

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 ☐		5. LEASE DESIGNATION AND SERIAL NO. LC-071949 27047	
b. TYPE OF WELL OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☒		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Shell Oil Company		7. UNIT AGREEMENT NAME Antelope Ridge Unit	
3. ADDRESS OF OPERATOR P. O. Box 991, Houston, TX 77001		8. FARM OR LEASE NAME Antelope Ridge	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1650' FNL & 1980' FEL, Sec. 27, T23S, R34E At proposed prod. zone Same		9. WELL NO. 7	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 20 miles west from Jal, N.M.		10. FIELD AND POOL, OR WILDCAT Atoka/Morrow (D)	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1650' FNL Same		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA Sec. 27 T23S, R34E	
16. NO. OF ACRES IN LEASE 2879.71		12. COUNTY OR PARISH Lea	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320		13. STATE New Mexico	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3960'		14. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3471' GR		22. APPROX. DATE WORK WILL START* January 1	
23. PROPOSED CASING AND CEMENTING PROGRAM			
20"	16"	65#	450'
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
14 3/4"	10 3/4"	45.5#	5,060'
9 1/2"	7 5/8"	33.7#	11,930'
6 1/2"	5"	18#	13,700'
		cmt to surface w/560 sx	
		cmt to surface w/2000+sx	
		cmt to 8000' w/850+ sx	
		circ on liner w/450+ sx	

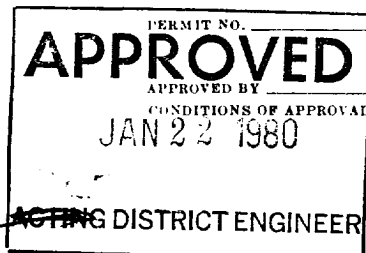
Attachments: Survey Plat
Drilling Prognosis
Casing and Cementing Program
BOP Assembly Drawing
Choke Manifold Drawing
Rig Lay Out Drawing
Topographical Map
Multipoint Land Use Plan
Temporary Test Facilities Layout
Ownership Map

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DEC 3 1979

U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICOALL OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
STATE REQUIREMENTS

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 A. J. Fure TITLE Sr. Eng. Technician DATE 11-29-79
(This space for Federal or State office use)

*See Instructions On Reverse Side

U.S. DEPT. OF ENERGY

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JAN 29 1980

OIL CONSERVATION DIV.

WYOMING DEPARTMENT OF CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION STATEMENT

Form C-1
Supersedes C-128
Effective 5-1-75

Shell Oil Company		Antelope Ridge Unit		7
27	23 South	34 East	Lea	
50	North	1980	East	
1.4	<i>Atoka/Marathon</i>			320

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

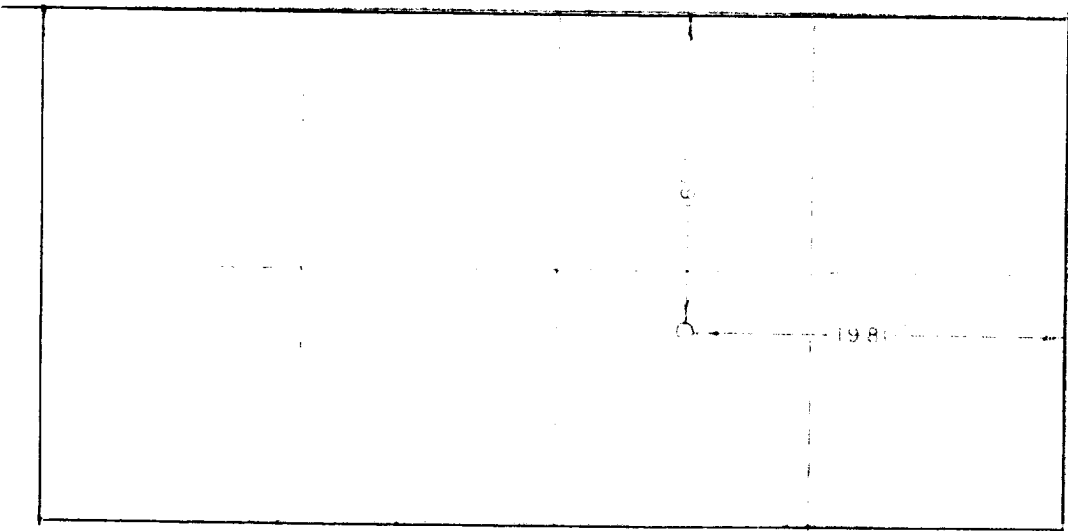
If more than one lease is dedicated to the well, outline each and identify the owner(s), there if such as to working interest and royalty.

