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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Cobalt Energy, LLC
LEASE #1-11 Joy Estate
FIELD _____
LOCATION 990' FSL, 335' FEL, SE/4
SEC 11 TWSP 12s RGE 19w
COUNTY Ellis STATE Kansas

ELEVATIONS

KB 2142'
DF _____
GL 2132'

Measurements Are All From Kelly Bushing

CONTRACTOR Southwind Drilling Rig #1
SPUD 1-27-2012 COMP 2-5-2012
RTD 3820' LTD 3818'
MUD UP 3000' TYPE MUD Chemical

CASING

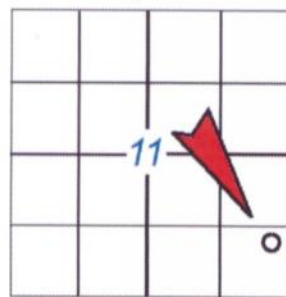
CONDUCTOR _____
SURFACE 8-5/8" @ 244'
PRODUCTION none

SAMPLES SAVED FROM 2900' TO RTD
DRILLING TIME KEPT FROM 2900' TO RTD
SAMPLES EXAMINED FROM 3100' TO RTD
GEOLOGICAL SUPERVISION FROM 3120' to RTD
GEOLOGIST ON WELL Tim J. Lauer

ELECTRICAL SURVEYS

Pioneer-LogTech: RAG
(Engr: Daylon Kerr)

FORMATION TOPS	ELECTRIC LOG	SAMPLE LOG
<u>Anhydrite</u>	<u>1484 (+658)</u>	<u>1491 (+651)</u>
<u>Topeka</u>	<u>3173 (-1031)</u>	<u>3173 (-1031)</u>
<u>Queen Hill</u>	<u>3336 (-1194)</u>	<u>3337 (-1195)</u>
<u>Heebner</u>	<u>3407 (-1265)</u>	<u>3408 (-1266)</u>
<u>Toronto</u>	<u>3424 (-1282)</u>	<u>3425 (-1283)</u>
<u>Lansing</u>	<u>3449 (-1307)</u>	<u>3450 (-1308)</u>
<u>Base Ks. City</u>	<u>3683 (-1541)</u>	<u>3684 (-1542)</u>
<u>Conglomerate</u>	<u>3748 (-1606)</u>	<u>3748 (-1606)</u>
<u>Ero. Arbuckle</u>	<u>3794 (-1652)</u>	<u>3796 (-1674)</u>
<u>Total Depth</u>	<u>3818 (-1676)</u>	<u>3820 (-1678)</u>



API: 15-051-26258

COMPANY & WELL Cobalt Energy, LLC #1-11 Joy Est.
LOCATION 990' FSL, 335' FEL, SE/4
SEC 11 TWSP 12s RGE 19w
COUNTY Ellis STATE Kansas



REMARKS

Due to drill stem test results, and log evaluation, operator elected to plug and abandon the location.

Respectfully submitted,

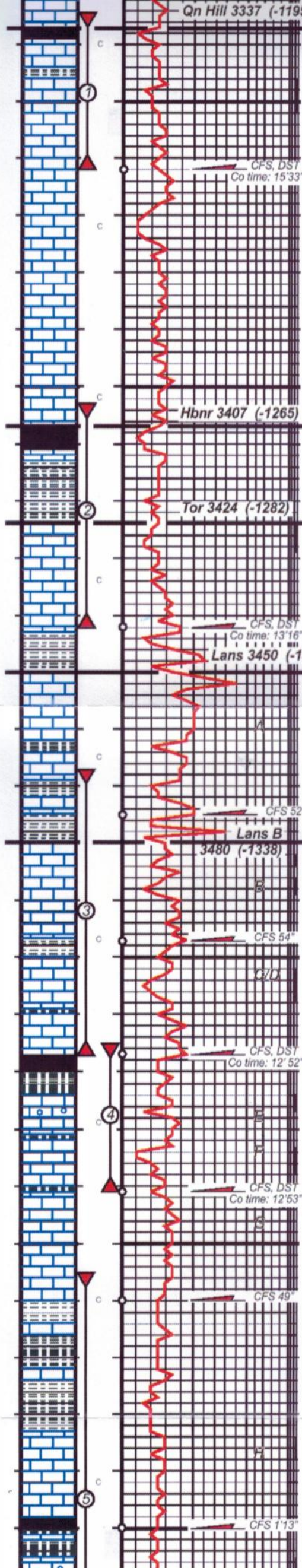
Tim J. Lauer
Tim J. Lauer
2/5/2012

LEGEND

Anhydrite	Sandstone	Limestone	Shale	Carb Sh	Cherty LS	Chert	Dolomite

LITHOLOGY	DRILL STEM TESTS	DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases	DEPTH	SAMPLE DESCRIPTION	REMARKS
			<u>3100'</u>	<u>Ls; crm-gry, some gry-brn, mott IP, micro-fnxln, foss, 1/10 mly txt, dns., sca fr IXLN por., NS, no flor., n. str, n. odor</u>	<u>SPUD 5:00 PM 1-27-2012</u> <u>RTD 5:35 PM 2-4-2012</u>

