Form 9-331 C
(May 1963)

N. M. O. C. C. COPY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-22682

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC 067144

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL X DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL: OIL WELL ☐ GAS WELL X OTHER — SINGLE ZONE X MULTIPLE ZONE ☐

7. UNIT AGREEMENT NAME: Big Eddy Unit

8. FARM OR LEASE NAME: Big Eddy Unit

2. NAME OF OPERATOR: Perry R. Bass

9. WELL NO.: 66

3. ADDRESS OF OPERATOR: P. O. Box 2760, Midland, Texas 79702

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O. C. C.
ARTESIA, OFFICE

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2130' FWL, 1980' FSL, Sec 25, T21S, R28E Eddy County, New Mexico
At proposed prod. zone: same as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 25, T21S, R28E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles east of Carlsbad, New Mexico

12. COUNTY OR PARISH: Eddy Co. | 13. STATE: New Mex.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE: 1,250

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.

19. PROPOSED DEPTH: 13,000'

20. ROTARY OR CABLE TOOLS: rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3214.7' GL

22. APPROX. DATE WORK WILL START*: upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FT.	SETTING DEPTH	QUANTITY OF CEMENT
15"	11-3/4"	42	400	290 sx
11"	8-5/8"	24 & 28	2733	925 sx
7-7/8"	5-1/2"	17	TD	1100 sx

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

~~"AMENDED LOCATION"~~

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ARTESIA, NEW MEXICO

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 Gene Young TITLE Engineer Assistant DATE 8-24-78

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NMOCC COPY

United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210

September 1, 1978

Perry R. Bass Big Eddy Unit Well No. 66 1980 FSL 2130 FWL Sec. 25, T21S, R28E Eddy County Lease No. LC-067144
Above Data Required on Well Sign

Perry R. Bass
P. O. Box 2760
Midland, Texas 79702

Gentlemen:

Your Amended APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 13,000 feet to penetrate the Barnett formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.

2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the attached General Requirements.

3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should be not less than 8" x 5" in size and each page should identify the well.

4. All above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate sandstone brown (Federal Standard Color No. 595A, color 20318 or 30318).

5. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

6. A kelly cock will be installed and maintained in operable conditions.

7. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

   (1) A recording pit level indicator to determine pit volume gains and losses.

   (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.

   (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.

Sincerely yours,

(ORIG. SGD.) ALBERT R. STALL
Albert R. Stall
Acting District Engineer

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Unit

Morrow | Wildcat | 320

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 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.

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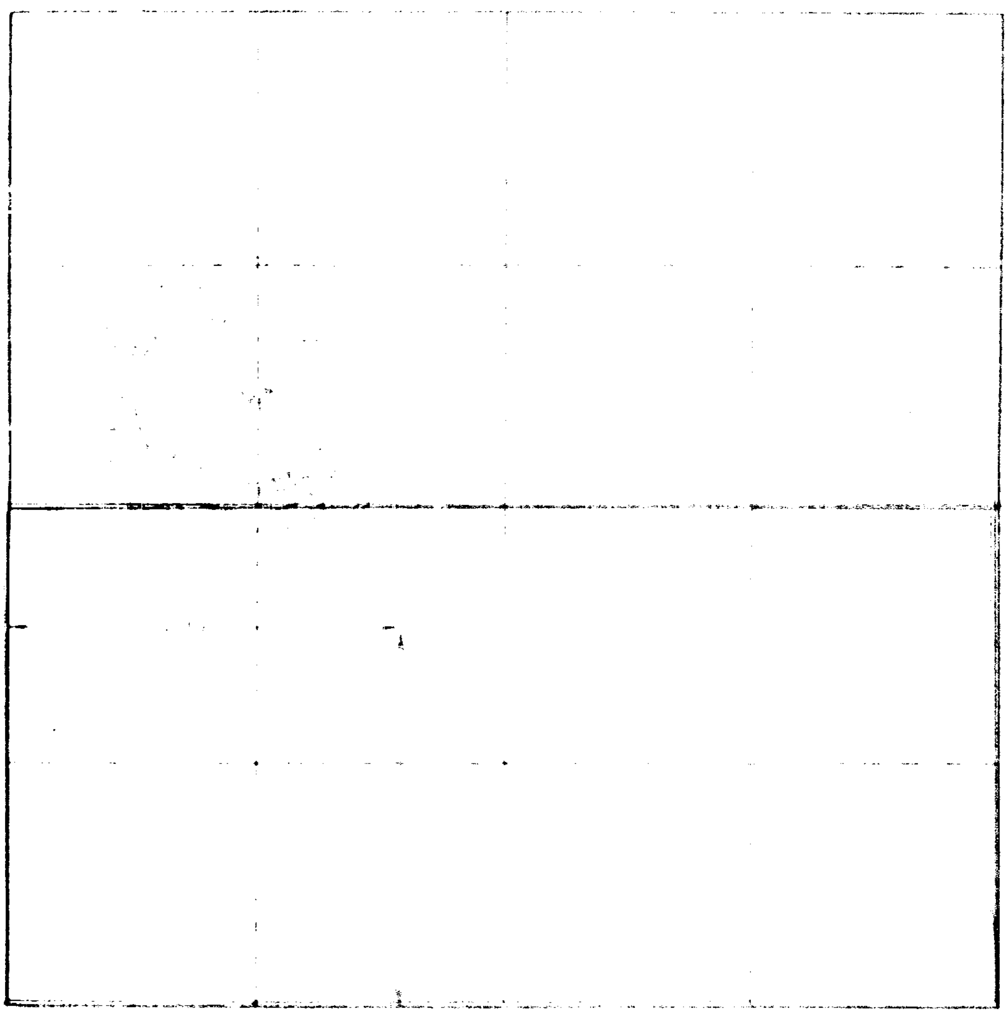
ARTESIA, NEW MEXICO



