

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.

LC067145

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Big Eddy Unit

8. FARM OR LEASE NAME

Big Eddy Unit

9. WELL NO.

36

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 12, T21S, R28E

12. COUNTY OR PARISH

Eddy

13. STATE

N. Mex.

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

PERRY R. BASS

3. ADDRESS OF OPERATOR

P. O. Box 1178; Monahans, Texas 79756

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

At surface  
1980' FSL and 660' FEL, Sec. 12, T-21-S, R-28-E

At proposed prod. zone

Same.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

12 miles ENE of Carlsbad.

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drilg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

1320

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.First  
well

19. PROPOSED DEPTH

13,100'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

22. APPROX. DATE WORK WILL START\*

23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	11 3/4"	42#	485	Sufficient to fill to surface.
11"	8 5/8"	24# & 28#	3025	Sufficient to fill to surface.
7 7/8"	5 1/2"	17# & 20#	TD	Est. 1400 sx. -- sufficient to fill minimum of 1000' above Wolfcamp zone.

See attached drilling prognosis for complete details.

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ARTESIA, NEW MEXICO

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Tom R. Cook

TITLE

Engineer

DATE

May 23, 1973

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

MAY 31 1973

APPROVED BY

TITLE

DATE

MAY 31 1973

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

NEW FIELD OF COURSE, BY THE COMMISSION  
WELL LOCATION AND ZONE INDICATION PLAT

Form 1-1  
Superseded by  
10-10-10-10

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

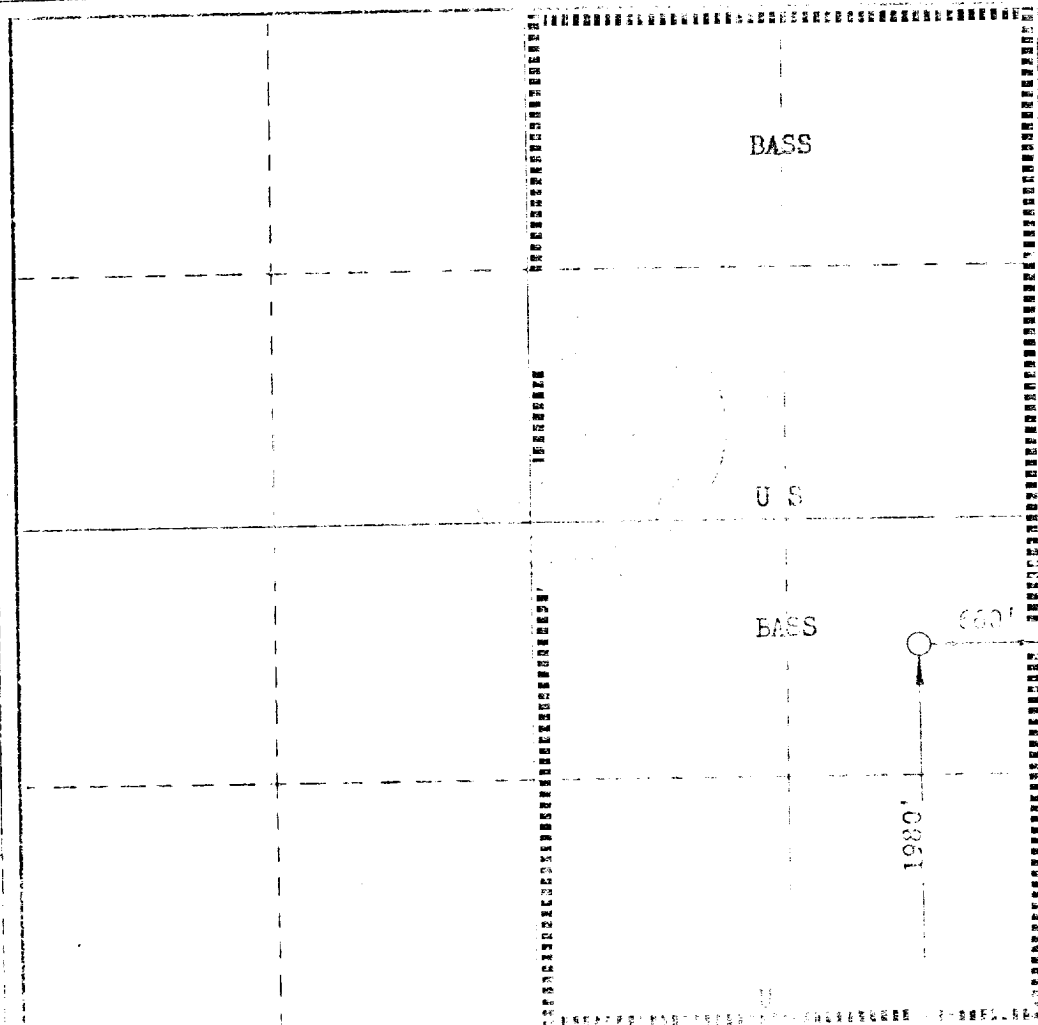
Name of Well		Big Eddy Unit	
Location	Section	Range	County
1	10	21	Big Eddy
Actual depth of well		619	
3356	Morrow	Wilcoat	320

