

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NEW OIL CONS. COMB. CO.  
Draper, UT  
Artesia, NM 88210

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  
Phillips Petroleum Company

3. ADDRESS OF OPERATOR  
4001 Penbrook Street, Odessa, Texas 79762

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
At surface: Unit N, 1980 FWL 660 FSL  
At proposed prod. zone:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
22 miles East of Carlsbad, NM

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.  
1280'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3326' Unprepared

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	475'	800 sxs Class "C" Surface
12-1/4"	8-5/8"	24#	3700' 1500'	sxs CL "C" Tail 200 sx CL "C" S
7-7/8"	5-1/2"	15.5# (see steps)	7700'	1st stage 400 Class "C" Neat
		DV @ 6000'		2nd stage 200 sxs CL "C" Diacel D-Le
				Tail 400 sxs CL "C" Neat

BOP EQUIPMENT FIGURE 7-9 or 7-10 (see attached schematic)

Post ID-1  
3-13-92  
New Doc + APE

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: [Signature] TITLE Supervisor Reg/Proration (DATE) 2-3-92 (915) 368-1488  
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY: [Signature] TITLE DATE 3-2-92

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

\*See Instructions On Reverse Side

ATTACHED C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>PHILLIPS PETROLEUM</b>			Lease <b>LIVINGSTON RIDGE</b>		Well No. <b># 5</b>
Unit Letter <b>N</b>	Section <b>I</b>	Township <b>22-SOUTH</b>	Range <b>30-EAST</b>	County <b>EDDY</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>SOUTH</b> line and <b>1980</b> feet from the <b>WEST</b> line					
Ground level Elev. <b>3326'</b>		Producing Formation <b>DELAWARE</b>		Pool <b>CABIN LAKE (DELAWARE)</b>	
				Dedicated Acreage: <b>40</b> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or inchmark 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 interest 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, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

OPERATOR CERTIFICATION

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

Signature *[Signature]*  
Printed Name **L. M. Sanders**  
Position **Supv., Reg/Proration**  
Company **Phillips Petroleum Co.**  
Date **1-31-92**