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?

X Yes No If answer is "Yes," type of consolidation: *Communitization*

If answer is "No," list the owners and tract descriptions which have a working interest in the well, and if necessary, the form of necessary consolidation.

Working interest will be assigned to the well until all interests have been consolidated by communitization, unitization, force pooling, etc. There shall be no standing lease or eliminating well in the unit or pool created by the consolidation.



Hereby certify that the above information is true and correct to the best of my knowledge and belief.

S. J. Harrison
Proration Clerk II
Shell Oil Company

Hereby certify that the well is not a dry hole and that the owner(s) of the well is/are not a party to this statement and that the same is true and correct to the best of my knowledge and belief.

Nov. 15, 1979

John W. West
JOHN W. WEST 876
PATRICK A. ROMERO 6668
Randy J. Edison 1239

DRILLING PROGNOSIS

WELL: Antelope Ridge Unit #7

LOCATION: 1650' FNL, 1930' FEL, Sec. 27
T23S, R34E, Lea Co., New Mexico

OBJECTIVE: Morrow

W.O. NO. _____

FIELD: Antelope Ridge
Atoka Morrow

EST. ELEVATION: 3475'

EVALUATION			GEOLOGY		DRILLING				
TIME SAMPLES	ELEC. SURVEYS	MUD LOGGER	SIGNIFICANT FORMATIONS		WELL DEPTH	HOLE SIZE	CASING & CEMENT	MJD PROGRAM	
11930' - TD CNL/FDC/GR, DIL/LL8/SP/GR, FNL/ML IBHC Sonic/GR 11930'-5060' (GR to Surface)	TD-11930'	2 Man Mud Logging Unit 11930'-TD		40'±			30" Conductor	Saturated Brine Water	
				450'±			20" 16" 65# H-40 ST&C		
							Cement to Surface		
			Base Red Beds	855'			14 3/4"		Min. BOP Class
				(2620')					S.A.
			Possible Lost Circulation						
			Delaware Lime	5025'			10 3/4"		45.5# S-80 STC
				(-1550')					40.5# S-80 STC, 40.5#
				5060'±					K-55 Cement to Surface 2-Stage
			Bone Spring	8555'			9 1/2"		Min. BOP Class
				(-5020')					3 MR-10-SRRAG
			Wolfcamp	11325'					Will N.U. 10,000 PSI BOP Stack
				(-7850')					Install PVT & Flowline Gas Separator by 8000'
			Possible High Pressure Low Volume Gas				7 5/8"		33.7# P-110
Des Moines	11875'	LT&C. Cement to 8000'							
	(-8400')								
	11930'±	6 1/2"	Min. BOP Class						
Atoka	12105'		5MR-10-SRRAG						
	(-8630')								
Morrow	13000'	5"	18# N-80 TS						
	(-9525')		Circulate cement						
TD 13700' (-10,225')									

Fresh Water-Weighted Mud
"Low Solids"-Non Dispersed
(KCL Drispac). Min. Wt.
Fresh Water-Weighted W/Brine
as required. Viscous Sweeps
for hole cleaning 8.5 ppg,

DRILLING DATA
ANTELOPE RIDGE UNIT NO. 7
LEA COUNTY, NEW MEXICO

CASING AND CEMENT:

30" conductor set at 40'[±]. Cement with Redimix.

16" 65# H-40 ST&C surface casing set at 450'[±] to case off fresh water zones. Circulate cement to surface with 560 sacks.

