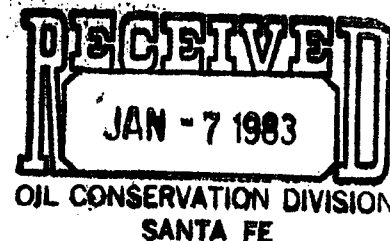




IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
SOUTH CENTRAL REGION
505 MARQUETTE AVENUE, N.W., SUITE 815
ALBUQUERQUE, NEW MEXICO 87102



JAN 05 1982

Case # 366

Bass Enterprises Production Company
First City Bank Tower
201 Main Street
Fort Worth, Texas 76102

Gentlemen:

Your application of December 10, 1981, requesting approval of the initial Wolfcamp formation participating area, Poker Lake Unit Agreement, Eddy County, New Mexico, was approved by the Deputy Minerals Manager, Oil and Gas, Albuquerque, New Mexico, effective as of June 1, 1981.

The application proposes 319.82 acres described as Lots 1, 2, 3 and 4, and the S $\frac{1}{2}$ N $\frac{1}{2}$, section 4, T. 25 S., R. 31 E., Eddy County, New Mexico.

This participating area is based upon information contributed by well No. 50 which had initial potential of 6,006 MCF/D from the Wolfcamp formation.

Copies of the approved application are being distributed to the appropriate Federal offices and three approved copies are enclosed. You are requested to furnish the State of New Mexico and other interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

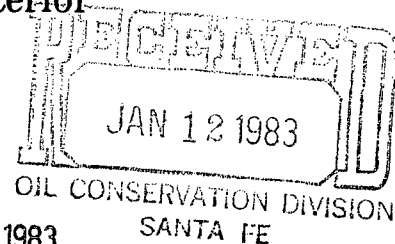
cc
Comm. of Public Lands, Santa Fe
NMOCD, Santa Fe



IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
SOUTH CENTRAL REGION
505 MARQUETTE AVENUE, N.W., SUITE 815
ALBUQUERQUE, NEW MEXICO 87102



JAN 11 1983

Amoco Production Company
501 Westlake Park Boulevard
P. O. Box 3092
Houston, Texas 77253

Four copies of a consent to and ratification of subsequent joinder to the Poker Lake Unit, Eddy County, New Mexico, were received by this office on October 13, 1982. This agreement was executed by the State of New Mexico Commissioner of Public Lands and by Amoco Production Company and are accepted for record purposes. Accepted copies are enclosed for your records.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosures

cc:
Comm. of Public Lands
NMOCD

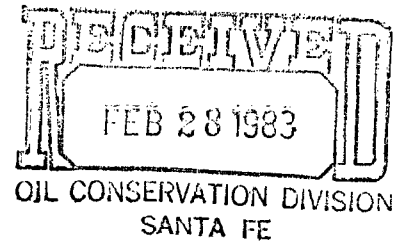
BASS ENTERPRISES PRODUCTION CO.

FIRST CITY BANK TOWER

201 MAIN ST.

FORT WORTH, TEXAS 76102

817/390-8400



February 11, 1983

BUREAU OF LAND MANAGEMENT
P. O. Box 26124
Albuquerque, New Mexico 87125

COMMISSIONER OF PUBLIC LANDS
P. O. Box 1148
Santa Fe, New Mexico 87501

~~NEW MEXICO OIL CONSERVATION DIVISION~~
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for the Approval of
the Participating Area for the
Morrow Formation
Poker Lake Unit No. 49
1980' FNL and 990' FWL
Section 17, T24S-R30E
Eddy County, New Mexico

Gentlemen:

Bass Enterprises Production Co., as Unit Operator for the Poker Lake Unit Agreement, pursuant to provisions of Section 11 thereof, respectfully submits for your approval a selection of the following described lands to constitute the initial Participating Area for the Morrow Producing Zone or Formation, to-wit:

W/2 of Section 17, T24S-R30E, Eddy County, New Mexico, and containing 320 acres of land.

In support of this Application, the following numbered items are attached hereto and made a part hereof:

- (1) An ownership map showing thereon the boundaries of the unit area and the proposed initial Participating Area.
- (2) A schedule showing the lands entitled to participation and the unitized substances produced from the Morrow Formation, with the percentage of participation of each lease or tract indicated thereon.

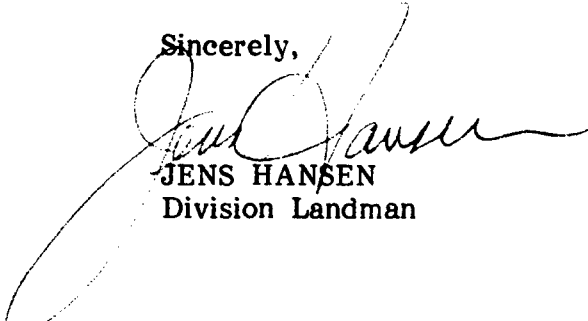
Applicant is submitting separately in triplicate a geological and engineering report with accompanying geologic maps supporting and justifying the proposed selection of the Participating Area.

Bureau of Land Management
Commissioner of Public Lands
New Mexico Oil Conservation Division
February 11, 1983
Page 2

This proposed initial Participating Area is predicated upon the knowledge and information first obtained upon the completion in paying quantities under the terms of the Unit Agreement on May 5, 1981, of Unit Well No. 49, in the SW/4 of NW/4, Section 17, T24S-R30E, with an initial production of gas from the Morrow Formation at a depth of 14,307' through 14,349'. The effective date of the initial area shall be May 5, 1981, pursuant to Section 11 of the Unit Agreement.

Consequently, Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Morrow Participating Area, to be effective May 5, 1981.

Sincerely,



JENS HANSEN
Division Landman

JH:ep
Enclosures

POKER LAKE UNIT NO. 49

Poker Lake Unit No. 49 has had its only completion in the Morrow formation. The Morrow was acidized with 3000 gallons of 7 1/2% MSR acid in May, 1981, and potentialled for 1671 MCFGPD. The well is currently producing 4662 MCFGPD from the Morrow.

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL Poker Lake Unit #49 FORMATION Morrow
 LOCATION E UNIT, 1980 FEET FROM N LINE & 990 FEET FROM W LINE,
 SECTION 17, RANGE 30E, TOWNSHIP 24S, COUNTY Eddy NEW MEXICO.
 SPUD DATE 12-17-80 COMPLETION DATE 5-5-81 WELL PROD. DATE 12-8-81
 PERFORATIONS 14,307', 14,309', 14,311', 14,313', 14,322', 14,324', 14,326',
14,328', 14,330', 14,347', 14,349'

STIMULATION:

ACID 3000 gals 7 1/2% MSR-100

FRACTURE

POTENTIAL CAOF 1,671 MCFGPD

(ATTACH COPY OF C-122. ATTACH COPY OF WELLBORE SKETCH OF COMPLETED WELL.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	FORMATION SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	320	
Porosity (ϕ), %	6.5	
Water saturation (S_w), %	33	
Net thickness (h) > 6% ϕ & 40% S_w , ft	13	
Temperature (T), °F	212	

Bottomhole pressure (P), psia 6874
 Recovery factor (RF), (assumed) .8
 Recoverable gas, MCF (see eq. below) 2,007,643
 Recoverable Gas, MCF = $(Q)(1 - S_w)(1 - R_{fg})$ where
 $B_{gi} = 0.03535 \frac{1}{ZT} \left(\frac{HSCF}{Cu Fc} \right) = 0.03535 \frac{(6874)}{(1.136 \cdot 672)} = .318$

PERFORMANCE DATA

If sufficient history exists, attach plot of gas production rate vs time.
 (Cumulative production to 10 / 31 / 82: 1,345,601 MCF.

Initial rate (qi), 140,000 MCF/day
 Economic limit (ql), 3000 1500 MCF/day
 Decline rate, dy 20
 Remaining gas (Q) = 7,448,120 MCF
 Ultimate Recoverable Gas 8,793,721 MCF

$$Q = (q_i - q_l) \frac{10^6 \text{ mcf/y}}{-\ln(1 - dy)}$$

Attach plot showing proration unit and participating area.

RECOVERABLE GAS

	GAS (MCF)	COND (BBLS)
Gas sand previously produced	-	-
Sand perforated	8,793,721	(1) 560
Sand not perforated, but potentially productive	-	(2) -
Total recoverable gas	8,793,721	560

(1) performance recoverable gas if available

(2) performance sand perforated x volumetric sands performance sands
 volumetric sand perforated not perforated not perforated

Participating area size based on ratio of production history and volumetrics
 320 acres---minimum area is proration unit.

ECONOMIC

Well Cost \$ 1,985,500 (to the depth of formation completed)

Recompletion Cost \$ -

TOTAL COST \$ 1,985,500

(Gas Price)(Net Revenue Interest)(1-Ad Valorem Taxes) - Production Tax + [(Oil Price)(Net Revenue Interest)(Cond. Yield, bbl/MCF)(1 - Production and Ad Valorem Taxes)] - [(Oil Price - Base Price) WFPT %] NRI

Net Gas Price = Gas Price (.845)(1-.025) - .139 + [32(1-.07) - (32-19)(.775)]
(.845)(Cond. Yield, bbls/MCF)

Operating Cost \$1500/Month 81 3.13(.845)(.975)-.126 = 2.45
82 3.71(.845)(.975)-.129+32.10(.845-.275)(.94)(.0004)= 2.

BEPCO Net Income = (Gross Gas)(Net Gas Price)

YEAR	GROSS GAS	BEPCO NET INCOME	OPERATING COST	15% DISCOUNT FACTOR	DISCOUNTED CASH FLOW
Zero	---	---	---	1.0000	-1,985,500
1981	22,963	56,259	1500	0.9325	51,063
1982	1,597,638	4,697,056	18,000	0.81087	3,794,106
				0.70511	1,859,669
				0.61314	
				0.53316	
Remainder				0.46362	

If payout is five years or less, well is considered economical.

(BEPCO Net Income - Operating Expense) discount factor =

discounted cash flow. Economical

**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.

5. LEASE DESIGNATION AND SERIAL NO.

NM 02860

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

POKER LAKE UNIT

8. FARM OR LEASE NAME

POKER LAKE UNIT

9. WELL NO.

49

10. FIELD AND POOL, OR WILDCAT

WILDCAT MORROW

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SEC. 17 T. 4S R. 30E

12. COUNTY OR PARISH

EDDY

13. STATE

N. MEX.

19. ELEV. CASINGHEAD

1a. TYPE OF WELL:

OIL WELL ☐GAS WELL ☒DRY ☐

b. TYPE OF COMPLETION:

NEW WELL ☒WORK OVER ☐DEEP-EN ☐PLUG BACK ☐DIFF. REVR ☐Other ☐

2. NAME OF OPERATOR

PERRY R. BASS

3. ADDRESS OF OPERATOR

Box 2760, MIDLAND, TX 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1980' FNL + 990' FWL OF SECTION - UNIT LETTER E.

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

12-17-80

16. DATE T.D. REACHED

3-29-81

17. DATE COMPL. (Ready to prod.)

5-5-81

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

3248' GL

3270' KB

20. TOTAL DEPTH, MD & TVD

14,470'

21. PLUG, BACK T.D., MD & TVD

14,435'

22. IF MULTIPLE COMPL., HOW MANY*

SINGLE

23. INTERVALS DRILLED BY

0-14,470'

ROTARY TOOLS

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

11,307'-11,349' ELEVEN (11) SSB II CHARGES. MORROW.

25. WAS DIRECTIONAL SURVEY MADE

NO

26. TYPE ELECTRIC AND OTHER LOGS RUN

CN-FD, BCSL, DLL-MISFL

27. WAS WELL CORRED

YES

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48	857'	17 1/2"	550 "LITE" + 200 "C"	NONE
9 5/8"	40	2671'	12 1/4"	4600 "LITE" + 200 "C"	NONE
7"	23 & 26	11522'	8 3/4"	975 "H"	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5"	11,182'	14,470'	360 "H"	—	2 3/8"	13,813'	13,800'

31. PERFORATION RECORD (Interval, size and number)

11,307'-11,349' ELEVEN (11) SSB-II CHARGES.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
11,307'-11,349'	3000 GALS 7 1/2% MSR-100, FIFTEEN (15) BALLS/CHARGES

33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
SHUT IN		FLOWING				ST-NOPL	
DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-28-81	4	VARIOUS	—	NONE	166	NONE	—
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
2650	PACKER	—	NONE	CAL. ADF 1,671	NONE	—	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TO BE SOLD

TEST WITNESSED BY

DAVIS SERVICES, INC.

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

H. P. Dwyer, Jr.

TITLE

Sr. Prod. Clerk

DATE

June 2, 1981

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

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

Form C-122
 Revised 9-1-80

FOR GAS WELLS
 FEB 28 1983

Type Test ☒ Initial ☐ Annual ☐ Special		4-28081		CONSERVATION DIVISION SANTA FE	
Company Perry R. Bass		Fluid Air		Well	
Pool Undesignated		Formation Morrow		E	
Completion Date 4-28-81		Total Depth 14470		Elevation 3270 KB	
Csg. Size 5" liner		Set At 14467		Perforations: From 14307 To 14349	
Well No. # 49		Unit E		Sec. 17	
Tubing 2 3/8		Set At 13813		Twp. 24s	
Type Well - Single - Protthead - G.G. or G.O. Multiple Single Gas		Packer Set At 13800		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 212 13831		Mean Annual Temp. °F 60°	
Baro. Press. - P_a 13.2		State New Mexico			
L 13831	li 13831	Gg .5876	% CO ₂ 3.056	% N ₂ .261	% H ₂ S
Prover		Meter Run 4"		Type Flg.	

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							5425				72 Hr.
1.	4 X 1.500			490	5.0	110	4480				1 Hr.
2.	4 X 1.500			490	8.0	102	3825				1 Hr.
3.	4 X 1.500			490	12.0	90	3025				1 Hr.
4.	4 X 1.500			480	17.0	98	2650				1 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 _{sp}	Rate of Flow Q, Mgd
1	10.84	50.16	503.2	.9551	1.304	1.028	696
2	10.84	63.45	503.2	.9619	1.304	1.029	888
3	10.84	77.71	503.2	.9723	1.304	1.031	1101
4	10.84	91.57	493.2	.9653	1.304	1.029	1286
5.							

NO.	η	Temp. °R	T _g	Z	Gas-Liquid Hydrocarbon Ratio	dry	Mcf/Std.
1	.74	570	1.63	.947	A.P.L. Gravity of Liquid Hydrocarbons		Deg.
2.	.74	562	1.61	.944	Specific Gravity Separator Gas	.5876	X X X X X X X X
3.	.74	550	1.58	.940	Specific Gravity Flowing Fluid	X X X X X	
4.	.72	558	1.60	.944	Critical Pressure	684	P.S.I.A.
5.					Critical Temperature	349	R

$P_c = 5438.2$ $P_c^2 = 29574.0$			
NO.	BHP	P_w	$P_c^2 - P_w^2$
1	5794.2	4493.5	20191.3
2	5028.2	3845.1	14785.0
3	4287.2	3235.7	10469.5
4	3596.2	2687.0	7219.7
5	6880.2	s.i.p.	22354.3

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.323$$

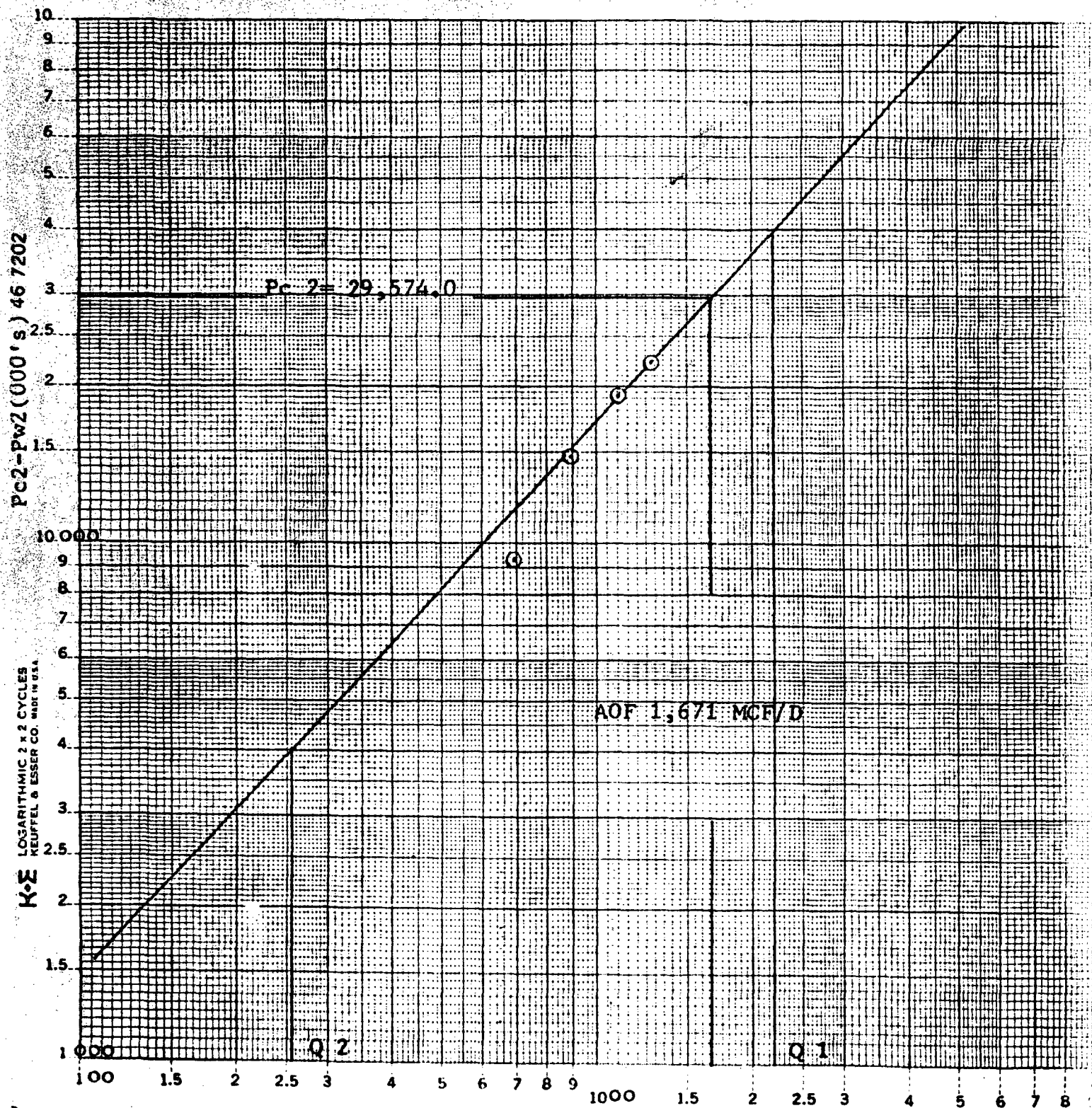
$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.299$$

$$(3) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.671$$

Absolute Crd. Flow	1.671	Angle of Slope θ	47°	Slope, n	.936
Remarks:					

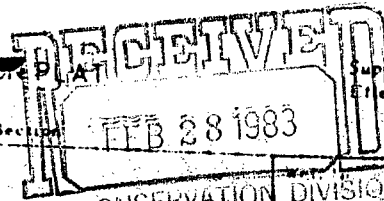
Approved By: Commission	Conducted By:	Collected By:	Checked By:
	Davis Services Inc.	Rick Pagan	

Lease : Poker Lake
 Well No. : # 49
 Unit : E /sec.17/twp.24s/rge.30e
 County : Eddy
 State : New Mexico
 Date : April 28, 1981



Q = MCF / DAY
 Q 1 = 2200; Log of Q 1 = 3.342423
 Q 2 = 255; Log of Q 2 = 2.406540
 N = .936
 θ = 47°

WELL LOCATION AND ACREAGE DEDICATION PLAT



All distances must be from the outer boundaries of the Section

Owner Perry R. Bass			Lease Poker Lake		
Section E	Section 17	Township 24 South	Range 30 East	Oil Conservation Division 49	
Well Name Eddy					

