

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Cobalt Energy, LLC Sack Trust 'A' #1-24

API: 15-051-26724

Location: Section 24-T13S-R19W

License Number:

Region: Ellis Co, KS

Spud Date: August 4, 2014

Drilling Completed: August 13, 2014

Surface Coordinates: 1012' FNL & 335' FWL Section 24-T13S-R19W

Bottom Hole

Coordinates:

Ground Elevation (ft): 2038 K.B. Elevation (ft): 2047

Logged Interval (ft): 2800 To: 3750 Total Depth (ft): 3750

Formation: Arbuckle, RTD 3750 (-1703), LTD 3748 (-1701).

Type of Drilling Fluid: Chemical displace @ 2896

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OPERATOR

Company: Cobalt Energy, LLC

Address: PO Box 8037

Wichita, Kansas 67208

GEOLOGIST

Name: Mikeal K. Maune

Company: Consulting Petroleum Geologist - Kansas Licensed No. 210

Address: Wichita, Kansas

Office: 316-722-8173

COMMENTS

Surface Casing: 8 5/8" set @ 220' w/175 sx common, 3% cc, 2 % gel. Cement circulated. Plug down 11:00 pm 8/4/2014.

Production Casing:

Deviation Surveys: 1 @ 220', 1 @ 3344', 3/4 @ 3540', 1 1/4 @ 3750'.

Pipe Strap @ 3344'. Strap 3344.02 ft. Board 3344.47 ft. Strap Short to Board .45 ft.

Southwind Drilling, Inc. Rig #8

Bit Record:

#1 12 1/4" in @ GL, out @ 220'

#2 7 7/8" Reed S529 in @ 220', out @ 3750'.

Gas Detector: None

Mud System: Mud-CO/Service Mud

DSTs: Trilobite Testing Inc.

OH Logs: Pioneer Energy Services

Note: The Sack Trust 'A' #1-24 OH Log was correlated with the rotary drilling time on this report. The OH Log depths are approximately 2 ft high to the rotary depth measurements from 2800' to 3344' and approximately 1 ft high to the rotary depth measurements from 3344' to 3750' RTD. The Gamma Ray curve on this report has been adjusted downhole to correlate with the rotary drilling depths.

OH Log formation tops: Anhydrite , Base Anhydrite , Topeka, Heebner , Lansing , Stark , BKC , Arbuckle , LTD

DSTs

DST #1 (Toronto) 3300-3344/30-60-60-90. 1st Op: SB BOB/6 min. 2nd Op: SB BOB/8 min. Recover: 1190' Total Fluid. 190' MW (75% Wtr, 25% Mud), 1000' Wtr. Recovery Chl 63,000, System Chl 6,600. IH 1578#, IFP 70-270#, ISIP 927# building, FFP 284-527#, FSIP 877# building, FH 1542#, BHT 114 F.

DST #2 (LKC C & D) 3362-3410/30-60-60-90. 1st Op: WB to SB, BOB/30 min. 2nd Op: WB to SB BOB/28 min. Recover: 390' GIP, 172' Total Fluid, 25' CO (Gravity 35), 85' MGO (10% Gas, 55% Oil, 35% Mud), 62' OCMW (10% Oil, 65% Wtr, 25% Mud), Recovery Chl 74,000, System Chl 10,100. IH 1615#, IFP 39-48#, ISIP 840# building, FFP 63-93#, FSIP 787# building, FH 1563#, BHT 112 F.

DST #3 (LKC E & F) 3408-3440/30-60-60-90. 1st Op: WB, 1/4" build to 2 inch. 2nd Op: WB, surface build to 1 inch. Recover: 75' Total Fluid. 5' CO, 70' MW w/SO (80% Wtr, 20% Mud), Recovery Chl 53,000, System Chl 10,100. IH 1610#, IFP 37-34#, ISIP 659# building, FFP 47-59#, FSIP 643# building, FH 1600#, BHT 111 F.

DST #4 (LKC G) 3436-3460/30-60-60-90. 1st Op: BOB/5 min. 7 inch Return. 2nd Op: BOB/6 min. 8 inch Return. Recover: 1005' GIP. 255' Total Fluid, 66' GCO (50% Gas, 50% Oil), Gravity 35 degrees. 63' SWGMCO (10% Gas, 50% Oil, 10% Wtr, 30% Mud), 126' SOGWCM (10% Gas, 10% Oil, 30% Wtr, 50% Mud). Recovery Chl 19,000, System Chl 9,500. IH 1674#, IFP 27-61#, ISIP 720# building, FFP 62-120#, FSIP 712# building, FH 1620#, BHT 113 F.

