

# **DUANE STECKLEIN**

**PETROLEUM GEOLOGIST  
579 280<sup>TH</sup> AVE.  
HAYS, KANSAS 67601  
785-432-2477**

## **GEOLOGICAL REPORT**

**Habit Petroleum  
Haselhorst #1  
2620' FNL + 1650' FWL  
SEC. 12 TWP 15s RGE 18w  
Ellis County, Kansas**

**COMMENCED: 3-04-11  
COMPLETED: 3-10-11  
CONTRACTOR: Shields Drilling  
SURFACE PIPE: 8 5/8 at 1180'  
PRODUCTION PIPE: 5 1/2 at 3628'**

**April 4, 2011**

**RECEIVED  
OCT 20 2011  
KCC WICHITA**

## Formation Data

Elevation: (2011' G.L.) – (2016' K.B.)  
All top formations measured from 2016' K.B.

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>SEA-LEVEL DATUM</u>
Anhydrite	1175	+841
Topeka	3000	-984
Heebner	3265	-1249
Toronto	3284	-1268
Lansing-K.C.	3314	-1298
Base-K.C.	3543	-1527
Arbuckle	3606	-1590
R.T.D.	3630	-1614

<u>FORMATION</u>	<u>LOG TOPS</u>	<u>SEA-LEVEL DATUM</u>
Topeka	2998	- 982
Heebner	3263	-1247
Toronto	3283	-1267
Lansing-K.C.	3212	-1296
Base-K.C.	3540	-1524
Arbuckle	3604	-1588
R.T.D.	3629	-1613

All samples were examined and described by me on actual location and did not start until a depth of 2950' was reached. All zones and sample tops examined are all true and accurate according to drillers' depth.

One foot drilling time was logged from a depth of 2950' to 3630', and all zones were examined by ten foot samples at a rotary depth of 2950' to 3300'. Five foot samples were examined from a rotary depth of 3305' to 3630'.

RECEIVED  
OCT 20 2011  
KCC WICHITA

## Sample Description

Following are the pertinent geological formations and all zones of subject well Haselhorst #1.

### THE FOLLOWING ZONES WERE NOTED:

TOPEKA	3000-3027	Limestone – buff and tan, very fine crystalline to no visible porosity, no show of oil.
	3031-3045	Limestone – tan, fine crystalline, poor inter porosity, no show of oil.
DEER CREEK	3055-3085	Limestone – buff to tan, fine crystalline to chalky, very poor porosity, no show of oil.
	3096-3110	Limestone – cream and buff, fine crystalline to chalky and fossiliferous, no show of oil.
LECOMPTON	3126-3135	Limestone – cream to tan, fine crystalline, fossiliferous, to cherty and chalky, poor to no inter porosity, no show of oil.
	3140-3143	Limestone – cream, fine crystalline to chalky, cherty in part, poor porosity, no show of oil.
	3144-3176	Limestone – white to buff, chalky to cherty, fine crystalline in part, poor to no inter porosity, no show of oil.
OREAD LIME	3191-3210	Limestone – cream, tan and buff, chalky and cherty, no visible porosity, no show of oil.
	3223-3230	Limestone – cream, fine crystalline, sucrosic with a light yellow stain, fair inter porosity with good odor.
	3231-3264	Limestone – buff to cream, fine tight crystalline and chalky, poor to no inter porosity, no show of oil.

RECEIVED

OCT 20 2011

KCC WICHITA

TORONTO 3281-3297 Limestone – tan, fine crystalline, tight, poor porosity, very slight show of light yellow oil stain.

LANSING – K.C.

(A-Zone) 3114-3320 Limestone – tan to cream, fine crystalline, poor inter porosity to a slight vuggy porosity in part, small show of oil stain, slight odor.

(C-Zone) 3339-3343 Limestone – white to tan, oolitic, fair show of oil stain to free oil, fair odor.

(D-Zone) 3357-3361 Limestone – cream to buff, fine crystalline to dense lime, poor to no inter porosity, no show of oil.

(F-Zone) 3390-3395 Limestone – cream to white, fine crystalline, very small show of oil stain, poor inter porosity, no odor.

(G-Zone) 3401-3414 Limestone – white to cream, fine crystalline to chalky and cherty, no visible porosity, no show of oil.

(H-Zone) 3443-3454 Limestone – cream to buff, fine crystalline to cherty, poor to no inter porosity, no show of oil.

(I-Zone) 3471-3478 Limestone – white to cream, dense lime, no visible porosity, chalky in part, no show of oil.

(J-Zone) 3482-3492 Limestone – white, fine crystalline to oolitic, poor inter porosity with small show of black residual stain, odor noted.

(K-Zone) 3500-3515 Limestone – white, dense to chalky lime, cherty in part, no visible porosity, no show of oil.

BASE - K.C.

(L-Zone) 3537-3543 Limestone – same as above.

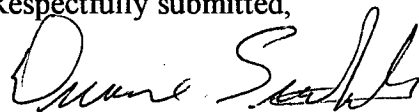
RECEIVED  
OCT 20 2011  
KCC WICHITA

ARBUCKLE	3606-3610	Dolomite – cream, fine crystalline, sucrosic and friable, show of light oil stain to free oil with good odor.
	3611-3618	Dolomite – same as above with scattered shows of oil.
	3619-3630	Dolomite – white, fine to medium crystalline, mostly barren.

## Remarks and Conclusion

During the drilling of the Haselhorst #1, the subject well ran structurally 6' higher in the Arbuckle than the Stecklein-Haselhorst #1, due to the oil recovered in the drill stem test, the operator of Habit Petroleum set production casing to further test the Haselhorst #1.

Respectfully submitted,



Duane Stecklein, Geologist

RECEIVED  
OCT 20 2011  
KCC WICHITA