

COMPANY BEREXCO LLC
 LEASE MELIA NO. 1-27
 LOCATION 1043FSL & 1716FEL
 SEC. 27 TWP. 27S RNG. 24W
 COUNTY FORD STATE KANSAS
 FIELD WILROADS NORTH

ELEVATIONS

KB 2544
 DF 2542
 GL 2531

MEASUREMENTS ARE ALL FROM KB

CASING RECORD

8.625" 596 w/ SH.
 " of " w/ " SH.
 " of " w/ " SH.
 " of " w/ " SH.

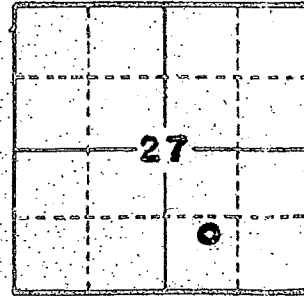
EL. LOG AR-IND-SP-GR
DEN-NEUT-GR-CAL-PR
ML-SONIC

CONTRACTOR BEREDCO DRLG. RIG NO. 2
 COMM. 5-13-2013 COMP. 5-26-2013
 RTD 5200 LTD 5106
 No. of DST'S 3 No. of CORES NONE

SAMPLES SAVED FROM 4500 TO TD
 DRILLING TIME KEPT FROM 4500 TO TD
 SAMPLES EXAMINED FROM 4500 TO TD
 GEOLOGICAL SUPERVISION FROM 4500 TO TD
 GEOLOGIST ON WELL EDWIN H. GRIEVES

FORMATION TOPS

FORMATION	SAMPLE	LOG	SUBSEA
HUSHPUCKNEY	<u>4736</u>	<u>4741</u>	<u>-2197</u>
MARMATON	<u>4827</u>	<u>4832</u>	<u>-2288</u>
PAWNEE	<u>4906</u>	<u>4910</u>	<u>-2366</u>
FT. SCOTT	<u>4936</u>	<u>4941</u>	<u>-2397</u>
CHEROKEE	<u>4959</u>	<u>4964</u>	<u>-2420</u>
MISSISSIPPI	<u>5084</u>	<u>5091</u>	<u>-2547</u>
TD	<u>5200</u>	<u>5206</u>	



API NO. 15-057-20892

REMARKS Fracture Tech (1-899-549-9379) had a run-in run-out 925
detection frailer on this well from 4500 feet to total depth

Note: E-Log Tops 5 feet lower than geological log.

32
K. Y. Dyer
Edwin H. Griev
Geo

LITHOLOGY

- SANDSTONE
- LIMESTONE
- SHALE
- GENT
- SILTSTONE
- DOLOMITE
- GRANITE WASH
- ANY & GYP

CHROMATOGRAPHY

- C1 = METHANE
- C2 = ETHANE
- C3 = PROPANE
- C4 = BUTANE
- C5 = PENTANE
- C6 = ISOPENTANE

HOT WIRE BY TOTAL GAS VOLUME

4500

Lms. sl.ites. wht to crm-chlk and grayish tan to tan; crypto to v. fine sub-chlk, sub-succo & packstn; dul. H. yel. to sl.ites. H. yel. fluor; No Cut; No Vis Por

Lms. abu. wht to crm-chlk & tan; crypto to v. fine; sub-chlk, sub-succo to v. succo; dul. yel. fluor; No Cut; v. abu. pr. to fr. & tes. gd micro pp & prob. interxn por

Lms. w/ prob. Interbeds Shales
 ① Lms. tr. to hvy. tes. wht to crm-chlk & H. gray to tan; crypto to v. fine; sub-chlk, sub-succo packstn & tes sub-lithog R; dul. yel. fluor; No Cut; No Vis Por

② Faster Delq Lms - wht to crm-chlk or Sh. med to v. dk. gray - sl. to extly. calc. lps

Lms. tan; crypto to v. fine; sub-chlk, sub-succo to succo; Phantom oolitic lps; dul. H. yel. to dul. yel. fluor; No Cut; abu. pr. to fr. & tes. gd. micro pp & poss. interxn por

Lms. similar 4550-4612

Sh. med. to drk. gray; tes greenish
 Lms. grayish tan to tan; crypto to v. fine; sub-chlk, sub-succo & packstn; lps; dul. H. yel. fluor; No Cut; No Vis Por