LITHOLOGY	MINUTES PER FOOT Rate of Penetration Decreases →	DEPTH SHOWS	SAMPLE DESCRIPTION	REMARKS
		3100	Ls; crm-gry, some gry-brn, mott IP, micro-fnxln, foss, 1/10 mly txt, dns., sca fr IXLN por., NS, no flor., n. stn, n. odor	SPUD 5:00 PM 1-27-2012 RTD 5:35 PM 2-4-2012
		3140	Sh; med-drk.gry, mica IP, silty, gritty txt.	"BIT RECORD" 1.) Reed S52 (New) Under Surface to 3820' RTD
		3160	Sh; med-drk.gry, AA, occ gm-gry.	"VERTICAL SURVEYS" 1/2" @ 246' 1" @ 3362' 1 1/2" @ 3820'
		50	Ls; dk.gry-brn., mott, most. micro-mdxln, foss,(fusilin) scat gran-rgh txt, dns., pr. vis por., NS, some crm-tan, micro-fnxln, scat fr IXLN por, NS, no flor., n. stn, n. odor	1-27-2012 - MIRT, RURT Prep to set Surf Csg. 1-28-2012 - 7:00 AM Drlg @ 259' set 8-5/8" @ 289'
		50	Sh; med-drk.gry, AA.	1-29-2012 - 7:00 AM Drlg @ 2040'
		50	Topk 3173 (-1031)	1-30-2012 - 7:00 AM Drlg @ 2880'
		3190	Ls; mostly bf-gry, some mott drk.gry, micro-fnxln, dns., pr vis por, NS, scat pcs. fnxln, w/mly txt, pr IXLN por, NS, no flor., n. stn, n. odor	1-31-2012 - 7:00 AM PTD @ 3362' Running DST (1)
		3210	Ls; md-dk.gry, crypto-vfnxln, most dns, sharp IP, pr. por., NS, occ brn, fn-mdxln, s. foss, dns, NS, n. flor, n. stn., no odor.	2-1-2012 - 7:00 AM Drlg @ 3445'
		3220	Ls; most crm-lt.gry., vfn-fnxln. softer. 1/3 mealy txt. scat fr occ gd IXLN por, NS, n. flor, n. stn, no od.	2-2-2012 - 7:00 AM PTD @ 3541' COOH to start DST (4)
		3230	Ls; crm-gry- tan, micro-fnxln, becom dns, most pr. por., NS, occ brn, fn-mdxln, s. foss, dns, NS, n. flor, n. stn., no odor.	2-3-2012 - 7:00 AM PTD @ 3635' Running DST (5)
		3240	Sh; med-drk.gry, blk., gritty.	2-4-2012 - 7:00 AM PTD @ 3687' COOH with DST (6)
		3250	Ls; incr bf-gry, scat dk.gry, mott IP, micro-vfnxln, crinkl'd-mly txt, scat fr IXLN por., NS, n. flor, n. stn., n. odor.	2-5-2012 - 7:00 AM RTD @ 3820'
		3260	Ls; incr bf-tan, s.mott brn, becom fn-mdxln, mly-rgh txt., scat pcs softer, occ fr IXLN por, NS, n. flor, n. stn, n. od.	Ran Pioneer OH RAG Log Plug and Abd. Location
		3270	Ls; crm-bf-gry, some mott drk gry., vfn-fnxln, 1/4 mly text, s. foss., pr-occ fr IXLN por, NS, n. stn, n. odor.	Geologist on location 3120'
		3280	Ls; inc. gry-dk.gry, mott., vfn-mdxln., most dns, NS, scat mealy txt, pr IXLN por., NS, n. flor, n. stn., n. odor..	
		3290	Ls; crm-tan-lt.gry, fn-mdgrdxln, softer, 1/3 mly-gran txt, fr-gd IXLN & IG por., NSFO, NSG, n. flor, n. live stn, scat gilson flakes, (n. cut), n. detect odor.	
		3290	Ls; AA, soft, mly-gran txt, 1/2 fr-gd IXLN & IG por., NSFO, NSG, n. flor, scat gilson stn, n. cut, n. odor	Mud Check at 3362: (After displace and initial mud-up) vis: 54 wt: 8.8 Chlor: 3,700 LCM: 2# Ph: 11.0 WL: 6.8 (finish displacement @ 3020')
		3300	Sh; md-dk.gry vcol gm blk carb Sh; med-drk.gry, sli. vcol, gritty, some dk gry ls; mott, vfn-fnxln, dns, pr por. NS.	20 Stand Short Trip at 3362' pulled tight first 7 stands off bottom
		3310	Ls; gry-drk.gry-tan, micro-vfnxln, most dns., foss (fusilin) scat fnxln, w/mealy text, softer, s. chalky IP, pr-fr IXLN por, NSFO, NSG, n. flor, n. stn, n. cut, n. det od.	Pipe Strap on DST (1) Board: 3371.85' Strap: 3371.44' Diff: 0.41' short
		3300	Ls; crm-wht-bf, micro-vfnxln, most dns, comp. scat fnxln, scat mealy text, OA pr vis por, NS, n. flor, n. stn, n. odor.	
		3320	Ls; AA, most dns, scat chalk, wht, soft, fr IXLN por, NS, scat Ch; crm-wht, sharp, fresh, pr por, NS, n. oil flor, scat dull minrl flor, n. cut, n. stn., n. odor.	
		3330	Ls; crm-gry, mott gry-brn, micro-mdxln, dns, pr. por., NS, n. odor.	
		3340	Sh; med-drk.gry, scat blk, vcol gm-gry.	DST (1) 3334'-3362' 30-60-60-90 Blow: weak, built to 3/4" decr to 1/4" no blowback on ISIP. weak-fair, built to 6" on FFP, weak surface blowback for 1" on FSIP
		3350	Ls; crm-gry; mott drk gry, micro-fnxln, crinkl'd-scat mealy txt, s. foss, dns, pr. por, NS, n. flor., n. stn, n. odor.	65' MW (0% gas, 0% oil, 10% mud, 90% wtr) 120' MW (0% gas, 0% oil, 30% mud, 70% wtr) 185' Tot. Fluid
		50	Sh; med-drk.gry, blk, carb, vcol gm-gry. Ls; gry-drk gry, most. micro-fnxln, dns, scat mealy txt., pr-IXLN por, NS, n. flor., n. stn, n. odor.	IHP: 1599 FFP: 51-107 IEP: 50.112 ESIP: 1068
		50	Qn Hill 3337 (-1195)	
		3360	(3346-52) Ls; crm-gry-drk gry, mott brn-blk (stn), sli.foss., micro-occ mdxln, most dns, 1/10 pr-occ fr IXLN por, pr-fr vug & ppt por, 5%S-FSFO(drk, filmy) NSG, wk patchy flor., patchy-sat drk brn-blk stn, fr-gd stream'g-flash cut, ft? od.	



