Form 3160-3 (July 1992)

8068

C/K VRM II 0 4 [redacted] 9

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

OCD-ARTESIA

D-0648

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-0374057-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ——————————

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

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

7. UNIT AGREEMENT NAME: NM 70799X — CATCLAW DRAW UNIT

8. FARM OR LEASE NAME, WELL NO.: 302825 — CATCLAW DRAW UNIT # 22

2. NAME OF OPERATOR: ~~HEC PETROLEUM, INC.~~ CHEVRON — ENGINEER 241333 RAY MATHEWS 432-687-7224)

9. API WELL NO.: 30-015-34953

3. ADDRESS AND TELEPHONE NO.: MIDCONTINENT LP 432-687-7558
15 SMITH ROAD MIDLAND, TEXAS 79705 Jesse Williams

10. FIELD AND POOL, OR WILDCAT: CATCLAW DRAW-MORROW(GAS)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
860' FNL & 660' FWL SECTION 25 T21S-R25E EDDY CO. NM
At proposed prod. zone SAME

RECEIVED
JUN - 9 2006
OCD-ARTESIA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SECTION 25 T21S-R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately 12 miles Northwest of Carlsbad New Mexico

12. COUNTY OR PARISH: EDDY CO. 13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980'

16. NO. OF ACRES IN LEASE: 5120 Acres in unit

17. NO. OF ACRES ASSIGNED TO THIS WELL: 640

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 2640'

19. PROPOSED DEPTH: 11,000'

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3431' GR.

22. APPROX. DATE WORK WILL START*: WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	Conductor 20"	NA	80'	Cement/W Redi-mix to surface
17½"	H-40 13 3/8"	48#	WITNESS 400'	450 Sx. circulate cement
11"	J-55 8 5/8"	32#	WITNESS ~~2,250'~~ 2075'	675 Sx. " "
7 7/8"	N-80 5½"	17#	11,000'	1070 Sx. Est TOC 2000'

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED SHEET

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

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.

24.

SIGNED Joe T. Janica TITLE Agent DATE 01/25/06

(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 /s/ Russell E. Sorensen TITLE Acting FIELD MANAGER DATE JUN 06 2006

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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.

1. Drill 26" hole to 80'. Set 80' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 400'. Run and set 400' of 13 3/8" 48# H-40 ST&C casing. Cement with 450 Sx. of Class "C" cement + ¼# Flocels/Sx., + 2% CaCl, circulate cement to surface.
3. Drill 11" hole to 2250'. Run and set 2250' of 8 5/8" 32# J-55 ST&C casing. Cement with 675 Sx. of Class "C" cement. Lead cement, 425 Sx. of Class "C" cement + 5# Gilsonite/Sx, + ¼# Flocele/Sx, tail in with 250 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 7 7/8" hole to 11,000'. Run and set 11,000' of 5½" 17# N-80 LT&C casing. Cement with 1070 Sx of cement. Lead cement 700 Sx. of Class "H" Interfill + 0.1% of HR7, + 5# Gilsonite/Sx., + ¼# of Flocele/Sx, tail in with 370 Sx. of Class "H" Super cement + 0.4% Halad R344, + 0.3% CFR3, + 0.3% HR7. Estimate top of cement 2000' from aurface.

1

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	74320	CATCLAW DRAW-MORROW (PRORATED GAS)

Property Code	Property Name	Well Number
4876	CATCLAW DRAW FEDERAL	22
OGRID No.	**Operator Name**	**Elevation**
9812	HEC PETROLEUM, INC.	3431'