1. Outline the acreage dedicated to the subject well by dashed pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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

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, force-pooling, or otherwise) or until a non-standard unit, consolidating such interests, has been approved by the Commission.



CERTIFICATION

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

Division Engineer

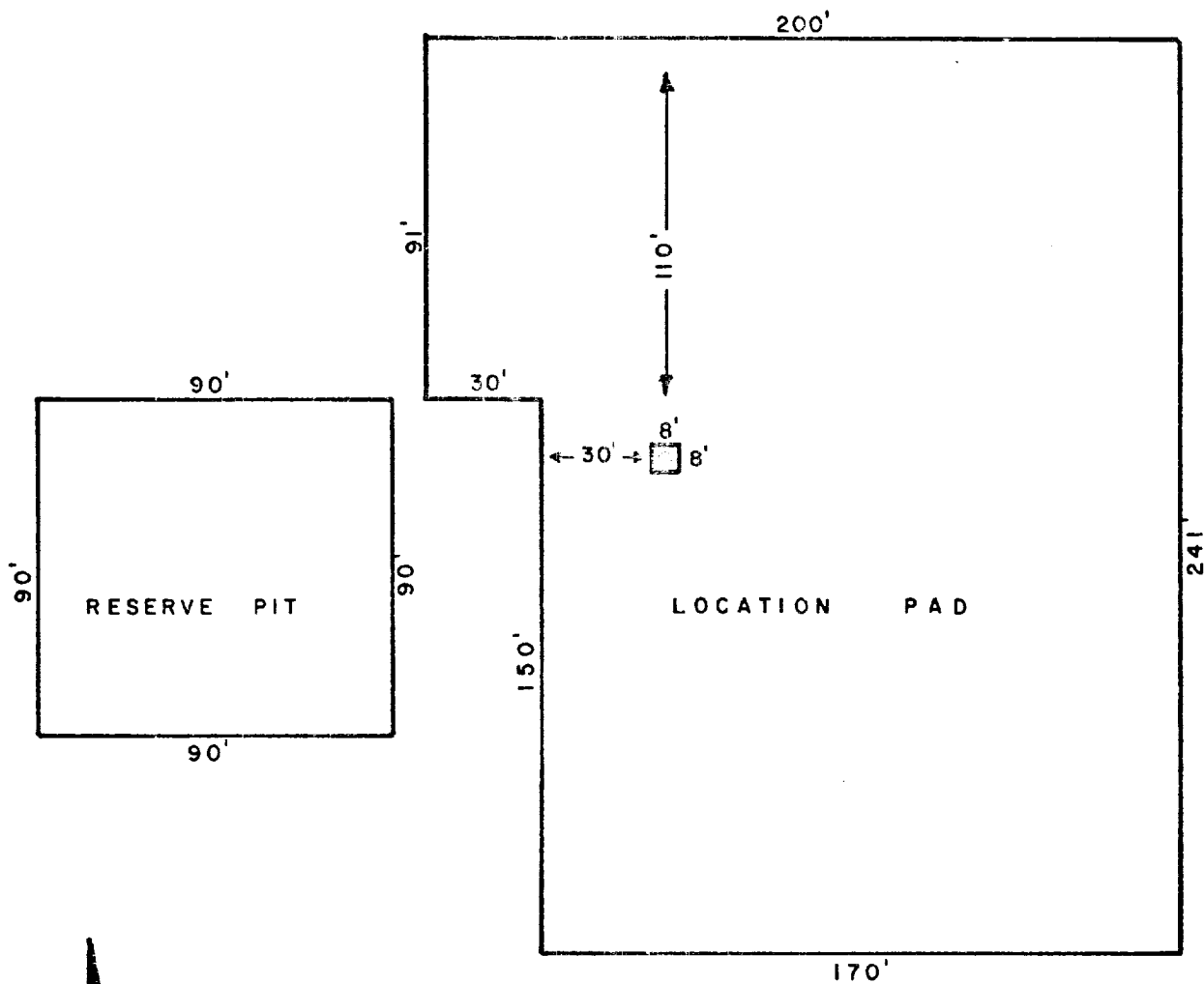
PERRY R. BASS

May 21, 1973

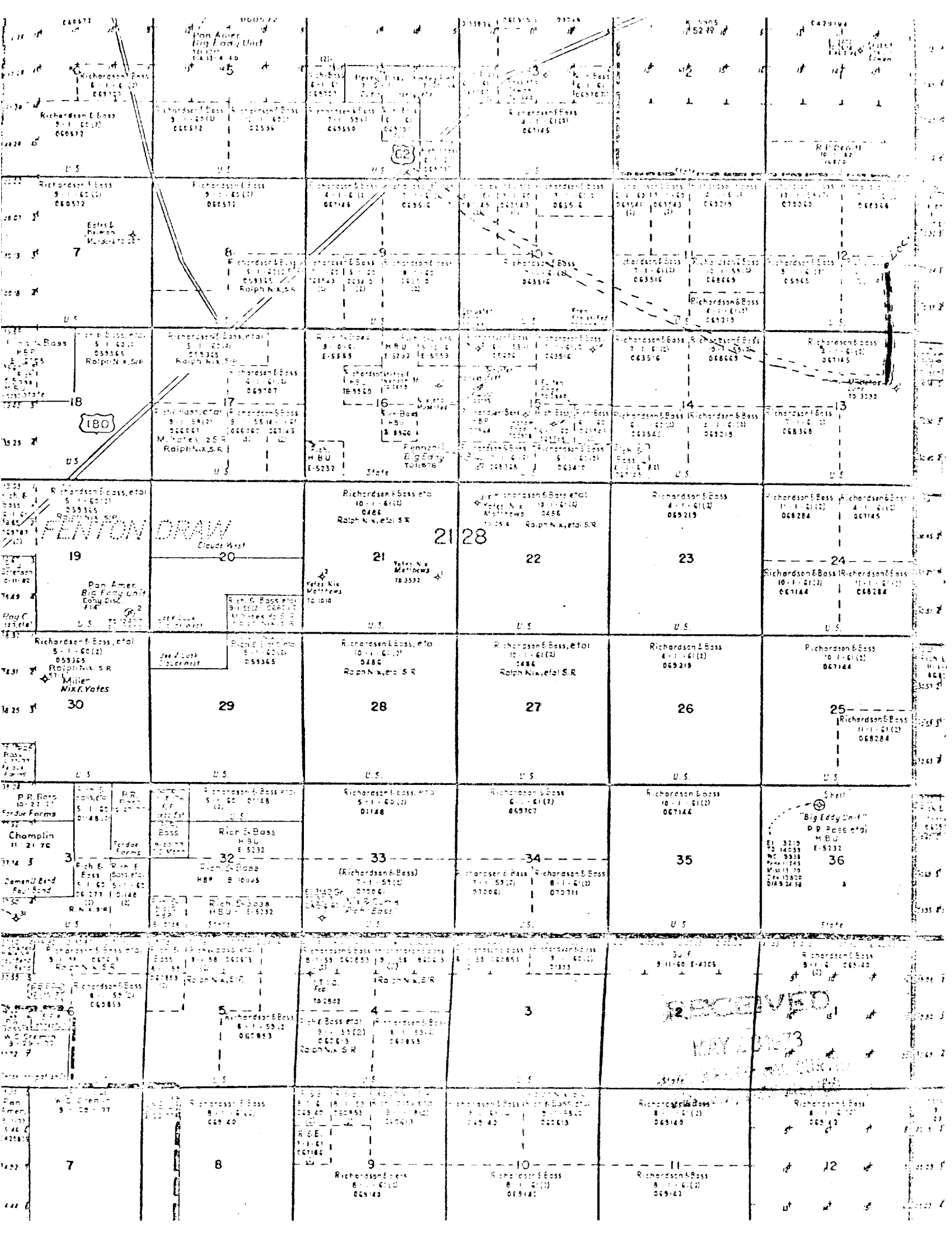
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*[Signature]*



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ALBUQUERQUE, NEW MEXICO



PERRY R. BASS, INC.

F. O. BOX 178  
MONAHANS, TEXAS

May 21, 1973

File: JDS-68-401

Mr. Jim Knoff  
U. S. Geological Survey  
P. O. Drawer U  
Artesia, New Mexico 88210

Re: PERRY R. BASS, Big Eddy Unit #36; located 1980'  
FSL and 660' FEL of Section 12, T-21-S, R-28-E;  
Eddy County, New Mexico.

Dear Sir:

Attached please find the following:

- (1) Form 9-331C, application to drill with complete drilling prognosis.
- (2) Location plat.
- (3) Plat of location layout.
- (4) Small scale map of existing roads with proposed access road.