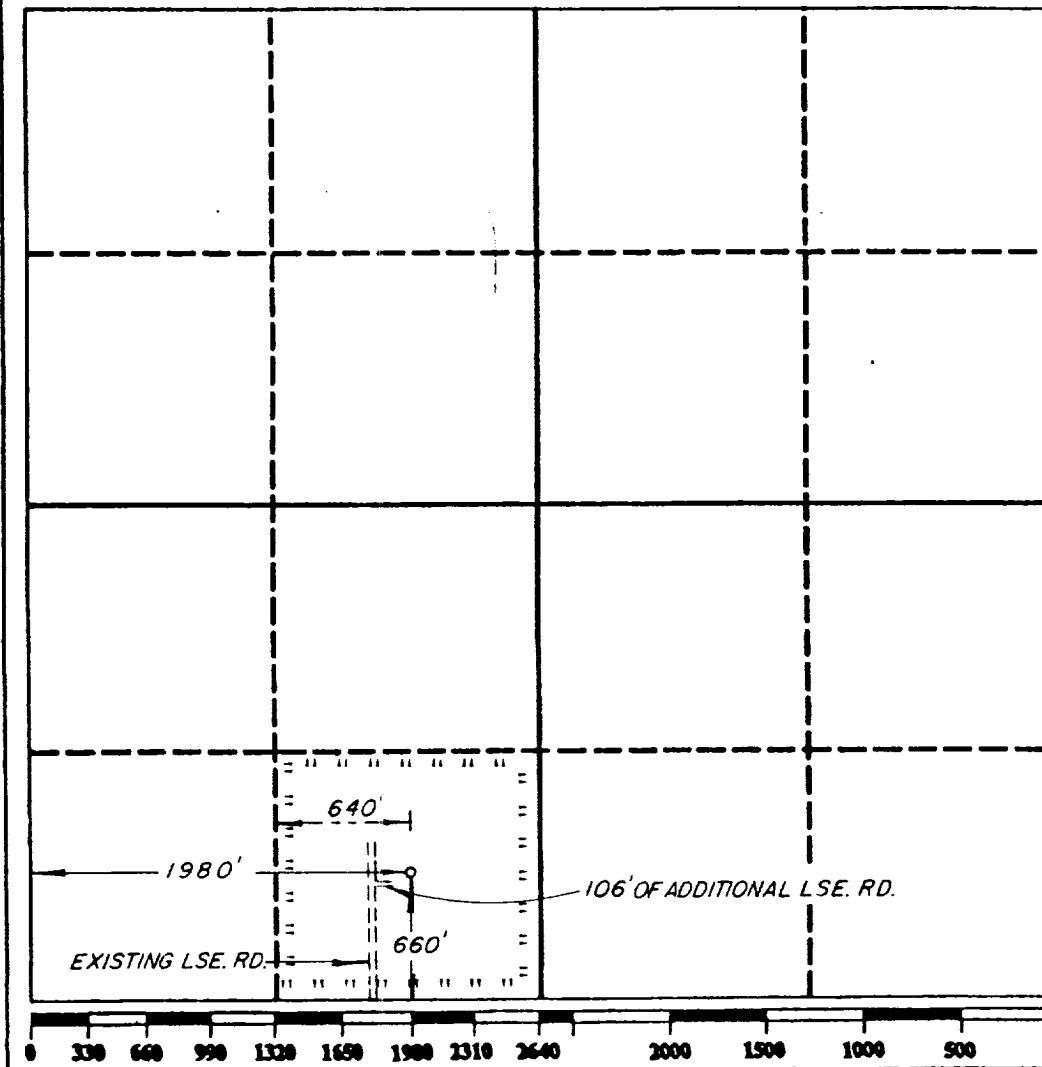
SURVEYOR CERTIFICATION

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  
**October 24, 1991**

Signature & Seal of  
Professional Surveyor

*[Signature]*  
Certificate No. **4882**



PHILLIPS PETROLEUM COMPANY  
DRILLING PROGRAM

Attached to BLM Form 3160-3

Lease Name: Livingston Ridge Fed  
Well No.: 5  
Location: Unit N, 660' FSL & 1980' FWL, Sec. 1, T-22-S, R-30-E,  
Eddy Co., N.M.

1. Geological name of surface location:

SEE ARCHAEOLOGICAL SURVEY

2. Estimated tops of important geological markers:

<u>Name</u>	<u>Depth</u>
<u>Triassic</u>	<u>Surface</u>
<u>Rustler</u>	<u>305</u>
<u>Salado</u>	<u>635</u>
<u>Lamar Limestone</u>	<u>3780</u>
<u>Bell Canyon</u>	<u>3810</u>
<u>Cherry Canyon</u>	<u>4650</u>
<u>Brushy Canyon</u>	<u>6050</u>
<u>Bone Spring</u>	<u>7585</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

3. Estimated depths of anticipated fresh water, oil & gas:

<u>Formation</u>	<u>Depth</u>	<u>Fresh Water/Oil/Gas</u>
<u> </u>	<u> </u>	<u> </u>
<u>Cherry Canyon</u>	<u>5680</u>	<u>Oil</u>
<u>Brushy Canyon</u>	<u>7360</u>	<u>Oil</u>
<u> </u>	<u> </u>	<u> </u>

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 475' and circulating cement back to surface. Potash will be protected by setting 8-5/8" casing at 3700' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a cementing stage tool into the 5-1/2" production casing which will be run at TD.

Phillips Petroleum Company

Surface Use Plan

Lease Name: Livingston Ridge Fed Well No. 5

Page 2 Eddy County, NM

F. The proposed access road will be centerline flagged.

3. Location of Existing Wells:

Livingston Ridge Fed #1, Unit M-660' FSL, 500' FWL, Sec. 1, 22-S, 30-E

Livingston Ridge Fed #2, Unit L-1200' FWL, 2240' FSL, Sec. 1, 22-S, 30-E

Livingston Ridge Fed #3, Unit E-1450' FNL, 660' FWL, Sec. 1, 22-S, 30-E

Livingston Ridge Fed #4, Unit D-430' FNL, 860' FWL, Sec. 1, 22-S, 30-E

4. Location of Existing and/or Proposed Facilities:

A. Tank Battery: Unit F, Sec. 1, T-22-S, R-30-E

B. Flowlines: From well in Unit N, Sec. 1, T-22-S, R-30-E,  
through Unit K to tank battery in Unit F, Sec. 1, T-22-S,  
R-30-E. Line to follow lease roads for 1320 feet to tank  
battery. Line to be 2-7/8" OD, steel, not buried (see plat).

