DEF

A-05-03

APPLICATIC

OPER. OGRID NO. 229137
PROPERTY NO. 34416
POOL CODE 77370
EFF. DATE 11/19/04
API NO. 30-025-36955

Expires: February 28, 1995

District I

5. LEASE DESIGNATION AND SERIAL NO.
NM-94099

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
JADE VIPER "33" FED. COM. 1

9. API WELL NO.
30-025-36955

10. FIELD AND POOL, OR WILDCAT
GEM MORROW-GAS

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SECTION 33 T19S-R33E

12. COUNTY OR PARISH
LEA CO.

13. STATE
NEW MEXICO

1a. TYPE OF WORK
DRILL [X]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [ ]

2. NAME OF OPERATOR
COG OPERATING, LLC. (ERICK NELSON 432-685-4342)

3. ADDRESS AND TELEPHONE NO.
550 WEST TEXAS AVE. SUITE 1300 MIDLAND, TEXAS 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
495' FNL & 1650' FEL SECTION 33 T19S-R33E R-111-P Potash
At proposed prod. zone
760' FNL & 1650' FEL SECTION 33 T19S-R33E Unit B

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately 35 miles Southwest of Hobbs New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 760'

16. NO. OF ACRES IN LEASE
320

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.
NA

19. PROPOSED DEPTH
13,700'

20. ROTARY OR CABLE TOOLS
ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3555' GR.

22. APPROX. DATE WORK WILL START*
WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

Capitan Controlled Water Basin

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface W/Redi-mix
17½"	J-55,H-40 13 3/8"	48 & 54.5	1300'	1200 Sx. circulate to surface
11"	J-55/HCK-55 8 5/8"	32	5200'	1200 Sx. circulate to surface
7 7/8"	P-110 5½"	17	13,800'	900 Sx. Estimate TOC 8000'

RECEIVED
Hobbs OCD

See Amended casing program

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-Mix.
2. Drill 17½" hole to 1300'. Run and set 1300' of 13 3/8" 48# H-40 & J-55 54.5# ST&C casing. Cement with 1000 Sx. of 35/65POZ Class "C" cement + additives, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. Circulate cement to surface.
3. Drill 11" hole to 5200'. Run and set 5200' of 8 5/8" 32# J-55 & HCK-55 ST&C casing. Cement with 1000 Sx. of 50/50 Class "C" Light weight cement + additives, tail in with 200 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 7 7/8" hole to 13,800'. Run and set 13.800' of 5½" 17# P-110 LT&C casing. Cement with 900 Sx. of Class "H" Premium Plus cement + additives, estimate top of cement 8000' from surface.

COG OPERATING, LLC ACCEPTS THE RESPONSIBILITY OF THE OPERATION OF THIS LEASE.

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 10/07/04

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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/ Linda S. C. Rundell TITLE STATE DIRECTOR DATE NOV 10 2004

*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.

State of New Mexico

Energy, Minerals and Natural Resources Department

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

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
30-025-36955	77370	GEM MORROW-GAS

Property Code	Property Name	Well Number
34416	JADE VIPER "33" FEDERAL COM	1

OGRID No.	Operator Name	Elevation
229137	COG OPERATING LLC	3555'

