Sing/ mostly Mot or Mixed.
 XF-/ Micro-xln. xln por. No/ tr Re-xln. No/ some
 Fossil frags. No/ some Chalky in part. tr Partly
 Firm. No/ tr vis por.

DISPLACE MUD @ 2,690'

Weight Indicator Check @ 2,689'

Dry Wt of:
 DC - (See Above) = 33,180#
 DP - 2,229' x 16#/ft = 39,664#
 Total Dry Wt = 68,844#

Buoyancy Wt = #
 [68,884# x .869 (8.6ppg)
 = 59,825#]

Buoyancy Wt + Surface
 Equipment = String Weight
 [59,825# + 12,000# = 71,875#]
 String Weight = 71,875#

Contractor reports running
 35M# on bit by WI but has
 actually 42M# WOB.

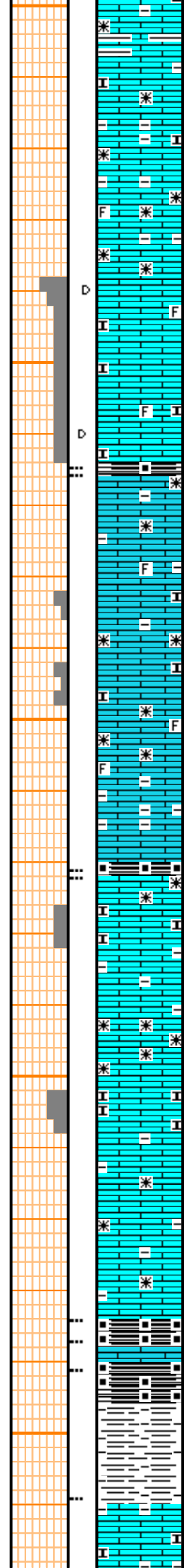
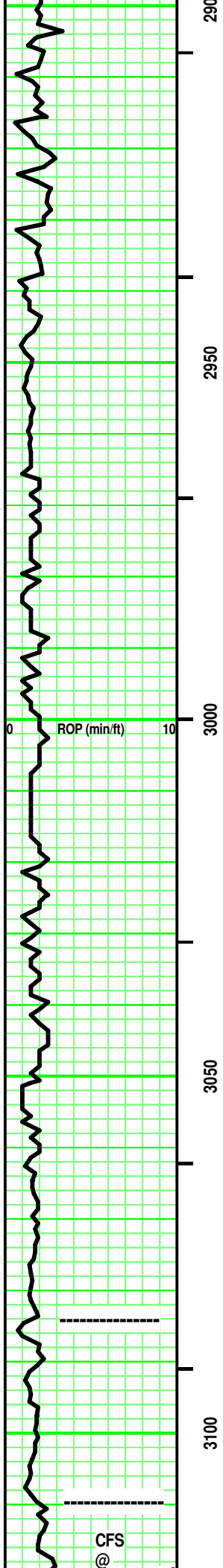
-vs-
 Calculated available
 WOB of 24,508#.

Weight Indicator
 shows 52M;
 therefore,
 weight indicator
 light by 20%.

Vis: 60+
 Wt: 8.9
 LCM: 25#

**TOPEKA
 2,860' (- 890')**

Vis: 61
 W: 8.9
 LCM: 2.5#



SH - Med/ Dark Gray. Sing. Add: Black, Sing, carb with depth.

Add: LS - Lt/ Med Tan. Sing/ some Mot. mixture of XF/ Micro-xln. xln por. No/ some R-xln. No/ rare fossil frag. partly Friable. No/ tr vis por. No odor. Spotted/ some uniform Med Yellow florescence. A/C, no free oil or gas. Spotted, irregular platty and/or veining Lt/ Med Brown stain. No cut/residual. No acid/ residual.

SH - Black. Sing. carb. soft.

LS - Tans/ some Off White. Sing/ to Mot. XF-/ Micro-xln. xln por. No/ some interbedded Med Gray argil/SH. few pcs: Chalky in part. No/ tr fossil frags. partly Firm. No/ tr vis por.

