GEOLOGICAL CONSULTING SERVICE
CONSULTING GEOLOGIST
PH. (785) 625-3030
105 W. 9th ST.
HAYS, KS 67601

COMPANY: Cabot Exploration & Development
WELL: Mitchell #C-6
FIELD: Chase-Silica
COUNTY: Barton
STATE: Kansas
LOCATION: 1866' FNL & 380' FEL, SE¼
Sec. 36 Twp. 17S Rge. 13W
ELEVATION: KB 1779' DF GL
API #: 15-009-25,464-00-00
Spud: 3-13-2011
Completed: 3-19-2011
Contractor: Duke Drilling Co. Rig #4
Casing: 8 5/8" set @ 223' w/ 150 sks Common 3%cc 2%gel
Production Casing: 5½" set @ 3376' w/ 150 sks AA2 - 3%CC 1/4#Flo
Logged Interval: 2500' to RTD
Total Depth: 3380' (Driller) 3379' (Log)
Formation Tested:
Type Fluid in Hole: Gel Chem
Weight: 9.2
Viscosity: 48
Water Loss: 8.4 cc
Type Mud: Chemical
Samples Saved From: 2500' to RTD
Drilling Time: 2500' to RTD
Samples Examined: 2500' to RTD
Geological Supervision: Jeff Taylor, Geologist
Open Hole Logs Run: Dual Induction, Compensated Density/Neutron, Microresistivity
Drill Stem Tests Run: None
Cores: None
Problems: None
Remarks: Recommend Run To Run Casing
based on favorable structural
development in your Mitchell.
Thank You
Neil Oliver

Bit Record

Bit #	Type	Serial No.	Size/in	Depth In	Depth Out	Hours
1			7 7/8	223	3380	3157

Formation	Sample	Log	Datum	ft	Formation	Sample	Log	Datum	ft
Topeka		2536	-826						
Heebner Shale		2853	-1083						
Toronto		2874	-1104						
Douglas Shale		2884	-1114						
Brown Lime		3176	-1206						
LKC		3196	-1416						
BKC		3254	-1474						
Arbuckle		3269	-1489						
RTD	3380								
LTD		3383	-1603						

Structural Position to:

LEGEND

Anhydrite | Salt | Sandstone | Shale | Coal | Limestone | Cal./Lime | Chert | Dolomite

SCALE " = 100'

