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State Geologist
WICHITA
KANSAS

GEOLOGIC WELL REPORT

J.C. PENNEY COMPANY, INC.

No. 3 Fee

SW SE NW Sec. 8, Twp. 13 S., Rge. 24 E.

JOHNSON COUNTY, KANSAS

By

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WELLOG

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8-13-248¹

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November 20, 1984

GEOLOGIC WELL REPORT

J.C. Penney Company, Inc.

No. 3 Fee

SW SE NW Sec. 8, Twp. 13 S., Rge. 24 E.
Johnson County, Kansas

Total Depth 695 Elev.: 1036 Ground

Contractor: F.E. Young Drilling Co.

Rig: Air Rotary. Failing 1500

Spud: 7 Nov. 1984

Rotary Corp.: 10 Nov. 1984

Status: Dry - plugged and abandoned 12 Nov. 1984

Mr. Lawrence C. Bibb
Real Estate Department
J.C. Penney Company, Inc.
1301 Avenue of the Americas
New York, New York 10019

Dear Mr. Bibb:

Following are the pertinent formation tops and evaluation of porosity zones and hydrocarbon occurrences as determined by sample studies and special logging techniques at the drill site.

Two logging runs were made by the Cornish Well Logging Company utilizing a Gamma Ray-Neutron tool. A Copy of the GR-N log is included with this report. Also enclosed with this report are copies of geologic strip logs at a scale of 1" = 50' and 5" = 100'. Drilling time was not kept by the driller and was therefore not plotted on the 5" log.

I was present at the site Monday to stake the well site to insure compliance with Kansas state regulations. The drilling rig was moved on site Wednesday afternoon and a large diameter hole drilled to 20 feet. Seven inch surface pipe was then set with cement and allowed to set up overnight. Actual drilling commenced Thursday morning and I witnessed the drilling from surface to total depth of 695 feet. Generally, five foot samples were taken and examined for the entire interval drilled. One and two foot samples were examined in zones where porosity or hydrocarbons were expected. Sample quality was excellent in the upper one half of the well but deteriorated in the lower portion of the well due to water encountered in the lower strata. Overall, the geologic interpretation correlated very favorably with the gamma ray neutron log run after drilling.

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FORMATION TOPS

WELL ELEVATION: 1036' Ground level.

Note: All measurements made from ground level.

FORMATION & POROSITY DESCRIPTION

	Sample log depth	GR-N log depth
PENNSYLVANIAN SYSTEM:		
<hr/> Lansing Group		
Stanton Fm.		exposed at surface
Villas Fm.	21	24
Plattsburg Fm.	33	36
<hr/> Kansas City Group		
Bonner Springs Fm.	48	50
Wyandotte Fm.	67	69
Lane Fm.	142	144
Iola Fm.	173	176
Chanute Fm.	183	186
Drum Fm.	213	214
Cherryvale Fm.	216	220
Dennis Fm.	259	261
Galesburg Fm.		not identified
Swope Fm.	296	297
Ladore Fm.	323	327
Hertha Fm.	327	331

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Pleasanton Group (Base KC Group) 337 340

No formal formations named in Pleasanton Group.

Upper Knobtown Sandstone Zone 343 - 353
Sandstone; greenish gray, very fine to medium grained, micaceous, glauconitic, clean. Net thickness, 4'. Siltstone; greenish gray, micaceous. Net thickness, 6'. Gauged hole with U Tube for gas at 27 to 31 MCF open flow potential.

Middle Knobtown Facies 368 - 395
Sandstone; green and gray, very fine to fine grained, very shaly and dirty, calcareous, carbonaceous. U Tube gage at 440 feet showed an increase to 47 MCF total. A net increase of 20 MCF. GR-N log shows this interval to be very shaly and or dirty.

Hepler Sandstone Zone 447 - 464
Mainly siltstone; greenish gray, clean with a green shale break at 453 to 455.