Surface Location

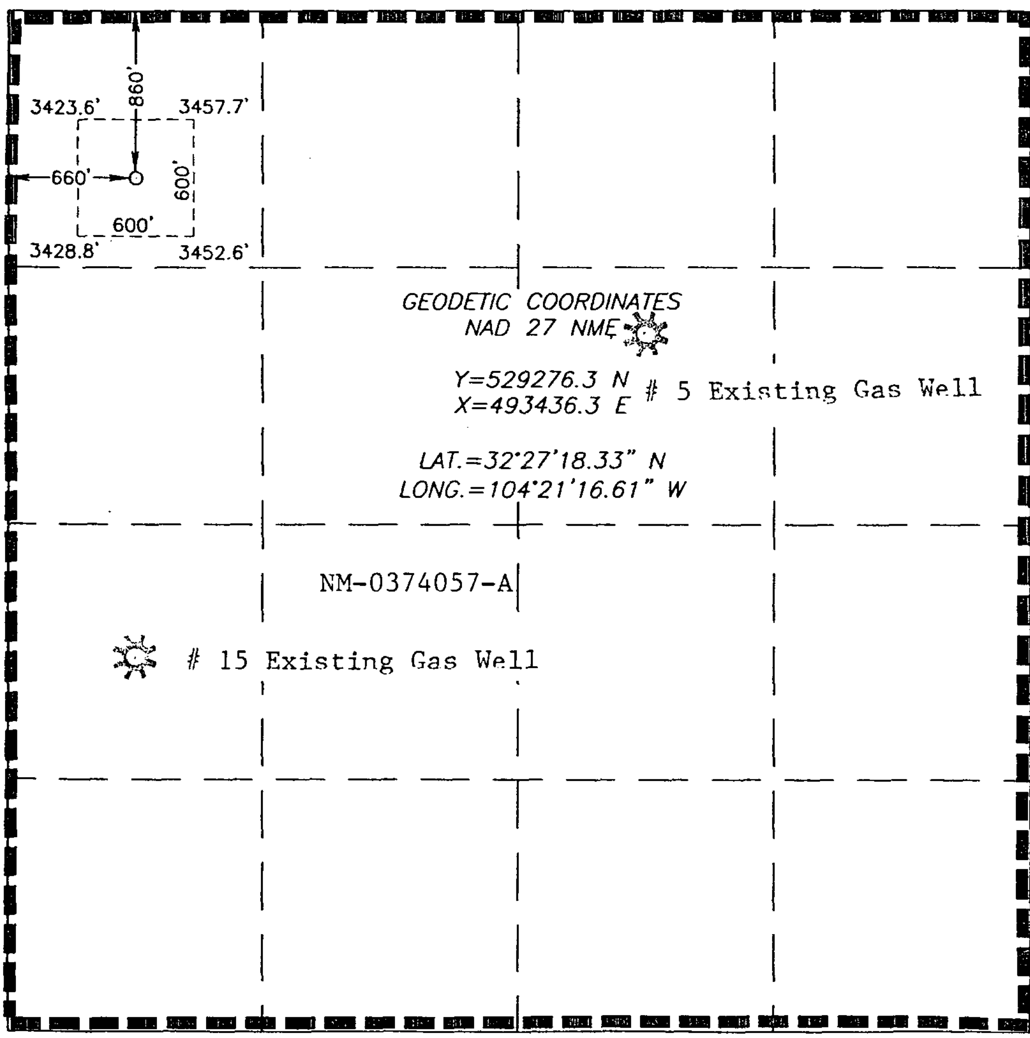
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	21-S	25-E		860	NORTH	660	WEST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
640			

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.

Signature

Joe T. Janica
Printed Name

Agent
Title

01/25/06
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 supervison and that the same is true and correct to the best of my belief.