Lms. tes to hvy. tes wht to crm-chlk & tan; grayish. lps; crypto to v. fine; v. to ex. ool. calc. & pr. to extly. oolitic matrix sub-chlk, sub-succo & packstn; dul. yel. fluor; No Cut; abu. pr. to fr. & tes. excel. calc. lps; v. fine to med. fcm

Lms. tes. wht to crm-chlk & tan to tan; grayish. lps; crypto to v. fine; v. abu. sub-chlk, sub-succo; packstn & tes sub-lithog R; dul. H. yel. fluor; No Cut; No Vis Por

Lms similar 4666-4685 w/ much less sub-chlk & much more packstn & sub-lithog R
 Prob. Sh. v. dk. gray to black
 Lms similar 4685-4695

Lms. hvy. tes. wht to crm-chlk & tan; grayish; crypto. to v. fine; sub-chlk; sub-succo & packstn; Phantom oolitic lps; dul. H. yel. fluor; No Cut; No Vis Por

Lms. lt. gray to tan; crypto to v. fine; tes. sub-chlk, tes sub-succo, packstn & sub-lithog R; dul. H. yel. fluor; No Cut; No Vis Por w/ hvy tes chert gray, opaque

Sh. v. dk. gray to blk. - carb
 Lms. lt. to med. gray - sl. to extly. Shly. gradng. to calc. Shs. grayish tan to tan; crypto. to v. fine; sub-chlk from Shly, sub-succo, packstn. & tes. sub-lithog R. tes. yel. fluor; No Cut; No Vis Por

40000
 75-00
 54
 10000

BIT TRIP 4500
 TRAP ONECH

WOLF
 RPM
 SPIN
 PF

TRAP ONECH

Mushpuckney
 4736-2192

311
 RECICLE 600

Lms. fms. crm. chlk & tan crypto to v. f. xln. w/ fms med. calc. base w/ht to clear calc. xls. & fragm. sub-chk. sub-succ. to succ. & nod. pack. d. w. yellow. No cut. No Vis. Por. + prob. irregular por

4800

Lms. H., med. to tes. dk. gray - sl. to extly. Shly gradng. to calc. Shs & grayish tan to tan crypto to v. f. xln. sub-chk. to re. Shly sub-succ. & pack. d. w. f. fms. sub-1/3 th. No Vis. Por.

Sh med. to v. dk. gray - sl. to extly. calc. to black - carb

Interbedded Limestones and Shales
① Lms H. gray. to tan; crypto. to v. f. xln. fms. sub-chk.; fms sub-succ. & gradng. d. w. H. yellow; No cut; No Vis. Por.
② Sh. med. to v. dk. gray - calc. lps greenish lps to tan green w/ fms. v. dk. gray. to black

DST#1

Lms. grayish tan to tan; crypto to v. f. xln.; fms. sub-chk.; sub-succ. & pack. d. w/ fms. sub-1/3 th. No cut; No Vis. Por. + prob. irregular por

4900

sh v. dk. gray to black - carb
Lms. similar 4827-4904
Lms. tan to tan; crypto to v. f. xln. fms. sub-chk.; sub-succ. & pack. d. w/ fms. sub-1/3 th. No cut; No Vis. Por. + prob. irregular por

Lms. similar 4922-4926 abn - chlk.
Lms. similar 4922-4926 tes sub-1/3 th. No cut; No Vis. Por. + prob. irregular por

Sh. v. dk. gray to black - carb
Lms. fms. crm. chlk & tan; crypto to v. f. xln. w/ fms med. calc. base w/ht to clear calc. xls. & fragm. sub-chk. sub-succ. to succ. & nod. pack. d. w. yellow. No cut. No Vis. Por. + prob. irregular por

Sh v. dk. gray to black - carb
Lms. lt. gray to tan; crypto. to v. f. xln. fms. sub-chk.; sub-succ. & gradng. d. w. H. yellow; No cut; No Vis. Por. + prob. irregular por

Sh v. dk. gray to black - carb
4986-5047 Interbedded Lmsts & Shs
① Lms. H. gray to tan; crypto. to v. f. xln. fms. sub-chk.; fms sub-succ. & gradng. d. w. H. yellow; No cut; No Vis. Por. + prob. irregular por
② Shs med. to v. dk. gray - calc. lps