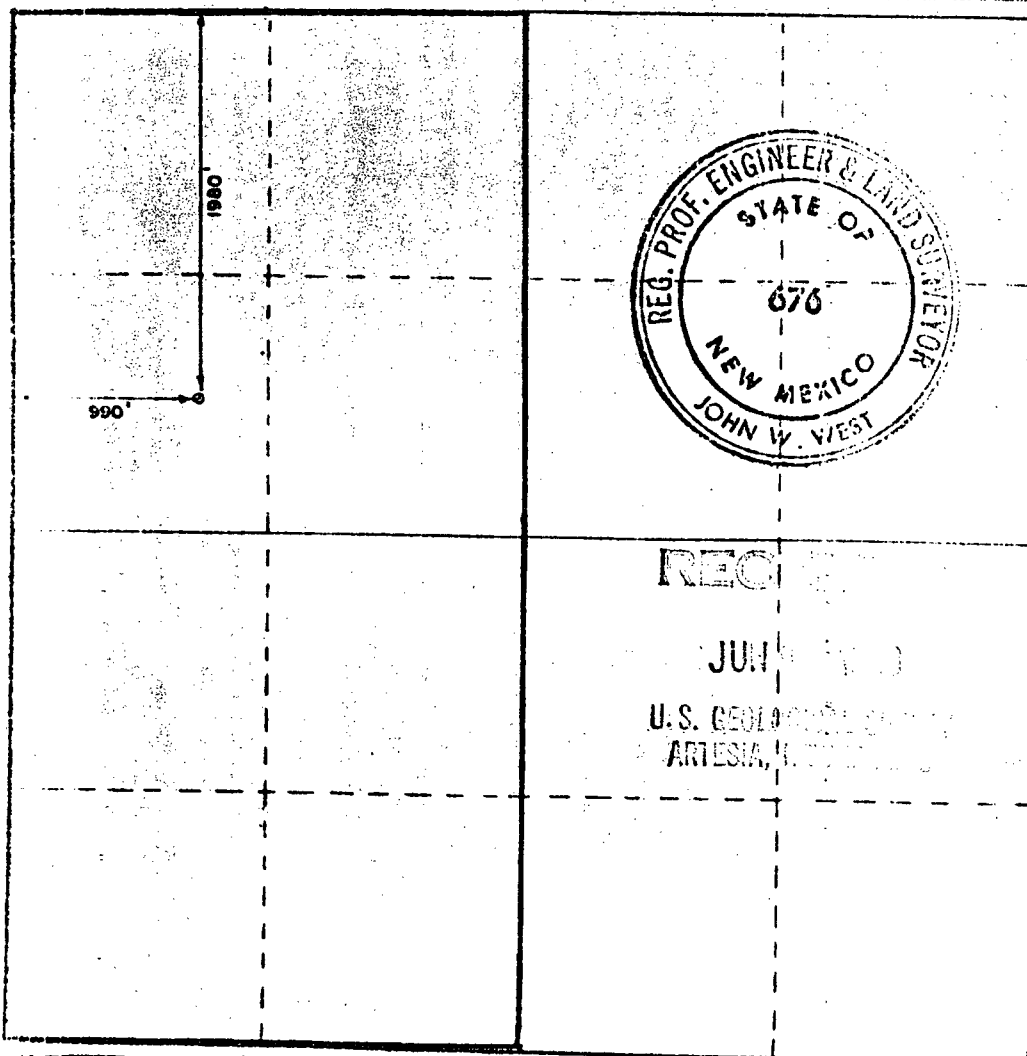
Well Photo Location of Well: 1980 feet from the North line and 990 feet from the West line	
Well Level Elev. 3247.6	Producing Formation Morrow
Pool Wildcat	
Dedicated Acreage 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Unit

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Mike Waygood
Name
Mike Waygood

Position
Engineering Assistant

Company
Bass Enterprises Production Co

Date
June 4, 1980

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
5-31-1980

Registered Professional Engineer and/or Land Surveyor

John W. West

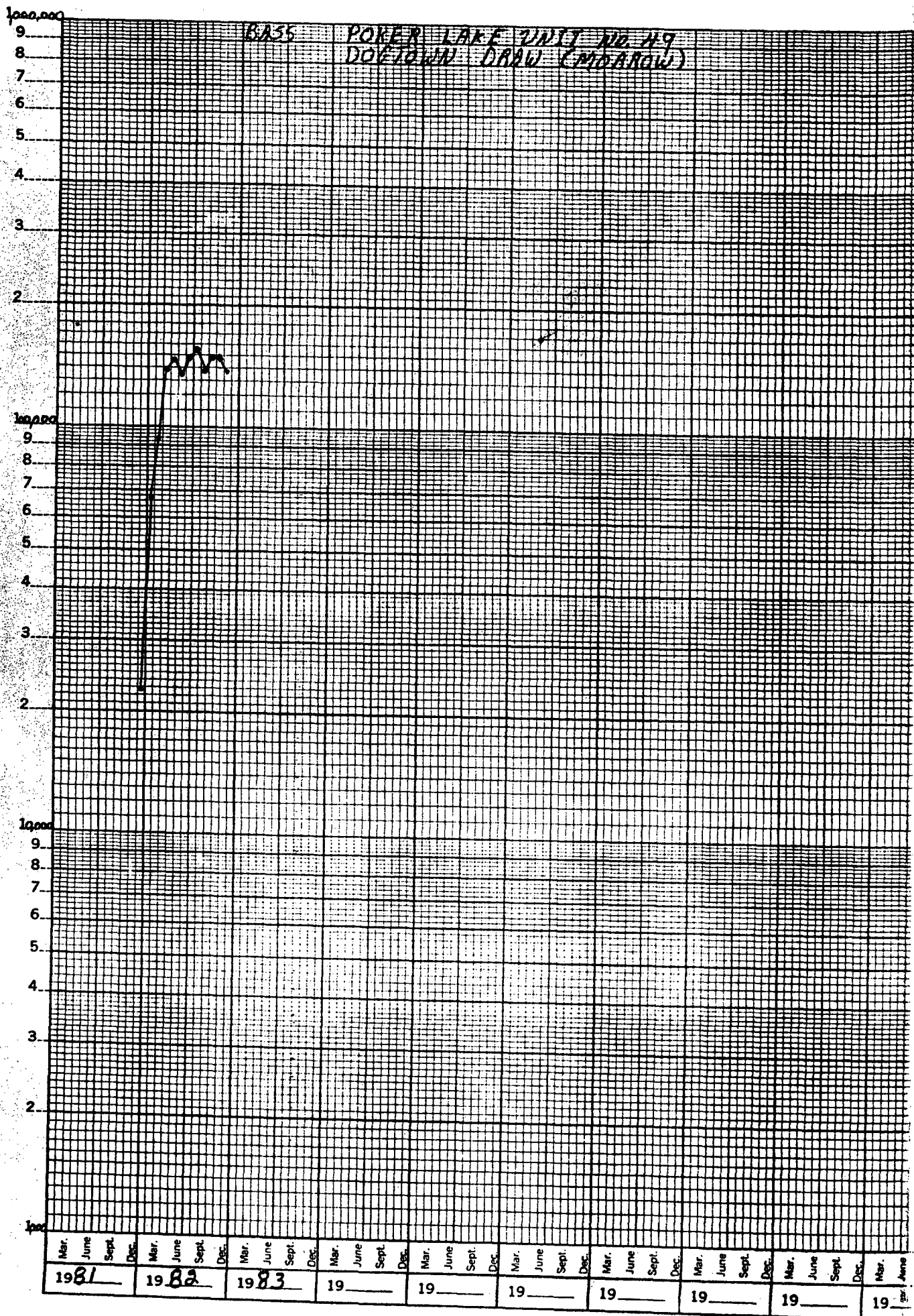
Certificate No **JOHN W. WEST 676**
PATRICK A. ROMERO 6888
Ronald J. Eidson 3239

Scale: 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

47 6840

K&E 20 YEARS BY MONTHS X 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

MCFPM



0 56 9- 1345 601

SUBJECT	DATE	DEPARTMENT	PREPARED BY
WELLBORE SKETCH	1-12-82		LDA

ELEV: 3227.61' GL

POKER LAKE #49
SEC. 17, T24S, R30E
EDF COUNTY, N.M.

SPUD: 12-18-80

COMP: 12-8-81



855' - 13 3/8", 48# H-40, STC CSG.,
CMTD W/ 500 SX PACESETTER LITE
TAILED W/ 200 SX CLASS "C" (CIRC. 123 SX)

3668' - 9 5/8", 40# N-80, LTIC CSG.,
CMTD W/ 4600 SX PACESETTER LITE
TAILED W/ 200 SX CLASS "C" (CIRC. 675 SX)

EST. TOC @ 8500'

2 3/8" N-80, 4.7# ABC MODIFIED TBG.

TOP OF 5" TNER
@ 11,182'

ASSEMBLY BELOW WB PKR

- 1) 3 1/2" MILL OUT EXTENSION
- 2) X-OVER 3 1/2" X 2 3/8"
- 3) PUD JOINT 2 3/8"
- 4) "X" WIPPLE W/ 1.875 BORE
- 5) PUD JOINT 2 3/8"
- 6) "XN" WIPPLE W/ 1.875 BORE 1.791" NOC

OTIS WB PKR @ 13800'

MOFRAW PERFS W/ 3 1/2" CSG.
GUN @ (14,307' - 14,349' - 11 SHOTS)
ACIPIZE W/ 3000 GALS MSR-100
(4/24/81)

14393' PBTD

11527' - 7", 23# & 26# N-80, LTIC CSG.,
CMTD W/ 975 SX CLASS "H"

14,467' - 5", 18# N-80, LTIC CSG.,
CMTD W/ 360 SX CLASS "H"

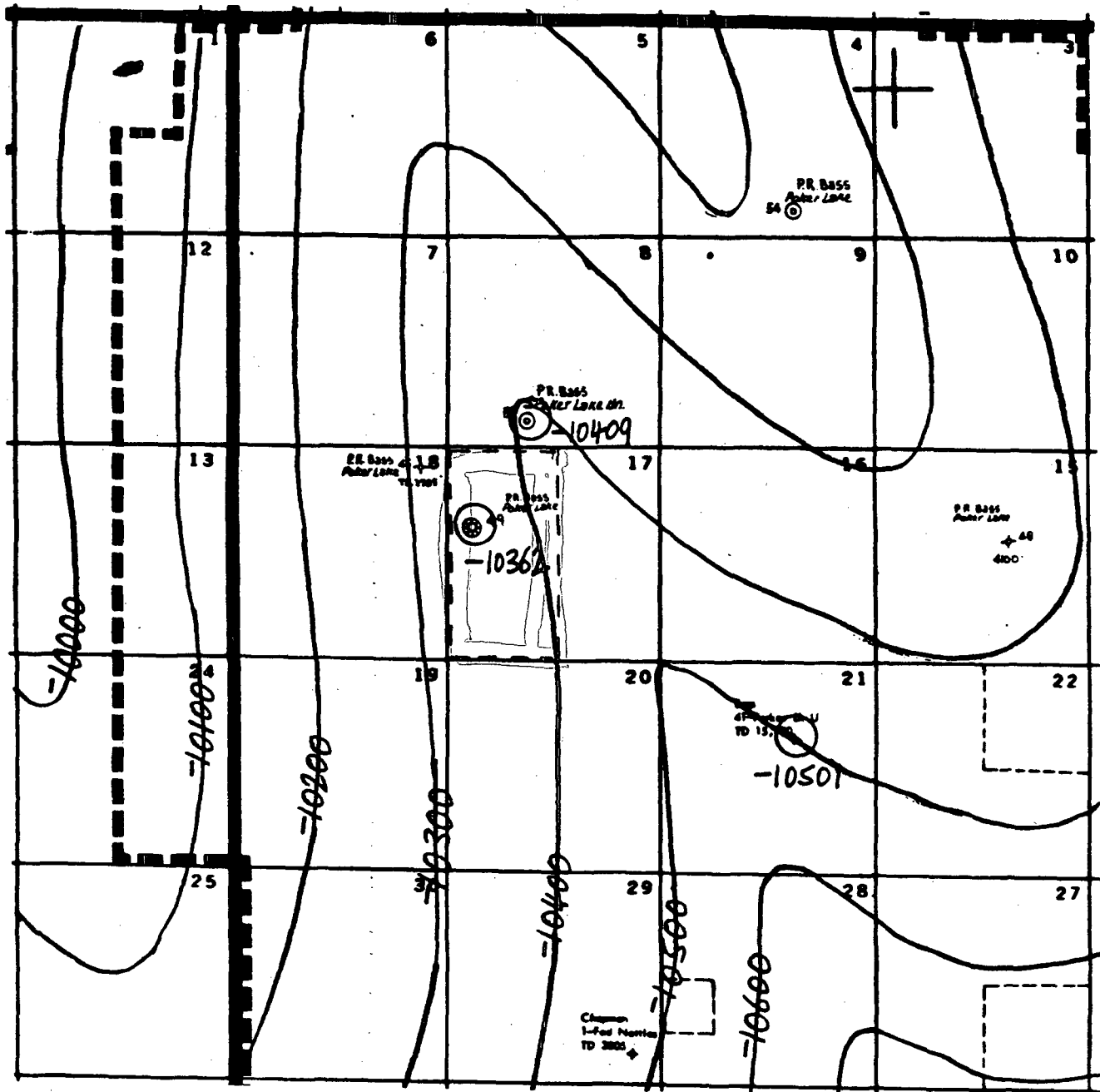
14470 TD

EXHIBIT "B"
MORROW PARTICIPATING AREA

Tract #	Lease #	Description of Participating Lands	Participating Acres	% of Lease Ownership	% of Unit Ownership
9	NM-02860	W/2 Section 17, T24S-R38E, Eddy County, New Mexico	320	BEPCo. - 75 PRB - 25	75 25

P.L.U. 49

STRUCTURE MAP: TOP MORROW



PROPOSED PARTICIPATING AREA

SCALE 1" = 4000'

G.A.H. 2/83

BASS ENTERPRISES PRODUCTION CO.

FIRST CITY BANK TOWER

201 MAIN ST.

FORT WORTH, TEXAS 76102

817/390-8400

March 14, 1983

MINERALS MANAGEMENT SERVICE

P. O. Box 26124

Albuquerque, New Mexico 87125

COMMISSIONER OF PUBLIC LANDS

P. O. Box 1148

Santa Fe, New Mexico 87501

NEW MEXICO OIL CONSERVATION DIVISION

P. O. Box 2088

Santa Fe, New Mexico 87501

Re: First Amendment to the
1983 Plan of Development for the
Poker Lake Unit
Eddy County, New Mexico

Gentlemen:

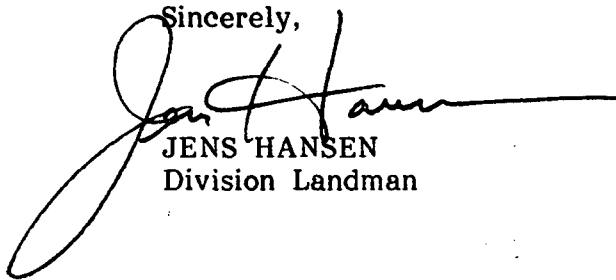
In accordance with the terms and provisions of Section 10 of the Poker Lake Unit Agreement dated March 18, 1952, which provides that the Plan of Development may be modified when necessary to meet changing conditions, we propose the following changes to the 1983 Plan of Development:

Poker Lake Unit Well #60 - The 1983 Plan of Development provides for the drilling of this well in Section 3, T25S-R30E, to be drilled to a depth of 15,200' to test the Morrow Formation. Due to current gas marketing problems, we request that this well be drilled in the SE/4 of the NW/4 of Section 33, T25S-R31E, to a depth of 6,500' to test the Delaware Formation.

Minerals Management Service
Commissioner of Public Lands
New Mexico Oil Conservation Division
March 14, 1983
Page 2

If this proposed amendment to the 1983 Plan of Development meets with your approval, please so indicate by signing in the appropriate space provided below and return one (1) copy of this letter to us for our records.

Sincerely,



JENS HANSEN
Division Landman

JH:ep

AGREED TO AND ACCEPTED this _____ day of _____, 1983.

MINERALS MANAGEMENT SERVICE

COMMISSIONER OF PUBLIC LANDS

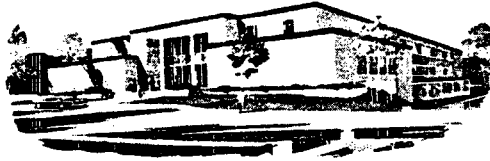
NEW MEXICO OIL CONSERVATION DIVISION



State of New Mexico



JIM BACA
COMMISSIONER



Commissioner of Public Lands

March 18, 1983

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

Bass Enterprises Production Co.
First City Bank Tower, 201 Main Street
Fort Worth, Texas 76102

Re: First Amendment to the 1983
Plan of Development for the
Poker Lake Unit
Eddy County, New Mexico

ATTENTION: Mr. Jens Hansen

Gentlemen:

The Commissioner of Public Lands has this date approved your First Amendment to the 1983 Plan of Development for the Poker Lake Unit, Eddy County, New Mexico. Such amendment proposes to change the location of the Poker Lake Unit Well No. 60 from being drilled as a Morrow well in Section 3, T25S, R30E to be drilled in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 33, T25S, R31E, to a depth of 6,500' to test the Delaware Formation. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the United States Minerals Management Service.

Enclosed is an approved copy for your files.

Please remit a Three (\$3.00) Dollar filing fee.

Very truly yours,

JIM BACA
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director
Oil and Gas Division
AC 505/827-5744

JB/RDG/pm
encls.

cc: OCD-Santa Fe, New Mexico
USMMS-Albuquerque, New Mexico
Administration



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

March 21, 1983

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Bass Enterprises Production
Company
First City Bank Tower
201 Main Street
Fort Worth, Texas 76102

366

Attention: Jens Hansen

Re: James Ranch
Big Eddy
Poker Lake Units
1983 Plans of Development

Enclosed please find an approved copy of the material referenced above. Such approval is contingent upon like approval by the Commissioner of Public Lands and the United States Minerals Management Service.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roy E. Johnson", written over a horizontal line.

ROY E. JOHNSON
Petroleum Geologist

REJ/dp

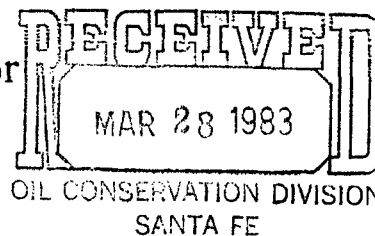
cc: Commissioner of Public Lands - Santa Fe
Minerals Management Service - Albuquerque
OCD District Office - Hobbs and Artesia



IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
505 Marquette Avenue N.W., Suite 815
Albuquerque, New Mexico 87102



MAR 24 1983

Bass Enterprises Production Co.
Attention: Jens Hansen
First City Bank Tower
201 Main Street
Fort Worth, Texas 76102

*Case
File*

Gentlemen:

An Approved copy of your amended 1983 Plan of Development for the Poker Lake Unit area, Eddy County, New Mexico, is enclosed. Such plan, proposing to move the Poker Lake Unit well #60 from sec. 3, T. 25 S., R. 30 E., to N $\frac{1}{2}$ sec. 33, T. 25 S., R. 31 E., and change from a Morrow to a Delaware test, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

cc:
Comm of Pub Lands
NMOCD



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

March 30, 1983

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Attn: Jens Hansen
Bass Enterprises Production Co.
First City Bank Tower
201 Main Street
Fort Worth, Texas 76102

366

Re: Application for Approval of
the Morrow "H", "I", "J", "K"
Participating Areas, Big Eddy
Units Nos. 70, 82, 87, and 93

Application for approval of the
"B" Participating Area - Strawn
formation, Big Eddy Unit No. 65

Application for Approval of the
Participating Area - Morrow
formation - Poker Lake Unit No.
49, Eddy County, NM

Dear Mr. Hansen:

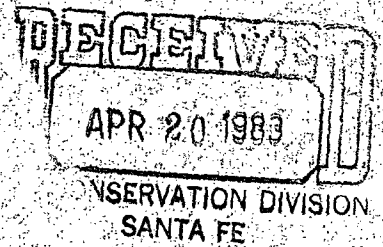
The above referenced submittals have been approved by the New Mexico Oil Conservation Division effective this date. Such approval is contingent upon like approval by the New Mexico Commissioner of Public Lands and the United States Minerals Management Service.