10 3/4" 45.5# S-80 ST&C, 40.5# S-80 ST&C and 40.5# K-55 ST&C intermediate casing set at 5,060'[±] or approximately 35' into the Delaware Limestone. Cement in two stages to surface with 2000[±] sacks.

7 5/8" 33.7# P-110 LT&C second intermediate/production casing set at 11,900'[±] or approximately 55' into Des Moines (Strawn). Cement to 8,000'[±] with 850[±] sacks.

5" 18# N-80 TS production liner from 11,650'[±] to TD (280'[±] overlap). Circulate cement on liner with 450 [±] sacks.



SHELL OIL
COMPANY

BOP CONFIGURATION

SHELL ANTELOPE RIDGE UNIT WELL NO. 7

LEA COUNTY, NEW MEXICO

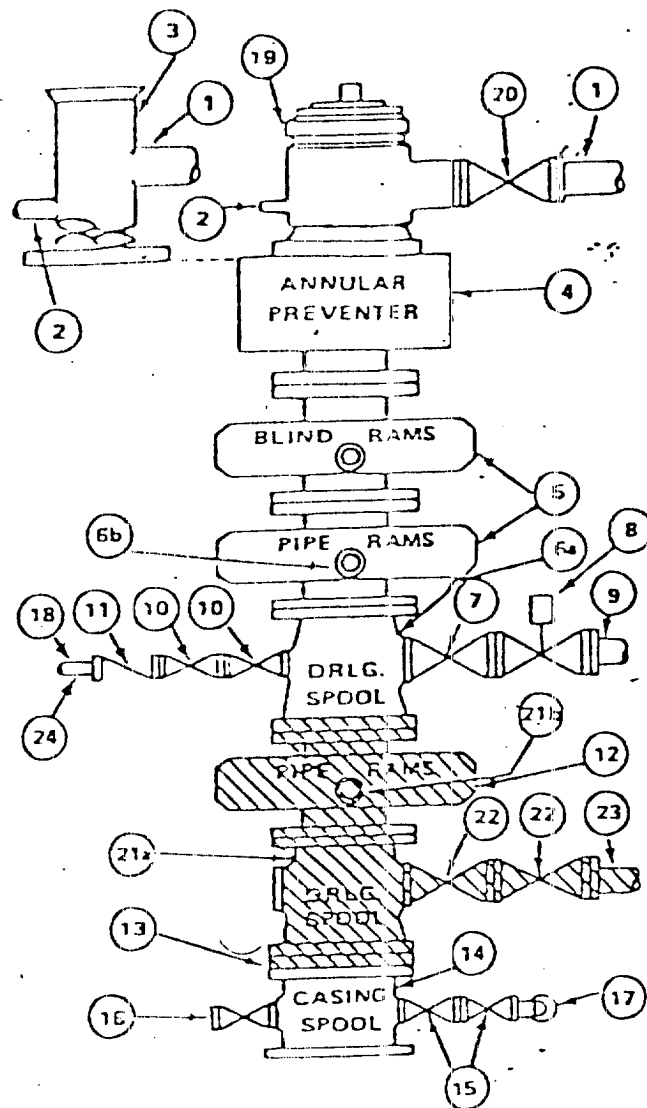
SHELL MINIMUM BOP STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up Line		2"
3	Drilling Nipple		
4	Annular Preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" and 3" min. outlets		
6b	Use ram outlets as alternate to 6a		
7	Valve Gate ☒ Plug ☒	3-1/8"	
8	Gate Valve Power Operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate ☒ Plug ☒	2-1/16"	
11	Check Valve	2-1/16"	
12	Single hydraulically operated ram		
13	Wear flange or bushing		
14	Casing spool		
15	Valves Gate ☒ Plug ☒	1-13/16"	
16	Flanged control plug or valve	1-13/16"	
17	Compound pressure gauge		
18	Kill line to rig mud pump manifold		2"

NOTE: Additional specifications for Sour Service and Air-Gas Drilling are
given in Shell Well Control Manual, Appendix 5.20 and Appendix 5.21.