Qn Hill 3337 (-1195)

3350 Sh; med-drk.gry. blk, carb, vcol gm-gry.
Ls; gry-drk gry, most. micro-fnxln, dns, scat mealy txt., pr-IXLN por, NS, n. flor., n. strn, n. odor.

50 (3346-52) Ls; crm-gry-drk gry, mott brn-blk (strn), sli.foss., micro-occ mxln, most dns, 1/10 pr-occ fr IXLN por, pr-fr vug & ppt por, 5% S-FSFO (drk, filmy) NSG, wk patchy flor., patchy-sat drk brn-blk strn, fr-gd stream'g-flash cut, fr? od. (3352-68) Ls; most crm-lt.gry, some gry-brn, mott, micro-fnxln, most dns, scat mealy text w/pr IXLN por, sharp decr vug and ppt por, NSFO, NSG, n. flor, n. strn, n. detect odor. some white chalk, fr IXLN por, NS.
Ls; bf, some tan, micro-fngrdxln, soft, 1/2 mealy-gran text, pr-fr IXLN por, NSFO, NSG, n. flor, n. strn, some wht chalk, soft, fr IXLN por, NS, few pcs AA w/foss moldic and vug por, SFO (slough), intrvl exhibits no odor.

3400 Ls; 2/3 crm-bf, micro-fnxln, spkld brn (gilson strn) pr-occ fr IXLN por, soft IP, NSFO, NSG, n. flor, n. live strn, n. cut, 1/3 lt-md.gry, microxln, dns, comp, crinkl'd-occ mealy text, pr por, NS, occ chalk, wht, soft, NS, intrvl exhibits no odor.

3410 Ls; crm-bf, some gry, AA, decr mealy txt, scat pr IXLN por., NS, n. flor, n. live strn, scat gilson?, n. cut, n. odor.

Hbnr 3407 (-1265)

3420 Sh; med-drk. gry, blk, carb. NSGB.
Ls; drk.gry, micro-fnxln, dns pr por, NS, n. vis strn, n. odor.

3430 Sh; med-drk. AA.

Tor 3424 (-1282)

3440 (3424-29) Ls; crm-buff, some gry, scat brn/blk (strn) micro-fnxln, most dns, comp. NS, 10% mealy txt w/fr-gd IXLN por., fr-occ gd vug & ppt. por, 5% S-FSFO, SSGB, 5% wk yell flor, patchy-most satur strn., fr-gd flash cut w/o brk, fair-wk od. (3429-43) Ls; crm-wht, becom crypto-microxln, dns, decr. por. sharp. NS, trc pcs (slough?) w/por, SSFO, NSG, wk flor, brn strn, n. det odor. scat Cht, wht, spic, transluc-opaq, fresh, n. vis por, NS.
Sh; med-drk.gry, vcol gm-gry, yell-red, trc purple, blk, carb IP, pyritic IP

3450 (3450-62) Ls; crm-gry, some buff, mostly micro-fnxln, dns., occ fn-mdxln, mly-gran txt., pr-occ fr IXLN por, NSFO, NSG, n. flor, n. vis strn., n. detect odor.

3470 Sh; med-drk. gry, vcol. gm, red-brn.
(3464-69) Ls; most crm, some lt-md.gr, micro-fnxln, crinkl'd-occ mealy txt, most dns, pr vis por, NS, n. flor, strn, or odor.

