

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

Form C-122
Revised 9-1-65

RECEIVED

☒ Initial ☐ Annual ☐ Special				Test Date 06/30/80		JUL 15 1980	
Operator BASS ENTERPRISES				Direction AIR		Unit O. C. D.	
Well Name MORROW				Location ARTESIA, OFFICE		Form or Lease Name BIG EDDY	
Completion Date 6-30-80		Total Length 12283		Flow Back To 12227		Elevation 3284.7 GL	
Pipe Size 5 1/2		Set At 		Perforations From 11834 To 11989		Well No. # 80	
Pipe Size 2 3/8		Set At 4.7		Perforations From To		Unit Sec. Twp. Rge. I 3 21s 28e	
Type well - Single - Brokenhead - G.G. or G.O. Multiple SINGLE				Packoff Set At 11470		County EDDY	
Reducing Thru TBG.		Reservoir Temp. °F 192@11798		Mean Annual Temp. °F 60		State NEW MEXICO	
L 11798		H 11798		Gg .6337		Prover 4"	
% CO ₂ 2.315		% N ₂ .453		% H ₂ S 		Meter Run FIG.	

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
51							3435				
1.	4 X .750			300	6.0	95	3320				1 HR.
2.	4 X .750			305	14.0	102	3100				1 HR.
3.	4 X .750			335	50.0	97	2560				1 HR.
4.	4 X .750			590	35.0	92	1980				1 HR.
5.	4 X .750			600	14.0	98	1000				4 HRS.

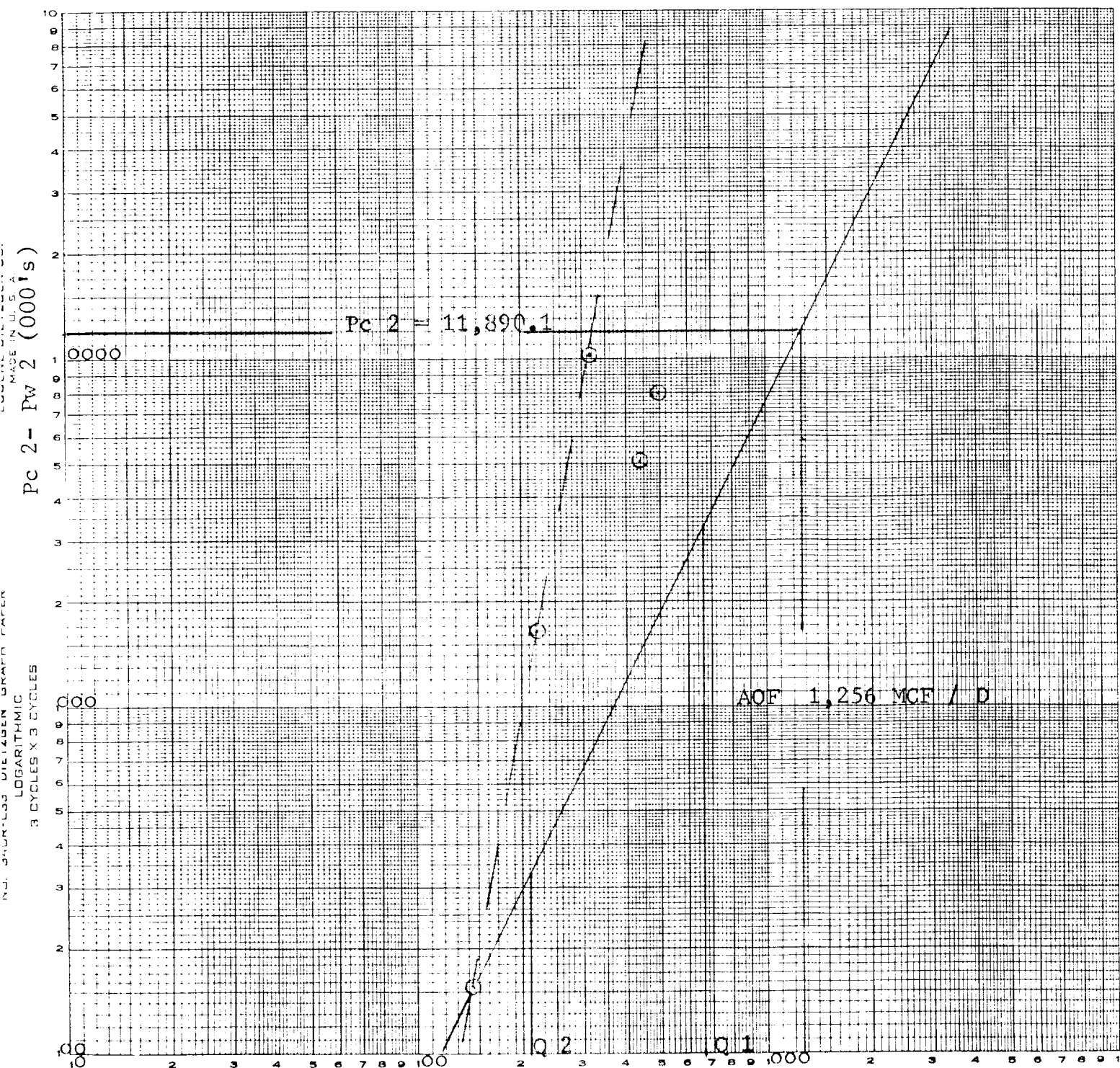
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super. Compens. Factor, F _{pv}	Rate of Flow Q, Mgd
1	2.661	43.35	313.2	.9680	1.256	1.024	144
2	2.661	66.74	318.2	.9619	1.256	1.023	220
3	2.661	131.95	348.2	.9662	1.256	1.027	438
4	2.661	145.30	603.2	.9706	1.256	1.048	494
5	2.661	92.65	613.2	.9653	1.256	1.047	313