DST #5 (LKC H, I & J) 3470-3540/30-60-60-90. 1st Op: BOB/4 min. 7 inch Return. 2nd Op: BOB/9 min. BOB Return in 18 min. Recover: 693' GIP. 524' Total Fluid, 113' GCO (20% Gas, 80% Oil), Gravity 31 degrees. 96' MGO (30% Gas, 50% Oil, 20% Mud), 315' SWGMCO (20% Gas, 50% Oil, 10% Wtr, 20% Mud). IH 1739#, IFP 57-137#, ISIP 994# building, FFP 151-226#, FSIP 981# building, FH 1656#, BHT 114 F.

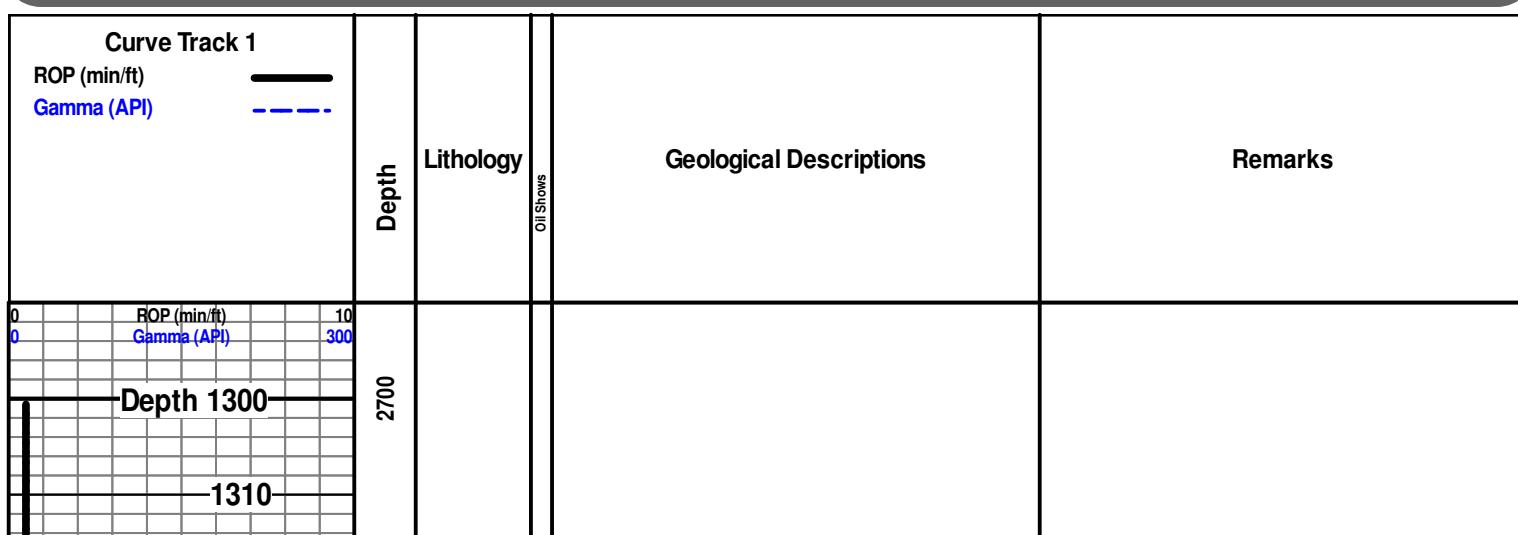
DST #6 (Arbuckle) 3592-3703/30-60-30-30. 1st Op: Build to 1 3/8 inches. 2nd Op: No Blow. Recover: 20' Mud with oil spks. IH 1929#, IFP 39-74#, ISIP 900# building, FFP 25-129#, FSIP 627# building, FH 1759#, BHT 110 F.

