

WELL FILE

GEOLOGIST'S REPORT

DRILLING TIME & SAMPLE LOG

COMPANY Berexco LLC
 LEASE Elnora NO. 1-20
 LOCATION 440 FNL & 475 FWL
 SEC. 20 TWP. 26S RNG. 33W
 COUNTY Finney STATE Kansas
 FIELD Wildcat

CONTRACTOR Beredco Dlg Rig #1
 COMM. 10-24-2013 COMP. 11-13-2013
 RTD 5345 LTD 5340

No. of DST'S Four No. of CORES None

SAMPLES SAVED FROM 3700 TO TD
 DRILLING TIME KEPT FROM 3700 TO TD
 SAMPLES EXAMINED FROM 3700 TO TD
 GEOLOGICAL SUPERVISION FROM 3700 TO TD
 GEOLOGIST ON WELL EDWIN H. GRIEVES

FORMATION TOPS

FORMATION TOPS	SAMPLE	LOG	SUBSEA
BASE HEEBNER	3937	3926	- 985
TORONTO	3948	3942	- 1001
LANSING FM.	3977	3970	- 1029
KANSAS CITY "A"	4387	4382	- 1441
MARMATON	4546	4533	- 1592
CHEROKEE FM.	4681	4675	- 1734
MORROW FM.	4933	4920	- 1979
CHESTER FM.	5039	5033	- 2092
ST. GENEVIEVE	5107	5096	- 2155
ST. LOUIS	5127	5035	- 2194
TD	5345	5340	

API# 15-055-22248

ELEVATIONS
 KB 2941
 DF 2939
 GL 2929

MEASUREMENTS ARE ALL FROM KB

CASING RECORD
 8 7/8" OF 1778 W/ 775 SX.
 OF _____ W/ _____ SX.
 OF _____ W/ _____ SX.
 OF _____ W/ _____ SX.

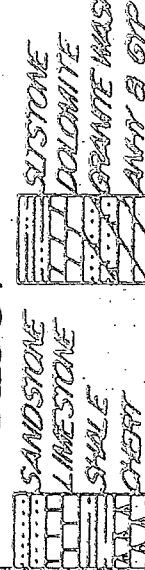
EL. LOG A.R. Ind-SP-GR
Den-Neut-GR-Caliper
ML-Sonic

REMARKS Earth Tech had an unannounced gas detection trailer on this well from 3700 to total depth.

Note: Stuck Drill Pipe At 3419
Put in left 53 bbls crude oil, therefore
could not run Chromatograph
Read Gas Without Running Agitator
From 3700 to 4450.

*Thank you for
 your logist
 Geo logist*

LITHOLOGY



CHROMATOGRAPH

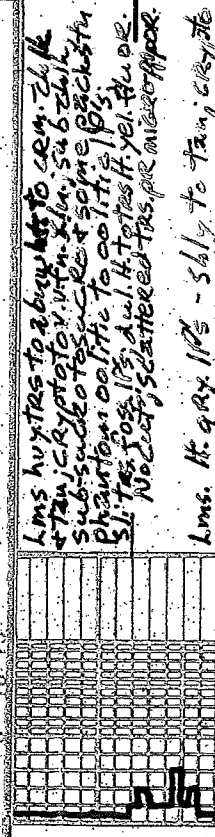
HOT WIRE BY
 TOTAL GAS VOLUME

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

DRILL TIME SCALE 5 10 15

SAMPLE DESCRIPTION

GAS SCALE 10 100 1000



Lms. H. g. Ry. 10% - shaly to tan, clayite

Phy in Tom oplicaster 115 poss 51; they
oil small tan med. 9 id. in 100 ft. por.
w/9d. staining 4000 m. by cuts
260. P. of tole 115 9 d. med. 900
por. 6 poss. interx. 1900

Lms. H. gray, tanish gray, to grayish
tan; crypto to v. v. tan. x10; sub-
sub-succo, p. d. cut. v. v. sub-litho
d. u. l. floor; No cut. No vis. por.

Lms. 2bn. wht to cream-chalk tan; v. v. tan
sub-succo. to succo; ph. ant. in oolitic
100 for phant. oolitic. 115 9 d. 100
med. to coarse calc. x10 900 9 d. 100
floor. No cut. 26 n. p. f. g. to h. by the excel
p. p. 9 d. 100 900 9 d. 100
Lms. similar 4026-4058

Lms. similar 4058-4072

Interbedded for Gradational Lms 4100

1) Lms. tan. wht. to cream-chalk to grayish
tan to tan; crypto to v. v. tan. x10.
Tres sub-chalk sub-succo. to succo
+ p. d. cut. v. v. ph. ant. in oolitic to
tres. oolitic. 115; d. u. l. floor. 115
No cut; scattered tres. p. med. pp

2) Lms. H. to med. gray - sl. tan. sub-
grading to calc. sh. crypto to tan
v. v. sub-chalk to p. d. cut. p. d. cut. v. v.
No fluor. No cut; No vis. por.
3) Sh. med. to dk. gray; sl. to ext. calc.
grading to sh. lms

Lms. h. v. tres. wht. to cream-chalk
tan; tres. crypto to v. v. tan. x10.
Tres. sub-chalk sub-succo. to succo
d. u. l. floor. 115; d. u. l. floor. 115
Tres. v. p. r. med. pp. for to p. d. cut
interbedded in por. v. v. tres. chert gray
to tan. op. p. e.