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.47	555	1.51	.953	dry		.6337		670	368
2.	.47	562	1.53	.955						
3.	.52	557	1.51	.948						
4.	.90	552	1.50	.911						
5.	.92	558	1.52	.913						

NO.	BHP	P _w	P _c ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	4470.2	3425.5	11733.9	156.2	76.121	8.725
2	4200.2	3200.9	10245.6	1644.5		
3	3465.2	2606.4	6793.4	5096.7		
4	2619.2	1961.9	3848.9	8041.2		
5	1696.2	1284.8	1650.8	10239.3		

Absolute Open Flow 1,256 Mc/D @ 14.025		Angle of Slope 63.5		Slope, n .500	
Remarks:					
Approved By:		Conducted By:		Checked By:	
DAVIS SERVICES INC.		RICK PAGAN			

COMPANY : ~~BASS ENTERPRISES & PRODUCTION~~
 ASE : BIG EDDY UNIT
 WELL NO. : # 80
 UNIT : 1 / sec. 3/ twp. 21s/ rge. 28e
 COUNTY : EDDY
 STATE : NEW MEXICO
 DATE : JUNE 30,1980



Q 1= 664; LOG OF Q 1 = 2.8222190
 Q 2= 210; LOG OF Q 2 = 2.3222190
 N = .500

NEW-TEX LAB

P. O. BOX 1161
HOBBS, N.M. 88240

No. 3632
Run No. _____
Date of Run 7-1-80
Date Secured 6-30-80

CERTIFICATE OF ANALYSIS

Barry R. Bass

A Sample of Pass Enterprises Big Eddy Unit 80
Secured from Davis Services
At Box 2033 Secured by _____
Hobbs, NM 88240 Time _____ Date _____
Sampling conditions _____ Press _____
Temp. _____

FRACTIONAL ANALYSIS

Percentage Composition

MOL % LIQ. % G.P.M.

Carbon Dioxide	2.315	
Air		
Nitrogen	.453	
Oxygen		
Hydrogen sulfide		
Hydrogen		
Methane	89.230	
Ethane	5.928	1.581
Propane	1.125	.309
Butanes		
Iso-Butane	.286	.093
N-Butane	.343	.108
Pentanes		
Iso-Pentane	.129	.047
N-Pentane	.064	.023
Hexanes	.094	.039
Heptanes Plus	.033	.015
Octanes		
TOTAL	100.000	2.215

Calc. Sp. Gr. — 0.6337
Calc. A.P.I. — _____
Calc. Vapor Press. — _____ PSIA
Sp. Gr. _____
Mol. Wt. 18.37

