

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special										Test Date 9-27-82	
Company IKE LOVELADY, INC.						Connection ATMOSPHERE					
Pool HAT MESA						Formation MORROW					
Completion Date 9-15-82			Total Depth 13,480'			Plug Back TD 13,442'			Elevation 3555 G.L.		
Casing Size 5 1/2"						Wt. 17#		d 4.892		Set At 13,480'	
Perforations: From 13,002 To 13,329'						Well No. 1					
Thq. Size 2 7/8"						Wt. 6.5#		d 2.441		Set At 12,923'	
Perforations: From OPENENDED To						Unit Sec. Twp. Rge. A 26 20S 32E					
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At 12,923'					
Producing Thru Tubing						Reservoir Temp. °F 196°		Mean Annual Temp. °F 12,800		Baro. Press. - P _a 60°	
State New Mexico						County Lea					
L 12923'		H 12923'		Gg .6295		% CO ₂ .761		% N ₂ .381		% H ₂ S	
Prover		Meter Run 4.026"		Taps		Flange					

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3838		PKR	CHOKE	24 Hours
1.	4.026	x	1.250	525#	18"	80°	3308	60°		8/64	1.250 Hr
2.	4.026	x	1.250	525	23	70	3282	60		10/64	.50 Hr
3.	4.026	x	1.250	525	59	83	2968	60		12/64	1.00 Hr
4.	4.026	x	1.250	525	85	78	2778	60		14/64	1.00 Hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.469	98.43	538.2	.9813	1.261	1.046	952
2	7.469	111.26	538.2	.9905	1.261	1.050	1090
3	7.469	178.20	538.2	.9786	1.261	1.045	1716
4	7.469	213.89	538.2	.9831	1.261	1.047	2074
5							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	60.8	Mcf/bbl.
1	.803	540	1.47	.914	A.P.I. Gravity of Liquid Hydrocarbons	52.4 @ 60°	Deg.
2	.803	530	1.44	.907	Specific Gravity Separator Gas	.6295	XXXXXXXXXX
3	.803	543	1.48	.916	Specific Gravity Flowing Fluid	XXXXXX	
4	.803	538	1.46	.912	Critical Pressure	670	P.S.I.A.
5					Critical Temperature	368	R

NO.	P _t ²	P _w ²	P _c ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.106$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.106$
1		3321.2	11030.37	3801.37		
2		3295.2	10858.34	3973.40		
3		2981.2	8887.55	5944.19		
4		2791.2	7790.80	7040.94		
5						

Absolute Open Flow			4369	Mcf/d @ 15.025	Angle of Slope θ	45°	Slope, n	1.000
--------------------	--	--	------	----------------	------------------	-----	----------	-------

Remarks: Slope N Greater than 1, so an exponent of 1.000 was used for calculations and a 45° Angle was drawn thru high rate to obtain AOF. Well produced 4 Bbls of condensate during the test.

