15-151-22200

JAMES C. MUSGROVE
Petroleum Geologist
P.O. Box 1162
Great Bend, KS 67530

Office (316) 792-7716 Res. Claflin (316) 587-3444

26-26s-11w

Jandie Oil Company
Young #1
2310' FNL & 1220' FWL, Section 26-26s-11w
Pratt County, Kansas

5 ½" Production Casing Set

Contractor: Duke Drilling Company (Rig #8)

Commenced: December 22, 2003

Completed: January 3, 2004

Elevation: 1813' K.B.; 1811' D.F.; 1805' G. L.

Casing Program: Surface; 8 5/8" @ 486'
Production; 5 1/2" @ 4504'

Samples: Samples saved and examined 1700' to the Rotary Total Depth.

Drilling Time: One (1) foot drilling time recorded and kept 1700' to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Formation Testing: There were four (4) Drill Stem Tests ran by Diamond Testing Co.

Electric Log: By Log Tech; Dual Induction, Dual Compensated Porosity Log and Borehole Compensated Sonic Log.

Formation	Log Depth	Sub-Sea Datum
Herington (Chase)	1778	+35
Winfield	1831	-18
Cottonwood	2278	-465
Tarkio	2787	-974
Howard	2950	-1137
Topeka	3047	-1234
Heebner	3413	-1600
Toronto	3428	-1615
Douglas	3441	-1628
Brown Lime	3588	-1775
Lansing	3608	-1795
Base Kansas City	3958	-2145
Mississippian	4054	-2241
Kinderhook	4131	-2318
Viola	4283	-2470
Simpson Shale	4378	-2565
Simpson Sand	4388	-2575
Arbuckle	4457	-2644
Rotary Total Depth	4505	-2692
Log Total Depth	4499	-2686

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

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

HERINGTON THROUGH TOPEKA SECTION

1778-3300' There were several zones of well-developed porosity encountered through the shallow Chase section to the Topeka Section but no shows of oil and/or gas was noted. (see attached sample log/geological report).

TOPEKA SECTION

3348-3370' Limestone; gray to dark brown, oolitic, scattered porosity, no shows.

TORONTO SECTION

3428-3436' Limestone; gray, tan, few slightly fossiliferous, chalky, increasingly cherty, dense, trace gray chert at base.

DOUGLAS SECTION

3480-3491' Sand; gray and grayish green, very fine to medium grained, sub rounded, sub angular, friable, fair sorting, micaceous, fair intergranular porosity, no shows.

3499-3508' Sand; as above, no shows.

LANSING SECTION

3608-3611' Limestone; gray, slightly fossiliferous, chalky.

3611-3618' Limestone; gray and white, chalky, few fossiliferous, scattered porosity, no shows.

3626-3628' Limestone; gray and beige, fossiliferous, chalky, no shows.

3642-3648' Limestone; tan and gray, fossiliferous in part, chalky, no shows.

3662-3670' Limestone; brown, fossiliferous, chalky, poor visible porosity, no shows.

3676-3682' Limestone; tan to dark brown, fossiliferous, cherty, dense.

3698-3703' Limestone; tan, finely crystalline, few fossiliferous, chalky, scattered pinpoint to intercrystalline porosity, poor brown stain, trace of free oil and faint odor in fresh samples. (7 unit gas kick).

3717-3721' Limestone; gray and white to tan, fossiliferous, chalky, black to brown spotty stain, weak show of free oil and faint odor in fresh samples. (3 unit gas kick).

Drill Stem Test #1 3684-3730' (log measurements 3677-3723')

Times: **30-30-45-45**

Blow: **Strong**

Recovery: **120' gas in pipe**
30' heavy oil cut gassy mud
(25% oil, 10% gas, 65% mud)

500' oil and gas cut muddy water
(8% oil, 5% gas, 35% water, 52% mud)
560' oil specked water
(less than 1% oil)

Pressures:	**ISIP**	**851**	**psi**
	FSIP	**820**	**psi**
	IFP	**74-326**	**psi**
	FFP	**341-545**	**psi**
	HSH	**1732-1714**	**psi**

3731-3742' Limestone; tan, fossiliferous, cherty in part, plus white and gray chert.

3774-3780' Limestone; gray and white, oocastic, chalky, fair oocastic porosity, no shows.

3791-3810' Limestone; white and gray, chalky.

3814-3820' Limestone; gray, fossiliferous, oolitic, chalky in part, black spotty stain, no show of free oil and questionable odor in fresh samples.

3833-3843' Limestone; white and gray, chalky, poorly developed porosity, no shows.

3876-3881' Limestone; gray to white, finely crystalline, fossiliferous, chalky, trace golden brown stain, trace of free oil and questionable odor in fresh samples.