NOVEMBER 23, 2005
Date Surveyed REV: 12/21/05 JR

Signature & Seal of Professional Surveyor

12/21/05

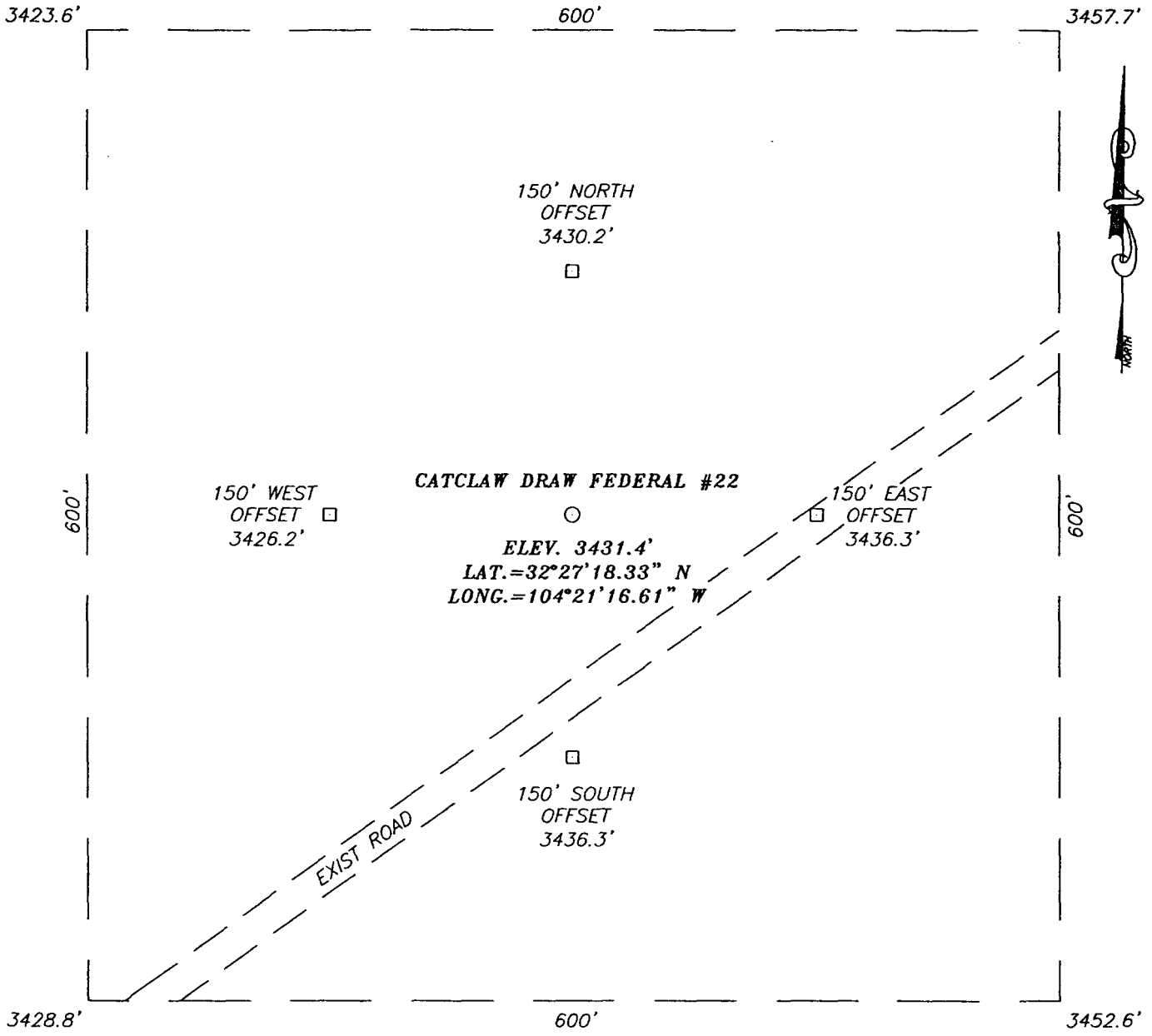
05.11.1804

Certificate No. GARY EIDSON 12641

EXHIBIT "A"

SECTION 25, TOWNSHIP 21 SOUTH, RANGE 25 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY #285 AND CO. RD. #407 (DOUGLAS FIR RD.) GO WEST/SW ON CO. RD. #407 FOR APPROX. 1.6 MILES. TURN LEFT (SOUTH) AND GO APPROX. 2.1 MILES TO A CATTLEGUARD. GO THRU CATTLEGUARD TO A CALICHE ROAD ON THE LEFT. TURN LEFT (EAST) AND GO APPROX. 0.4 MILES. THIS LOCATION IS APPROX. 125' NORTH.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

HEC PETROLEUM, INC.

CATCLAW DRAW FEDERAL #22 WELL
LOCATED 860 FEET FROM THE NORTH LINE
AND 660 FEET FROM THE WEST LINE OF SECTION 25,
TOWNSHIP 21 SOUTH, RANGE 25 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 11/23/05	Sheet 1 of 1 Sheets	
W.O. Number: 05.11.1804	Dr By: J.R.	Rev 1: 12/21/05
Date: 12/01/05	Disk: CD#5	05111804	Scale: 1"=100'

APPLICATION TO DRILL

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 860' FNL & 660' FWL SECTION 25 T21S-R25E EDDY CO. NM

2. Elevation above Sea Level: 3431' GR.

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

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

5. Proposed drilling depth: 11,000'

6. Estimated tops of geological markers:

Delaware	2190'	Strawn	9400'
Bone Spring	4300'	Atoka	9750'
Wolfcamp	7950'	Morrow Clastics	10,350'
Cisco	9000'	Barnett Shale	10,750'

7. Possible mineral bearing formations:

Bone Spring	Oil	Atoka	Gas
Wolfcamp	Gas	Morrow	Gas
Strawn	Gas		

8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
26"	0-80'	20"	NA	NA	NA	Conductor
17½"	0-400'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-2250'	8 5/8"	32#	8-R	ST&C	J-55
7 7/8"	0-11,000'	5½"	17#	8-R	LT&C	N-80

APPLICATION TO DRILL

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 80' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 400' of 13 3/8" 48# H-40 ST&C casing and cement to surface with 450 Sx. of Class "C" cement + ¼# Flocele/Sx. + 2% CaCl, circulate cement to surface.
8 5/8"	Intermediate	Set 2250' of 8 5/8" 32# J-55 ST&C casing. Cement with 675 Sx. of Class "C"cement + additives, circulate cement to surface.
5½"	Production	Set 11,000' of 5½" 17# N-80 LT&C casing. Cement with 1070 Sx. of Class "H" Premium Plus cement + additives. Estimate top of cement 2000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 1500 Series 5000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 5000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-400'	8.4-8.7	26-32	NC	Fresh water Spud mud add paper to control seepage.
400-2250'	8.4-8.6	26-30	NC	Fresh water possibly aerated add chemical to reduce corr-osian, may add paper to control seepage and/or lost circulation.
2250-8500'	8.4-8.8	28-30	NC	Freah water use high viscosity sweeps to clean hole.
8500-11,000'	8.8-9.0	34-40	10-15 or less	Fresh water use high viscosity sweeps to clean hole and Dris-Pac and starch to control water loss.