Interbedded for Gradational
Limestones + Shales similar
4096-4156

Lms. 2bn. wht to cream-chalk to tan
crypto to v. v. tan. x10; sl. to tan. oolitic
Tres. sl. to v. oolitic; matrix. by sub-
sub-succo. to succo. + p. d. cut. v. v.
d. u. l. floor. 115; d. u. l. floor. 115
2bn. p. r. to tres. ca. 00 115 900 9 d. 100
much pp por. v. v. poss. interx. 1900

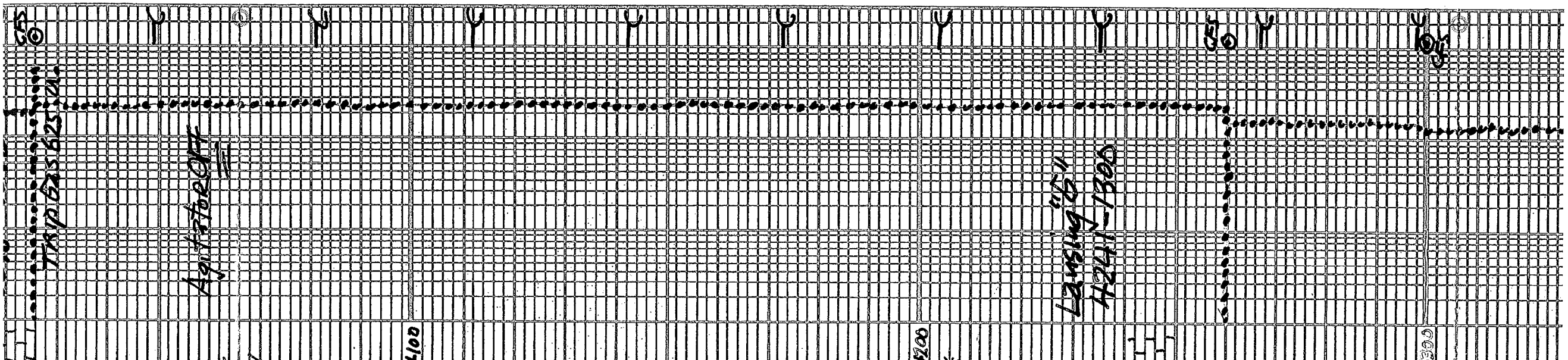
Lms. similar 4190-4208
becoming less oolitic & more
oolitic w/ less. APPARENT POR

Interbedded for Gradational
Lms + Sh. similar 4096-4156

Lms. H. tan. wht. to spid. tan
sl. crypto. to v. v. tan. x10; v. v. tan
whit. med. to coarse calc. x10
frag. tres. sub-chalk sub-succo. to
succo. phant. oolitic. 115; 900
finely disseminated. p. d. cut. v. v.
d. u. l. floor. 115; d. u. l. floor. 115
w/ 9 d. to excel. staining. Cores
260 p. r. to tres. ca. 00 115 900 9 d. 100
pp. med. pp. of por. v. v. 1900

Lms. H. gray, tanish gray, grayish.
tan to tan; crypto to v. v. tan. x10;
tres. chalk, tres. sub-chalk sub-succo,
p. d. cut. v. v. tres. sub-litho p.
phantom oolitic 115 to tres. oolitic
115 id. u. l. floor. 115; No cut;
No vis. por.

Lms. tres. to h. v. tres. wht. to tan
ch. l. k. + H. a. a. v. v. tan to tan.