Surface Location

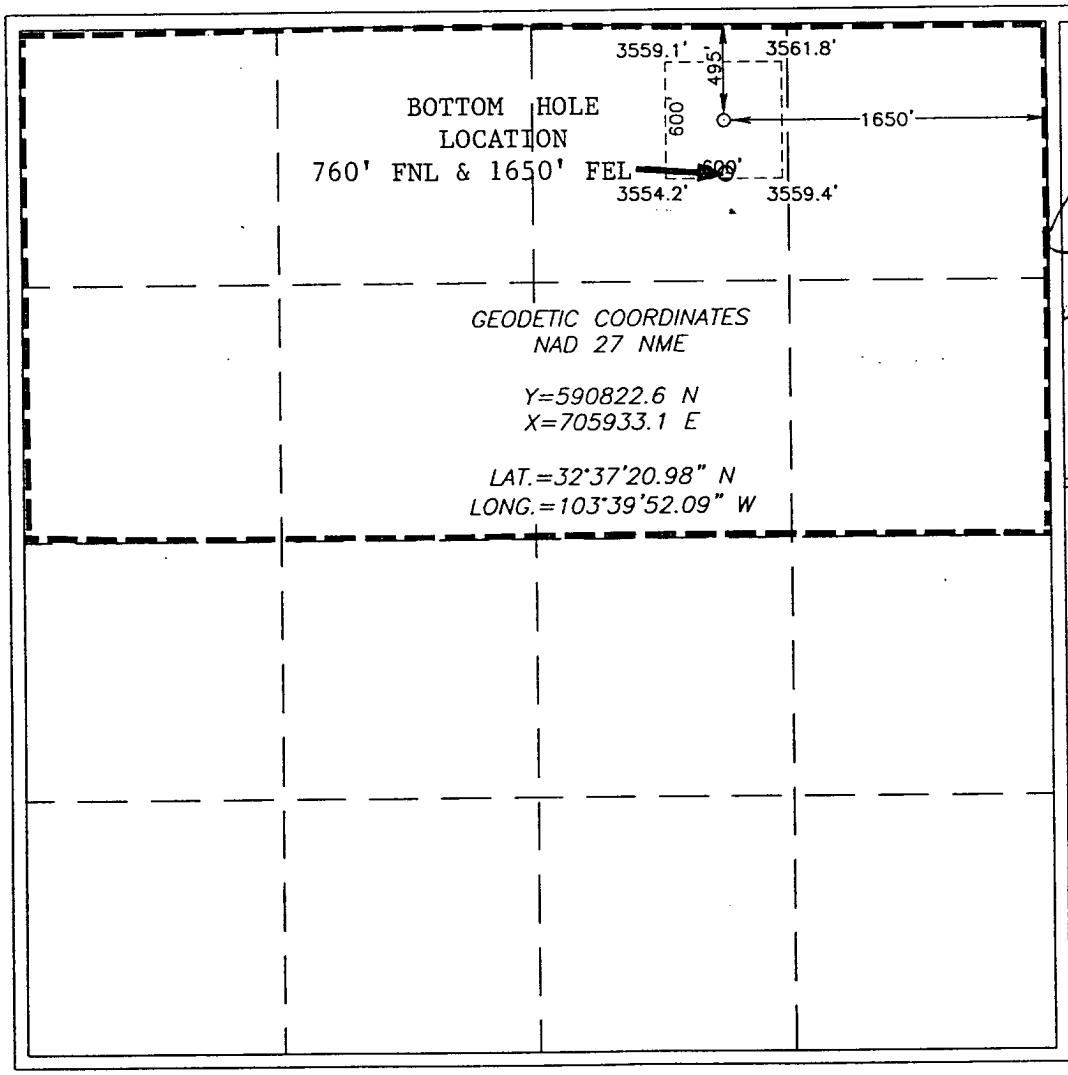
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	33	19-S	33-E		495	NORTH	1650	EAST	LEA

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
B	33	19-S	33E		760'	NORTH	1650'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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: Joe T. Janica

Title: Agent

Date: 10/07/04

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.