SH - Black. Sing. carb. soft.

LS - Lt/ Med Tan, tr Off White. Sing/ some Mot. mixture of XF/ Micro-xln. xln por. No/ tr R-xln. No/ rare fossil frag. tr Chalky in part interbedded. Argil/ shaly intermixed/ tr interbedded. partly Friable. No/ tr vis por.

SH - Black. Sing. carb. tr fissile.

LS - Pale Lt Tannish Gray. Sing. XF-xln. xln por. tr Re-xln. partly Firm. No/ tr vis por.

SH - Black. Sing. carb at top quickly grades to: SH - Med/ Dark Gray. Sing. tr calc. mostly soft.

LS - Tans. Sing. XF/ Micro-xln. xln por. No/ rare Re-xln. No/ rare chalky. few pcs: argil minute veining in rx chip. partly Firm. No/ tr vis por.

Vis: 50
Wt: 8.9
LCM: 2.5#

2,943' -
Vis: 50 Wt: 8.9
Wtr Loss: 6.4
PV: 19 YP: 15
Gels: 6/18 LCM: 3#
Cl (3,000) Cal (10)
Solids: 4.2%

Vis: 50
Wt: 8.9
LCM: 3

Weight Indicator Check @ 2,969'

Dry Wt of:
DC - (See Above) = 33,180#
DP - 2,509'3x 16#/ft = 40,144#
Total Dry Wt = 73,224#

Buoyancy Wt = 63,389#
[73,324# x .8645 (8.9ppg)
= 63,389#]

Buoyancy Wt + Surface
Equipment = String Weight
63,389# + 12,000# = 75,389#
String Weight = 75,389#

Weight Indicator
shows 60M;
therefore,
weight indicator
light by 20%.

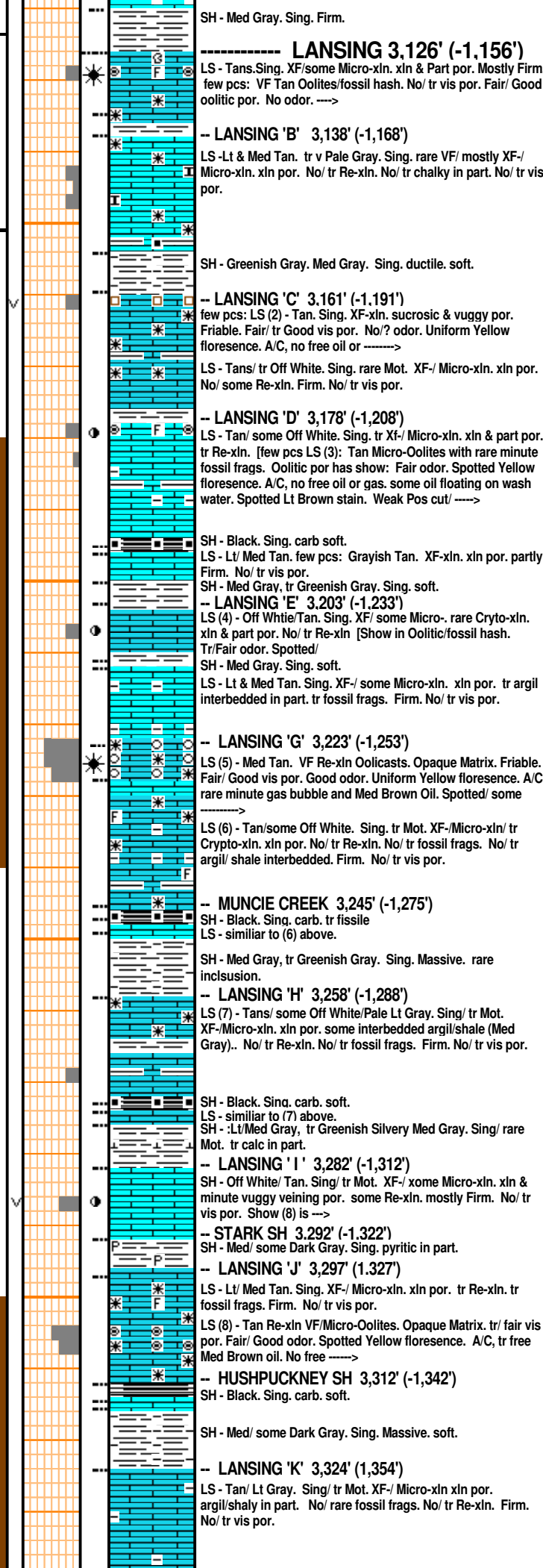
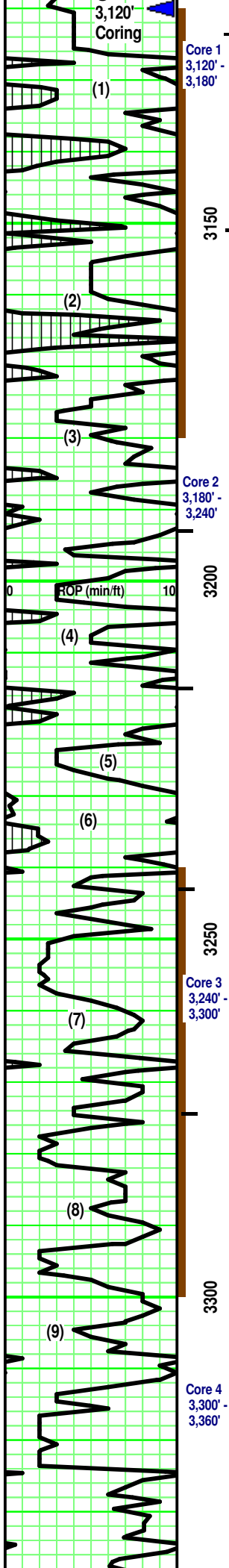
Vis: 49
Wt: 8.9
LCM: 3#

