

# GEOLOGIST'S REPORT

DRILLING TIME & SAMPLE LOG

COMPANY **BEREXCO LLC**

LEASE **DOERKSEN B** NO. **L-27**  
 LOCATION **335<sup>th</sup> N. & 89<sup>th</sup> E**  
 SEC. **27** TWP. **28S** RANG. **34W**  
 COUNTY **HASKELL** STATE **KANSAS**  
 FIELD **EUBANK N.**

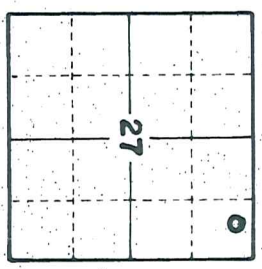
ELEVATIONS  
 KB **3012**  
 DF **3009**  
 GL **2999**  
 MEASUREMENTS ARE ALL FROM **KB**

CONTRACTOR **BEREDCO DRILG. RIG NO. 2**  
 COMM. **7-16-2011** COMP. **8-6-2011**  
 RTD **5770** LTD **5765**  
 No. of DST'S **8** No. of CORES **NONE**

SCALING RECORD  
 8/B dt **1786** w' / SK.  
 dt / w / SK.  
 dt / w / SK.  
 EL. LOG DIL. SP. GR. DEN. NEUT. GR. CALIPER ML

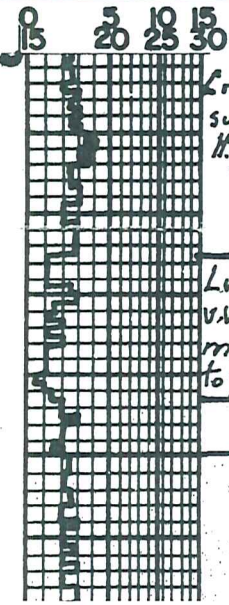
SAMPLES SAVED FROM **3500** TO **TD**  
 DRILLING TIME KEPT FROM **3500** TO **TD**  
 SAMPLES EXAMINED FROM **3500** TO **TD**  
 GEOLOGICAL SUPERVISION FROM **3500** TO **TD**  
 GEOLOGIST ON WELL **EDWIN H. GRIEVES**

FORMATION TOPS	SAMPLE	LOG	SUBSEA
BASE HEEBNER	4046	4043	-1091
LANSING	4132	4128	-1116
MARMATON	4675	4673	-1681
CHEROKEE	4883	4872	-1860
MORROW	5214	5215	-2203
CHESTER FM.	5399	5386	-2374
ST. LOUIS	5649	5646	-2634
TD	5770	5765	



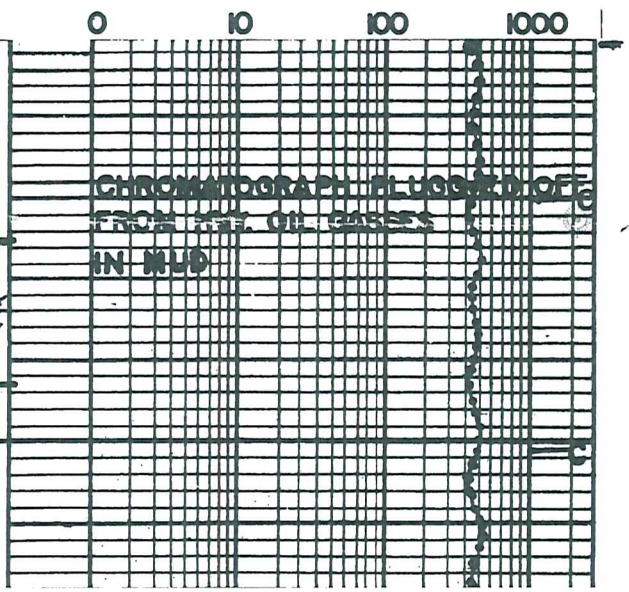
REMARKS *Earth-Tech had an unmanned gas detection trailer on this well from 3500 feet to total depth.*

*Thank You,  
Edwin H. Grievess  
Geologist*



*6ms. grayish tan to tan; crypto. to v.v. fin. xln sub-chlk, sub-sucro + pachstn; dol. H. to lt. yel. fluar; No Cut; No Vis Por*

*6ms. abn. wht. to crn. chlk + tan; crypto to v.v. fin. xln; sli. to extrly. micro to v. sm. calc matrix chlk, sub-chlk + sub-sucro; dol. yel to yel. fluar. No Cut; No Vis Por*



Interbedded Limestones

① Slower Drlg Lms H. grey. -slit to finely shly. IP's to tan; crypto. to v. v. fn. xln sub-chlk, sub-sucro. & packstn w/ trs sub-lithoggr; dul. yel. fluor.; No Cut No Vis Por.

② Faster Drlg. Lms. tan. to zbn. wht. to CRM-chlk + tan; crypto. to v. v. fn. xln. sub-chlk, sub-sucro. to sucro + trs packstn; oolitic IP's (tan w/ trs. gray.); dul. H to trs. H. yel. fluor.; No Cut; abn poor to trs fr. to gd. micro-pp por. and poss. interxn por. IP's

3600 DISPLACED MUD SYSTEM 3602

Lms extr. abn wht to CRM-chlk + CRM.

crypto to v. v. fn. xln; sub-chlk, sub-sucro to sucro; slit to extly oolitic IP's; dul H to lt. yel. fluor.; No Cut; v. zbn pr, fr, good to trs excel. micro-pp por

Lms CRM. to tan, greyish IP's; crypto to v. v. fn xln; sub-sucro & packstn; slit to very oolitic IP's; dul yel. fluor.; No Cut; No Vis Por

3700

Interbedded Limestones

① Faster Drlg. Lms. hvrtastov. zbn wht. to CRM-chlk + H. tan to tan; crypto to v. v. fn. xln; phantom oolitic and/or oolitic IP's; sub-chlk, sub-sucro to sucro; dul. yel. to dul. H. yel. + slit. trs H. yel. fluor.; No Cut; abn pr. fr. to gd. + trs. excel. micro-pp + poss. interxn porosity

② Slower Drlg. Lms. tan, greyish IP's; crypto to v. v. fn. xln; sub-chlk, sub-sucro and packstn; dul. yel. fluor.; No Cut; No Vis Por.

