CITIES SERVICE GAS COMPANY
McLouth Storage Field

C-1913

Well (McLaughlin Bankers Life # 1)

Location: C N/2 SW SW 3-10S-20E
Leavenworth County, Kansas

Elevation: 1104'

T.D. 1491'

Casing Record: 7" set 1452'

McLouth Sand 1452' to 1470'

Date Started: 6-7-60
Completed: 6-10-60

By: Horn 72 Star Rig

Record:

The casing in this well was tested to determine if it was suitable to be equipped for a pressure observation well in the Steamstry area of McLouth Storage Field - Moved on location, rigged up and pulled 1440' of sucker rods and 2" tubing - Found fluid at approximately 1300' then cleaned out hole from 1470' to 1490' with 6" tools - Hole was caving some - Ran gamma ray and collar locator logs then ran 2" x 7" hookwall packer on 2" tubing and made the following water pressure tests:

Packer at 1445' and 100# water pressure, pressure dropped 38# in 30 minutes
Packer at 1051' and 250# water pressure, pressure dropped 40# in 20 minutes
Packer at 687' and 400# water pressure, pressure dropped 50# in 20 minutes
Packer at 340' and 500# water pressure, pressure dropped 325# in 20 minutes

Pulled packer and 2" tubing and hooked well up for an observation well.

Material Used:

1	7" 500# Walworth Gate
1	7" 20# x 12" Nipple
2	7" 8 Rd thd. Bell Nipples
1	6" Series 30 Slip-on Flange. Complete with bolts and washers
1	6" x 2" Series 30 Slip-on Reducing Flange
1	2" x 4" T.O.E. Nipple
1	2" 500# Gate
1	2" x 1/4" Swage
1	1/4" Valve
1	1/4" Bull Plug

Material Reclaimed:

1440'	Sucker Rods
1440'	2" Tubing
6.14'	Working Barrel
1	Shear Pole

FORM 20 ENG-1[illegible]

WILLIAMS NATURAL GAS COMPANY
ONE OF THE WILLIAMS COMPANIES, INC.

CALCULATIONS

DATE _____
BY _____
SHEET ____ OF ____

McLaughlin #1 Cont.

11-4-97

AM - 9:10 - Midwest Surveys on location - ran line to top of plug inside 7" - plug at 213'

between 7" casing & hole - TOC - 1'

2:45 - topped 7" casing off with 50 cu.ft. of cement - (30 sacks) (Ready Mix truck)

TOC - inside 7" casing - 1½ ft

Total sacks of cement
475 sacks

Mr. R. T. Gaut
Office

March 17, 1960

Subject: Cities Service Gas Company
McLouth Storage Field,
(McLaughlin Bankers Life #1)
C N/2 SW SW 3-10S-20E.,
Leavenworth County, Kansas

The casing in the above described well should be tested to determine if it is suitable to be equipped for pressure observation in the Steenstry area of the McLouth field. If testing indicates the condition of the well is not suitable for repair, a recommendation to plug the well will be issued.

PERTINENT DATA:

Ground Level Elevation: 1,104'

*Casing:

Size	Ran	Pulled	Weight	Thread	Amount Cement	Top Cement
10-3/4"	26'	26'				
8-5/8"	960'	960'				
7"	1,450'				35 sacks	1,133' (calculated)

*From original driller's log.

Hole Sizes: 12-1/4" to 26', 10-1/4" to 960', 8-1/4" to 1,450', 6-1/4" to 1,491' T.D.

Shot Record: Shot with 150 quarts 1,455'-1,485'

Initial Production: 60 Bbls. potential per day.

Producing Horizon: McLouth sand from 1,455'-1,485'

Drilled Hole Below Casing: 6-1/4" open hole from 1,450'-1,491'
From 1,450'-1,455' dark shale.
McLouth oil sand 1,455'-1,485'.
Mississippi Lime 1,485-1,491' total depth

RECOMMENDATION:

Reclaim present single sheave shear pole.
Pull rods and pump.
Pull tubing.
Run Collar Locator Log and Gamma Ray Log.

Mr. R. T. Gaut
Office

March 17, 1960

Subject: Cities Service Gas Company
McLouth Storage Field,
(Longwell et al #1 Bankers Life)
NW SW 3-10S-20E.,
Leavenworth County, Kansas

The casing in the above described well should be tested to determine if it is suitable to be equipped for pressure observation in the Steenstry area of the McLouth field. If testing indicates the condition of the well is not suitable for repair, a recommendation to plug the well will be issued.

PERTINENT DATA:

Ground Level Elevation: 1,096'

*Casing:

Size	Ran	Pulled	Weight	Thread	Amount Cement	Top Cement
8-5/8"	908'	No record				
7"	1,438					

*From original driller's log.

Hole Sizes: 10-1/4" to 908', 8-1/4" to 1,438', 6-1/4" to 1,475' T.D.

Shot Record: Shot with 40 quarts.

Initial Production: 60 Bbls. potential per day, 28° gravity.

Producing Horizon: McLouth sand from 1,432'-1,463'

Drilled Hole Below Casing: 6-1/4" open hole from 1,438' to 1,463' McLouth oil sand.
From 1,463' to 1,475' T.D. shale.

RECOMMENDATION:

Reclaim present single sheave shear pole.
Pull rods and pump.
Pull tubing.
Run Collar Locator Log and Gamma Ray Log.

Test casing with water as follows:

Use 2" test tubing and packer. Set packer in bottom joint and pressure to 100# on annulus. Reset packer at 1,050' and test at 250# pressure. Reset packer at 700' and test at 400# pressure. Reset packer at 350' and test with 500# pressure. These surface pressures and test depths result in test pressures ranging from 550# to 700#.

