

# GEOLOGICAL REPORT

## AND SAMPLE LOG

COMPANY Pickrell Drilling Company, Inc.  
 LEASE Rauch "B" WELL NO. 1  
 FIELD \_\_\_\_\_  
 LOCATION NE $\frac{1}{4}$  SE $\frac{1}{4}$  NW $\frac{1}{4}$   
 SECTION 35 TOWNSHIP 15S RANGE 25W  
 COUNTY Ness STATE Kansas

### ELEVATIONS -

K.B. 2553 FEET  
 D.F. 2551 FEET  
 G.L. 2548 FEET

MEASUREMENTS ARE ALL  
 FROM KB 2553

### CASING

8 5/8" at 233'w/150sx  
4 1/2" at 4512'w/175sx

### ELECTRICAL SURVEYS

none

CONTRACTOR Company Tools RIG NO. 10  
 COMMENCED DRILLING Spud September 20, 1988  
 COMPLETED DRILLING September 27, 1988  
 RTD 4519 FEET LTD -- FEET  
 MUD UP AT 4055 FEET MUD TYPE Chemical  
Mud-Co

SAMPLES SAVED FROM 3600 FEET TO 4519 FEET  
 DRILLING TIME KEPT FROM 3600 FEET TO 4519 FEET  
 SAMPLES EXAMINED FROM 3600 FEET TO 4519 FEET  
 GEOLOGICAL SUPERVISION FROM 4065 FEET TO 4519 FEET  
 GEOLOGIST Billy G. Klaver

NOTES Sample tops: Anhydrite 1968(+585), Heebner 3867(-1314)  
Lansing 3908(-1355), Stark 4146(-1593), Base Kansas City 4209(-1656)  
Pawnee 4327(-1774), Fort Scott 4406(-1853), Cherokee 4432(-1879),  
Mississippi 4503(-1950).

REMARKS

### LEGEND:

Limestone	
Oolitic Limestone	
Dolomite	
Chert	
Shale	
Carbonaceous Shale	
Salt	
Sandstone	
Anhydrite	

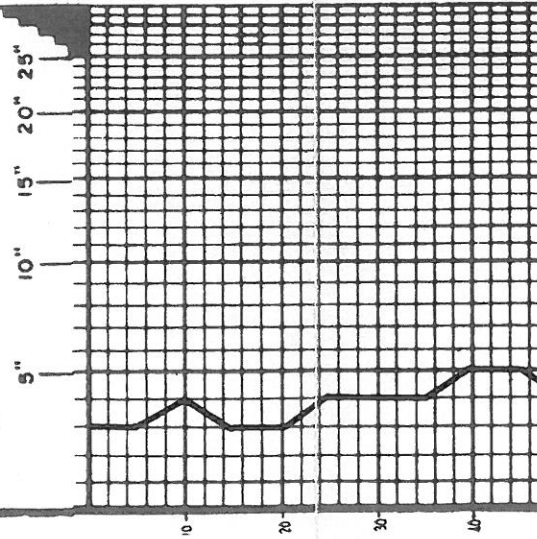
SCALE: 8" = 100'

DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARK
1900			

DRILLING TIME IN MINUTES

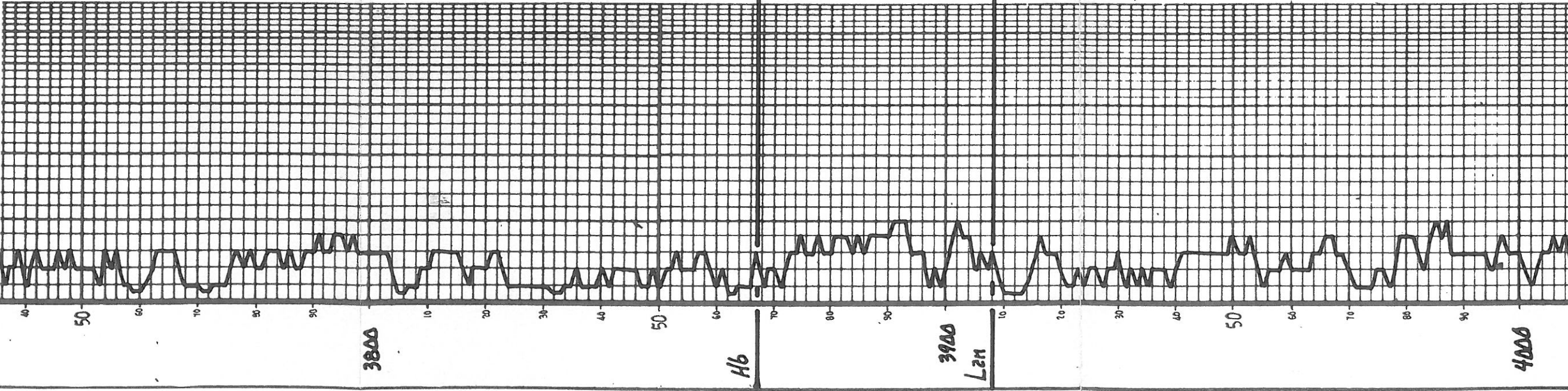
PER FOOT

Rate of Penetration Increases









1st. gry. tan f.xln. grn. chiky. arg. blk	1st. wht. tan f.xln. chiky. foss. grn.	1st. crm. tan f.xln. chiky. blk. grn.	1st. crm. gry. f.xln. grn. chiky. arg. chert. gry. opaq. ppd.	1st. AA	1st. crm. tan f.xln. grn. chiky. blk. foss.	skt. blk. carb.	skt. gry. calc. gr. blk. grn.	1st. wht. f.xln. blk. chiky. arg. foss. chert. wht. opaq.	1st. wht. f.xln. blk. chiky. arg. foss. grn. crsly. ool. domoidic p.	1st. wht. tan f.xln. grn. chiky. dns. blk.	1st. wht. tan f.xln. grn. chiky. blk. dns.	1st. AA	1st. crm. tan f.xln. blk. chiky. grn. foss. crsly. ool. ppd.	1st. crm. tan f.xln. dns. blk. foss. arg. chert. gry. opaq.	1st. crm. wht. f.xln. blk. grn. blk. chiky. ool.	1st. AA, skt. gry.	1st. crm. wht. tan f.xln. chiky. blk. grn. foss. frags. ool.	20' sp. AA
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Heebner 38671

Lansing 39081

H6

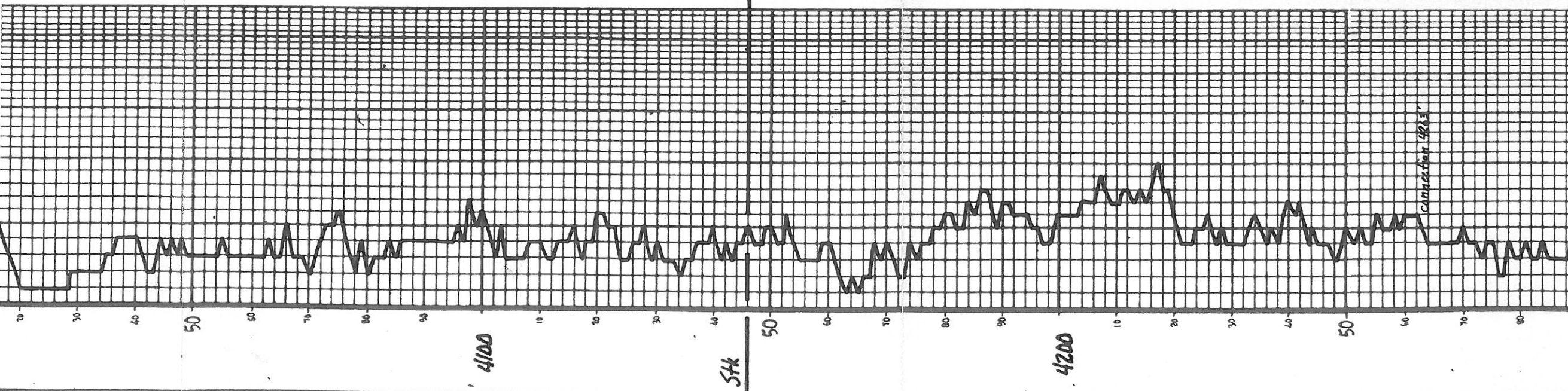
3900  
L27

4000

Geologist on loc 4065  
3:30 pm Sept 24, 1988

Stark 4146(-159)