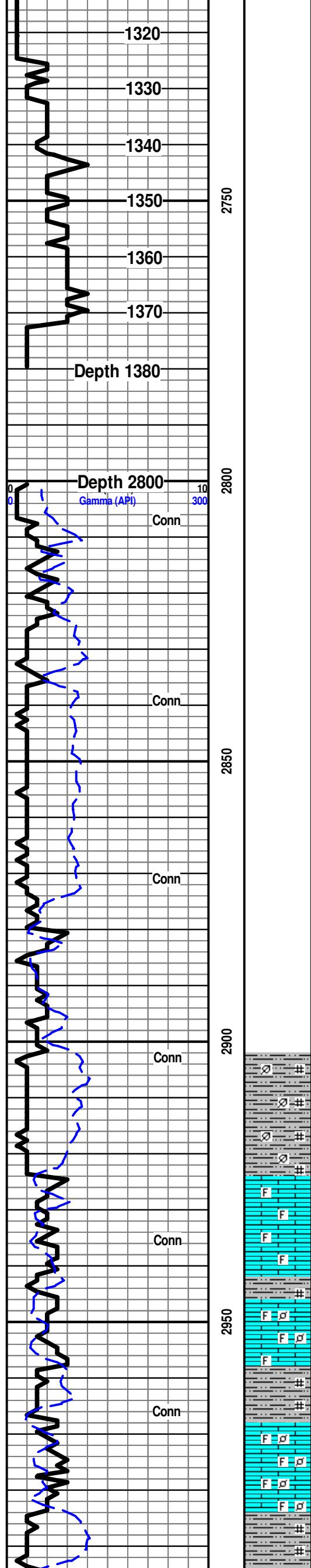
ROCK TYPES

	Anhy		Congl		Lmst		Black sh
	Bent		Sdy dolo		Mrlst		Gry sh
	Brec		Shy dolo		Salt		Shale
	Cht		Dol		Shale		Shysltst
	Clyst		Gyp		Sltst		Slysh
	Coal		Sdy lmst		Ss		

ACCESSORIES

MINERAL	FOSSIL	STRINGER	TEXTURE





Anhydrite 1325 (+722)

Base Anhydrite 1372 (+675)

2881 Start Displacement

2896 Finish Displacement

Start 10' Wet & Dry Samples @ 2910'

Sh & Shy Sltstrn, gry, dk gry, mica, blk carb spks, micro pyr, soft. Trace Shy Sst. gry, vfn qtz gr, mica, blk cab spks, pyr, arg, soft.

Ls, tan, gry, mdstn, wkestn, foss, hard. Ls, tan, brn, gry, mdstn, wkestn, foss, dns. Ls, crm, tan, wkestn, foss, soft, hard.

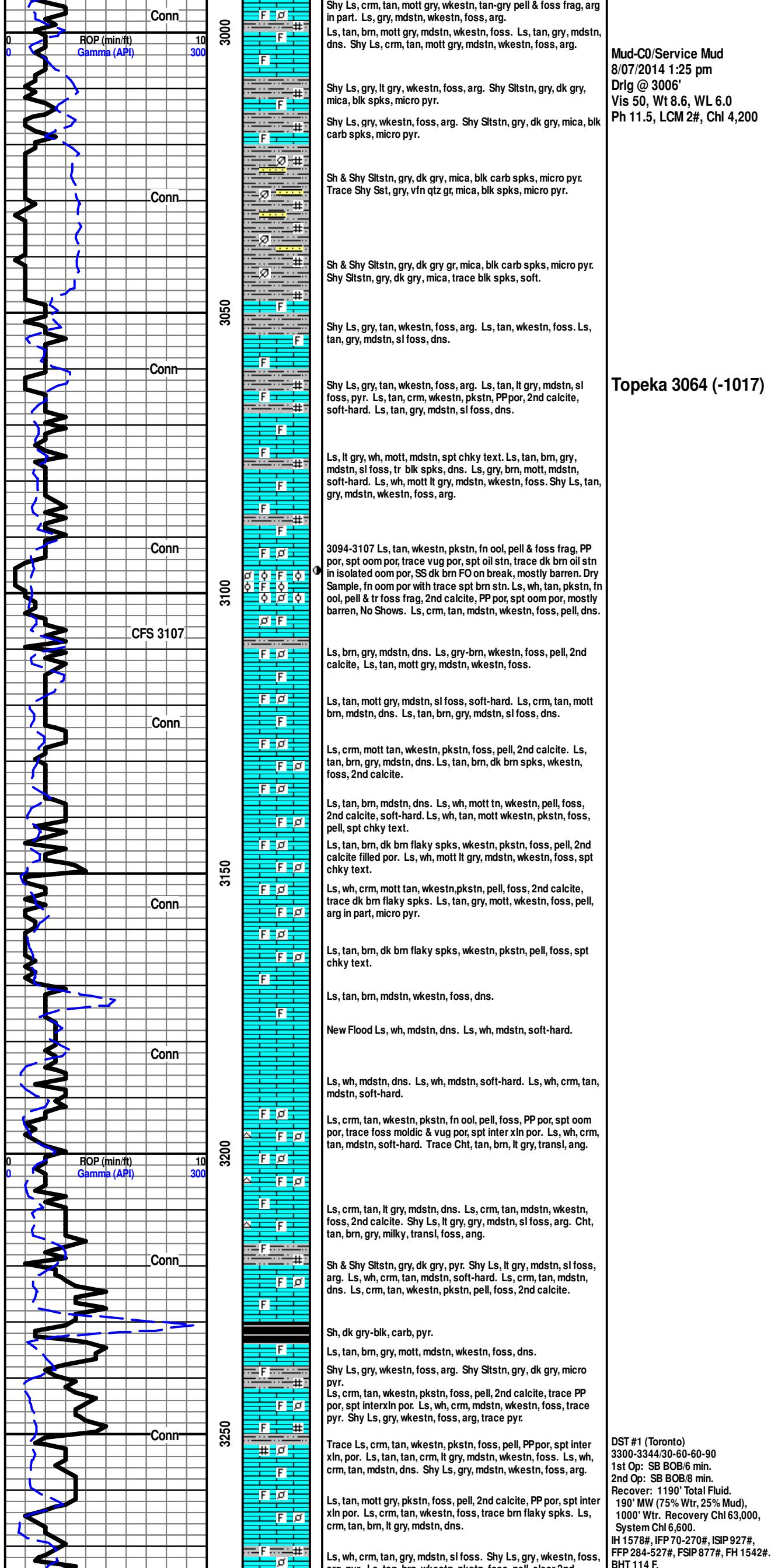
Ls, tan, mdstn, wkestn, foss, dns.