CERTIFICATION

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

Gene Young
Name
GENE Young
Position
ENGINEER ASSISTANT
Company
BASS Enterprises Pro. Co.
Date
24 August 1978

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
August 15, 1978

Registered Professional Engineer and/or Land Surveyor

John W West

Certificate No. John W. West 676
Ronald J. Eidson 3239

August 2, 1978

Drilling Procedures
Big Eddy Unit # 66

Location: 1980' FS~~&WL~~ 2130 W Sec. 25, T21S, R28E, Eddy County, New Mexico

Conductor Pipe: 16" Conductor will be set at 40' ± with rathole machine and cemented to the bottom of the cellar with ready-mix.

Surface Casing: A 15" hole will be drilled to 400' with fresh water gel spudmud, 8.5 ppg, 40-50 viscosity. Loss circulation material will be used if needed. It may be necessary to dry drill. The casing will be 11 3/4", 42#/ft, H-40, ST&C run with guide shoe, insert float and three centralizers. The casing is to be cemented to surface with 290 sk. Class "C" + 2% Ca Cl_2, 14.8 ppg, 1.32 ft^3/sk, 100% excess.

Nipple up: The casing head will be an 11 3/4" SW X 12", 3000# WP Flange. Minimum BOPE is 2 hydraulic operated rams 10", 3000 WP, BEPCO II (attached) Pressure test stack, choke manifold and surface casing to 1000 psi before drilling out.

Intermediate Casing: An 11" hole will be drilled to ± 2740' (T/Delaware) with 10 ppg brine water with a 9 + ph. Viscosity should be maintained between 34-37 sec. with salt gel. Loss circulation may occur around 1000' to 2740'. If loss circulation occurs ground paper may be added as needed. Gross losses generally result in dry drilling. A caliper survey should be run to determine the required cement volume.

8 5/8" casing design for 2740'

0 -40'	28#/ft	S-80	ST&C
40'-2580'	24#/ft	K-55	ST&C
2580'-2740'	28#/ft	S-80	ST&C

The casing will be run with dual float equipment and centralizers on bottom 3 jts. The casing will be cemented in two stages as follows:

(1) A DV tool set at 800'± with 2 centralizers and 2 cement baskets below DV tool.
(2) Cement 1st stage with approximately 475 sx Halco Lite with 2% Ca Cl_2, 1/4#/sk Flocele, "tailed in" with 200 sx Class "C" with 2% Ca Cl_2. (WOC 4 hours).
(3) Cement 2nd stage with approximately 150 sx Halco Lite with 2% Ca Cl_2 and 1/4#/sk Flocele, "tailed in" with 100 sx Class "C" plus 2% Ca Cl_2.