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M. .309
Butanes Calc. G.P.M. .201
Pentanes Plus. G.P.M. .124
Ethane Calc. G.P.M. 1.581
RVP Gasoline G.P.M. _____
B.T.U. Cu. Ft. @ 14.696 P.S.I.A.
Dry Basis 1068
Wet Basis 1049
Sulfur Analysis by Titration
Gr./100 Cu. Ft. _____
Hydrogen Sulfide _____
Mercaptans _____
Sulf des _____
Residual Sulfur _____
Total Sulfur _____

Deane Simpson

Run by Deane Simpson Checked by _____ Approved by _____

Additional Data and Remarks

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_w or P_w)

Form 0-100F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

DATE 06/30/80

WELL NO. # 80

BIG EDDY UNIT

LEASE

Range 28e

21s

Township

3

Section

I

LOCATION: Unit

L 11798 H 11798 L/H 1.000 G 6337 % CO₂ 2.315 % N₂ 453 % H₂S

GH 7476 P_{cr} 670 T_{cr} 368

TABLE IV & V

TABLE IX & X

LINE	1	2	3	2 nd	3 rd	4 th
1	534	534	534	534	534	534
2	652	652	652	652	652	652
3	593	593	593	593	593	593
4	926	888	905	870	852	817
5	549.1	526.6	536.7	515.9	505.2	484.5
6	13.615	14.197	13.930	14.491	14.797	15.431
7	1.666	1.703	1.686	1.722	1.742	1.784
8	4470.2	4470.2	4200.2	4200.2	3465.2	2619.2
9	19982.7	19982.7	17641.7	17641.7	12007.6	6860.2
10	11992.8	11733.9	10463.5	10245.6	6894.0	3848.9
11	3463.1	3425.5	3234.7	3200.9	2625.6	1961.2
12	3966.6	3947.8	3717.5	3700.5	3045.4	2290.5
13	5.92	5.89	5.55	5.52	4.55	3.42
14	1.61	1.61	1.61	1.61	1.61	1.61
15	.888	.886	.870	.869	.830	.818

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_w or P_s)

Form C-122F
Adopted 3-1-63

FROM KNOWN BOTTOM HOLE PRESSURE (P_b or P_s)

COMPANY BASS ENTERPRISES LEASE BIG EDDY UNIT WELL NO. # 80 DATE 06/30/80

LOCATION: Unit I Section 3 Township 21S Range 28E

L 11798 H 11798 L/H 1.000 G .6337 % CO₂ 2.315 % N₂ .453 % H₂S

GH 7476 P_{CT} 670 T_{CT} 368

5 th

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. °R)	534	534					
2	T _s (B.H. °R)	652	652					
3	$P = \left(\frac{T_w + T_s}{2} \right)$	593	593					
4	Z (Est.)	.839	.851					
5	TZ	497.5	504.6					
6	GH/TZ	15.026	14.814					
7	e ^S (Table XIV)	1.757	1.743					
8	P _f or P _s	1696.2	1696.2					
9	P _f ² or P _s ²	2877.1	2877.1					
10	P _c ² = P _f ² /e ^S or P _w ² = P _s ² /e ^S	1637.7	1650.8					
11	P _c or P _w	1279.7	1284.8					
12	$P = \left(\frac{P_w + P_s}{2} \right)$ or $\left(\frac{P_c + P_f}{2} \right)$	1488.0	1490.5					
13	P _r = (P/P _{CT})	2.22	2.23					
14	T _r = (T/T _{CT})	1.61	1.61					
15	Z (Table XI)	.851	.850					

JARREL SERVICES, INC.

POST OFFICE BOX 1654

PHONE 505 393-5396

HOBBS, NEW MEXICO 88240

COMPANY: Bass Enterprises Production Co.

