

GEOLOGIST'S REPORT

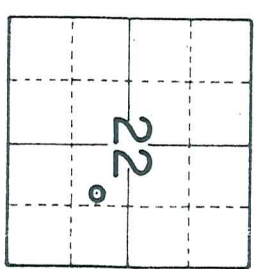
DRILLING TIME & SAMPLE LOG

COMPANY BEREXCO LLC ELEVATIONS
 LEASE EJH NO. 1-22 KB 2942
 LOCATION 1858 FSL & 1394 FEL DF 2940
 SEC. 22 TWP. 30S RNG. 33W GL 2930
 COUNTY HASKELL STATE KANSAS
 FIELD VICTORY MEASUREMENTS ARE ALL FROM KB

CONTRACTOR BEREDCO DRLG. RIG NO. 2
 COMM. 5-7-2011 COMP. 5-27-2011
 RTD 5650 LTD 5649
 No. of DST'S 7 No. of CORES NONE
 SAMPLES SAVED FROM 3800 TO TD
 DRILLING TIME KEPT FROM 3800 TO TD
 SAMPLES EXAMINED FROM 3800 TO TD
 GEOLOGICAL SUPERVISION FROM 3800 TO TD
 GEOLOGIST ON WELL EDWIN H. GRIEVES

FORMATION TOPS

FORMATION	SAMPLE	LOG	SUBSEA
BASE HEEBNER	4074	4071	-1128
TORONTO	4082	4083	-1141
LANSING	4130	4126	-1184
MARMATON	4784	4776	-1834
CHEROKEE FM.	4950	4951	-1009
MORROW FM.	5232	5230	-2288
CHESTER	5370	5370	-2428
ST. GENEVIEVE	5519	5519	-2577
ST. LOUIS	5541	5543	-2601
TD	5650	5649	



REMARKS Earth-Tech has an unmanned gas detection trailer on this well from 3800 to total depth.

Thank you,
Edwin H. Grievess
Geologist

LITHOLOGY

	SANDSTONE		SILTSTONE
	LIMESTONE		DOLOMITE
	SHALE		GRANITE WASH
	CHERT		ANHY. & GYP

CHROMATOGRAPH

HOT WIRE BY
TOTAL GAS VOLUME

- C1 = METHANE
- C2 = ETHANE
- C3 = PROPANE
- C4 = ISOBUTANE
- C5 = BUTANE
- C6 = ISOPENTANE
- C7 = PENTANE

DRILL TIME SCALE	SAMPLE DESCRIPTION	GAS SCALE
5 10 15	3800	10 100 1000
	Lms. v. to extely abn. wht. to crm-chlk. and lt. tan totan, grayish. lps; crypto. to v.u. fr. xlu.; sub-chlk, sub-sucro. to sucro. dnl. lt. to hrs. lt. yel. fluor.; No cut; abn. pr. to fr. micro-p.p. por. and. Prob. interxlu. por.	

Lms. lt. to med. gry - Shly. gradng to frly. to
extral. calc. shs. and grayish. tan to tan;
crypto. to v.u. fn. xln.; sub-chlk for shly.
sub-sucro + pachstn.; dul. lt. to tan. H. yel.
fluor. IP's; No Cut; No Vis. Por.

321

3900

Interbedded Limestones

- ① Faster Drlg. Lms. similar 3800-3846
w/tes oolitic IP's w/pr. to good
oolitic por. in those parts
- ② Slower Drlg. Similar 3846-3865

Lms. tes. wht. to cream. - chlk and grayish. tan
to tan; crypto. to v.u. fn. xln.; sub-chlk
sub-sucro. to sucro. + tes. pachstn.
phantom oolitic IP's; dul. yel. fluor.
No Cut; No Vis Por

4000

Sh. drk. gry. to black-carb.; silty IP's

C32 1

433 2 1

BLK. SH. 24 U

Lms. Similar 4046-4065
Lms. hvy. tes. wht. to cream + H. gry. - chlk + H. gry. to
tan; crypto. to v.u. fn. xln.; sub-chlk;
sub-sucro to sucro.; dul. yel. fluor.; No Cut
tes. pr. micro-pp. por + poss. interxln. por
Lms. hvy. tes. wht. to cream. + H. gry. - chlk + H. gry.
to tan; crypto. to v.u. fn. xln.; sub-chlk,
sub-sucro. + pachstn.; dul. yel. fluor.
No Cut; No Vis Por

Base Heebner
4074-1132
RECYCL 24 U

Sh. v. drk. gry to black - carb
Lms. H. gry. to tan; crypto xln. pachstn.
dul. yel. fluor. IP's; No Cut; No Vis Por
Sh. lt. gry. to grayish. gry.; silty IP's to tan
siltstn. lt. grayish. gry.; sli. mica - micaceous
dense, fine, hard; No fluor; No Cut; No Vis Por
Lms. H. gry.; tanish IP's; crypto. to v.u. fn. xln.
sub-chlk; sub-sucro + pachstn.; sli. shly. IP's
v. dul. yel. fluor. IP's; No Cut; No Vis Por
Lms. hvy. tes. wht. to cream. - chlk + tan; crypto to
v.u. fn. xln.; sub-chlk; sub-sucro to sucro.
dul. H. yel. fluor.; No Cut; w/hvy tes poor to
fair micro-pp. por + prob. interxln. por.