OPTIONAL

19	Rotating Blowout Preventer		
20	Power Operated gate valve	6"	
21a	Drilling spool with 3" outlet		
21b	3" outlet in ram preventer		
22	Valves Gate ☒ Plug ☒	3-1/8"	
23	Auxiliary choke line		3"
24	Roadside connection to kill line		2"
	Shear ram blocks for blind rams		

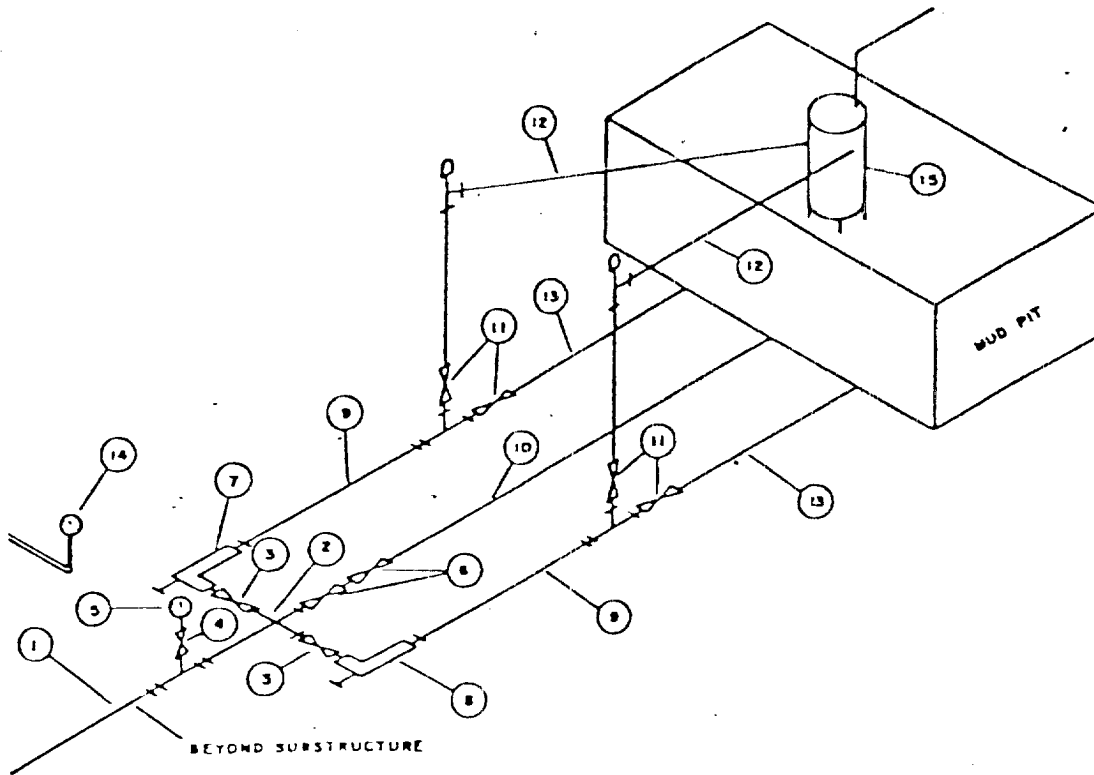


NOT USED IN THIS BOP CONFIGURATION

DRAWING AND CHECK LIST NO. 18-0005-1
(ATTACHMENT 3 TO BID SHEET AND DRILLING ORDER)
MINIMUM BLOWOUT PREVENTER CHOKE MANIFOLD FOR DEEP-NORMAL PRESSURE WELLS

5000 psi API Class 5 M.
SPECIFICATIONS FOR WELL NO. Antelope Ridge Unit No. 7 CASING SIZE 10 3/4", 7 5/8", 5"

GENERAL LAYOUT
CHOKE MANIFOLD, CHOKE DISCHARGE LINES & GAS SEPARATOR



Contractor and Operator to furnish items checked (x)