5. Location and Type of Water Supply:

FW and BW will be trucked to location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and the proposed new access road will be obtained from a BLM approved caliche pit.

7. Methods of Handling Waste Disposal:

A. Drilling cuttings not retained for evaluation purposes will be disposed into the reserve pit.

B. Drilling fluids will be contained in earth mud pits and lined with plastic. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 100 X 100 X 5 deep and fences on three sides prior to drilling. It will be fenced on the fourth side immediately following rig removal. The reserve pit will be plastic-lined to minimize loss of drilling fluids and saturation of the ground with brine water.

Phillips Petroleum Company

Surface Use Plan

Lease Name: Livingston Ridge Fed Well No. 5

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- C. Water produced from the well during completion may be disposed into the reserve pit or steel tank. After the well is permanently placed on production, produced water will be collected in tanks until hauled by transport to an approved disposal system or separate disposal application will be submitted for appropriate approval; produced oil will be collected in steel tanks until sold.
- D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.
- E. Garbage and trash produced during drilling or completion will be put in trash trailer. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. All waste material will be contained to prevent scattering by the wind. No toxic waste or hazardous chemicals will be produced by this operation.
- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and netted and kept closed until it has dried. When the reserve pit is dry enough to break out and fill and, as weather permits, the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only the part of the pad required for production will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite, or other facilities will be built as a result of the operations on this well.

9. Well Site Layout:

- A. Drill pad: 250' X 175'
- 
- 
- 

- B. Attached plat shows planned orientation for the rig and associated drilling equipment, reserve pit, pipe racks, turn-around and parking areas, and access road. No permanent living facilities are planned but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

- C. The reserve pit will be lined with a high-quality plastic-sheeting.

10. Plans for Restoration of the Surface:

- A. Upon completion of the proposed operations, if the well is to be abandoned, the caliche will be removed from the location and road and returned to the pit from which it was taken. The pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned the entire location which will be leveled and contoured to as nearly the original topography as possible.

All pit lining will be buried in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

- B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. Three sides of the reserve pit will be fences prior to and during drilling operations. At the time the rig is removed, the reserve pit will be fenced on the rig (fourth) side and netted to prevent livestock or wildlife from being entrapped.

The fencing and netting will remain in place until the pit area is cleaned-up and leveled. No oil will be left on the surface of the fluid in the pit. The entire reserve pit will be netted until the fluid has completely evaporated.

- D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. Topsoil removed from the drill site will be used to recontour the pit area and any uncased portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The wellsite and lease is located entirely on Federal surface.

12. Other Information:

- A. Terrain: See Archaeological Report
- B. Soil: See Archaeological Report
- C. Vegetation: See Archaeological Report
- D. Surface Use: Possible grazing
- E. Ponds and Streams: None
- F. Water Wells: None
- G. Residences and Buildings: Ranch house 2 mi west of proposed site
- H. Arroyos, Canyons, Etc.: None

PHILLIPS PETROLEUM COMPANY  
SURFACE USE PLAN

Attached to Form 3160-3

Lease Name: Livingston Ridge Fed

Well No.: 5

Location: Unit N, 660' FSL & 1980'  
FWL, Sec. 1, T-22-S, R-30-E,  
Eddy County, NM

1. Existing Roads:

- A. The well site and elevation plat for the proposed well is shown on attached plat.
- B. Existing roads are indicated on attached map. Existing roads are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling well be done where necessary as determined during the onsite inspection.
- C. Directions to location: From Carlsbad, NM east on Highway  
62-180 22 miles to Highway 31 south. South on #31 7 miles,  
east on Co. road 8 miles, 4 miles on lease road to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Roads:

Attached map indicates the proposed 400' of new access road to be constructed. The road will be constructed as follows:

- A. The maximum width of the running surface will be 12'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. Culverts, cattle guard, low-water crossings, fence cuts:  
None
- E. Surface material will consist of native caliche. Caliche will be obtained from nearest BLM approved pit. Any additional materials required will be purchased from the dirt contractor.