415302

BLK. SH. 54 U

REGY. 32 U

Toronto
4032-1140

4100

Lms. H. gry. to tan, mottled IP's; crypto. to v.u. fn.
xln.; sub-chlk for shly. IP's; sub-sucro.
+ pachstn.; oolitic IP's (gray w/tes tan);
dul. yel. fluor.; No Cut; No Vis Por.

Lms. tan; crypto. to v.u. fn. xln.; sub-chlk
sub-sucro + pachstn.; dul. H. to H. yel.
fluor.; No Cut; No Vis Por

Lansing
4130-1188

Lms. tan; poss. sli. darker. tan oil stn.; v.u. fn
- to v. fn. xln.; sub-sucro to v. sucro. phantom
oolitic IP's; tes. poss.; brt. H. yel. fluor. w/
fair to good. stamng cuts; abn. pr. fr. to good
- hvy tes excel. micro-pp + interxln. por
Lms. Similar 4130-4149
Lms. tes. cream. to gry. - chlk + H. gry. to tan;

067CA

3

SHOW 87 U

DST
Base Below

sub-sucro + packstn; sli. to v. phant. oolitic &/or sli. to v. oolitic (tan & gray); trs. foss.; dul. lt. to lt. yel. fluor.; No cut; hvy. trs. w/ pr. to fr. & sli. trs. qd. micro-p.p. por.

Lms. lt. gray to tan; crypto. xln.; trs. sub-dlt. packstn. to trs. sub-lithog. & ph. dul. lt. yel. fluor.; No cut; No Vis Por.

Lms. trs. wht to cream - chlk + tan; crypto. to v.v. fn. xln.; v. to extaly oolitic &/or v. to extaly. oolitic (smtomed.) matrix sub-sucro to sucro. + packstn. gldn. yel. fluor.; No cut; extr. zbn. pr. to fr. qd. to excel oolitic por. w/ trs pr. to fr. micro-p.p. por. IP's and poss. interxln. por. IP's; V. Quest. Perm.

Lms. similar to 4189-4197
Lms. extr. zbn. wht. to cream - chlk + tan; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro and packstn.; dul. lt. to lt. yel. fluor.; No cut No Vis. Por. w/ trs Chert wht.; cream, gray to tan; opaque

Lms. lt. to med - sli. to taby. - shly; crypto xln.; packstn. to sub-lithog. & ph. No cut; No Vis Por w/ trs v. drk. gray to black shale

Lms. lt. gray to grayish. tan + trs. tan; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro. + packstn.; trs. to zbn. oolitic; dul. lt. to trs. lt. yel. fluor.; No cut; No Vis Por.

Lms. hvy. trs. wht. to cream - chlk + grayish tan to tan; crypto. to v.v. fn. xln. sub-chlk, sub-sucro + packstn.; dul. gldn. yel. fluor.; No cut; No Vis Por.

Lms. similar to 4269-4284 w/ trs Chert lt. gray to tan, opaque

Lms. similar to 4284-4290

Lms. lt. gray to tan, mottled; crypto. to v.v. fn. xln. sub-sucro + packstn.; extaly phant. oolitic IP's; dul. yel. fluor.; No cut; No Vis Por.

Lms. extr. zbn. wht. to cream - chlk + tan, grayish; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro to trs. sucro. + packstn.; dul. lt. to trs. lt. yel. fluor.; No cut; scattered trs. poor micro-p.p. por. + poss. interxln. por. IP's

Lms. tan to grayish. tan + trs. lt. gray; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro, packstn. and trs. sub-lithog. dul. lt. yel. fluor.; No cut; No Vis Por.

Lms. hvy. trs. wht. to cream - chlk + tan; crypto. to v.v. fn. xln.; extaly. oolitic &/or v. to extaly. oolitic; matrix sub-sucro to sucro + packstn.; dul. lt. to trs. lt. yel. fluor.; No cut; zbn. pr. to fr. qd. to excel. oolitic por. + trs. pr. micro-p.p. por. IP's + poss. interxln. por. IP's; Quest Perm.

Lms. hvy. trs. to zbn. wht. to cream - chlk + tan; crypto. to v.v. fn. xln.; sub-sucro + packstn. and tan, crypto. to v.v. fn. xln.; v. to extaly oolitic &/or v. to extaly. oolitic; matrix sub-sucro to sucro + packstn.; dul. lt. to lt. yel. fluor.; No cut; hvy. trs. to zbn. pr. to fr. + trs. qd. oolitic por.; V. Quest. Perm.

Lms. lt. to med. gray - sli. to taby. shly. crypto. xln.; packstn. to sub-lithog. dul. lt. yel. fluor. IP's; No cut; No Vis Por.

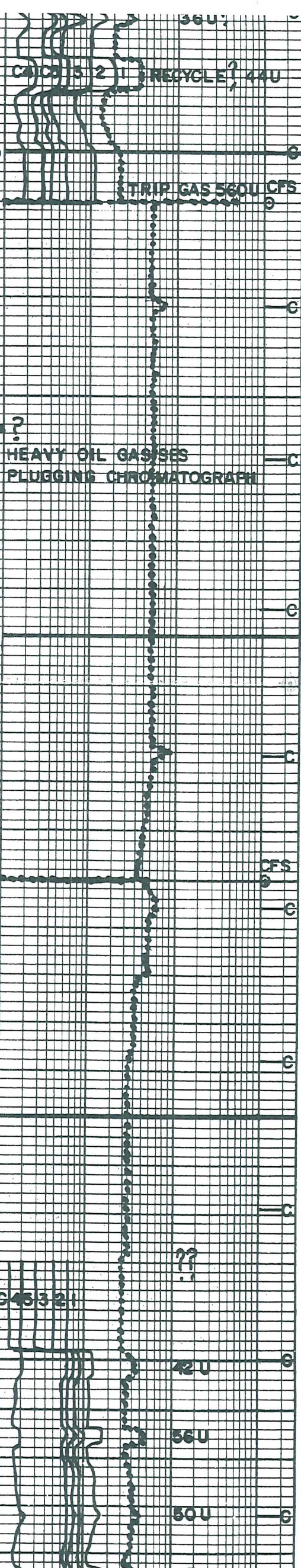
Lms. similar to 4399-4412 becoming drk. gray to brown