3800

Lms. H. grey. to tan; crypto. to v. v. fn. xln; slit. trs. chlk, sub-sucro to packstn; dul. yel. fluor.; No Cut; No Vis Por.

Lms. trs. to hvy trs. wht. to crm-chlk and lt. gray. grading. to tan; crypto. to v.v. fn. xln.; trs. sub-chlk, sub-sucro. to sucro. + trs. to hvy. trs. packstn; phantom oolitic IP's; dul. lt. to sli. trs. lt. yel. fluor.; No cut; zbn. pr., fr., gd. to excel. p.p., micro-p.p. + prob. interxln. por

3900

Lms. lt. gray - shly. to tan, mottled IP's; crypto to v.v. fn. xln.; sub-chlk, sub-sucro. + packstn phantom oolitic (tan + lt. gray.); dul. yel. fluor. IP's; No cut; No Vis POR.

4000

Lms. trs. wht. to crm-chlk + grayish. tan to tan; v.v. fn. xln.; sub-sucro. to v. sucro. v. early phantom oolitic to micro-oolitic IP's; dul. yel. to dul. lt. yel. fluor.; No cut; zbn. pr. to fr. + hvy trs. gd. to excel. micro-oolitic, micro-pp. + prob. interxln. por. IP's

Brickhead  
4045-4034

Lms. lt. gray. to tanish. gray; crypto. to v.v. fn. xln. trs. sub-sucro, packstn. hvy trs. sub-lithog. v. dul. yel. fluor. IP's; No cut; No Vis POR

??

Sh. v. drk. gray. to black-carb

Lms. similar 4330-4341

TRAP CHECK

Sh. lt. gray. lt. green to olive green, silty IP's

Lms. hvy trs. wht. to crm-chlk + tan; crypto to v.v. fn. xln.; sub-chlk, sub-sucro to sucro and packstn.; dul. yel. fluor.; No cut; zbn. pr. to fr. + trs. gd. pen. point; micro-pp. por. w/ poss. interxln. por. IP's

4076-4132 Interbedded Limestns + Shales

① Lms. trs. wht. to crm-chlk + lt. gray, grayish. tan to tan; crypto. to v.v. fn. xln.; trs. sub-chlk, sub-sucro. + packstn.; dul. yel. fluor.; No cut No Vis POR.

② Sh med. to v. drk. gray, sli. to extaly calc IP's w/ trs black-carb. looking

4100

A. 4132-4140 Lms. tan; crypto. to v.v. fn. xln. sub-chlk, sub-sucro + packstn.; trs. ph. to tom. oolitic IP's; dul. yel. fluor. No cut; No Vis POR

Lansing Fm  
4152-4120

B. 4140-4152 Lms. trs. wht. to crm-chlk and lt. tan w/ sptd to trs. even tan oil str. crypto. to v.v. fn. xln.; trs. sub-chlk, sub-sucro to sucro, trs. f. ss, gd. oil, oolitic (Sulfuric); bat. yel. to brt. greenish. yel. fluor. w/ gd. string cuts; zbn. pr., fr., to gd. + trs. excel. p.p., micro-pp + prob. interxln. por. IP's

C. 4162-4157 Lms. similar 4132-4140

D. 4157-4166 Lms. ext. zbn. wht. to crm-chlk + tan; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro to v. sli. trs. sucro; v. widely scattered trs. drk. tan. oil str. w/ yel. fluor. + gd. string cuts; v. sli. trs. w/ v. poor micro-pp por.; very very Quest Perm

SHOW 32U  
MOB 42000 PPS  
RPM 70  
SPM 60  
PP 1000

E. 4166-4171 Lms similar 4132-4140

F. 4171-4183 Sh med to drk gray, greenish IP's to brnish IP's; sli. to v. calc. IP's

G. 4183-4188 Lms. lt. tan w/ scattered trs sptd tan oil str., sli oil oolitic; crypto to v.v. fn. xln. sub-sucro to sucro; zbn. brn. yel. fluor. scattered trs. w/ faint to fr. string cuts top gd. ring cuts; v. scattered trs v. poor pp. to micro-p.p. por.

H. 4188-4196 Lms. trs. wht. to crm-chlk + tan w/ scattered v. sli. drk. tan sptd oil str.; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro to sucro + trs. packstn.; tan wht. to tan. calc. xlt. fr. to oil oolitic; dul. yel. to gd. yel. fluor. w/ trs. w/ sptd string cuts faint to gd. ring cuts; hvy trs. or to trs. fr. micro-pp por. + prob. interxln. por. IP's. Quest Perm w/ hvy trs. chert. arr. to brn. ool.

4200

Hvy. Oil + Gasses Plugged

I 4196-4206 Lms. tan. wht to crm-chlk and  
 H. gry. totan; crypto to v.v. fn. xln; sub-chlk  
 sub-sucro to trs. sucro + packstn; dul. yel  
 fluor; No Cut; No Vis POR

J 4206-4214 Lms H. gry. to grayish. tan crypto  
 to v.v. fn. xln; sub-chlk; sub-sucro and  
 packstn; dul. yel. fluor; No Cut; No Vis POR

K 4214-4244 Lms. abn. wht. to crm-chlk + can to  
 H. tan; crypto to v.v. fn. xln; sub-chlk; sub-sucro to  
 sucro + trs. packstn; dul. H. to H. yel. fluor  
 No Cut; phantom oolitic IP's; abn. peto to  
 trs. gd. micro-pp POR IP's

4244-4265 Lms. H. gry. grayish. tan totan; crypto  
 to v.v. fn. xln; sub-chlk; sub-sucro + packstn;  
 dul. H. to H. yel. fluor; No Cut; No Vis POR  
 w/ trs. chert gry.; opaque

4265-4274 Lms. tan; v.v. fn. xln; sub-sucro to sucro  
 dul. yel. fluor.; No Cut; abn. pr. peto to trs  
 excel. micro-pp. POR; Quest. Perm.