Phillips Petroleum Company  
Lease Name: Livingston Ridge Fed  
Well No.: 5  
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4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg.</u>	<u>Weight, Grade, Type</u>
<u>17-1/2</u>	<u>475'</u>	<u>13-3/8</u>	<u>48 lb/ft H-40 ST&amp;C</u>
<u>12-1/4</u>	<u>3700'</u>	<u>8-5/8</u>	<u>24 lb/ft J-55 ST&amp;C</u>
<u>7-7/8</u>	<u>7700'</u>	<u>5-1/2</u>	<u>15.5 lb/ft J-55 LT&amp;C</u>

Cement Program:

NA " Conductor Casing:

13-3/8" Surface Casing: 800 Sx Cl. C + 2% CaCl2

8-5/8" Intermediate Casing: Lead: 1500 sx Cl. C + 6% Benbonite +  
15#/sx salt. Tail: 200 sx Cl. C +  
10#/sx salt.

5-1/2" Production Casing: Stage tool at approx. 6000'. 1st Stage:  
400 sx Class C neat. 2nd Stage: Lead -  
200 sx Cl. C + 20% Diacel D. Tail - 400  
sx Cl. C Neat.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) schematic attached will consist of a double ram-type (2000 psi WP) preventer and/or a bag-type (hydril) preventer (2000 psi WP). BOP will be hydraulically operated and the ram-type preventer will be equipped with blind rams and appropriate pipe rams. BOP will be nipped up on the 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 2000 psi and/or the hydril to 50% of rated working pressure. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be attached to a drilling spool or BOP side outlets. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Types & Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of Gel/Drispac +  
\_\_\_\_\_. The applicable depths and properties of this system are



Phillips Petroleum Company  
Lease Name: Livingston Ridge Fed  
Well No.: 5  
Page 3

as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
<u>475</u>	<u>FW</u>	<u>8.5 - 9.0</u>	<u>28-30</u>	<u>NC</u>
<u>3700</u>	<u>Sat.Brine</u>	<u>10.0 - 10.2</u>	<u>28-30</u>	<u>NC</u>
<u>4450</u>	<u>FW</u>	<u>8.8 - 9.5</u>	<u>29-32</u>	<u>NC</u>
<u>7700</u>	<u>Gel/Drispac+</u>	<u>8.8 - 9.5</u>	<u>29-32</u>	<u>15 cc or less</u>

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. An electronic pit-volume-totalizer system will be used continuously below N/A to monitor the mud and pump system. The drilling fluids system will also be visually monitored at all times.
- D. A mud logging unit will be continuously monitoring drilling penetration rate and hydrocarbon shows from 3700' to TD.
- E. A fixed electronic H<sub>2</sub>S monitoring system including alarms with monitors at the shaker and at the bell nipple will be in operation from surface to TD.

8. Logging, Testing & Coring Program:

- A. Drillstem tests: Non anticipated.
- B. Electric logging program: DLL/MSFL/GR, LDT/CNL/GR
- C. Coring: 7440-7580

9. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:

Potential loss of circulation while drilling the surface hole.

Phillips Petroleum Company  
Lease Name: Livingston Ridge Fed  
Well No.: 5  
Page 4

10. Anticipated Starting Date & Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is Upon Approval. Once commenced, the drilling operation should be finished in approximately 18 days. If the well is productive, an additional 30-60 days will be required for completion and testing.

Phillips Petroleum Company  
Surface Use Plan  
Lease Name: Livingston Ridge Fed Well No. 5  
Page 5 Eddy County, NM

- I. Well Sign: Well will be properly identified w/lease number, quarter/quarter, section, township, range, operator & lease name  
J. Archaeological Resources: See Archaeological Report

13. Lessees's and Operator's Representative:

The Phillips Petroleum Company representatives responsible for assuring compliance with the surface use plan are:

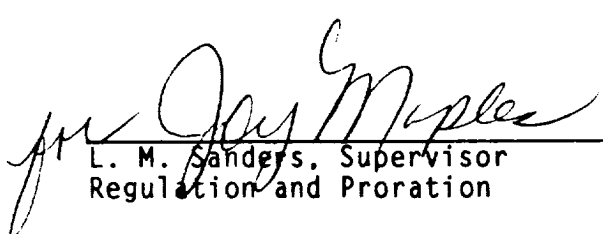
R. C. Ainsworth  
4001 Penbrook  
Odessa, Texas 79762  
(915) 368-1261

