

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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 2760, Midland, Texas 79702

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

At surface

1980' FNL & 660' FWL, Sec. 9, T-21S, R-28E

At proposed prod. zone

same as above

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

10 miles ENE of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

660'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH

12,700'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS

Rotary

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

3217.8'

22. APPROX. DATE WORK WILL START*

Upon approval

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	1000'	800 sx circ. to surface
11"	8 5-5/8"	28 & 32	2580'	1000 sx circ. to surface
7-7/8"	5-1/2"	17	TD	1800 sx TOC @ 7500'±

Drilling procedure, BOPE diagrams, formation tops and surface use plans are attached.

Gas is dedicated.

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

Stephen Smith

TITLE

Engineering Assistant

DATE

1-7-81

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

(Orig. Sgd.) GEORGE H. STEWART

ACTING DISTRICT ENGINEER

DATE

JAN 20 1981

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DELINEATION PLAT

Form O-107
Superseded G-12B
Effective 1-1-65

All distances shall be from the center line of the section.

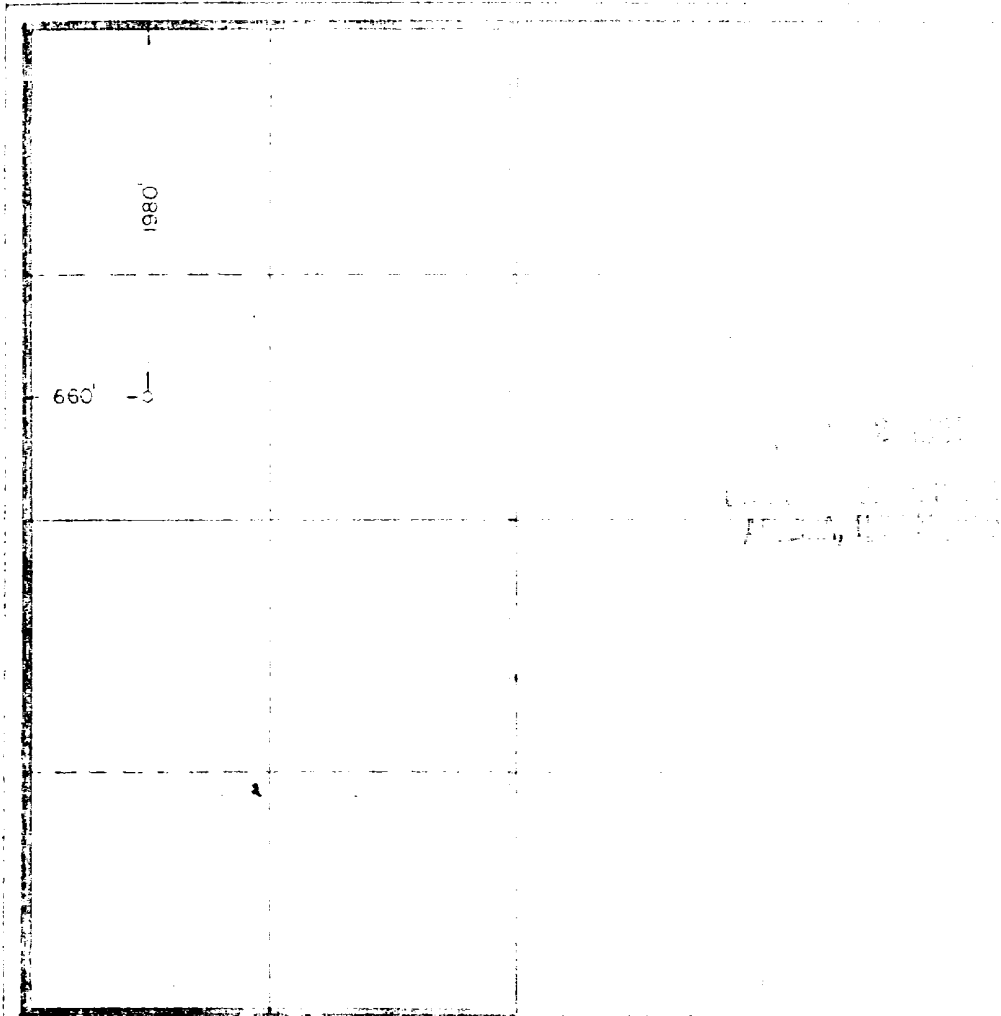
Operator Perry R. Bass			Lease Big Eddy Unit		Acres 86
Unit Letter E	Section 9	Township 21 South	Range 27 East	County Eddy	
Actual Footage Location of Well: 1980 feet from line north 660 feet from line west					
Ground Level Elev. 3217.8	Underlying Formation Morrow	Sand Point Morrow			Section 320