Minutes	Drilling time in minutes 0 1 2 3 4 5 6 7 8 9	DEPTH	Sample Description	Remarks, drill stem tests, etc.
		2500		Mud System - Gel Chemical Andy's Mud & Chemical
		10		
		20		Slope Survey 333" I°
		30		
		40		
		50		
		60		
		70		
		80		
		90		
	Topeka 2536' -1822 Log 2874	2600	lm LT-MM BRN FOSS SH FOS	
		10	SH LT-Med gray, sm ST Shaley	
		20		
		30	lm clm FOSSIL micrxtln	
		40	lm clm LT BRN FOSSIL	
		50	lm, TRACE BRN FOSSIL	
		60	lm MST BRN FOSSIL SM INTRAP	
		70	lm LT-med BRN FOSSIL granular SM INTRAP	
		80	lm LT-med BRN FOSSIL	
		90	lm LT-med BRN FOSSIL pel granular SM INTRAP	
		2700	SH BLK Carbonaceous	
		10	SH LT-MED gray, Calcareous	
		20	lm clm, LT BRN FOSSIL SM INTRAP	
		30	lm LT-MED BRN FOSSIL, Granular to pel SM INTRAP	
		40	SH gray, CALC	
		50	lm clm/SUC LT BRN FOSSIL w MICRO SUCROSE	
		60	lm clm/SUC LT BRN FOSSIL, Granular to pel SM INTRAP	
		70	lm LT BRN FOSSIL SUCROSE	
		80	SH LT-MED gray FOSSIL	
		90	lm LT-MED BRN FOSSIL w SM Calc	
		2800	SH DK GRAY	
		10	lm, TRACE LT BRN FOSSIL, Mostly Fossils, Some Granular, SM Pel, SM Micrite, NO OIL SHOW	
		20	lm clm/SUC LT BRN FOSSIL	
		30	lm LT BRN FOSSIL w SM Calc	
		40	lm clm/SUC LT BRN FOSSIL, Granular SM INTRAP	
		50	lm clm/SUC LT BRN FOSSIL, Granular to pel, SM Calc	
		60	SH DK GRAY	
	Hebner Shale 2853 - 1093 Log 2853		lm LT-MED BRN FOSSIL	
		70	SH LT gray SILT - LT gray	
	Toronto 2874 - 1104 Log 2874	80	Cherty - LT brown Sucrose	
	Douglas Shale 2884 - 1114		lm LT BRN FOSSIL, Some Granular, Some Pel, Mostly Micrite w Sucrose	
		90	SH STAIN WASH	
		2900	SH, med - LT-med gray, Blocky FISSILE	
		10	SH LT gray - MST, Blocky	
		20	SH LT-med gray SILT	
		30	SLTST, Very gritty material w STAINING, NO OIL - NO ODOR	
		40	SH LT-Med gray	
		50	SH LT-med gray w mottled	
		60	SH LT BRN FOSSIL	
		70	SH LT-MED gray SILT	
		80	lm BRN FOSSIL SLTY FOSS	
		90	SH LT-Med gray SILT FOSS	
		3000	lm clm FOSSIL	
		10	SH gray	
		20	lm clm FOSSIL w thin, vuggy porosity, NO SHOW, Some Pel, Some Micrite, Some Inc. STAIN & Spotty Asphaltum	
		30	lm, SPARRY - STAIN, FOSSIL mostly Leached, Vuggy, Some Pel, Some Micrite, NO SHOW, NO OIL	
		40	lm clm - lm FOSSIL	
		50	lm, SPARRY - lm, TRACE FOSSIL, Some Pel, Some Micrite, NO SHOW	
		60	lm MST - LT-MED BRN FOSSIL, Granular SM INTRAP	
		70	SH, DK GRAY, SILTY	
		80	lm, SPARRY - LT BRN FOSSIL, Some Pel, Some Micrite, NO SHOW	
		90	lm, SPARRY - LT BRN FOSSIL, Some Pel, Some Micrite, NO SHOW, Some Asphaltum	
		3100	lm LT-MED BRN FOSSIL w CHERT, NO SHOW	
		10	lm, SPARRY - SPARRY, Some Pel, Some Micrite, NO SHOW, Some Asphaltum	
		20	lm, SPARRY - LT BRN FOSSIL	
		30	lm, SPARRY - LT BRN FOSSIL, Some Pel, Some Micrite, NO SHOW	
		40	lm, SPARRY - LT BRN FOSSIL, NO SHOW	
		50	lm, MST - LT-MED BRN FOSSIL, Some Pel, Some Micrite, NO SHOW	
		60	SH, DK GRAY, SILTY	
		70	lm, SPARRY - LT BRN FOSSIL	
		80	lm, SPARRY - LT BRN FOSSIL, Some Pel, Some Micrite, NO SHOW	
		90	lm, SPARRY - LT BRN FOSSIL, Some Pel, Some Micrite, NO SHOW, Some Asphaltum, Some Spotty Asphaltum Stain	
		3200	lm LT-MED BRN FOSSIL w CHERT	
		10	lm LT-MED BRN FOSSIL, Some Pel, Some Micrite, NO SHOW	
		20	lm LT-MED BRN FOSSIL w CHERT	
		30	lm, Granular, LT BRN FOSSIL	
		40	SH, DK GRAY, SILTY	
		50	lm LT-gray, LT BRN, FOSSIL, NO SHOW	
		60	SH, DK GRAY, SILTY	
		70	Dol, LT BRN, FOSSIL, Some Pel, Some Micrite, NO SHOW	
		80	Dol, LT-MED BRN, FOSSIL, Some Pel, Some Micrite, NO SHOW, Some Asphaltum	
		90	Dol, LT BRN, FOSSIL, LT BRN	
		3300	Dol, LT-med BRN, VUG stain, Mostly Leached	
		10	Dol, SUC, Micrite, Asphaltic, Spotty Good stain, Oil Stain on cuttings	
		20	Dol, LT BRN, FOSSIL w MICRITE, Inspot	
		30	Dol, LT-med BRN, FOSSIL, Some Pel, Some Micrite, NO SHOW	
		40	Dol, LT-MED BRN, FOSSIL w CHERT	
		50	Dol, CHERT, BRN, lm, CLAY	
		60	Dol, CHERT, LT BRN, FOSSIL	
		70	Dol, CHERT, LT BRN, FOSSIL	
		80	Dol, CHERT, LT BRN, FOSSIL	Slope Survey at 3380' 56"
		90		
		3400		
	RTD 3380' (MD) 2536' (SS)			