Agitator

LANSING 4011
41211-1300

DST #2
See Below

4300

5000 ft. approx. 1000 ft. to 1100 ft. sh. to pol. (H. gray) to tan. v. gray. yellow. No. cont. No. vis. for

Sh. v. drk. gray to black carb
Lms. similar 4582-4623
Lms. wht. cream chalk + grayish tan to tan. v. to gray pol. to sh. oolitic matrix + calc. to wh. tan. sub. calc. sub. to sugary + oolitic dual grain to sh. gray + blue No. cont. 26 pp. oolitic fine

4642-4649 Lms. similar 4582-4623

Sh. v. drk. gray to black carb

Lms. similar 4582-4623

Sh. v. drk. gray to black carb

Lms. similar 4582-4623

4700

4686-4933
Interbedded Limestones + Shs
Lms. H. gray. to tan. tan. crypto to v. tan. Am. sub. ch. sub. crypto + tr. sub. lithog. + hor. tr. oolitic H. gray. dual. to dual. H. yellow. No. cont. No. vis. for

② Lms. H. med to drk gray - very to gray. Sh. gray to highly calc. sh. crypto to v. tan. sub. ch. for sh. + p. calc. No. floors. No. cont. No. vis. for
③ Sh. med to drk gray. sh. to calc.

④ Sh. v. drk. gray to black carb
⑤ tr. Chert. P's gray. tan. to brown. opaque

4800

Flagged

Pawnee
4628-1687

P1 SCOTT

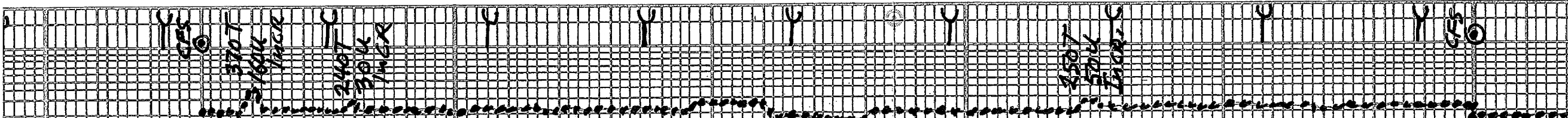
4662-1721

Cherokee

4681-1740

4900

Morrow Fm



5200

574 Louis 42.4
5230-2289

Limestone crypto. to v. fine. In
exactly opposite trend to 1st
sum. matrix chert sub. calc. & chert
highly sub. calc. & chert. 1st
flavor. Abundant. No. Vis. for
w/ h. v. 125. to 2 in. loose
gallies. traces of chert. strongly
to tan. orange. 1st. 1st. 1st.

5236-68 kms w/ chert similar

5127-5230

w/ ab. Lms. H. gray to tan. crypto.
to v. fine. In. 1st. sub. calc. & chert
flavor. No. Vis. for
Dolo. H. gray. tanish. 1st.
v. fine. In. siliceous. 1st. v. sugro
yel. flower. No. calc. to Vis. for

574 Louis 42.4
5268-2327

5272-5345 kms. sl. Dolo. 1st.
tan gray to tan. H. gray. crypto.
to v. fine. In. 1st. sub. calc. & chert
sub. calc. & chert. 1st. 1st. 1st.

sub-lithog. red. dul. yet to tan. yel
finer. No. calc. No. Vis. for
interbedded with or
gr. calc. chert. to limestone
similar. 5127-5230
w/ tan chert. whit. gray to tan
trans. l. to opaque

TD 5345

7 1/2 inch Bit Into:

- 1. New Smith F12Y
in 1779 out 4026
- 2. New Smith F271YV
in 4026 out 5345 TD

Dev. SURV.
only ones I Found
4566 1/2
5026 3/4
5345 TD
Cir Points

- 1. 3960 9. 4566 17. 5050
- 2. 3985 10. 4650 18. 5080
- 3. 4026 11. 4900 19. 5110
- 4. 4260 12. 4930 20. 5245
- 5. 4300 13. 4960 21. 5275
- 6. 4400 14. 5000 22. 5345 TD
- 7. 4450 15. 506
- 8. 4562 16. 5026

Daily Drilg Progress:

- 1. 3700 12:39 AM 11-1-13
- 2. 3941 7:00 AM 11-1-13
- 3. 4026 7:00 AM 11-2-13
- 4. 4260 7:00 AM 11-3-13
- 5. 4300 7:00 AM 11-4-13
- 6. 4566 7:00 AM 11-5-13
- 7. 4566 7:00 AM 11-6-13
- 8. 4566 7:00 AM 11-7-13
- 9. 4822 7:00 AM 11-8-13
- 10. 5016 7:00 AM 11-9-13
- 11. 5026 7:00 AM 11-10-13
- 12. 5164 7:00 AM 11-11-13
- 13. 5345 7:00 AM 11-12-13
- 14. 5345 7:00 AM 11-13-13

CES

14. 534S 7:00AM 11/3-13

DST#1 Lansing "B" HD16-4026
 IO Good Blow BOB 7 min
 FO Good Blow BOB 14 min
 Rec: 1105 Total Fluid BHT 116°F
 289 C.Oil 22 Gas 98% oil
 816 V.SI. 0.5% G.L. MW 80% W182M w/ thin seam oil
 Chl 1500 ppm R.v. 52 @ 61°
 PHT 8.5 Pit Chl 6200 ppm
 Tool Sample 125.8820; 82 Wj 32 Mud
 IHP 1862
 IFFP 21-300 in 30 min oil
 FSIP 1096 in 60 min @ 60°
 FFP 308-480 in 60 min
 FSIP 1090 in 120 min
 FHP 1854