Contractor reports running
32M# on bit by WI but has
actually 38.4M# WOB.

-vs-
Calculated available
WOB of 24,508#.

-- **HEEBNER SH**
3,084' (- 1,114')

-- **TORONTO LS**
3,110' (-1,140')



xxxxx CORE POINT 1 xxxxx
^--- CFS @ 3,120': 40"
^--- S/T to collars.
^--- CHC: 60".
Work Kelly (15"). No shake.
Check sample box for
Volume & Type of fill (15")
Vis: 4
Wt: 9.0
LCM: 2.5#

^--- Check Mud (15")
^--- Hole Dev: deg @ 3,120'

LS (1) - Spotted dull
Yellow florescence. A/C,
no free oil or gas. some
minute gas bubbles
clng in por. Spotted, Lt
Brown stain in Ool por.
Weak cut/ residual.
Weak acid/ residual.

Vis: 48
Wt: 9.0
LCM" 2.5#

Vis: 46
Wt: 9.0
LCM: 2.5%

3,173' -
Vis: 52 Wt: 9.0
Wtr Loss: 6.8
PV: 14 YP: 21
Gels: 10.15
CI (3,000) Ca (tr)
Solids: 4.8%

xxxxx CORE POINT 2 xxxxx
^--- Lay Down Core #1
Full Recovery

LS (3) - residual. Weak Pos acid/ residual.] mostly Firm.
No/ tr vis por.

Vis: 44
Wt: 9.2
LCM: tr

LS (4) - some uniform Med Yellow florescence. No free oil or gas. Spotted/ some uniform Lt Brown stain. Weak Pos/ Pos cut & residual. Weak Pos/ Pos acid & residual.

3,220' Sample: LS - Lt Tan. Sing. Micro-xln. xln, Re-xln vuggy por. Firm. tr/ Fair veining por. Good odor. Spotted Yellow florescence. A/C, no free oil or gas. Oil 'wet' face in Re-xln vuggy por. Spotted Lt Brown Stain. Pos cut/ Residual. Pos acid/ residual.