Sincerely,

ROY E. JOHNSON
Petroleum Geologist

REJ/dp

cc: Commissioner of Public Lands - Santa Fe
Minerals Management Service - Albuquerque
OCD District Office - Artesia



APR 15 1983

Bass Enterprises Production Co.
Attention: Jens Hansen
First City Bank Tower
201 Main Street
Fort Worth, Texas 76102

Dear Mr. Hansen:

Your application of February 11, 1983 requesting approval of the Morrow Formation participating area, ~~Pokerville Unit~~, Eddy County, New Mexico, was approved on this date by the Assistant District Manager for Minerals, Albuquerque, New Mexico, effective as of May 5, 1981.

This area adds 320 acres described as W₂ of section 17, T. 24 S., R. 30 E., N.M.P.M., and contributing to this area is the completion of well #49 with initial potential of 1671 MCFGPD.

Copies of the approved application are being distributed to the appropriate Federal offices and 3 approved copies are enclosed. You are requested to furnish the State of New Mexico and other interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Assistant District Manager
for Minerals

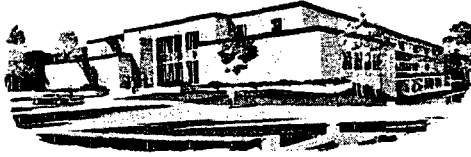
Enclosures(3)

cc:
BLM, Santa Fe
Comm of Pub Lands, Santa Fe
NMOCD, Santa Fe

State of New Mexico



JIM BACA
COMMISSIONER



Commissioner of Public Lands

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

April 22, 1983

Bass Enterprises Production Co.
First City Bank Tower
201 Main Street
Fort Worth, Texas 74102

Re: Application for Approval of the
Initial Participating Area for
the Morrow Formation
Poker Lanke Unit Area,
Eddy County, New Mexico

Attention: Mr. Jens Hansen

Gentlemen:

The Commissioner of Public Lands has this date approved the Initial Morrow Participating Area for the Poker Lake Unit, Eddy County, New Mexico. The Initial Morrow Participating Area is 320.00 acres described as the W $\frac{1}{2}$ of Section 17, Township 21 South, Range 28 East and is based upon the completion of the Well No. 49.

Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

Very truly yours,

JIM BACA
COMMISSIONER OF PUBLIC LANDS

BY: *Ray D. Graham*
Ray D. Graham, Director
Oil and Gas Division
AC/505-827-5744

JB/RDG/cb/pm
encls.

cc: OCD-Santa Fe, New Mexico
BLM-Albuquerque, New Mexico
OGAC-Santa Fe, New Mexico

BASS ENTERPRISES PRODUCTION CO.

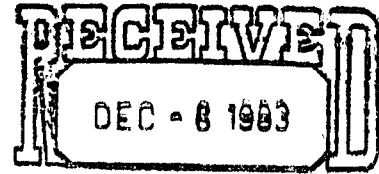
FIRST CITY BANK TOWER

201 MAIN ST.

FORT WORTH, TEXAS 76102

817/390-8400

November 28, 1983



OIL CONSERVATION DIVISION
SANTA FE

BUREAU OF LAND MANAGEMENT
P. O. Box 1449
Santa Fe, New Mexico 87501

COMMISSIONER OF PUBLIC LANDS
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

NEW MEXICO OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87501

*We are in receipt
of letter
- w/ copy for file*

Re: Application for the Approval of
the First Revision to the
Initial Morrow Participating Area
Poker Lake Unit Well #59
660' FSL and 1980' FWL
Section 8, T24S-R30E
Eddy County, New Mexico

Gentlemen:

Bass Enterprises Production Co., as unit operator for the Poker Lake Unit Agreement, pursuant to provisions of Section 11 thereof, respectfully submits for your approval a selection of the following described lands to constitute the First Revision to the Initial Participating Area for the Morrow Producing Zone or Formation, to-wit:

S/2 Section 8, T24S-R30E, Eddy County, New Mexico, and containing 320 acres of land.

In support of this Application, the following items are attached hereto and made a part hereof:

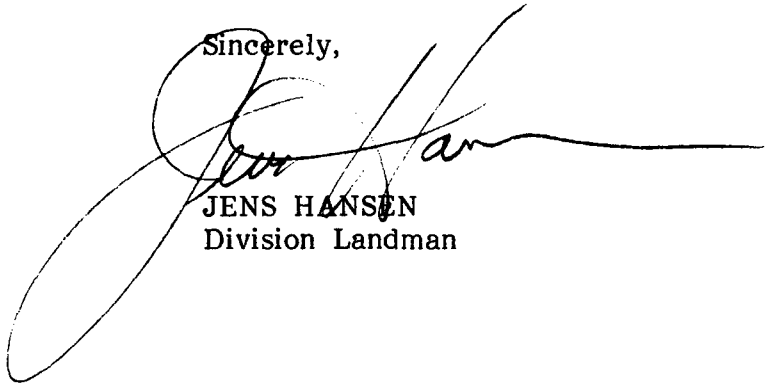
- (A) An ownership map showing thereon the boundaries of the unit area and the proposed Initial Participating Area.
- (B) A schedule showing the lands entitled to participation and the unitized substances produced from the Morrow Formation, with the percentage of participation of each lease or tract indicated.
- (C) Applicant is submitting separately in triplicate a geological and engineering report with accompanying geologic maps supporting and justifying the proposed selection of the Participating Area.

Bureau of Land Management
Commissioner of Public Lands
New Mexico Oil Conservation Division
November 28, 1983
Page 2

This proposed First Revision of the Participating Area is predicated upon the knowledge and information first obtained upon the completion in paying quantities under the terms of the Unit Agreement on November 13, 1982, of Unit Well #59, in the SE/4 SW/4, Section 8, T24S-R30E, with an initial production of gas from the Morrow Formation at a depth of 14,297' through 14,325'. The effective date of the First Revision shall be November 13, 1982, pursuant to Section 11 of the Unit Agreement.

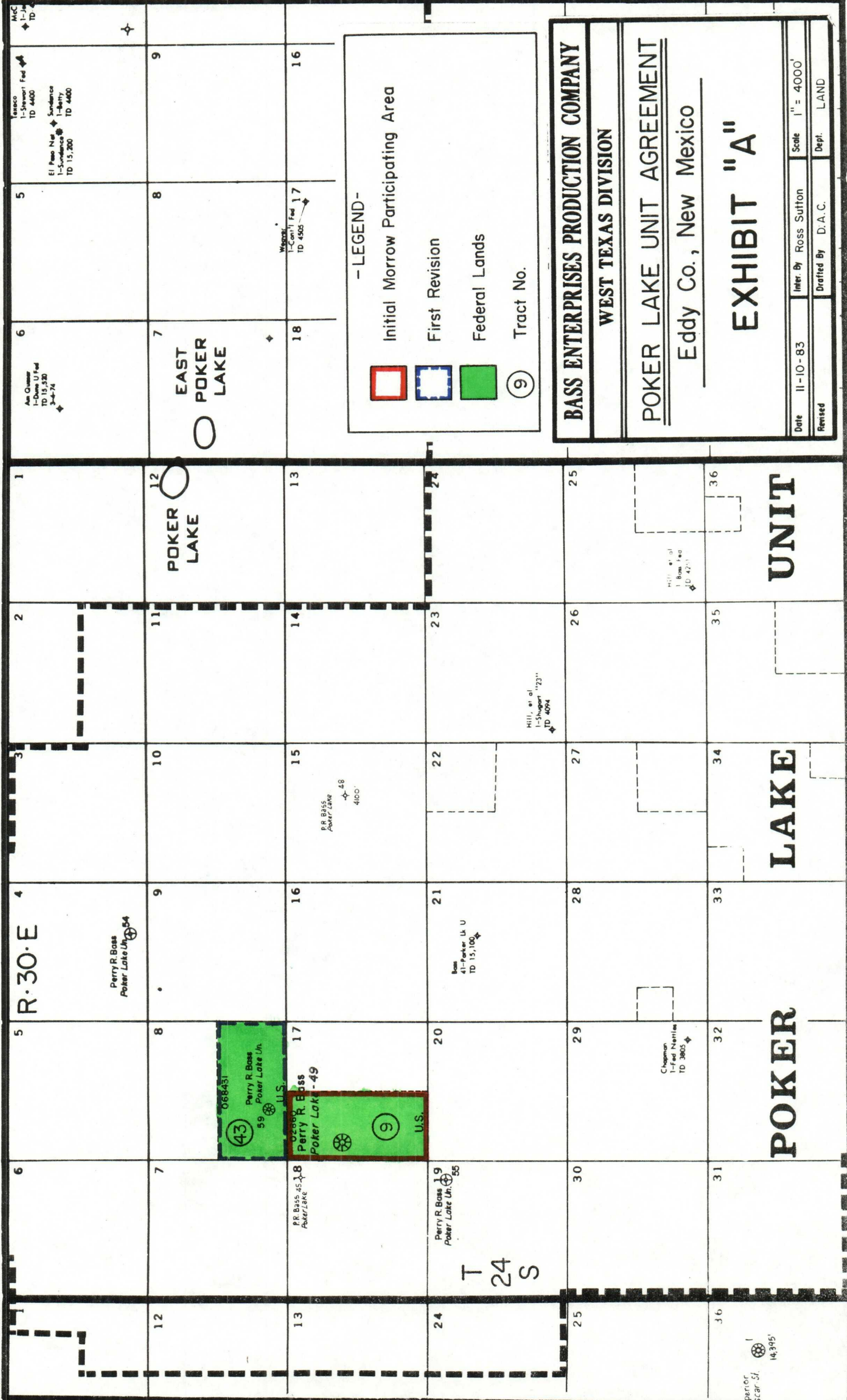
Consequently, applicant respectfully requests your approval of the hereinabove selection of lands to constitute the First Revision of the Participating Area to be effective November 13, 1982.

Sincerely,



JENS HANSEN
Division Landman

JH:ep



- LEGEND -

Initial Morrow Participating Area

First Revision

Federal Lands

Tract No.

BASS ENTERPRISES PRODUCTION COMPANY			
WEST TEXAS DIVISION			
POKER LAKE UNIT AGREEMENT			
Eddy Co., New Mexico			
EXHIBIT "A"			
Date	11-10-83	Inter. By	Ross Sutton
Rented		Drafted By	D.A.C.
		Scale	1" = 4000'
		Dept.	LAND

EXHIBIT "B"
Morrow Initial Participating Area

<u>Tract #</u>	<u>Lease #</u>	<u>Description of Participating Lands</u>	<u>Participating Acres</u>	<u>Excess Burdens %</u>	<u>Royalty %</u>	<u>% of Working Interest Ownership</u>	<u>% of Unit W.I. Ownership</u>
43	LC-068431 (Bass #3913)	S/2 Section 8, T24S-R30E Eddy County, New Mexico	320	Perry R. Bass - 2.000000% Geo. P. Caulkins, Jr.-.346300% Evans G. Parker, et ux - .119900% Wendell P. Cassidy-.346300% Sid R. Bass - .046875% Edward P. Bass - .046875% Robert M. Bass-.046875 Panther City Investment Company, Trustee - .046875%	12.5 - U.S.A.	BEPCo. - 7.5 PRB, Trustee - 2.5 San Jose-67.5 PRB, Inc. - 22.5	BEPCo. - 3.75 PRB, Trustee-1.25 San Jose - 33.75 PRB, Inc. - 11.25
9	NM-02860 (Bass #4016)	W/2 Section 17, T24S-R30E Eddy County, New Mexico	320	Production Payment out of 3% production - Hazle L. Gentle	12.5 - U.S.A.	BEPCo. - 75% PRB, Trustee-25%	BEPCo. - 37.5 PRB, Trustee-12.5

EXHIBIT "C"

ENGINEERING ANALYSIS DOGTOWN DRAW MORROW FIELD EDDY COUNTY, NEW MEXICO

Poker Lake Unit No. 49 was drilled, and the CAOF from Morrow perforations 14,307' to 14,349' was completed on April 28, 1981. The well's CAOF was 1.671 MMCFPD. A gas contract was consummated, and production was initiated on December 8, 1981. Bass applied for a participating area consisting of the proration unit on February 11, 1983, after production data indicated a commercial formation.

Poker Lake Unit No. 59 was drilled, and the CAOF from Morrow perforations 14,297' to 14,325' was obtained on November 13, 1982.

Extensive pressure data is available from the reservoir. The data is contained in this report under the section entitled "Pressure History, Dogtown Draw Morrow Field". Pertinent facts regarding the reservoir indicate the original pressure was 6881 psig at a depth of 13,831' for a gradient of 0.50 psi/ft (slightly overpressured). A PBU was obtained in August of 1982, which established two points on the material balance curve indicating GIP of 5.3 BCF. The BHP in Poker Lake Unit No. 59 obtained during the CAOF was 4327 psi at 13,972' (falling on the material balance line) indicating Poker Lake Unit No. 59 is completed in the same reservoir as Poker Lake Unit No. 49 and that transmissibility in the reservoir is excellent.

In the section "Calculation of Commercial Determination, Poker Lake Unit No. 49 and 59 Dogtown Draw Morrow Field", which is the last page of this exhibit, is found a detailed calculation indicating the Poker Lake #59 Well to be commercial. The Gas In Place and expected remaining reserves (about 80% of Gas In Place) are sufficient to determine that both wells are commercial.

There are two geologic data points for the reservoir; therefore, no attempt has been made to draw an isopachous of the reservoir. If average values of porosity, water saturation, and thickness are used, then an aerial extent of 270 acres is calculated. However, substantial variations are evident between Poker Lake Unit No. 49 and Poker Lake Unit No. 59, and additional heterogeneities are expected in the reservoir. Therefore, use of both proration units is recommended in creating a 640-acre participating area.

ENGINEERING ANALYSIS
DOGTOWN DRAW MORROW FIELD
EDDY COUNTY, NEW MEXICO

Poker Lake Unit No. 49 was drilled, and the CAOF from Morrow perforations 14,307' to 14,349' was completed on 4-28-81. The well's CAOF was 1.671 MMCFPD. A gas contract was consummated, and production was initiated on 12-08-81. Bass applied for a participating area consisting of the proration unit on 2-11-83, after production data indicated a commercial formation.

Poker Lake Unit No. 59 was drilled, and the CAOF from Morrow perforations 14,297, to 14,325, was obtained on 11-13-82. Due to the depressed gas market, a gas sales contract could not be effected. Additional data is included in the section labeled "Reservoir Data," Dogtown Draw Morrow Field.

Extensive pressure data is available from the reservoir. The data is contained in the section entitled "Pressure History," Dogtown Draw Morrow Field. Pertinent facts regarding the reservoir indicate the original pressure was 6881 psig at a depth of 13,831' for a gradient of 0.50 psi/ft (slightly overpressured). A PBU was obtained in August of 1982, which established two points on the material balance curve indicating GIP of 5.3 BCF. The BHP in Poker Lake Unit No. 59 obtained during the CAOF was 4327 psi at 13,972' (falling on the material balance line) indicating Poker Lake Unit No. 59 is completed in the same reservoir as Poker Lake Unit No. 49 and that transmissibility in the reservoir is excellent.

For a well to be included in a participating area, it must be a commercial well. Poker Lake Unit No. 49 had a CAOF of 1.671 MMCFPD. After several months, the well was producing at rates exceeding 5.0 MMCFPD. Poker Lake Unit No. 59 had a CAOF of 5.724 MMCFPD from a thicker, higher porosity section. It was assumed that Poker Lake Unit No. 59 would produce 50% of remaining reserves from date it was available for production, and that the rates of the two wells would be the same. Neither the curtailment of Poker Lake Unit No. 49 by the purchaser, nor the fact that a purchaser cannot be obtained for Poker Lake Unit No. 59, was considered. In the section "calculation of commercial determination, Poker Lake Unit No. 59," Dogtown Draw Morrow Field, is a detailed calculation indicating the well to be commercial.

There are two geologic data points for the reservoir; therefore, no attempt has been made to draw an isopachous of the reservoir. If average values of porosity, water saturation, and thickness are used, then an areal extent of 270 acres is calculated. However, substantial variations are evident between Poker Lake Unit No. 49 and Poker Lake Unit No. 59, and additional heterogeneities are expected in the reservoir. Therefore, use of both proration units is recommended in creating a 640-acre participating area.

RESERVOIR DATA
DOGTOWN DRAW MORROW FIELD

POKER LAKE UNIT NO. 49

1980' FNL & 990' FWL, SEC. 17, T24S, R30E --
SEE PLAT ATTACHED
Ø - 7%
h - 14'
SW - 20%
CAOF - 1.671 MMCFPD on 4-28-81
PERFS - 14,307'-14,349'; 3270' KB ELEV
SUBSEA DEPTH MIDPERFS - <11058> FT

PRODUCTION STARTED - 12-08-81 AT 10:00 AM
APPLICATION FOR - 2-11-83 W/2 SEC. 17
PARTICIPATING AREA - T24S, R30E - SEE ATTACHED

POKER LAKE UNIT NO. 59

660' FSL & 1980' FWL, SEC. 8, T24S
R30E
Ø - 9.5
h - 30'
SW - 20%
CAOF - 5.724 MMCFPD ON 11-13-82
PERFS - 14,297' TO 13,325'; 3219' KB ELEV
SUBSEA DEPTH MID-PERFS - <11092> FT

PRODUCTION STARTED - SHUT-IN
APPLICATION FOR - THIS APPLICATION S/2
PARTICIPATING AREA - SEC. 8, T24S, R30E

[illegible]

POKER LAKE UNIT NO. 49

Poker Lake Unit No. 49 has had its only completion in the Morrow formation. The Morrow was acidized with 3000 gallons of 7 1/2% MSR acid in May, 1981, and potentialled for 1671 MCFGPD. The well is currently producing 4662 MCFGPD from the Morrow.

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL Poker Lake Unit #49 FORMATION Morrow

LOCATION E UNIT, 1980 FEET FROM N LINE & 990 FEET FROM W LINE,

SECTION 17, RANGE 30E, TOWNSHIP 24S, COUNTY Eddy NEW MEXICO.

SPUD DATE 12-17-80 COMPLETION DATE 5-5-81 INIT. PROD. DATE 12-8-81

PERFORATIONS 14,307', 14,309', 14,311', 14,313', 14,322', 14,324', 14,326',

14,328', 14,330', 14,347', 14,349'

STIMULATION:

ACID 3000 gals 7 1/2% MSR-100

FRACTURE

POTENTIAL CAOF 1,671 MCFGPD

(ATTACH COPY OF C-122. ATTACH COPY OF WELLBORE SKETCH OF COMPLETED WELL.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	FORMATION SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	320	
Porosity (ϕ), %	6.5	
Water saturation (S_w), %	33	
Net thickness (h) > 6% ϕ & 40% S_w , ft	13	
Temperature (T), °F	212	

Bottomhole pressure (P), psia 6874

Recovery factor (RF), (%) assumed .8

Recoverable gas, MCF (see eq. below) 2,007,643

Recoverable Gas, MCF = $(43,560)(0)(1-S_w)(A)(h)(CH)(Bg_i)$ where

$$Bg_i = 0.03535 \frac{P}{ZT} \left(\frac{\text{MSCF}}{\text{Cu Ft}} \right) = 0.03535 \frac{(6874)}{(1.136)(672)} = .318$$

PERFORMANCE DATA

If sufficient history exists, attach plot of gas production rate vs time.

(Cumulative production to 10 / 31 /8 2; 1,345,601 MCF.

Initial rate (q_i), 140,000 MCF/mo

Economic limit (q₁), 3000 1500 MCF/mo

Decline rate, dy 20

Remaining gas (Q) = 7,448,120 MCF

Ultimate Recoverable Gas 8,793,721 MCF

$$Q = \frac{(q_i - q_1) 12 \text{ mo/yr}}{-\ln(1-dy)}$$

Attach plot showing proration unit and participating area.

RECOVERABLE GAS	GAS (Mcf)	COND (BBLS)
Gas sand previously produced	-	-
Sand perforated	8,793,721 (1)	560
Sand not perforated, but potentially productive	- (2)	-
Total recoverable gas	8,793,721	560

(1) performance recoverable gas if available

(2) $\frac{\text{performance sand perforated}}{\text{volumetric sand perforated}} \times \frac{\text{volumetric sands not perforated}}{\text{performance sands not perforated}}$

Participating area size based on ratio of production history and volumetrics

320 acres---minimum area is proration unit.