4274-4292 Lms. w/ abn. chert similar 4244-4265

4292-4332 Lms. abn. wht to crm-chlk and tan;  
 crypto. to v.v. fn. xln; sub-chlk; sub-sucro. to v.v.  
 sucro.; Sl. trs. phantom oolitic to v. sl. trs.  
 oolitic; dul. yel. to trs. yel. fluor.; No Cut  
 abn. pr. to trs. trs. gd. to excel IP's  
 pin point; micro-pp + Prob. interdn POR

4332-4349 Lms H. to med. gry.; sl. to extly. shly  
 grndg. to extly. cal. shs; crypto to v.v. fn. xln;  
 sub-chlk for shly; sub-sucro + packstn; dul. yel  
 to dul. H. yel. fluor. IP's; No Cut; No Vis POR

Sh med to dark. gray cal to black-cal. b.

4354-4368 Lms. grndg to shs similar 4332-4349

4368-4375 Lms. abn. wht to crm-chlk + tan;  
 crypto to v.v. fn. xln; v. to extly. oolitic  
 for sl. to v. oolitic; matrix trs. sub-chlk; sub-sucro. to  
 trs. sucro. + packstn; dul. H. to H. yel. fluor.;  
 No Cut; abn. pr. to excel. oolitic por.  
 Very Quest. Perm.

4375-4397 Lms. H. gry. to tanish gry. to grayish.  
 tan; crypto to v.v. fn. xln; sub-chlk; sub-sucro  
 packstn + sub-lithogry; dul. H. to dul. yel. fluor; No Cut  
 No Vis POR

4397-4403 Lms. trs. wht to crm-chlk + H. tan;  
 crypto. to v.v. fn. xln; v. to extly. oolitic + pr  
 sl. to shly oolitic; matrix sub-chlk; sub-sucro  
 + packstn; dul. H. yel. fluor.; No Cut; abn. pr. to  
 oolitic por; Prob. No Perm

4403-4435 Lms. H. gry. to tan + trs. med. gry.;  
 sl. to v. shly. IP's; crypto. to v.v. fn. xln; sub-chlk;  
 sub-sucro., packstn. + sl. trs. sub-lithogry.;  
 trs. phantom oolitic to trs. oolitic; dul. yel  
 to dul. H. yel. fluor; No Cut; No Vis POR

4435-4448 Lms. similar 4397-4403

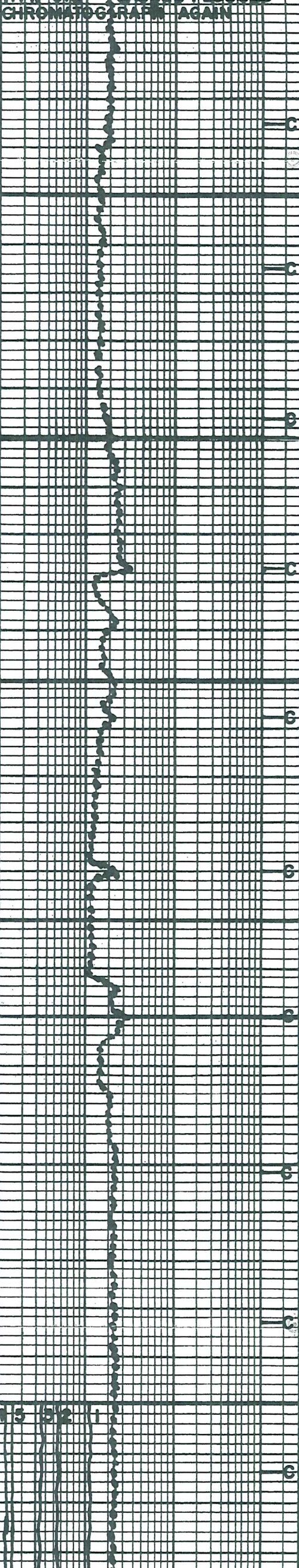
4448-4459 Lms. similar 4403-4435

4459-4536 Lms abn. wht to crm-chlk and  
 grayish. tan to tan; crypto. to v.v. fn. xln; sub-chlk  
 sub-sucro. to sucro; trs. phantom oolitic to  
 trs. oolitic (tan w/ trs H. gry.) for trs  
 phantom oolitic to trs. oolitic  
 dul. H. to trs. H. yel. fluor; No Cut; abn. pr. to  
 trs. gd. oolitic; p.p. to micro-pp POR  
 Quest. Perm.

4300

4400

4500



Shale Black-carb  
4539-4550 Sh med to drk grey; sli to extly calc

INDLK SH 42U  
Kansas City  
4539-4550

Lms. trs. wht to crm-chlk tan; crypto to v.v. fin xln; extly oolitic for sli to extly oolitic; matrix sli. trs. sub-chlk, sub-sucro, sub-sucro + packstn, v.dul. yel. fluor. w/ milky to faint ring cuts IP's; trs. pr. abn. fatogd + excel. oolitic; pp. micro-pp. and interxln. porosity

4565-4592 Interbedded Limestones  
1. Faster Drlg. Lms. similar 4550-4565 becoming less oolitic + more oolitic  
2. Slower Drlg. Lms. H. gry to tan; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn v.dul. yel. fluor; No cut; No Vis POR

4592-4602 Lms. H. to med. gry. v. to extly shly grading to extly calc sh; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn; v.dul. yel. fluor. IP's; No cut; No Vis. POR.

Sh. v. drk. gry. to black-carb.

4610-4640 Lms. H. gry. to tan; crypto to v.v. fin xln; sub-chlk, sub-sucro, packstn + sub-lithogr. v.dul. H. yel. fluor; No cut; No Vis POR

4640-4652 Sh med to v. drk gry. v. to extly calc grading to extly shly lms ts

4652-66 Lms. H. gry to tan, mottled IP's; crypto to v.v. xln; abn. sli to extly oolitic (tan + H. to med gry) matrix ext. chlk, sub-chlk, sub-sucro + packstn; v.dul. H. yel. fluor; No cut; No Vis POR.

4666-4675 Lms. H. gry; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn; sli. oolitic IP's; dul. H. yel. fluor. No cut; No Vis POR

4675-4684 Lms similar 4652-4666

4684-4695 Lms H. to drk gry. v. to extly shly grading to extly calc sh; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn; v.dul. H. yel. fluor; No cut; No Vis POR.