1st. wht tan f.xln. chky. gran. Flky. blkly foss frags &ool	1st. wht tan f.xln. chky. blkly. das chrt. wht opaq	1st. wht tan f.xln. blkly. das. ang. s.aa	1st. gm tan. gry f.xln. das. blkly. ang foss frags. chrt. aa	1st. aa	1st. crm tan f.xln. blkly. das. chky. ang chrt. gry opaq	1st. crm tan f.xln. blkly. ang. chky. das	1st. crm wht f.xln. blkly. ang. das	1st. wht gry tan f.xln. blkly. das	shl. gry. 1st aa	1st. wht tan gry f.xln vry das blkly ang. trace foss	1st. crm tan f.xln. blkly. das. chky	blk carb. shln. spl. shl. gry 30-60 spl. much shl?	1st. crm gry tan f.xln. blkly. ang. das foss	1st. crm vry tan f.xln. blkly. chky. ang. das. chrt. wht opaq	1st. crm gry f.xln. blkly. das. ang. foss	1st. crm gry f.xln. blkly. das. ang chrt. gry opaq. shl. gry blk	1st. aa	shl. gry brn. grifty. gran	1st. gry brn f.xln. blkly. das. ang. trace foss.	1st. tan light brn f.xln. blkly. das. ang trace foss. trace gry chrt	1st. aa. shl. gry blk	shl. gry blk brn	1st. gry tan v. f.xln. blkly. das. ang shln. foss chrt. brn opaq 1st. trace ang	1st. crm tan light brn f.xln. blkly. das chky. ang. foss frags &ool chrt. tan brn opaq
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4300

Paw

Pawnee 4327(-1774)

1st even tan f.xln. blk. chllay. dns  
foss. Boss AA

1st even tan f.xln. dns. blk. ang. chllay  
foss. chert. grey. oppq

1st even tan light brn. v.f.xln. dns. blk. ang.  
chllay. foss. oppq.

sh. grey blk. 1st tan v.f.xln. blk. green. ang. dns

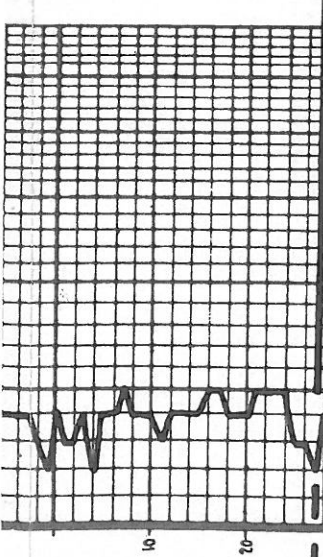
1st even tan & grey f.xln. green. ang. blk. chllay.  
sh. grey.

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D.S.T. #1 4395-4447  
30:45:90-90 Weak 1/2 blow  
70% mud

rec: 90' OCM 107% oil, 20%

IHP 2240 FFP 75-75  
IFP 75-75 FCI 432  
ICIP 248 FHP 2187  
bht 123°F

Strep .54' long to the bot.

Fort Scott 4406(-1774)

1st even tan brn f.xln. blk. chllay. ang. dns  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

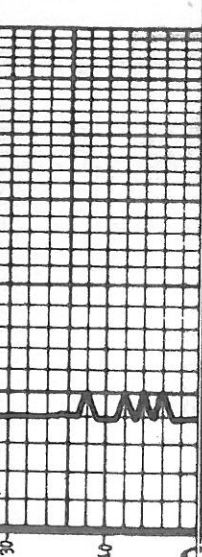
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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4400 FS

Che

Cherokee 4432(-187)

1st even tan brn f.xln. blk. chllay. ang. dns  
foss. oppq. chert.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

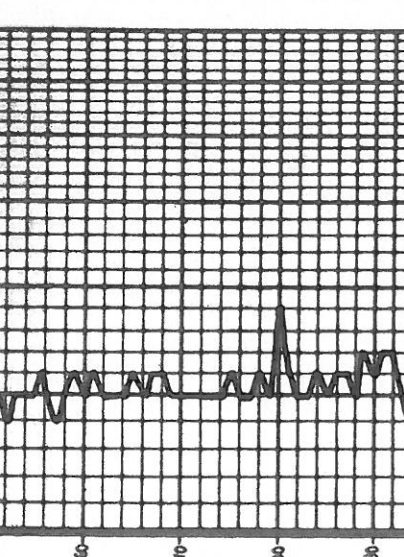
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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D.S.T. #2 4475-4572  
30:45:30-45 IFP: Weak 1/2 bl  
FFP: blow dead

rec: 62' OCM 57% oil

IHP 2272 FFP 75-75  
IFP 54-54 FCI 785  
ICIP 947 bht 125°F

D.S.T. #3 4474-4519  
MISRUN. PACKER FAILED

Mississippi 4503(-1774)