3475 Sh; med-drk. gry, vcol. gm, rd.
(3472-78) Ls; most lt-md.gry, mott drk gry, foss IP, micro-fngrdxln, most dns, 1/4 mealy-occ gran txt, pr IXLN por, NSFO, n. flor, trc gilson strn (n. cut) n. live strn, n. det. odor.

Lans 3450 (-1308)

3480 (3480-89) Ls; crm-bf, sm md-dk.gry, scat brn (strn), most micro-fnxln, dns, pr por, NS, 1/5 micro-crsgrdxln, s.foss. (ool, mly-gran txt, most pr-fr IXLN por, 5% fr-gd IXLN, vug, foss moldic & ppt por, same 5% VS-SSFO, trc SGB, scat dull yell flor, 5% patchy-occ.sat lt brn, occ brn/blk strn, wk cut w/o brk, same when crush'd, fr sharp odor when broken.
(3489-97) Ls; crm-gry, decr drk gry, micro-mdxln, sli. foss, crinkled-mealy txt., most dns, scat pr IXLN por, NSFO, NSG, n. flor., n. strn., n. detect. od.

3500 (3500-07) Ls; crm-bf, some gry, micro-mdxln, foss, pelloids most dns, 1/10 mealy-gran txt, pr-fr IXLN & IG por, pr-fr vug por, some barren por, scat pcs SSpptFO, NSG, scat dull flor, 3% spk'd- patchy drk brn strn, wk milky cut, (lt brn oil in dish) same when crush'd, wk-fr. od in 3517 spl.
(3507-17) Ls; crm-wht, some buff, micro-fnxln, most comp, dns, decr foss, decr por, sharp IP, OA pr vis por, NS, n. flor, strn, or odor, shaley IP, scat blk carb shale, vcol gm & red. (3517-24) Sh; drk.gry, blk, carb, scat vcol red, gm.
(3524-31) Ls; crm-bf, patchy brn(strn) most micro-fnxln,dns, NS scat md-crsgrdxln, s.foss (oolitic) mly-gran txt, scat fr-gd IXLN & ppt. por, scat SSFO(dk.brn), NSG, patchy md flor., gd patchy-occ sat.strn, fr ribbon cut, fr-gd cut crush'd, wk od. (3532-38) Ls; crm-wht, scat dk.brn (strn) most micro-fnxln, dns, scat fr-crsgrdxln, gran-rgh text, scat fr-gd IXLN & IG por, fr-gd vug por, 5% S-FSdrkFO, trc SGB, 5% md-brt flor, patchy-satur dk brn strn, fr-gd stream'g cut w/o brk, same crush'd, wk od. (3538-40) Ls; crm-bf, AA, most micro-fnxln, decr gran txt, decr por, NSFO, n. flor, strn, or odor.

3550 (3540-46) Ls; crm-lt.gry, sm. buff, micro-vfnxln, scat pcs mly txt, most comp, dns, pr vis por, NS, n. odor.
(3546-52) Ls; crm-lt.gry, sm. tan, micro-fnxln, scat mly txt, pr vis por, NSFO, NSG, n. flor, n. live strn, scat blk spk'd gilson strn, (n. cut) n. det. odor.
(3552-60) Ls; crm-lt.gry, AA, micro-fnxln, scat mly txt, pr por, NS, n. flor, n. strn, scat cht, gry-tan, transluc, spic, fresh, NS
(3560-74) Sh; med-drk., abund blk, carb, strong, vcol red, gm, platy-fiss, some Ls. drk gry-blk, vfn-mdxln, 1/5 mealy-rgh txt, dns, dirty IP, pr por, NS, n. flor, n. strn., n. odor.

3590 Sh; med-drk., vcol blk, carb, red, gm.

3600 (3583-90) Ls; most crm-bf, trc brn-blk (strn) micro-fnxln, dns, sli. foss, pr por, NS, scat vfn-mdgrdxln, gran txt, pr-fr IXLN & IG por, trc (1-2 pcs per tray) SSFO (crush'd), NSG, trc. flor, trc pcs brn-blk strn, wk-fr cut when crush'd, some Ls; crm-md.gry, vfn-fnxln, foss, dns, pr por, NS, intrvl has n. det odor (3590-3600) Ls; bf-crm-gry, micro-occ fnxln, scat mealy txt, dns, pr por, NS, scat cht,tan, fresh, n. por, NS, sm blk sh.