1. Outline the acreage dedicated to the subject well by record papers. Indicate marks on the plat below.
2. If more than one lease is dedicated to the well, outline each one, giving 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, forced pooling, etc.?

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

If answer is "no," list the owners and tract descriptions (attach list on 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 nonconsolidated unit, unitization or forced pooling has been approved by the Commission.



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

Stephen Smith

Stephen Smith

Engineering Assistant

Bass Enterprises Prod. Co.

January 7, 1981

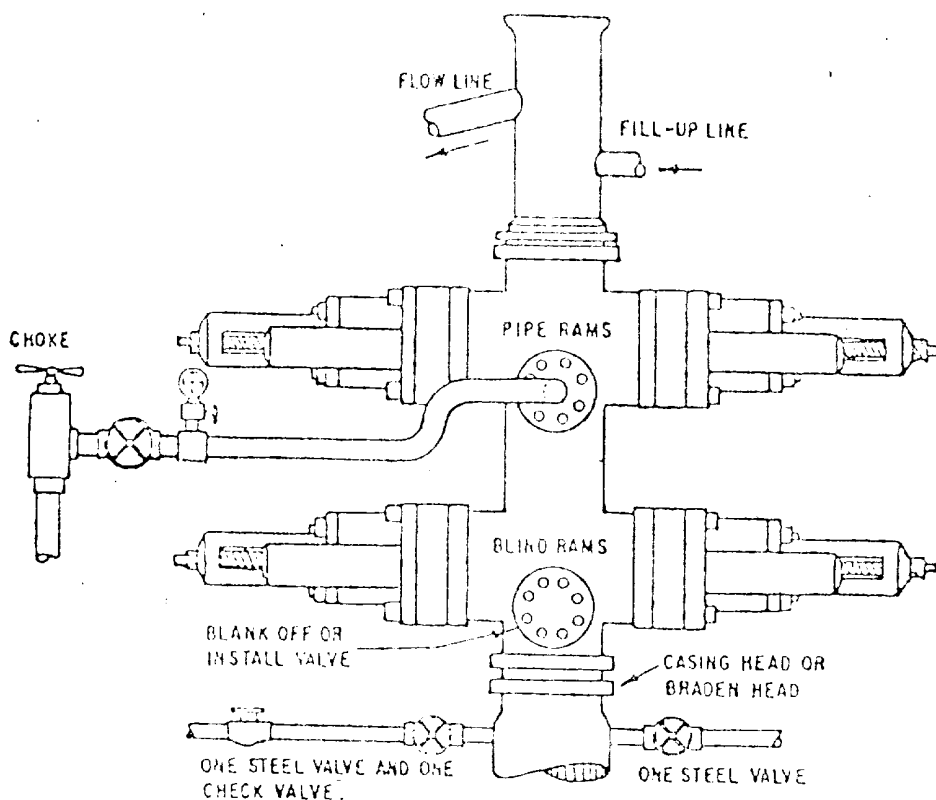
I hereby certify that the well location shown on this plat is plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Oct. 25, 1980