Sh. drk. gray to black - carb + calc

Interbedded Limestones

① Lms. similar to 4399-4412
② Lms. tan; crypto. to v.v. fn. xln.; sub-sucro, packstn. + sub-lithog. dul. yel. fluor.; No cut; No Vis Por

Lms. trs. to zbn. wht. to cream - chlk + tan; crypto. to v.v. fn. xln.; sub-chlk, sub-sucro. + packstn.; phant. oolitic IP's; dul. yel. to trs. yel. fluor.; No cut No Vis. Por



Lms. lt. gray to tan; crypto. to v.v. fn. xln.;
trs. sub-sucro, pachstn. + sub-lithogr.
dul. yel. fluor.; No cut; No Vis Por.

4500

42U

Lms. lt. gray; crypto. to v.v. fn. xln.;
trs. sub-sucro, pachstn. and
sub-lithogr.; dul. yel. fluor. IP's; No cut
No Vis Por.

Sh. med. to dk. gray. calc. to dk. gray to black

Interbedded Limestones
Lms. similar 4512-4527 becoming
extaly shly. IP's

Lms. trs. wht to crm. - chlk + Tan, grayish
IP's; crypto. to v.v. fn. xln.; sub-chlk,
sub-sucro. + pachstn.; hvy trs
phantom oolitic for hvy trs oolitic;
dul. yel. fluor.; No cut; scattered thin
poor micro-por. IP's

36U

Lms. hvy trs. wht. to crm. - chlk + tan; crypto
to v.v. fn. xln.; trs. sub-chlk, sub-sucro. to
sucro. trs. poss. dul. yel. fluor.; No cut;
abn. pr. to exc. qd. to excel. pp.
micro-por + inter xln por

4575-4625 Lms. lt. gray to tanish gray, shly to
frly. shly; trs sub-chlk for shly, trs
sub-sucro, pachstn to sub-lithogr.
dul. yel. fluor.; No cut; No Vis Por

4600

Sh. v. dk. gray to black - carb

BLK SH 125U

Lms. similar 4575-4625
Lms. abn. wht. to crm. - chlk + grayish tan
to tan, crypto to v.v. fn. xln.; extaly
oolitic for extaly oolitic matrix
pachstn w/ abn. sub-sucro to sucro.
dul. yel. fluor.; No cut; v. abn. pr. trs;
qd. to excel. oolitic por + trs
poss. inter xln. por. Quest. Perm

RECYCLE 82U

4653-72 Lms similar 4575-4625

Sh v. dk. gray to black - carb
4676-4682 Lms. similar 4575-4625

BLK SH 116U

Lms. trs. wht. to crm. - chlk + tan to tan, grayish
IP's; crypto. to v.v. fn. xln.; extaly oolitic
+ pr. extaly oolitic matrix pachstn
w/ abn. sub-sucro to sucro; trs. poss. faint
oil odor; lt. to blk. Hvy ell. fluor.; faint to
sl. trs. fr., becoming milky cut; abn. pr.
tr., qd. to hvy trs. excell. oolitic por

SHOW 72 U
TRP GAS
CFS

hvy trs poss. inter xln por
V. Quest. Perm.

4700

4699-4722 Lms. med. to dk. gray; v. to
extaly shly. grading to calc. shs.; crypto
to v.v. fn. xln.; sub-chlk for shly, trs
sub-sucro + pachstn.; No fluor.; No cut
No Vis Por.

Lms. trs. crm. to lt. gray - chlk + H. to med.
gray, tanish IP's; crypto. to v.v. fn. xln.
sub-chlk, sub-sucro + pachstn.; hvy trs.
phantom oolitic; No fluor.; No cut;
No Vis Por.

Lms. lt., med., dk. to v. dk. gray,
v. to extaly shly. grading to calc. shs.
crypto. to v.v. fn. xln.; sub-chlk and/or
shly, trs sub-sucro, pachstn. and
trs. sub-lithographic; trs dul. H.
yel. fluor.; No cut; No Vis Por.

4632

Lms. lt. gray to grayish tan; crypto
to v.v. fn. xln.; sub-chlk, trs. sub-sucro
pachstn. + sub-lithogr.; dul. yel. to
qldu. yel. fluor.; No cut; No Vis Por.

Marmaton
4784-1842

4800

Lms. trs. wht to crm. - chlk + tan; crypto. to v.v. fn. xln.
v. to extaly oolitic for v. to extaly oolitic
matrix sub-sucro. to sucro. w/ abn. pachstn;
trs. poss. faint oil odor; qldu. yel.
fluor.; faint staining. cut; IP's; abn. pr. trs. qd.
to excel. oolitic por + hvy trs. pr. to exc. pp.
micro-por + prob. inter xln por. Quest. Perm. IP's

SHOW
82U
CFS

sub-sucro. + pachstn; dul. H. top
TRS. lt. yel. fluor. IP's; No Cut; No Vis POR.