3600 Sh; med-drk. gry, vcol AA., scat Ls; drk gry, fnxln, NS
(3605-10) Ls; crm-bf, some lt.gry, occ brn (strn), micro-fnxln.

weak-fair, built to 6" on FFP, weak surface blowback for 1" on FSIP

65' MW
(0% gas, 0% oil, 10% mud, 90% wtr)

120' MW
(0% gas, 0% oil, 30% mud, 70% wtr)

185' Tot. Fluid

IHP: 1599 FFP: 51-107
IFP: 50-112 FSIP: 1068
ISIP: 1112 FHP: 1580

Temp: 112°F

Chlorides MUD: 3,700 PPM
DST: 52,000 PPM

Rw = 0.152 Ohms @ 59°F
Gravity of oil: NA

Both Shut-in curves broken over

DST (2) 3403'-3442'
30-60-60-90
Blow: good, built to 7" on IFP, no blowback on ISIP; fair, built to 3" decr to 1/2" on FFP, no blowback on FSIP

120' G.I.P.
70' GO
(15% gas, 85% oil, 0% mud, 0% wtr)

120' MW
(0% gas, 0% oil, 30% mud, 70% wtr)

190' Tot. Fluid

IHP: 1658 FFP: 47-84
IFP: 25-40 FSIP: 1155
ISIP: 1197 FHP: 1587

Temp: 107°F

Chlorides MUD: 3,500 PPM
DST: 82,000 PPM

Rw = 0.232 Ohms @ 27°F
Gravity of oil: 25°

Both Shut-in curves broken over

Mud Check at 3442:
vis: 60 wt: 9.1 Chlor: 3,500
LCM: 2# Ph: 10.5 WL: 6.8

DST (3) 3467'-3517'
30-60-60-90
Blow: strong, BOB in 5" on IFP, no blowback on ISIP; strong, BOB in 9 1/2" on FFP, no blowback on FSIP

760' MW
(0% gas, 0% oil, 10% mud, 90% wtr)

IHP: 1678 FFP: 196-397
IFP: 41-178 FSIP: 994
ISIP: 1027 FHP: 1683

Temp: 111°F

Chlorides MUD: 3,500 PPM
DST: 112,000 PPM

Rw = 0.183 Ohms @ 25°F
Gravity of oil: NA

Both Shut-in curves broken over

Mud Check at 3541:
vis: 49 wt: 9.0 Chlor: 4,100
LCM: 2# Ph: 10.0 WL: 7.4

DST (4) 3516'-3541'
30-60-30-60
Blow: wk (1/4") surging blow on IFP, no blowback on ISIP; no blow on FFP, no blowback on FSIP

20' MW
(0% gas, 0% oil, 50% mud, 50% wtr)

IHP: 1706 FFP: 28-31
IFP: 26-29 FSIP: 998
ISIP: 1005 FHP: 1649

Temp: 106°F

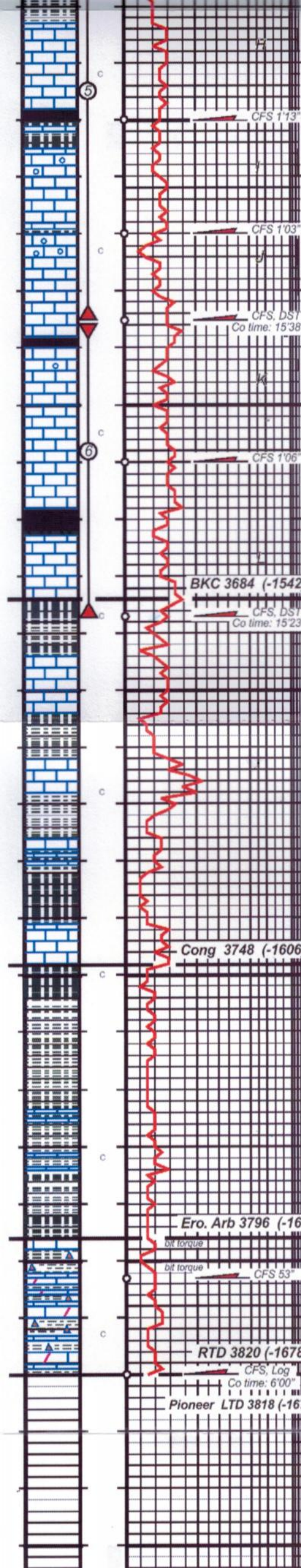
Chlorides MUD: 4,100 PPM
DST: 22,000 PPM

Rw = 0.356 Ohms @ 62°F
Gravity of oil: NA

Both Shut-in curves broken over

Mud Check at 3635:
vis: 45 wt: 9.2 Chlor: 5,500
LCM: 1# Ph: 10.5 WL: 6.4

DST (5) 3551'-3605'



(3583-90) Ls; most crm-bf, trc brn-blk (stn) micro-fnxln, dns, sli. foss, pr por, NS, scat vfn-mdgrdxln, gran txt, pr-fr IXLN & IG por, trc (1-2 pcs per tray) SSFO (crush'd), NSG, trc. flor, trc pcs brn-blk stn, wk-fr cut when crush'd, some Ls; crm-md.gry, vfn-fnxln, foss, dns, pr por, NS, intrvl has n. det odor (3590-3600) Ls; bf-crm-gry, micro-occ fnxln, scat mealy txt dns, pr por, NS, scat cht,tan, fresh, n. por, NS, sm blk sh.