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

John W. West

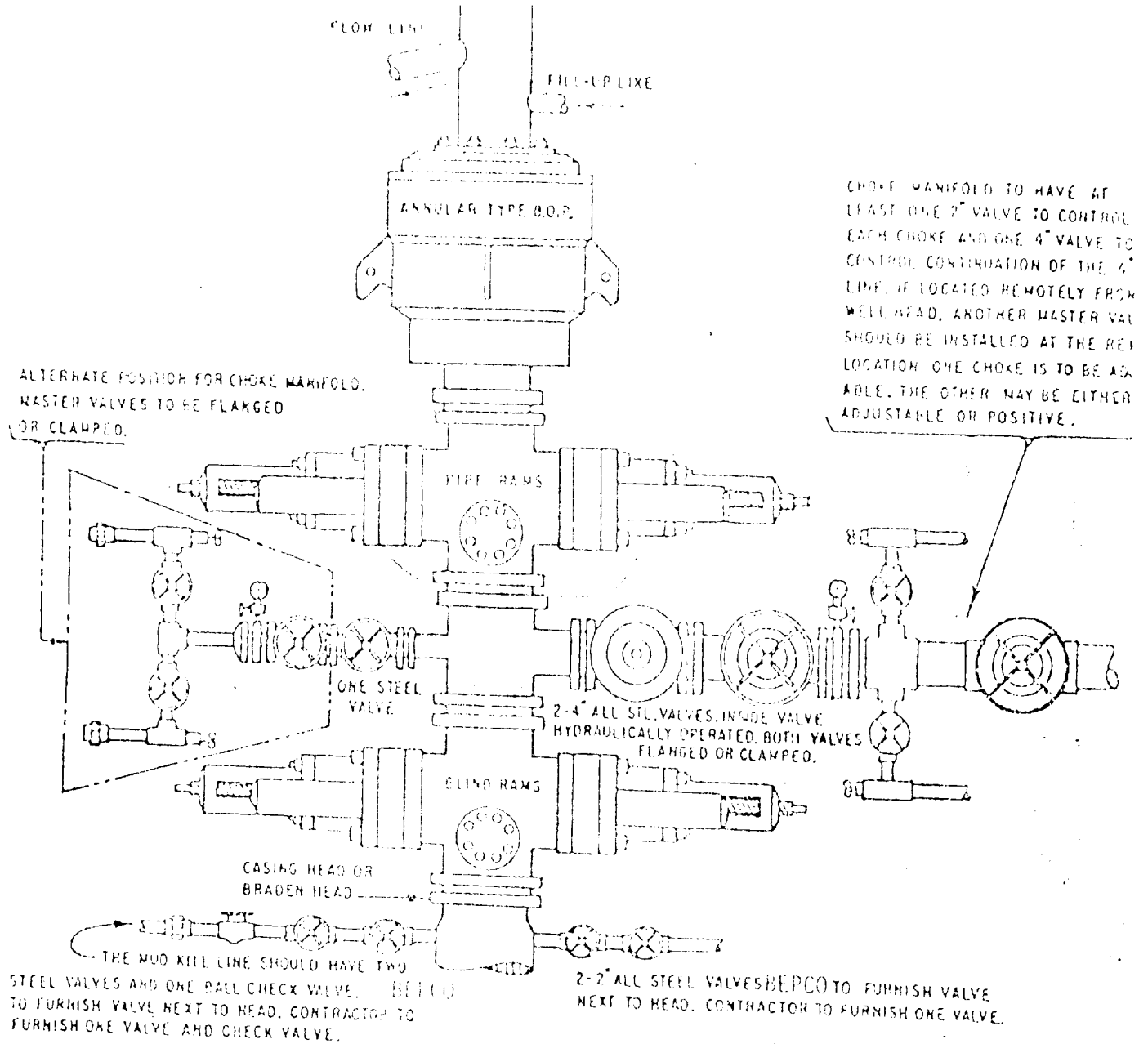
Certificate No. **JOHN W. WEST 878**
PATRICIA A. ROMERO 8385
Donald J. Eidegn 3239



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. ONE DOUBLE GATE BLOWOUT PREVENTER WITH LOWER RAMS BLIND AND UPPER RAMS FOR PIPE, ALL HYDRAULICALLY CONTROLLED. OPENING ON PREVENTERS BETWEEN RAMS.
- B. OPENING TO BE FLANGED, STUDDED OR CLAMPED AND AT LEAST TWO INCHES DIAMETER.
- C. ALL CONNECTIONS FROM OPERATING MANIFOLD TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.
- D. THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE PREVENTERS.
- E. ALL CONNECTIONS TO AND FROM PREVENTERS TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.
- F. MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING CEMENT PLUG.
- G. VALVE TO CONTROL FLOW THROUGH DRILL PIPE TO BE LOCATED ON RIG FLOOR.
- H. CHOKE MAY BE EITHER POSITIVE OR ADJUSTABLE. Choke spool may be used between rams.