4695-4722 Lms. tan to hvy. trs. wht. to crm-chlk + gryish tan to tan; crypto to v.v. fin xln; abn. phantom oolitic; sub-chlk, sub-sucro, packstn + trs sub-lithogr; v.dul. yel to tes yel fluor; No cut; No Vis POR

4722-4732 Lms. H. to med gry-shly to tan; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn; v.dul. H. yel. fluor; No cut; No Vis. POR.

4732-4742 Lms. trs. wht. to crm-chlk + tan; crypto to v.v. fin xln; extly oolitic for sli to v. oolitic; matrix trs. sub-chlk, sub-sucro + trs sucro + trs packstn + s. pr.; glan. yel. fluor. w/ hvy trs w/ milky to faint ring cuts; hvy trs. pr. to ext + abn. fatogd + excel. oolitic por and hvy trs. pr. to g. p. p. micro-pp. + interxln. por; majority v. Quest Fern.

4742-4787 Interbedded Limestones  
① Lms. gryish. tan to tan; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn; dul. yel. fluor. No cut No Vis. POR.  
② Lms. H. to med. gry, tanish IP's; crypto to v.v. fin xln; sli to extly shly; sub-chlk, sub-sucro, packstn and sub-lith. b. graph. v.dul. yel. fluor; No cut; No Vis POR.  
③ Trs Chert gry to tan; opque

4787-4796 Lms H. gry to tan, mottled IP's crypto to v.v. fin xln; v. to extly oolitic; gryish tan to tan; sli. oolitic; sub-chlk, sub-sucro + packstn; v.dul. yel. fluor; No cut; trs. pr. oolitic por. Prob No Fern.

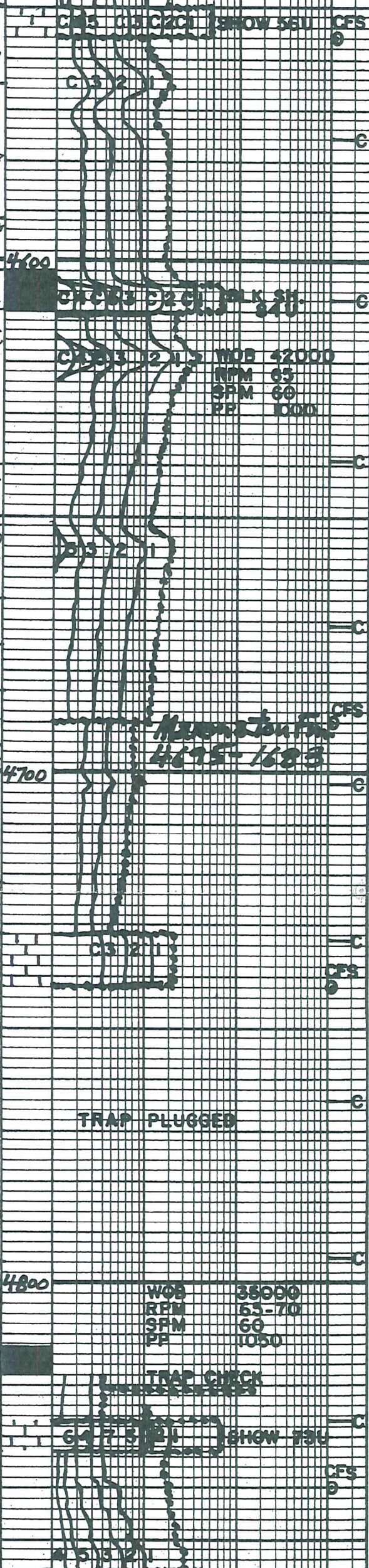
4796-4813 Lms H. to med. gry, tanish IP's; crypto to v.v. fin xln; sli to extly shly; sub-chlk, sub-sucro + packstn; dul. yel. fluor; No cut No Vis. POR

Sh. v. drk. gry. to black-carb

4813-4827 Lms. similar 4796-4813

4827-4833 Lms. trs. wht. to crm-chlk + tan w/ sli. drk. sp. tan oil stain; i. spitting; i. sp. oil; phantom oolitic to oolitic; matrix v.v. fin xln; sub-sucro to extly sucro; grt. glan. yel. fluor. w/ flush to g. d. str. ring cuts; abn. fatogd to excel. pp. micro-pp. + interxln. por

4833-4856 Lms. gryish. tan to tan; crypto to v.v. fin xln; sub-chlk, sub-sucro + packstn. No cut; No Vis POR



WOB 42000  
RPM 65  
SFM 60  
PP 1000

Kansas City  
4695-4683

WOB 35000  
RPM 65-70  
SFM 60  
PP 1050

SHOW 73U

Sh v.drk.gry. to black-carb.  
 4859-4880 Lms. H.gry. to tan; crypto. to v.v. fn. xln; TRS sub-chlk, sub-sucro, packstn to trs. sub-lithographic; dul. yel. fluor. P's; No Cut; No Vis. POR  
 Sh med. to v. drk. gray-calc. to tan v. drk. gry. to black-carb. looking

4883-4939 Interbedded Lmsts + Shales  
 1. Lms. H. gry. to tan; crypto. to v.v. fn. xln; TRS. sub-sucro, packstn. + sub-lithographic dul. yel. fluor.; No Cut; No Vis. POR.  
 2. Lms. H. to med. gry. - sli to extrly. Shly; crypto to v.v. fn xln; sub-chlk + or Shly.; TRS. sub-sucro. + packstn; No fluor. No Cut; No Vis POR.  
 3. TRS. Sh. med to v. drk. gry - sli to extrly calc.