3600 Sh; med-drk. gry, vcol AA., scat Ls; drk gry, fnxln, NS

(3605-10) Ls; crm-bf, some lt.gry, occ brn (stn), micro-fnxln, most dns, s. foss (subool), scat fr-mdgrdxln, mly-gran txt, pr fr IXLN por, scat interool por, scat pcs (2-3 per tray) SSFO, when crush'd, NSG, same pcs med yell flor, patchy brn stn, wk-fr ribbon cut w/o brk, same crush'd, wk od. (15" circ. spl)

3610-19 Ls; crm-bf, AA, microxln, decr foss, pyritic IP, scat mealy txt, pr por, NSFO, NSG, n. flor, stn, or odor.

(3620-25) Ls; crm-gry, scat brn-blk (stn) micro-mdxln, foss ool, most dns, scat mly-gran txt, 1/10 pr-fr IXLN por, scat gd interool por, fr-gd oomold por, 3%SSFO(crush'd) NSG, 3%w/ yell flor, patchy-occ sat dk.stn, pr-fr stream g cut w/o brk, 1 pc gd flash cut, intrvl has wk odor, most oomold por is barren.

(3625-38) Ls; most crm scat brn-blk (stn), micro-mdxln, decr ool and oom por, scat pcs w/pr-occ. fr IXLN, pr IG por, occ vugs, scat pcs (2-3 per tray) w/SSFO(crush'd), NSG, same pcs w/flor and spl'd-patchy drk stn, cut AA, n. det odor.

Sh; med-drk.gry, grn-gry, gm, some blk, carb.

(3640-44)Ls; crm-gry, bf-tan, most micro-fnxln, crinkl'd-mly txt, sli foss, (ool), dns, pr por, NS, scat pcs. pr-occ fr IXLN por, trc interool & oom por, trc (2 pcs) VSSFO, NSG, scat minri flor, n. cut, scat pcs w/patchy stn, wk cut, n det. odor

(3644-60) Ls; crm-gry, s. mott md.gry, micro-fnxln, non-foss, decr por, NS, scat tan cht, fresh, shrp, n. flor, n. stn, n. odor

Ls; crm-gry-dk.gry, mott, micro-fnxln, dns, scat mly txt, pr por, NS, n. flor, n. stn, n. odor

Sh; med-drk. gry, blk, carb, platy, strong vcol, AA.

(3673-80) Ls; crm-buff-gry, micro-fnxln, most dns, scat mealy txt w/pr IXLN por, NSFO, NSG, n. flor, stn, or odor.

Ls; becom lt-md.gry, some mott dk.gry, micro-fnxln, sli. ool, dns, shrp IP, OA pr vis por, NS, n. flor, n. stn, n. det odor.

Sh; med-drk. gry, blk, carb, platy, strong vcol, gm, red-brm.

Ls; buff-gry-crm, micro-fnxln, reworked, broken, most dns scat pcs w/pr IXLN por., NS, n. flor, n. stn, n. odor.

Sh; med-drk. gry, vcol, gm, occ. maroon, brick red, blk.

Ls; lt.gry-crm, crypto-mdxln, s. foss, s. glauc., most dns scat pcs w/pr IXLN por., NS, n. flor, n. stn, n. odor.

Shly Ls; med-drk.gry, micro-fnxln, argill IP, mealy, pr vis por, NS, n. flor, n. stn., n. det. odor, abund Sh; vcol AA.

Sh; med-drk.gry, strong vcol blk, carb, brite green, pyritic IP, blocky, waxy luster IP, brick red, maroon, red-br

Ls; most crm, micro-fnxln, mealy-rgh txt, most dns, pr por, NS, some bf-lt.gry, micro-fnxln, most comp, dns, crinkl'd txt, pr por, NS, n. flor, n. vis stn, n. odor.

Sh; md-dk.gry, strong vcol red, brn, scat green, pyritic IP, sm reworked cong shales, red-brm, yell, scat cht, wht-crm, transluc-opaq, iron stn, weath-devit txt IP, spls wash red.

Sh; md-drk.gry, strong vcol AA, scat dolomitic Ls; crm-gry, micro-fnxln, scat weath txt, mealy IP, pr vis por, NSFO, iron stn, scat cht, wht-crm, NS, spls wash red.

Sh; md-drk.gry, strong vcol, most rd-brm, brick red, maroon, some brite green-teal, scat reworked dol. Ls; crm-gry, AA, pr vis por, NS, n. flor, n. od., scat iron stn., spls wash red.

Sh; md-dk.gry, vcol, AA, 20% dolo. Ls; crm-gry, micro-fnxln, mealy-occ subsucr txt, dns, OA pr vis por, NS, 10% Cht, pink-red, salmon, transluc-opaq, fresh, sharp, pr por, some crm, foss (oolitic), opaq, fresh, NS, n. flor, n. stn, n. odor.

Sh; drk gry, strong vcol, AA, incr to 30% dolomitic Ls; AA, NS, dull minri flor, n. cut, n. stn, decr Cht, AA, pink-red, salmon, transluc-opaq, fresh, sharp, foss IP (ool), pr vis por, NS, n. flor, n. stn, n. odor, no clean dolo., spls washing red.

