

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK
DRILL ☒ DEEPEN ☐ 605

2. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

3. NAME OF OPERATOR
W.A. & E.R. HUDSON, INC. (JON B. SMITH 505-676-2266) (RANDALL HUDSON 817-336-7190)

4. ADDRESS AND TELEPHONE NO.
616 TEXAS STREET FORT WORTH, TEXAS 76102-4612

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface
700' SL & 660' FWL SEC. 12 T17S-R31E EDDY CO. NM
At proposed prod. zone SAME

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
Approximately 6 miles Northwest of Maljamar New Mexico.

7. LEASE DESIGNATION AND SERIAL NO.
NMLC-029415-B

8. IF INDIAN, ALLOTTEE OR TRIBE NAME

9. UNIT AGREEMENT NAME

10. FARM OR LEASE NAME WELL NO.
PUCKETT "B" # 12-2

11. AP WELL NO.
30-015-31740

12. FIELD AND POOL, OR WILDCAT
UNDES. FREN-MORROW

13. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SECTION 12 T17S-R31E

14. COUNTY OR PARISH
EDDY CO.

15. STATE
NEW MEXICO

16. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
660'

17. NO. OF ACRES IN LEASE
1920

18. NO. OF ACRES ASSIGNED TO THIS WELL
320

19. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
3900'

20. PROPOSED DEPTH
12,500'

21. ROTARY OR CABLE TOOLS
ROTARY

22. ELEVATIONS (Show whether DF, RT, GR, etc.)
3951' GR.

23. APPROX. DATE WORK WILL START WHEN APPROVED

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20" Conductor	NA	40'	Cement to surface with Redi-mix
17½"	H-40 13 3/8"	48	700'	550 Sx. circulate cement to surface
12½"	J-55 8 5/8"	24 & 32	4500'	1600 Sx. " " " "
7 7/8"	S-95 & N-80 5½"	17	12,500'	1000 Sx. estimate top cement 7000'

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.
2. Drill 17½" hole to 700'. Run and set 700' of 13 3/8" 48# H-40 ST&C casing. Cement with 550 Sx. of Class "C" cement, 350 Sx. of Halco Light Class "C", tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
3. Drill 12½" hole to 4500'. Run and set 4500' of 8 5/8" 32 & 24 # J-55 ST&C casing. Cement with 1600 Sx. of cement as follows: 1100 Sx. of Halco Light + additives, tail in with 500 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 7 7/8" hole to 12,500'. Run and set 12,500' of 5½" casing as follows: 2300' of 5½" 17# S-95 LT&C, 9000' of 5½" 17# N-80 LT&C, 1200' of 5½" 17# Buttruss thread. Cement with 600 Sx. of Class "H" Halco Light + additives, tail in with 400 Sx. of 50/50 POZ Class "H" Premium, top of cement 200' above upper most pay, estimate top of cement 7000'.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

SIGNED Joe T. Galarza TITLE Agent DATE 03/26/01

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY 15/ Joe Galarza TITLE Agent DATE 03/26/01

*See Instructions On Reverse Side

Title 18 U.S.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.

State of New Mexico

DISTRICT I
P.O. Box 1990, Hobbs, NM 88241-1990

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 El Brazos Rd., Artec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code 96663	Pool Name UNDES. FREN-MORROW
Property Code	Property Name PUCKETT B 12		Well Number 2
OGRID No. 25111	Operator Name W.A. & E.R. HUDSON		Elevation 3951'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	12	17-S	31-E		700	SOUTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