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

APPLICATION TO DRILL

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Platform Express Plus Sonic, and RFT from TD back to the 8 5/8" casing shoe. Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.

B. Mud logger will be rigged up on the hole at approximately 1100' and remain on till TD.

C. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 5500 PSI, and Estimated BHT 195°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 45 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Morrow formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie 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, H_2S 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 location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E 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 Carlsbad New Mexico take U.S. Hi-way 285 North toward Artesia NM, go approximately 9 miles to CR 407 (Douglas Fir Road) follow this road 1.6 miles± turn Left go approximately 2.1 miles cross cattle guard and turn Left, go .4± miles to location on the North side of road.

   C. Exhibit "C" shows the pipeline routes that will be constructed to existing sales line. And the proposed roads and existing roads.

2. PLANNED ACCESS ROADS:

   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 outs 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	-	One approximately .7 miles Southwest of location.
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"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed routes of roads, flowlines and powerlines.

5. LOCATION AND TYPE OF WATER SUPPLY:

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

6. SOURCE OF CONSTRUCTION MATERIAL:

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

7. METHODS OF HANDLING WASTE MATERIAL:

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

B. All trash, junk and other waste material will be contained in trash cages or trash 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 the supplier, including broken sacks.

D. Waste water from living quaters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operation and will be removed when all operations are complete.

E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the proposed well site layout.

B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.

D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 6 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.

E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out.If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

11. OTHER INFORMATION:

A. Topography consists of shallow drainages that drain into Adoe Flat, then Easterly into Hackberry Draw. Vegetation consists of Gamma grass, Mesquite Bunch grass, Snake weed, Barrel cactus, and Creosote bush.

B. Surface is owned by the U.S. Department of Interior and is administered by the Bureau of Land Management. The surface is leased to ranchers for grazing of live stock.

C. An Archaeological survey will be conducted of proposed roads pipelines and location. This report will be filed with the Bureau of Land Management in the Carlsbad Field Office.

D. There are no domestic dwellings located within one mile of the location.

12. OPERATORS REPRESENTIVE:

Before construction:

TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
JOE T. JANICA
OFFICE PHONE 505-391-8503

During and after construction:

HEC PETROLEUM, INC.
15 SMITH ROAD
MIDLAND, TEXAS 79705
RAY MATHEWS 432-687-7224
JESSE WILLIAMS 432-687-7558

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, are true and correct, and that the work associated with the operations proposed herein will be performed by HEC PETROLEUM, 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 : 01/25/06
TITLE : Agent