DST: 22,000 PPM
Rw = 0.356 Ohms @ 62°F
Gravity of oil: NA
Both Shut-in curves broken over

Mud Check at 3635:
vis: 45 wt: 9.2 Chlor: 5,500
LCM: 1# Ph: 10.5 WL: 6.4

DST (5) 3555'-3635'
30-60-60-90
Blow: fr-gd, built to 10" on IFP,
no blowback on ISIP;
fr-gd, built to 12" on FFP,
no blowback on FSIP

102' SOCM
(0% gas, 5% oil, 95% mud, 0% wtr)
122' MW
(0% gas, 0% oil, 15% mud, 85% wtr)
224' Tot. Fluid

IHP: 1732 FFP: 72-119
IFP: 26-60 FSIP: 1113
ISIP: 1140 FHP: 1656
Temp: 108°F

Chlorides MUD: 5,500 PPM
DST: 55,000 PPM

Rw = 0.226 Ohms @ 42°F
Gravity of oil: NA
Both Shut-in curves broken over

DST (6) 3636'-3687'
30-60-30-60
Blow: weak, died in 6 1/2" on IFP,
no blowback on ISIP;
no blow on FFP,
no blowback on FSIP

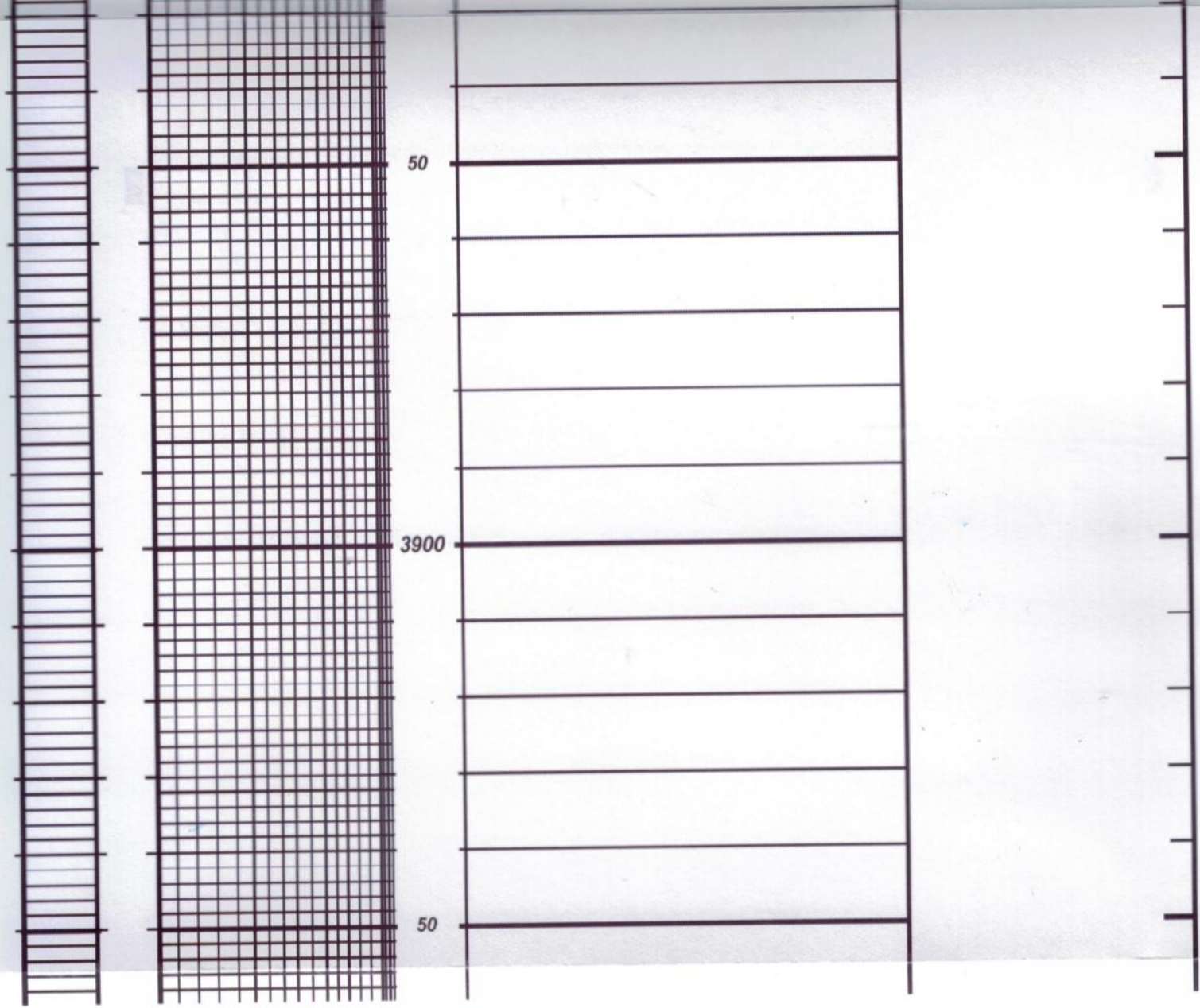
3' Mud
(0% gas, 0% oil, 100% mud, 0% wtr)

