

TYPE

AFFIDAVIT OF COMPLETION FORM

ACO-1 WELL HISTORY

Compt. _____

SIDE ONE

Two (2) copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within thirty (30) days after the completion of a well, regardless of how the well was completed.

F Attach separate letter of request if the information is to be held confidential. If confidential, only file one copy. Information on Side One will be of public record and Side Two will then be held confidential.

Applications must be made on dual completion, commingling, salt water disposal, injection and temporarily abandoned wells.

C Attach one copy only wireline logs (i.e. electrical log, sonic log, gamma ray neutron log, etc.). (Rules 82-2-105 & 82-2-125) KCC# (316) 263-3238. No Log

LICENSE # 5142 EXPIRATION DATE June 30, 1984

OPERATOR Sterling Drilling Company API NO. 155-20,932-0000

ADDRESS P. O. Box 129 COUNTY Reno

Sterling, Kansas 67579 FIELD WISBY SE

** CONTACT PERSON Olin Kelso PROD. FORMATION Lansing

PHONE 316-278-2131

PURCHASER Peoples Natural Gas Company LEASE Hodge Est. B-1

ADDRESS Suite 748 - 300 West Douglas WELL NO. B-1

Wichita, Kansas 67202-2990 WELL LOCATION NE SW

DRILLING Sterling Drilling Company 8-26-83 660 Ft. from North Line and

CONTRACTOR CONTRACTOR ADDRESS P. O. Box 129 660 Ft. from East Line of

Sterling, Kansas 67579 the SE 1/4 (Qtr.) SEC 20 TWP 22 RGE 9 (W).

PLUGGING CONTRACTOR ADDRESS AUG 26 1983

CONSERVATION DIVISION Wichita, Kansas

TOTAL DEPTH 3513' PBTD 3482'

SPUD DATE 4-19-83 DATE COMPLETED 4-25-83

ELEV: GR 1721' DF KB 1730'

DRILLED WITH (CABLE) (ROTARY) (AIR) TOOLS.

DOCKET NO. OF DISPOSAL OR REPRESSURING WELL BEING USED TO DISPOSE OF WATER FROM THIS LEASE

Amount of surface pipe set and cemented 214' DV Tool Used? No

THIS AFFIDAVIT APPLIES TO: (Circle ONE) - Oil, Gas, Shut-in Gas, Dry, Disposal, Injection, Temporarily Abandoned, OWWO. Other

ALL REQUIREMENTS OF THE STATUTES, RULES AND REGULATIONS PROMULGATED TO REGULATE THE OIL AND GAS INDUSTRY HAVE BEEN FULLY COMPLIED WITH.

A F F I D A V I T

F. A. Wuellner, being of lawful age, hereby certifies that:

I am the Affiant, and I am familiar with the contents of the foregoing Affidavit. The statements and allegations contained therein are true and correct.

STERLING DRILLING COMPANY

F. A. Wuellner, (Name) Secretary

SUBSCRIBED AND SWORN TO BEFORE ME this 25th day of August

19 83.



Agnes D. Wurst (NOTARY PUBLIC)

MY COMMISSION EXPIRES: 4-6-85

** The person who can be reached by phone regarding any questions concerning this information.

FILL IN WELL INFORMATION AS REQUIRED: WELL NO. B-1

FORMATION DESCRIPTION, CONTENTS, ETC.		TOP	BOTTOM	NAME	DEPTH
Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.					
SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.					
Check if no Drill Stem Tests Run.					
Sand		0	125	Gamma-Guard	3512'
Sand and Clay		125	185	Sidewall	
Red Bed		185	216	Neutrom Log	
Shale		216	1150		
Lime and Shale		1150	3230	Gamma-Correlation	3482'
Lime		3230	3240	Misro-Seis-	
Lime and Shale		3240	3440	mogram Cased	
Lime - Chert		3440	3513	Hole Log	
DST #1: Test tools were open 30 min, closed 30 min; open 30 min, closed 30 min. Strong blow, gas surfaced in 10 min. Flow gauges from 796 MCF/D to 930 MCF/D. Recovery was 130' gas cut mud. Pressures: ICIP 1291; FCIP 1291. Flow Pressures: 163/147; 155/155.		3190	3230		
DST #2: Test Tools were open 30 min, closed 30 min; open 45 min, closed 45 min. Strong blow, gas did not surface. Recovery was 750' of gas and 20' of mud. Pressures: ICIP 310; FCIP 277. Flow Pressures: 81/65; 65/65.		3465	3513		
If additional space is needed use Page 2, Side 2					