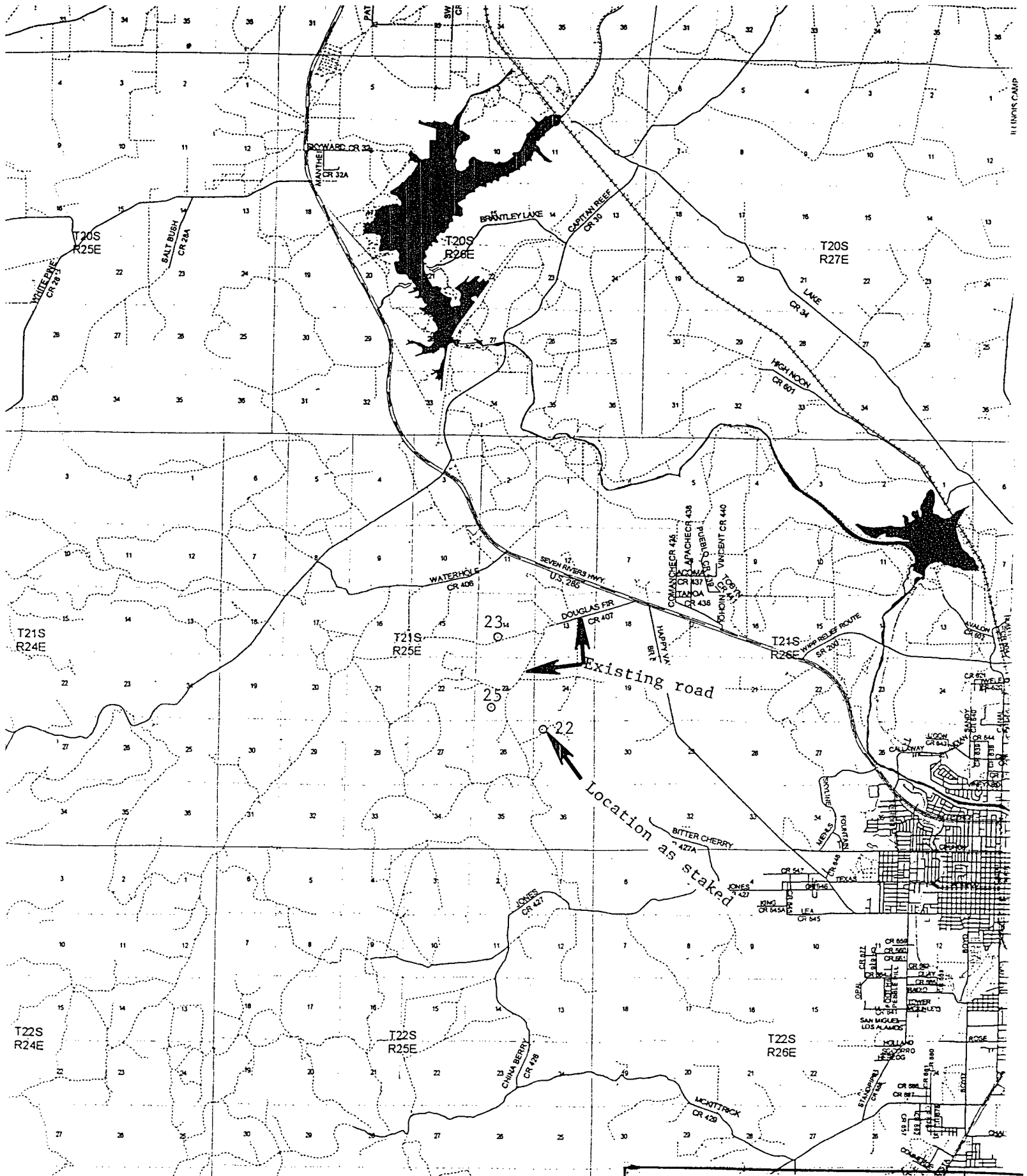
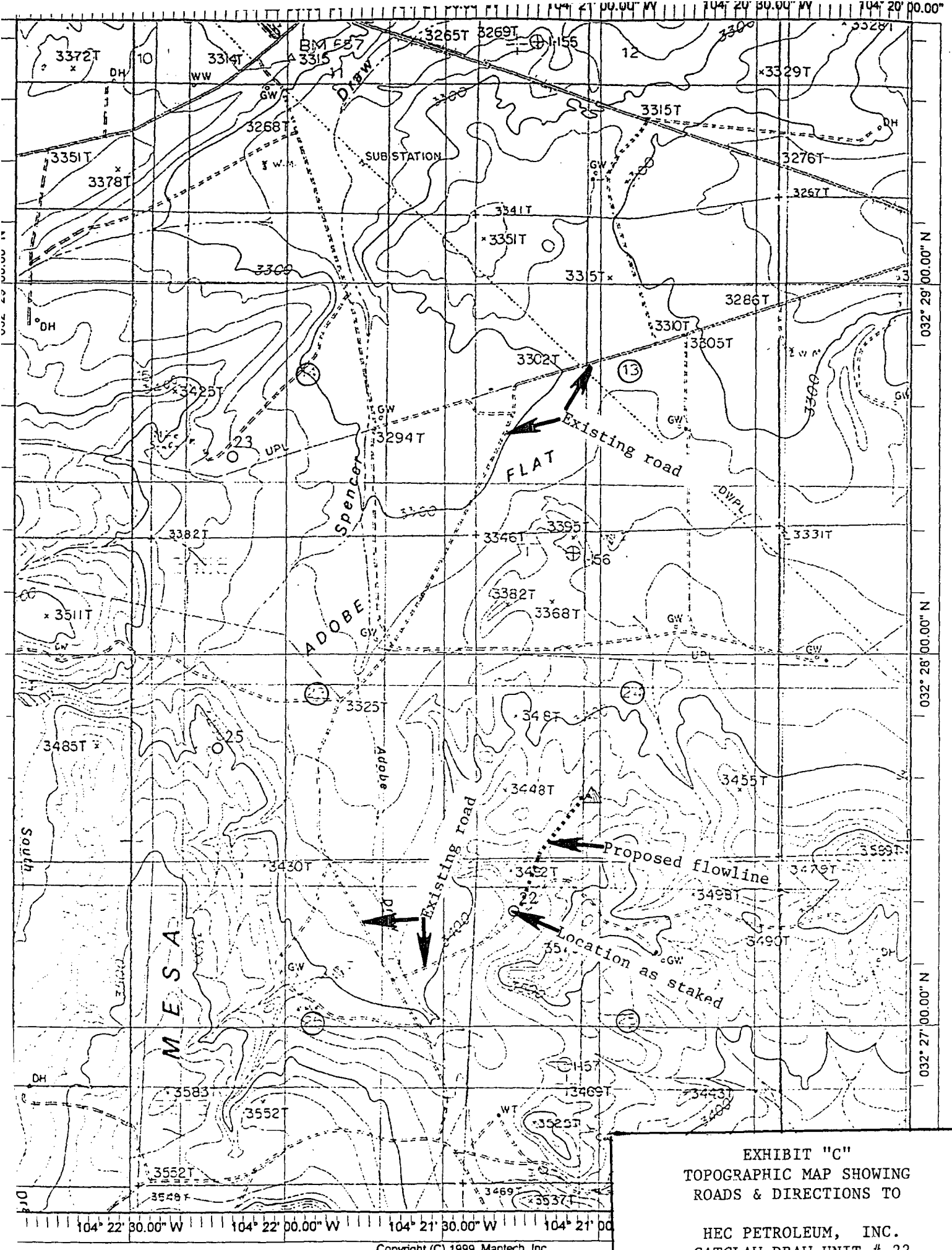