Date Surveyed: SEPTEMBER 30, 2004 LA

Signature & Seal of Professional Surveyor: Gary L. Eidson 10/1/04

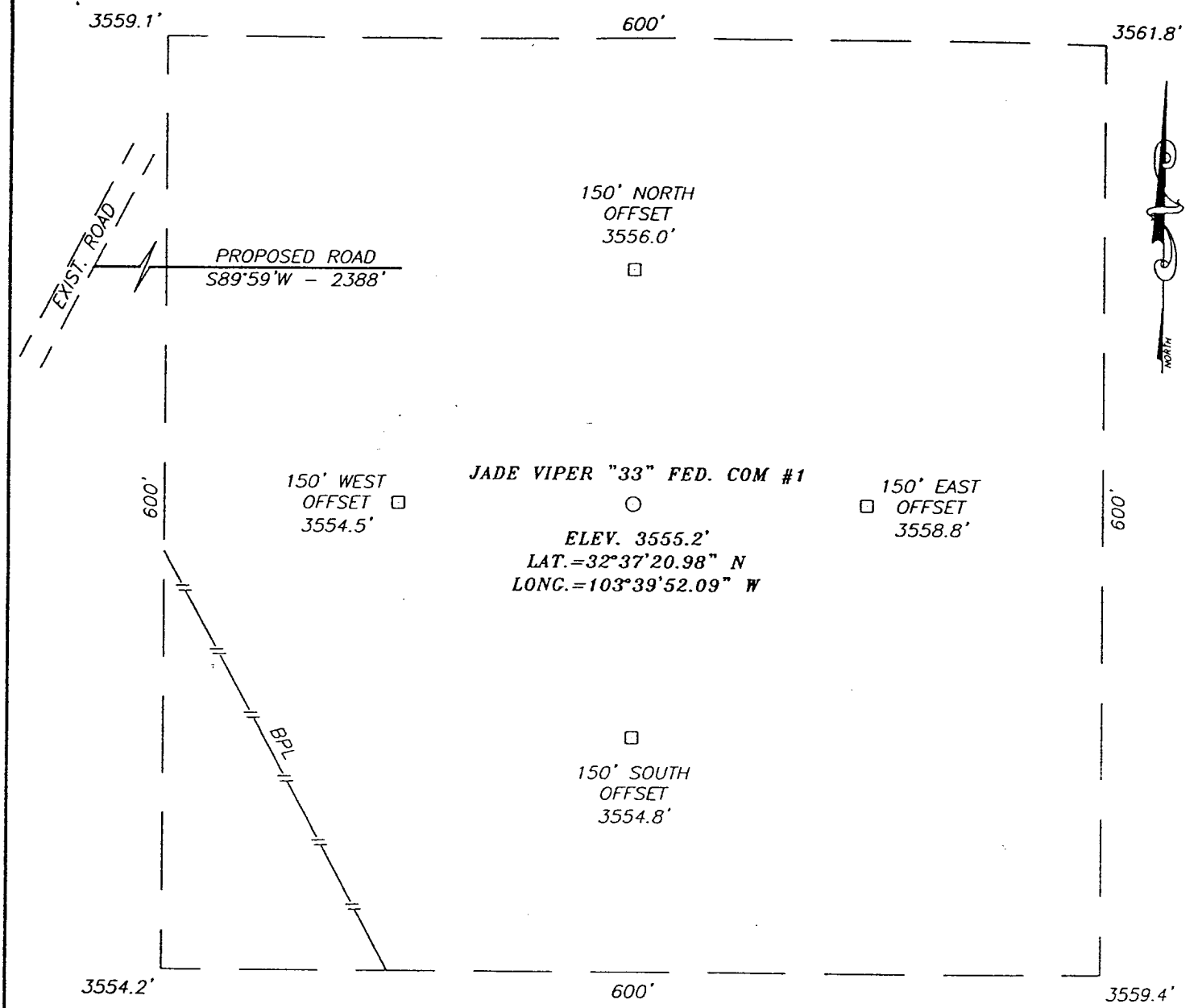
04.11.1285

Certificate No. GARY EIDSON 12641

EXHIBIT "A"

SECTION 33, TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HIGHWAY 62-180 AND SMITH RANCH ROAD. GO NORTH ON SMITH RANCH ROAD APPROX. 2.0 MILES TO A LEASE ROAD ON THE LEFT. TURN LEFT AND GO WEST APPROX. 3.3 MILES TO A LEASE ROAD ON THE RIGHT. TURN RIGHT AND GO NORTHWEST 0.7 MILES. ROAD WILL BEND AND GO NORTH APPROX. 0.7 MILES TO A "T" INTERSECTION. TURN RIGHT AND GO EAST AND NORTHEAST APPROX. 0.6 MILES TO A PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY EAST APPROX 0.45 MILES TO THIS LOCATION.

