15-051-25293 27-12s-17w

Staab Energy & Leasing
2514 Haney Drive
Hays, Kansas 67601

GEOLOGICAL REPORT

Ed East No. 1
E/2-E/2-NW/4
27-12s-17w
Ellis County, Kansas

May 14, 2004

Staab Energy & Leasing
2514 Haney Drive
Hays, Kansas 67601

GEOLOGICAL REPORT:	Ed East No. 1 E/2-E/2-NE/4 27-12s-17w Ellis County, Kansas
CONTRACTOR:	Vonfeldt Drilling Co. Rig No. 1 Russell, Kansas 67665
DRILLING COMMENCED:	May 4, 2004
DRILLING COMPLETED:	May 11, 2004
CASING RECORD:	8 5/8 set at 232', 5 ½ set at ~~3714'~~ 3741'.
DRILLING TIME:	1 foot intervals plotted and recorded from 3000' to 3740' R.T.D.
SAMPLES:	10 foot intervals saved and examined from 3050' to 3740' R.T.D.
DRILL STEM TESTS:	5 by Trilobite Testing Inc. Hays, Kansas 67601
LOGS:	Dual Induction Log, Dual Comp. Porosity Log, and Borehole Comp. Sonic Logs. Log-Tech Inc. Hays, Kansas 67601
MUD:	Chemical Mud Mud Co/Service Mud Pratt, Kansas
ELEVATION:	Kelly Bushing 2123' Ground Level 2118' Measurements from K.B.

FORMATION TOPS

FORMATION	SAMPLE TOP	LOG TOPS	MINUS DATUM
Anhydrite	1323	1321	+802
Base-Anhydrite	1362	1358	+765
Topeka	3097	3094	-973
Heebner	3338	3337	-1214
Toronto	3357	3359	-1236
Lansing-Kansas City	3383	3384	-1261
Base-Kansas City	3620	3619	-1496
Arbuckle	3651	3655	-1532
Total Depth	3740	3742	-1619

Lithology: Zones of Interest
NOTE: All sample descriptions have been corrected to the log measurements.

Topeka 3096-Top (-973)

3096-3100	LS;	White to buff, crystalline to slightly fossiliferous with no show.
3128-32	LS;	Buff to light gray, trace of poor crystalline porosity with no show. Chalky.

Heebner 3337 (-1214)

Toronto 3359 (-1236)

3360-62	LS;	White, poor crystalline porosity with no show. Cherty.

Lansing-Kansas City 3384 (-1261)

3385-86 A Zone	LS;	White, fine crystalline and dense, slightly oolitic. No show.

3397-98 B Zone	LS;	White, fine crystalline and dense. No show.
3411-12 C Zone	LS;	White, poor crystalline porosity, slightly oolitic. Trace of spotty stain. No free oil or odor.
3428-32 D Zone	LS;	White, fair to poor crystalline porosity with rare spotty stain. Cherty. Trace of free oil, but no odor.
3455-57 E Zone	LS;	White, crystalline and fossil porosity with a trace of light stain. Slight show of free oil and faint odor.

Tested by D.S.T. No. 1

3466-71 F Zone	LS;	White, poor crystalline and slightly oolitic porosity with light stain. No free oil or odor.

Tested by D.S.T. No. 1

3478-82 G Zone	LS;	White, poor oolitic porosity with no visible show.

Tested by D.S.T. No. 1

3516-18 H Zone	LS;	White to light gray, trace of poor crystalline porosity with a trace of stain. Gray chert. No free oil or odor.
3542-44 I Zone	LS;	White to buff, fine crystalline and dense. Slightly fossiliferous. No visible show.
3565-68 J Zone	LS;	White to buff, poor to fair crystalline and slightly oolitic porosity with light stain. Very slight show of free oil and fair odor.

Tested by D.S.T. No. 2

3590-92 K Zone	LS;	Buff, fine crystalline and dense. Slight granular porosity with no show.

Tested by D.S.T. No. 2

3609-12 L Zone	LS;	White to buff, fine crystalline and dense. No show.