ECONOMIC

Well Cost \$ 1,985,500 (to the depth of formation completed)

Recompletion Cost \$ -

TOTAL COST \$ 1,985,500

(Gas Price)(Net Revenue Interest)(1-Ad Valorem Taxes) - Production Tax + [(Oil Price)(Net Revenue Interest)(Cond. Yield, bbl/MCFG)(1 -Production and Ad Valorem Taxes)] - [(Oil Price - Base Price) WEPT %] NRI

Net Gas Price = Gas Price (.845)(1-.025) - .139 + [32(1-.07) - (32-19)(.775)]
(.845)(Cond. Yield, bbls/MCF)

Operating Cost \$1500/Month 81 3.13(.845)(.975)-.126 =2.45
82 3.71(.845)(.975)-.129+32.10(.845-.275)(.94)(.0004)=
2.9

BEPCO Net Income = (Gross Gas)(Net Gas Price)

YEAR	GROSS GAS	BEPCO NET INCOME	OPERATING COST	15% DISCOUNT FACTOR	DISCOUNTED CASH FLOW
Zero	---	---	---	1.0000	-1,985,500
1981	22,963	56,259	1500	0.9325	51,063
1982	1,597,638	4,697,056	18,000	0.81087	3,794,106
				0.70511	1,859,669
				0.61314	
				0.53316	
Remainder				0.46362	

If payout is five years or less, well is considered economical.

(BEPCO Net Income - Operating Expense) discount factor =

discounted cash flow. Economical

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other In-
structions on
reverse side)Form approved,
Budget Bureau No. 42-R305.6.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____		5. LEASE DESIGNATION AND SERIAL NO. NM 02860	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DEEP. RESVR ☐ Other _____		6. IF INDIAN, ALLOTED OR TRIBE NAME —	
2. NAME OF OPERATOR PERRY R. BASS		7. UNIT AGREEMENT NAME POKER LAKE UNIT	
3. ADDRESS OF OPERATOR Box 2760, MIDLAND, TX 79702		8. FARM OR LEASE NAME POKER LAKE UNIT	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements). At surface 1980' FNL + 990' FWL OF SECTION At top prod. interval reported below At total depth		9. WELL NO. 49	
14. PERMIT NO. OIL CONSERVATION DIVISION		10. FIELD AND POOL, OR WILDCAT WILDCAT MORROW	
15. DATE SPUDDED 12-17-80		11. SEC., T., R., S., OR BLOCK AND SURVEY OR AREA SEC. 17, T. 4S, R. 30E	
16. DATE T.D. REACHED 3-29-81		12. COUNTY OR PARISH EDDY	
17. DATE COMPL. (Ready to prod.) 5-5-81		13. STATE N. MEX.	
18. TOTAL DEPTH, MD & TVD 14,470'		19. ELEV. CASINGHEAD —	
20. PLUG BACK T.D., MD & TVD 14,435		21. IF MULTIPLE COMPL. HOW MANY? SINGLE	
22. PRODUCING INTERVAL(S) OF THIS COMPLETION (Top, Bottom, Name (MD AND TVD)) 14,307' - 14,349' ELEVEN (11) SSB II CHARGES. MORROW.		23. INTERVALS DRILLED BY 0-14,470'	
24. TYPE ELECTRIC AND OTHER LOGS RUN CN-FD, BCSL, DLL-MISL		25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN CN-FD, BCSL, DLL-MISL		27. WAS WELL CURED YES	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
13 3/8"	48	857'	17 1/2"
9 5/8"	40	2671'	12 1/4"
7"	239.26	11522'	8 3/4"
CEMENTING RECORD			
AMOUNT PULLED		AMOUNT PULLED	
NONE		NONE	
NONE		NONE	
NONE		NONE	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
5"	11,182	14,470'	360 "H"
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2 3/8"	13,813'	13,800'	
31. PERFORATION RECORD (Interval, size and number)			
14,307' - 14,349' ELEVEN (11) SSB-II CHARGES.			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
14,307' - 14,349'		3000 GALS 24% HSR-100, FIFTEEN (15) BALLSEALERS	
33. PRODUCTION			
DATE FIRST PRODUCTION SHUT IN		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) FLOWING	
WELL STATUS (Producing or shut-in) ST - WOPL			
DATE OF TEST 4-28-81	HOURS TESTED 4	CHOKE SIZE VARIOUS	PROD'N FOR TEST PERIOD —
FLOW, TUBING PRESS. 2650	CASING PRESSURE PACKER	CALCULATED 24-HOUR RATE —	OIL - BBL. NONE
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TO BE SOLD		OIL - BBL. CAL. ADP 1,611	
35. LIST OF ATTACHMENTS TWO (2) EACH OF ABOVE LOGS		OIL GRAVITY-API (CORR.) —	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records		TEST WITNESSED BY DAVIS SERVICES, INC.	
SIGNED H. P. Murphy, Jr.		TITLE Sr. Prod. Mgr.	
DATE June 2, 1981			

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

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

Form G-177
 Revised 9-1-61

☒ Initial ☐ Annual ☐ Other		Date: 4-28-81	
Company: Perry R. Bass		Fluid: Air	
Well: Undesignated		Location: Morrow	
Completion Date: 4-28-81	Total Depth: 14470	Perforations: 14423	Elevation: 3270 KB
Csg. Size: 5" liner	Val: /8	Set At: 14467	Perforations: From 14307 To 14349
Tub. Size: 2 3/8	Val: 4.7	Set At: 13813	Perforations: From To
Type Well - Single - Prof. head - G.O. or G.O. Multiple		Factor Set At: 13800	County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 212° 13831	Mean Annual Temp. °F: 60°	Baro. Press. - P _a : 13.2
L: 13831	H: 13831	G _g : .5876	% CO ₂ : 3.056
		% H ₂ : .261	% H ₂ S:
		Prover:	Meter Run: 4"
			Flg.: Flg.

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. psid	Diff. In. H ₂ O	Temp. °F	Press. psid	Temp. °F	Press. psid		Temp. °F
51							5425				72 Hr.
1.	4 X 1.500			490	5.0	110	4480				1 Hr.
2.	4 X 1.500			490	8.0	102	3825				1 Hr.
3.	4 X 1.500			490	12.0	90	3025				1 Hr.
4.	4 X 1.500			480	17.0	98	2650				1 Hr.

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. Compres. Factor F _{sp}	Rate of Flow Q, Mgd
1	10.84	50.16	503.2	.9551	1.304	1.028	696
2	10.84	63.45	503.2	.9619	1.304	1.029	888
3	10.84	77.71	503.2	.9723	1.304	1.031	1101
4	10.84	91.57	493.2	.9653	1.304	1.029	1286

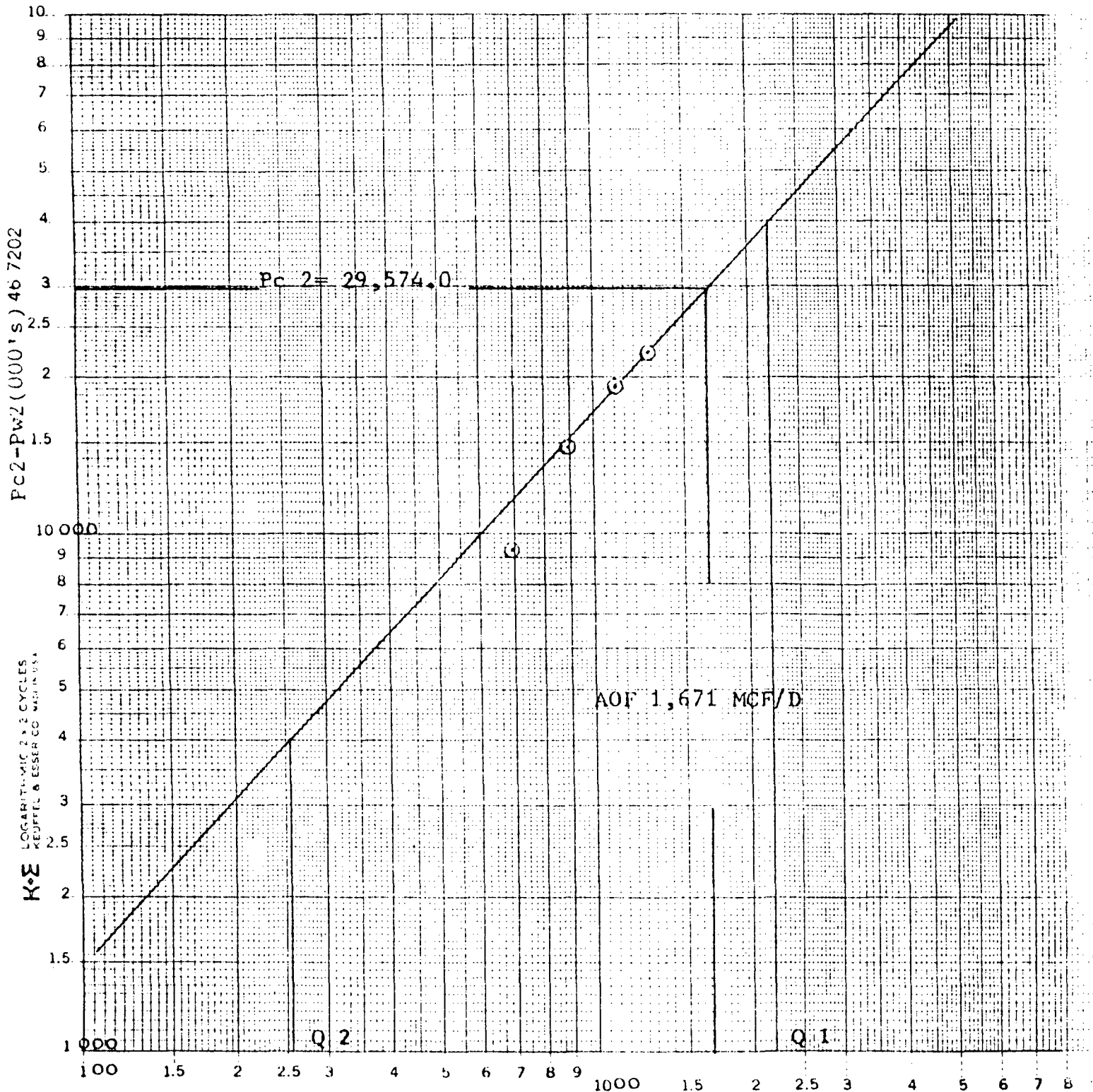
NO.	P ₁	Temp. °R	T _r	Z	Gas-Liquid Hydrocarbon Ratio	Ref. Vol.
1	.74	570	1.63	.947	dry	
2	.74	562	1.61	.944		
3	.74	550	1.58	.940		
4	.72	558	1.60	.944		

P ₁ 5438.2 P ₂ 29574.0		A.P.L. Gravity of Liquid Hydrocarbons		Specific Gravity Separator Gas .5876		Specific Gravity Flowing Fluid X X X X X		Critical Pressure 684 P.S.I.A		Critical Temperature 349 °F	
NO.	BHP	P _w	P ₁	P ₂	(1) $\frac{P_1^2}{P_2^2 - P_1^2} = 1.323$	(2) $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 1.299$					
1	5794.2	4493.5	20191.3	9382.7							
2	5028.2	3845.1	14785.0	14789.0							
3	4287.2	3235.7	10469.5	19104.5							
4	3596.2	2687.0	7219.7	22354.3							
5	6880.2	S.I.P.									

Absolute Gas Flow: 1.671	Angle of Dip: 47°	Slope: .936
--------------------------	-------------------	-------------

Approved By: Commission	Checked By: Rick Pagan	Checked By:
-------------------------	------------------------	-------------

Company : Perry R. Bass
 Lease : Poker Lake
 Well No. : # 49
 Unit : E /sec.17/twp.24s/rge.30e
 County : Eddy
 State : New Mexico
 Date : April 28,1981



Q = MCF / DAY
 Q 1 = 2200; Log of Q 1 = 3.342423
 Q 2 = 255; Log of Q 2 = 2.406540
 N = .936
 θ = 47°

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-121
Supersedes C-121
Effective 1-65

All distances must be from the center of wellbore to the location.

Perry R. Bass		Foker Lake		49
17	24 South	30 East	Eddy	
1980	North	990	West	
3247.6	Morrow	Wildcat	320	

Outline the acreage dedicated to the subject well by colored pencil or ballpoint marks on the plat below.

If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Unit

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary).

Is allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Comadre.

RECEIVED

DEC - 8 1983

OIL CONSERVATION DIVISION
SANTA FE

DATE: 6/4/80

Mike Waygood
Mike Waygood

Engineering Assistant

Bass Enterprises Production Co

June 4, 1980

I hereby certify that the well location shown on this plat was plotted from true notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

5-31-1980

John W. West

JOHN W. WEST
PATRICK A. ROMERO
Revised 1-8-80

100000

2.

POKER LAKE UNIT NO. 49
DOWNTOWN DRAW (MORROW)

MC FPM

12,000

100

Line

10

BASS ENTERPRISES PRODUCTION COMPANY

PAGE NO

SUBJECT

WELLBORE SKETCH

DATE

1-12-82

DEPARTMENT

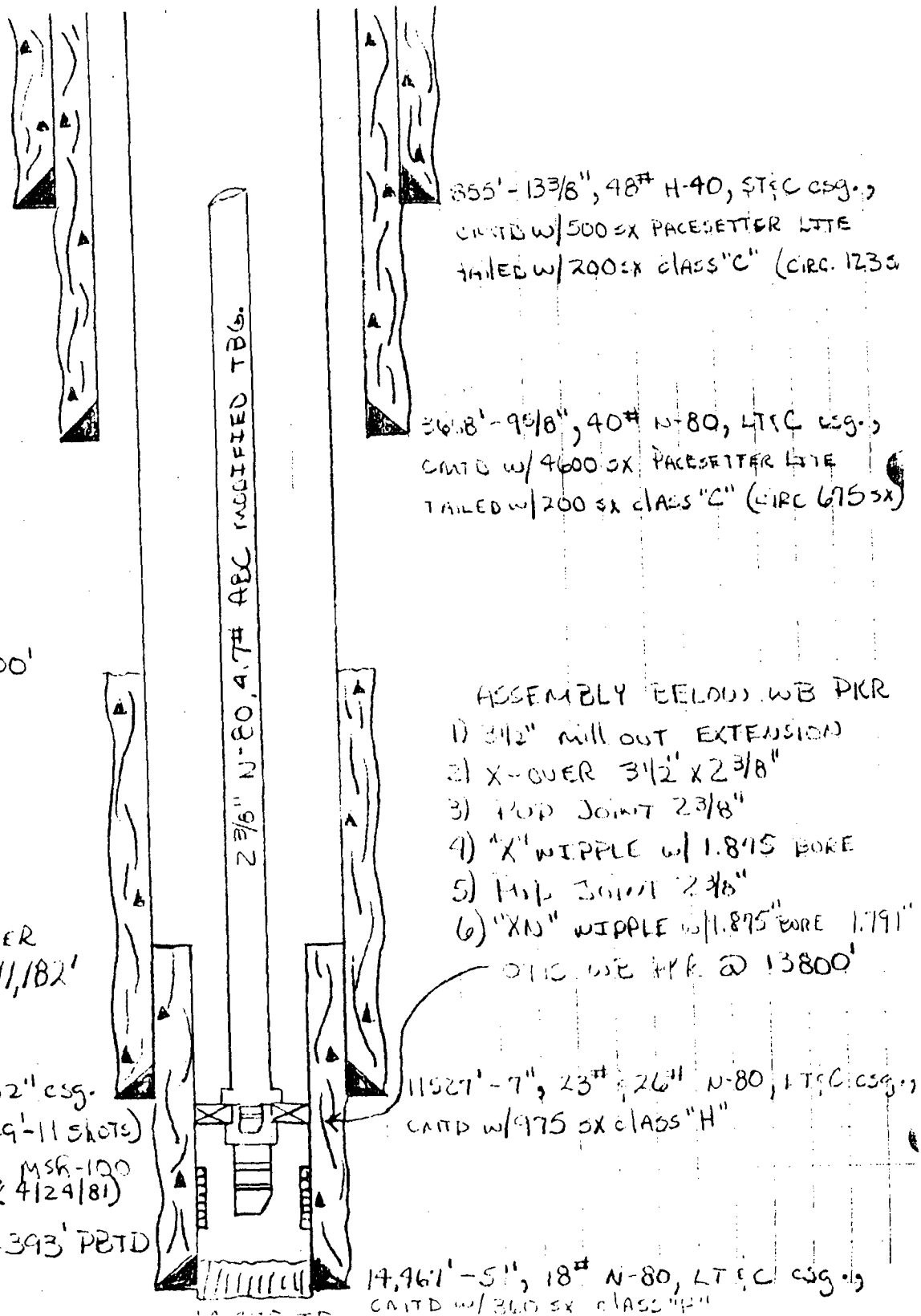
PREPARED BY

LDA

ELEV: 3227.61' GL

POKER LAKE #49
SEC. 17, T24S, R30E
EDF COUNTY, D.M.

SPUD: 12-18-81
COMP: 12-3-81



PRESSURE HISTORY
DOGTOWN DRAW MORROW FIELD

DATE	WELL	PRESSURE, PSIG			GAS GRADIENT, PSI/FT	PRESSURE, PSIA @ - 11,075 (B)	Z (C)	CUMM MMCF
		SURFACE	BOTTOM HOLE	DATUM FT				
05-01-81	PL 49 (1)	5392	6881	13,831	0.108	6950	1.1635	0.002
09-14-81	PL 49 (2)	5060	6505 (A)	14,345	0.101 (A)	6518	1.1333	0.002
08-28-82	PL 49 (1A)	3729	4889	14,328	0.075	4903	1.0300	1,046.375
11-13-82	PL 59	3263	4327	13,972	0.076	4365	0.9984	1,405.695
09-07-83	PL 49 (2)	2711	3631 (A)	14,345	0.064 (A)	3644	0.9662	1,621.377

- (1) GRADIENT RUN AFTER BUILD-UP AFTER FOUR POINT - SEE ATTACH I

(1A) PBU TEST

(2) C-125, 24 HRS, SEE ATTACH II

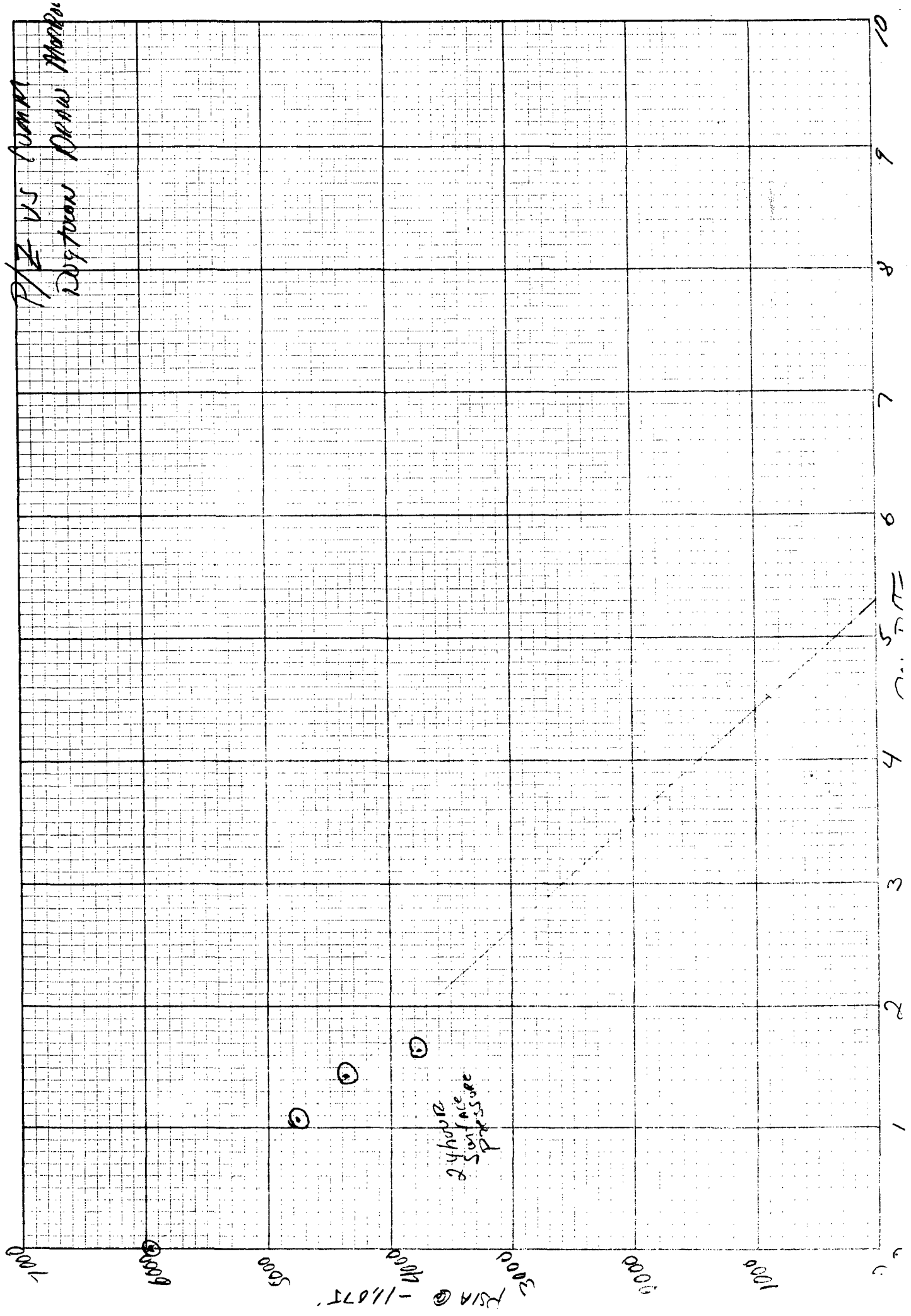
(3) GRADIENT RUN AFTER BUILD-UP AFTER FOUR POINT, SEE ATTACH III
- (A) CALCULATED - SEE ATTACH IV

