

Jeff Christian

PETROLEUM GEOLOGIST

Wichita, Kansas

GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR	MURKIN DRILLING COMPANY	ELEVATIONS	
LEASE	BREWSTER # 1-18	KB	2795'
LOCATION	2300' FWL & 2100' FWL	GL	2790'
SEC.	18 TWP	2 S	R1G
COUNTY	DECATUR	STATE	KANSAS
FIELD	MAY	CASING RECORD	
API	15-039-21156	Candidate	NONE
CONTRACTOR	COMPANY TOOLS	Surface	8.6/60 @ 273'
DRILLING STARTED	8/10/2012	W/ 210 SX	1/2" @ 4069'
MUD DISGAGED	2930'	W/ 190 SX	
DRILLING TIME (FEET FROM 3100')	MUD TYPE	CHEMICAL	
SAMPLES SAVED FROM	3100'	TO	RTD
SAMPLES EXAMINED FROM	3100'	TO	RTD
GEOLOGICAL SUPERVISION FROM	3430'	TO	RTD
FORMATION NAME	LOG	SAMPLE	
ANHYDRITE	TOP DATUM	TOP DATUM	
BASE ANHYDRITE	2546' (-249)	2550' (-245)	
NEVA	3206' (-411)	3210' (-415)	
FORAKER	3322' (-527)	3328' (-533)	
TOPEKA	3594' (-799)	3596' (-801)	
HEEBNER	3753' (-958)	3757' (-962)	
LANSING	3800' (-1005)	3802' (-1007)	
STARK	3961' (-1166)	3965' (-1170)	
BKC	4008' (-1213)	4008' (-1213)	
VERTICAL DEPTH	4079' (-1284)	4080' (-1285)	

DATE	7:00 AM DEPTH	REMARKS
8/10/12	MIRT	SPUD 2:30 pm
8/11/12	520'	DRLG dev. 1 deg @ 273'
8/12/12	2250'	DRLG
8/13/12	3300'	DRLG
8/14/12	3812'	TOH for DST # 1 dev. 3/4 deg @ 3812'
8/15/12	3900'	TOH for DST # 2
8/16/12	4012'	DRLG RTD 4080' @ 10:00 am dev. 3/4 deg.

Remarks

5 1/2" production casing run to further test the Lansing / KC formation.

Electric log tops correlate about 2' to 4' high compared to rotary measurements. Sample tops adjusted to the electric log.

Samples deposited at the Kansas Geological Survey.

Respectfully Submitted,

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