Lms. abn. wht. to cam.-chlk + tan,
grayish. IP's; crypto. to v.v. fn. xln.;
sub-chlk, sub-sucro. + trs. sucro.
and pachstn; dul. H. top. yel. fluor.;
No cut; No Vis POR

Lms. similar 4818-4858

Sh. v. drk. gray to black-carb.
Lms. lt. gray, crypto. to v.v. fn. xln.;
top pachstn; phos. op. IP's v. dul. yel. fluor.
No cut; No Vis POR.

Lms. tan. wht. to cam.-chlk + H. tan; crypto. to v.v. fn. xln.
sub-sucro. to sucro.; oolitic IP's; matrix
sub-sucro. + sucro. + pachstn. v. abn.
coral like poss. w/ open pores. can get
oil str. IP's + other trs. solid str. but
gldn. yel. fluor. milky cuts; hvy trs. pr.
fr. to gl. oolitic por. to abn. pr. to gl.
micro-pp. por. + poss. interval. por.
w/ abn. wht. to gray. chert, opaque
4910-30 lms. grayish-tan, tan to dk. tan
crypto. to v.v. fn. xln.; chlk, sub-chlk,
trs. sub-sucro., pachstn. + sub-lithogr.
trs. poss. v. dul. yel. fluor.; No cut; No Vis POR
w/ trs. chert tan w/ tan gray, opaque
Sh. v. drk. gray to black-carb.
Lms. similar 4910-4930
Sh. v. drk. gray to black-carb.

Lms. similar 4910-4930

Interbedded or Gradational Limestones
lms. lt. to med. gray, tanish. IP's + dk
to v. drk. gray - sh. to extly shly.
grading to extly calc shs to fair
calc shs med. to dk. gray to black;
crypto. to v.v. fn. xln.; sub-chlk + or
shly, trs. sub-sucro., pachstn. and
sub-lithogr.; dul. yel. fluor. IP's
No cut; No Vis POR.

5028-5034 Lms. lt. tan, med. dk. to tan
spr. to even oil str. IP's; v.v. fn. to
v. fn. xln.; sub-sucro. to v. sucro.
silty. IP's; w/ trs. being micro-micaceous
trs. finely disseminated pyrite; trs. w/
it. greenish yel. fluor. to yel. fluor.
w/ faint staining cuts IP's; trs. pr. to
v. slt. trs. fr. micro-pp. por. and
poss. interval. por.; Quest. Perm

5034-5072 Interbedded and/or
Gradational Limestones similar
4958-5028 w/ trs. silty IP's
w/ TRS. being micro-micaceous

Interbedded Limestones and Shales
① Lms. lt. med. to v. drk. gray - frly to
extly. shly, grading to extly calc shs.
crypto. to v.v. fn. xln.; sub-chlk + or shly,
sub-sucro. + pachstn.; extly. dul. yel.
fluor. IP's; No cut; No Vis POR

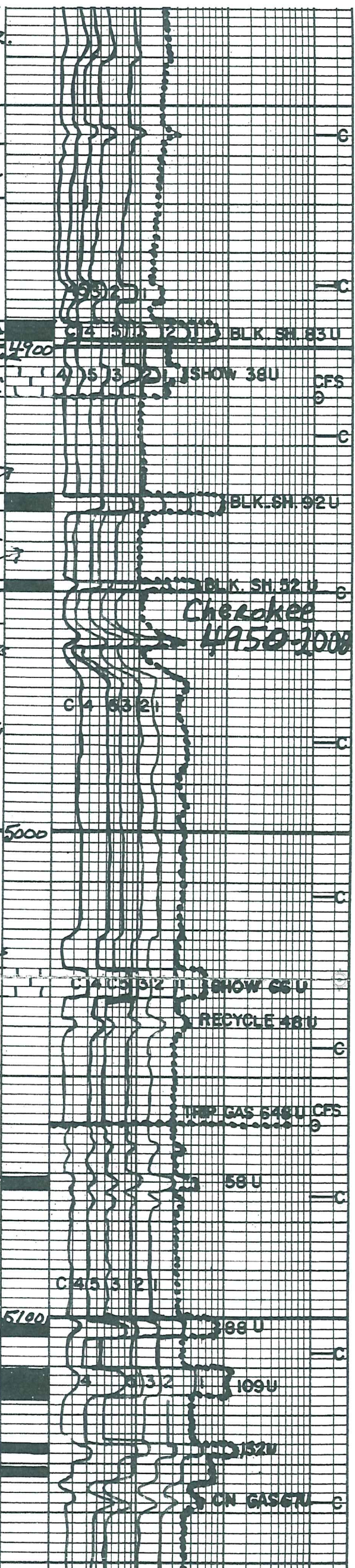
② Lms. lt. gray. to lt. tan + tan; crypto. to
v.v. fn. xln.; trs. sub-chlk, sub-sucro.,
pachstn. + trs. sub-lithogr.; dul. yel.
to yel. fluor.; No cut; No Vis POR.

③ Sh. med. to v. drk. gray; slt. to extly.
calc. grading to shly lms. IP's
④ Sh. v. drk. gray to black-carb

Lms. tan, grayish. IP's; crypto. to v.v. fn.
xln.; trs. sub-chlk, trs. sub-sucro.
+ pachstn. to sub-lithogr.; dul. gldn.
to gldn. yel. fluor.; No cut; No Vis POR.