(B) PL 49 = 14,345', PL 59 = 14,294'

(C) ATM PRESS = 13.2 PSI

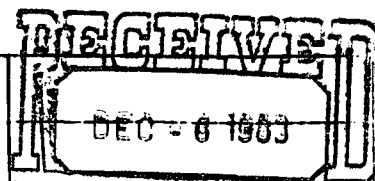
(D) SEE ATTACH V
- (C) SEE ATTACH V

(D) SEE ATTACH VI



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

Form C-122
 Revised 9-1-67



Type Test ☒ Initial ☐ Annual ☐ Special		Date 4-28-81	
Company Perry R. Bass		Fluid Air	
Pool Undesignated		Formation Morrow	
Completion Date 4-28-81	Total Depth 14470	Flow back To 14423	Elevation 3270 KB
Csg. Size 5" liner	Set At 14467	Perforations: From 14307 To 14349	
Tub. Size 2 3/8	Set At 13813	Perforations: From To	
Type Well - Single - Protenthead - G.G. or G.O. Multiple Single Gas		Facker Set At 13800	County Eddy
Producing Thru Tubing	Reservoir Temp. °F 212 13831	Mean Annual Temp. °F 60°	State New Mexico
L 13831	H 13831	Gg .5876	% CO ₂ 3.056
		% N ₂ .261	% H ₂ S Provor
			Meter Run 4"
			Flag Flg.

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. In. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							5425				72 Hr.
1.	4 X 1.500			490	5.0	110	4480				1 Hr.
2.	4 X 1.500			490	8.0	102	3825				1 Hr.
3.	4 X 1.500			490	12.0	90	3025				1 Hr.
4.	4 X 1.500			480	17.0	98	2650				1 Hr.
5.											

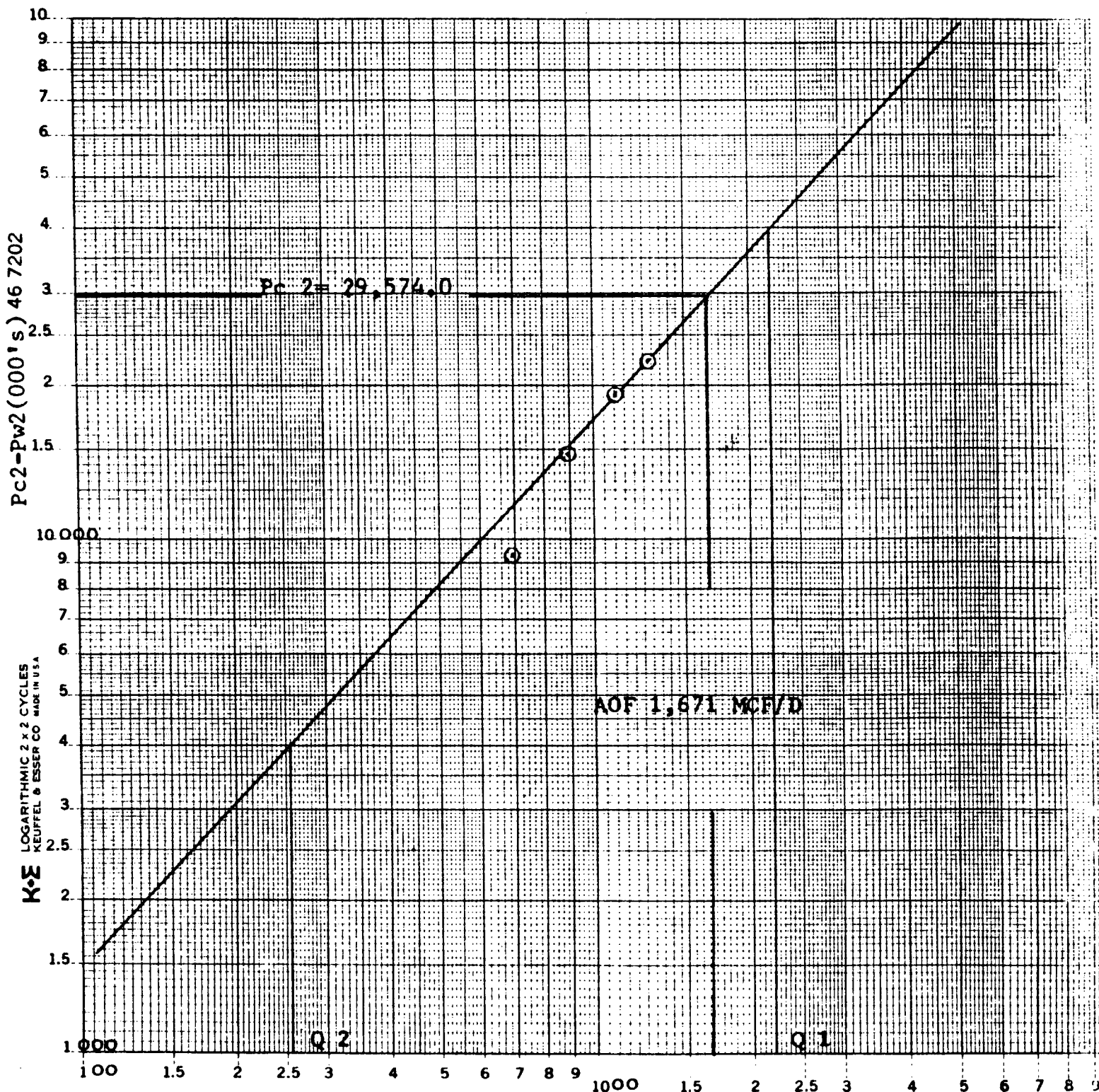
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compens. Factor, Fpv	Rate of Flow Q, Mcfd
1	10.84	50.16	503.2	.9551	1.304	1.028	696
2	10.84	63.45	503.2	.9619	1.304	1.029	888
3	10.84	77.71	503.2	.9723	1.304	1.031	1101
4	10.84	91.57	493.2	.9653	1.304	1.029	1286
5							

NO.	P ₁	Temp. °F	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbon	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.74	570	1.63	.947	dry		.5876		684	349
2	.74	562	1.61	.944						
3	.74	550	1.58	.940						
4	.72	558	1.60	.944						
5										

P _c 5438.2	P _c ² 29574.0	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.323$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.299$
NO	BHP	P _w	P _c ² - P _w ²
1	5794.2	4493.5	20191.3
2	5028.2	3845.1	14785.0
3	4287.2	3235.7	10469.5
4	3596.2	2687.0	7219.7
5	6880.2	s.i.p.	22354.3

Absolute Open Flow	1,671	Mcfd @ 14.025	Angle of Slope	47°	Slope, n	.936
Remarks:						
Approved By: _____ Conducted By: _____ Calculated By: _____ Checked By: _____						
Davis Services Inc. Rick Pagan						

Company : Perry R. Bass
 Lease : Poker Lake
 Well No. : # 49
 Unit : E /sec.17/twp.24s/rge.30e
 County : Eddy
 State : New Mexico
 Date : April 28, 1981



$Q = MCF / DAY$
 $Q 1 = 2200; \text{Log of } Q 1 = 3.342423$
 $Q 2 = 255; \text{Log of } Q 2 = 2.406540$
 $N = .936$
 $\theta = 47^\circ$

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (For P_w)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (For P_s)

COMPANY Army R. Bess ~~Bess Enterprises~~ LEASE Poker Lake Unit WELL NO. # 49 DATE April 28, 1981

LOCATION: Unit E Section 17 Township 25S Range 30E

L 13831 H 13831 L/H1.000 G .5876 % CO₂ 3.056 % N₂ .261 % H₂S

GH 8127 P_{cr} 684 T_{cr} 349
TABLE IX B 1 TABLE IX B 2

LINE		1	2	3	4	5	6	7	8
1	$T_w(W.H. \cdot R)$	534	534	534	534	534	534	534	534
2	$T_s(B.H. \cdot R)$	672	672	672	672	672	672	672	672
3	$T = (\frac{T_w + T_s}{2})$	603	603	603	603	603	603	603	603
4	Z (Est.)	1.042	.994	.982	.942	.930	.898	.887	.867
5	TZ	628.3	599.4	592.1	568.0	560.8	541.5	534.9	522.8
6	GH/TZ	12.934	13.559	13.725	14.307	14.492	15.008	15.195	15.545
7	e^S (Table XIV)	1.624	1.663	1.673	1.710	1.722	1.756	1.768	1.791
8	P_f or P_s	5794.2	5794.2	5028.2	5028.2	4287.2	4287.2	3596.2	3596.2
9	P_f^2 or P_s^2	33572.8	33572.8	25282.8	25282.8	18380.1	18380.1	12932.7	12932.7
10	$P_{c2} = P_f^2 / e^S$ or $P_w^2 = P_s^2 / e^S$	20670.1	20191.3	15111.2	14785.0	10674.1	10469.5	7315.1	7219.7
11	P_c or P_w	4546.4	4493.5	3887.3	3845.1	3267.1	3235.7	2704.6	2687.0
12	$P = (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	5170.3	5143.8	4457.8	4436.7	3777.2	3761.4	3150.4	3141.6
13	$P_r = (P/P_{cr})$	7.56	7.52	6.52	6.49	5.52	5.50	4.61	4.59
14	$T_r = (T/T_{cr})$	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73
15	Z (Table XI)	.994	.992	.942	.940	.898	.897	.867	.867

P. O. Box 6745 Odessa, Texas 79762



BASS ENTERPRISES

POKER LAKE LEASE, WELL NO. 49

EDDY COUNTY, NEW MEXICO

SUB-SURFACE PRESSURE RECORDED @ 13,831' RUN DEPTH IN PSIG

"0" TIME = TIME INSTRUMENT ARRIVED @ RUN DEPTH = APRIL 27, 1981 @ 2130

TOTAL ELAPSED TIME-HOURS + + + + + + + +	FLOWING TIME-HOURS + + + + + + + +	SUB-SURFACE PRESSURE + + + + + + + +
0.0000	0.0000 (0.00 MIN.)	6866.66
0.2500 (15.00 MIN.)	0.2500 (15.00 MIN.)	6718.52
0.5000 (30.00 MIN.)	0.5000 (30.00 MIN.)	6259.26
0.7500 (45.00 MIN.)	0.7500 (45.00 MIN.)	5992.59
1.0000	1.0000	5777.77
1.2500	1.2500	5518.52
1.5000	1.5000	5340.74
1.7500	1.7500	5200.00
2.0000	2.0000	5014.81
2.2500	2.2500	4888.89
2.5000	2.5000	4696.29
2.7500	2.7500	4496.29
3.0000	3.0000	4274.07
3.2500	3.2500	4222.22
3.5000	3.5000	3948.14
3.7500	3.7500	3755.55
4.0000	4.0000	3585.18
	SHUT-IN TIME-HOURS + + + + + + + +	
4.0000	0.0000	3585.18
4.0041	0.0041 (0.25 MIN.)	3903.70
4.0083	0.0083 (0.50 MIN.)	4133.33
4.0166	0.0166 (1.00 MIN.)	4222.22
4.0333	0.0333 (2.00 MIN.)	4333.33
4.0666	0.0666 (4.00 MIN.)	4518.52
4.1000	0.1000 (6.00 MIN.)	4666.66
4.1333	0.1333 (8.00 MIN.)	4814.81
4.1666	0.1666 (10.00 MIN.)	5000.00
4.2500	0.2500 (15.00 MIN.)	5170.37
4.3333	0.3333 (20.00 MIN.)	5311.11
4.4166	0.4166 (25.00 MIN.)	5407.40
4.5000	0.5000 (30.00 MIN.)	5622.22
4.6666	0.6666 (40.00 MIN.)	5740.74
4.8333	0.8333 (50.00 MIN.)	6000.00
5.0000	1.0000 60.00	6281.48
5.2500	1.2500 75	6392.59
5.5000	1.5000 90	6577.78
5.7500	1.7500 105	6703.70
6.0000	2.0000 120	6762.96
6.2500	2.2500 135	6807.40
6.5000	2.5000 150	6822.22
7.0000	3.0000 180	6825.92
7.5000	3.5000 210	6829.63
8.0000	4.0000 240	6833.33
8.5000	4.5000 270	6837.03
9.5000	5.5000 330	6840.74
10.5000	6.5000 390	6843.70
11.5000	7.5000 450	6845.92
12.5000	8.5000 510	6848.15

P. O. Box 6745 Odessa, Texas 79762



PAGE 2
BASS ENTERPRISES
POKER LAKE LEASE, WELL NO. 49
EDDY COUNTY, NEW MEXICO

TOTAL ELAPSED TIME-HOURS + + + + + + + +	SHUT IN TIME-HOURS + + + + + + + +	SUB-SURFACE PRESSURE + + + + + + + +
14.5000	10.5000	6851.113
16.5000	12.5000	6853.335
18.5000	14.5000	6855.557
20.5000	16.5000	6858.520
22.5000	18.5000	6860.743
24.5000	20.5000	6862.965
26.5000	22.5000	6865.187
28.5000	24.5000	6866.669
32.5000	28.5000	6868.150
36.5000	32.5000	6869.632
40.5000	36.5000	6871.113
44.5000	40.5000	6871.854
48.5000	44.5000	6872.594
52.5000	48.5000	6873.335
56.5000	52.5000	6874.076
60.5000	56.5000	6874.076
64.5000	60.5000	6874.076
68.5000	64.5000	6874.076
69.0000	65.0000	6874.076
70.0000	66.0000	6874.076
72.0000	68.0000	6874.076

MIDLAND, TEXAS
563-2025
OKLAHOMA CITY, OKLAHOMA
405-745-3466

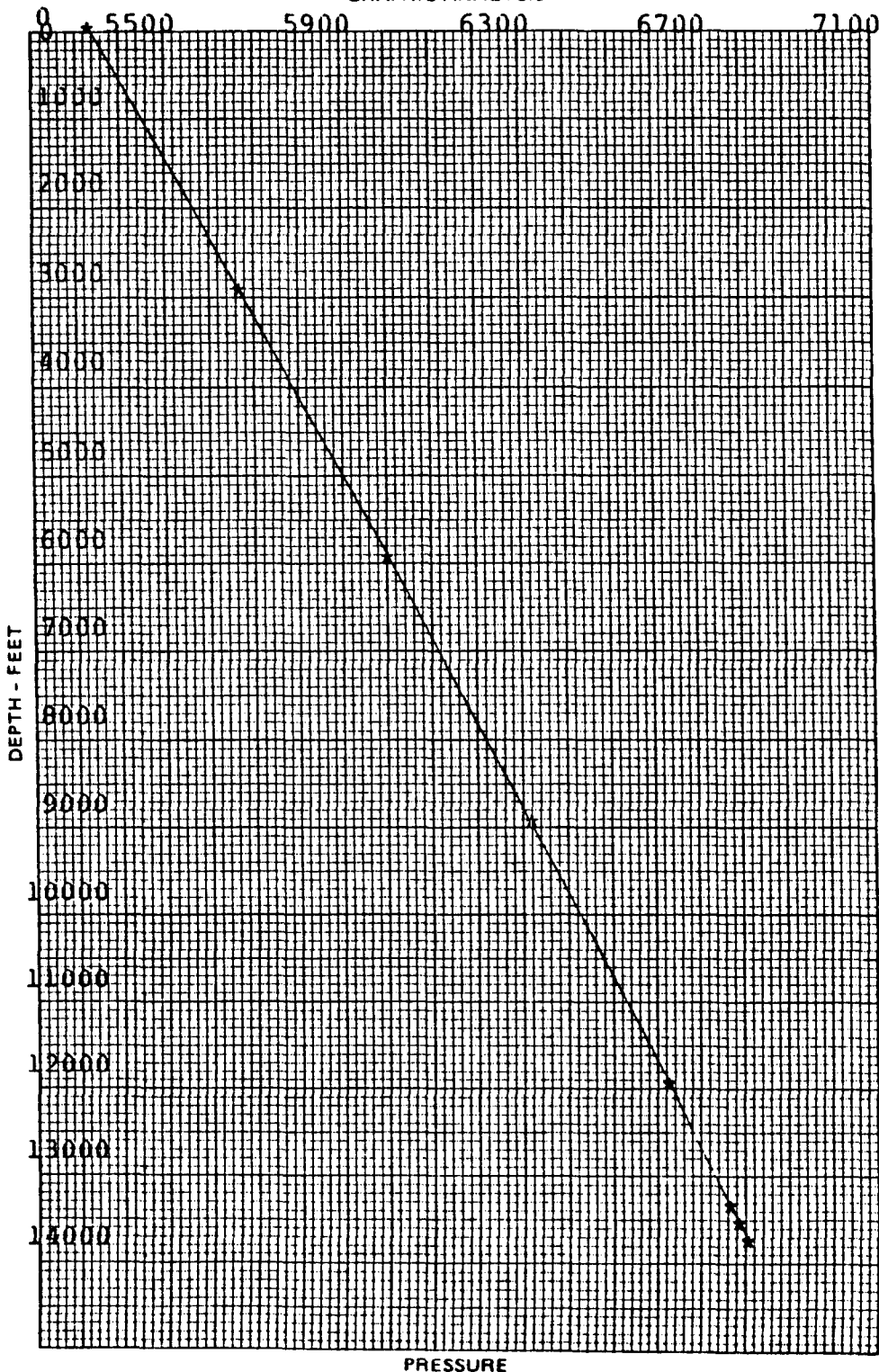


ODESSA, TEXAS
563-2025
SONORA, TEXAS
387-3121

INDIVIDUAL WELL DATA SHEET

COMPANY BASS ENTERPRISES LEASE POKER LAKE WELL NO. 49
FIELD _____ COUNTY EDDY STATE NEW MEXICO
TEST DATE 05-01-81 TIME 16:00 STATUS OF WELL SHUT-IN SHUT IN 04-27-81 21:

GRAPHIC ANALYSIS



Depth Feet	Pressure Lbs. Sq. In.	*Gradient Lbs./ft
SURFACE	5392	
3000	5733	.113
6000	6066	.111
9000	6392	.108
12000	6696	.101
13431	6837	.098
13631	6859	.110
13831 R.D.	6881	.110