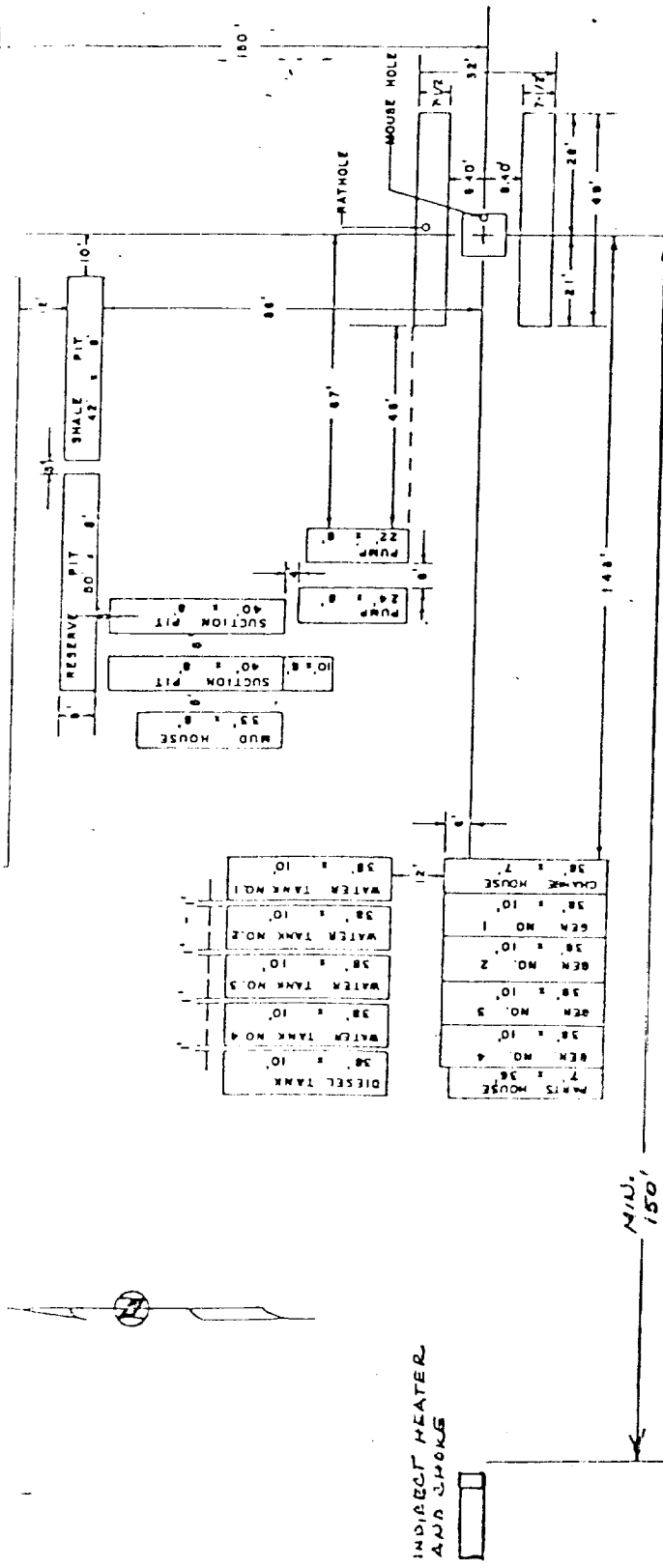
No.		Min. Size	Type	Press. Rating	Furnished by	
					Contr.	Oper.
1	Line from drilling spool	3"	For- ged	5000	X	
2	Cross 3" x 3" 3" x 2"	-	For- ged	5000	X	
3	Gate Valves	3"	*CIW F	5000	X	
4	Gate Valve	2"	*CIW F	5000		X
5	Pressure Gauge		CIW			
6	Gate Valves	3"	*CIW F	5000	X	
7	Adjustable Choke		*H-2	5000	X	
8	Power Operated Choke	-	*CIW	5000		X

No.		Min. Size	Type	Press. Rating	Furnished by	
					Contr.	Oper.
9	Lines to Reserve Pit			3000		X
10	Line to Reserve Pit			3000		X
11	Gate Valves	3"	*CIW F	2000		X
12	Lines to Separator					X
13	Lines to Reserve Pit			2000		X
14	Remote reading standpipe pressure			5000	X	
15	Gas Separator				X	