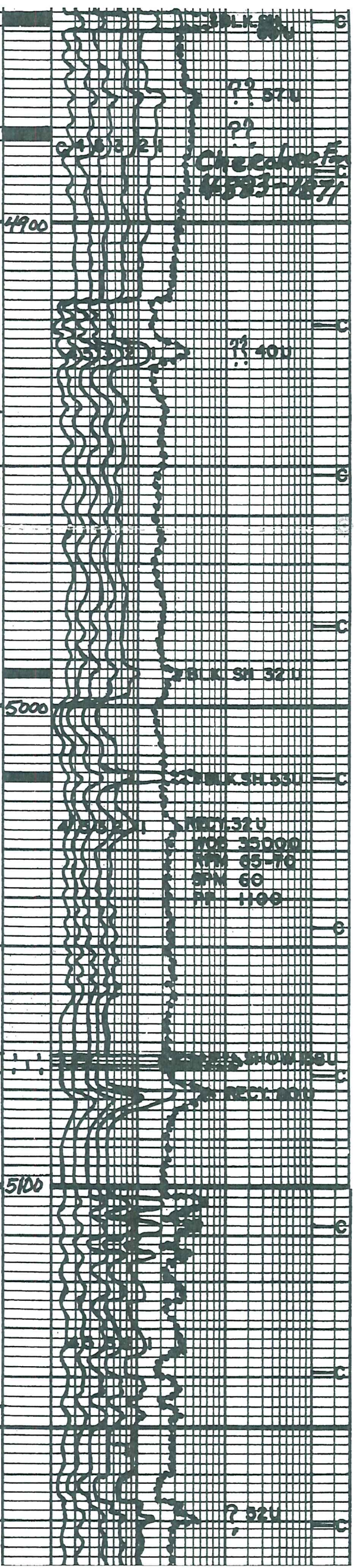
4939-5073 Interbedded Lmsts + Shales  
 (A) Lms. med. to drk gry. - v. to extrly Shly grading to extrly. calc. Shs; crypto. to v.v. fn. xln; sub-chlk. + or Shly; TRS. sucro, packstn, + sub-lithographic; some dul yel. fluor.; No Cut; No Vis. POR  
 (B) Lms. H. gry. to tan; crypto. to v.v. fn. xln; TRS. sub-chlk, TRS sub-sucro, packstn + sub-lithographic; dul. yel. fluor.; No cut; No Vis POR.  
 (C) scattered thin beds Shales med. to v. drk. gry. - calc to v. drk. gry to black-carb.

5073-5077 Lms. tan to brown from oil str; v.v. fn. + v. fn. xln; sub-sucro to v. sucro; phantom oolitic TRS; gldn yel. fluor. w/ flush to excel staining cuts; abn pr. to trs + hu TRS. gd. to excel pinpoint, micro pp. and interxln por

5077-5146 Interbedded Limestones + Shales  
 Similar 4939-5073

Interbedded Limestones + Shales  
 Similar 4939-5073 w/ abn Shs. + large increase in Black Shs.

5170-5214 Lmst w/ scattered thin Shales  
 1. Lms. H. to med. gry. to tan, mottled TRS



crypto. xln; packstr to sub-lithogr.;  
 No fluor.; No Cut; No Vis for.  
 2. Sh. med. to drk. gray-sli to extly  
 calc. grading to extly shly lms.

5200

5214-5249 Interbedded Shs. + Lms.

- ① Sh. med. to drk. gray w/ abn v. drk. gray to black
- ② Lms. similar 5170-5214

5249-5278 Sh. med. to drk. gray-sli to extly calc. IP's.

L 5278-5286 Lms. tan to brown; crypto to v. v. fn. xln. phantom oolitic to oolitic, matrix trs. sub-chlk + sub-succo; trs. spt'd brn. oil str. w/ greenish-yel. fluor.; qd stemng cut's IP's; No Vis POR

M 5286-5307 Sh. med. to drk. gray; calc. IP's w/ thin interbeds and laminations Lms. w/ shows similar 5307-5317

N 5307-5317 Lm. Sd. H. gray to tan; mottled w/ v. abn. brn to blk oil str; fnto coarse gr/ composed Lm. grs +

foss. frags. - crypto to v. v. fn. xln; scattered TRS glauc. or chlorite gl. dr. yel. fluor w/ flush to qd. stemng. cut's; v. widely scattered v. pr. p.p. + micro-pp. por. prob little or no perm

O 5317-5360 Sh. med. to drk. gray; greenish IP's to TRS olive green within interbeds or laminations w/ show similar 5307-5314

P 5360-5370 Qtz Sd. med to drk. gray; tanish from oil str; v. fine silt + clay filled; sli. to v. calc; taste abn. glauc. or chlorite; abn. shale laminations; yel. fluor; flush to qd. stemng cut's; No Vis POR; Prob. No Perm

Q 5370-5380 Qtz Sd. grayish tan to brownish gray. from oil str; v. fine gr. (silt + clay filled IP's); (sl. calc. TRS)

R 5380-5386 Lm. Sd. H. gray to tan + tes CRM; v. fn. to coarse gr. (composed Lm. gl. dr. chlk, sub-chlk, sub-succo + trs. succo; scattered TRS. to hvy. tes. glauc. or chlorite; dub. H. yel. fluor IP's; No Cut; No Vis POR

T 5386-5393 Shs. med. to drk. gray.

U 5393-5412 Lms. TRS, CRM to wht. chlk + gray shly. IP's to tan; crypto to v. v. fn. xln. sub-chlk, sub-succo + packstr; trs. dub. H. yel. + Inore; No Cut; No Vis POR

V 5412-5451 Sh. med to TRS drk. gray-sli to extly calc. IP's grading to or interbedded w/ Lms. similar 5393-5412 silty IP's to tanish interbeds and/or laminations silt stns H. green to green and H. gray; clay or shale filled

W 5451-5465 Sh. similar 5412-5451 w/ inc. in silt stns + inc. in Lms. similar 5393-5412

X 5477-5490 Qtz Sd. v. fn. well sorted, H. tan even oil str. + v. fn. to coarse grs w/ v. fn. gr oil stns + mat. TRS; trs. to abn. glauc. + or chlorite; abn. greenish yel. fluor w/ flush to qd. stemng cut's; faint to i. order; abn. pr. to cut trs. qd. to ext. col. micro-pp. + intergr. por. in v. fn. gr. Some sh. laminations + trs. Qu. Kts. H. dense; thrt. h. red

