

Computer Inventoried

**GEOLOGICAL REPORT
ON THE
CLX ENERGY, INC.**

ORIGINAL

ACRES #1

**3554' FSL and 3974' FEL
Section 21 - T32S - R18W
Comanche County, Kansas**



SUBMITTED BY

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STATE OF KANSAS
JUL 27 1988
RECEIVED

GENERAL INFORMATION

ORIGINAL

STATUS: 5 1/2" Production Casing run to 5294'

OPERATOR: CLX Energy Inc. Denver, Colorado

LEASE/WELL NAME Acres #1

LOCATION: 3554' FSL and 3974' FEL
Section 21 - T32S - R 18W
Comanche County, Kansas

ELEVATION: Ground: 2119' KB: 2124'

CONTRACTOR: Pickrell Drilling Rig 1 Drillers: Eldon Ingram
(316)262-8427 (office) Art Hunt
(316)793-2317 (rig) Barry Ingram

COMMENCED: May 24, 1999 Spud: 12:00 noon

COMPLETED: June 3, 1999 7:20 PM

CASING: Surface: 8 5/8" @ 680' (new)
Production: 5 1/2" @ 5294' (new)

TOTAL DEPTH: Driller: 5550' Logger: 5552'

DRILL STEM TESTS: DST 1: 4359-70' (Upper Douglas Sand)
DST 2 : 4794-4825' (Lansing Swope Zone)
DST 3: 5010-5042' (Altamont - Marmaton)

GAS DETECTOR: MBC Detector, Meade, Kansas (316)873-2953
On location and working 3643' to 5552' TD

ELECTRIC LOGS: Run by Log-Tech Hays, Kansas (316)873-2953
1. Dual Induction (detail to 2500')
2. Neutron-Density Porosity (detail to 2500')
3. Micro-Resistivity (detail to 4300')
4. Frac Finder

REMARKS: - Samples saved at Kansas Geologic Sample Library
From 3300' to Total Depth
- Overall condition of drilling mud was very good.
No lost circulation encountered.
- Co-operation of rig crews was excellent. Samples
were generally caught properly and in
good condition to examine.

SAMPLE TOPS

<u>FORMATION</u>	<u>DEPTH/SUBSEA</u>	<u>SHOWS</u>
Elgin Sand	4124'/-2000 (-1)	5-12 gas increase
Heebner Shale	4301'/-2177 (-1)	80 gas increase
Top Douglas Sand (base Ls.)	4364'/-2240 (-2)	120 gas increase, gas bubbles in sample DST #1
Lansing	4478'/-2354 (-2)	
Lansing "B"	4524'/-2400 (-1)	25 gas increase
Drum	4692'/-2568 (flat)	250 gas increase
Swope	4808'/-2684 (-1)	350 gas increase DST #2
Hertha	4874'/-2750 (-2)	—
Base Kansas City	4952'/-2828 (-2)	
Altamont	5017'/-2887 (-3)	290 gas increase DST #3
Pawnee	5059'/-2935 (-3)	
Pawnee porosity	5066'/-2942 (-2)	Lots of gas from above while drilling this interval
Cherokee Shale	5101'/-2977 (-2)	210 gas increase
Cherokee Limestone	5123'/-2999 (-2)	Oil stain, fluorescence 170 gas increase
Mississippi	5154'/-3030 (-2)	8-30 gas increase – several porosity intervals

STATE OF TEXAS
COUNTY OF DALLAS

JUL 12 1967

WITNESSES

ELECTRIC LOG TOPS

TOPS PICKED FROM NEUTRON-DENSITY LOG

KB: 2124'

CLX Acres #1

STRUCTURAL RELATIONSHIP TO:

Conley Smith

Acres #21-5

FORMATION	DEPTH/SUBSEA	
Heebner Shale	4302/-2178	-2
Douglas Sand	4364/-2240	-2
Lansing	4478/-2354	-2
Drum	4692/-2568	flat
Swope	4809/-2685	-2
Hertha	4874/-2750	-2
Altamont	5016/-2892	-2
Pawnee	5058/-2934	-2
Cherokee Shale	5101/-2977	-2
Mississippi	5154/-3030	-2
Total Depth	5550 driller 5552 Log-Tech	

SAMPLE DESCRIPTIONS

SEE GEOLOGIC DRILLING TIME AND LITHOLOGY DESCRIPTIONS

DEVIATION SURVEYS

DEPTH	DEGREE	DATE
685'	1	5/25/99
4370'	¼	5/29/99

PIPE STRAPPED AT THE FOLLOWING DEPTHS:

4825'	.80 short	no correction made
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BIT RECORD

BIT #	SIZE	MAKE	DEPTH OUT	TOTAL FEET	HOURS
1	12 ¼	HTC	685'	685'	3 ¾
2	7 7/8	52CF-046097	5042'	4367'	119 1/2
3	7 7/8	HW-HE54C12606	5550'	508	?