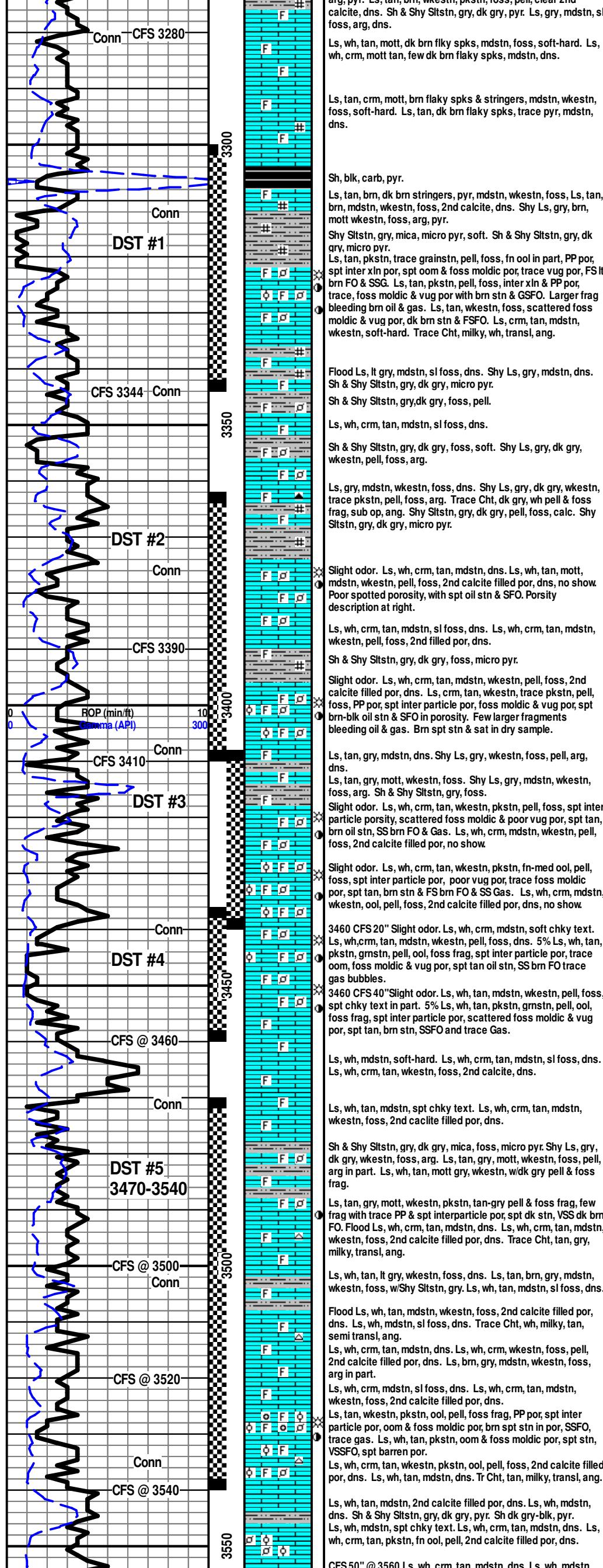
wkestn, foss, arg. Ls, crm, tan, mdstn, wkestn, foss, soft.