DIST. # 3
5028-5034

DIST. # 3
5034-5072



Limestones and Shales
Similar 5072-5183

A. 5226-5232 Taipolitic chert
slittas. Fresh lt. gry. - opque
to 95% very to highly
weathered; brown from oil
stn; fr. oil odea, bat. lt.
greenish yel. fluor. w/ flush
to gd. strong cuts; abn. pr to p.
tho. trs. gd. to excel. p.p. and
micro-pp. por; quest. perm. pp.

B. 5232-5242 Lms. lt. gry. to tan; crypto
to v.v. fn. xlu.; ph. to tan; ad. to
lt. (lt. gry. to tes. tan); trs. subblk
tes sub-sucro. & packstn.; v. dul. yel
fluor.; No cut; No Vis por, some
med. gily sh partings & laminar

C. Brecciated Lms.; Lm. gasd
Foss. fragm. held together
by v. fn. fu., med. to coarse
calc. xls.; lt. gry. to tan w/ sptd
to even brown oil stn.; some
loose med. to coarse, crm to
tan calc xls & fragm.; fr. oil
oder; bet. yel. to gldn. yel. fluor.
w/ flush to excell. strong cuts
abn. pr to p. & v. huy. trs. gd. to
excel. vugular, pp., micro-pp
& inter xlu. por. IP's

D. 5258-5271 Lms. similar
5242-5258 w/ some having
med. to pl. gry. shale matrix
and No Apparent Gas lucr.

E. 5271-5282 Lms. lt. to med. gry.
shly. to tan; crypto. to v.v. fn. xlu.
sub-sucro. & packstn.; trs. w/ trs
to abn. oolites & slittas w/ trs
glau. to ochloritic; dul. yel. fluor.
IP's; No cut; No Vis por

F. Interbedded to Gradational
Sdsts, Siltstns & Shales

G. Sd. 20 to 100% Qtz grs. v. v. fn.
to v. fn. qa. 2 ang & 0 to 80% lmg
& foss fragm.; v. fn. grad. to coarse
gr.; all prly. sort.; H. to med. gry
v. to extaly. shly. to fine silty; silt
to extaly. glauc. to ochloritic IP's
No fluor.; No cut; No Vis por
H. Siltstn. med. gry. v. to extaly. sdy
- v. eng. ang.; & abn. w/ trs. lmg
& foss fragm. - v. fn. grad. to tes.
coarse lmg grs. & foss fragm.
dul. yel. fluor. IP's; No cut; No Vis por
I. Sh. med. to dk. gry. w/ abn. sdy &
silty to tes. v. fn. to slittas coarse
lmg grs. & foss fragm.

J. 5312-20 Lms. lt. gry. to tan;
crypto to v.v. fn. xlu.; trs. sub-dk
trs. sub-sucro. & packstn.; abn. fragm.
Lust. composed Lmg grs.; foss frags
& oolites (tan), v. fn., med. to
tes coarse grs.; trs. v. dul. yel
fluor.; No cut; No Vis por

H. 5320-38 Interbedded Sdsts,
Shales & Siltstns similar
5282-5312

I. 5338-5345 similar to F
w/ lmg sdy having tes sptd ban oil
stn. w/ gldn. yel. fluor. & flush to
strong cuts; scattered pr. micro-pp
por. IP's

J. 5345-51 Qtz Sd. ban. from oil
stn.; v.v. fn. to tan gry. ang.; pr. to
sont.; trs. silt & clay filling; scattered

N. trs. sli. glauc. & ochloritic; huy. trs
w/ finely disseminated pyrite;
huy. trs. w/ blk. carb. specks
stang. oil odea, gldn. yel. fluor.
w/ explosive flush cuts; abn. pr to
fr. huy. trs. gd. & tes excel. micro-pp
to inter. por.

K. 5351-5370 Interbedded Sdsts
Shs & Siltstn similar F

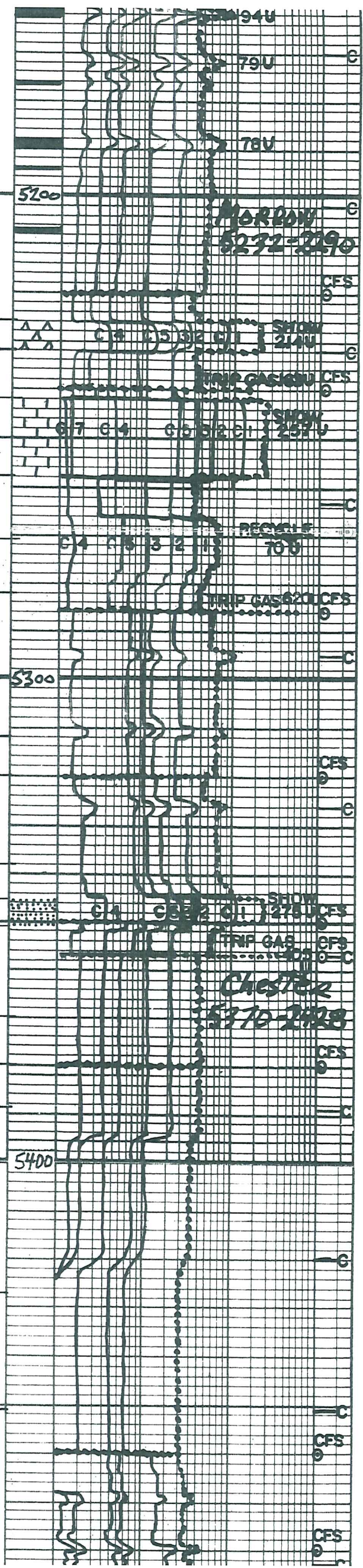
L. 5370-5380 Fragm. Lms. lt. gry.
to tan; v.v. fn. gr. to coarse grs
composed lmg grs.; foss frags
& oolites (tan gry.) matrix
sub-sucro. & sub-sucro. & packstn.
& sh. IP's; trs. dul. yel. fluor.;
No cut; No Vis por