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

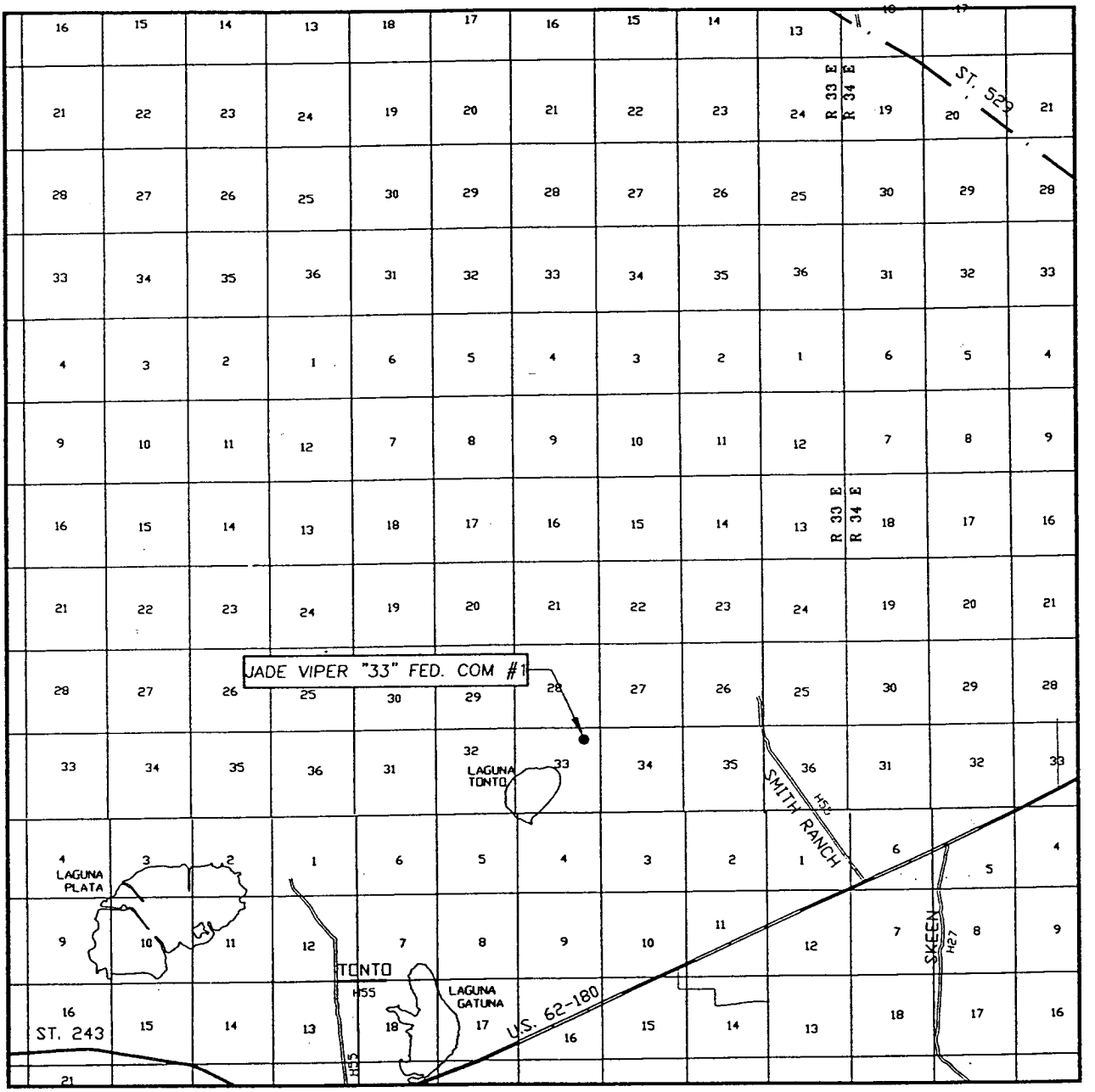
(505) 393-3117

COG OPERATING LLC

JADE VIPER "33" FED. COM #1 WELL
LOCATED 495 FEET FROM THE NORTH LINE
AND 1650 FEET FROM THE EAST LINE OF SECTION 33,
TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 9/30/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.1285	Dr By: LA	Rev 1:N/A	
Date: 10/1/04	Disk: CD#3	04111285	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 33 TWP. 19-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 495' FNL & 1650' FEL