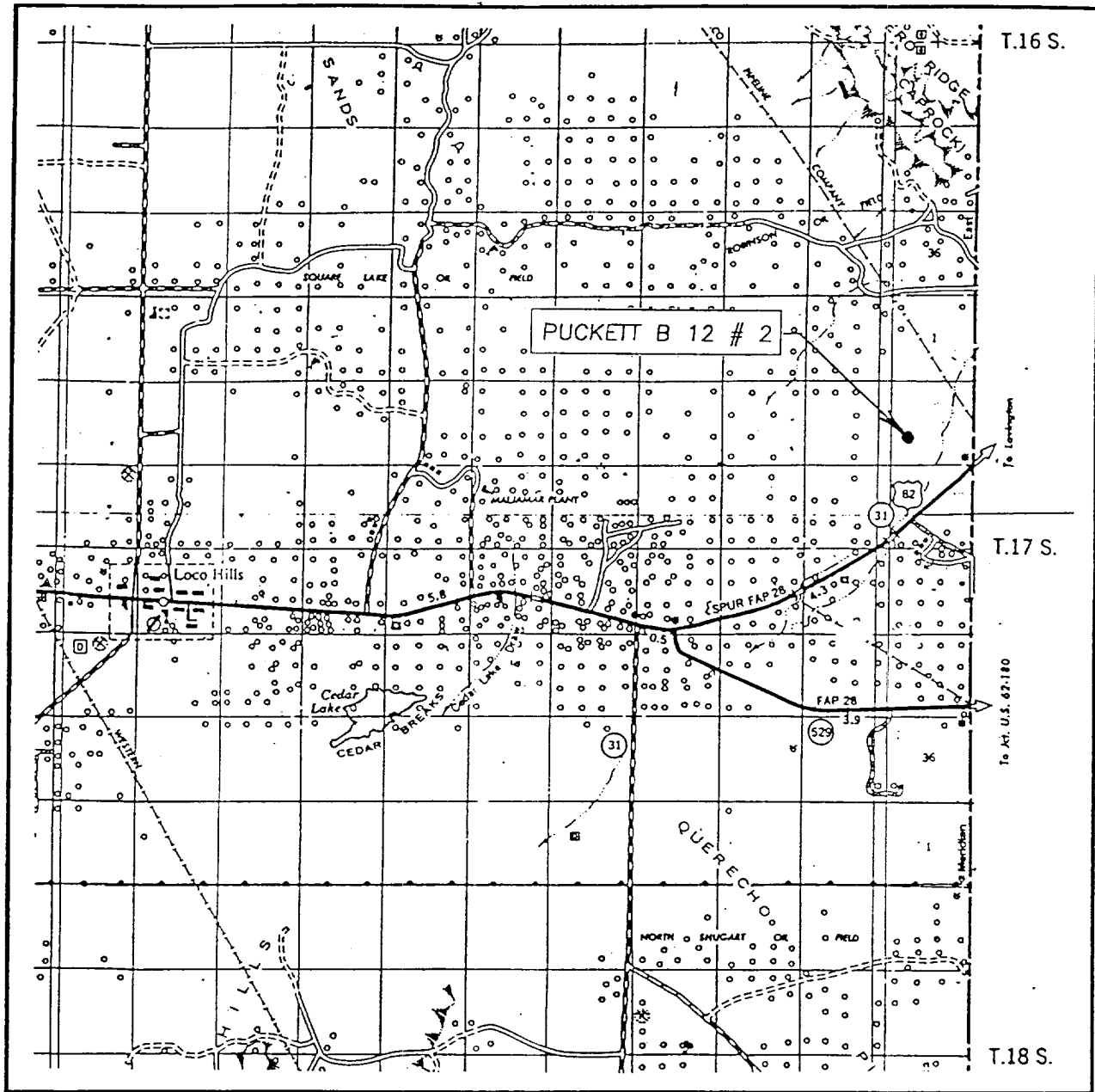
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 03/26/01 Date 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 belief. MARCH 09, 2001 Date Surveyed AWB Signature & Seal of Professional Surveyor <i>Ronald E. Eidson</i> 03/16/01 61-11-0321 Certificate No. RONALD E. EIDSON 3239 GARY EIDSON 12641

EXHIBIT "A"

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 12 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 700' FSL & 660' FWL

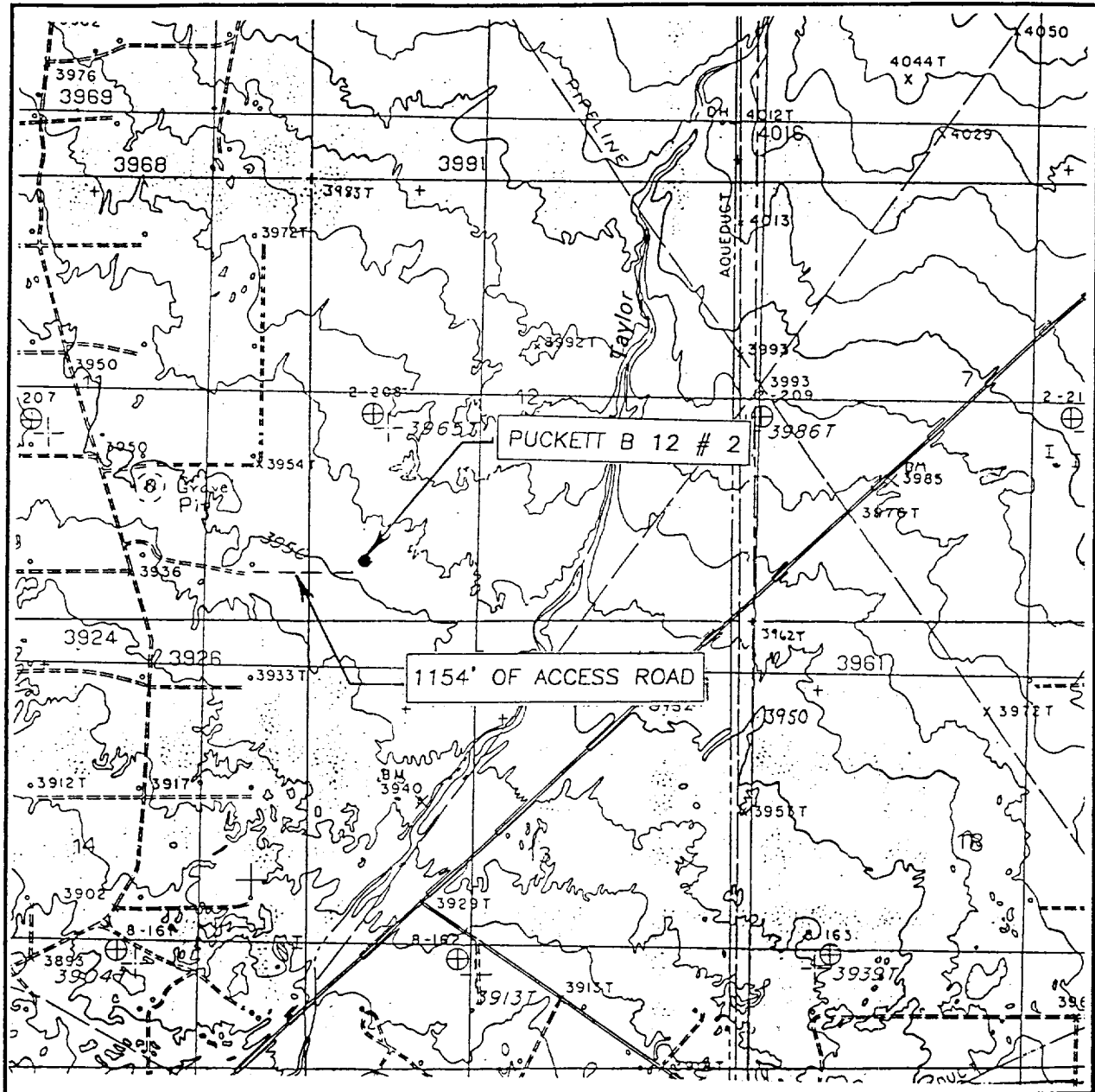
ELEVATION 3951'