Marmaton Group

Holdenville Fm.	464	463
Lenapah Fm.	482	480
Nowata Fm.	498	499
Altamont Fm.	514	516
Bandera Fm.	527	524
Pawnee Fm.	532	534
Labette Fm.	567	567
Higginsville Fm.	573	571
Little Osage Fm.	578	581
Black Jack Creek Fm.	607	604

Cherokee Group

Excello Fm.	610	612
Mulley Fm.	not identified	

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Lagonda Fm.

616

621

First Squirrel Sandstone Zone 616 - 630
(621 - 634 by GR-N)

Siltstone; gray and green, very shaly, siderite shot, thin sandstone streak (2' of) at 623 to 625. No noticeable amounts of gas present.

Second Squirrel Sandstone Zone 663 - 692

Siltstone; 663 - 675.

Sandstone; 675 - 684, tan to brown, very fine to medium grained, micaceous, fair show of light brown oil in 50% of sand. Uniform fluorescence, good "cut" with solvent. No significant show of gas.

Total Depth 695'

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CONCLUSIONS

The subject well is classified as a new pool wildcat or "near wildcat" as used by the AAPG-CSD and API. It is located a little over one mile south from commercial gas production in the Olathe Northeast Gas Field. Geologically, the general area is on the southern margins of the Forest City Basin which has produced both oil and gas for many years.

There is also some small oil production on property immediately adjacent to the west and northwest, however the main objective of this well was to test for the presence of sufficient gas to supplement purchased gas used at the Lenexa Catalog Distribution Center Warehouse.

The first potential gas sand occurred in the "Upper Knobtown" sandstone zone and was logged from sample examination to be from 343 to 347 with a siltstone logged from 347 to 353 feet. The gamma ray-neutron log correlated very close with footages of 343 to 354 inclusive. A show of gas was encountered and tested by a U-tube measuring device as having an open flow potential of 27 to 31 thousand cubic feet of gas in a twenty-four hour period. A slight increase of gas was noted at the 400 foot drilling rod connection and with a total of approximately 47 MCF estimated by U-tube. The gas was "puffy" and an accurate measurement was impossible to take. Sand development in the Middle Knobtown zone was poor as determined by sample studies and confirmed by the radioactivity log run after drilling.

The main objective sands consisting of an "Upper Squirrel" and "Second Squirrel" were encountered with very little to no gas noted.

The "Upper" or "First" Squirrel sand was encountered at 616 to 630 feet by sample determination and consisted of dirty, very fine grained sandstone interbedded with siltstones. The radioactivity log showed a sandstone at 623 to 626 with a sandstone and siltstone or shaly, dirty zone from 629 to 637 feet confirming the quality of the sand zone, even though actual depths did not correlate as well. Sample quality had deteriorated considerably by this time and actual depth from which specific samples were coming from was difficult to pin point.

The "Second" Squirrel was encountered at the 675 to 684 and 688 to 692 foot depths. Some siltstones were encountered higher, starting at approximately 655 feet and extending down to the sandstones. The radioactivity log showed a thin sandstone at 663 to 666 feet. Unfortunately the logging tool did not reach the drilled total depth of 695, encountering caving material at a depth of 681 feet. Readings were obtained from 679.7 feet on the first run and from 672.2 on the second run. No sand was noted at the lowest interval logged.

There was a show of oil noted in the samples from the second squirrel interval with an odor being noted by the driller while drilling this interval. There was no free oil noted in the return mud or sample returns ditch. Fair to good porosity was noted in sands coming from the 680 to 695 foot interval

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indicating good porosity and permeability, however no shows of gas were encountered.

The well was tested after cleaning out cuttings from the bottom of the hole with only a small amount of gas being gauged. It was decided that an insufficient amount of sand and gas in the Knobtown zones was available to justify a completion in these upper zones. The well was then plugged according to Kansas State Corporation Commission requirements and abandoned as dry. Copies of the drilling permit, and plugging reports are enclosed with copies being submitted to the City of Lenexa as required by city ordinance.

Respectfully Submitted,



Jack Wells
Certified Petroleum Geologist

JW:jd