WATER PUMP

RESERVE PIT

SHALE PIT

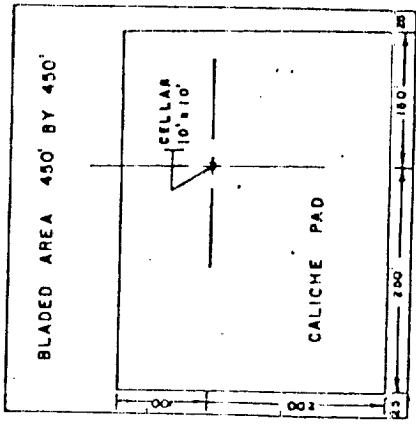


SANTA FE RIG NO 10

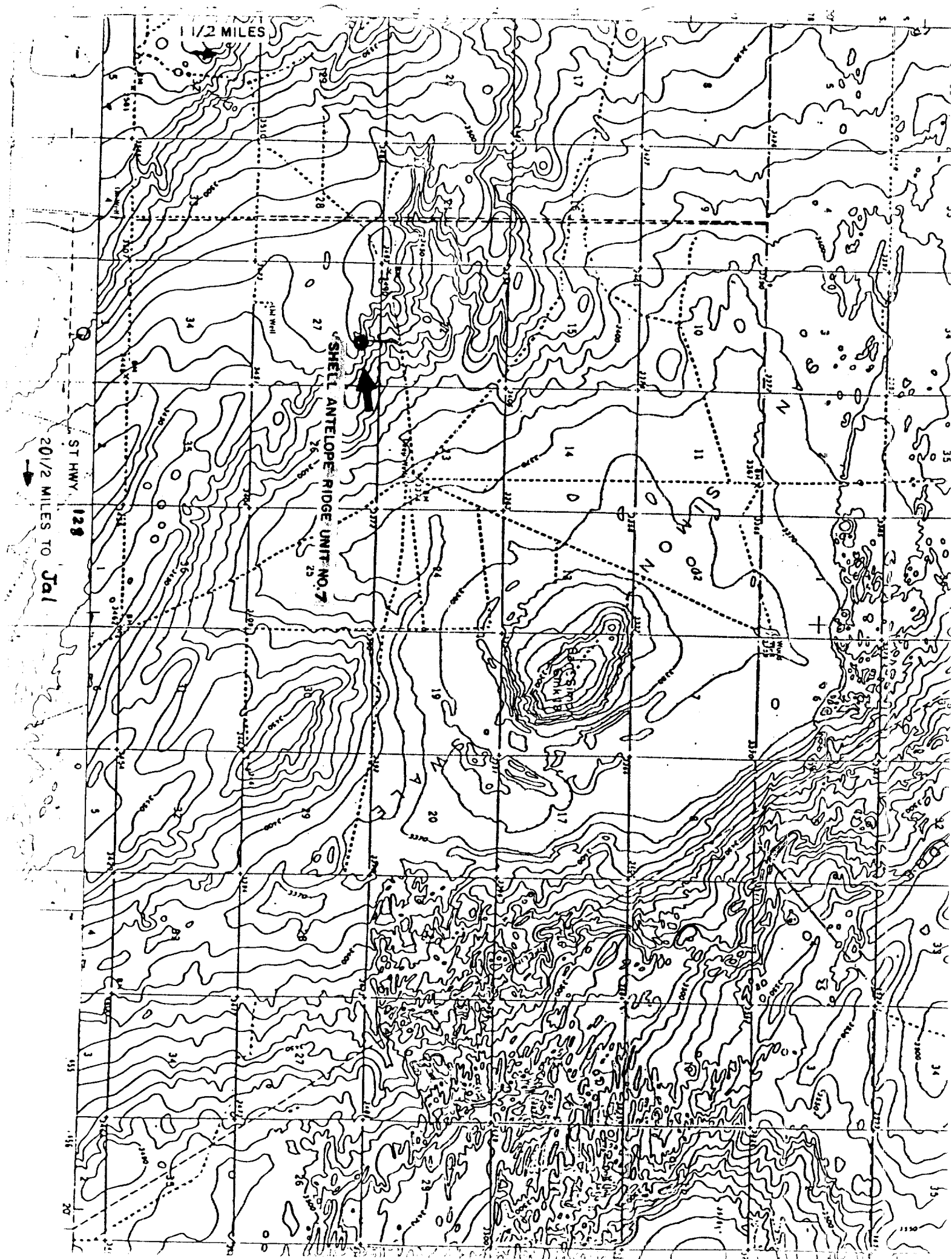
SUBSTRUCTURE HEIGHT 25'
 RATHOLE: 13-1/2' NORTH & 1-1/2' EAST 24' DEEP SLOPE 3' PER 2'
 MOUSE HOLE: 4' EAST NO HOLE