or

S. H. Oden  
1625 West Marland  
Hobbs, NM 88240  
(505) 393-5121

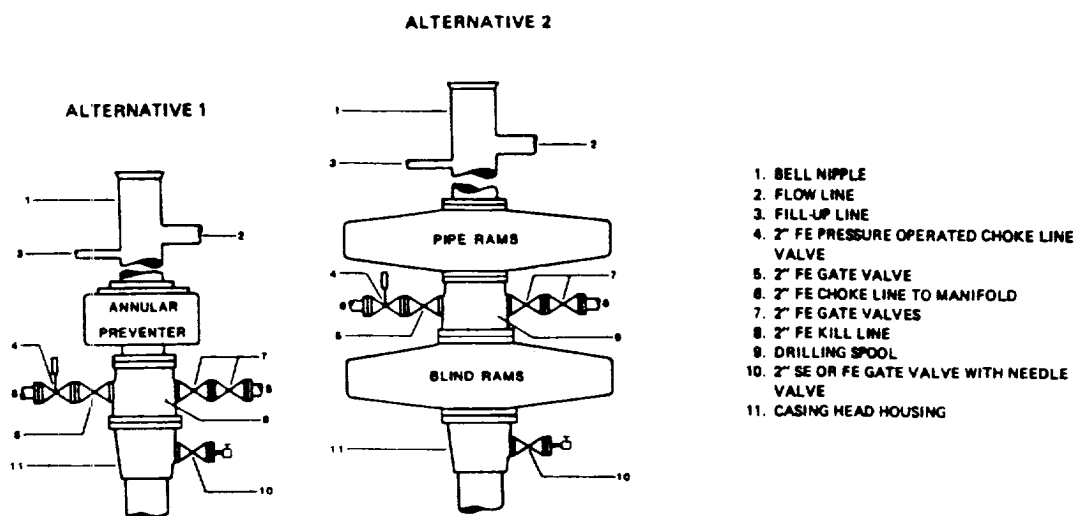
14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the 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 Phillips Petroleum Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

  
\_\_\_\_\_  
L. M. Sanders, Supervisor  
Regulation and Proration

January 23, 1992  
Date

## FIELD PRACTICES AND STANDARDS



NOTE: THE DRILLING SPOOL MAY BE LOCATED BELOW BOTH SETS OF RAMS IF A DOUBLE PREVENTER IS USED AND IT DOES NOT HAVE SUITABLE OUTLETS BETWEEN RAMS

Figure 7-9. Standard Hydraulic Blowout Preventer Assembly  
(2 M or 3 M Working Pressure) Alternative 1

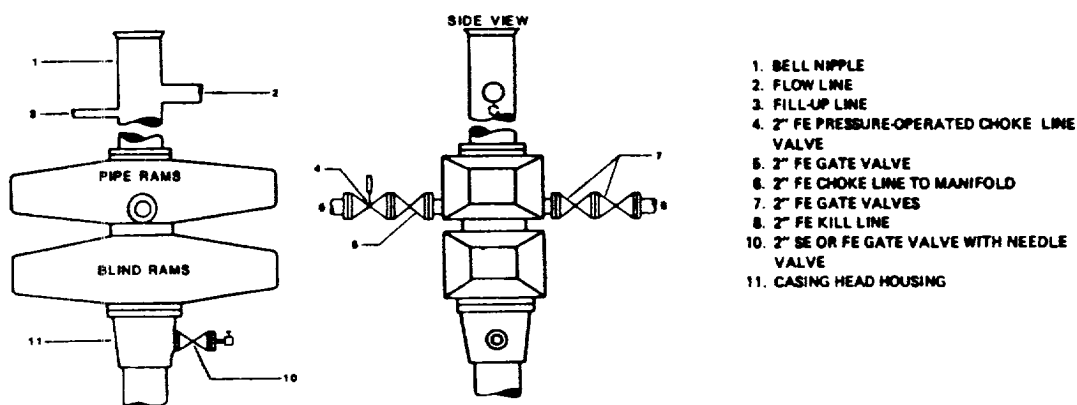


Figure 7-10. Standard Hydraulic Blowout Preventer Assembly  
(2 M or 3 M Working Pressure) Alternative 3 (without Drilling Spool)



