

HESS OIL COMPANY

225 N. Market, Suite 300

Wichita, Kansas 67202

(316) 263-2243

GEOLOGICAL REPORT

ANGELA #1

700' FNL, 2035' FEL of

SECTION 25 - 23S - 24W

HODGEMAN COUNTY, KANSAS

Commenced: 3-31-11

Elevations: 2415' GR, 2420' KB

Completed: 4-8-11

Surface Pipe: 8-5/8" @ 233' KB

Contractor: Mallard J.V.

Production Pipe: none

One foot drilling time was kept from 1560 to 1660' KB and from 3800' to RTD. Ten foot drilling samples were kept (wet & dry) from 4400' to rotary total depth.

Following are sample tops, descriptions of zones of interest (including all shows of oil & gas), and the results of all drill stem tests.

ANHYDRITE

1578 (+842)

BASE ANHYDRITE

1603 (+817)

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<u>HEEBNER</u>	<u>3954</u>	<u>(-1534)</u>
<u>LANSING</u>	<u>4003</u>	<u>(-1583)</u>
<u>STARK SHALE</u>	<u>4306</u>	<u>(-1886)</u>
<u>BASE KANSAS CITY</u>	<u>4418</u>	<u>(-1998)</u>
<u>PAWNEE</u>	<u>4468</u>	<u>(-2048)</u>
<u>FORT SCOTT</u>	<u>4535</u>	<u>(-2115)</u>
<u>CHEROKEE SHALE</u>	<u>4566</u>	<u>(-2146)</u>
<u>CHEROKEE SAND</u>	<u>4665</u>	<u>(-2145)</u>

4665-69' KB

Clear, fine to medium grained, fairly sorted, poorly rounded, sandstone clusters & loose grains. Great show of free oil in poor intergranular porosity, no odor, strong stain, and a very strong cut.

DRILL STEM TEST #1

4640 to 4669' KB

29' Anchor

Blow: Slow build to $1\frac{1}{4}$ " in 45 min.. 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 30' Oil Cut Mud (5% oil)

Pressures:	IH 2354#	IF 35 - 38#	ISIP 109#
	FH 2288#	FF 41 - 40#	FSIP 52#

4670-75' KB

Tan, tripolitic, chert. Few sands as above. Great show of free oil in fair "on edge" porosity. No odor, Good stain, strong cut, and a few gas bubbles!! (congl. ?)

DRILL STEM TEST #2

4640 to 4675' KB

35' Anchor

Blow: $\frac{1}{4}$ " -- died back to weak surface blow in 30min.
2nd -- no blow.

Times: Open 30, Closed 30, Open 5, Closed 0.

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DRILL STEM TEST #2 (cont.)

Recovered: 10' Mud w/oil spots

Pressures:	IH 2398#	IF 31 - 31#	ISIP 75#
	FH 2295#	FF 35 - 35#	FSIP ---

4676-92' KB Cream to tan, tripolitic, cherts. (some sharp PCs)
Few sand grains. Good show of free oil in fair
"on edge" porosity, no odor, strong stain, and a
strong cut. (some gas bubbles)

DRILL STEM TEST #3 4660 to 4692' KB 32' Anchor

---- Miss Run, Packer Failed ----

DRILL STEM TEST #4 4638 to 4692' KB 54' Anchor

Blow: slow build to 1". 2nd -- no blow.

Times: Open 45, Closed 45, Open 45, Closed 45.

Recovered: 20' Mud

Pressures:	IH 2501#	IF 30 - 42#	ISIP 137#
	FH 2383#	FF 36-56#	FSIP 92#

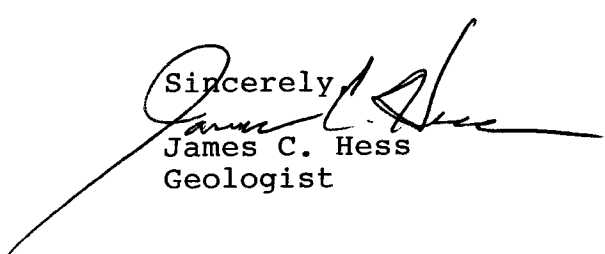
4693-97' KB White to tan sharp & tripolitic, cherts. Fair show
of free oil in fair "on edge" porosity, no odor,
fair stain, and a fair cut. Some heavy tar Stain !!

MISSISSIPPI 4697 (-2277)

ROTARY TOTAL DEPTH 4706 (-2286)

No logs were run as all shows were tested, except for 4693-97' KB (this showed heavy tar stain = water). It was decided to plug the Angela #1 on 4-8-11.

Sincerely,


James C. Hess
Geologist