WELL: Big Eddy, No. 80

FIELD: -

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELAPSED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ () 11798' PSIG
1980							
6 30	Shut in. Run Static						
	Gradient w/Tandem						
	Bombs & Set Bombs						
	off @ 11798'	10:30 AM	-	-	3435 DWT	PKR	4603
	Started 1st Rate	11:00	0	30			
	Finished 1st Rate	12:00 N	1	00			4457
	& Started 2nd Rate						
	Finished 2nd Rate	1:00 PM	1	00			4187
	& Started 3rd Rate						
	Finished 3rd Rate	2:00	1	00			3452
	& Started 4th Rate						
	Finished 4th Rate	3:00	1	00			2606
	& Started 5th Rate						
	Flowing	4:00	1	00			2063
	"	5:00	2	00			1824
	"	6:00	3	00			1710
	Finished 5th Rate	7:00	4	00			1683
	& Shut in for Buildup						
	Shut in	7:15	0	15	-	-	1905
	"	7:30	0	30	-	-	2127
	"	8:00	1	00	-	-	2507
	"	9:00	2	00	-	-	3100
	"	10:00	3	00	-	-	3557
	"	11:00	4	00	-	-	3927
	"	12:00 MN	5	00	-	-	4082
7 1 80	"	1:00 AM	6	00	-	-	4201
	"	2:00	7	00	-	-	4251
	"	3:00	8	00	-	-	4283
	"	4:00	9	00	-	-	4315
	"	5:00	10	00	-	-	4347
	"	6:00	11	00	-	-	4393
	"	7:00	12	00	-	-	4425
	"	8:00	13	00	-	-	4461
	"	9:00	14	00	-	-	4498
	"	10:00	15	00	-	-	4525
	"	11:00	16	00	-	-	4548
	"	12:00 N	17	00	-	-	4566
	"	1:00 PM	18	00	-	-	4589
	"	2:00	19	00	-	-	4602
	"	3:00	20	00	-	-	4607

WELL: Big Eddy, No. 80

PAGE: 2

DATE	STATUS OF WELL	TIME	ELAPSED TIME		SURFACE PRESSURE		BHP @ () 11798' PSIG
			HRS.	MIN.	TBG	CSG	
	Cross Flow	4:00	21	00	-	-	4598
	"	5:00	22	00	-	-	4584
	"	6:00	23	00	-	-	4580
	"	7:00	24	00	-	-	4580
	"	8:00	25	00	-	-	4580
	"	9:00	26	00	-	-	4589
	"	10:00	27	00	-	-	4594
	"	11:00	28	00	-	-	4598
	"	12:00 MN	29	00	-	-	4603
	"	1:00	30	00	-	-	4607
	"	2:00	31	00	-	-	4612
	"	3:00	32	00	-	-	4616
	"	4:00	33	00	-	-	4621
	"	5:00	34	00	-	-	4626
	"	6:00	35	00	-	-	4630
	"	7:00	36	00	-	-	4634
	"	8:00	37	00	-	-	4634
	"	9:00	38	00	-	-	4639
	"	10:00	39	00	-	-	4644
	"	11:00	40	00	-	-	4648
	"	12:00 N	41	00	-	-	4653
	"	1:00 PM	42	00	-	-	4658
	"	2:00	43	00	-	-	4662
	"	3:00	44	00	-	-	4667
	"	4:00	45	00	-	-	4671
	"	5:00	46	00	-	-	4676
	"	6:00	47	00	-	-	4680
	"	7:00	48	00	-	-	4680
	"	8:00	49	00	-	-	4685
	"	9:00	50	00	-	-	4690
	"	10:00	51	00	-	-	4694
	"	11:00	52	00	-	-	4694
	"	12:00 MN	53	00	-	-	4699
	"	1:00 AM	54	00	-	-	4703
	"	2:00	55	00	-	-	4703
	"	3:00	56	00	-	-	4708
	"	4:00	57	00	-	-	4708
	"	5:00	58	00	-	-	4712
	"	6:00	59	00	-	-	4717
	"	7:00	60	00	-	-	4721
	"	8:00	61	00	-	-	4721
	"	9:00	62	00	-	-	4726
	"	10:00	63	00	-	-	4726
	"	11:00	64	00	-	-	4731
	"	12:00 N	65	00	-	-	4731
	"	1:00 PM	66	00	-	-	4735
	"	2:00	67	00	-	-	4740
	"	3:00	68	00	-	-	4740
	"	4:00	69	00	-	-	4740
	"	5:00	70	00	-	-	4744
	"	6:00	71	00	-	-	4749
	"	7:00	72	00	-	-	4749
	"	8:00	73	00	-	-	4753