3901-3908' Limestone; cream and tan, fine to medium crystalline, chalky in part, slightly fossiliferous, fair brown to golden brown stain, show of free oil and fair to good odor in fresh samples.

<u>Drill Stem Test #2 3866-3928' (log measurements 3859-3921')</u>

Times: **30-45-45-60**

Blow: **Weak increasing**

Recovery: **45' mud, few oil specks**

Pressures:	**ISIP**	**1249**	**psi**
	FSIP	**1264**	**psi**
	IFP	**14-24**	**psi**
	FFP	**26-31**	**psi**
	HSH	**1898-1802**	**psi**

3936-3940' Limestone; white and gray, finely crystalline, slightly fossiliferous, scattered pinpoint type porosity, light brown to golden brown stain, poor show of free oil and faint odor in fresh samples.

3948-3956' Limestone; gray, finely crystalline to granular, few fossiliferous, dull gray and brown spotty stain, trace of free oil and questionable odor in fresh samples.

MISSISSIPPIAN SECTION

4054-4060' Limestone; cream and white, medium and coarse crystalline, black and gray stain, plus chert, white and gray, semi tripolitic, black and gray stain, show of free oil and gas bubbles in fresh samples.

4060-4080' Chert; as above, scattered vuggy to pinpoint porosity, light brown to black stain, show of free oil and gas bubbles. (15 unit gas kick).

4080-4096' Limestone; as above.

Drill Stem Test #3 4051-4110'

Times: **30-45-45-60**

Blow: **Strong**

Recovery: **220' gas in pipe**
80' mud

Pressures:

ISIP	**905**	**psi**
FSIP	**805**	**psi**
IFP	**15-29**	**psi**
FFP	**33-47**	**psi**
HSH	**1948-1905**	**psi**

KINDERHOOK SECTION

4133-4272' Varied colored silty to dolomitic shale, scattered traces white chert, no shows.

VIOLA SECTION

4273-4277' Dolomite; gray, fine to medium crystalline, poor visible porosity, trace gas bubbles, no free oil, spotty fluorescence. (3 unit gas kick).

Drill Stem Test #4 4277-4296' (log measurements 4270-4289')

Times: **30-60-60-90**

Blow: **Strong, gas to surface 5 minutes, gas gauged as follows:**

Initial Flow	
10 minutes	**68,800 cfgpd**
20 minutes	**86,300 cfgpd**
30 minutes	**86,300 cfgpd**
Final Flow	
10 minutes	**116,000 cfgpd**
20 minutes	**116,000 cfgpd**
30 minutes	**121,000 cfgpd**
40 minutes	**129,000 cfgpd**
50 minutes	**143,000 cfgpd**
60 minutes	**141,000 cfgpd**

Recovery: **40' very slightly oil cut watery gassy mud (2% oil, 10% gas, 6% water, 82% mud)**

Pressures:

ISIP	**1139**	**psi**
FSIP	**1139**	**psi**
IFP	**33-43**	**psi**
FFP	**34-39**	**psi**
HSH	**2069-2007**	**psi**

4290-4300' Dolomite; gray, fine to medium crystalline, scattered intercrystalline porosity, trace gas bubbles, plus white to gray boney cherty.

4300-4330' Dolomite; tan and gray, finely crystalline, sucrosic, good pinpoint type porosity, trace gas bubbles.

4330-4340' Dolomite; chert as above.

4340-4360' Dolomite; gray, dark gray and tan, boney.

4360-4378' Chert and dolomite as above, no shows.

SIMPSON SECTION

4387-4498' Sand; white, quartzitic, medium grained, sub rounded, friable, fair intergranular porosity, trace iron pyrite, no shows.

4409-4413' Sand; very fine to medium grained, sub rounded to sub angular, poorly developed porosity, trace iron pyrite, no shows.

ARBUCKLE SECTION

4457-4461' Dolomite; white and cream, finely crystalline, chalky luster, no show, trace white chert, black edge staining.

4461-4470' Dolomite; white and cream, sucrosic, plus gray, medium crystalline, dolomite, trace iron pyrite, trace orange and rose quartz.

4470-4490' Dolomite; gray and tan, fine to medium crystalline, poor visible porosity, no shows.

4490-4499' Dolomite; as above, trace white chert, no shows.

Rotary Total Depth 4499 (-2606)
Log Total Depth 4505 (-2692)

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 ½" production casing at one (1) foot off bottom and the following zones be tested in the Young #1.

1. Viola 4284-4289 perforate
2. Mississippian 4054-4096 perforate
3. Lansing 3697-3701 perforate

Respectfully submitted;

James C. Musgrove
Petroleum Geologist