

Jeff Christian

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOGS

OPERATOR: MIREN DRILLING COMPANY
LEASE: JONES # 1-17
LOCATION: 1050' FIN. & 2310' FEL

EL ELEVATIONS
HGS: 3149'
OIL: 3139'

SEC: 17 TWP: 1 S RNG: 37 W
COUNTY: CHEYENNE STATE: KANSAS

FIELD: WILD CAT

API: 15-023-21358

CONTRACTOR: COMPANY TOOLS RIG NO: 14
DRILLING STARTED: 01/21/2013 COMPLETED: 01/20/2013
MUD DRILLING: 3302' MUD TYPE: CHEMICAL
DRILLING TIME KEPT FROM: 3450' TO R/D
SWABER EXAMINED FROM: 3450' TO R/D
GEOLOGICAL SUPERVISION FROM: 3420' TO R/D

MEASUREMENTS FROM: CASING RECORD
CORRECTOR: NONE

W/285' 8.26' @ 225'
W/235' 3.12' @ 267'
W/175' 5.72' @ 267'

ELECTRICAL SURVEYS:
FOUNDER:
D/L:
OIL/D/L:

FORMATION NAME LOG LOG SAMPLE
TOP DATUM TOP DATUM

ANHYDRITE 3100' (-439) 3107' (-424)
NEVA 3160' (-411) 3163' (-424)
FORAKER 3170' (-421) 3173' (-424)
TOPEKA 3194' (-748) 3196' (-747)
LANISING 4108' (-999) 4110' (-991)
STARK 4329' (-1180) 4330' (-1181)
BKC 4385' (-1236) 4385' (-1236)
PAWNEE 4903' (-1384) 4905' (-1386)
CHEROKEE 4929' (-1443) 4930' (-1446)
TOTAL DEPTH: 4980' (-1531) 4980' (-1531)

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DATE	7:00 AM DEPTH	REMARKS
1-21-13	MIRT	SPUD 7:00 pm
1-22-13	228'	WOC dev 1/2 deg.
1-23-13	2000'	DRL6
1-24-13	3160'	DRL6
1-25-13	3775'	DRL6
1-26-13	4145'	CTCH prior to DST #1 dev 1 1/2 deg.
1-27-13	4182'	TOH w/ DST # 2
1-28-13	4300'	DRL6
1-29-13	4450'	DRL6
1-30-13	4600'	DRL6 RTD 4680' @ 11:00 am. dev 2 deg.; Finnish Logging 9:00 pm

Remarks
5 1/2" production casing set to further test the Lansing / Kansas City and Pawnee formations.
Electric log measurements correlate from about 3' high to even compared to rotary measurements.
Sample tops adjusted to the electric log.
Samples deposited at the Kansas Geological Society.
Respectfully Submitted,
Jeff Christian
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LITH	DRILL TIME (MINFT)	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
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