BEPCO II
ONE HYDRAULIC DUAL BLOWOUT PREVENTER



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. CONDITIONS MAY BE MET BY AN ANNULAR TYPE BLOWOUT PREVENTER ON TOP AND A CHOKER SPOOL BELOW AND EITHER
 - (1) TWO RAM TYPE BLOWOUT PREVENTERS BELOW THE SPOOL, THE LOWER UNIT CONTAINING BLIND RAMS AND THE UPPER UNIT CONTAINING PIPE RAMS, OR
 - (2) A DUAL BLOWOUT PREVENTER BELOW THE SPOOL WITH BLIND RAMS ON BOTTOM AND PIPE RAMS ON TOP.
- B. OPENING ON CHOKER SPOOL TO BE FLANGED, STUDDED OR CLAMPED.
- C. ALL CONNECTIONS FROM OPERATING MANIFOLDS TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.
- D. THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE B.O.P.'S.
- E. ALL CONNECTIONS TO AND FROM PREVENTER TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.'S.
- F. MANUAL CONTROLS TO BE INSTALLED BEFORE GRILLING CEMENT PLUG.
- G. KELLY COCK TO BE INSTALLED ON KELLY.
- H. INSIDE BLOWOUT PREVENTER TO BE AVAILABLE ON RIG FLOOR.
- I. DUAL OPERATING CONTROLS ONE LOCATED BY DRILLERS POSITION AND THE OTHER LOCATED A SAFE DISTANCE FROM THE RIG FLOOR.

BEP CO IV

THREE CLOSURE HYDRAULIC BLOWOUT PREVENTERS

CASING DESIGN

BIG EDDY UNIT # 86

SURFACE CASING

<u>Segment</u>	<u>Size</u>	<u>Grade</u>	<u>Weight</u>	<u>Top</u>	<u>Bottom</u>	<u>Length</u>
1	11-3/4"	H-40	42	1000'+ <u>±</u>	0	1000'+ <u>±</u>

INTERMEDIATE CASING

<u>Segment</u>	<u>Size</u>	<u>Grade</u>	<u>Weight</u>	<u>Top</u>	<u>Bottom</u>	<u>Length</u>
1	8-5/8"	K-55	32	2715'+ <u>±</u>	3100'+ <u>±</u>	520'+ <u>±</u>
2	8-5/8"	S-80	28	0'	2580'+ <u>±</u>	2580'+ <u>±</u>