5490-5515 Qtz Sd. tan from oil str

5300

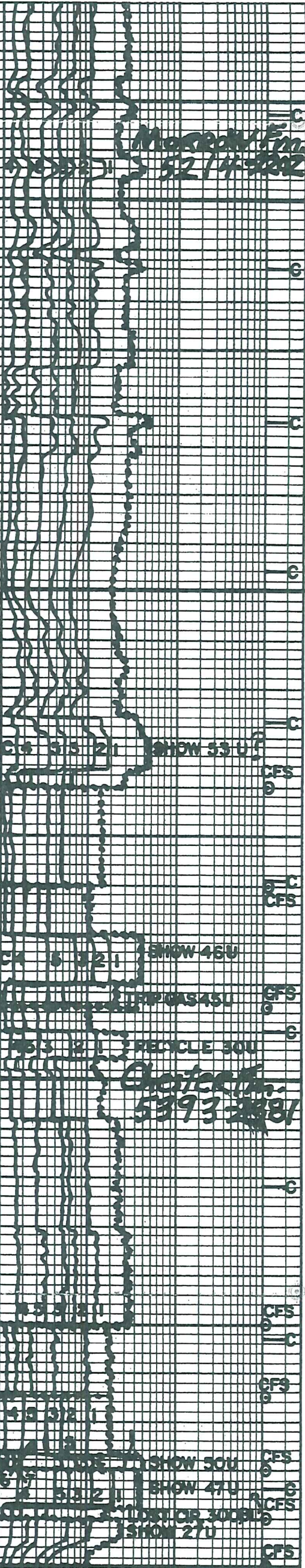
5400

5500

Morrell Fm  
 5214-5249

Clayton Fm  
 5393-5412

5214-5249 Interbedded Shs. + Lms.  
 5249-5278 Sh. med. to drk. gray-sli to extly calc. IP's.  
 5317-5360 Sh. med. to drk. gray; greenish IP's to TRS olive green within interbeds or laminations w/ show similar 5307-5314  
 5360-5370 Qtz Sd. med to drk. gray; tanish from oil str; v. fine silt + clay filled; sli. to v. calc; taste abn. glauc. or chlorite; abn. shale laminations; yel. fluor; flush to qd. stemng cut's; No Vis POR; Prob. No Perm  
 5370-5380 Qtz Sd. grayish tan to brownish gray. from oil str; v. fine gr. (silt + clay filled IP's); (sl. calc. TRS)  
 5380-5386 Lm. Sd. H. gray to tan + tes CRM; v. fn. to coarse gr. (composed Lm. gl. dr. chlk, sub-chlk, sub-succo + trs. succo; scattered TRS. to hvy. tes. glauc. or chlorite; dub. H. yel. fluor IP's; No Cut; No Vis POR  
 5386-5393 Shs. med. to drk. gray.  
 5393-5412 Lms. TRS, CRM to wht. chlk + gray shly. IP's to tan; crypto to v. v. fn. xln. sub-chlk, sub-succo + packstr; trs. dub. H. yel. + Inore; No Cut; No Vis POR  
 5412-5451 Sh. med to TRS drk. gray-sli to extly calc. IP's grading to or interbedded w/ Lms. similar 5393-5412 silty IP's to tanish interbeds and/or laminations silt stns H. green to green and H. gray; clay or shale filled  
 5451-5465 Sh. similar 5412-5451 w/ inc. in silt stns + inc. in Lms. similar 5393-5412  
 Interbedded Shales + Qtz Sd. stns  
 1. Sh. med. gray. very silty IP's  
 2. Qtz Sd. H. gray, tanish IP's; v. v. fn. gr. to silt + mg; prly sorted; ext. abn. H. gray Sh. laminations + partings; sli. to extly calc. IP's; v. sli. tanish yel. fluor; w/ faint to f. a. stemng cut's; No Vis POR  
 5477-5490 Qtz Sd. v. fn. well sorted, H. tan even oil str. + v. fn. to coarse grs w/ v. fn. gr oil stns + mat. TRS; trs. to abn. glauc. + or chlorite; abn. greenish yel. fluor w/ flush to qd. stemng cut's; faint to i. order; abn. pr. to cut trs. qd. to ext. col. micro-pp. + intergr. por. in v. fn. gr. Some sh. laminations + trs. Qu. Kts. H. dense; thrt. h. red  
 5490-5515 Qtz Sd. tan from oil str



v. tan; 2ng, well sorted, clean for most part  
 good oil ader; brt. greenish yel. fluor. w/  
 flush to excel. str. mag. cuts; abn. pr. qtz  
 qtz + hv. t. s. excel. micro pp to intergr.  
 por.

5515-5583 Qtz Sdst similar 5490 5515  
 w/ 10 to 20% crm to H. gray clay +  
 silt filled; No fluor; No cut;  
 No vis por No show w/ depth  
 the sdsts w/ no show develop  
 abn. pr. qtz, qd to Excel micad - pp +  
 intergr. por

5583-5642  
 Qtz Sdst H. gray to tan wht. tanish IP's  
 v. tan. gr; silt filled IP's; 2ng.  
 pr to H. sort; No O der No fluor  
 No cuts; abn. pr. qtz qd to excel.  
 micro-pp to intergr. por. w/ thin  
 interbeds for laminations wht to crm  
 clay stn; sl. dolomitic IP's; ties  
 sl. to extr IP's QZ sky IP's

Lms. abn. wht. to crm. - chlk w/ chlk  
 oolites IP's; 2nd. tan; crypto. to v. tan;  
 sl. to ext. oolitic (sm, med + lg); matrix  
 chlk, sub-chlk, sub-sucro + packstn. v. dul. yel  
 fluor; No cut; No vis por