REV. 10-1-77

BLADED AREA 450' BY 450'



DIRT WORK LAYOUT



13-POINT DEVELOPMENT PLAN FOR SURFACE USE

SHELL OIL COMPANY

ANTELOPE RIDGE UNIT WELL NO. 7

1650' FNL and 1980' FEL OF SECTION 27, T-23-S, R-34-E
LEA COUNTY, NEW MEXICO

1. Existing Roads to Well Location

To reach Shell Antelope Ridge Unit Well No. 7 go west from Jal, New Mexico on state highway number 128 for about 20 miles, turn north at a Shell sign (Pectin), and go about 1 1/2 miles to Shell sign and Perry Gas sign. Turn right and go two miles, then take the road to the left and go about 1 3/4 miles which is the second caliche road going right. Go one mile and the well is approximately 2000' south.

2. Planned Access Road

As shown on the attached USGS topographical map, the 12-foot wide access road will be constructed to go approximately 2000' due south of the existing lease road to the well pad.

3. Location of Existing Wells

Locations of existing wells are shown on the attached ownership plat on a scale of 1" to 4000'.

4. Location of Tank Batteries, Production Facilities, etc.

Production facilities for the subject well will be located on well pad as shown on the attached plat.

5. Location and Type of Water Supply

We plan to contract with a private supplier to haul the water to be used during this drilling operation.

6. Source of Construction Materials

Shell plans to use a caliche-type material for the construction of the access road and the well site. This material will be obtained primarily from existing top soil on the location and, if necessary, additional caliche will be hauled in from an old caliche pit located SW/4 of SW/4 of Section 22, T23S, R34E.

7. Methods for Handling Waste Disposal

All waste that can be burned will be burned in a pit located in the northwest corner of the drill site. All other waste and drilling fluids will be buried in a pit and covered with a minimum of two feet of cover.

8. Location of Camps and Airstrips

There will be no permanent structures or airstrips. Trailer locations are shown on the attached location layout sheet.

9. Well Site Layout

See attached location layout sheet.

10. Plans for Restoration of the Surface

Any topsoil removed while digging pits will be stockpiled. The burn pit will be covered and leveled. The reserve pit will be allowed to dry, filled in and leveled. The location will be cleaned, topsoil spread over the disturbed areas and reseeded as directed by the Bureau of Land Management.

11. Other Environmental Information

The immediate area under concern has sandy and rocky-type soil which is sparsely covered with unidentified native grasses and scattered mesquite shrubs. There are no flowing streams nor bodies of water in the immediate area.

12. Field Representatives

H. H. Crim
3706 Gulf Street
Midland, Texas 79703
Phone: 915-694-5680

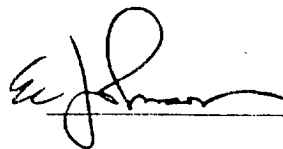
J. L. Clark
P. O. Box 8574
Midland, Texas 79703
Phone: 915-694-9943

M. D. Huckby
3614 Gulf
Midland, Texas 79703
Phone: 915-697-4359

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 Shell Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