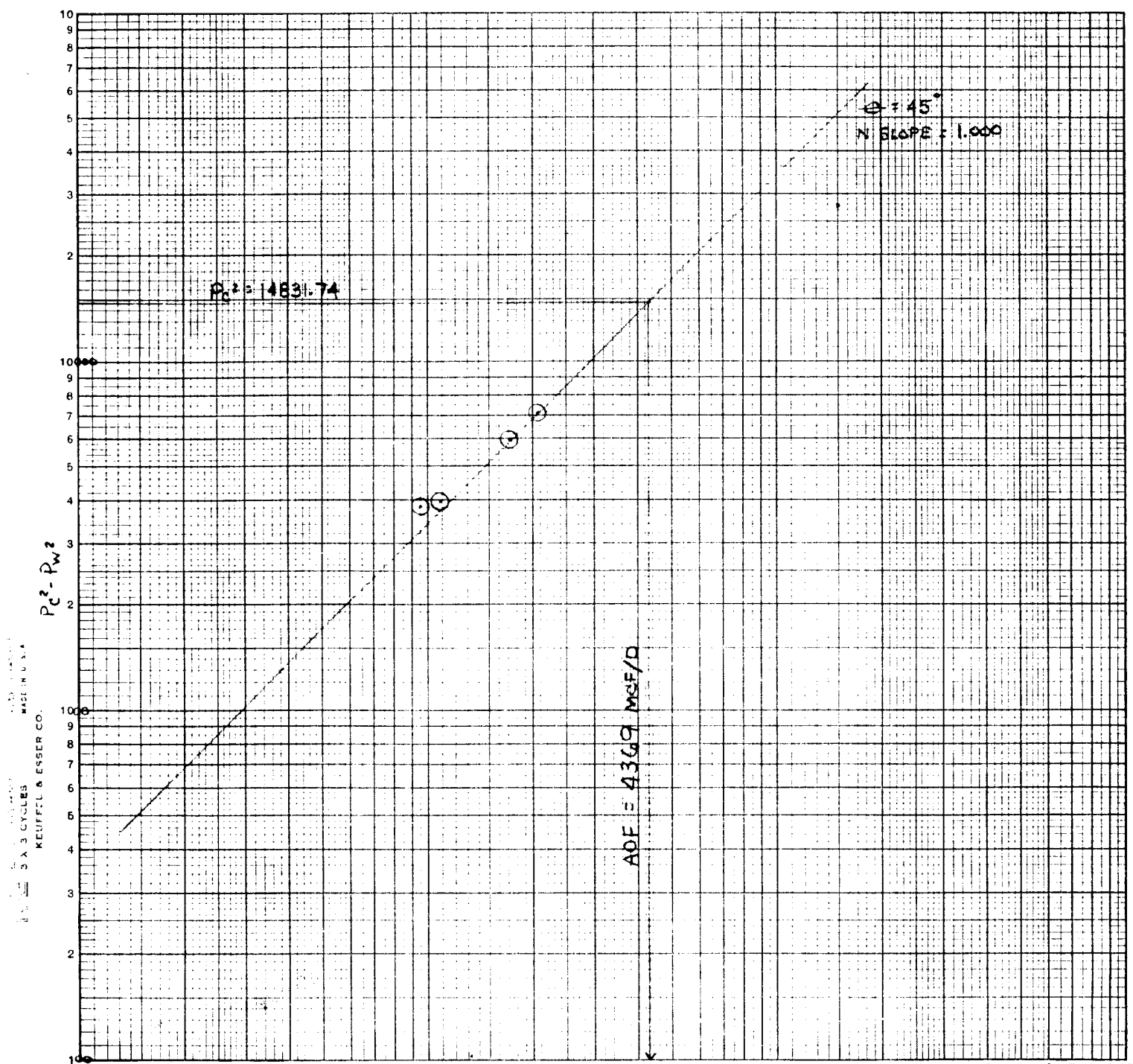
Approved By Commission:	Conducted By: J.W. and W.S.	Calculated By: J.W.	Checked By: M.K.
-------------------------	--------------------------------	------------------------	---------------------

RECEIVED
OCT 14 1992
G. C. J.
HOBBS OFFICE

IKE LOVELADY, INC.