Vis: 42
Wt: 9.2
LCM: tr

LS (5) - Uniform Med Brown stain. Pos cut/ residual. Pos acid/ residual.

Vis: 47
Wt: 9.2
LCM: 2#

xxxxx CORE POINT 3 xxxxx
^--- Lay Down Core #2
Full Recovery

3,259' -
Vis: 56 Wt: 9.1
Wtr Loss: 7.4
PV: 12 YP: 25
Gels: 11/20
pH: 10.5 LCM: 2#
CI (3,000) Ca (tr)
Solids: 5.6%

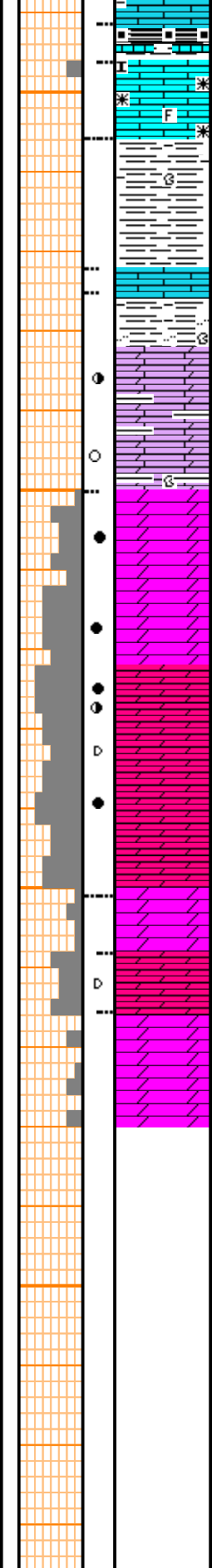
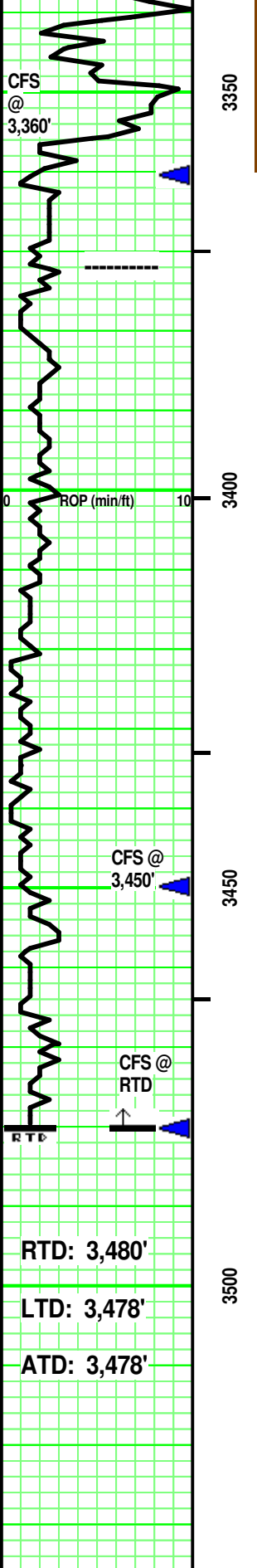
LS (8) - ?/ Fair odor. Spotted Med Yellow florescence. A/C, no free oil or gas (tr minute oil spots on wash water). Spotted Lt/ Med Brown staining in veining por. Weak Pos cut/residual. Weak acid/ residual.

Vis: 50
Wt: 9.1
LCM: 4#

xxxxx CORE POINT 4 xxxxx
^--- Lay Down Core #3
Full Recovery

LS (8) - gas. Spotted Med Brown stain. Pos cut/ residual. Pos acid/residual.