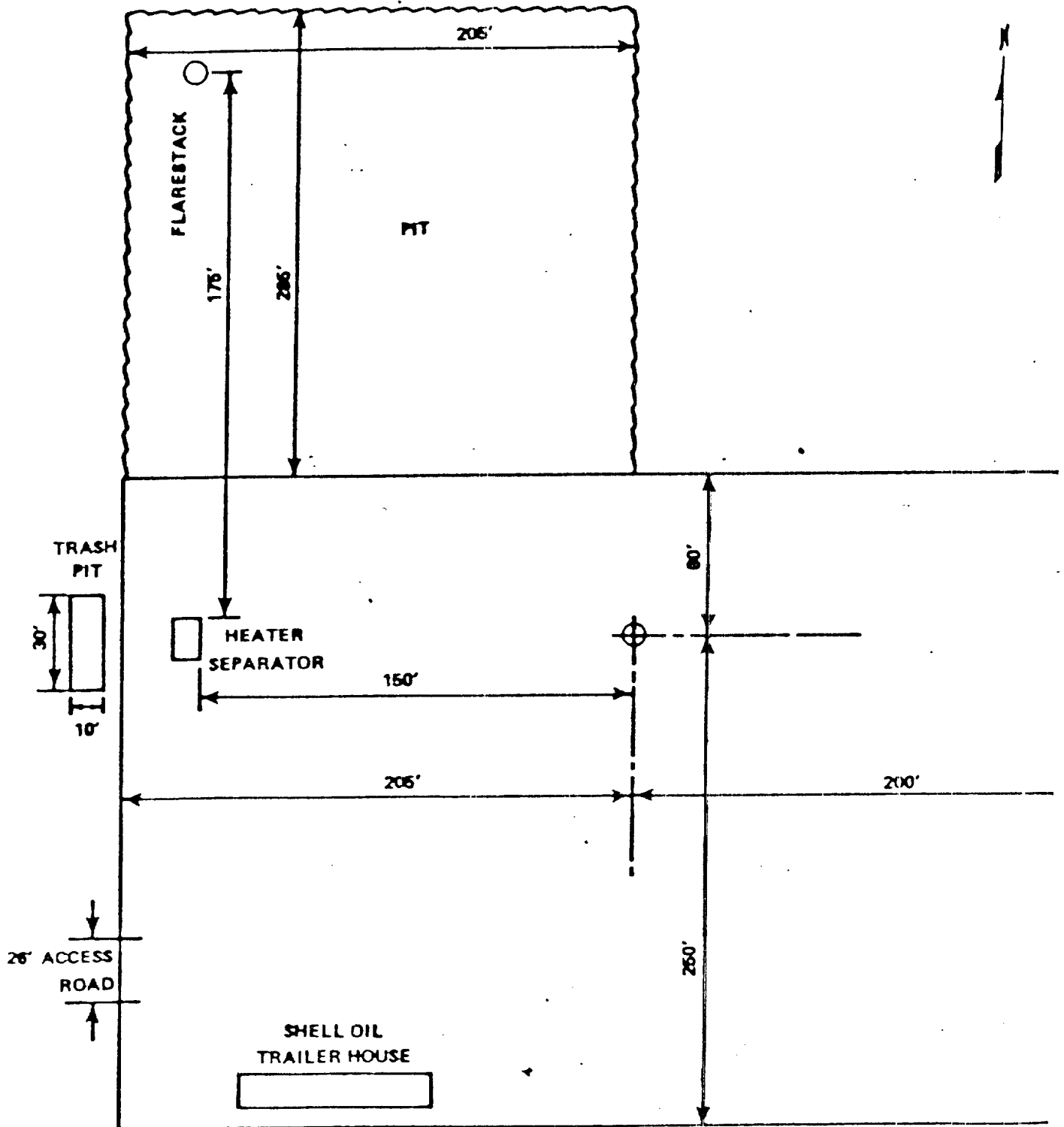
11-27-79
(Date)



E. C. Johnson
Drilling Superintendent
(Name and Title)

TEMPORARY TEST FACILITIES

ANTELOPE RIDGE UNIT NO 7



NOT TO SCALE

[illegible]



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1-800-555-1111

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JAN 29 1980
OIL CONSERVATION DIV.

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