SAM H SNODDY FED. NO. 1

SEPTEMBER 27, 1982



JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO, HOBBS, NEW MEXICO

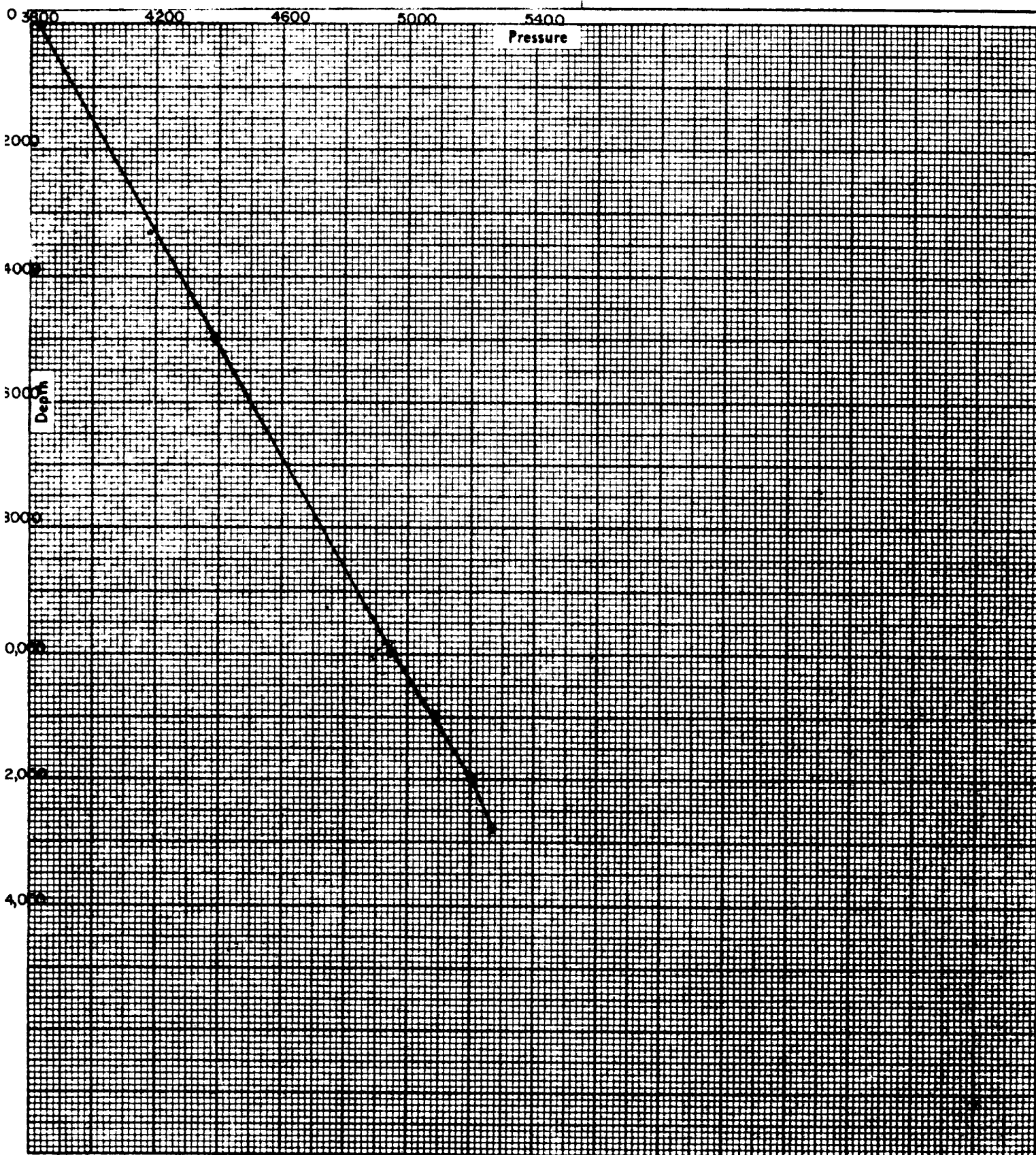
TELEPHONES 393-3942
393-3117

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR IKE LOVELADY, INC.
LEASE SAM H. SNODDY FEDERAL
WELL NO. 1
FIELD _____
DATE 9-27-82 TIME 9:45 A.M.
STATUS Shut-In TEST DEPTH 12,800'
TIME S.I. _____ LAST TEST DATE _____
CAS. PRES. _____ BHP LAST TEST _____
TUB. PRES. 3828 BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP _____ RUN BY W.S.
CLOCK NO. B-12174 GAUGE NO. 19389
ELEMENT NO. 20203 (0-10,000 psi)