Nipple Up: The BOP's should be removed and the 11-3/4" head cut off and removed. An 8-5/8", 5000# WP, SW x 10", 5000# WP flanged RJT casing spool should be welded on the 8-5/8" cut-off. The 8-5/8" above the 11-3/4" cut-off should be as short as possible. Cement should stand to the top of the 11-3/4" cut-off. A few sacks of cement from the 8-5/8" cement job should be left on the ground and used to grout between the 8-5/8" and 11-3/4" if the BOP stack is unstable. Nipple up the BOP's as per BEPCO drawing IV (attached).

BOP's and choke manifold should be hydrostatically tested to 5000 psi. Before drilling cement plug test 8 5/8" casing to 2000 psi and after drilling cement plug and 5' of new hole test casing seat to 600 psi (equivalent 11.6#/gal)

Production Casing: Drill a 7 7/8" hole from 2740' ± to 13000' ± . The drilling fluid will be a fresh water lime system (ph9) from 3200' ± to 9600'. (T/Wolfcamp) From 9600' to 11,200' (T/Atoka) the drilling fluid should be a 10#/gal brine plus 3% kcl with lime system. (ph9) From 11,200' to T.D. an 11.4#/gal brine-Drispac 3% kcl system with ph9, water loss 10cc or less, and viscosity of 38-40 should be used.

A mud gas separator and rotating head should be installed before reaching 9600'.

Evaluation: At the top of the Bone Springs (Approx. 6333') BHC and Dual Induction W/Rxo logs may be run.(Through Delaware Sands) Sidewall cores may also be taken in this interval.

After reaching T.D., CNL & FDG Dual laterologs W/Rxo will be run from T.D. to the top of the Bone Springs.

All shows may be drill stem tested. (Approximately 4 DSTS)

Production Casing: The 5½" casing will be run with a float shoe and float collar. The casing will be centralized and ruff-coated through potential pay zones. The cement volume should be calculated from a caliper log to return cement 1000' above the top of the Wolfcamp, or to about 8700'. The cement volume will be about 1100 sk 50-50 pozmix Class "H" - 2% gel plus 0.5% CFR-2 plus 0.8% Halad 22 plus 6 lbs/sk kcl. (14.6# ppg, 1.32 Ft^3/sk)

Production Casing 5½"

0 - 2750'	2750'	17#/Ft	N-80	LT&C
2750'- 5980'	3230'	17#/Ft	K-55	LT&C
5980'- 10370'	4390'	17#/Ft	N-80	LT&C
10,370'- 12,750'	2380'	17#/Ft	S-95	LT&C

Nippling up: The tubing head will be 10" 5000# WP X 6" 5000# WP. The rig will be moved off after the tubing head is installed.

Time: This well is estimated to take 53 days.

AMENDED LOCATION

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Big Eddy Unit No. 66

2130' FWL, 1980' FSL

Sec 25, T21S, R28E

Eddy County, New Mexico

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction, activities, and operations plan, the magnitude of necessary surface disturbance involved, and the procedure to rehabilitate the surface after completion of operations so that an appraisal can be made on environmental effects.

1. Existing roads including location of exit from main highway. Exhibit "A" is a portion of a map showing existing road. Existing road is obtained by traveling approx 2-1/2 miles NE of Carlsbad and turning right at the Sheriff's Posse Roping Arena. The existing road is approx 8 miles down this road.

2. Planned access road (Width, maximum grade, turnout, drainage design, location & size of culverts & surfacing material, where fences will be cut, & where gates or cattleguard will be used.) Exhibit "B" is a drawing showing planned access road to BEU No. 66. The road will be 12' wide and approx 200' long. The road will be constructed of watered and compacted caliche with no turnouts, cattleguards, gates or culverts.

3. Location of existing wells. Exhibit "A" shows surrounding existing wells.

4. Location of tank battery and flow lines. If a commercial well is obtained, production facilities will be located on the well pad. Refer to Exhibit "C".

5. Location and type of water supply: Fresh water will be hauled from the city of Carlsbad. Brine water will be hauled from Champion Brine Water Station, 3-1/2 miles east and 2-1/2 miles south of Carlsbad.

6. Source of construction material: Exhibit "A" shows approx location of caliche source.

7. Methods of handling waste disposal:

   A. Drill cuttings will be disposed of in the drilling pits.

   B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

   C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

   D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

   E. Trash, paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste materials will be contained to prevent scattering by the wind. Location of trash pit is shown in Exhibit "C"

   F. Trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations. (Note: All trash left on well site to be removed or buried within 30 days must be contained to prevent scattering.)