Report of all strings set — surface, intermediate, production, etc. CASING RECORD (New) or (Used)

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives
Surface	12 1/4"	8 5/8"	24	214'	60/40 Pozmix	225	2% gel and 3% cc.
Production	7 7/8"	4 1/2"	10.5	3512'	Salt Saturated	150	18% salt, 2% gel, 3/4 of 1% CFR-2

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			4		3466-72
TUBING RECORD			2		3400 & 3401
			2		3371 & 3373
Size	Setting depth	Packer set at	4	Set Plug at 3350'	3195 - 98
2 3/8"	3210'		4		3208 - 12

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
500 gal. NE Acid	3466 - 72
2000 gal. 15% NE Acid	3400 & 3401 3371 & 3373
1500 gal. NE Acid	3195 - 98
6000 gal 15% NE Acid with Halco suds	3208 - 12

Date of first production Tested 5-24-83		Producing method (flowing, pumping, gas lift, etc.)		Gravity	
Waiting on pipe line connection		Flowing			
Estimated Production -I.P.	Oil bbls.	Gas 2878 MCFD	Water %	Gas-oil ratio	CFPB
Disposition of gas (vented, used on lease or sold)			Perforations		
Waiting on pipe line connection			3195 - 98		
			3208 - 12		

NORTHERN NATURAL GAS COMPANY
OBSERVED SURFACE DATA WORKSHEET
SHEET 1

TYPE TEST: 4 Point INITIAL ANNUAL RETEST SPECIAL TEST DATE: _____
 OPERATOR Sterling Drilling Company LEASE Hodge Estate "B" WELL NO. 1
 SEC. 20 TWP. 22 RNG. 9 COUNTY Reno STA. NO. _____ PIPELINE CONN. _____
 GA SYSTEM _____ FIELD _____ RESERVOIR _____

CSG. _____ WT. _____ TBG. SIZE _____ WT. _____ PERFS. _____ TO _____
 TYPE COMPLETION: SINGLE () GAS-GAS () GAS-OIL () PACKER @ _____ ft. FLOW STRING @ _____ ft.

DATE ON _____ DATE _____ LENGTH _____ AVG. PREFLOW _____
 PREFLOW _____ TIME _____ SHUT IN _____ TIME _____ OF PREFLOW _____ RATE _____

DATE SHUT IN _____ LENGTH OF _____ SHUT IN _____ SHUT IN _____
 PRESS. TAKEN _____ TIME _____ SHUT IN _____ CSG. PRESS. _____ psig TBG. PRESS. _____ psig

GAS GRAVITY (Gm) _____ API GRAVITY _____ PROVER _____ METER _____ ORIFICE _____ TYPE _____
 (Gg) .650 OF LIQUID @ 60°F _____ SIZE 2" RUN SIZE X SIZE _____ TAPS _____
 (assumed)

DATE TIME OF READING	ELAP TIME HRS.	W.H. PRESSURE DATA				WELL HEAD TEMP	METER OR PROVER DATA			LIQUID HYDRO-CARBONS BBLs.	WATER PRODUCED BBLs.	REMARKS PERTINENT TO TEST DATA QUALITY
		CASING psig	Δ P CSG.	TUBING psig	Δ P TBG.		PRESS psig	DIFF.	TEMP.			
5-24-83	Tues.											Testing through a separator.
1200		1103		1109								
1330												On 1st rate with a 5/16" plate @ 220 mcf & 100# on prover
45		1071		1034			114	76				
1400		1065		1005			110	94				
15		1063		990			104	94				
1430		1061		973			101	94				
-1430												On 2nd rate with a 5/16" plate @ 500 mcf & 230#
45		1015		828			250	80				Began lifting fluid
1500		1017		855			225	88				Choke iced off for a few minutes
15		1006		832			262	88				
1530		999		849			268	92			2	
1530												On 3rd rate with a 5/16" plate @ 750 mcf @ 370#
45		960		825			375	88				Lifting fluid steadily.
1600		950		830			375	84				
15		940		825			385	80				
1630		938		835			392	88			2	
1630												On 4th rate with a 5/16" plate @ 1170 mcf & 530#
45		895		775			510	92				
1700		883		772			512	96				Sample bottle #262
15		877		770			510	96				taken @ 250# & 94°
1730		876		772			516	98	0	1		
1730												Terminated 4 Point & began build-up.
35		982		918								
40		1022		962								
45		1038		982								
1800		1059		1030								
15		1982		1042								