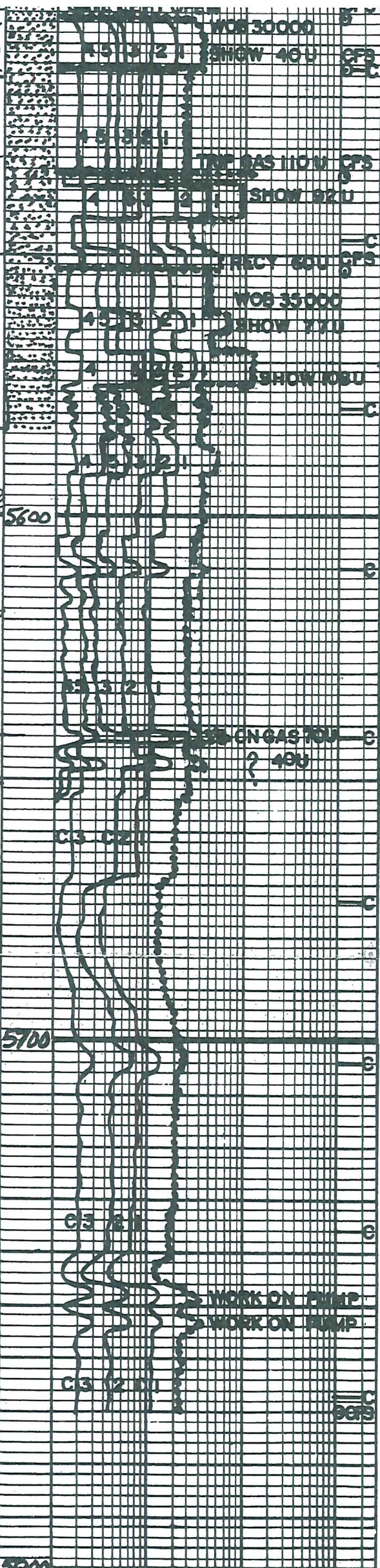
Lms. tan, grayish IP's to grayish tan; crypto  
 to v. v. tan. sln.; sub-sucro, packstn and  
 sub-lithographic; abn. sl. to ext. yel.  
 oolitic (sm, med + lg); v. dul. yel. fluor;  
 No cut; No vis por.

Lms. tan wht. to crm. - chlk + H. gray to tan;  
 crypto. to v. v. tan. sln.; ties sub-chlk,  
 sub-sucro, packstn. and sub-lithogr.  
 tan sl. to v. oolitic (sm, med + lg).  
 v. dul. yel. fluor; No cut; No vis por.  
 w/ tan to hv. tan chert gray to tan;  
 opaque to transl.

Lms. H. gray to tan; crypto to v. v. tan  
 tan. sub-chlk, sub-sucro, packstn +  
 sub-lithographic; v. dul. yel. fluor;  
 No cut; No vis por, w/ abn. chert  
 gray to tan; opaque to transl.

TD 5770

Bit Info: 7 7/8 inch  
 #1 New Hughs GX 725  
 1791 bit 5770 TD



WOB 30000  
 SHOW 46U  
 CFB  
 C  
 WOB 31000  
 SHOW 92U  
 C  
 WOB 32000  
 SHOW 77U  
 WOB 33000  
 SHOW 108U  
 C  
 WOB 34000  
 SHOW 149U  
 C  
 WOB 35000  
 SHOW 180U  
 C  
 WOB 36000  
 SHOW 211U  
 C  
 WOB 37000  
 SHOW 242U  
 C  
 WOB 38000  
 SHOW 273U  
 C  
 WOB 39000  
 SHOW 304U  
 C  
 WOB 40000  
 SHOW 335U  
 C  
 WOB 41000  
 SHOW 366U  
 C  
 WOB 42000  
 SHOW 397U  
 C  
 WOB 43000  
 SHOW 428U  
 C  
 WOB 44000  
 SHOW 459U  
 C  
 WOB 45000  
 SHOW 490U  
 C  
 WOB 46000  
 SHOW 521U  
 C  
 WOB 47000  
 SHOW 552U  
 C  
 WOB 48000  
 SHOW 583U  
 C  
 WOB 49000  
 SHOW 614U  
 C  
 WOB 50000  
 SHOW 645U  
 C  
 WOB 51000  
 SHOW 676U  
 C  
 WOB 52000  
 SHOW 707U  
 C  
 WOB 53000  
 SHOW 738U  
 C  
 WOB 54000  
 SHOW 769U  
 C  
 WOB 55000  
 SHOW 800U  
 C  
 WOB 56000  
 SHOW 831U  
 C  
 WOB 57000  
 SHOW 862U  
 C  
 WOB 58000  
 SHOW 893U  
 C

WORK ON PUMP  
 WORK ON PUMP



Dev. Surf.:

- |                |                |
|----------------|----------------|
| 1. 1033 1/4°   | 6. 4742 3 1/2° |
| 2. 2490 1 3/4° | 7. 4952 4 1/4° |
| 3. 3645 1°     | 8. 5385 5°     |
| 4. 4146 2 3/4° | 9. 5490 2 3/4° |
| 5. 4198 2°     | 10. 5770       |

TD

Cir. Points:

- |         |          |          |
|---------|----------|----------|
| 1. 4146 | 8. 5340  | 15. 5500 |
| 2. 4195 | 9. 5360  | 16. 5505 |
| 3. 4198 | 10. 5385 | 17. 5515 |
| 4. 4556 | 11. 5450 | 18. 5525 |
| 5. 4690 | 12. 5465 | 19. 5553 |
| 6. 4742 | 13. 5480 | 20. 5770 |
| 7. 4840 | 14. 5490 |          |

Daily Delg. Progress:

- |          |         |           |
|----------|---------|-----------|
| 1. 3500  | 3:27 AM | 7-21-2011 |
| 2. 3582  | 7:00 AM | 7-21-2011 |
| 3. 4146  | 7:00 AM | 7-22-2011 |
| 4. 4195  | 7:00 AM | 7-23-2011 |
| 5. 4280  | 7:00 AM | 7-24-2011 |
| 6. 4556  | 7:00 AM | 7-25-2011 |
| 7. 4697  | 7:00 AM | 7-26-2011 |
| 8. 4742  | 7:00 AM | 7-27-2011 |
| 9. 4940  | 7:00 AM | 7-28-2011 |
| 10. 5131 | 7:00 AM | 7-29-2011 |
| 11. 5364 | 7:00 AM | 7-30-2011 |
| 12. 5385 | 7:00 AM | 7-31-2011 |
| 13. 5490 | 7:00 AM | 8-1-2011  |
| 14. 5492 | 7:00 AM | 8-2-2011  |
| 15. 5505 | 7:00 AM | 8-3-2011  |
| 16. 5535 | 7:00 AM | 8-4-2011  |
| 17. 5615 | 7:00 AM | 8-5-2011  |
| 18. 5770 | 7:00 AM | 8-6-2011  |

DST #1 Lansing "A" 4136-4146  
 10 Weak surface blow FO No Blow  
 Rec 95' wtry Mud Tr oil 40% W. 60% M  
 Titrated Chl 13000ppm BHT 113°F  
 IHP 1918#