WELL: Big Eddy, No. 80
 PAGE: 3

DATE	STATUS OF WELL	TIME	ELAPSED TIME		SURFACE PRESSURE		BHP @ () 11798' PSIG
			HRS.	MIN.	TBG	CSG	
7-4	Cross Flow	9:00	74	00	-	-	4753
	"	10:00	75	00	-	-	4758
	"	11:00	76	00	-	-	4763
	"	12:00 MN	77	00	-	-	4763
	"	1:00 AM	78	00	-	-	4763
	"	2:00	79	00	-	-	4767
	"	3:00	80	00	-	-	4767
	"	4:00	81	00	-	-	4772
	"	5:00	82	00	-	-	4776
	"	6:00	83	00	-	-	4776
	"	7:00	84	00	-	-	4781
	"	8:00	85	00	-	-	4781
	"	9:00	86	00	-	-	4781
	"	10:00	87	00	-	-	4785
	"	11:00	88	00	-	-	4785
	"	12:00 N	89	00	-	-	4785
	"	1:00 PM	90	00	-	-	4785
	"	2:00	91	00	-	-	4790
	"	3:00	92	00	-	-	4790
	"	4:00	93	00	-	-	4790
	"	5:00	94	00	-	-	4790
	"	6:00	95	00	-	-	4790
	Fished Bombs & Run						
	Static Gradient	7:00	96	00	3548	-	4790

JARREL SERVICES, INC.