TESTED BY: Greg Reece WITNESSED BY: Olin Kelso

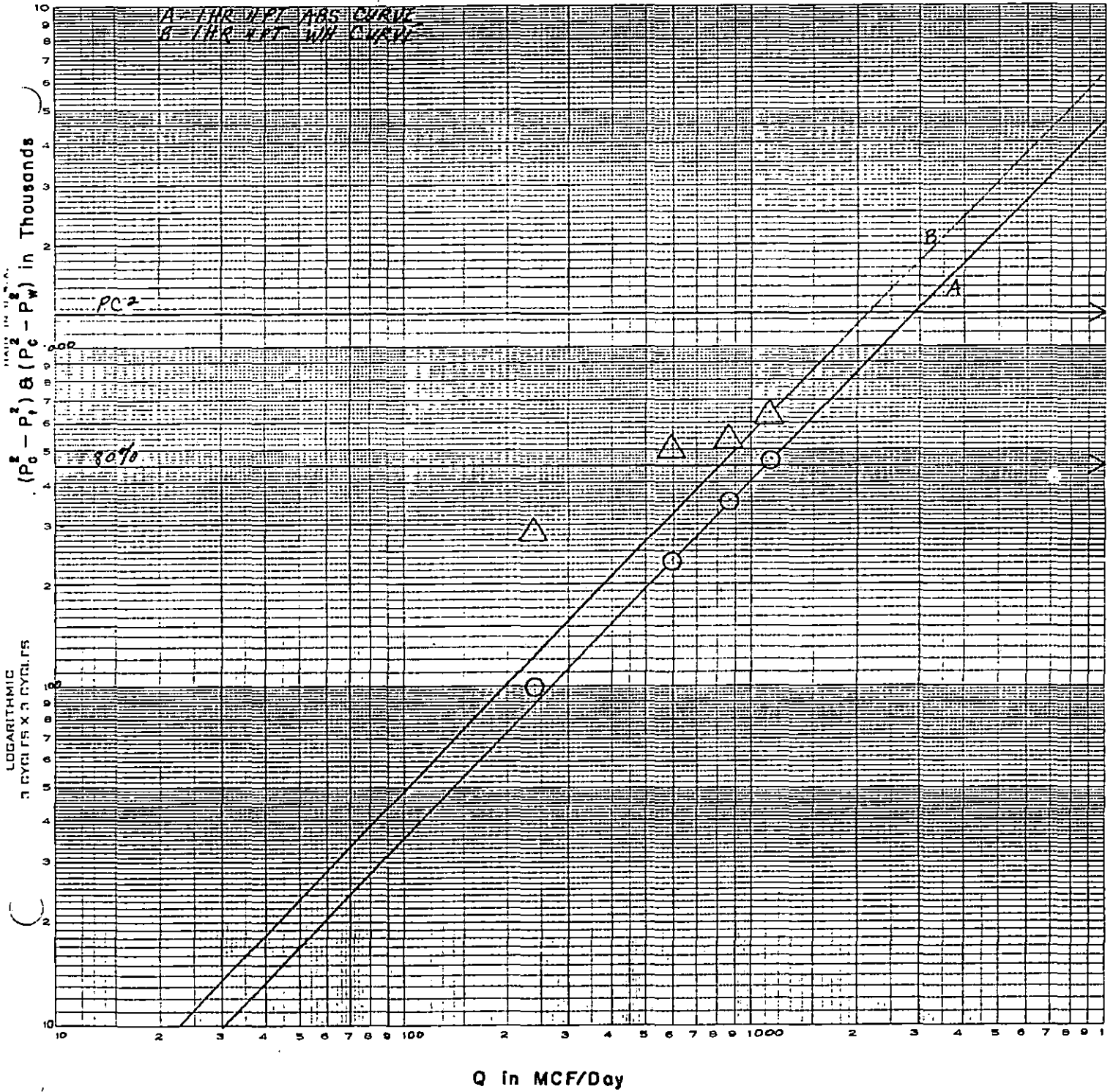
BACK PRESSURE CURVE

Operator STERLING DRILLING Lease HODGE ESTATE "B" Well No. 21

County RENO Field _____ Location 20-22-9

Date of Test 5-24-83 Slope "n" .944 W.H. .944 Abs.