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

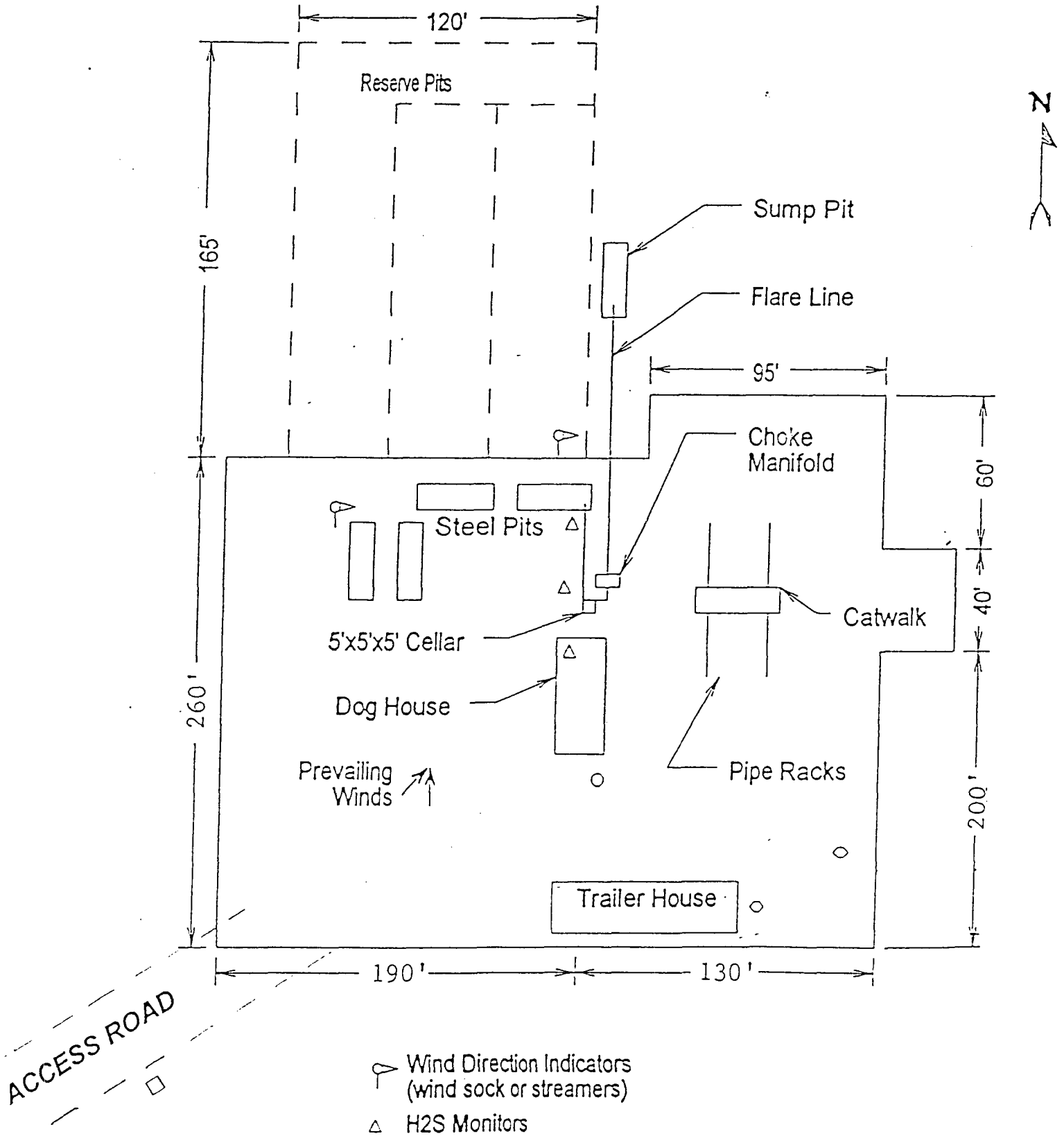
HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM



Copyright (C) 1999, Maptech, Inc.