PRODUCTION CASING

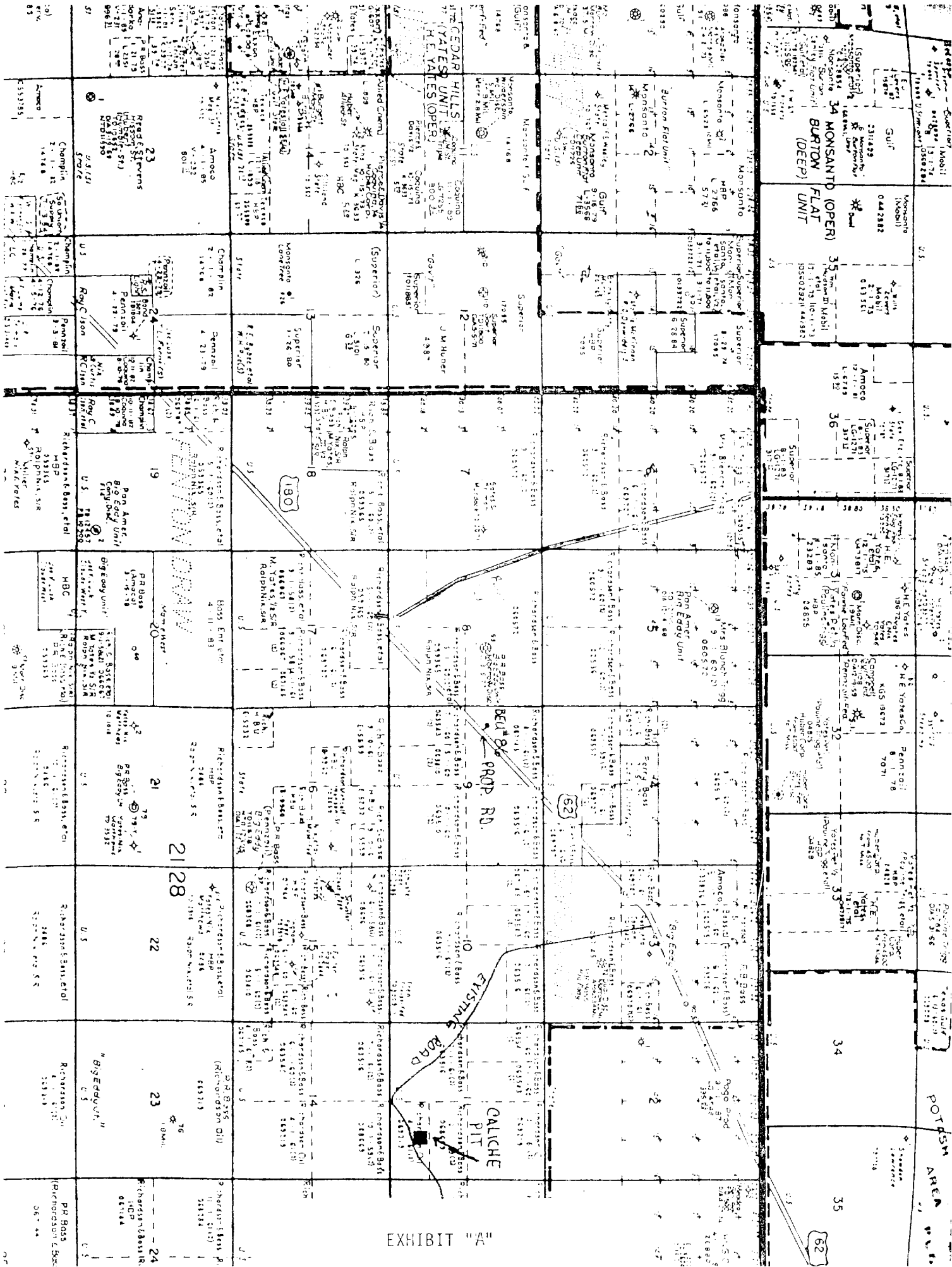
<u>Segment</u>	<u>Size</u>	<u>Grade</u>	<u>Weight</u>	<u>Top</u>	<u>Bottom</u>	<u>Length</u>
1	5-1/2"	S-95	17	9970'+ <u>±</u>	12200'+ <u>±</u>	2230'+ <u>±</u>
2	5-1/2"	N-80	17	0'	9970'+ <u>±</u>	9970'+ <u>±</u>

BIG EDDY UNIT # 86

Anticipated Formation Tops

T/Capitan Reef	1200'	+2000'
T/Delaware	3100'	+100'
T/Cherry Canyon	3750'	-550'
T/Bone Springs	5800'	-2600'
T/Wolfcamp	9600'	-6400'
T/Strawn	10,500'	-7300'
T/Atoka	10,800'	-7600'
T/M. Morrow	11,550'	-8350'
T/L. Morrow	11,850'	-8650'
T/Barnett	12,100'	-8900'