Sh & Shy Slstn, gry, mica, blk carb plant frag, micro pyr. Shy

Ls, wh, crm, tan, mdstn, sl foss, dns. Ls, wh, crm, tan, wkestn, foss, pell, soft-hard. Ls, wh, mott qry, wkestn, pkstn, foss, pell.

Flood Ls, gry, mdstn, wkestn, foss, arg. Ls, wh mott lt gry
wkestn, foss. Ls, gry, mdstn, sl foss, dk gry spks, dns.





DST #2 (LKC C D)
3362-3410/30-60-60-90
1st Op: WB to SB, BOB/30 min.
2nd Op: WB to SB BOB/28 min.
Recover: 390' GIP, 172' Total Fluid.
25' CO (Gravity 35), 85' MGO
(10% Gas, 55% Oil, 35% Mud),
62' OCW (10% Oil, 65% Wtr, 25% Mud),
Recovery Chl 74,000, System Chl 10,100.
IH 1615#, IFP 39-48#, ISIP 840# building,
FFP 63-93#, FSIP 787# building, FH 1563#. BHT 112 F.

Heebner 3305 (-1258)

Toronto 3322 (-1275)

Mud-CO/Service Mud
8/08/2014 8:45 am
CFS @ 3344
Vis 51, Wt 9.1, WL 8.8
Ph 10.5, LCM Trace, Chl 6,600

Lansing 3348 (-1301)

DST #3 (LKC E & F)
3408-3440/30-60-60-90
1st Op: WB, 1/4" build to 2 inch.
2nd Op: WB, surface build to 1 inch.
Recover: 75' Total Fluid. 5' CO,
70' MW w/SO (80% Wtr, 20% Mud),
Recovery Chl 53,000, System Chl 10,100.
IH 1610#, IFP 37-34#, ISIP 659# building,
FFP 47-59#, FSIP 643# building, FH 1600#. BHT 111 F.

'C' 3374 (-1326)

3376-3381 Ls, wh, tan, mott, wkestn, pkstn, pell, foss, PP por, poor spt inter particle por, spt vug & foss moldic por, dk brn to blk FO in porosity. SSG. Brn spt stn in dry sample.

'D' 3396 (-1349)

'E' 3421 (-1374)

Mud-CO/Service Mud
8/10/2014 9:45 am
DST #3 @ 3440
Vis 48, Wt 9.1, WL 10.8
Ph 10.5, LCM Trace, Chl 9,500

CFS 3460 60" Slight odor. 10% Ls, wh, tan, wkestn, pkstn, trace grnstn, spt interparticle por, scattered foss moldic & vug porosity, trace oom por, spt tan stn, SFO & SSG. Ls, wh, tan, mdstn, wkestn, pell, foss, 2nd calcite filled por, dns.

DST #4 (LKC G)
3436-3460/30-60-60-90
1st Op: BOB/5 min. 7 inch Return.
2nd Op: BOB/6 min. 8 inch Return.
Recover: 1005 GIP, 255' Total Fluid,
66' GCO (50% Gas, 50% Oil), Gravity 35 degrees.
63' SWGCMO
(10% Gas, 50% Oil, 10% Wtr, 30% Mud),
126' SOGCMO
(10% Gas, 10% Oil, 30% Wtr, 50% Mud).
Recovery Chl 19,000, System Chl 9,500.
IH 1674#, IFP 27-61#, ISIP 720# building,
FFP 62-120#, FSIP 712# building, FH 1620#. BHT 113 F.

'H' 3487 (-1440)

Mud-CO/Service Mud
8/11/2014 9:45 am
Drlg @ 3503
Vis 49, Wt 8.9, WL 13.6
Ph 10.0, LCM Trace, Chl 9,700

'I' 3509 (-1462)

'J' 3527 (-1480)

Mud-CO/Service Mud
8/12/2014 6:20 am
CTCH after DST #5 @ 3540
Vis 55, Wt 9.0, WL 10.0
Ph 10.5, LCM 1#, Chl 8,900

K 3547 (-1500)

DST #5 (LKC H, I, J)