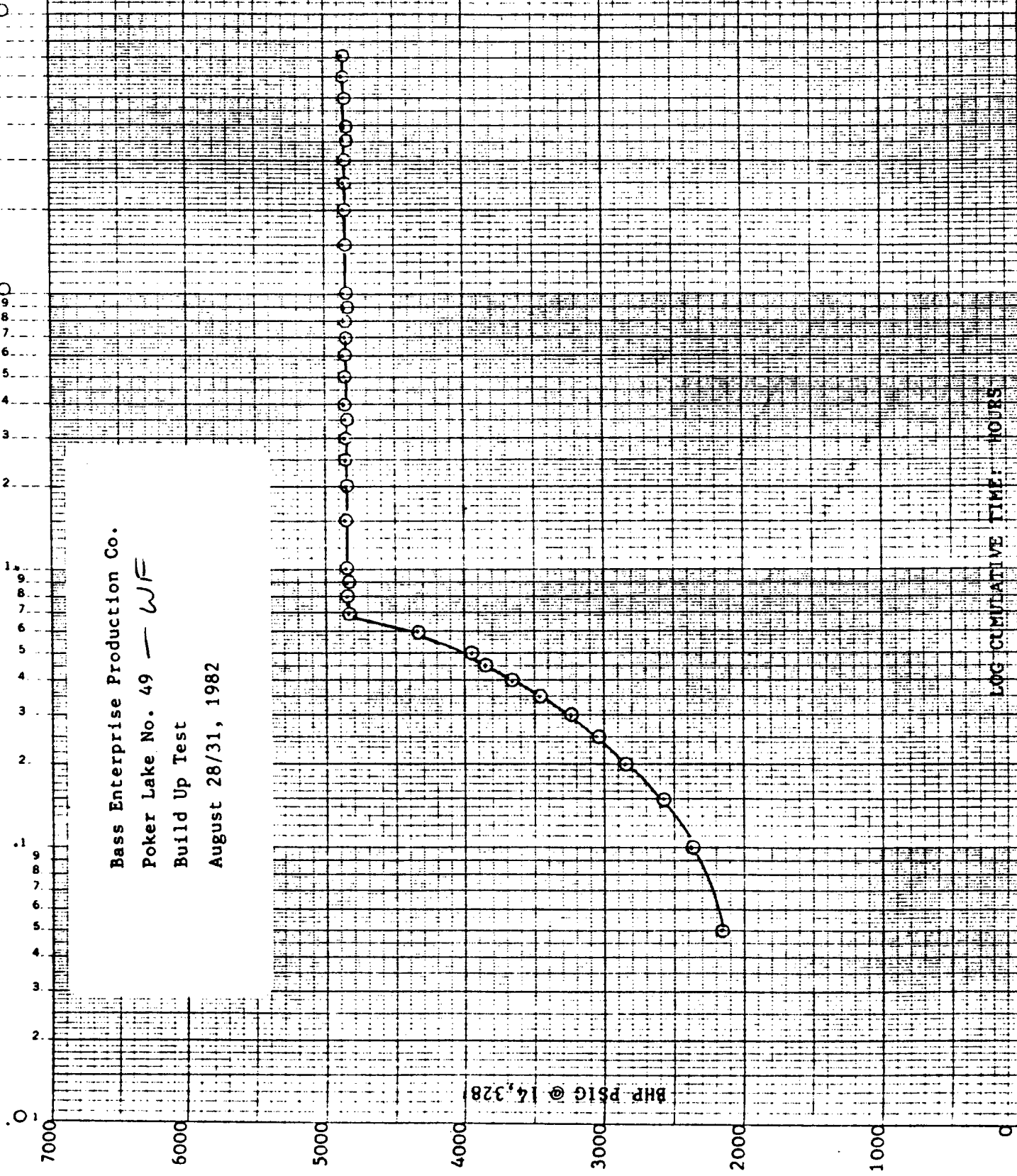
ELEV.-D.F.	GR.
PRESSURE DATUM	
TOP OF PAY	
TUBING 2.375 E.U.E. DEPTH	13831
B.H.C.	PACKER NONE
CASING	DEPTH
PERF.	
TOTAL DEPTH	
FORMATION	MORROW
CASING PRESS.	
TUBING PRESS.	5392 DWG
TOP OF FLUID	NO
TOP OF WATER	NO
HRS.-SHUT IN	90.500 FLOWING
TEMP. @ RUN DEPTH	206 °F
LAST TEST DATE	
PRESS. LAST TEST	
B. H. P. CHANGE	
INSTRUMENT NO.	13292
RUN BY	CARL JONES
CALCULATED BY	HARRINGTON

TA

Bass Enterprise Production Co.
Poker Lake No. 49 — WF
Build Up Test
August 28/31, 1982

BHP PSIG @ 14,328

LOG CUMULATIVE TIME: HOURS





KUYKENDALL
Bottom Hole Pressure Service Company
P.O. Box 11296 / A/C 915-337-5241 / Odessa, Texas 79760

BOTTOM HOLE PRESSURE REPORT

Operator Bass Enterprises Production Co. Lease Poker Lake Well No. 49
Field Poker Lake Reservoir Morrow Datum MP 14,328
Test Date August 28, 1982 Well Status Flowing Hours Shut In 13,822
Tubing 2-3/8 Depth _____ End _____ Packer 13,800 S. N. 1.875
Casing _____ Depth _____ Perf. 14,307 - 14,349 Total Depth _____

	Depth	Press. Lbs/Sq. In.	Δ Press.	Gradient Lbs/Ft.
Tubing Press.....1162	0	1,162		
Casing Press.....	3,000	1,376	214	.071
Top of Fluid.....	6,000	1,579	203	.068
Top of Water.....	9,000	1,775	196	.065
Temp. @.....°F.....	12,000	1,955	180	.060
Elev. KB.....Gl.....	13,500	2,041	86	.057
Last Test Date.....	13,822	2,056	15	.047
Press. Last Test.....				
Change.....Per Day.....				
Inst. No...53227...Cal...8-82...				
Tested By.....Pyle				
Calcu. By.....Lambert	+506	+24		
Prod. Index.....Bbls/day/lb.....	14,328	2,080	(Mid Perf)	(.047)
Drop.....				
Cumulative prod.....				

Remarks:



KUYKENDALL
Bottom Hole Pressure Service Company
P.O. Box 11296 / A/C 915-337-5241 / Odessa, Texas 79760

BOTTOM HOLE PRESSURE REPORT

Operator Bass Enterprises Production Co. Lease Poker Lake Well No. 49
Field _____ Reservoir _____ Datum _____
Test Date August 31, 1982 Well Status Shut In Hours Shut In 71
Tubing _____ Depth _____ End _____ Packer _____ S. N. _____
Casing _____ Depth _____ Perf. _____ Total Depth _____

	Depth	Press. Lbs/Sq. In.	Δ Press.	Gradient Lbs/Ft.
Tubing Press.....	0	3,729		
Casing Press.....				
Top of Fluid.....	3,000	3,998	269	.090
Top of Water.....	6,000	4,251	253	.084
Temp. @.....°F.....	9,000	4,479	228	.076
Elev. KB.....G1.....				
Last Test Date.....	12,000	4,713	234	.078
Press. Last Test.....	13,500	4,827	114	.076
Change.....Per Day.....				
Inst. No. 33122 Cal. 8-82	13,822	4,851	24	.075
Tested By.....Pyle				
Calcu. By.....Lambert	+506	+38		
Prod. Index.....Bbls/day/lb.....	14,328	4,889	(Mid Perf)	(.075)
Drop.....				
Cumulative prod.....				

Remarks:



KUYKENDALL
Bottom Hole Pressure Service Company
P.O. Box 11296 / A/C 915-337-5241 / Odessa, Texas 79760

STATIC-FLOWING-B. H. PRESSURES

COMPANY Bass Enterprises Production Co. Well & No. 49 Poker Lake No. 49

FIELD _____ Date August 28/31, 1982 Instrument No. 53231

DATE	STATUS	SERV. TIME	ELAPSED TIME		D. W. T. TP	BHP PSIG @	
			HRS.	MIN		13,822	14,328
8-28-82	Instruments on Bottom	13:30	00:00			2,018	2,056
	Well Flowing	14:00	00:30			2,017	2,055
	Shut In	14:00	00:00				
		14:03	00:03			2,146	2,184
		14:06	00:06			2,354	2,392
		14:09	00:09			2,550	2,588
		14:12	00:12			2,829	2,867
		14:15	00:15			3,027	3,065
		14:18	00:18			3,200	3,238
		14:21	00:21			3,448	3,486
		14:24	00:24			3,640	3,678
		14:27	00:27			3,829	3,867
		14:30	00:30			3,903	3,941
		14:36	00:36			4,316	4,354
		14:42	00:42			4,793	4,831
		14:48	00:48			4,819	4,857
		14:54	00:54			4,823	4,861
		15:00	01:00			4,826	4,864
		15:15	01:15			4,832	4,870
		15:30	01:30			4,835	4,873
		15:45	01:45			4,837	4,875
		16:00	02:00			4,838	4,876
		16:30	02:30			4,838	4,876
		17:00	03:00			4,841	4,879
		17:30	03:30			4,841	4,879
		18:00	04:00			4,841	4,879
		18:30	04:30			4,841	4,879
		19:00	05:00			4,841	4,879
		20:00	06:00			4,843	4,881
		21:00	07:00			4,845	4,883
		22:00	08:00			4,846	4,884
		23:00	09:00			4,847	4,885
8-29-82		24:00	10:00			4,848	4,886
		02:30	12:30			4,849	4,887
		05:00	15:00			4,851	4,889
		07:30	17:30			4,851	4,889
		10:00	20:00			4,851	4,889
		15:00	25:00			4,851	4,889
		20:00	30:00			4,851	4,889



KUYKENDALL
Bottom Hole Pressure Service Company
P.O. Box 11296 / A/C 915-337-5241 / Odessa, Texas 79760

STATIC-FLOWING-B. H. PRESSURES

COMPANY Bass Enterprises Production Co. Well & No. Poker Lake No. 49

FIELD _____ Date August 28/31, 1982 Instrument No. 53231

DATE	STATUS	SERV. TIME	ELAPSED TIME		D. W. T. TP	BHP PSIG @	
			HRS.	MIN		13,822	14,328
8-30-82		01:00		35:00		4,851	4,889
		06:00		40:00		4,851	4,889
		11:00		45:00		4,851	4,889
		16:00		50:00		4,851	4,889
8-31-82		02:00		60:00		4,851	4,889
	End of Test	13:00		71:00		4,851	4,889

POKER LAKE UNIT

420 10 255 30E PA 8-28-82 24/0 756 771 9-20-82

EDDY UNDES MOLFCA (GAS)

JAMES RANCH UNIT

120 21 225 30E PA 9-18-82 24/0 1997 2012

EDDY UNDES MOLFCA (GAS)

POKER LAKE UNIT

49E 17 245 30E PM 9-28-82 71/0 4889 4904 9-14-82

EDDY UNDES STRAKN (GAS)

EDDY UNDES MOLFCA (GAS)

400 22 215 29E PS 9-18-82 24/0 2162 2180

EDDY UNDES MOLFCA (GAS)

EDDY UNDES MOLFCA (GAS)

621 10 225 28E W Well Completed In Morrow Formation

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.
SEE WOLF CAMP 402.

SIGNATURE John S. Rodgers TITLE Sr. Production Engineer DATE 10/14/82

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2068

GAS WELL SHUT-IN PRESSURE

1982 YEAR / FORM C-12

SANTA FE, NEW MEXICO 87501

*** EDDY COUNTY ***

PERRY RY BASS

BOX 276C

MICLANC

IX

P O C L / L E A S E

WELL S-I-B-E-M L C G A T I C N DATE PRESS TIME S-I PRESS S-I PRESS PREVIOUS DATE

EDDY UNDES MOLFCA (GAS)

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

GAS WELL SHUT-IN PRESSURE REPORT

Comanche
PERRY R. BASS

Address

P.O. BOX 2760, Midland, Tx.

Pool

EDDY UNDESIGNATED/MORROW

County

EDDY

79702

LEASE	WELL NO.	LOCATION			DATE PRESS. RUN	TIME S.I. HRS./MIN.	S.I. PRESSURE PSIG (DWT)	S.I. PRESSURE PSIA	PREV. TEST DATE
		UNIT	SEC.	TWP.					
POKER LAKE UNIT	49	E	17	24S	9/14/81	**	5060	5075	none
					**Completed 4/28/81; SI waiting on sales line.				
*****THE COMPUTERIZED FORMS WERE MISPLACED. THIS FORM IS FILED AS A SUBSTITUTE*****									

I hereby certify that the above information is true and complete to the best of my knowledge and belief. SMD RULE 402

John A. Roberson

Sr. Production Engineer

10/2/81

ARY R. BASS BOX 2760 MIDLAND TX 797

U O L / L E A S E L O C A T I O N DATE PRESS TIME SI SI-PRESS SI-PRESS PREV TEST
WELL S I R FM RUN MRS/MIN PSIG(DMT) PSIA DATE

SS MURROW (GAS)

EDDY UNIT

39G 29 21S 28E PM 8/31/83 24 782 795.2 9/7/82
54N 29 21S 28E PM 8/23/83 24 571 584.2 9/15/82
87K 28 21S 28E PM 8/31/83 24 947 960.2 3/23/82

G SINKS WULFCAMP (GAS)

KER LAKE UNIT

50B 4 25S 31E WC 9/7/83 24 4785 4798.2 8/28/82

IRTON FLAT MURROW (PRORATED GAS)

SS STATE COM

1E 15 21S 27E PM 8/30/83 24 697 710.2 9/8/82

ATE 22 COM

1C 22 21S 27E PM 9/1/83 24 1961 1474.2 9/8/82

IRTON FLAT STRAWN (PRORATED GAS)

SS STATE COM

1E 15 21S 27E PS Well Shut-in. Packer-leakage test attached.

AKLSBAD STRAWN, EAST (GAS)

IG EDDY UNIT

65C 31 21S 28E PS 8/23/83 24 1863 1876.2 9/15/83

OG TOWN DRAW MURROW (GAS)

UKER LAKE UNIT

(49E) 17 24S 30E PM 9/7/83 24 2711 2724.2 9/28/82

ENTON DRAW MURROW (GAS)

IG EDDY UNIT

53G 8 21S 28E PM 8/23/83 24 953 966.2 9/15/83

HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.
SEE RULE 402.

SIGNATURE John A. Rodger TITLE Sr. Production Engineer DATE 9/26/83

III

Type Test ☒ Initial ☐ Annual ☐ Special		Date 11/13/82	
Company Perry R. Bass		Direction Air	
Well Morrow		OIL CONSERVATION DIVISION	
Completion Date 11/12/82		Total Depth 14459	
Perforations 14415		Location SANTA FE	
Well No. 59		County Poker Lake	
Producing thru Tbg		Reservoir Temp. °F 214 @ 13962	
Mean Annual Temp. °F 60°		State New Mexico	
L 13962		H 13962	
Cg .5737		% CO ₂ 1.500	
% H ₂ .553		Flow 4"	
Flg. Flg.			

FLOW DATA						TUBING DATA		CASE DATA		Direction of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. psid	Diff. in. H ₂ O	Temp. °F	Press. psid	Temp. °F	Press. psid		Temp. °F
1.	4 X 2.000			500	2.0	114	3282				1 hr
2.	4 X 2.000			500	5.0	106	3032				1 hr
3.	4 X 2.000			500	10.0	90	2882				2 hrs
4.	4 X 2.000			500	19.0	90	2682				1 hr
5.	4 X 2.000			500	30.0	90	2390				4 hrs

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. Comp. Factor F _{sp}	Rate of Flow Q, Mscf/d
1	19.81	32.04	513.2	.9518	1.320	1.027	819
2	19.81	50.66	513.2	.9585	1.320	1.028	1305
3	19.81	71.64	513.2	.9723	1.320	1.032	1880
4	19.81	98.75	513.2	.9723	1.320	1.032	2591
5	19.81	124.08	513.2	.9723	1.320	1.032	3256

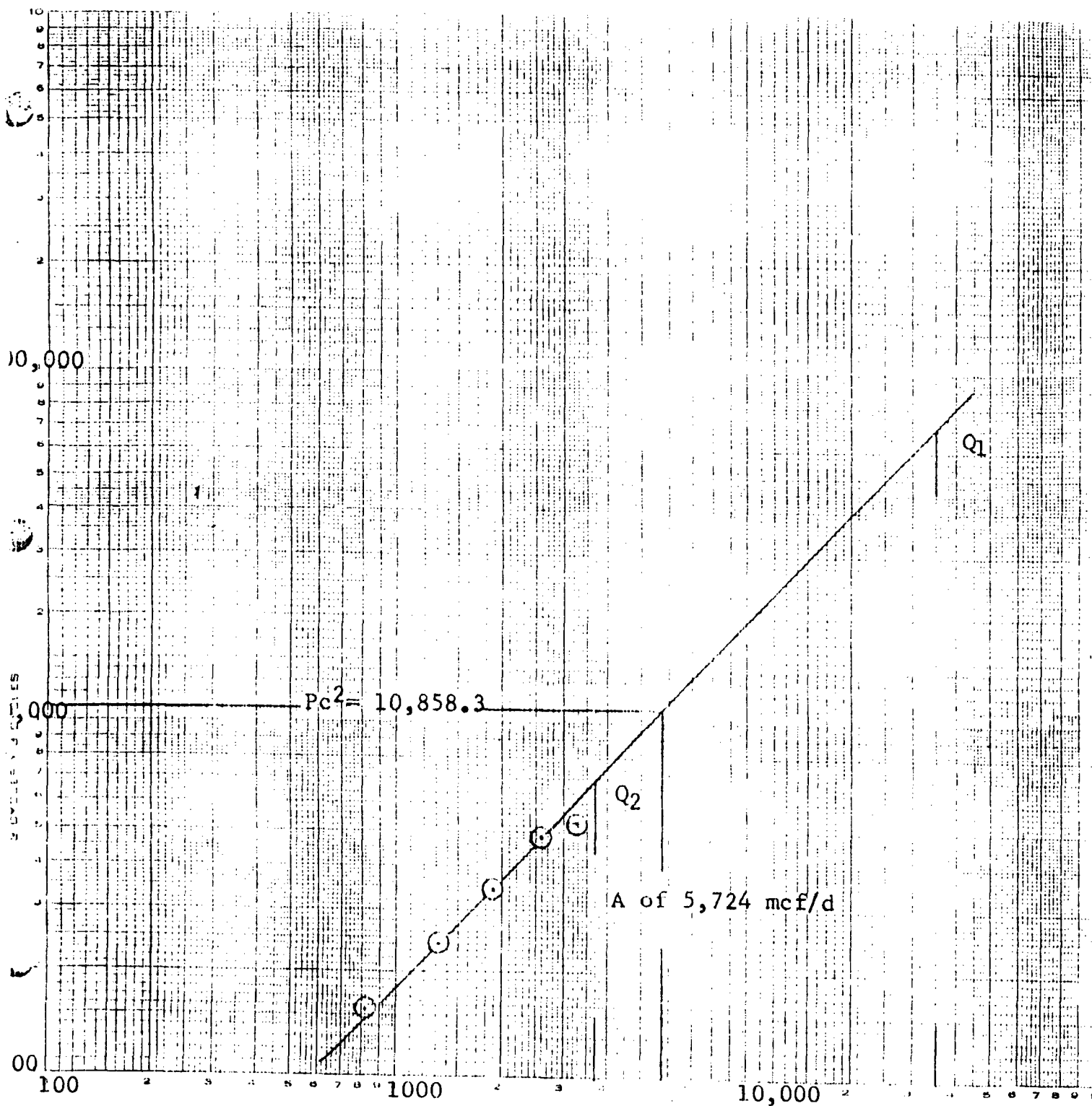
NO.	η	Temp. °F	T_r	z	Gas-Liquid Hydrate Formation	Moist. of
1	.76	574	1.66	.949	dry	
2	.76	566	1.64	.946		
3	.76	550	1.59	.939		
4	.76	550	1.59	.939		
5	.76	550	1.59	.939		

$Q = 3295.2$ $Q = 10,858.3$				$(1) \frac{R^2}{R^2 - 10^4} = 2.253$ $(2) \left[\frac{R^2}{R^2 - 10^4} \right]^n = 2.209$	
NO.	P_1	P_2	P_3	P_4	P_5
1	3050.3	9304.3	1554.0		
2	2908.0	8456.5	2401.8		
3	2721.4	7406.0	3452.3		
4	2457.3	6038.3	4820.0		
5	2350.8	5526.3	5332.0		