- IFP 19-32# in 30 min  
 ISIP 948# in 60 min  
 FFP 35-57# in 60 min  
 FSIP 940# in 120 min  
 FHP 1903

DST #2 Lansing "B" 4186-4198  
 10. Weak surface blow died in 15 min  
 FO No Blow BHT 113°F  
 Rec 15ft 100% Mud  
 IHP 1933#

- IFP 21-27# in 30 min.  
 ISIP 602# in 60 min  
 FFP 27-42# in 60 min.  
 FSIP 595# in 120 min.  
 FHP 1932#

DST #3 Kansas City "A" 4534-4556  
 10. Weak building blow BOB 10 min  
 FO Weak building blow BOB 23 min  
 Rec 300ft GIP  
 1000ft wtry Mud Tr. gas, 82% W; 20% M  
 Rw .12 @ 105°F Chl 40000ppm Testok  
 Titrated Chl 50200ppm BHT 121°F  
 IHP 2176#

- IFP 44-273# in 30 min.  
 ISIP 1336# in 60 min.  
 FFP 294-462# in 60 min.  
 FSIP 1336# in 120 min.  
 FHP 2070#

DST #4 Marmaton "A+B" 4702-4742  
 10. Weak blow 1 1/2 inch blow in 30 min.  
 FO Weak blow 1/2 inch blow in 60 min  
 Rec 120' MCW 50% W; 50% M  
 Rw .35 @ 70°F Chl 18000ppm Testok  
 Titrated Chl 17500ppm BHT 120°F  
 IHP 2345#

IFP 23-63# in 30 min.  
 ISIP 1147# in 60 min.  
 FFP 67-129# in 60 min.  
 FSIP 1142# in 120 min.  
 FHP 2229#  
 DST#5 MORROW 5284-5385  
 I.O. Weak surface blow 1/2" in 30 min. F.O. No Blow  
 Rec 110ft 100% Mud BHT 126°F  
 IHP 2602#  
 IFP 61-70# in 30 min  
 ISIP 135# in 60 min  
 FFP 64-83# in 60 min  
 FSIP 171# in 120 min

FHP 2470  
 DST#6 Chester Sdst 5462-5490  
 I.O. Weak surface blow died at 30 min  
 F.O. No Blow Rec 30ft. 100% Mud  
 BHT 130°F  
 IHP 2651#  
 IFP 22-28# in 30 min.  
 ISIP 159# in 60 min.  
 FFP 29-39# in 60 min.  
 FSIP 266# in 120 min.  
 FHP 2518#

DST#7 Chester Sdst 5482-5505  
 I.O. weak blow 5 inches in 30 min.  
 F.O. weak blow 2 inches in 60 min.  
 Rec 400ft Total fluid  
 300 CLM 10% oil; 90% mud  
 370 O+MCW 5% oil; 60% wtr; 35% mud  
 BHT 126°F R.w. 4 @ 65°F Chl 19000 ppm Testok  
 Titrated Chl 7700 ppm Fitekte wtr.

DST#8 Chester Sdst 5506-5535  
 I.O. Weak blow 2 inches in 30 min.  
 F.O. weak blow 1 inch in 60 min  
 Rec 400ft MCW 90% wtr; 10% Mud  
 R.w. 22 @ 85°F Chl 27000 ppm Testok  
 Titrated 29800 ppm  
 BHT 132°F  
 IHP 2566#  
 IFP 30-100# in 30 min  
 ISIP 643# in 60 min  
 FFP 118-203# in 60 min  
 FSIP 645# in 120 min  
 FHP 2489#

Mud Info:

Date	7-20 7:30A	7-21 3:10P	7-22 10:50A	7-23 11:30A	7-24 1:30P	7-25 10:00A	7-26 7:20A	7-27 5:00P
Depth	2989	3801	4446	4498	4415	4558	4702	4778
WT.	9.1	8.65	9.0	8.9	9.2	9.2	9.1	9.0
Vis	33	53	51	54	51	56	53	48
PV	3	16	16	16	16	17	17	13
YP	4	17	18	19	18	21	17	14
GS	4/6	15/46	14/37	13/38	14/36	14/41	16/46	17/42
WL	N/C	8.8	7.2	8.0	8.8	8.0	8.8	10.4
Cake	—	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	7.0	11.0	11.0	10.0	9.5	10.5	10.5	9.0
Chl	19600	2600	2300	2500	5500	3500	2700	3500
Ca HVY	20	40	40	80	40	20	20	
LCM	1	2	3	3	3	4	4	4

Date	7-28 12:30P	7-29 10:10P	7-30 10:30A	7-31 12:00P	B-1 11:55A	B-2 11:00A	B-3 11:50P	B-4 12:30PM
Depth	4902	5191	5225	5412	5492	5505	5535	5535

411 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 4

Date	7-28	7-29	7-30	7-31	B-1	B-2	B-3	B-4
	1:30P	1:10P	10:30A	12:00P	7:55A	11:00A	12:55P	12:30PM
Depth	4786	5191	5385	5418	5490	5495	5505	5535
Wt.	9.1	9.1	9.15	8.95	9.1	8.95	8.85	8.9
Vis	52	48	68	77	55	68	62	49
PV	17	14	21	17	16	17	23	14
YP	18	16	23	21	17	18	24	16
GS	16/48	15/44	21/69	18/59	16/50	17/53	21/62	14/45
WL	9.5	9.2	9.0	10.0	8.8	8.4	8.8	9.2
Cake	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	11.0	11.0	10.5	10.0	10.5	10.5	10.0	9.5
chl	4300	2800	2100	3700	4800	3600	2100	2400
Ca	20	20	20	20	20	20	20	20
LCM	3	3	4	3	2	7	8	6

Date	8-5						
	9:30A						
Depth	5588						
Wt.	8.8						
Vis	45						
PV	13						
YP	14						
GS	13/38						
WL	9.5						
Cake	1/32						
pH	9.5						
chl	2100						
Ca	20						
LCM	6						

OPERATOR BEREXCO LLC LOCATION 335'N1L & 890'FEL  
 LEASE DOERKSEN B. NO. 1-27 SEC. 27 TWP. 28S RANG. 34W  
 ELEVATION 3012KB RTD 5770 COUNTY HASKELL STATE KANSAS