8. Ancillary facilities: none required

9. Well site layout: Exhibit "C' shows the approx dimensions of the well pad and reserve pit, as well as the relative location of major rig components, trash pit, etc. Only minor levelling of the well site will be required. No significant cuts or fills will be necessary. The reserve pit will be lined with plastic. The pit and pad area have been staked and flagged.

10. Plans for restoration of surface:

A. Producing well - all pits will be cut, filled, and leveled as soon as practical to original conditions with rehabilitation to commence following removal of drilling and completion equipment.

B. Dry hole - same as above with dry hole marker to be installed and surface reseeded if required. At the time of final abandonment, both USGS and BLM restoration stipulations will be complied with.

11. Other information:

A. Terrain relatively flat

B. Soil sandy

C. Vegetation sparse, primarily mesquite, with very little grass

D. Surface use grazing

E. Surface water none

F. Water wells There is a windmill approx 1/2 mile southwest of location

G. Residences and buildings none

H. Surface ownership The well site and access road are on federal land.

I. Well signs posted at each drilling site.

J. Open pits - all pits containing liquid or mud will be fenced.

K. Archaeological resources none observed

12. Operator's representative
(Field personnel responsible for compliance with development plan for surface use)

DRILLING
MIKE CURE
Box 2760
Midland, Texas 79702
915-684-5723

PRODUCTION
Al Gallas
Box 1043
Kermit, Texas 79745
915-563-0656
(or) Alan Roberts
Box 2760
Midland, Texas 79702
915-684-5723

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Bass Enterprises Production Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

August 24, 1978
(Date)

Gene Young
Gene Young (Name)

Engineer Assistant
(Title)