M. 5386-5389 Interbedded
Frag. Lms similar to 5370-5380
& Shs. med. gry.; v. to extaly. calc
to extaly shly Lmsts

N. 5389-5427 Sh. med. gry. v. to
extaly calc

O. 5427-5451 Sh. med. gry.;
sli to frly calc

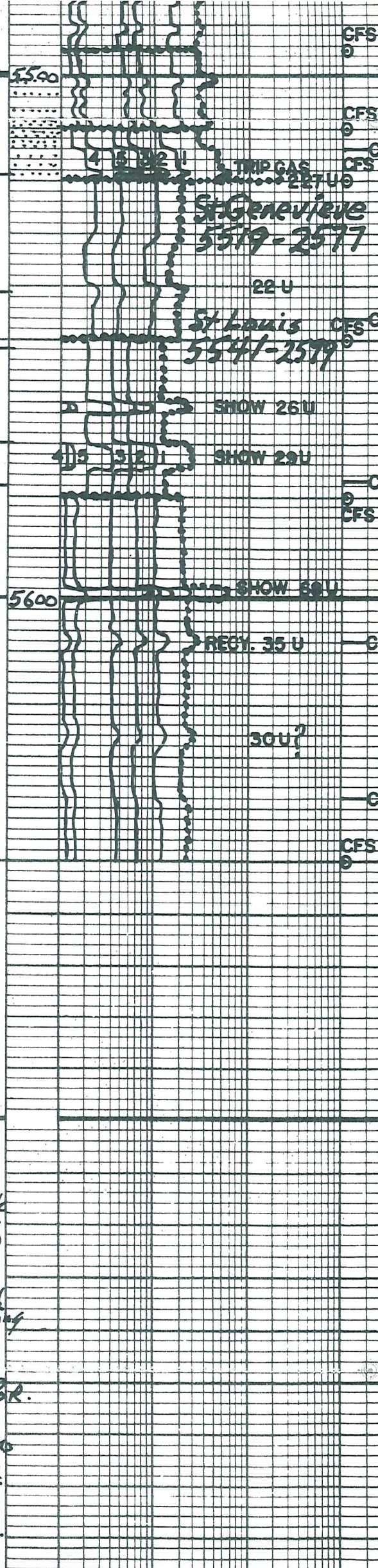
P. 5451-5484 Sh. med. to dk
gry. v. to extaly silty &/or Qtz
sdy; v.v. fn. to v. fn. gr. - ang.; trs



Q
 R
 S
 T
 U
 V
 W

R. 5500-5579 2/5 Qtz sst tan to brn. to oil stn; v. u. to tan gr. - aug.; pr. to gd. sort; tas. w/ finely disseminated pyrite; fr. oil oden; brn. yel. to b. yel. fluor. w/ flush to gd. steming cuts; 2bn. pr. to tan + v. huy. tas. gd. to excel. micro-ppt to interx. l. por. v. 2bn. small flat like clusters huy. tas. sh. patings + laminations in bottom 2 in. to 2bn. black tar looking stn + blobs / 2/5 Qtz sst lt. gray w/ silt. tas. sptd tan to brn. oil stn; v. u. to tan aug. j. paly. sort; silt; clay + fly. matrix; tas. coarse aug. sh. ges; 2bn. sh. patings + laminations; tas. yel. fluor. w/ slow steming cuts No Vis POR 1/5 Qtz sst v. u. to tan gr. - aug. increased in pyrite

S 5519-41 Lms. lt. gray to tanish gray; crypto. to v. u. xln; ext. micro-oolitic + silt. to faly Qtz sdy-v. u. aug. - aug. j. matrix tas. chlk; tas. sub-chlk + sub-sucro to sucro; v. dul. lt. yel. fluor. No cut; No Vis POR
 T 5541-52 Lms. huy. tas. w/ hts. crm. - chlk w/ chlk oolites IP's + crm. lt. tan + lt. tanish gray; ext. oolitic (sm. med. w/ tas. lg) and (med. to lg); matrix chlk; sub-chlk; sub-sucro + pachstn w/ tas. spar; lt. yel. fluor. No cut No Vis POR w/ silt. tas. chert crm. gray to tan, orangish IP's; opaque w/ tas. transl.
 U 5552-70 Lms. lt. tan to tan grayish IP's; crypto. to v. u. xln; Rexized Phantom oolitic to oolitic (sm. med. some lg) matrix chlk; sub-chlk sub-sucro + pachstn; dul. yel. mineral fluor. No cut; No Vis POR w/ scattered tas. v. oolitic (lg) oolites IP's Replaced w/ chert w/ sucro matrix; brn. to oil stn fr. oil oden in samp. w/ greenish yel. to gld. yel. fluor. w/ flush to gd. steming cuts, 6 pieces w/ port. to micro-ppt interx. l. por. w/ tas. to 2bn. chert gray to tan; orangish IP's opaque to transl.; sli. weathered IP's w/ tan to brn. oil stn; gld. yel. fluor. sli. milky cut No Vis POR.
 V 5570-78 Lms. tas. wht to crm. chlk w/ chlk oolites IP's + tan, grayish. IP's; Crypto to v. u. xln; ext. oolitic (sm. med. to lg) matrix chlk; sub-chlk; sub-sucro to tas. sucro; pachstn + tas. spar; v. few pieces w/ sptd. brn. oil stn; w/ fr. oil oden in samp. w/ greenish yel. to gld. yel. fluor. w/ flush to gd. steming cuts; w/ tas. pr. to cr. micro-ppt + poss. interx. l. por. IP's w/ tas. chert gray to tan; opaque to transl.; tas. sli. weathered w/ brn. oil stn IP's gld. yel. fluor.; sli. milky cut; No Vis POR.
 W. 5578-5650 Lms. sli. tas. wht. to crm. chlk w/ chlk oolites IP's + lt. tan to tan grayish. IP's; crypto. to v. u. xln. j. Rexized phantom oolitic to oolitic IP's (sm. med. to lg); matrix tas. chlk tas. sub-chlk; sub-sucro to tas. sucro + pachstn; v. dul. yel. fluor. No cut; No Vis POR; w/ tas. chert gray to tan; opaque to transl.