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

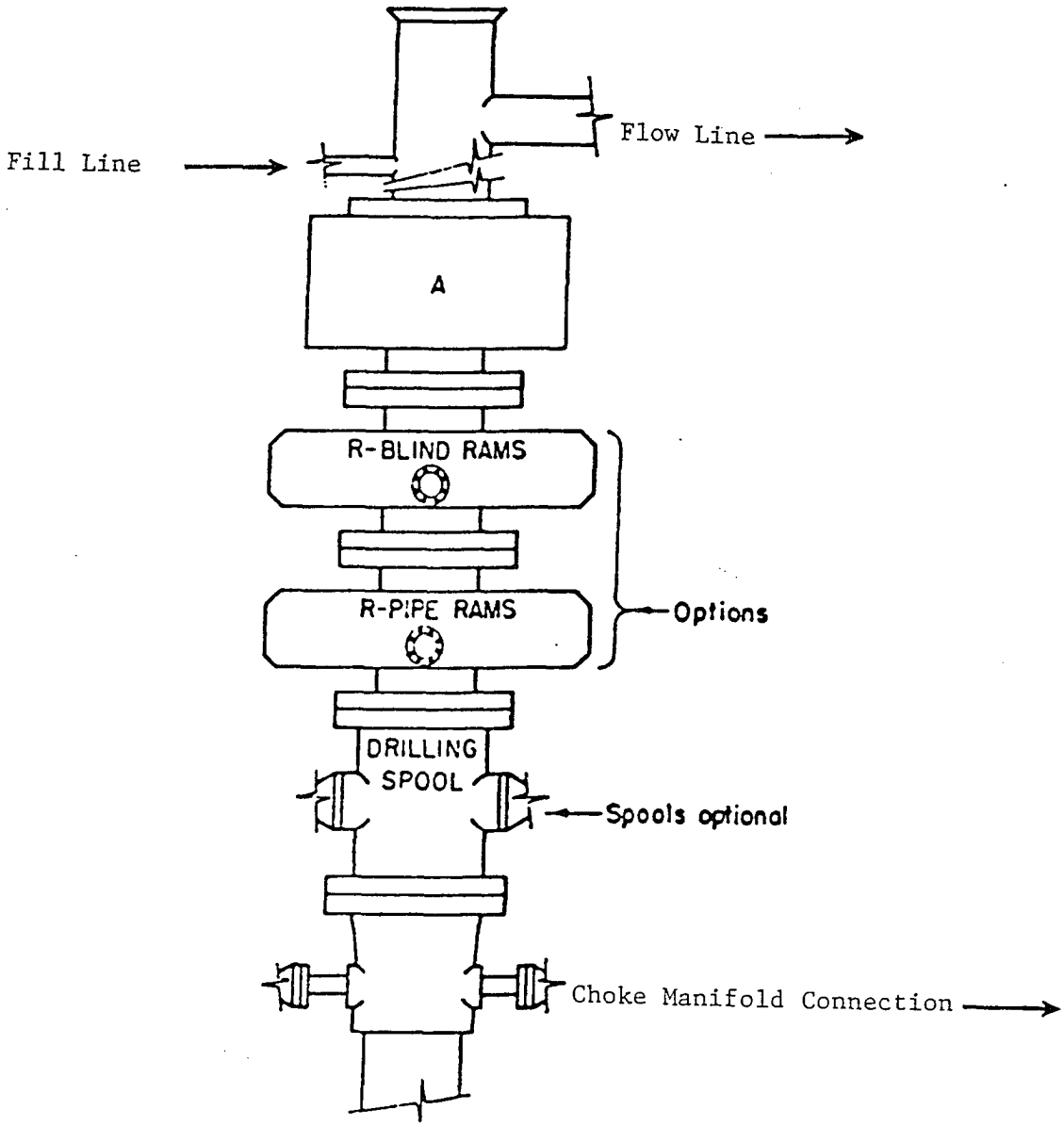
HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM



- 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

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM



ARRANGEMENT SRRA

1500 Series
5000 PSI WP

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

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM

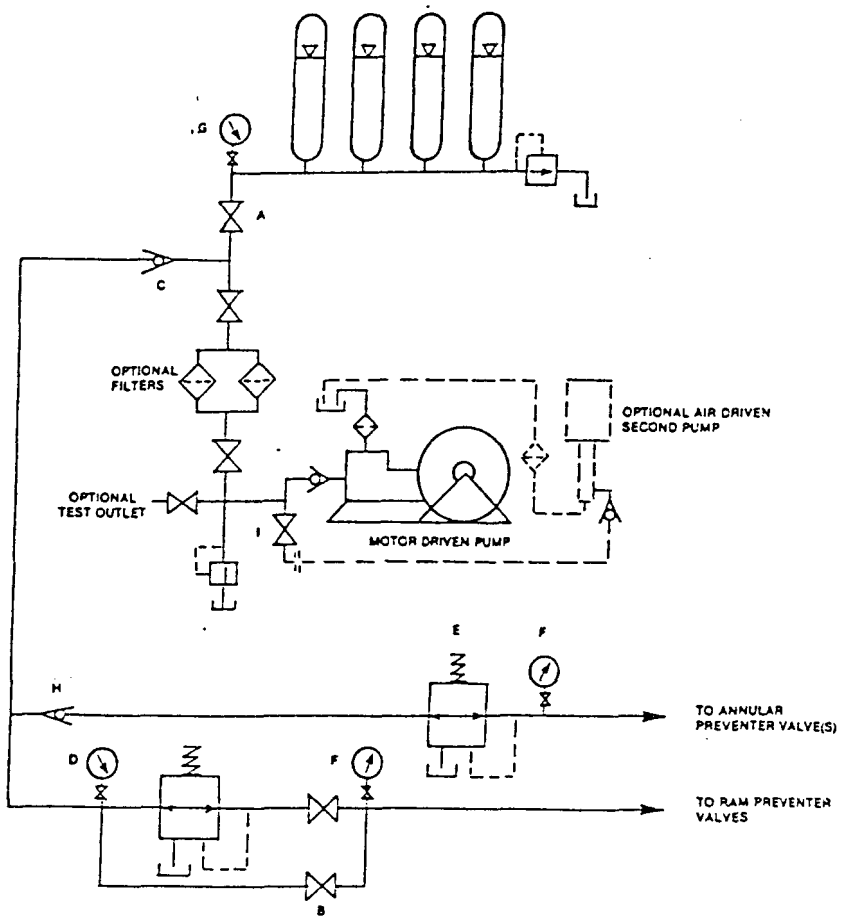


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

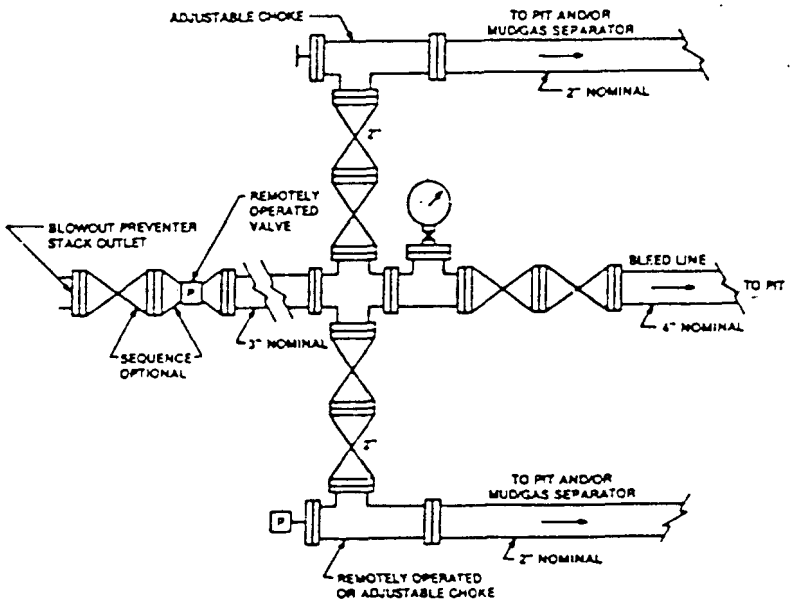


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

HEC PETROLEUM, INC.
CATCLAW DRAW UNIT # 22
UNIT "D" SECTION 25
T21S-R25E EDDY CO. NM

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**HEC Petroleum, Inc.**
Well Name & No.	**Catclaw Draw Unit #22**
Location:	**860' FNL, 660' FWL, Section 25, T. 21 S., R. 25 E., Eddy County, New Mexico**
Lease:	**NM-0374057-A**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

   A. Well spud

   B. Cementing casing: **13-3/8** inch **8-5/8** inch **5-1/2** inch

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at **approximately 400 feet** and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is **to be circulated to the surface**.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval**.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **13-3/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

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

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

2/7/2006
acs