POST OFFICE BOX 1651

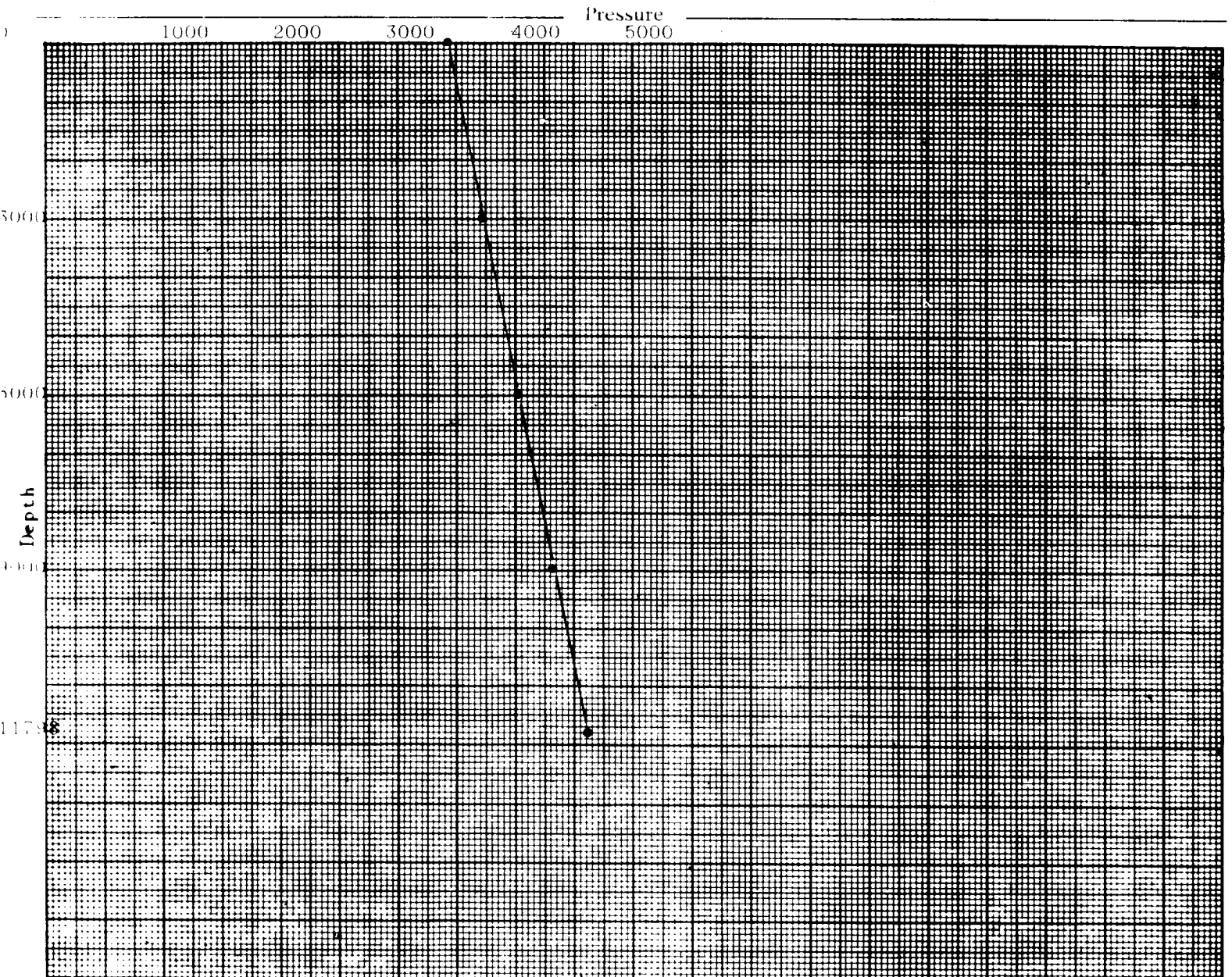
PHONES 505 393-5396 393-8274

HOBBS, NEW MEXICO 88240

BOTTOM HOLE PRESSURE RECORD

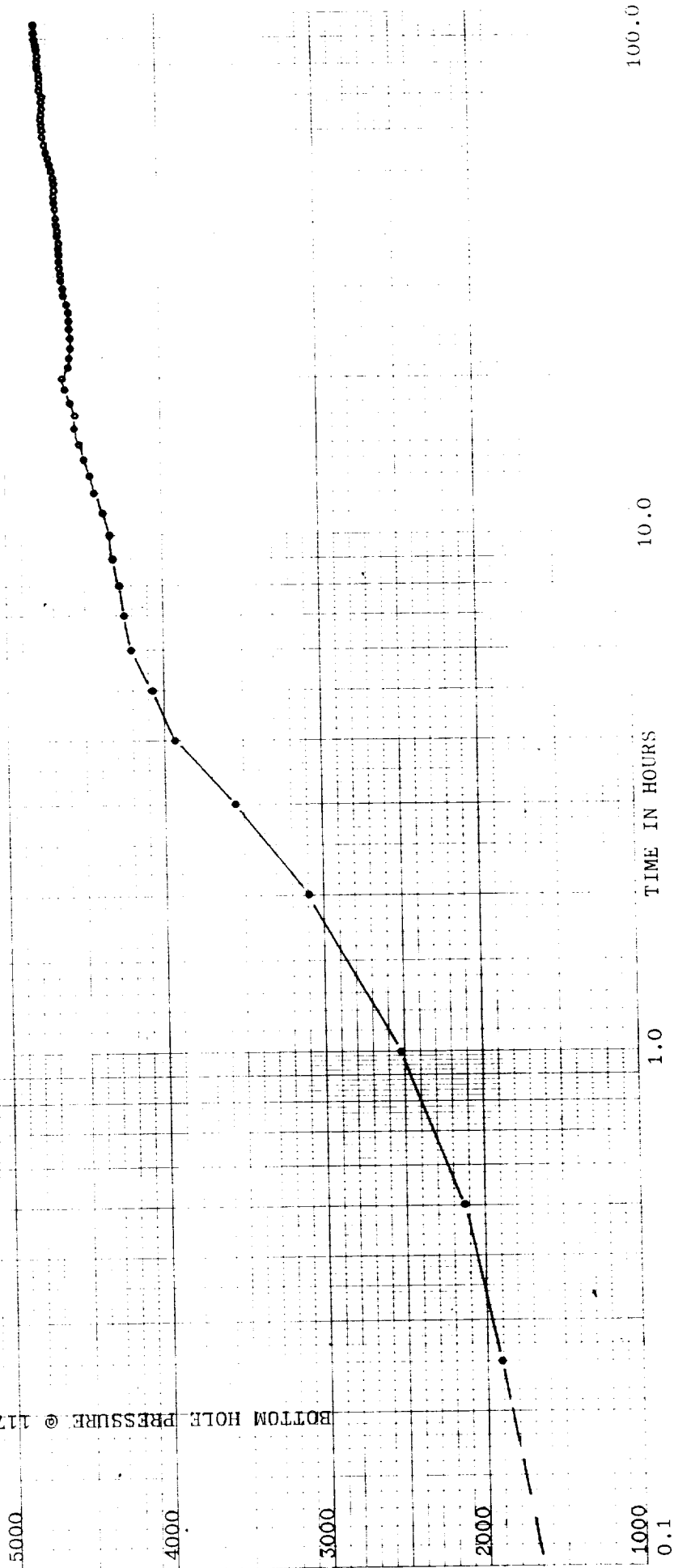
OPERATOR Bass Enterprises Production Co.
 FIELD -
 FORMATION -
 LEASE Big Eddy WELL #80
 COUNTY Eddy STATE New Mexico
 DATE June 30, 1980 TIME 10:30 AM
 Status -
 Test Depth 11798'
 Time S. I. - Last test date -
 Tub Pres 3435 DWT BHP last test -
 Gas Pres PER BHP change -
 Flev - Fluid top -
 Datum - Water top -
 Temp at - Run by JSI #21
 Cal. No. A14421 Chart No. 1

Depth	Pressure	Gradient
0	3435	-
3000	3723	.096
6000	4020	.099
9000	4320	.100
11798	4603	.101



JARREL SERVICES, INC.

