

15-009-24876

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1-18s-14w

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LD Drilling Company Inc.
Van Winkle #1
SE-SW-SW; Section 1-18s-14w
Barton County, Kansas
Page No. 1**5 1/2" Production Casing Set****Contractor:** Company Tools (Rig #1)**Commenced:** September 22, 2005**Completed:** September 28, 2005**Elevation:** 1848' K.B.; 1846' D.F.; 1843' G.L.**Casing Program:** Surface; 8 5/8" @ 792'
Production; 5 1/2" @ 3324'**Samples:** Samples saved and examined 2700' to the Rotary Total Depth.**Drilling Time:** One (1) foot drilling time recorded and kept 2700' to the Rotary Total Depth.**Measurements:** All depths measured from the Kelly Bushing.**Formation Testing:** There were three (3) Drill Stem Tests ran by Diamond Testers.**Electric Log:** By Log Tech; Dual Induction and Dual Compensated Porosity Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	790	+1058
Topeka	2738	-890
Heebner	3020	-1172
Toronto	3031	-1183
Douglas	3041	-1193
Brown Lime	3095	-1247
Lansing	3105	-1257
Base Kansas City	3301	-1453
Arbuckle	3322	-1474
Rotary Total Depth	3330	-1482
Log Total Depth	3333	-1485

(All tops and zones corrected to Electric Log measurements).

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.**TOPEKA SECTION**

2943-2950'	Limestone; tan, finely crystalline, slightly granular, chalky in part, trace iron pyrite.
2963-2974'	Limestone; tan, buff, finely crystalline, poorly developed intercrystalline type porosity, chalky, questionable gas bubbles, no stain, no free oil, no odor in fresh samples.
2979-2994'	Limestone; tan, gray, fossiliferous, few oolitic, chalky, dense,

poor visible porosity.

TORONTO SECTION

3031-3040' Limestone; white, gray, finely crystalline, slightly chalky, trace spotty brown stain, no show of free oil or odor in fresh samples.

LANSING SECTION

3105-3111' Limestone; buff, finely oolitic, chalky, trace golden brown stain, trace of free oil and faint odor in fresh samples.

3121-3126' Limestone; tan, oolitic, slightly chalky, golden brown stain, trace of free oil and questionable odor in fresh samples.

3135-3140' Limestone; white, gray, slightly fossiliferous, chalky, brown and gray stain, no show of free oil or odor in fresh samples.

3152-3156' Limestone; gray, tan, medium crystalline, few fossiliferous, chalky, trace gas bubbles, questionable stain, no free oil and no odor in fresh samples.

Drill Stem Test #1 3096-3164'

Times: 15-15-X-X

Blow: Weak

Recovery: 5' mud, few oil specks

Pressures:	ISIP	100	psi
	FSIP	X	psi
	IFP	20-22	psi
	FFP	X	psi
	HSH	1507-1475	psi

3166-3174' Limestone; gray, tan, oolitic, fair to good vuggy type porosity, brown and golden brown stain, show of free oil and good odor in fresh samples.

3182-3194' Limestone; gray, tan, oomoldic, oolitic, fair to good oomoldic porosity, brown to gray and black stain, show of free oil and strong odor in fresh samples.

Drill Stem Test #2 3158-3195'

Times: 15-15-X-X

Blow: Weak

Recovery: 20' oil specked muddy water

Pressures:	ISIP	511	psi
	FSIP	X	psi
	IFP	21-28	psi
	FFP	X	psi
	HSH	1540-1507	psi

- 3232-3242' Limestone; white, gray, oolitic, few sub oomoldic, chalky, trace spotty brown stain, show of free oil and good odor in fresh samples.
- 3262-3270' Limestone; gray, white, oolitic, chalky, trace black and gray stain, no show of free oil or odor in fresh samples.
- 3294-3300' Limestone; tan, brown, fossiliferous/oolitic, cherty in part, trace spotty stain, no show of free oil or odor in fresh samples.

ARBUCKLE SECTION

- 3322-3327' Dolomite; cream, white, medium crystalline, fair to good intercrystalline porosity, dark brown to golden brown stain and saturation, fair show of free oil and fair to good odor in fresh samples.
- 3327-3330' Dolomite; gray, cream, medium to coarse crystalline, fair to good vuggy type porosity, few fair intercrystalline type porosity, good brown to golden brown to black stain, show of free oil and strong odor in fresh samples.

Drill Stem Test #3 3298-3330'

Times: 45-45-45-45

Blow: Strong

Recovery: 390' gas in pipe

Pressures:	ISIP	959	psi
	FSIP	872	psi
	IFP	27-83	psi
	FFP	86-127	psi
	HSH	1621-1587	psi

Rotary Total Depth 3330(-1482)

LogTotal Depth 3333(-1485)

Recommendations:

On the basis of the favorable structural position and the positive results of Drill Stem Test #3, it was recommended by all parties involved to set and cement 5 1/2" production casing at 3324' (one foot off bottom) and the Van Winkle #1 be completed in the Arbuckle dolomite by "open hole" completion methods.

Respectfully submitted;

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Petroleum Geologist