OPERATOR W.A.& E.R. HUDSON

LEASE PUCKETT B 12

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
MALJAMAR N.M.

SEC. 12 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 700' FSL & 660' FWL

ELEVATION 3951'

OPERATOR W.A. & E.R. HUDSON

LEASE PUCKETT B 12

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

APPLICATION TO DRILL

W.A. & E.R. HUDSON, INC.
 PUCKETT "B" # 12-2
 UNIT "M" SECTION 12
 T17S-R31E EDDY CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: T17S-R31E EDDY CO. NM.

2. Elevation above sea level:

3. Geologic name of surface formation: Quaternary Aeolian Deposits.

4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5. Proposed drilling depth: 12,500'

6. Estimated tops of geological markers:

Rustler Anhydrite	585'	Cisco	9560'
Base of Salt	1790'	Strawn	10850'
San Andres	3680'	Atoka	11900'
Wolfcamp	8290'	Morrow	12350'

7. Possible mineral bearing formation:

Wolfcamp	Oil	Atoka	Gas
Cisco	Oil	Morrow	Gas
Strawn	Gas		

8. Casing program:

Hole size	Interval	Casing OD	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-625'	13 3/8"	48	8-R	ST&C	H-40
12½"	0-4500'	8 5/8"	24 & 32	8-R	ST&C	J-55
7 7/8"	0-12,500'	5½"	17	8-R Buttress	LT&C	S-95 N-80

W.A. & E.R. HUDSON, INC.
 PUCKETT "B" # 12-2
 UNIT "M" SECTION 12
 T17S-R31E EDDY CO. NM

9. Cementing and Setting Depth:

20"	Conductor	Set 40' Of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 625' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of cement. (300 Sx. of Halco Light + additives, tail in with 200 Sx. of Class "C" cement + 2% CaCl,) circulate cement to surface.
8 5/8"	Intermediate	Set 4500' of 8 5/8" 24&32# J-55 ST&C casing. Cement with 1100 Sx. of Class "C" Halco Light + additives, tail in with 500 Sx. of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 12,500' of 5 1/2" casing as follows: 2300' of 5 1/2" 17# S-95 LT&C, 9000' of 5 1/2" 17# N-80 LT&C, 1200' of 5 1/2" 17# Buttress LT&C. Cement with 600 Sx. of Class "H" Halco Light, tail in with 400 Sx. of Class "H" 50/50 POZ. Bring cement up to 200' above upper most pay, estimate top of cement 7000'.

10. Pressure Control Equipment: Exhibit "E". A 1500 Series 5000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor BOP will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nipples up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Visc.	Fluid Loss	Type Mud
40-625	8.4-8.8	29-36	NC	Fresh water spud mud, use paper to control seepage & high viscosity sweeps to clean hole.
625-4500'	10.1-10.4	29-34	NC	Brine water use paper to control seepage, use high viscosity sweeps to clean hole.
4500-10800'	10.2-10.4	29-34	NC	Same as above using Soda-ash to control pH.
10800-12500	10.2-10.4	30-38	10 cc or less	Same as above use starch to control water loss.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kicks. In order to run DST'S, open hole logs, and casing the viscosity and water loss may have to be adjusted to meet these needs.

12. Testing, Logging and Coring Program:

A. Open hole logs: Dual Laterolog, SNP, CNL DENSITY, Gamma Ray, Caliper from TD to 4500'. Gamma Ray, Neutron from 4500' to surface.

B. Mud logger on hole from 4500' to TD.

C. DST's as dictated by shows.

D. Cores at the discretion of the Geologist.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 5000 PSI, estimated BHT 190°.

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD.