Base-Kansas City 3619 (-1496)

Arbuckle 3655-Top (-1532)

3657-62	Dol;	Buff to light gray, poor crystalline to good granular porosity with dark stain. Good show of free oil and good odor.

Tested by D.S.T. No. 3

3662-74	Dol;	White, poor crystalline porosity in the top section, better porosity from 3666-74. Scattered dark even stain with fair show of free oil and good odor.
3675-80	Dol;	White to light gray fair inter-crystalline porosity with dark even stain, show of free oil and fair odor.

Tested by D.S.T. No. 4 & 5

3686-3700	Dol;	White, some light gray, fair to poor crystalline porosity with scattered dark stain. Slight show of free oil and odor.
3704-06	Shale;	Green, soft.
3707-40	Dol;	White to light gray fair to good crystalline porosity. Shows of oil decrease with depth. Free oil appears watery. Good odor and spotty stain.

Rotary Total Depth 3740 (-1617) Log Total Depth 3742 (-1619)

DRILL STEM TESTS

Drill Stem Test No. 1 3445-3486 E, F, G

Time Interval: 45-45-45-45

Blow: 1st Open- fair 5" blow
2nd Open – fair 7" blow

Recovery: 50 feet of gas and mud cut oil
50 feet of total fluid (10% gas, 60% oil, 30% mud)

Pressures:	IHMP: 1683#	IFP: 12# - 22#
	ISIP: 539#	FFP: 22# - 31#
	FSIP: 493#	BHT: 101 F
	FHMP: 1646#	

Mud Properties: Viscosity: 50 Weight: 9.0 Water loss: 10.4

Drill Stem Test No. 2 3555-3605 J, K

Time Interval: 30-30-0-0

Blow: 1st Open – weak died in 10 min.
2nd Open – weak no blow

Recovery: 5 feet of drilling mud with oil spots

Pressures:	IHMP: 1761#	IFP: 13# - 14#
	ISIP: 744#	FFP: N.A.
	FSIP: N.A.	BHT: 99 F
	FHMP: 1701#	

Mud Properties: Viscosity: 46 Weight: 8.9 Water loss: 11.2

DRILL STEM TEST CON'T

Drill Stem Test No. 3 3619-3662 Arbuckle

Time Interval: 30-30-0-0

Blow: 1st Open – weak – dead in 10 min
2nd Open - no blow

Recovery: 5 feet of mud with oil spots

Pressures:	IHMP: 1813#	IFP: 13# -14#
	ISIP: 54#	FFP: N.A.
	FSIP: N.A.	BHT: N.A.
	FHMP: 1778#	

Mud Properties: Viscosity: 45 Weight: 9.1 Water loss: 12.0

Drill Stem Test No. 4 3657-3680 Arbuckle

Miss run-packer failed.

Drill Stem Test No. 5 3618-3680 Arbuckle

Time Interval: 45-45-45-45

Blow: 1st Open – weak – built to 4 min.
2nd Open – weak – built to 1 min.

Recovery: 50 feet of mud cut oil (50% mud, 50% oil)
50 feet of clean oil
75 feet of total fluid

Pressures:	IHMP: 1812#	IFP: 16# - 30#
	ISIP: 847#	FFP: 33# - 43#
	FSIP: 752#	BHT: 102 F
	FHMP: 1752#	

Mud Properties: Viscosity: 50 Weight: 9.0 Water loss: 10.3

RECOMMENDATIONS

The Ed East No. 1 ran 4 feet higher than the Sage Drilling Schmeidler No. 1 (200' N, NW-SE-NE, 27-12s-17w Ellis Co. Kansas) when comparing the Lansing tops. Small shows were noted in the D Zone from 3428-33. This was not tested but should be perforated initially or prior to abandonment. Other shows were noted in the E zones from 3454-57, the F zone 3466-71, and the J zone from 3565-68. All the zones mentioned should be perforated.

The Arbuckle datum of (-1532) is 10 feet higher than the Sage Schmeidler No. 1. Initial perforations should be made no lower than 3684'. Oil was recovered on the 5th D.S.T. some 25 feet in. Oil was recovered from 3675-78 as seen on the log.

DMS/das

Respectfully Submitted,

David M. Shumaker
Petroleum Geologist