PHILLIPS PETROLEUM COMPANY

Sheet No. \_\_\_\_\_

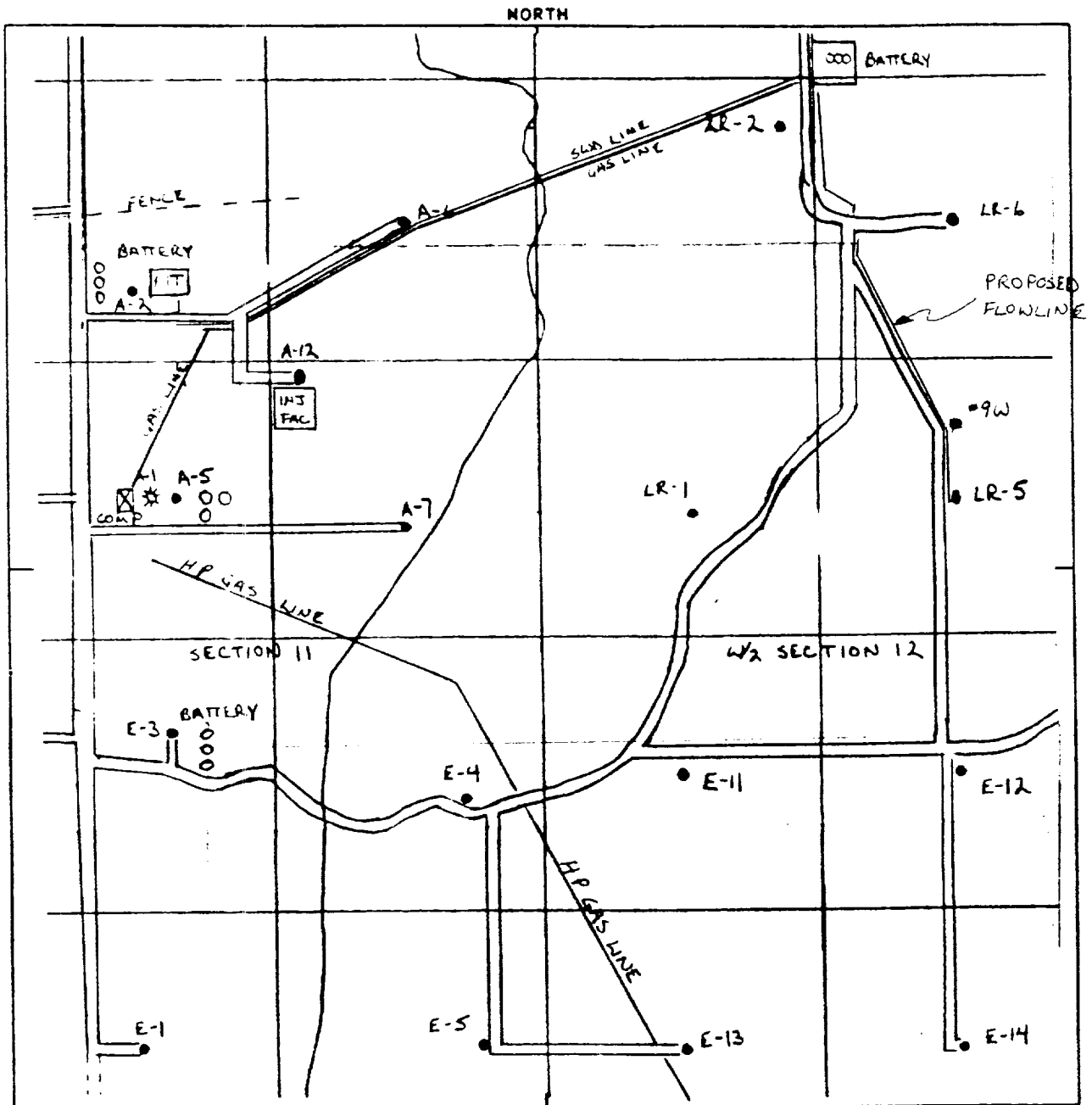
Nature of Work RUN FOR FLOWLINEDate 1-20-92

Line No. \_\_\_\_\_

District 2000 HILLSPlant or Station LIVINGSTON RIDGE #5

Job or

AFE No. \_\_\_\_\_

Sec. 1 Twp. 22S Blk. or Range 30-E Survey \_\_\_\_\_Co. EDDYState N. M.