Stephen Smith
Stephen Smith



T-21-S R-28-E
Eddy County, New Mexico

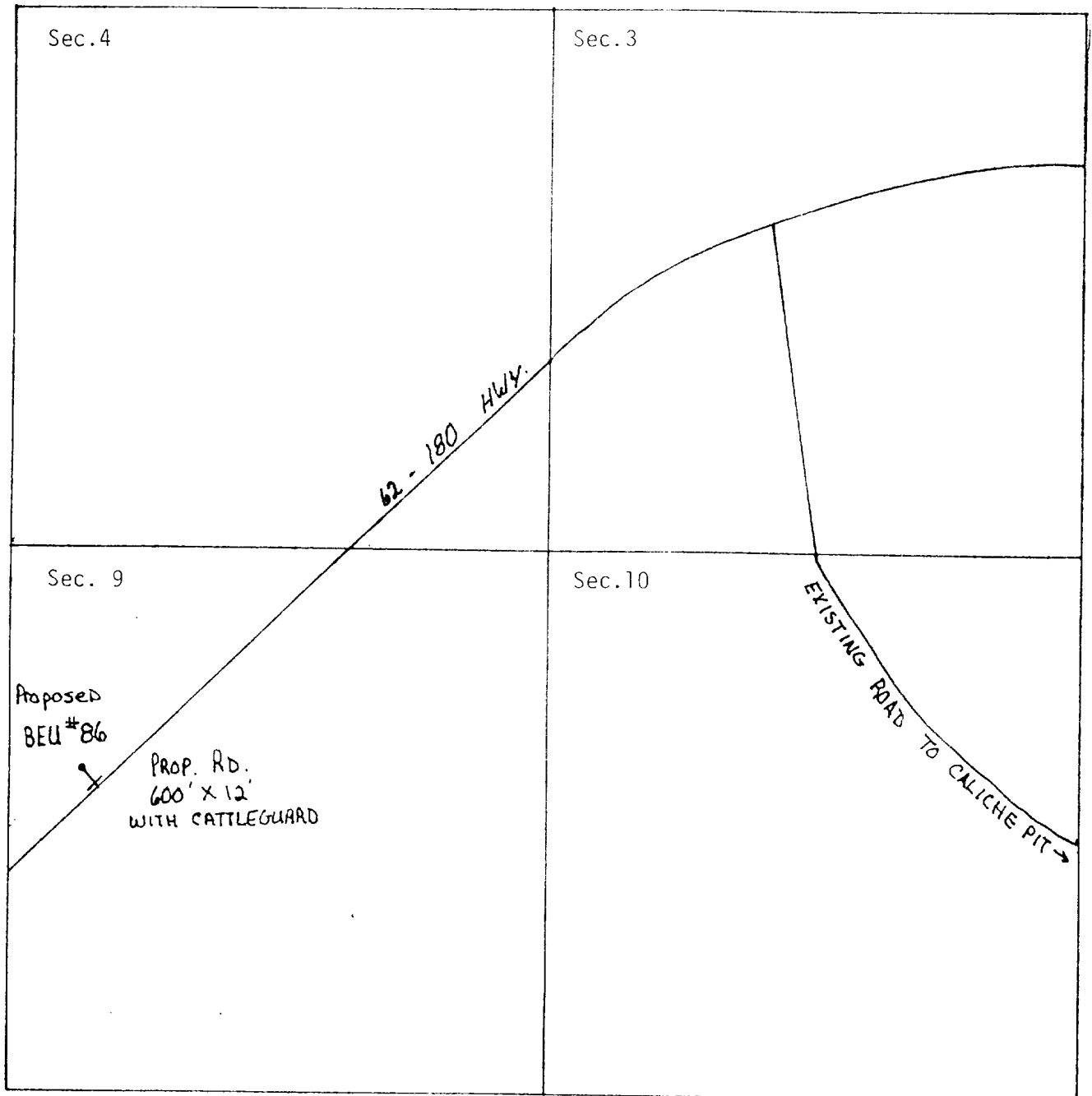


EXHIBIT "B"