CEB:gp

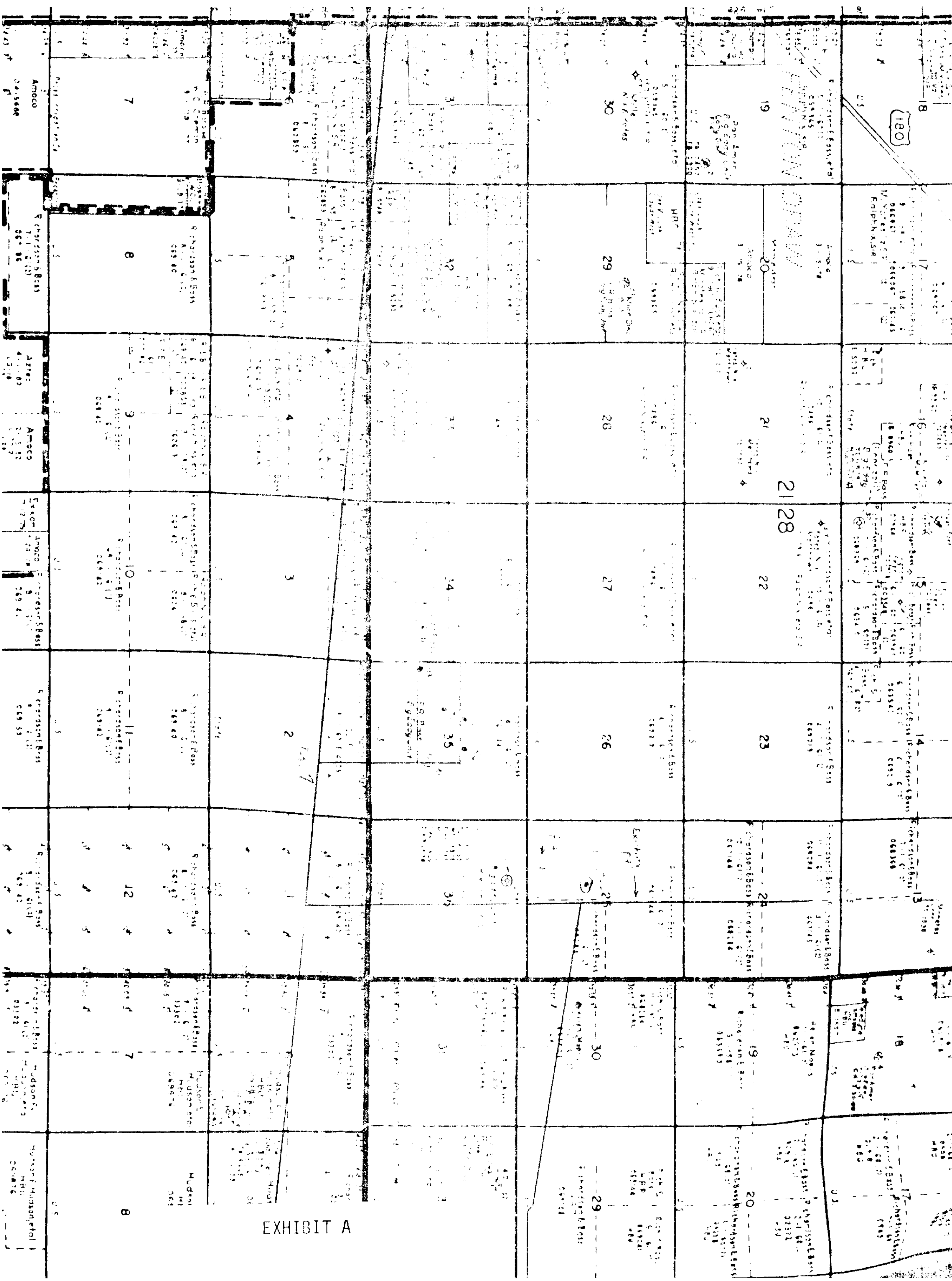


EXHIBIT A

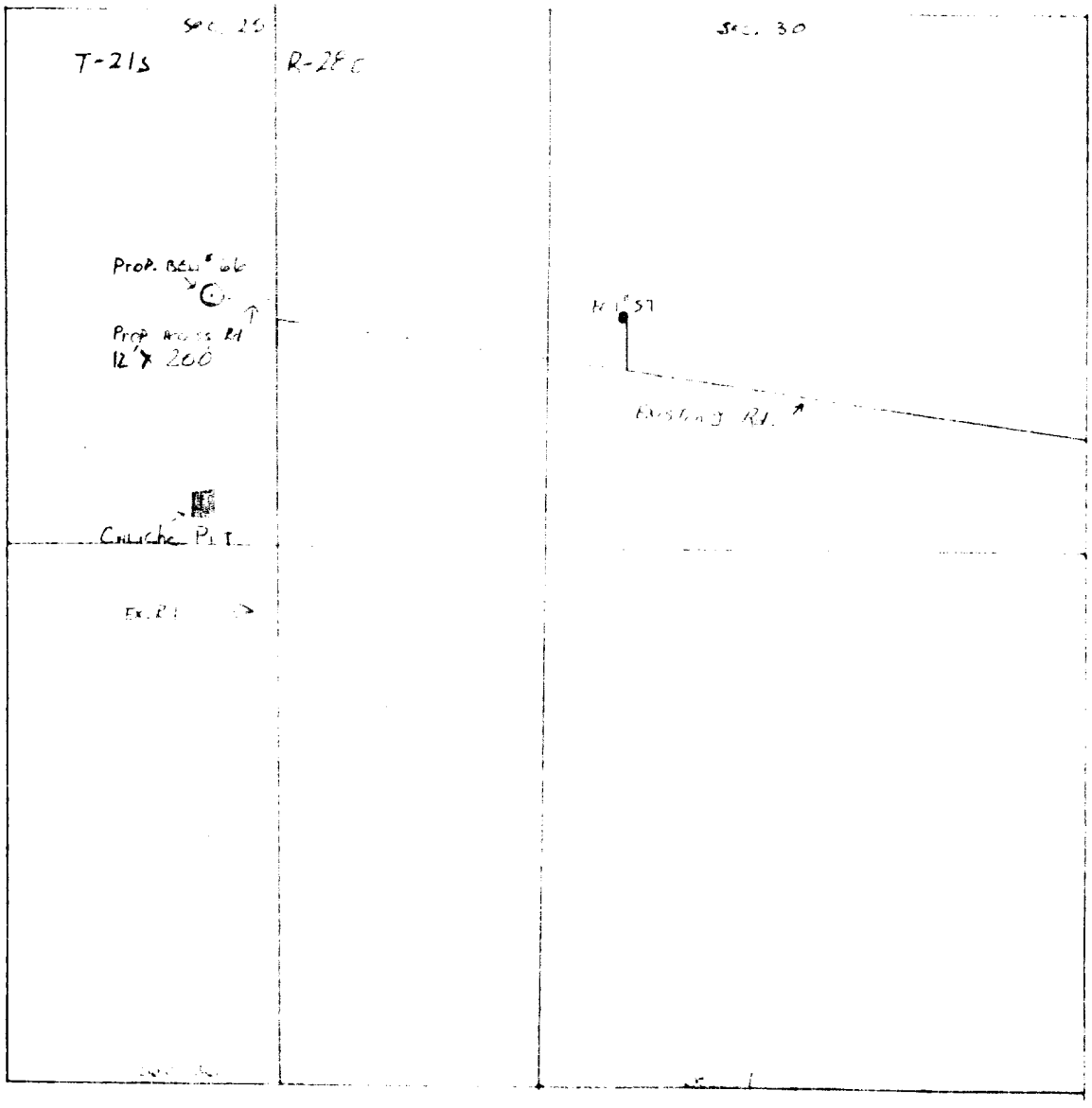

Sec. 29
T-21S
R-28E
Prop. Bell #66
Prop. Access Rd
12' x 200
Caliche Pit
Ex. Rd
Sec. 30
#57
Existing Rd.