TD 5650

Cia. Points:

- | | | | |
|-----|------|-----|------|
| 1. | 4210 | 13. | 5357 |
| 2. | 4350 | 14. | 5380 |
| 3. | 4660 | 15. | 5460 |
| 4. | 4690 | 16. | 5480 |
| 5. | 4807 | 17. | 5495 |
| 6. | 4910 | 18. | 5510 |
| 7. | 5060 | 19. | 5520 |
| 8. | 5220 | 20. | 5550 |
| 9. | 5248 | 21. | 5580 |
| 10. | 5286 | 22. | 5650 |
| 11. | 5320 | | |
| 12. | 5350 | | |

Dev. Surv.:

- | | | | |
|----|--------------------------------|-----|----------------------------|
| 1. | 566 $\frac{3}{4}^{\circ}$ | 7. | 4210 $\frac{1}{2}^{\circ}$ |
| 2. | 963 $\frac{1}{2}^{\circ}$ | 8. | 4690 $\frac{1}{2}^{\circ}$ |
| 3. | 1800 3 $^{\circ}$?? | 9. | 5060 $\frac{3}{4}^{\circ}$ |
| 4. | 2426 $1\frac{1}{4}^{\circ}$ | 10. | 5286 $\frac{3}{4}^{\circ}$ |
| 5. | 2956 $\frac{3}{4}^{\circ}$ | 11. | 5650 $\frac{3}{4}^{\circ}$ |
| 6. | 4200 $2\frac{1}{2}^{\circ}$?? | | |

Daily Drilling Progress:

- | | | | |
|-----|------|------------|---------|
| 1. | 3800 | At 2:34 PM | 5-12-11 |
| 2. | 4210 | At 7:00 AM | 5-13-11 |
| 3. | 4210 | At 7:00 AM | 5-14-11 |
| 4. | 4542 | At 7:00 AM | 5-15-11 |
| 5. | 4690 | At 7:00 AM | 5-16-11 |
| 6. | 4910 | At 7:00 AM | 5-17-11 |
| 7. | 5060 | At 7:00 AM | 5-18-11 |
| 8. | 5179 | At 7:00 AM | 5-19-11 |
| 9. | 5240 | At 7:00 AM | 5-20-11 |
| 10. | 5286 | At 7:00 AM | 5-21-11 |
| 11. | 5333 | At 7:00 AM | 5-22-11 |
| 12. | 5357 | At 7:00 AM | 5-23-11 |
| 13. | 5498 | At 7:00 AM | 5-24-11 |
| 14. | 5520 | At 7:00 AM | 5-25-11 |
| 15. | 5645 | At 7:00 AM | 5-26-11 |
| 16. | 5650 | At 7:00 AM | 5-27-11 |

DST#1 Lansing "B" 4145-4158
 To strong Blow BOB 20sec GTS 11min
 FO strong Blow BOB 1 $\frac{1}{2}$ min
 Rec: 246' clean oil 38.45RVR 60°F
 279' G+O CMW 620-472W 412M
 279' MW 992W 12M scum of oil

1012' SW 100% wtr
 1817 Total Fluid
 Chl 81000 PPM Ph. 6.5 Rw .08 @ 60°
 Pit Chl 3600 PPM Max Temp 117°
 Tool Samp. 40% oil 59% wtr 1% Mud

- IHA 1927 #
 JFP 267-627 # in 30 min.
 JSIP 866 # in 60 min.
 FFP 661-829 # in 60 min.
 FSIP 883 # in 120 min.
 FHP 1924 #

Flow Info

IF	Min.	Ck	Gauge	MCF/D
	15	$\frac{1}{2}$	13 PSI	22.8
	20	$\frac{1}{2}$	15 "	24.5
	25	$\frac{1}{2}$	10 "	19.9
	30	$\frac{1}{2}$	8 "	17.2
FF	5	$\frac{1}{4}$	15 IW	6.35
	10	$\frac{1}{4}$	8 "	4.76
	15	$\frac{1}{8}$	19 "	2.30
	20	$\frac{1}{8}$	23 "	2.50
	25	$\frac{1}{8}$	27 "	2.70
*	30	$\frac{1}{8}$	30 "	2.89
	35	$\frac{1}{8}$	35 "	3.10
	40	$\frac{1}{8}$	1 PSI	2.76
	45	$\frac{1}{8}$	1.5 "	3.39
	50	$\frac{1}{8}$	2.0 "	3.92
	55	$\frac{1}{8}$	2.5 "	4.42
	60	$\frac{1}{8}$	2.5 "	4.42