Vis: 46
Wt: 9.3



SH - Black. Sing. carb./ Gray. Sing. limy stringer.
 -- LANSING 'L' 3.346 (-1.376)
 LS - Off White/ Lt Gray. Sing. XF-Micro-xln. xln por. tr chalky at top. No/ tr Re-xln. No/ rare fossil frag. Firm. No/ tr vis por.
 B/KC 3.356' (-1.386')
 SH - Grays, tr Greenish Gray. tr calc streak/ rare misc rubble.
 LS - Pale Lt Gray. Sing. XF-xln. xln por. partly Firm. No/ tr vis por.
 SH / Siltstone - Grays, rare Yellow, purple, Dark Reddish Brown. tr/some misc inclusions & rubble.
 DOL (Calc) - Off White/Lt Gray. Mot. [some varicolored: hues of pink, brown, Pale Yellow, Pale Purple.] Micro-xln calc infill/matrix. Pale Lt Gray subeuhedral xtals 'floating' xtal contact. some argil infill. Misc frags at depth. No/ tr vis por. No/? odor. Spotted dull Yellow florescence. No free oil or gas. some, spotted, minuted Black oil specks.----->
 DOL - mostly Lt/ Med Gray, rare Tan. Sing. Subeuhedral xtals. Firm. Good vis por. Good odor. Spotted/ uniform High Yellow florescence. On own & A/C, free Black Oil. No free gas. Spotted, No/ Lt & tr Med Brown stain. Pos cut/residual. Pos acid/residual.
 Add: Dol - Tans/ some Off White. Sing. mixture of: Sucrosic, no & subeuhedral xtals. Fair/ Good vis por. Good odor. Spotted Hi Yellow florescence on many pcs. On own & after crushing, tr/some free Black oil. No free gas. tr/some Black asphaltic irregular blebs with depth. Pos cut/ residual. Pos acid/residual.
 3,460' Sample: DOL - White. Sub/euhedral xtals. Good vis por. Good odor. Spotted Yellow florescence. On own, some free Black oil. No free gas. some black asphaltic flecks in por. Spotted Lt Brown stain. Pos cut/residual. Pos acid/ residual
 Interbedded DOL
 DOL - Lt Gray, Sing. Micro-Re-xln. Firm. No vis por.
 DOL - Off White/ Tan. Sing. minute to Med subeuhedral xtalx. tr/some M/L euhedral xtals. Friable. Fair/ Good/ Excellent vis por. few pcs: minute black carb flecks. Nothing else.
 DOL - Tan/ Lt Gray. Sing. Micro-Re-xln. tr/some minute subeuhedral xtalx. partly Firm. No/ tr/ rare Fair vis por.

DOPITA A #16
 670' FSL & 1.785' FEL 31 - T8S - R17W
 Rooks County, Kansas

TREK AEC, LLC.
 Wichita, Kansas

sample rocks ---->

- LCM: 2#

T/T @ 3,360' -
 Vis: 49 Wt: 9.2
 Wtr Loss: 7.8
 PV: 10 YP: 21
 Gels: 11/20
 pH: 10.0 LCM: 2#
 Cl (3,000) Ca (tr)
 Solids: 6.3%

xxx END CORE POINT 4 xxx
 ^--- CFS @ 3,360': 40"
 ^--- Lay Down Core #4
 Full Recovery

-- MARMATON
 3.372' (-1,402')
 Vis: 49
 Wt: 9.2
 LCM: 2#

DOL (Calc) - in xtal por. Spotted Med Brown irregular stain. ?/ Weak Pos cut & residual. ?/ Weak Pos acid & residual.

-- ARBUCKLE
 3,400' (-1,430')
 Vis: 49
 Wt: 9.2
 LCM: 2#

<----- CFS @ 3,450':30"
 ^--- Show in samples, resumed drilling 30" into circ time.

3,470' Sample had odor.
 Vis: 54
 Wt: 9.2
 LCM: 3#

xxxxxxxxx RTD xxxxxxxxxxxx
 ^--- CFS @ RTD: 40"
 ^--- S/T: 10 Stands
 ^--- CHC: 60"
 Work Kelly (15') slowly.
 Check Sample Box (15") for
 Volume & Type of Fill.
 ^--- Hole Dev:
 1 deg @ RTD.

Wellsite Geologist:
 Curtis Covey
 COVEY - The Well Watchers
 Well Number: 1,145

RTD: 3,480'
 LTD: 3,478'
 ATD: 3,478'