DEPTH	PRESSURE	GRADIENT
000	3828	
5000	4393	.113
10000	4959	.113
11000	5090	.131
12000	5201	.111
12800	5271	.088

D.W. 3838 PSI



RECEIVED

OCT 14 1982

O.C.D.
HOBBS OFFICE

TEST DATE: SEPTEMBER 27, 1982

TEST DEPTH: 12,800 FEET

ELEMENT NO: 20203

RANGE: 0-10,000 psi

CLOCK NO: B-12174

TEST CONDUCTED BY:
JOHN WEST ENGINEERING COMPANY

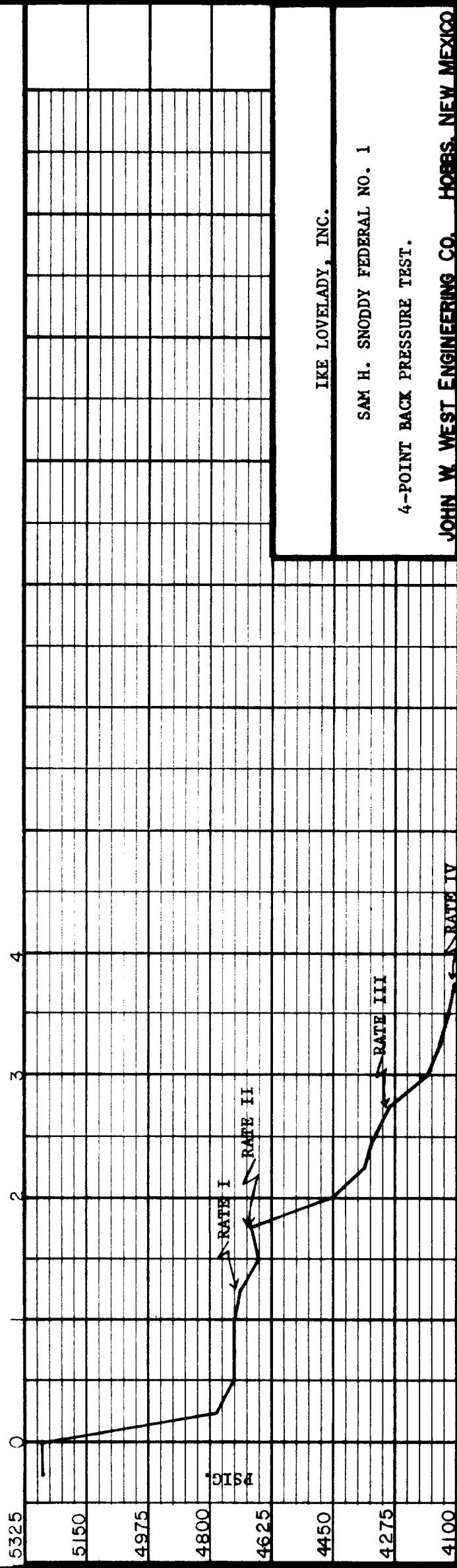
DATE
9-27-82

TIME
9:45 A.M.
10:00 A.M.
10:15 A.M.
10:30 A.M.
10:45 A.M.
11:00 A.M.
11:15 A.M.
11:30 A.M.
11:45 A.M.
12:00 Noon
12:15 P.M.
12:30 P.M.
12:45 P.M.
1:00 P.M.
1:15 P.M.
1:30 P.M.
1:45 P.M.

CUM HRS./MIN.
00 Hrs. 00 Min.
00 15
00 30
00 45
01 00
01 15
01 30
01 45
02 00
02 15
02 30
02 45
03 00
03 15
03 30
03 45

PSIG @ 12,800 FEET
5271 Gauge reached 12,800'
5271 Begin Test
4781
4730
4730
4730
4719 END RATE I
4663
4684 END RATE II
4454
4357
4342
4332 END RATE III
4179
4138
4128
4102 END RATE IV, GAUGE OUT, END TEST

TIME IN HOURS



IKE LOVELADY, INC.

SAM H. SNOODY FEDERAL NO. 1

4-POINT BACK PRESSURE TEST.

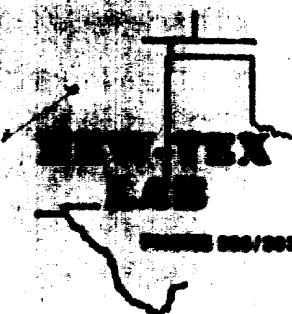
JOHN W. WEST ENGINEERING CO. HOBBS, NEW MEXICO

Date: 9-28-82 Drawn by: bsm Scale: as shown

RECEIVED

OCT 14 1982

O.C.D.
HOBBS OFFICE



PHONE 800/200-2001

P. O. BOX 1101

011 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JOHN WEST ENGINEERING
ADDRESS: 412 N DAL PASO
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER: 8372
DATE OF RUN: 09/27/82
DATE SECURED: 09/27/82

SAMPLE IDENT: IKE LOVELADY - SAM E SNODDY FEDERAL #1
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	0.381	
CARBON DIOXIDE	0.761	
METHANE	89.378	
ETHANE	6.543	1.745
PROPANE	1.965	0.539
ISO-BUTANE	0.307	0.100
NORMAL BUTANE	0.408	0.128
ISO-PENTANE	0.107	0.039
NORMAL PENTANE	0.065	0.023
HEXANES	0.047	0.019
HEPTANES PLUS	0.030	0.017
TOTAL	100.000	2.612

PROPANE GPM: 0.54 BUTANES GPM: 0.23
ETHANE GPM: 1.74 PENTANES PLUS GPM: 0.10

SPECIFIC GRAV (CALC): 0.6295
MOLE WEIGHT: 18.23

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
14.696		1083	1103
14.650		1080	1099
14.730		1086	1105
14.735		1086	1105

ANALYZED BY: DEANE SIMPSON

APPROVED BY

RECEIVED
OCT 14 1982
CCB
HOBBS OFFICE