Install full opening valve on the casing. Bail well dry and shut in for observation.
If the casing leaks, plug the well; a plugging recommendation will be written when necessary.

Necessary Equipment: Company cable tool rig.
Company logging truck.

Necessary Materials from Stock: 1-7", 500#, Full Opening Gate.
1-7", 20#, x 12" Nipple

Necessary Materials to be Purchased:
2-7", 8 rd. thd. Ball Nipples.
1-6", Series 30, Slip-on Flange, bored to slip on 7", complete with Bolts and Washers.
1-6" x 2", Series 30, Slip-on Reducing Flange.
1-2" x 4", T.O.E. Nipple.
1-2", 500#, Gate.
1-2" x 1/4" Swage.
1-1/4" Valve.
1-1/4" Bull Plug.

Floyd Hentschel, Jr.

lm

WILLIAMS NATURAL GAS®
ONE OF THE WILLIAMS COMPANIES

SHEET NO. OF
FILE
APPN
DATE
BY

6¼ = .2130 10¼ x 7 = .1368 7" - 1.5 /100 @ 1.5
SUBJECT: 7" = .2273 2x7 = .13 "
2x7 = .1966 7x10¾ 70

10/28/97
2:30 PM

Bangers

McLaughlin #1

7" @ 1458' = .2273 x 200 30 sks
6¼ - 1450 - 1491' = .2130 x 41' = 6 sks
- Stuck on Loc - Poc stopped in low spot
- Get Bollinger w/Loe to pull on tbg & dig pit
3:15 - Rig up Poc - Dig Pit RIH w/ 2"
5:00 - ½ way in hole - Consolidated on location
5:40 - on Bottom @ 1481' 1' off bottom
6:55 Zone @ 1452 - 1470
Pump 50 sks ferric oil first
oil thick oil - displace
tubing w/w 66 bbls water
7:15 - POH w/ tubing
7:00 - Out of hole SDON

Calc: 6 sk OH
Ideal world 30 sk 200' fill 7"
@ 1.5 10¾ x 7 = 142 sks (1.3 = 185)
7" IN = 106 sks 140

10/29/97
8:00 - On Location w/ Poc / Midwest Surveys
- RIH w/ Collar log / Bond log - TD @ 1468' Zone 53-70
- TOC @ ± 1100' behind pipe
- Pull up Top of Zone @ 530'
- Run Collar log : possible holes @ -
10:15 - Perf @ 700' Poc KCl
- RIH w/ 2" to TOC - Pump 50 sks w/ bulls
- calc TOC @ 1150'
12:45 - POOH w/ 2"
Three collars off of 7" tie on w/ 7x4 - 4x2 swage
Pump into 7" to try & establish circ from 700'
well taking fluid @ 700 #
will circ immediately ± 35 bbls = hole in 7"
2:45 - RIH w/ 7" + 7" packer set @ 2½ = 61'
Pump into 7" 45 bbls - Lots loaded & to 700 # - no circ
Release pressure TX no go - decide to Repeat
@ 500' - Retrieve Midwest Inc. M. Hs. #11
RIH w/ Repeat @ 500'

FORM 20-ENG-1001 4/87

WILLIAMS NATURAL GAS COMPANY
ONE OF THE WILLIAMS COMPANIES

DATE _____
BY _____
SHEET ____ OF ____

CALCULATIONS

Cont

10/29/97

McLaughlin #1 Cont.

4:15 - WO cementing hole TD @ 1463
RIH w/2" TO TD pump 50sks w/1½ sk hulls
9:00 POOH w/2" 20 jt
5:30 SDON

10/30/97

8:00 - Poe on Loc - pull rest of pipe (2")
8:20 - Out of hole - Cons. on loc w/wireline
9:45 - Wireline T.D. @ 1460' WO new cement in hole - Sch. to
Send Cons. bucket to Ottawa to retrieve salt for Calcium
accelerator - Rock salt - flow seal
9:30 - RIH w/2 7/8 to bottom
Ballinger retrieved pump water

10:00 AM - 2 3/8" on bottom

11:10 AM - Alan Mader (Consolidated) back on location with cementing materials

11:20 - start pumping in hole
11:24 - established circulation & start cement
11:35 - finish pumping cement - followed with 3 bbls water
11:36 Shut down - broke pump line
11:40 - started pulling 2 3/8" out

50 sacks cement
2% Calcium & 1/4# flow seal in cement
1 sack cottonseed hulls
½ sack Opti-seal
½ sack rock salt
25 lbs

12:10 - 2 3/8" out of hole - rigged down
1:15 - Jim Ballinger tractor - pulled rig off location

PM 1:55 - Consolidated (Alan M.) ran wireline to confirm cement location
Top of cement - 1232'

WILLIAMS NATURAL GAS COMPANY
ONE OF THE WILLIAMS COMPANIES

CALCULATIONS

DATE _____
BY _____
SHEET ____ OF ____

McLaughlin #1 Cont.

10-31-97

11:15 AM - moved on location & rigged up - ran 2 joints of 2 3/8" with Baker packer

shut down for the day

11-3-97

8:50 - Consolidated started pumping dye in hole

8:56 - pumped 16 Bbls before dye circulated to surface - 160'

9:00 - rig crew ran 4 more joints of 2 3/8" tubing (31.1 ft. per joint avg.)

Total 6 joints - set packer at 187 ft.

9:20 - recirculated dye

AM 10:30 - circulated 200 sacks through 500' perfs to surface inside & out

- pulled tubing & packer - reset at 60' - circulated 25 sacks of cement to surface

AM 11:50 - pulled tubing removed packer - ran two joints back to 60' - topped off well

12:10 - bullhead into 7" - circulate cement through hole at 35' to surface

used 20 sacks of cement to top off

Total Cement 245 sacks