Absolute Open Flow	5,724	Moist. of Gas	45.75°	Flow No.	.976
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Approved By: Davis Services, Inc.	Checked By: Rick Pagan
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COMPANY : Perry R. Bl
 LEASE : POKER LAKE UNIT
 WELL # : 59
 UNIT : SEC 8/TWP24S/RGE 30E
 COUNTY : EDDY
 STATE : NEW MEXICO
 DATE : 11/13/82



Q = MCF/D
 Q1 LOG 35,000 = 4.544068
 Q2 LOG 3,700 = 3.568202
 N = .976
 θ = 45.75°

COMPANY Perry R. Bass LEASE Poker Lake UNIT WELL NO. 59 DATE 11/13/82
 LOCATION: Unit N Section 8 Township 24S Range 30E
13962 H 13962 L/H 1.000 G 5737 %CO₂ 1.500 %N₂ 553 %H₂S
 d 1.995F, 018230 0 M²Gr (L/H) (F₁Q_m)² 0 P_{Gr} 672 T_{Gr} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		13962	6981		0						
2	IGH		8010	4005		0						
3	37.5GH		300375	150187		0						
4	P ₁ or P _n		4049.7	3583.1	3566.7	3085.4	3046.1	3048.3		PW = 3050.3		
5	P ₁		6.03	5.33	5.31	4.59	4.53	4.54				
6	T		674	604	604	534	534	534				
7	T ₁		1.95	1.75	1.75	1.54	1.54	1.54				
8	Z		.967	.890	.889	.794	.791	.791				
9	P/Z P/Z	4-5	4187.9	4026.0	4012.1	3885.9	3850.9	3853.7				
10	P/T2	5-6	6.2135	5.5555	6.6425	7.2769	7.2114	7.2167				
11	(P/T2) ² /1000	(5-6) ² /1000										
12	L/H(F ₁ Q _m) ²											
13	I ₁ + I ₂											
14	I _n	10+13	160.940	150.026	150.546	137.421	138.670	138.568				
15	M = P _n - P _{n-1}			467	483	481	521	518				
16	N = I _n + I _{n-1}			310.966	311.486	287.967	289.215	289.114				
17	M x N	15 x 16			150438			149885				
18	Σ (M x N)	Σ 17			149937							

COMPANY Perry R. Bass LEASE Poker Lake UN/IT WELL NO. 59 DATE 11-13-82
LOCATION: Unit A Section 8 Township 24S Range 30E
13962 H 13962 L/H 1.000 G .5737 % CO₂ 1.500 % N₂ .553 % H₂S 346
d 1.995 F_{018230m} .819 M²dd (L/H) (F₀Q_m)² .000223 P_{cr} 672 T_{cr} 346
TABLE IS B. 1

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	.6981		13962						
2	GH		0	4005		8010						
3	137.5CH		0	150187		300375						
4	P ₀ or P _n		3045.2	3588.9	3567.9	4088.7	4053.7			PS = 4049.7		
5	P _r		4.53	5.34	5.31	6.08	6.03					
6	T		534	604	604	674	674					
7	T _r		1.54	1.75	1.75	1.95	1.95					
8	Z		.791	.891	.889	.969	.968					
9	P/Z P/Z	4-8	3849.8	4027.9	4013.4	4219.5	4187.7					
10	P/TZ	9-5	7.2094	6.6688	6.6447	6.2604	6.2133					
11	P/TZ/1000 (10 ² /1000)		.051975	.044473	.044152	.039192	.038605					
12	L/H(F ₀ Q _m) ²		.000223	.000223	.000223	.000223	.000223					
13		11+12	.052198	.044696	.044375	.039415	.038828					
14	I _n	10+13	138.116	149.203	149.740	158.832	160.020					
15	M=P _n ·P _{n-1}			544	523	521	486					
16	N=I _n +I _{n-1}			287.319	287.856	308.572	309.760					
17	M x N	15x16			150468		150484					
18	Σ (M x N)	Σ 17			149907							

COMPANY Perry R. Bass LEASE Poker Lake Unit WELL NO: 59 DATE: 11/13/82
 LOCATION: Unit N Section 8 Township 24S Range 30E
13962 H 13962 L/H 1.000 G 5737 % CO₂ 1.500 % N₂ 553 % H₂S _____
 d 1.995F 018233 0 M²cm² (L/H) (F_{ro})² 0 Per 672 T_{cr} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		13962	6981		0						
2	CH		8010	4005		0						
3	37.5CH		300375	150187		0						
4	P ₂ or P _n		3871.0	3420.3	3405.1	2940.8	2903.6	2906.1		PW = 2908.0		
5	P _r		5.76	5.09	5.07	4.38	4.32	4.32				
6	T		674	604	604	534	534	534				
7	T _r		1.95	1.75	1.75	1.54	1.54	1.54				
8	Z		.957	.882	.881	.786	.784	.784				
9	P/Z P/Z	4-5	4044.9	3877.9	3865.1	3741.4	3703.6	3706.7				
10	P/T2	3-5	6.0014	6.4204	6.3991	7.0064	6.9356	6.9414				
11	(P/T2) ² /1000	10-2/1000										
12	L/H(F _{ro}) ²											
13		I ₁ + I ₂										
14	I _n	I ₀ -I ₃	166.627	155.754	156.273	142.727	144.184	144.064				
15	M = P _n - P _{n-1}			451	466	464	501	499				
16	N = I _n + I _{n-1}			322.381	322.900	299.000	300.457	300.337				
17	M x N	I ₅ x I ₆			150429			149886				
18	Σ (M x N)	Σ I ₇			149946							

COMPANY Perry R. Bass LEASE WIT POKER LAKE WIT WELL NO. 59 DATE 11-13-82

LOCATION: Unit N Section 8 Township 24S Range 30E

13962 H 13962 L/H 1.000 G .5737 % CO₂ 1.500 % N₂ .553 % H₂S

d 1.995 F_{018230m} 1.305 M²ctd (L/H) (F_{0Qm})² .000566 P_{ct} 672 T_{ct} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	.6981		13962						
2	GH		0	4005		8010						
3	37.5CH		0	150187		300375						
4	P ₂ or P ₃		.2895.2	3420.7	3401.7	3906.4	3874.6			PS = 3871.0		
5	P ₁		4.31	5.09	5.06	5.81	5.77					
6	T		534	604	604	674	674					
7	T _r		1.54	1.75	1.75	1.95	1.95					
8	Z		.784	.882	.880	.959	.958					
9	P/Z P/Z	4-5	3692.9	3878.3	3865.5	4073.5	4044.4					
10	P/Z	5-6	5.9155	6.4210	6.3999	6.0437	6.0006					
11	(P/Z) ² /1000	10-11	.047824	.041229	.040958	.036526	.036008					
12	L/H(F _{0Qm}) ²		.000566	.000566	.000566	.000566	.000566					
13		11+12	.048390	.041795	.041524	.037092	.036574					
14	I _n	10-13	142.911	153.631	154.125	162.938	164.068					
15	N=P _n -P _{n-1}			525	506	505	473					
16	N=I _n +I _{n-1}			296.542	297.036	317.063	318.193					
17	M x N	15x16			150437		150473					
18	Σ (M x N)	Σ 17			149938							

COMPANY Perry R. Bass LEASE Poker Lake Unit WELL NO. 59 DATE 11/13/82
 LOCATION: Unit N Section 8 Township 24S Range 30E
13962 H 13962 L/H 1.000 G 5737 % CO₂ 1.500 % N₂ 553 % H₂S
 d 1.995F-018230_m 0 M²ctd (L/H(FQ_m))² 0 P_{ct} 672 T_{gr} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		13962	6981		0						
	GH		8010	4005		0						
3	37.5CH		300375	150187		0						
4	P ₂ or P _n		3634.9	3206.8	3192.2	2751.5	2717.7	2719.9		PW = 2721.4		
5	P ₁		5.41	4.77	4.75	4.09	4.04	4.05				
6	T		674	604	604	534	534	534				
7	T ₁		1.99	1.75	1.75	1.54	1.54	1.54				
8	Z		.946	.870	.870	.779	.777	.777				
9	P/2 P/Z	4-8	3842.4	3686.0	3669.2	3532.1	3497.7	3500.5				
10	P/TZ	3-6	5.7009	6.1026	6.0749	6.6144	6.5499	6.5553				
11	(P/TZ)/1000 (10 ² /M)											
12	L/H(FQ _m) ²											
13		11+12										
14	I _n	10-13	175.410	163.863	164.611	151.185	152.675	152.549				
15	M=P _n -P _{n-1}			428	443	441	475	472				
16	N=I _n +I _{n-1}			339.275	340.021	315.797	317.287	317.160				
17	M x N	15x16			150518			149798				
18	Σ(M x N)	Σ17			149857							

COMPANY Perry R. Bass LEASE Poker Lake UNIT WELL NO. 59 DATE 11-13-82

LOCATION: Unit A Section 8 Township 24S Range 30E

13962 H 13962 L/H 1.000 G .5737 % CO₂ 1.500 % N₂ .553 % H₂S

d 1.995 F_r 0.1823 L_m 1.880 M² 44 (L/H) (F_rQ_m)² .001174 P_{cr} 672 T_{cr} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	.6981		13962						
2	GH		0	4005		8010						
3	PSCH		0	150187		300375						
4	P _{cr} or P _n		2695.2	3197.2	3181.4	3665.3	3637.9			PS = 3634.9		
5	P _r		4.01	4.76	4.73	5.45	5.41					
6	T		534	604	604	674	674					
7	T _r		1.54	1.75	1.75	1.95	1.95					
8	Z		.776	.870	.870	.947	.946					
9	P/Z P/Z	4-5	3473.2	3674.9	3656.8	3870.4	3845.6					
10	P/TZ	5-5	6.5041	6.0843	6.0543	5.7424	5.7056					
11	P/TZ ² /1000 (10 ² /1000)		.042303	.037018	.036654	.032975	.032554					
12	L/H(F _r Q _m) ²		.001174	.001174	.001174	.001174	.001174					
13		11 + 12	.043477	.038192	.037828	.034149	.033728					
14	I _n	10-13	149.597	159.308	160.047	168.158	169.164					
15	M=P _n ·P _n ⁻¹			502	486	484	457					
16	N=I _n + I _{n-1}			308.907	309.646	328.205	329.211					
17	M x N	15 x 16			150546		150288					
18	Σ (M x N)	Σ 17			149829							

COMPANY Perry R. Bass LEASE Poker Lake UNIT WELL NO. 59 DATE 11/13/82
 LOCATION: Unit N Section 8 Township 24S Range 30E
13962 H 13962 L/H 1,000 G 5737 %CO₂ 1,500 %N₂ 553 %H₂S _____
 J 1.995F, 01823d 0 M²d₁₃ (L/H)(F₁Q_m)² 0 P_{CT} 672 T_{CT} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		13962	6981		0						
	GH		8010	4005		0						
3	37.5CH		300375	150187		0						
4	P ₀ or P _n		3292.4	2898.8	2886.7	2482.6	2453.8	2455.9		PW = 2457.3		
5	P _r		4.90	4.31	4.30	3.69	3.65	3.65				
6	T		674	604	604	534	534	534				
7	T _r		1.95	1.75	1.75	1.54	1.54	1.54				
8	Z		.932	.861	.861	.772	.771	.771				
9	P/Z P/Z	4-5	3532.6	3366.8	3352.7	3215.8	3182.6	3185.4				
10	P/TZ	5-5	5.2413	5.5742	5.5509	6.0222	5.9599	5.9651				
11	(P/TZ) - 2000 (40 2000)											
12	L/H(F ₁ Q _m) ²											
13	I ₁ + I ₂											
14	I _n		190.791	179.397	180.150	166.052	167.787	167.642				
15	M = P _n · P _{n-1}			394	406	404	433	431				
16	N = I _n + I _{n-1}			370.188	370.941	346.202	347.937	347.792				
17	M × N				150493			149820				
18	Σ(M × N)				149882							

COMPANY Perry R. Bass LEASE Poker Lake UNIT WELL NO. 59 DATE 11-13-82

LOCATION: Unit N Section 8 Township 24S Range 30E

13962 H 13962 L/H 1.000 G .5737 % CO₂ 1.500 % N₂ .553 % H₂S

d 1.995 F₀ 0.18230 m 2.591 M² d_h (L/H) (F₀ Q_m)² .002231 P_{cr} 672 T_{cr} 346

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	.6981		13962						
2	GH		0	4005		8010						
3	37.5CH		0	150187		300375						
4	P ₀ or P _h		2403.2	2870.2	2859.1	3313.9	3294.3					
5	P _r		3.58	4.27	4.25	4.93	4.90					
6	T		534	604	604	674	674					
7	T _r		1.54	1.75	1.75	1.95	1.95					
8	Z		.771	.860	.859	.933	.932					
9	P/Z P/Z	4-5	3117.0	3337.5	3328.4	3551.8	3534.6					
10	P/TZ	5-6	5.8371	5.5256	5.5106	5.2698	5.2442					
11	(P/TZ) ² /1000	(10) 2/1000	.034071	.030532	.030366	.027771	.027502					
12	L/H(F ₀ Q _m) ²		.002231	.002231	.002231	.002231	.002231					
13		11 + 12	.036302	.032763	.032597	.030002	.029733					
14	I _n	10 + 13	160.792	168.654	169.051	175.648	176.378					
15	N = P _n · P _{n-1}			467	456	455	435					
16	N = I _n + I _{n-1}			329.446	329.843	344.699	345.429					
17	M × N	15 × 16			150368		150325					
18	Σ (M × N)	Σ 17			150007							

DATE

(SURFACE)

WELL NO.

COMPANY Perry R. Bass LEASE Poker Lake 4417 DATE 11/13/82

LOCATION: Unit A Section 8 Township 24S Range 30E

13962 H 13962 L/H 1.000 G 5737 % CO₂ 1.500 % N₂ 553 % H₂S

d 1.995F₀₁₈₂₃ 0 M²±d (L/H (F_PQ_m))² 0 P_{cr} 672 T_{cr} 346

TABLE 12.2.2

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		13962	6981		0						
2	GH		8010	4005		0						
3	37.5CH		300375	150187		0						
4	P _{cr} or P _n		3153.4	2774.4	2763.0	2374.2	2347.5	2349.8		PW = 2350.8		
5	P _r		4.69	4.13	4.11	3.53	3.49	3.50				
6	T		674	604	604	534	534	534				
7	T _r		1.95	1.75	1.75	1.54	1.54	1.54				
8	Z		.927	.857	.857	.771	.771	.771				
9	P/Z P/Z	4-5	3401.7	3237.3	3224.0	3079.3	3044.8	3047.7				
10	P/TZ	5-5	5.0471	5.3598	5.3378	5.7666	5.7018	5.7073				
11	(P/TZ) ² /1000	10 2/1000										
12	L/H (F _P Q _m) ²											
13	I ₁ + I ₂											
14	I _n		198.133	186.575	187.344	173.411	175.384	175.215				
15	M = P _n · P _{n-1}			379	390	389	415	413				
16	N = I _n + I _{n-1}			384.707	385.476	360.755	362.728	362.559				
17	M × N	I ₅ × I ₆			150487			149818				
18	Σ (M × N)	Σ I ₇			149888							

TABLE 12.2.2

P. O. BOX 10035
ODESSA, TEXAS 79762-0042
(915) 563-2371

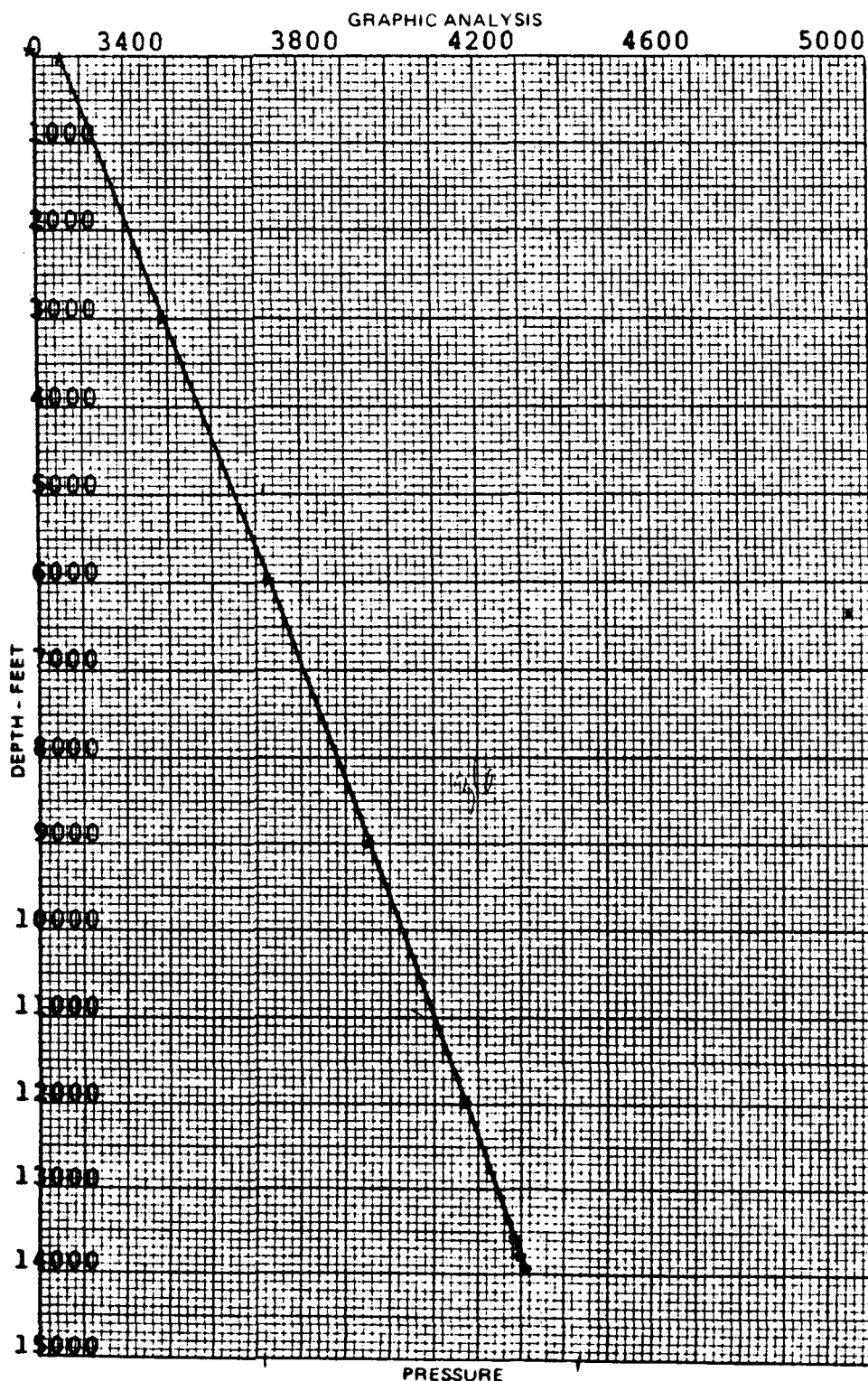


ARC PRESSURE DATA, INC.