BOTTOM HOLE PRESSURE @ 11798 PSIG



JARREL SERVICES, INC.

POST OFFICE BOX 1654

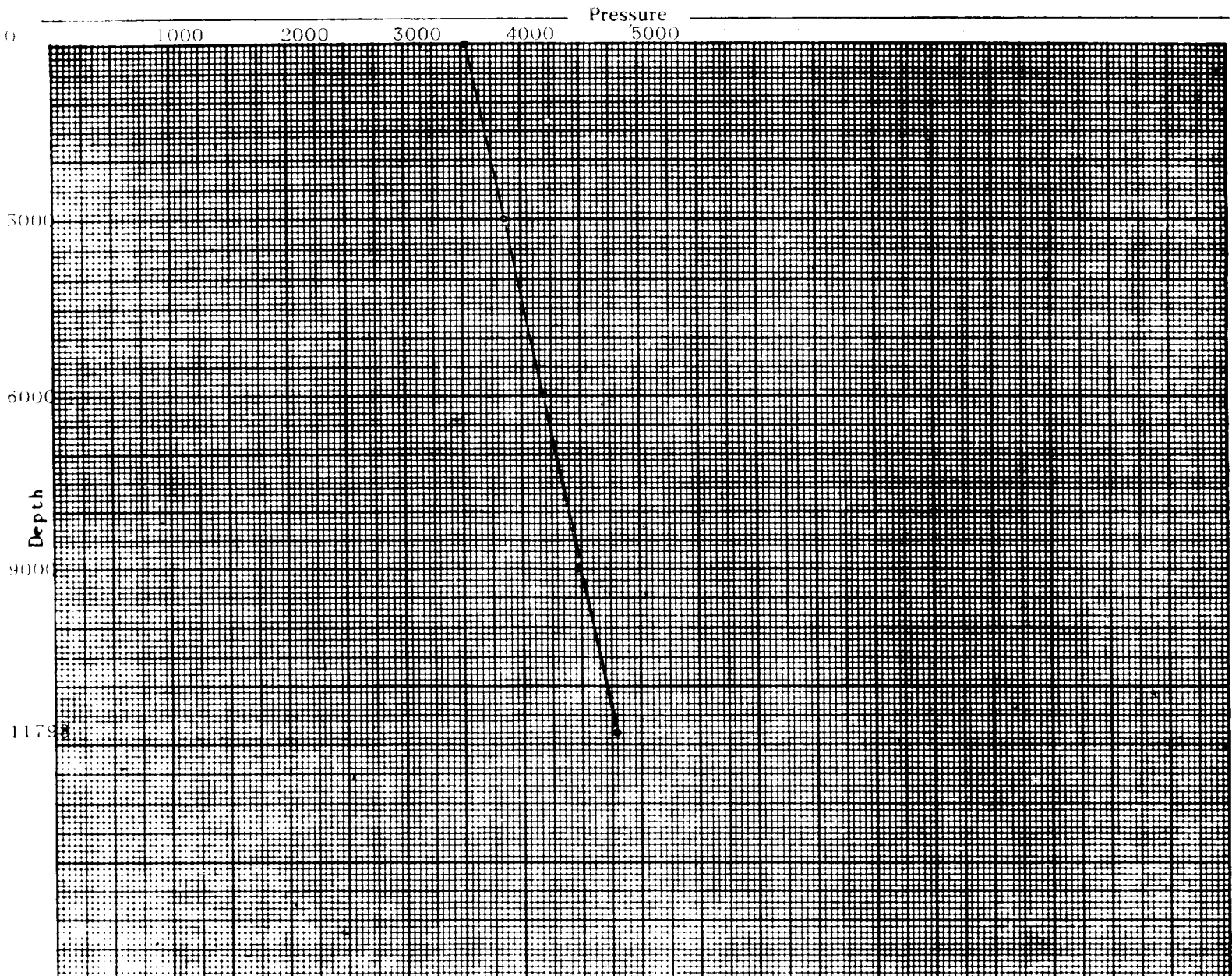
PHONES 505 393-5396 — 393-8274

HOBBS, NEW MEXICO 88240

BOTTOM HOLE PRESSURE RECORD

OPERATOR Bass Enterprises Production Co.
FIELD -
FORMATION -
LEASE Big Eddy WELL #80
COUNTY Eddy STATE New Mexico
DATE July 4, 1980 TIME 7:00 PM
Status Shut in
Test Depth 11798'
Time S I 96 hrs. Last test date 6/30/80
Tub Pres. - BHP last test 4603
Gas Pres. 3548 BHP change 187# Gain
Elev. - Fluid top None
Datum - Water top None
Temp - Run by JSI #13
Cal No. A14421 Chart No. 2

Depth	Pressure	Gradient
0	3548	-
3000	3860	.104
6000	4175	.105
9000	4493	.106
11798	4790	.106





LTR



Job separation sheet

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____		5. LEASE DESIGNATION AND SERIAL NO. NM03926	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME _____	
2. NAME OF OPERATOR Perry R. Bass		7. UNIT AGREEMENT NAME Big Eddy Unit	
3. ADDRESS OF OPERATOR P. O. Box 2760, Midland, Texas 79702		8. FARM OR LEASE NAME Big Eddy Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 2538' FNL & 660 FEL of Section - Unit Letter H. At top prod. interval reported below At total depth		9. WELL NO. 80	
14. PERMIT NO. DATE ISSUED 3/19/80		10. FIELD AND POOL, OR WILDCAT Big Eddy Morrow	
15. DATE SPUNDED 4/19/80		11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA Sec. 3, 21S, 28E	
16. DATE T.D. REACHED 6/1/80		12. COUNTY OR PARISH Eddy	
17. DATE COMPL. (Ready to prod.) 6/30/80		13. STATE NM	
18. ELEVATIONS (DF, RNB, RT, GR, ETC.)* 3284.7 GL 3302.7 KB		19. ELEV. CASINGHEAD	
20. TOTAL DEPTH, MD & TVD 12,283'		21. PLUG. BACK T.D., MD & TVD 12,227'	
22. IF MULTIPLE COMPL., HOW MANY* →		23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION TOP, BOTTOM, NAME (MD AND TVD)* 11,834'-11,989' Morrow		25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN CN-FD, DLL-MSFL		27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
11-3/4"	42	456'	15"
8-5/8"	28	3140'	11"
5-1/2"	17	12283'	7-7/8"
29. LINER RECORD		30. TUBING RECORD	
SIZE	TOP (MD)	BOTTOM (MD)	PACKER CEMENT*
none			
31. PERFORATION RECORD (Interval, size and number) 1-SPF: 11834, 11837, 11870, 11849, 11852, 11855, 11889, 11891, 11893, 11946, 11947, 11983, 11985, 11989. (4" gun - 2 runs)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD) 11834-11989 AMOUNT AND KIND OF MATERIAL USED Acidize w/2800 gals. 7-1/2% MSR-100 Acid w/additives and Inhibitor & 27 balls.	
33. PRODUCTION			
DATE FIRST PRODUCTION 6/27/80		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) Flowing	
DATE OF TEST 6/30/80		WELL STATUS (Producing or shut-in) SI-WOPL	
HOURS TESTED 8	CHOKE SIZE Var.	PROD'N FOR TEST PERIOD →	GAS-OIL RATIO Dry
FLOW. TUBING PRESS. 3435	CASING PRESSURE Packer	CALCULATED 24-HOUR RATE →	WATER-BBL. none
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold		TEST WITNESSED BY	
35. LIST OF ATTACHMENTS Two (2) each of above logs.			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED Ken Little		TITLE Production Clerk	
DATE 7/14/80			

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	38. GEOLOGIC MARKERS		
				NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
				Delaware	3093	+208
				Bone Spring	6630	-3329
				Wolfcamp	9714	-6413
				Strawn	10630	-7329
				Atoka	11028	-7727
				Morrow	11565	-8264
				M. Morrow	11801	-8500
				L. Morrow	12077	-8776