1st even tan f.xln. blk. chllay. ang. dns  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

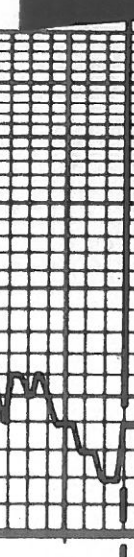
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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4500

1st even tan f.xln. blk. chllay. ang. dns  
foss. oppq. chert.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

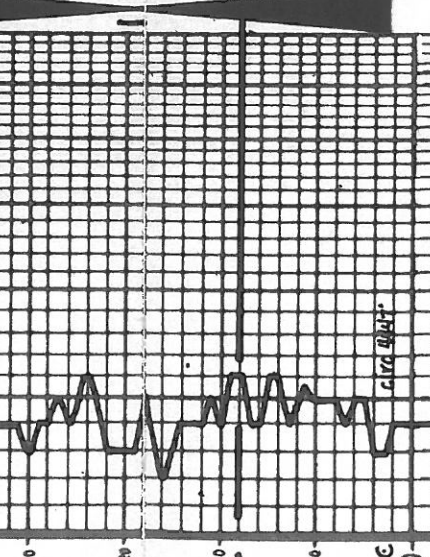
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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1st even tan f.xln. blk. chllay. ang. dns  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

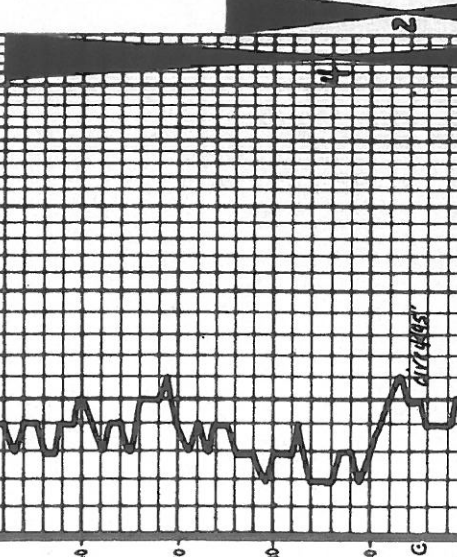
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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1st even tan f.xln. blk. chllay. ang. dns  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

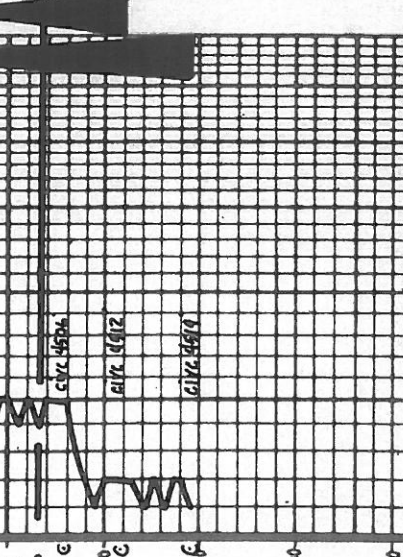
1st even tan f.xln. blk. chllay. ang.  
foss. oppq.

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D.S.T. #4 4452-4519  
30:45:90-90 IFP: 4 blow  
FFP strong bl

rec: 120' MCO 60% oil, 40% mud  
90% MCO, 10% gas, 45% oil, 40%  
60% MCO 35% gas, 45% oil, 20%  
60% MCO 20% gas, 30% oil, 50%

IHP 2243 FFP 162-162  
IFP 64-64 FCI 1072  
ICIP 1072 FHP 2240  
bht 125°F

			<p>REMARKS</p>
<p>DEPTH</p> <p>DRILLING TIME IN MINUTES/FOOT</p> <p>Rate of Penetration increases</p>	<p>LITHOLOGY</p>	<p>SAMPLE DESCRIPTIONS</p>	<p>REMARKS</p>

COMPANY Pickrell Drilling Company, Inc.

ELEVATION: 2553 KB

LEASE #1 Rauch "B"

LOCATION NE SE NW SEC. 35 TWP. 15S RGE. 25W

COUNTY Trego STATE Kansas