Scale : 1" = 660'

Remarks \_\_\_\_\_

1320' OF 2-1/2" OD STEEL  
LINE

CONVENTIONS		PIPE LAID	
---	Existing Lines	Size	Amt.
X	Gate Valve	"	"
←	Check Valve	"	"
⊙	Meter	"	"
≡	Dresser	PIPE TAKEN UP	
⊥	Drip	Size	Amt.
⊕	Regulators	"	"
⊥	Flange	"	"
⊥	Change in Size	"	"
⊥	Pipe Supports	Bartlettville Office to Fill in Below	
⊥	Tee & Bull Plug	Map No.	Sheet No.
⊥	Tee with Gate	Plotted by	
⊥	Bull Plug on Line		
⊙	Telephone Pole		

Signed \_\_\_\_\_

Group or  
Corporate StaffE & P

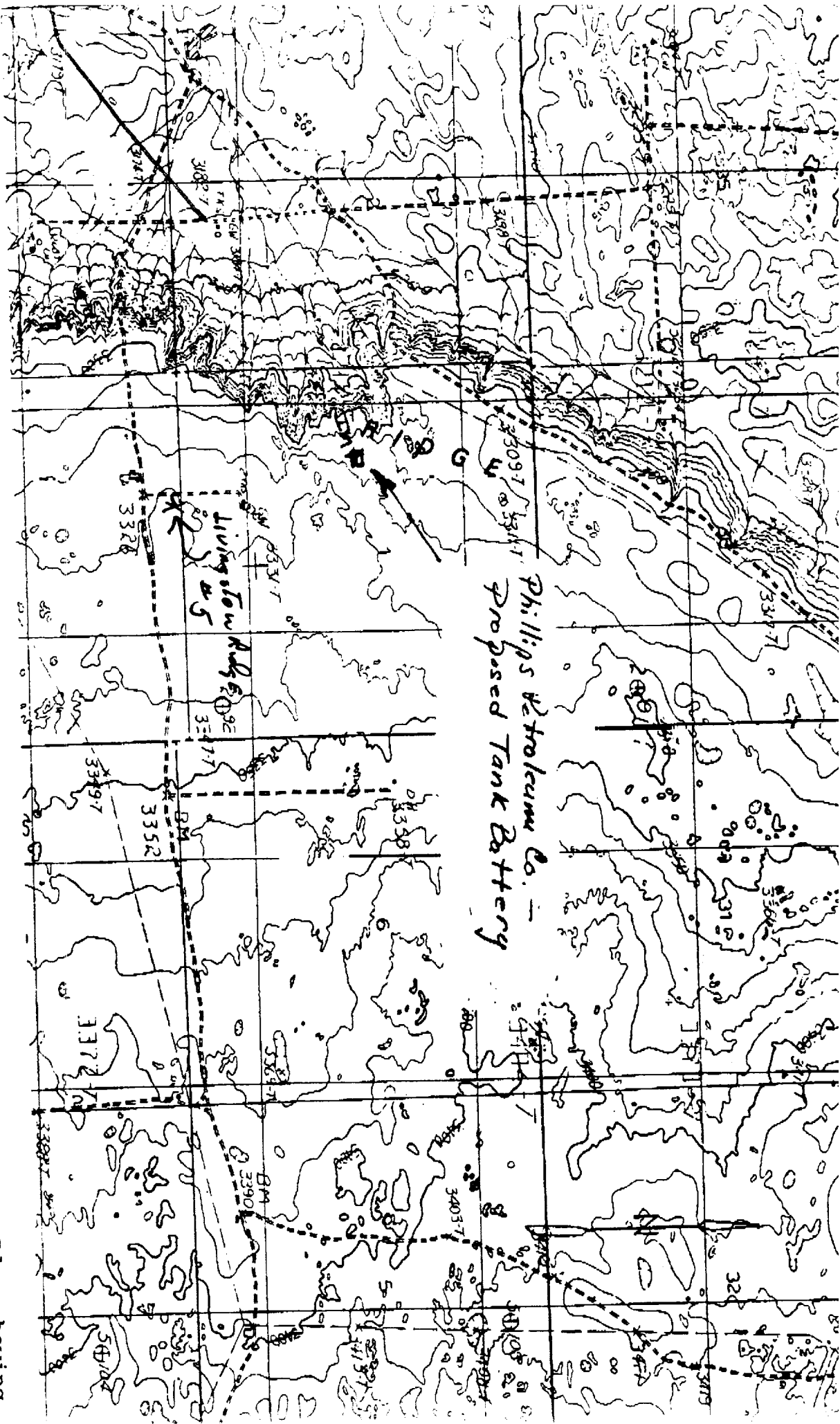


Fig. 6. USGS LIVINGSTON RIDGE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1985, Prov. Ed., showing PHILLIPS PETROLEUM COMPANY'S proposed Tank Battery, Section 1, T22S, R30E, NMPM, Eddy County, New Mexico.