MUD PROPERTIES

MUD-CO/SERVICE MUD

(316)264-2814 ENGINEER: JIM WIESNER

DATE	DEPTH/TIME	MW	VIS	FILTRATE	LCM	CHLORIDES
5/24/99	Spud 12:00 noon					
5/25	685' 9:45am	drilling with native mud -- no control				
5/27	2880' 8:25am	8.8	42	26.4	--	8000 ppm
5/28	3640' 9:15am (displaced mud system at 3700')	9.4+	32	70.0	--	23,000
5/29	4130' 8:45PM DST #1 4359-70' (Upper Douglas Sand)	9.1	52	10.4	--	5,000
5/30	4395' 12:10pm	9.0	67	11.2	--	7,000
5/31	4785' 8:55am DST 2: 4794-4825' (Lansing Swope)	9.3	51	11.2	--	6,000
6/1	4980' 1:15PM DST 3: 501042' (Altamont -- Marmaton)	9.1	49	10.4	--	8,000
6/2	5090' 11:00am (heavy rainstorm 11:30pm)	8.8	38	12.8	1/2#	13,000
6/3	5460' 11:55am	9.2+	42	12.0	3#	10,000
6/3	5550' 7:20pm	Running Electric Logs				

GAS SHOWS

<u>DEPTH GAS SHOW</u>	<u>FORMATION</u>	<u>AMOUNT INCREASE</u>	<u>REMARKS</u>
4135' (cfs)	Top Elgin Sand, shaley	5	probably wet
4156' (cfs)	Elgin Sand	12	
4250'	Shale?	20	
4260'	Shale	40+	
4300'	Heebner Shale	80+	
4320-40'	Shale & Sand?	25-35+	
4370' (cfs)	Upper Douglas Sand	120+	Gas - DST 1
4540' (cfs)	Lansing "B"	25	Gas bubbles in sample
4610'	Lansing	85	
4715'	Lansing "Drum"	250	Gas bubbles in sample
4825' (cfs)	Lansing "Swope"	350	Gas - DST 2
5042' (cfs)	Altamont	290	Gas - DST 3
5080' (cfs)	Pawnee	?	Lots of gas from DST 3
5110'	Shale	200	Gas bubbles in sample
5120'	Cherokee Shale	210	
5140'	Cherokee Limestone	170	Oil stain, fluorescence
5175'	Mississippi	17	
5185'	Mississippi	30	
5210-20'	Mississippi	8-15	

(cfs) circulation for samples

DRILL STEM TEST SUMMARY

TRILOBITE TESTING
HAYS, KANSAS
1-800-728-5369
TESTER: GARY PEVOTEAUX

DST 1: 4359-4370' (11') Upper Douglas Sand

Open/close times: 30-60-60-90'

1st Open: Strong blow off bottom bucket in 10 seconds. Gas to surface: 15".

2nd Open: Gauged 216mcf immediately – building to 388mcf in 60" – still building.

Recovered: 125' gassy drilling mud. No water.

I.Hydro: 2135# IFP: 23-57# ISIP: 1572#

F.Hydro: 2058# FFP: 68-143# FSIP: 1563#

(Alpine electronic pressure readings)

BHT: 106 F. 5/30/99 Total test time: 8.0 hours

DST 2: 4794-4825' (31') Lansing Swope

Open/close times: 30-60-30-60"

1st Open: Very strong blow. Gas to surface in 3". Gauged 243mcf increasing to 388mcf in 30"

2nd Open: Gauged 357mcf increasing to 445mcf in 30".

Recovered: 195' gassy mud. No water.

I.Hydro: 2338# IFP: 97-140# ISIP: 1748#

F.Hydro: 2295# FFP: 152-159# FSIP: 1738#

(Alpine electronic pressure readings)

BHT: 109 F. 5/31/99 Total test time: 7 hours, 17 min.

DST 3: 5010-5042' (32') Altamont (Marmaton)

Open/close times: 30-60-30-60"

1st Open: Gas to surface in 7". Gauged 68-101mcf.

2nd Open: 166mcf decreasing & stabilized at 141mcf.

Recovered: 175' gassy mud. No water.

I.Hydro: 2456# IFP: 62-64# ISIP: 1827#

F.Hydro: 2402# FFP: 96-75# FSIP: 1801#

(Alpine electronic pressure readings)

BHT: 110 F. 6/1/99 Total test time: 7 hours, 1 min.

GEOLOGICAL REMARKS

It appears that the CLX Energy/KFG Resources Acres #1 is regionally high to surrounding wells and should produce hydrocarbons out of several reservoirs.

A brief summary of reservoirs is listed below:

A. Probably Gas Productive:

- | | | |
|-----------------------|------------------|--------|
| 1. Upper Douglas Sand | 4366-70' (4') | DST #1 |
| 2. Lansing "Drum" | 4692-4702' (10') | |
| 3. Lansing "Swope" | 4809-18' (9') | DST #2 |
| 4. Altamont Limestone | 5016-21' (5') | DST #3 |
| 5. Pawnee Limestone | 5056-70' (14') | |

B. Possible Productive (should be looked at prior to abandonment):

- | | |
|-----------------------|------------------|
| 1. Lansing "B" | 4526-33' (7') |
| 2. Cherokee Limestone | 5123-26' (3') |
| 3. Mississippi | 5157-80' (23') |
| | 5186-5202' (16') |

C. Correlative Zones (to be watched in future wells):

- | | |
|----------------------|------------|
| 1. Limestone | 3185-90' |
| 2. Elgin Sand | 4190-4204' |
| 3. Toronto Limestone | 4321-26' |