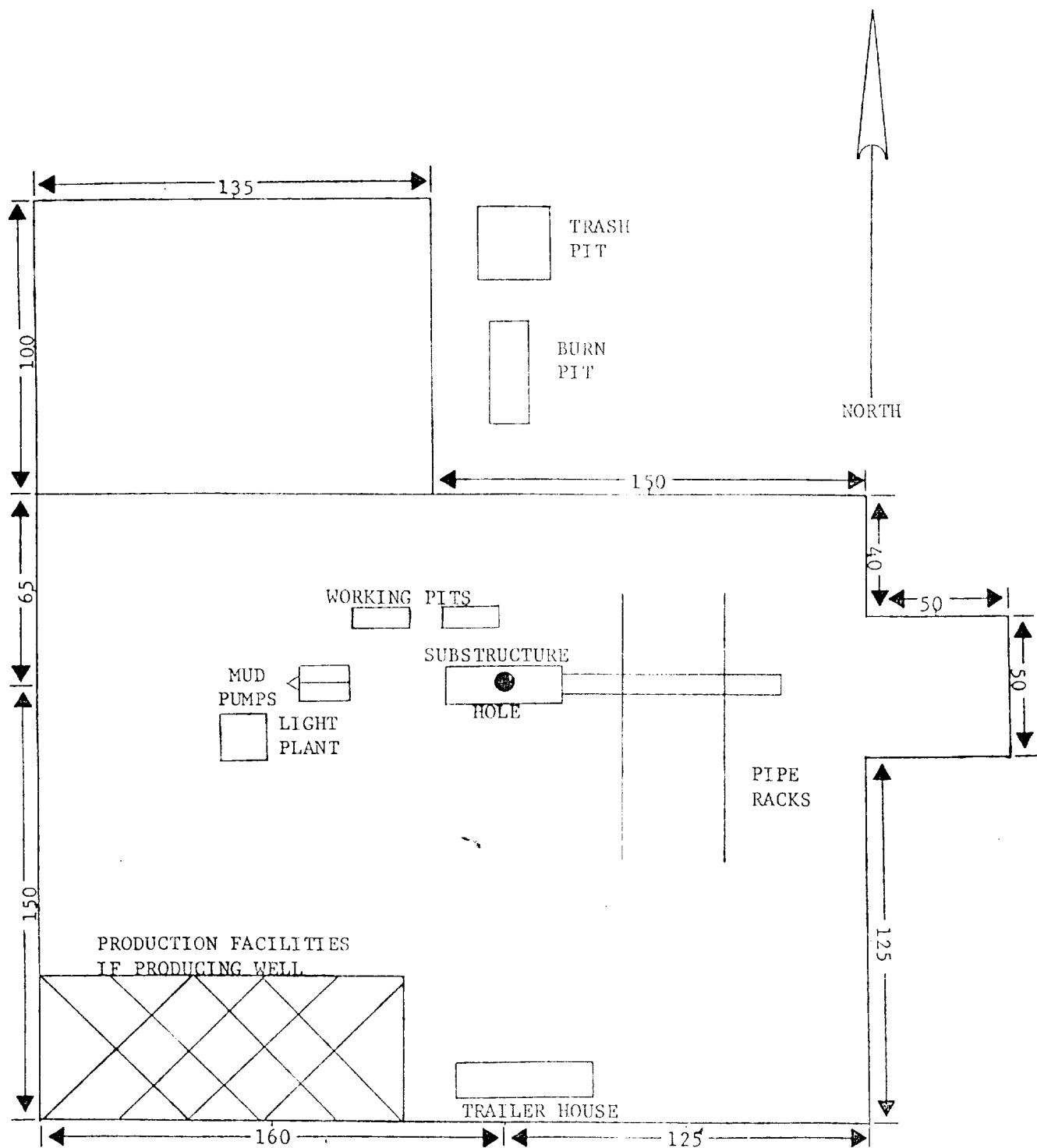


EXHIBIT "C"

DRILLING PROCEDURE

Big Eddy Unit # 86

Location:

660' FWL & 1980' FNL, Sec. 9, T21S, R28E

Conductor Casing:

40' + of 16" conductor casing will be set with a rathole machine and cemented to the surface with ready mix.

Surface Hole:

A 15" O. H. will be drilled to 1000' + and 11-5/4" 42#/ft H-40 casing run to total depth. The surface casing will be cemented with 290 sx Class "C" plus 2% CaCl_2 . Cement must be circulated to the surface.