* sample taken
 DST#2 Kansas City "B" 4679-4690
 TO FR. 1" Blow inc BOB 2 min
 FO Weak $\frac{1}{4}$ " Blow inc. BOB 11 min
 GTS during Final Shut In

276' SW 100% Wtr w/oil specks

458' Total Fluid
chl. 100000 ppm Ph 6.5 Rw. 0.0280
Some Free oil on top Prill collar
Tool Sample 100% SW - w/oil specks
Max Temp 121°F
IHP 2143 #
IFP 14-94 # in 30 min.
ISIP 1285 # in 60 min.
FFP 103-21 # in 60 min.
FSIP 1287 # in 120 min.
FHP 2141 #

DST#3 Cherokee Lm. 5025-5060

IO Good 2" Blow BOB 1 min 20 sec;
GTS 18 min
FO Strong Blow BOB immediately
Rec 31' MW 74% W; 26% M
31' Total Fluid
chl 83000 ppm Ph 7.0 Rw. 0.0770
Pit Chl 3400 Max Temp 124°
Tool Samp. 2% oil; 32% wtr; 66% Mud

IHP 2290 #
IFP 11-45 # in 30 min.
ISIP 1491 # in 60 min.
FFP 21-58 # in 60 min.
FSIP 1486 # in 120 min.
FHP 2289 #

Flow Info:

IF	Min	Ch	PSI Gauge	MGF/D
	20	1/4	5.5	21.8
	25	1/4	11	32.4
	30	1/4	14	37.6
FF	5	1/2	3.5	64.0
	10	1/2	3.5	64.0
	15	1/2	3	59.2
	20	1/4	9	29.0
	25	1/4	13	35.9
*	30	1/4	16	40.9
	35	1/4	19	45.5
	40	1/4	21	48.7
	45	1/4	23	51.8
	50	1/4	24	53.2
	55	1/4	25	54.7
	60	1/4	26	56.3

* Sample Taken

DST#4 Basal Atoka 5222-5240

IO Good 2" Blow BOB 2 min
FO Good 1" Blow BOB 3 min
Rec: 1845" GIP
102' DM 100% Mud Tr. of WTR
92' GCMW 2% G; 84% W; 14% M
368' SW 100% W

562' Total Fluid Max Temp 134°
chl 118000 ppm; Ph 6.5; Rw. 0.06670
Tool Sample 100% SW
IHP 2393 #
IFP 22-124 # in 30 min.
ISIP 1210 # in 60 min.
FFP 137-261 # in 60 min.
FSIP 1211 # in 120 min.
FHP 2390 #

DST#5 Morrow 5241-5259

IO Strong Blow BOB 1/2 min GTS 8 min
FO Strong Blow BOB immediately
Rec: 796 ft clean oil unloaded 36° GRZ @ 60°F
1923 ft clean oil Dry Pipe
549 ft clean oil Collars
92 ft Last collar 552 G 23% oil
4% wtr; 18% mud

3360 Total fluid
chl 5000 ppm pH 9.2 Rw. 84 @ 76°F
Pit Chl 2000
Tool Sample Blow Out Gassy Oil

IHP 2383 #
IFP 105-246 # in 30
ISIP 1979 # in 60
FFP 288-579 # in 60

Mud Info:

Date	5-12 1:25P	5-13 1:45P	5-14 1:45P	5-15 2:30P	5-16 12:45P	5-17 11:35A	5-18 12:45P	5-17 10:25A
Depth	3777	4210	4237	4690	4690	4948	5060	5220
Wt.	8.75	8.95	8.9	9.0	9.0	9.05	9.05	8.95
Vis	47	48	48	44	47	47	46	52
PV	15	15	15	13	14	14	14	16
YP	15	16	16	15	16	15	15	16
GS	14/42	14/41	14/42	13/37	14/42	14/40	14/38	15/43
WL	8.8	8.8	8.8	8.4	8.8	8.8	8.8	8.0
Cake	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	10.5	9.5	9.5	9.0	9.0	9.0	9.0	10.5
chl	1250	3600	4300	2500	2200	3400	2200	2400
Ca	20	20	20	20	20	20	20	20
LCM	2	2	3	4	3	4	4	3

Date	5-20 12:20P	5-21 11:00A	5-22 9:45A	5-23 5:30A	5-24 10:40A	5-25 11:40A	5-26 1:20P
Depth	5240	5286	5350	5357	5514	5520	5650
Wt.	9.1	8.9	8.9	8.9	9.0	8.95	9.05
Vis	75	44	47	53	52	57	65
PV	22	10	12	15	16	19	18
YP	26	14	14	15	18	12	18
GS	16/56	9/32	9/28	13/44	16/49	18/53	17/54
WL	8.8	8.8	7.6	7.2	7.2	7.2	8.4
Cake	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	10.0	10.0	10.5	10.5	10.5	11.0	9.0
chl	2000	2600	4000	3900	3400	4900	4600
Ca	100	80	40	80	20	20	20
LCM	4	3	3	4	3	4	4

OPERATOR BEREXCO LLC LOCATION 1858'FSL & 1394'FEL
 LEASE EJH NO. 1-22 SEC. 22 TWP. 30S Rng. 33W
 ELEVATION 2942KB RTD 5650 COUNTY HASKELL STATE KANSAS