Anticipated spud date as soon as approved. Drilling expected to take 40 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The MORROW pay will be perforated and stimulated. The well will be swab tested and potential as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blosie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If the location is near to a dwelling a closed DST will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

SURFACE USE PLAN

W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM

1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From Maljamar New Mexico take U.S. Hi-way 82 go West 5 miles turn Right go .5 miles turn Right follow lease road North .9 miles turn Right follow lease road East to Wiser well #13 in the SE/4 of SE/4 of section 11, continue East 1150' to location.
 - C. Construct powerlines and lay flowlines along road R-O-W's that will be necessary to produce this lease.
2. PLANNED ACCESS ROADS: Approximately 1150' of new road will be constructed.
 - A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.
 - B. Gradient on all roads will be less than 5.00%.
 - C. Turn out will be constructed where necessary.
 - D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
 - F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.
3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

A. Water wells	-	None known
B. Disposal wells	-	None known
C. Drilling wells	-	None Known
D. Producing wells	-	As shown on Exhibit "A-1"
E. Abandoned wells	-	As shown on Exhibit "A-1"

W.A. & E.R. HUDSON, INC.

PUCKETT "B" # 12-2

UNIT "M" SECTION 12

T17S-R31E EDDY CO. NM

4. If on completion this well is a producer W.A. & E.R. Hudson, Inc. will furnish maps and or plats showing on site facilities or off site facilities as needed. Exhibit "F" shows where pipelines or powerlines will be constructed as required to produce this lease.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holes with a minium depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.

SURFACE USE PLAN

W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip toward the West. Deep sandy soil supports native grasses, mesquite, and shinnery Oak.
- B. Surface is owned by the Bureau of Land Management U.S. Department of Interior. Surface is used for grazing of livestock and is leased to ranchers for this purpose.
- C. An archaeological survey will be conducted and copies of the survey will be filed in the Carlsbad Office of The Bureau of Land Management.
- D. There are no dwellings or habitation within three miles of this location.

12. OPERATORS REPRESENTATIVE:

Before construction:

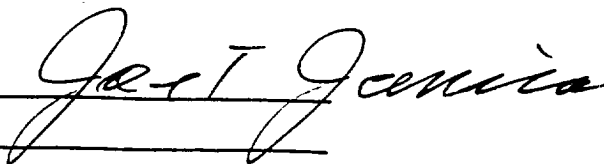
TIERRA EXPLORATION INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PHONE 505-392-2112
JOE T. JANICA

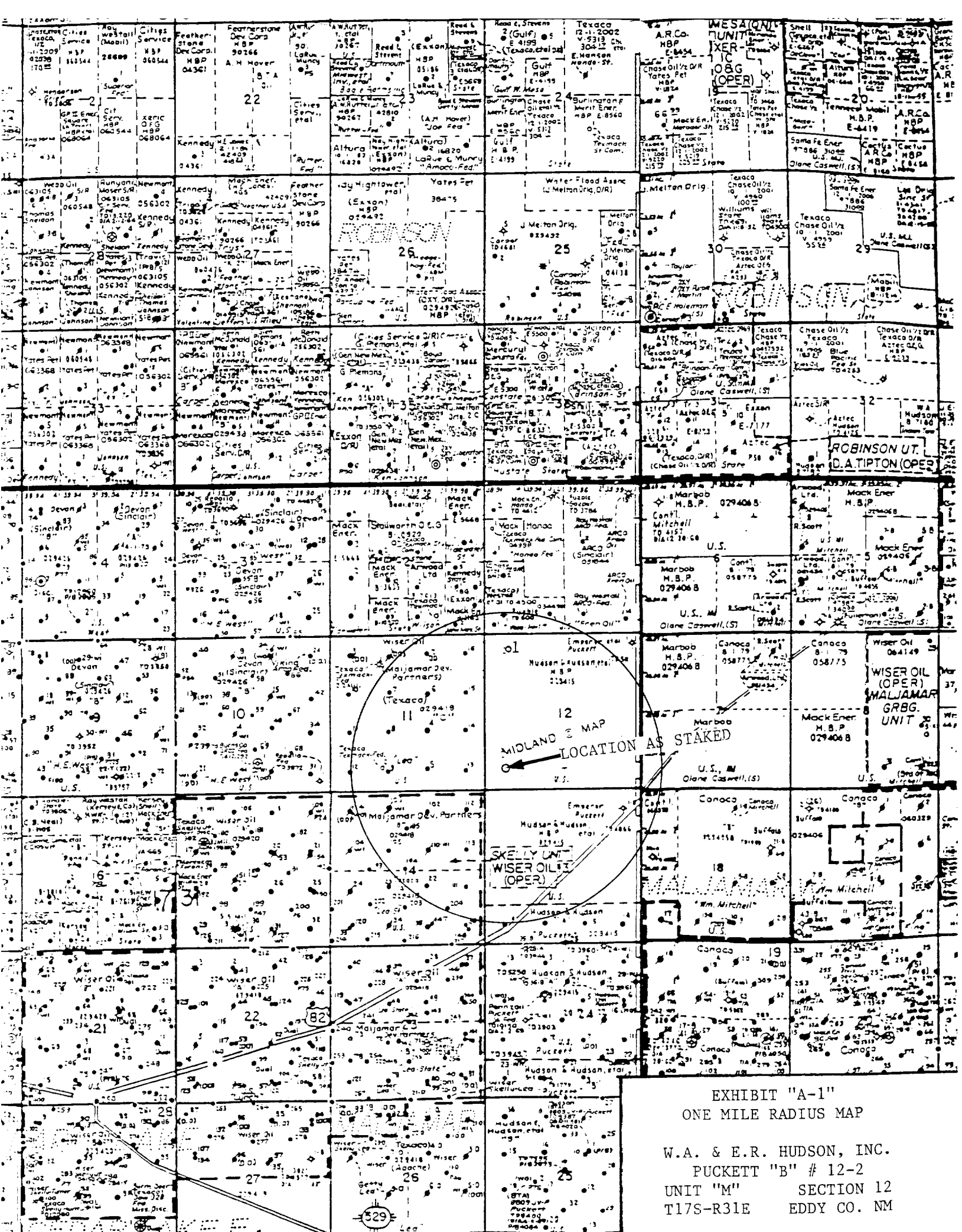
During and after construction:

W.A. & E.R. HUDSON, INC
616 TEXAS STREET
FORT WORTH, TEXAS 76102
JON B. SMITH (OFFICE PHONE 505-676-2266)
P.O. BOX 9
MALJAMAR, NEW MEXICO 88264

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 currently 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 W.A. & E.R. Hudson, Inc. & it's contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME : Joe T. Janica
DATE : 03/26/01
TITLE : Agent





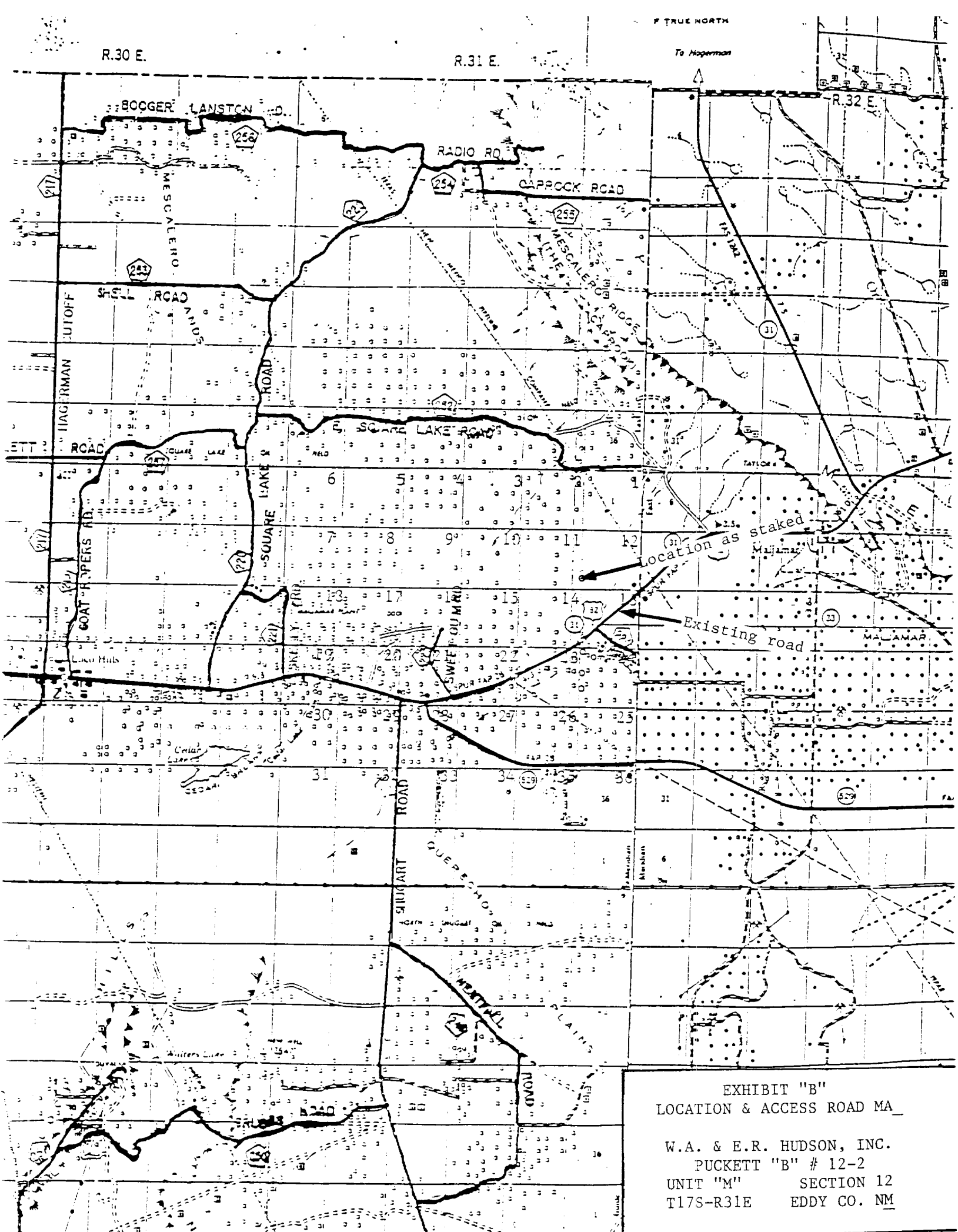


EXHIBIT "B"
LOCATION & ACCESS ROAD MA
W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM

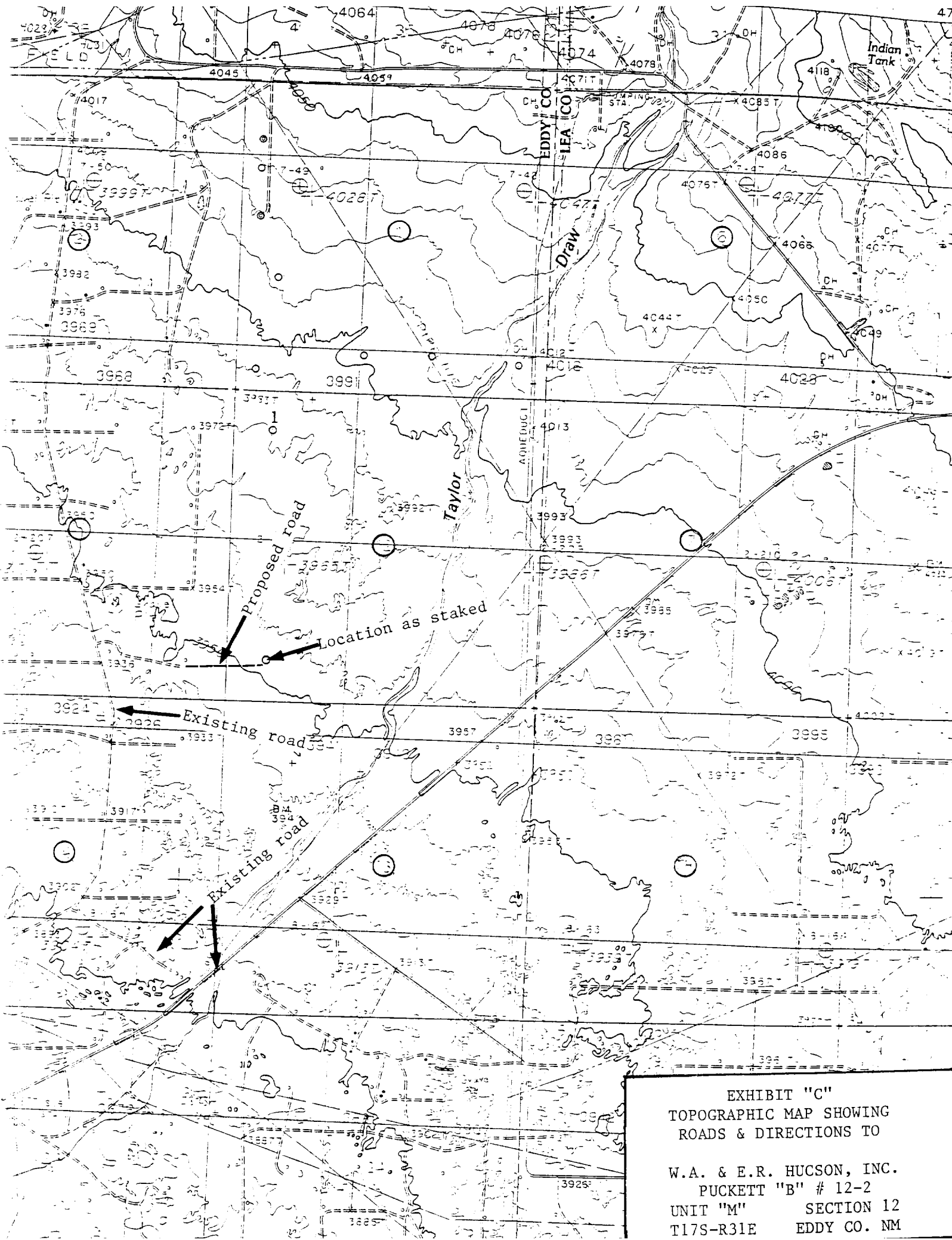
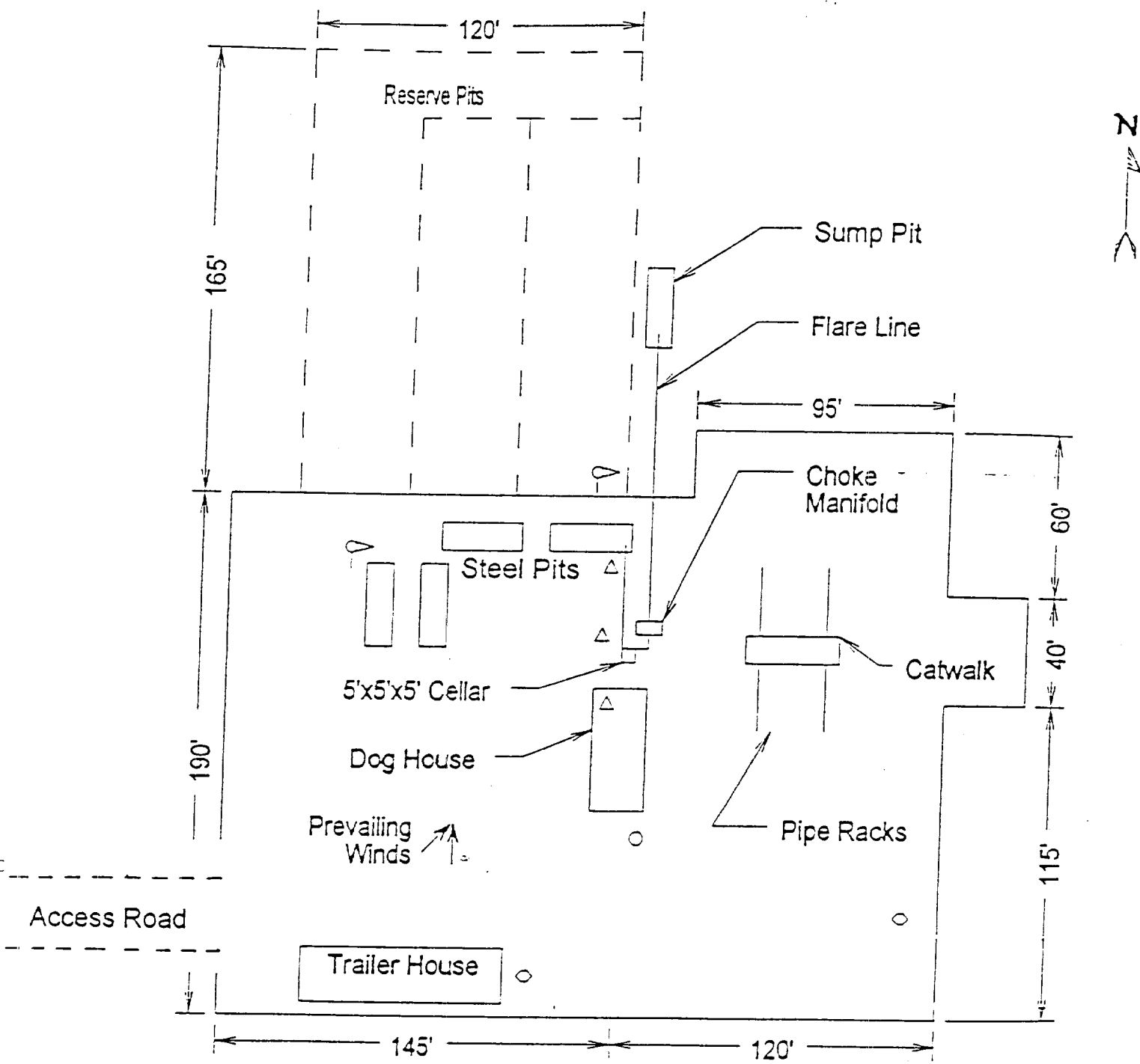