5047-5069
Conglomerate of lms & Shs
① Lms. similar 4986-5047
② Variegated Shs med to v. dk. gray
③ greenish & reds
④ hvy tes lms. tan to brn; crypto to v. f. xln.; fms. sub-chk.; sub-succ. & gradng. d. w. H. yellow; No cut; No Vis. Por. + prob. irregular por

DST

Marmaton
4827-5285

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

WOB 49000
SPM 51190
PP 1050

POSS. SHOW 3 U

PROB. SHOW 3 U

gd to fr. stemming cuts pass.
interx in por in sandstone
pass & fracturing

5069-5084 Congl. Lms - Chert w/ Sh
① Lms similar # 5 description
5047-5069

② Chert yellowish, 1/2 sl. to fely
weathered 1/2 fely to highly weathered
sp. to the surface. In calc. in
faint oil odor, yellowish yellow
flashed to fely. staining cuts huytes
p. f. to gd & sl. to excel. micropor
sl. to vug w/ are por. ③ Verigated
Lms grays, reds, blues, gray, yellow
5050 Fresh chert of whit to tan apper
5 sl. to v. weathered w/ show & por
similar 5069-501
5069-5084 5 Verigated 3.5 in. 509-84
Dol. in bank in oil str. w/ v. to suc
fluor. in sh. to gd. staining cuts huytes
p. a to f. micropor
w/ Prob. g. to excel
interx in por

Interbedded Dolomites and
Limestones w/ Chert

① Slower Delg Lms tes w/ to
crunch and tan grayish. lps
crypto. to vug. sh. this subchik
sub-sucro. patches and
sub-litho graphic. sl. to fely.
dolomitic lps. w/ yellow
No cut. No vis. por

② Faster Delg. Polomite
Tan. crypto. to vug. sh. in
sub-chik sub-sucro to sucro.
sl. to fely. calc. lps
dul. H. yellow. No cut
tes. pr. to fr. micropor. por.
lps and prob. good to excel.
interx in por.
③ tes to huy. tes Chert
gray. to tan & tes ORANGE
opaque to tes trans.

TD 5200

7 7/8 inch Bit Into:

#1 PDC in 596 out 4500
#2 New Smith F27 YVP in 4500 out 5200 TD

Dev. Surev

1. 1098 3/4 4 2374 1° 7.5095 1/2°
2. 1627 1 1/2 5 4300 ? 8.5200 1/4°
3. 1868 1° 6 4925 1/2°

Cir Points

1. 4925 3. 5083 5. 5110
2. 5070 4. 5095 6. 5200 TD

Daily Delg Progress

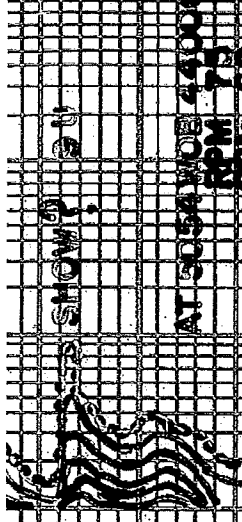
1. 3499 AT 7:00 AM 5-18-13
2. 4500 AT 7:23 AM 5-19-13
3. 4627 AT 7:00 AM 5-20-13
4. 4858 AT 7:00 AM 5-21-13
5. 4925 AT 7:00 AM 5-22-13
6. 5032 AT 7:00 AM 5-23-13
7. 5095 AT 7:00 AM 5-24-13
8. 5110 AT 7:00 AM 5-25-13
9. 5200 AT 7:00 AM 5-26-13

DST #1 Pawnee 4900-4925
10 surf to 12.30 min F0 Surety to 8084 13 min
Rec 90 GIP + 455 fluid
10ft 1002 Clean Oil
445 Vsl. 0.1 cft MW Tr 0.1752 w 258 mud

BHT 122 OF GR2V 38 API
RW - 12 @ 65 F Vestor. CHI



See Below



SHOW
AT 5084 MUD 4400
RPM 75
SPM 60
PP 1200
M - 20 U
SHOW
TRIP GAS 310 U
Sub-seals
SHOW 5084
TRIP GAS 6600
MUD 4200
RPM 75
SPM 58
PP 1000
Mississippi
5084-254