IHP: 1791 FFP: 23-26
IFP: 22-22 FSIP: 29
ISIP: 32 FHP: 1763
Temp: 104°F

Chlorides MUD: 6,800 PPM
DST: NA
Rw = NA
Gravity of oil: NA

Mud Check at 3687:
vis: 55 wt: 9.0 Chlor: 6,800
LCM: trc Ph: 10.0 WL: 6.8

RTD reached
5:35 PM 2/4/2012



COMPANY & WELL Cobalt Energy, LLC 1-11 Joy Estate ELEVATIONS
 LOCATION 990' FSL, 335' FEL, SE/4 KB 2142'
 SEC 11 TWSP 12s RGE 19w GL 2132'
 COUNTY Ellis STATE Kansas

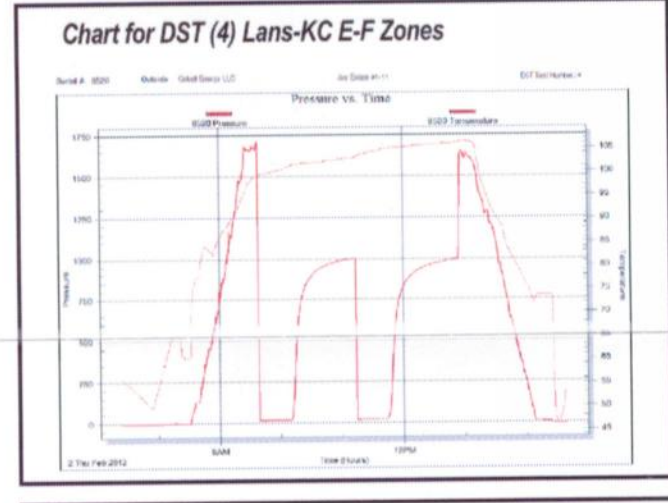
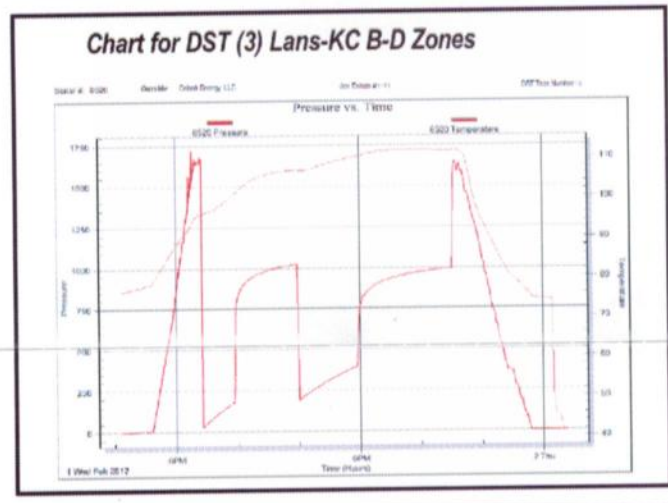
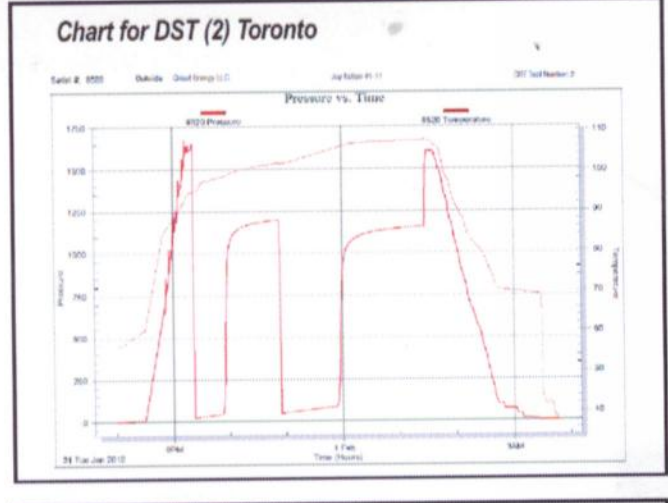
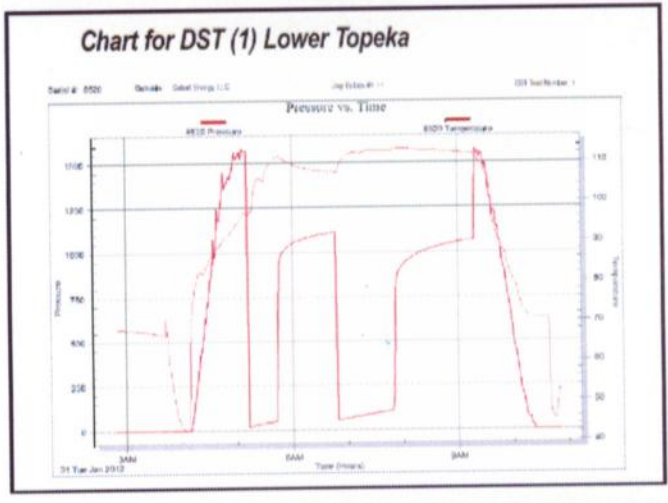


Chart for DST (5) Lans-KC H-J Zones

Chart for DST (6) Lans-KC K-L Zones