In addition, please be advised that:

- (1) Mud pits will be steel.
- (2) No campsite or airstrip is proposed.
- (3) Tank battery will be located near or adjacent to a corner of the location pad.
- (4) Water supply will be trucked to the well or secured from a rancher in the immediate area.
- (5) The land surface will be restored to as near natural as possible and to the satisfaction of the USGS after drilling and completion operations have ceased.

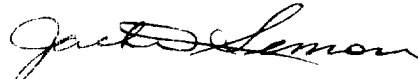
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Mr. Jim Knoff  
U. S. Geological Survey  
Page 2.  
May 21, 1973

- (6) All detrimental waste will be disposed of in accordance with good disposal practices.
- (7) Well control equipment will consist of two 5000 psi WP ram-type BOP's and one 5000 psi WP Hydril BOP with choke manifold.
- (8) A pit volume totalizer will also be used while drilling thru' any suspected abnormally pressured zone.

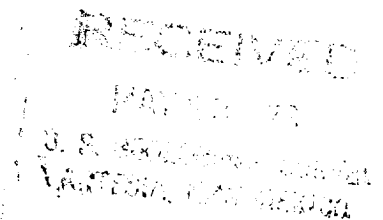
If additional information is required, please contact the undersigned.

Sincerely,



Jack D. Semon  
Division Engineer

JDS/blh  
Attach.



PROPOSED DRILLING AND COMPLETION  
PROCEDURE

for

PERRY R. BASS  
BIG EDDY UNIT # 36  
EDDY COUNTY, NEW MEXICO

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MAY 24 1973

U. S. GEOLOGICAL SURVEY  
MONTGOMERY, ALABAMA

PROPOSED DRILLING AND COMPLETION PROCEDURE

Operator: PERRY R. BASS

Lease and Well No: Big Eddy Unit #36; 13100' (Morrow)

Location: 1980' from the South line and 660' from the East line of Section 12, T21S, R28E, Eddy County, New Mexico.

Surface Casing:

15 " surface hole is to be drilled using a fresh water-gel-lime mud to an approximate depth of 485'. 11 3/4" OD casing will be set at approximately 485'; setting is anticipated as follows:

No.		Thds Off		
Jts.	Description	Length	From	To
--	Rotary correction	16	0	16
11	11 3/4" OD 42#/ft, H-40 ST&C casing	429	16	445
--	Float collar	2	445	447
1	11 3/4" OD 42#/ft, H-40 ST&C casing	36	447	483
--	Float shoe*	2	483	485

\*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sand blasted to remove mill scale and lacquer and in addition are to be welded and sealed with HOWCO-weld. Positive type centralizers are recommended; one set on each of the bottom three (3) joints. API modified thread lubricant is to be used on the casing threads.

Casing is to be cemented to the surface using API class "C" containing 2%  $\text{CaCl}_2$  mixed at 14.0 PPG (yield 1.53 CF/sack); an estimated 450 sacks will be required. A W.O.C. time of 24 hours will be observed after the plug is down.

Prior to drilling the float collar the casing is to be displaced with water (fresh water or brine) and the casing is to be pressure tested to 600 psi for 30 minutes. After drilling the shoe the casing is again to be pressure tested to 600 psi for 30 minutes.

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W. J. BASS  
ARTIST



Intermediate Casing:

11" hole is to be drilled below the surface casing to an anticipated depth of 3025 (in top of Delaware) using a saturated salt fluid.

If any loss of drilling fluid occurs, lost circulation additives are expected to keep it at a minimum. Casing setting is anticipated as follows:

(NOTE: Hole conditions may require the use of a Halliburton DV tool for stage cementing of the casing).

No.		Thds Off		
Jts.	Description	Length	From	To
--	Rotary correction	15	0	15
69	8 5/8" 24#/ft K-55 ST&C casing	2500	15	2515
13	8 5/8" 28#/ft H-40 ST&C casing	470	2515	2985
--	Float collar	2	2985	2987
1	8 5/8" 28#/ft H-40 ST&C casing	36	2987	3023
--	Float shoe*	2	3023	3025

\*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sand blasted to remove mill scale and lacquer and in addition are to be welded and sealed with HOWCO-weld. Positive type centralizers are to be recommended; one set on each of the bottom three (3) joints. API modified thread lubricant is to be used on the casing threads.

Prior to running the 8 5/8" casing, a caliper survey is to be run to determine actual cement volume required.