5/90



5200



5200



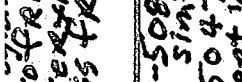
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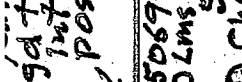
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5200



5200



5200



5200



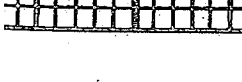
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5200



5200



5200

DST 1227 GRV 58 AFI
RW - 1205 F Vestor Chl

Mud Engineered Treated 59000 ppm
Pit Chl 6500 ppm

IHP 2566
IFF 23-140 in 30 min
ISIP 1269 in 60 min
FFP 145-239 in 60 min
FSIP 1269 in 120 min
FHP 2466

DST #2 Cherokee Miss. 5045-5095

IF Strong Blow Bob 30 sec
FD Strong Blow Bob Inmed GTS 45 min
Rec 10 ft Mud 100% Mud

BHT 1170 F
IHP 2455 #
IFF 24-27* in 30 min
ISIP 808* in 60 min
FFP 24-29* in 60 min
FSIP 729* in 120 min
FHP 2405*

Flow Infr 64 MCFPD
min 1/8 1.840
33 1.015

DST #3 Mississippi 5096-5110
10 Strong Blow Bob 30 sec
1st Bled off Strong Blow Back

Bob 20 sec
FF Strong Blow Bob Inmed.
FST Bled off Strong Blow Back
Bob GTS near end of final shot in

Rec 60ft Muddy wtk w/ few spots oil in tool
90% wtr 10% Mud
BHT 1120 F Rv. 37 @ 740 F
Pit Chl 6900 ppm

Test for calc. chl 2000 ppm
Mud Engineered Treated 11000 ppm

IHP 2420 #
IHP 12-32* in 30 min
ISIP 1562* in 60 min
FFP 33-155* in 60 min
FSIP 1388* in 120 min
FHP 2422*

Mud Info:

Date	5-18 4:30P	5-19 11:00A	5-20 6:50A	5-21 7:05A	5-22 1:00P	5-23 1:00P	5-24 5:25	5-25 5:15A
Depth	3718	3785	4497	4632	4856	4925	5076	5095-5110
Wt	10.1	8.2	9.2	9.3	9.35	9.25	9.25	9.25
Vis	28	51	45	56	53	49	55	63
PV	1	16	13	15	16	13	17	19
YP	2	18	14	16	17	15	21	19
GS	1/2	16/49	17/37	17/50	16/49	14/49	18/53	18/51
WL	N/C	12.8	?	11.6	12.0	16.0	10.8	10.4
Case	-	1/32	3/32	1/32	1/32	1/32	1/32	1/32
pH	7.0	11.0	9.0	10.0	10.0	9.0	10.5	10.0
Chl	39000	7800	5800	7600	6700	13600	6000	6700-8700
Ca	MVY	20	20	40	20	280	20	20

INT 12-32# in 30 min
 IFP 1562# in 60 min
 ISIP 33-155# in 60 min
 FFP 1388# in 120 min
 FSI 2422#

Mud Info:

Date	5-18 4:30P	5-19 11:00A	5-20 5:30A	5-21 7:05A	5-22 12:5P	5-23 1:00P	5-24 5:25	5-25 5:57A
Depth	378	447	463	485	492	507	510	511
WT	10.1	8.7	9.3	9.3	9.2	9.2	9.2	9.2
Vis	28	51	45	53	49	55	63	52
PV	1	16	13	16	13	17	19	15
YP	2	18	14	17	15	21	19	16
GS	1/2	16/49	17/50	16/49	14/49	18/53	18/51	16/51
NL	N/C	12.8	?	11.6	12.0	10.8	10.4	12.4
Case	-	1/32	3/32	1/32	1/32	1/32	1/32	1/32
pH	7.0	11.0	9.0	10.0	9.0	10.5	10.0	10.0
Chl	37000	7800	5800	7600	6700	13600	6000	6900
Ca	HVY	20	20	40	20	280	20	20
LCM	1	4	2	2	1	2	2	2

OPERATOR **BEREXCO, L.L.C.**
 LEASE **MELIA**
 ELEVATION **2544KB**

LOCATION **1043FSL & 176FEL**
 SEC. **27** TWP. **27S**
 COUNTY **FORD** STATE **KANSAS**

NO. **1-27**
 RTD **5200**