EXHIBIT B

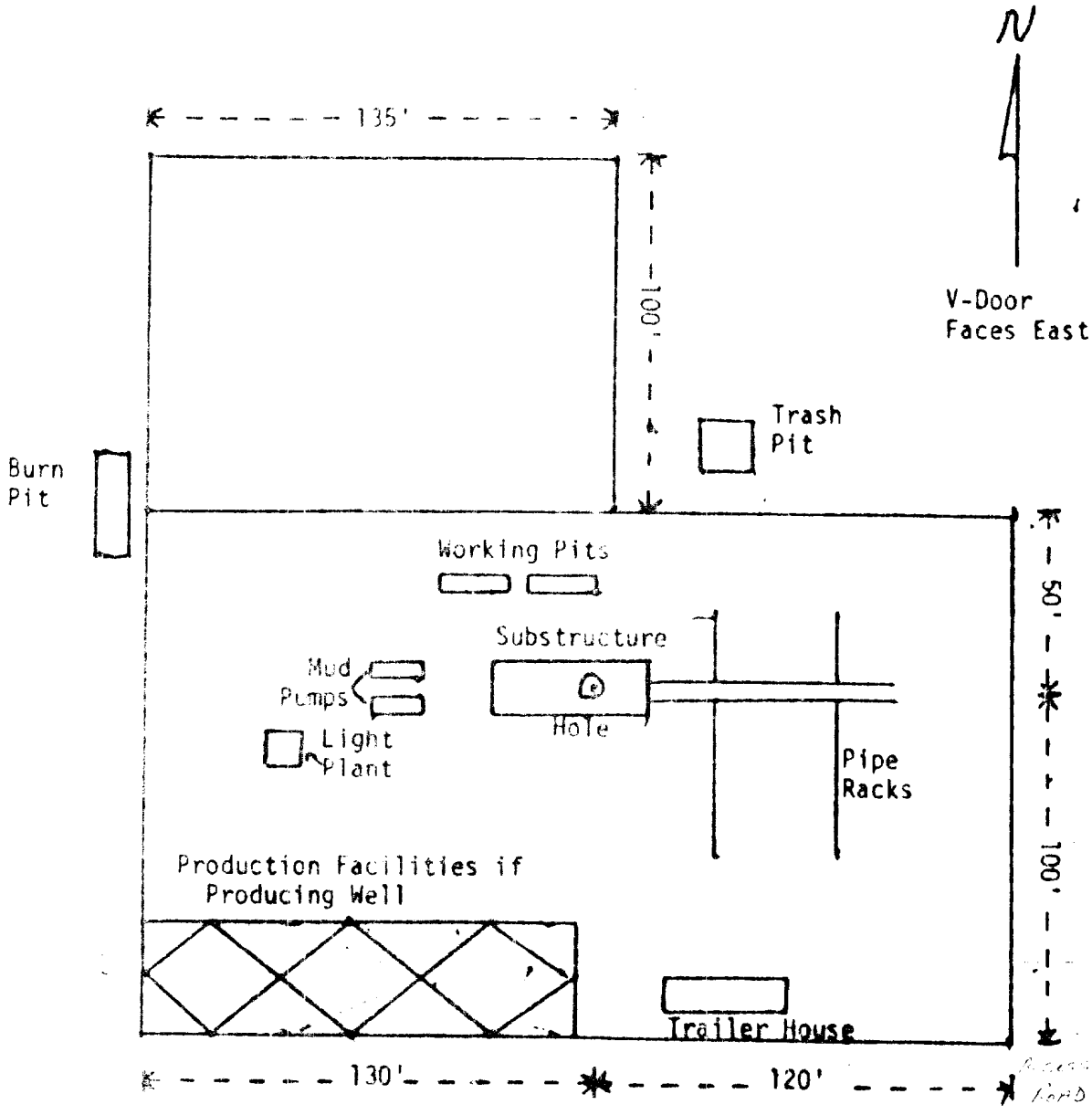
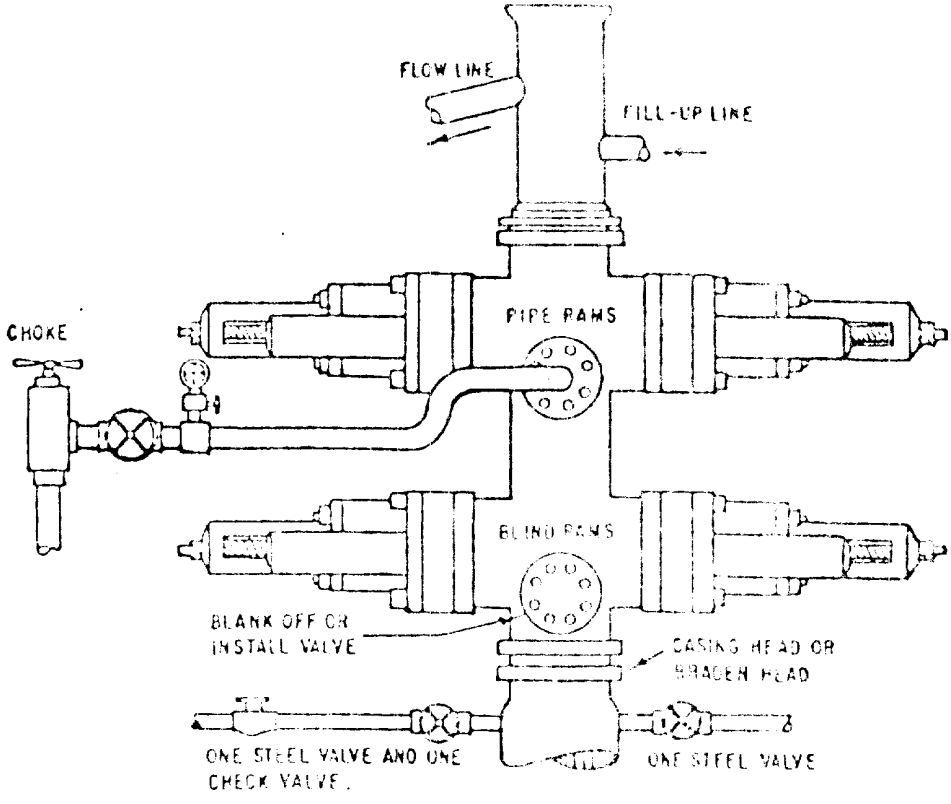

N
135'
100'
V-Door
Faces East
Trash
Pit
Burn
Pit
Working Pits
Substructure
Mud
Pumps
Hole
Light
Plant
Pipe
Racks
50'
100'
Production Facilities if
Producing Well
Trailer House
130'
120'

EXHIBIT "C"



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.'s.

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

BOP STACKING CONSTITUTES MINIMUM BLOWOUT PREVENTER REQUIREMENTS

BIG EDDY UNIT NO. 66
ANTICIPATED FORMATION TOPS

T/Salt	483'	(+2750)
B/Salt	2433'	(+ 800)
T/Delaware Mtn. Gp.	2733'	(+ 500)
T/Bone Spring	6333'	(-3100)
T/Wolfcamp	9700'	(-6467)
T/Strawn	11043'	(-7810)
T/Atoka	11350'	(-8117)
T/Middle Morrow	12220'	(-8987)
T/Lower Morrow	12563'	(-9330)
T/Barnett	12750'	(-9517)