The 8 5/8" OD casing is to be cemented to the surface using API class "C" containing 24 1/2# salt per sack and 1% CaCl<sub>2</sub> by weight of cement (mixed at a slurry weight of 14.7 PPG, yield of 1.68 CF/sack) followed by sufficient API class "C" containing 2% CaCl<sub>2</sub> (mixed at 14.0 PPG, yield of 1.53 CF/sack) to fill from the 8 5/8" casing shoe to the base of salt section. A W.O.C. time of 24 hours will be observed after the plug is down.

Prior to drilling the float collar the 8 5/8" casing is to be displaced with fresh water and pressure tested to 1500 psi for 30 minutes. After drilling the float shoe the casing is again to be tested to 1500 psi for 30 minutes.

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Production Casing:

7 7/8" hole is to be drilled below the 8 5/8" casing point to total depth using a fresh water with flo-sal when required, viscosity of 32 to 34 seconds. Prior to drilling the Strawn, or about 11000', potassium chloride is to be added to the drilling fluid; from 2% to 4% will be required. Minimum drilling fluid weights, sufficient to control the well, are to be used to total depth. 5 1/2" OD casing is to be set at total depth and is anticipated as follows:

No.		Thds Off		
Jts.	Description	Length	From	To
--	Rotary correction	14	0	14
310	5 1/2" OD 17#/ft N-80 LT&C casing	12386	14	12400
17	5 1/2" OD 20#/ft N-80 LT&C casing	656	12400	13056
--	Float collar	2	13056	13058
1	5 1/2" OD 20#/ft N-80 LT&C casing	40	13058	13098
--	Float shoe*	2	13098	13100

\*The float shoe is to be equipped with lateral exits as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sealed with HOWCO-weld. API modified thread lubricant is to be used on casing threads. Positive type centralizers are recommended to be included over any pay zones in conjunction with sand blasting to remove mill scale and lacquer.

5 1/2" casing is to be inspected using a combination mechanical optical and magnetic particle inspection - full length. Casing is to be pressure tested externally, using Gator-Hawk to 3500 psi.

Prior to running the 5 1/2" OD casing a caliper survey is to be made to determine actual cement volume required to fill the annulus back to 8500' (1300' above the expected top of Wolfcamp). Casing will be cemented as follows:

Cement is to be API class "H" containing 1% CFR-2 and 3# KCl per sack, mixed at 15.8 PPG, yield of 1.10 CF/sack. An estimated 1400 sacks will be required to fill to 8500'.

After the plug is down, the 5 1/2" casing is to be cut off, equipment nipped down and the drilling rig released.

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U. S. GEOLOGICAL SURVEY  
ALBUQUERQUE, NEW MEXICO

Completion:

A well service unit is to be moved in and if necessary drilling-out equipment rigged up to drill out to a depth sufficient to test any potential pay zone.

It is anticipated that the well will be a singly completed (Morrow gas) well. 2 7/8" OD, 6.50#/ft, N-80, EUE, 8 round thread tubing is to be used with a suitable production packer. Tubing is to be pressure tested externally using Gator-Hawk to 6000 psi.

Logging:

Open hole logs (to be determined by geological department) are to be run prior to setting 5 1/2" OD casing.

A PDC (GR-N) Log is to be run after drilling out inside the 5 1/2" OD casing to a depth sufficient to test any potential pay zone. The PDC Log is to be correlated to open hole logs to assist in perforating.

Drill Stem Tests:

Three (3) DST's are anticipated, but will be taken as required by the geological department as shows are encountered.

Samples:

As required by geological department.

Estimated Formation Tops:

Elevation	3370 KDB
T/Salt	485 (+2885)
B/Salt	1895 (+1475)
T/Delaware Sand	3090 (+ 280)
B/Delaware Sand	6605 (-3235)
Wolfcamp	9820 (-6450)
Strawn	11160 (-7790)
Atoka	11410 (-8040)
Morrow	11975 (-8605)
Morrow Sand	12155 (-8785)
Barnett	12925 (-9550)

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B. A. BASS  
BIG EDDY UNIT #36  
PERRY R. BASS

Casing and Tubing Data:

OD	Wt	Grade	Type Joint	Cplg or Jt OD	Min Collapse	Burst at MIY	ID	Drift Dia
11 3/4"	42#	H-40	ST&C	12.750	1020	1980	11.084	10.928
8 5/8"	24#	K-55	ST&C	9.625	1370	2950	8.097	7.972
	28#	H-40	ST&C	9.625	1640	2470	8.017	7.892
5 1/2"	17#	N-80	LT&C	6.050	6280	7740	4.892	4.767
	20#	N-80	LT&C	6.050	8830	9190	4.778	4.653
2 7/8"	6.50#	N-80	EUE T&C	3.668	9420	10570	2.441	2.347