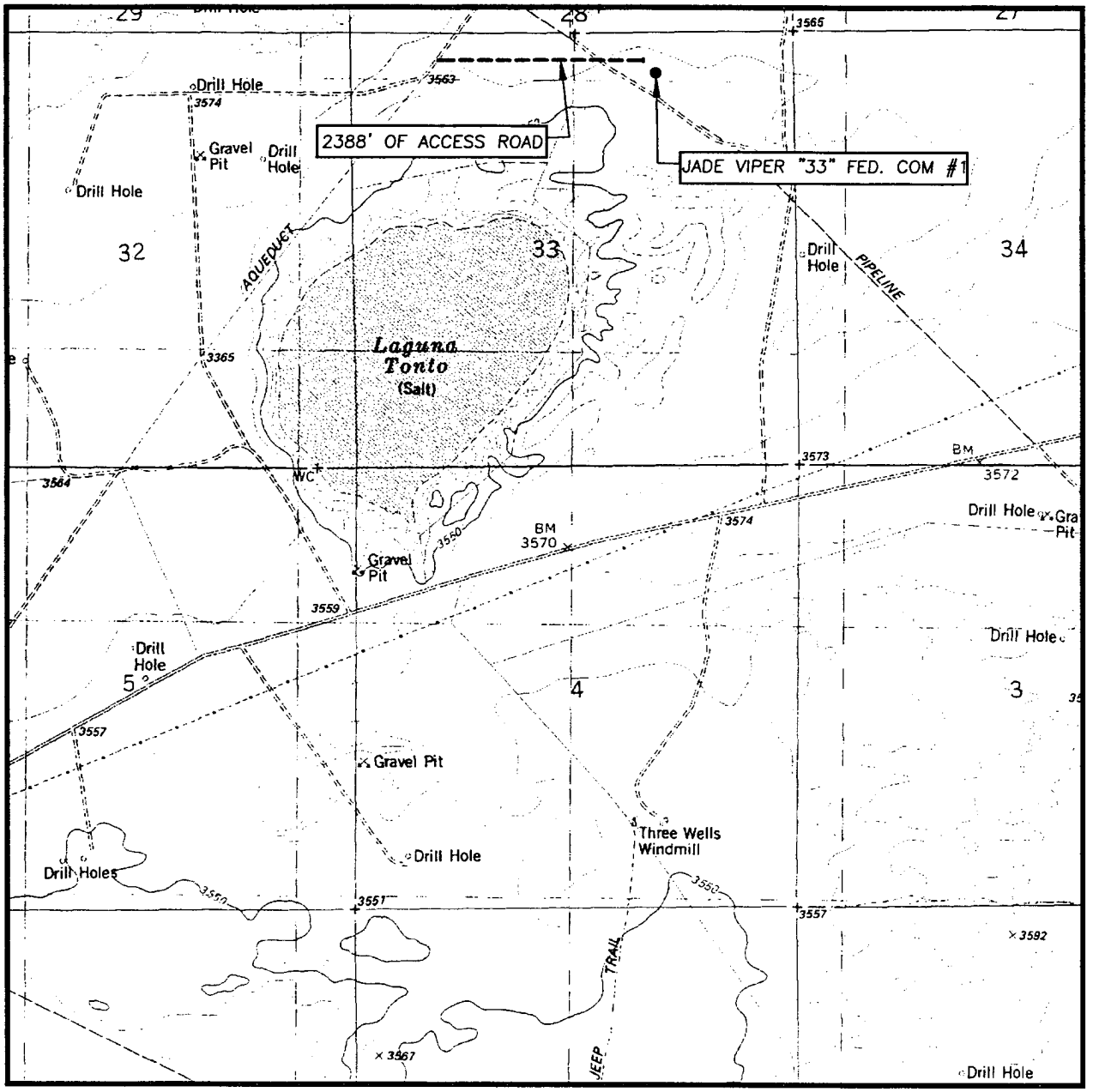
ELEVATION 3555'