Calc. W.H. Potential 2136 MCF/D Calc. Abs. Potential 2878 MCF/D



SOUTHERN NATURAL GAS COMPANY
MULTI-POINT BACK PRESSURE TEST

DESIGNED BY-GREG HODGE
INPUT BY-FAY GOKMEN

TEST DATE- 5/24/83
STATION NO-3888527
SYST- 0 POOL- 0

----- I N P U T D A T A -----

GAS GRAVITY- 0.6500	METER DEV-CR FLW	OPERATOR	STERLING DRILLING CO.
API GRAVITY- 0.000	SIZE 2	WELL NAME	HODGE ESTATE "B" #1
N2 -(MOL.%) 0.0000	TYPE TAPS-	LOCATION	20-22-9
CO2-(MOL.%) 0.0000	BARO PRESS 14.40	COUNTY/STATE	RENO /KANSAS
H2S-(MOL.%) 0.0000	3H TEMP 89	FIELD	
		RESERVOIR	KANSAS CITY
		VMG SYSTEM	PEOPLES

TUBING ID 1.995 IN. SET @ 3204 FT. SINGLE-GAS COMPLETION PACKER @ 0 FT.
PERFS 3195 FT. THRU 3212 FT. PRODUCTION THRU TUBING AVG DEP 3204 FT.
STIMULATION: 7500 GAL. UNKNOWN ACID.

----- C A L C U L A T I O N S -----

RATE NO	ORIFICE SIZE	METER PSIA	DIFFERENTIAL	TEMP F	RHP PSIA	STATIC PSIA	FLOWING PSIA	DURATION HOURS
1	0.313	115.4	0.0	94	1173.1	1075.4	987.4	1.0
2	0.313	232.4	0.0	92	1104.5	1013.4	903.4	1.0
3	0.313	406.4	0.0	88	1037.1	952.4	849.4	1.0
4	0.313	532.4	0.0	86	968.7	890.4	766.4	1.0

RATE NO	H2O LIQUID PROD BELS	LIQUID PETR BELS	GOR MCF/BSL	ABSOLUTE PC2-PT2	FLOW RATE MCFD	WELLHEAD PC2-PT2	72.0 HR SHUT-IN PC2-PT2	72.0 HR SHUT-IN SURFACE PRESSURE
1	0.0	0.00	0	105.5	340	237.1	127.7 BHP	1123.4 PSIA
2	2.0	0.00	0	235.0	595	516.6	284.0 BHP/2	1226.3 PSIA
3	2.0	0.00	0	355.0	868	540.5	420.5 Z	1479.6 PSIA
4	1.0	0.00	0	469.2	1131	643.6	565.5	0.829

----- T E S T R E S U L T S -----

EXPONENT N OF BACK PRESSURE CURVE (1)	WELLHEAD ABS.
	0.929 .944
STABILIZED C FACTOR	0.000221 0.001099
1.0 HOUR 4-POINT FLOW POTENTIAL	2136 2136 MCFD
72 HOUR FLOW POTENTIAL	2445 951 MCFD
STABILIZED FLOW POTENTIAL	320 380 MCFD
72 HOUR DELIVERABILITY @ 0.8 PC (2)	368 368 MCFD
STABILIZED DELIVERABILITY @ 94 PSIA	378 378 MCFD
STABILIZATION FACTOR (3) 1.0 HOURS TO 72 HOURS	0.450
(3) 72 HOURS TO STABILIZATION	0.400

EVALUATIVE COMMENTS:

- (1) WELLHEAD CURVE-WHN ASSUMED EQUAL TO ABS
ABSOLUTE CURVE-FIRST POINT OUT OF ALIGNMENT
- (2) ASSUMED QUALIFICATION PROVISIONS OF GAS PURCHASE CONTRACT
- (3) STAB.FACTOR ESTIMATE BY FAY GOKMEN

APPROVED BY _____ GSD

Preliminary Field Calculations
Have Not Been Evaluated By
Reservoir Engineering.