Total WOC time is 24 hours.

Nippling Up 11-3/4" Casing:

After waiting 4 hours "nipping up" procedures may begin. An 11-3/4" SW 3000# WP x 12" 3000# WP casinghead will be welded in place. A set of hydraulic operated pipe and blind rams will then be installed. (See BEPCO II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily driller's log.

Intermediate Hole:

An 11" O.H. will then be drilled to 3100' (T/Delaware Mtn. Group) 8-5/8" casing will be run to total depth and cemented with approximately 1000 sks Halliburton Lite plus 18# NaCl/sx plus 1/4#/sx flocel, plus 1% CaCl_2 "tailed in" with 350 sx Class "C" with 2% CaCl_2 plus 1/4#/sx flocel. Cement will be circulated to the surface.

A DV tool will be installed at approximately 1100' (100' into Capitan Reef) and the cement two staged.

Total WOC time for this casing string will be 24 hours.

Nippling Up 8-5/8" Casing:

After waiting 4 hours "nipping up" procedures may begin. The 11-3/4" casinghead will be removed and a 8-5/8" SW 5000# WP x 10" 5000# WP casinghead installed.

A BOP stack consisting of hydril, pipe rams and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hydrostatically tested to 5000 psi (hydril 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 8-5/8" BOP stack. A copy of the test results will also be furnished to the USGS.

The results of this test will be recorded in the daily driller's log.

Production Hole:

A 7-7/8" O.H. will then be drilled to T.D. (12200' +). A PVT recorder, flow-show sensor and rotating head will be installed before drilling the

5 1/2" casing will be run to T.D. This casing string will be cemented with approx. 900 sx Class "H" plus 5# KCl/sx plus 0.3% CRR-2, plus 0.6% Halad 22. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time:

This well is estimated to take 47 days to complete.

DRILLING PROCEDURE

Mud Program

<u>Interval</u>	<u>Type</u>	<u>Wt. (approx.)</u>	<u>Vis.</u>	<u>Wtr. loss (cc)</u>
0-1000'	Fresh wtr.	8.4-8.8	34-40	NC
1000-3100'	Brine wtr.	10.0	28-30	NC
3100-9600'	Fresh wtr.	8.4-8.8	28-30	NC
9600-10500'	Brine wtr.	10.0	28-32	NC
10500-10800'	Brine wtr.	10.3	28-32	NC
10800-12200'	Brine wtr w/barite	10.3-11.5	34-40	10-20

Evaluation

- (1) GR-CNL-FDC-CAL from T.D. to intermediate casing.
- (2) GR-DLL-MSFL from T.D. to intermediate casing.

Abnormal Pressures

Abnormal pressure is expected in the Atoka interval from 10800' to 11500'.

BASS ENTERPRISES PRODUCTION CO
DIVISION EXPLORATION AND PRODUCTION OFFICES
P. O. BOX 2760
MILLLAND, TEXAS 79702

800 VAUGHN BUILDING
(915) 684-5723

January 6, 1981

RECEIVED

JAN 28 1981

U. S. Geological Survey
P. O. Drawer "U"
Artesia, New Mexico

U.S. GEOLOGICAL SURVEY
ARTEZIA OFFICE

JAN 28 1981
U.S. GEOLOGICAL SURVEY
ARTEZIA OFFICE

Attention: Mr. Peter Chester

Re: Big Eddy Unit # 86
Eddy County, New Mexico
File: 400-WF

Dear Mr. Chester:

Attached are our applications (5 copies) to drill the subject well with complete Drilling Prognosis, Development Plan and Multipoint Surface Use and Operations Plan.

Please be advised that an archeological survey of this location will be done by New Mexico Archeological Services, Inc., Carlsbad, New Mexico, and they will forward a report to your office.

Feel free to contract myself or L. M. Cure at the letterhead address if any additional information is required.

Very truly yours,

PERRY R. BASS


J. E. Pullig
Division Manager

JEP/SDS:bnw

Attachments

1-1-81