INDIVIDUAL WELL DATA SHEET

P. O. BOX 2158
ELK CITY, OKLAHOMA 73644
(405) 225-7051

COMPANY BASS ENTERPRISES LEASE POKER LAKE WELL NO. 59
FIELD DOG TOWN DRAW AREA COUNTY EDDIE STATE NEW MEXICO
TEST DATE 11-17-82 TIME 10:45 STATUS OF WELL SHUT-IN SHUT IN 11-13-82 22:0



Depth Feet	Pressure Lbs. Sq. In.	*Gradient Lbs./F
SURFACE	3263	
3000	3502	.079
6000	3741	.079
9000	3965	.074
12000	4185	.073
13572	4298	.071
13772	4310	.060
13972 R.D.	4327	.085

ELEV.-D.F. GR.
PRESSURE DATUM
TOP OF PAY
TUBING 2.375 E.U.E. DEPTH 13979
B.H.C. PACKER
CASING DEPTH
PERF.
TOTAL DEPTH
FORMATION
CASING PRESS.
TUBING PRESS. 3264 DWG
TOP OF FLUID NO
TOP OF WATER NO
HRS.-SHUT IN 84.750 FLOWING
TEMP. @ RUN DEPTH - 217 °F
LAST TEST DATE
PRESS. LAST TEST
B. H. P. CHANGE
INSTRUMENT NO. 36077
RUN BY BILLY BOB & MAX
CALCULATED BY BARBARA FETHERLI



BASS ENTERPRISES
POKER LAKE LEASE, WELL NO. 59
EDDIE COUNTY, NEW MEXICO

SUB-SURFACE PRESSURE RECORDED @ 13,972' RUN DEPTH IN PSIG

"0" TIME = TIME INSTRUMENT ARRIVED @ RUN DEPTH = NOVEMBER 13, 1982 @ 1800

TOTAL ELAPSED TIME-HOURS + + + + + + + +	FLOWING TIME-HOURS + + + + + + + +		SUB-SURFACE PRESSURE + + + + + + + +
0.0000	0.0000		3627.360
1.0000	1.0000		3496.020
2.0000	2.0000		3284.630
3.0000	3.0000		3295.890
4.0000	4.0000		3295.890
5.0000	5.0000		3292.760
5.2500	5.2500	3329.11	3291.510
	SHUT-IN TIME-HOURS	PSIA (13.2 at 10 p. + 24.4 psi to med)	
5.2666	0.0166	3334.74	3297.140
5.2833	0.0333	3363.51	3325.910
5.3166	0.0666	3489.84	3452.240
5.3500	0.1000	3668.08	3630.480
5.3833	0.1333	3799.42	3761.820
5.4166	0.1666	3903.24	3865.640
5.5000	0.2500	4107.74	4070.140
5.5833	0.3333	4250.96	4213.360
5.7500	0.5000	4309.75	4272.150
5.9166	0.6666	4334.14	4296.540
6.0833	0.8333	4341.65	4304.050
6.2500	1.0000	4346.65	4309.050
6.5000	1.2500		4309.050
6.7500	1.5000		4309.050
7.0000	1.7500		4309.050
7.2500	2.0000	4343.52	4305.920
7.7500	2.5000	4334.14	4296.540
8.2500	3.0000		4296.540
8.7500	3.5000		4296.540
9.2500	4.0000		4296.540
10.2500	5.0000	4337.27	4299.670
11.2500	6.0000	4339.14	4301.540
12.2500	7.0000	4339.77	4302.170
13.2500	8.0000	4341.02	4303.420
15.2500	10.0000	4343.52	4305.920
17.2500	12.0000	4344.77	4307.170
19.2500	14.0000	4346.02	4308.420
21.2500	16.0000	4347.27	4309.670
23.2500	18.0000	4350.40	4312.800
25.2500	20.0000	4353.53	4315.930
29.2500	24.0000	4356.03	4318.430
33.2500	28.0000	4357.28	4319.680
37.2500	32.0000	4359.78	4322.180
41.2500	36.0000		4322.180
45.2500	40.0000		4322.180
51.2500	46.0000	4365.41	4327.810
57.2500	52.0000		4327.810
63.2500	58.0000		4327.810
69.7500	64.5000		4327.810

DATE: 10/27/83
FILE: SHRDOG
PROJ: 0

GAS WELL PRESSURE

MEASURED DEPTH, FEET	14345.	FLOW STREAM ID, INCHES	0.000
TRUE VERTICAL DEPTH, FEET	14345.	FLOW STREAM OD, INCHES	1.900

GAS GRAVITY	0.571	CRITICAL TEMPERATURE	347.
BOTTOM HOLE TEMPERATURE	217.	CRITICAL PRESSURE	675.

NITROGEN, MOL %	0.26	CONDENSATE GRAVITY, DEG API	50.0
CARBON DIOXIDE, MOL %	1.52	WATER GRAVITY	1.047
HYDROGEN SULFIDE, MOL %	0.00	PIPE ROUGHNESS, INCHES	0.00060

GAS RATE	WH TEMP	WELLHEAD	BOTTOMHOLE	P/Z	CONDENSATE	WATER
M/D----	DEG F----	PSIG-----	PSIG-----	PSIG-----	STB/MMCF---	BM/MMCF---

0.	100.	5392.	6790.	*	5918.	0.000	0.000
0.	100.	5060.	6410.	*	5706.	0.000	0.000
0.	100.	4889.	6213.	*	5592.	0.000	0.000
0.	100.	3263.	4281.	*	4924.	0.000	0.000
0.	100.	2711.	3587.	*	3737.	0.000	0.000

* COMPUTED VALUE

4x PFTre Adjustm^t

Actual Data	Calculated
<u>ETHD</u>	<u>ETHD</u>
6881	1398
1489	

NA
NA
4327
NA
10/8

Multiple	
Actual	1.07
Used	1.07
	<u>1.06</u>
Actual	1.05
Used	<u>1.05</u>

POINT	PRESSURE (PSI)	Z-FACTOR	COMPRESSIBILITY (1/PSI)
1	7500.	1.203	0.7328345E-04
2	7400.	1.195	0.7495900E-04
3	7300.	1.188	0.7669567E-04
4	7200.	1.181	0.7849645E-04
5	7100.	1.174	0.8036444E-04
6	7000.	1.167	0.8230293E-04
7	6900.	1.160	0.8431543E-04
8	6800.	1.153	0.8640563E-04
9	6700.	1.146	0.8857745E-04
10	6600.	1.139	0.9083506E-04
11	6500.	1.132	0.9318293E-04
12	6400.	1.125	0.9562576E-04
13	6300.	1.118	0.9816858E-04
14	6200.	1.112	0.1008167E-03
15	6100.	1.105	0.1035757E-03
16	6000.	1.098	0.1064519E-03
17	5900.	1.092	0.1094516E-03
18	5800.	1.085	0.1125817E-03
19	5700.	1.079	0.1158496E-03
20	5600.	1.072	0.1192631E-03
21	5500.	1.066	0.1228307E-03
22	5400.	1.060	0.1265613E-03
23	5300.	1.053	0.1304646E-03
24	5200.	1.047	0.1345508E-03
25	5100.	1.041	0.1388311E-03
26	5000.	1.035	0.1433172E-03
27	4900.	1.030	0.1480219E-03
28	4800.	1.024	0.1529587E-03
29	4700.	1.018	0.1581425E-03
30	4600.	1.013	0.1635887E-03
31	4500.	1.007	0.1693145E-03
32	4400.	1.002	0.1753380E-03
33	4375	0.997	0.1816789E-03
34	4200.	0.992	0.1883584E-03
35	4100.	0.987	0.1953992E-03
36	4000.	0.982	0.2028262E-03
37	3900.	0.978	0.2106660E-03
38	3852	0.973	0.2189476E-03
39	3700.	0.969	0.2277025E-03
40	3600.	0.965	0.2369650E-03
41	3500.	0.961	0.2467723E-03
42	3400.	0.958	0.2571654E-03
43	3300.	0.954	0.2681892E-03
44	3200.	0.951	0.2798933E-03
45	3100.	0.948	0.2923324E-03
46	3000.	0.945	0.3055677E-03
47	2900.	0.943	0.3196676E-03
48	2800.	0.941	0.3347093E-03
49	2700.	0.939	0.3507803E-03
50	2600.	0.937	0.3679808E-03
51	2500.	0.936	0.3864264E-03
52	2400.	0.934	0.4062513E-03
53	2300.	0.934	0.4276131E-03

54	2200.	0. 933	0. 4757291E-03
55	100.	0. 933	0. 5029743E-03
56	2000.	0. 933	0. 5327602E-03
57	1900.	0. 934	0. 5654889E-03
58	1800.	0. 935	0. 6016595E-03
59	1700.	0. 937	0. 6418999E-03
60	1600.	0. 938	0. 6870104E-03
61	1500.	0. 941	0. 7380243E-03
62	1400.	0. 943	0. 7962992E-03
63	1300.	0. 946	0. 8636514E-03
64	1200.	0. 949	0. 9425642E-03
65	1100.	0. 952	0. 1036521E-02
66	1000.	0. 956	0. 1150562E-02
67	900.	0. 960	0. 1292252E-02
68	800.	0. 964	0. 1473488E-02
69	700.	0. 968	0. 1714106E-02
70	600.	0. 973	0. 2049815E-02
71	500.	0. 978	0. 2552041E-02
72	400.	0. 983	0. 3387449E-02
73	300.	0. 989	0. 5056039E-02
74	200.	0. 994	0. 1005781E-01
75	100.		

GAS COMPOSITION CALCULATIONS

A 100 mole basis was assumed. However, the CO₂ and N₂ contents were corrected for injected gas, resulting in less than 100 moles total in each corrected sample.

CORRECTED GAS COMPOSITIONS

	PLU NO. 49		PLU NO. 59		AVERAGE	
	<u>Moles</u>	<u>%</u>	<u>Moles</u>	<u>%</u>	<u>Moles</u>	<u>%</u>
N ₂	*0.261	0.265	*0.261	0.262	*0.261	0.263
CO ₂	*1.500	1.524	*1.500	1.504	*1.500	1.514
H ₁	96.105	97.624	97.367	97.652	96.736	97.637
H ₂	0.540	0.549	0.551	0.560	0.546	0.551
H ₃	0.034	0.035	0.024	0.024	0.029	0.029
H ₄ -I	0.001	0.001	0.002	0.002	0.002	0.002
H ₄ -N	<u>0.003</u>	0.003	<u>0.003</u>	0.003	<u>0.003</u>	0.003
	98.444		99.708		99.077	
Molecular Wt.		16.55		16.54		16.54
Specific Gravity		0.571		0.571		0.571

*Nitrogen mole content of PLU No. 49 is assumed correct and carbon dioxide mole content of PLU No. 59 is assumed correct.

NEW-TEX
LAB
P. O. BOX 1161
HOBBS, N.M. 88240

No. 4880
Run No. _____
Date of Run 5-03-81
Date Secured 4-28-81

CERTIFICATE OF ANALYSIS

Sample of Perry R. Bass Poker Lake #49
Secured from Davis Services
Box 2033 Secured by _____
Hobbs, New Mexico 88240 Time _____ Date _____
Sampling conditions _____ Press _____
Temp. _____

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
Carbon Dioxide	3.056		
Hydrogen	.261		
Oxygen			
Hydrogen sulfide			
Ethane	96.105		
Propane	.540		.144
Butane	.034		.009
Pentanes			
n-Butane	.001		.001
i-Butane	.003		.001
Hexanes			
n-Pentane			
i-Pentane			
Heptanes			
Octanes			
TOTAL	100.000		155

Calc. Sp. Gr. — 0.5876
Calc. A.P.I. — _____
Calc. Vapor Press — _____
Sp. Gr. — _____
Mol. Wt. — 17.00

LIQUID CONTENT (GAL / MCF)

Propane Calc. G.P.M. .009
Butanes Calc. G.P.M. .002
Pentanes Plus. G.P.M. .144
Ethane Calc. G.P.M. _____
RVP Gasoline G.P.M. _____

B.T.U. / Cu. Ft. @ 14.696 P.S.I.A.
Dry Basis 981
Wet Basis 964

Sulfur Analysis by Titration
Gr. / 100 Cu. Ft. _____
Hydrogen Sulfide _____
Mercaptans _____
Sulfides _____
Residual Sulfur _____
Total Sulfur _____

Run by Deane Simpson Checked by _____ Approved by [Signature]

Additional Data and Remarks

NEW-TEX LAB

PHONE 505/393-3581

P.O. BOX 1161

811 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JAMES BERRY CO. INC.
ADDRESS: 10000
CITY/STATE: LAS ALAMAS

ANALYST: J. J. BERRY
RUN: 14
SAMPLE: 14

SAMPLE IDENT:
SAMPLING DATE:

Perry R. Bass

POKER

LAKE #59

	MOLE PERCENT	WGT PERCENT
NITROGEN	N ₂ 0.553	
CARBON DIOXIDE	CO ₂ 1.500	
METHANE	H ₁ 97.367	
ETHANE	H ₂ 0.551	
PROPANE	H ₃ 0.024	
ISOBUTANE	H _{4I} 0.002	
NORMAL BUTANE	H _{4N} 0.003	
ISOPENTANE		
NORMAL PENTANE		
HEXANES		
HEPTANES PLUS		
TOTAL	100.000	100.000

PROPANE GPM: 0.21 BUTANE GPM: 0.00
ETHANE GPM: 0.15 HEPTANES PLUS: 0.00

SPECIFIC GRAVITY (60/60): 0.5737
MOLE WEIGHT: 16.61

REV-BUOZCO	TEMPERATURE (°F)	WGT
14.695	977	
14.650	972	
14.730	979	
14.735	979	

ANALYZED BY:

APPROVED BY:

[Signature]

CALCULATION OF COMMERCIAL
DETERMINATION
POKER LAKE UNIT NO. 59
DOGTOWN DRAW MORROW FIELD

WELL COST \$1,986,638

POKER LAKE UNIT NO. 59 COMPLETED 11-13-82

FIELD CUMULATIVE PRODUCTION 11-13-82 1,405,695 MCF

FIELD GIP 5,300,000 MCF

FIELD ULTIMATE RECOVERY P/Z AT 900 4,500,000 MCF

FIELD REMAINING ON 11-13-82 3,094,305 MCF

Poker Lake Unit No. 59 has the capability to produce at a rate of 80% of CAOF. The producing capability of Poker Lake Unit No. 49 is/was approximately the same at that point in history, if it were not restricted by pipeline curtailment. Therefore, the flowstream and income stream of Poker Lake Unit No. 59 would have been as follows if the gas from the well could have been sold and the takes were unrestricted. Also, it will be assumed each well will recover 50% of the remaining reserves.

NET GAS PRICE AFTER ROYALTY =
(GAS PRICE) (NRI) (1 - AD VAL TAXES) - PROD TAXES

1982: (3.49) (0.845) (0.975) - (0.139) = 2.74

1983: (3.59) (0.845) (0.975) - (0.139) = 2.82

YEAR	GROSS, GAS MCF	BASS NET INCOME \$	15% OPERATING COST \$(1)	DISCOUNT FACTOR	DISCOUNTED CASH FLOW \$
51 DAYS 1982	23,256	63,721	3,000	1.0	<1,925,917>
1983	832,200	2,346,804	18,000	0.9325	245,642
1984	416,100	1,173,402	18,000	0.8109	1,182,608
1985	208,050	586,701	18,000	0.7051	1,583,599
1986	67,546	190,479	9,000	0.6131	1,694,865

(1) \$1,500/MO

PROD FUNCTION - INITIAL RATE
5.7 MMCFPD X 0.8 = 4560
 $d_y = 50\%/YR$

	MCF/YR	MCF
1982 51 DAYS @ 4560 MCFPD =	23,256	
1983 365 DAYS @ 2280 MCFPD =	832,200	855,456
1984 365 DAYS @ 1140 MCFPD =	416,100	1,271,556
1985 365 DAYS @ 570 MCFPD =	208,050	1,479,606
1986	67,546	1,547,152

WELL IS ECONOMICAL
PAYOUT APPROXIMATELY ONE (1) YEAR

BASS ENTERPRISES PRODUCTION CO.

FIRST CITY BANK TOWER

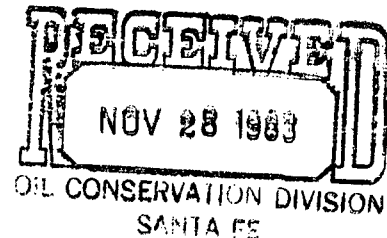
201 MAIN ST.

FORT WORTH, TEXAS 76102

817/390-8400

#366

November 23, 1983



BUREAU OF LAND MANAGEMENT
P. O. Box 1397
Roswell, New Mexico 88201
Attention: Mr. Jim Gillham

COMMISSIONER OF PUBLIC LANDS
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87504-1148
Attention: Mr. Ray Graham

NEW MEXICO OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87501
Attention: Mr. Joe Ramey

Re: First Amendment to the
1984 Plan of Development for the
Poker Lake Unit
Eddy County, New Mexico

Gentlemen:

In accordance with the terms and provisions of Section 10 of the Poker Lake Unit Agreement dated March 18, 1952, which provides that the Plan of Development may be modified when necessary to meet changing conditions, we propose the following changes to the 1984 Plan of Development:

Poker Lake Unit Well #62 - the 1984 Plan of Development provided for the drilling of this well in a location in Section 28, T25S-R31E, to be drilled to a depth necessary to test the Delaware Formation. It is respectfully requested that the location for this well be changed to 1980' FNL and 660' FEL, Section 18, T25S-R30E, and be drilled to a total proposed depth of 3,800' to test the Delaware Formation.

If this proposed amendment to the 1984 Plan of Development meets with your approval, please so indicate by signing in the appropriate space provided below and return one (1) copy of this letter to us for our records.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "Jens Hansen".

JENS HANSEN
Division Landman

JH:ep
Enclosure

Bureau of Land Management
Commissioner of Public Lands
New Mexico Oil Conservation Division
November 23, 1983
Page 2

AGREED TO AND ACCEPTED this _____ day of _____, 1983.

BUREAU OF LAND MANAGEMENT

By _____

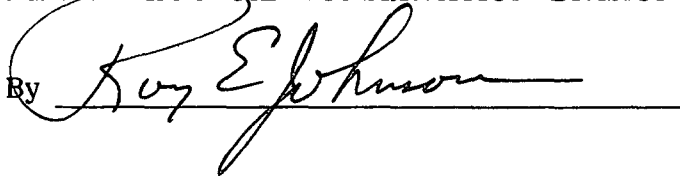
AGREED TO AND ACCEPTED this _____ day of _____, 1983.

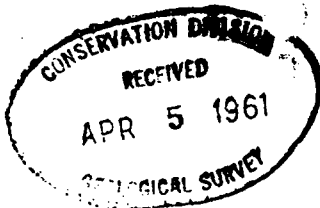
COMMISSIONER OF PUBLIC LANDS

By _____

AGREED TO AND ACCEPTED this 10th day of Jan., ~~1983~~ 1984

NEW MEXICO OIL CONSERVATION DIVISION

By 



**CHANGE IN UNIT OPERATOR
BIG EDDY UNIT AREA
COUNTIES OF LEA AND EDDY, STATE OF NEW MEXICO
I-SEC. NO. 14-008-001-326**

This indenture, dated as of the 10th day of March, 1961, by and between Richardson & Bass, hereinafter designated as "First Party," and Perry R. Bass, hereinafter designated as "Second Party."

WITNESSETH:

WHEREAS under the provisions of the act of February 23, 1920, 41 Stat., 437, 50 U. S. C. secs. 181, et seq., as amended by the act of August 8, 1946, 60 Stat. 950, the Secretary of the Interior, on the 1st day of October, 1952, approved a unit agreement for the Big Eddy Unit Area, wherein the First Party is designated as Unit Operator; and

WHEREAS the First Party desires to transfer, assign, release, and quitclaim, and the Second Party desires to assume all the rights, duties, and obligations of Unit Operator under the unit agreement; and

WHEREAS for sufficient and valuable consideration, the receipt whereof is hereby acknowledged, the First Party has transferred, conveyed, and assigned all its rights under certain operating agreements involving lands within the area set forth in said unit agreement unto the Second Party;

NOW, THEREFORE, in consideration of the premises hereinbefore set forth, the First Party does hereby transfer, assign, release, and quitclaim unto Second Party all of First Party's rights, duties, and obligation as Unit Operator under said unit agreement; and

Second Party hereby accepts this assignment and hereby covenants and agrees to fulfill the duties and assume the obligations of Unit Operator under and pursuant to all the terms of said unit agreement to the full extent set forth in this assignment, effective upon approval of this indenture by the Director of the United States Geological Survey; said unit agreement being hereby incorporated herein by reference and made a part hereof as fully and effectively as though said unit agreement were expressly set forth in this instrument.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date hereinabove set forth.

WITNESSES:

Patricia Inajin
Dora Kelly

Patricia Inajin
Dora Kelly

FIRST PARTY:

RICHARDSON & BASS

By Perry R. Bass

SECOND PARTY:

Perry R. Bass
Perry R. Bass

RECEIVED
MAR 29 1961
U. S. GEOLOGICAL SURVEY
NEW MEXICO

I hereby approve the foregoing indenture designating Perry R. Bass as Unit Operator under the Unit Agreement for the Big Eddy Unit Area, this 10th day of April, 1961.

William O. Baker
Acting Director
United States Geological Survey

I hereby approve the foregoing indenture designating Perry R. Bass as Unit Operator under the Unit Agreement for the Big Eddy Unit Area, this 28th day of March, 1961.

Ed Johnson Walker
Commissioner of Public Lands