DST#2 Lansing "G" 4235-4260
 IO weak stuttering Blow Dred 11 min
 FO No Blow
 Rec: 5-ft 100% Mud w/ few Gas bubbles
 Tool Samp. 100% mud w/ few spots of oil
 IHP 2009 BMT 1140 F
 IFFP 7-11 in 30 min
 FSIP 1105 in 60 min
 FFP 12-15 in 30 min
 FSIP 1060 in 60 min
 FHP 1990

DST#3 Marston "B" 4552-4586
 IO Good Blow BOB 1 min OTS 25 min GAS WALL BURST
 FO Good Blow BOB 50 sec 95% oil
 745 ft Tot. Recov. 445' 20 52% 64 2 Mud
 170' GOC M 82 G; 172' 01' 475 2 Mud
 Tool Samp 100% Gas BHT 122°F
 IHP 2067 FFP 167-200
 IFFP 90-161 in 30 min FSIP 778
 ISIP 781 in 60 min FHP 2057
 Flow Into Grav 38.4 @ 60°
 5 min 1/2 inch 6" 15.2 MCF/D
 55 min 1/2 inch 8" 17.2 MCF/D
 DST#4 Morrow 5008-5026
 IO weak SURF Blow

FO No Blow
 Rec Total 10 ft Mud w/ thin seam of oil
 Tool Sample 100% Mud sl.
 Gassey w/ thin seam of oil
 BHT 125°F
 IHP 2381# in 30 min
 IFFP 870-12# in 60 min
 ISIP 473# in 60 min
 FFP 14-19# in 60 min
 FSIP 185# in 120 min
 FHP 2354#

Mud Info:

Date	10-31	10-31	11-1	11-2	11-3	11-4	11-5	11-6
	1:00P	1:40A	7:50A	7:30A	1:00P	10:45A	10:45A	
Depth	3416	3416	4026	4260	4400	4566	4566	4566
Wt.	8.3	9.0	9.15	9.1	9.7	9.7	9.15	8.2
Vis	61	49	49	46	52	55	57	48
PV	20	22	16	14	16	16	17	14
YP	20	18	16	14	18	18	20	15
GS	19/38	17/54	15/40	13/42	17/54	17/54	17/55	17/44
NL	11.2	16.4	9.2	9.6	8.8	9.6	9.2	9.2
Clay	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	9.5	9.0	9.0	10.2	9.0	9.0	9.5	10.5
Chl	1000	15500	6100	7500	4400	5800	4700	3900
Ca	140	320	60	200	20	20	20	20

FT 14-IT 1460 well
 FSIP 185 # in 120 min
 FHP 2354 #

Mud Info:

Date	10-31	11-1	11-2	11-3	11-4	11-5	11-6
Depth	3416	3985	4260	4260	4400	4566	4566
Wt.	8.7	9.0	9.1	9.1	9.2	9.15	8.9
Vis	61	49	46	52	55	57	48
PV	20	22	16	14	16	17	14
YP	20	18	14	18	18	20	15
GS	19/32	17/32	13/32	17/32	17/32	17/32	17/32
WL	11.2	16.4	9.2	8.8	9.5	9.2	9.2
Calc	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	9.5	9.0	9.0	10.2	9.0	9.5	10.5
Chl	1000	15500	6200	7500	4400	5800	4100
Ca	140	320	60	200	20	20	20
LCM	4	2	2	1 1/2	4	2	2

Date	11-7	11-8	11-9	11-10	11-11	11-12
Depth	4617	4883	5026	5026	5184	5345
Wt.	9.0	9.2	9.25	9.3	9.4	9.4
Vis	45	40	54	64	52	54
PV	14	13	17	20	16	17
YP	15	13	19	24	17	20
GS	17/43	13/41	17/30	16/49	15/48	17/33
WL	8.8	11.5	8.8	8.0	9.2	8.8
Calc	1/32	1/32	1/32	1/32	1/32	1/32
pH	10.0	9.5	10.5	10.5	10.0	10.0
Chl	3200	2600	3000	3400	2400	3000
Ca	20	20	20	20	20	20
LCM	2	1 1/2	2	2	2	1

OPERATOR BEREXCO LLC

LEASE ELMORA

ELEVATION 2941 KB

NO. 1-20

SEC. 20

TWP. 26S

COUNTY FINNEY

STATE KANSAS

LOCATION 440 ENL + 475 FWL

ANG. 33W

STATE KANSAS