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

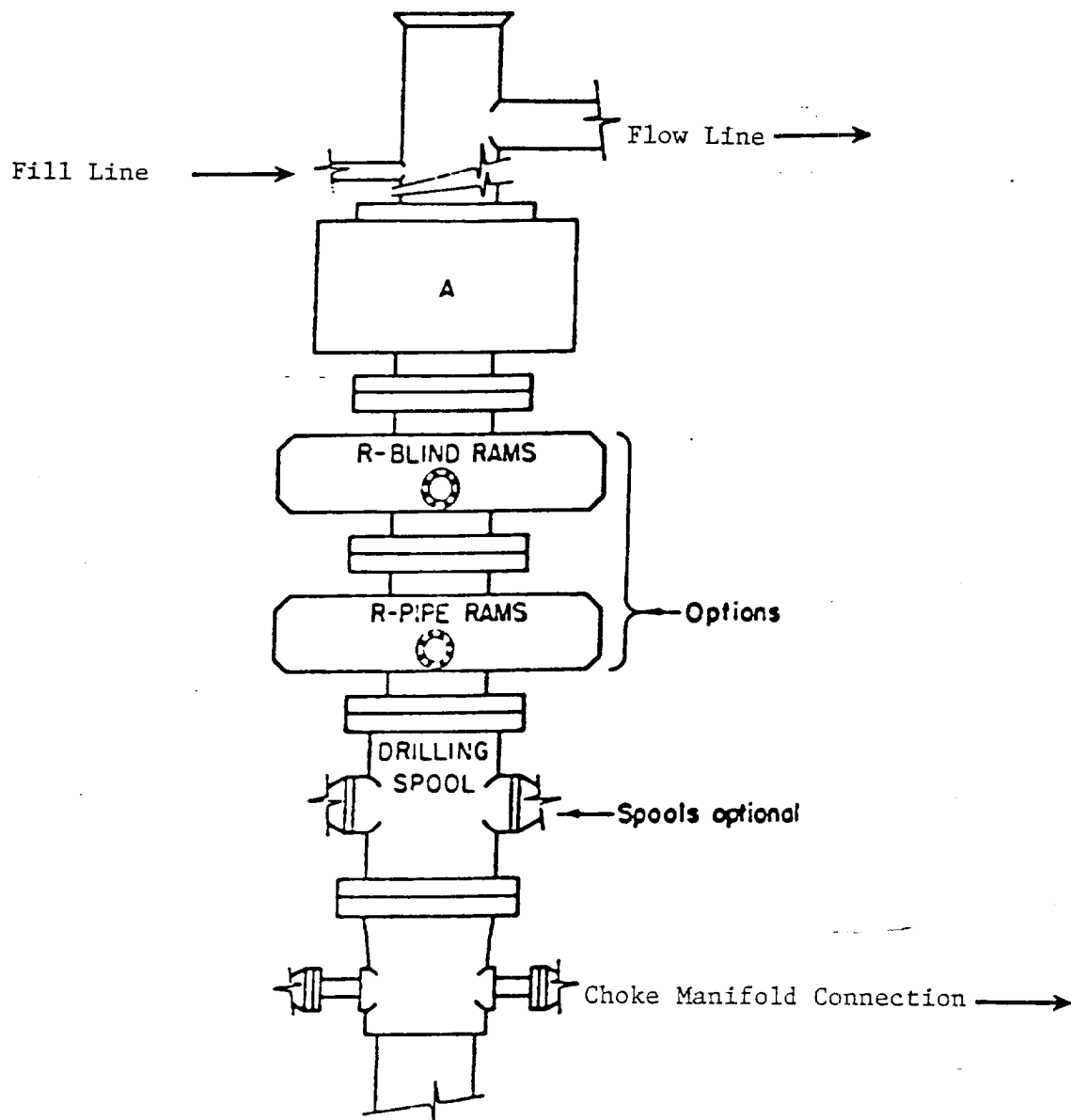
W.A. & E.R. HUCSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM



ARRANGEMENT SRRA

1500 Series
5000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM

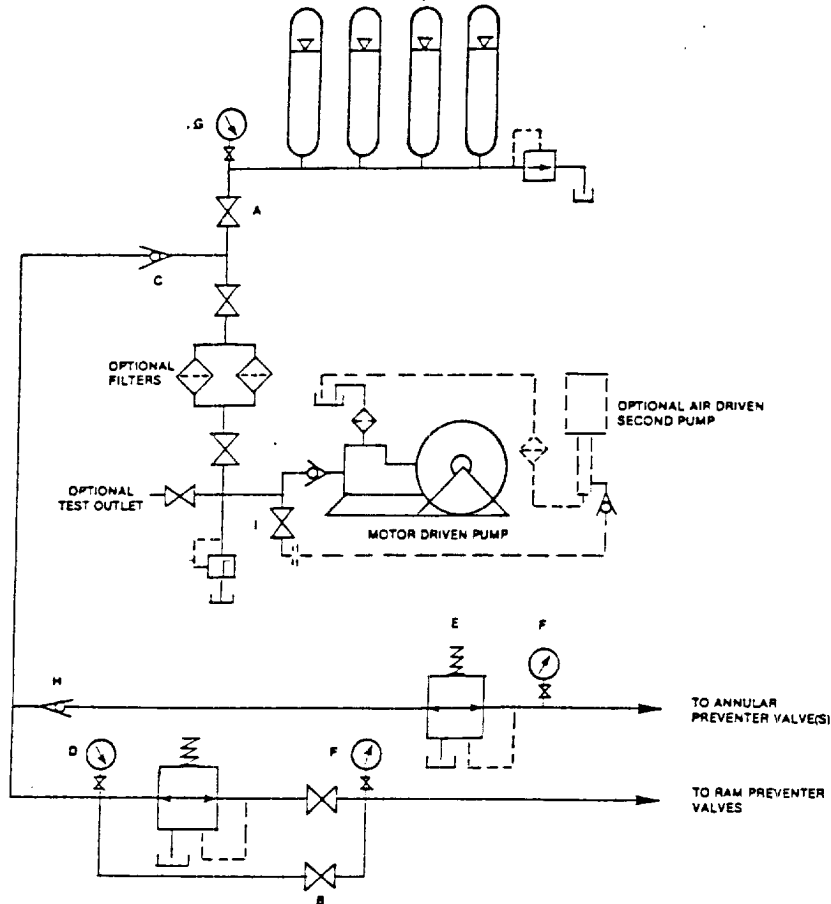


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

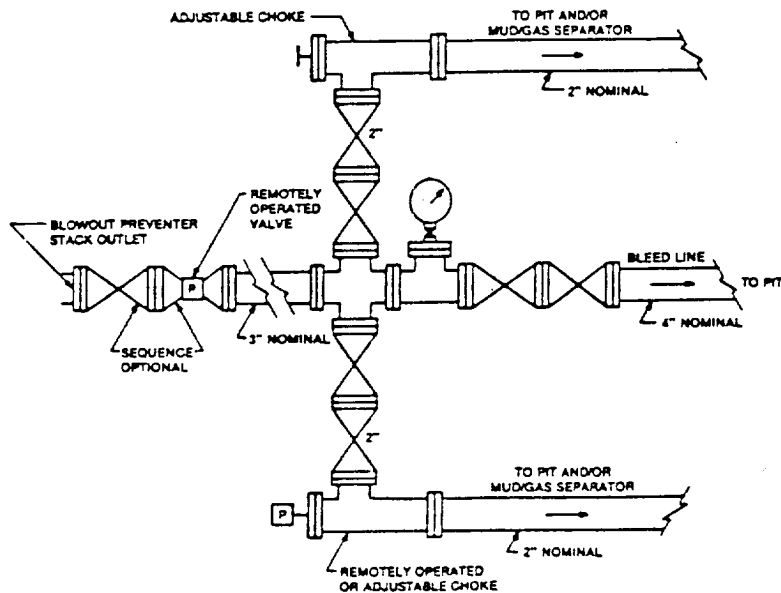


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

W.A. & E.R. HUDSON, INC.
PUCKETT "B" # 12-2
UNIT "M" SECTION 12
T17S-R31E EDDY CO. NM