OPERATOR COG OPERATING LLC

LEASE JADE VIPER "33" FED. COM

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LAGUNA GATUNA, N.M. – 10'

SEC. 33 TWP. 19–S RGE. 33–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 495' FNL & 1650' FEL

ELEVATION 3555'

OPERATOR COG OPERATING LLC

LEASE JADE VIPER "33" FED. COM

U.S.G.S. TOPOGRAPHIC MAP
LAGUNA GATUNA, N.M.

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

APPLICATION TO DRILL

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

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

1. Location of well: 495' FNL & 1650' FEL SEC. 33 T19S-R33E SURFACE LOCATION
760' FNL & 1650' FEL SEC. 33 T19S-R33E BOTTOM HOLE LOAACTION
2. Ground Elevation above Sea Level: 3555' GR.

3. Geological age of surface formation: Quaternary Deposits:

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

5. Proposed drilling depth: TVD 13,700' MD 13,800'

6. Estimated tops of geological markers:

Rustler Anhydrite	1300'	Wolfcamp	11,040'
Yates	3190'	Strawn	12,120'
Delaware	5250'	Atoka	12,500'
Bone Spring	8070'	Morrow	12,950'

7. Possible mineral bearing formations:

Delaware	Oil	Atoka	Gas
Bone Spring	Oil	Morrow	Gas

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-1300'	13 3/8"	48 & 54.5	8-R	ST&C	H-40 & J-55
11"	0-5200'	8 5/8"	32	8-R	ST&C	J-55 & HCK-55
7 7/8"	0-13,800'	5½"	17	8-R	LT&C	P-110

7. Cementing and Setting Depth

13 3/8"	Surface	+/-1300'	Set +/- 1300' 13 3/8" 48# & 54.5# H40 STC casing. Cement w/ 1000 sx 35:65 Poz: "C" cement + additives followed by 200 sx Class "C" + 2% CaCl2 Circulate cement
8 5/8"	Intermediate	+/-5200'	Set +/- 5200' of 8-5/8" 32# J-55 & HCK-55 STC casing. Cement w/ 1000 sx 50:50 Poz: "C" light cement + additives followed by 200 sx Class "C" cement. Circulate cement.
5-1/2"	Production	13800'	Set 5-1/2" 17# P110 LTC casing. Cement w/ 900 sx Class "H" plus additives. Est TOC @ +/- 8000'

8. Pressure Control Equipment: After setting 13-3/8" casing and installing 3000 psi casing head, NU 13-5/8" 3000 psi annular BOP. Test annular BOP, casing, and manifold with clear fluid to 1350 psi with rig pump SEE EXHIBIT "E" & "E-1"

After setting 8-5/8" casing and installing 5000 psi casing spool, NU 5000 psi double ram BOP and 5000 psi annular BOP. Test double ram BOP and manifold to 4000# with clear fluid and test annular to 2500 psi using an independent tester SEE EXHIBIT "F" & F-1"

9. Proposed Mud Circulating System

Interval	Mud Wt.	Visc.	FL	Type Mud System
0'- 1300'	8.4-9.2	28-35	NC	Fresh water native mud w/ paper for seepage and sweeps. Lime for PH, Starch for fluid loss control to protect water sands
1300'- 5200'	10.0- 10.2	28-35	NC	Brine mud, lime for PH and paper for seepage and sweeps.
5200' – 8800'	8.4 – 8.5	NC	NC	Drill section with fresh water circulating the reserve utilizing periodic sweeps of paper as needed for seepage control and solids removal.
8800' – 11000'	8.5 – 9.0	NC	NC	Increase weight with brine additions and utilize periodic sweeps of paper as needed for seepage control and solids removal.
11000' – 12500'	10.0 – 10.2	31-32	<20	Increase weight with brine additions and mud up with bentonite, starch and XCD polymer circulating through steel pits.
12500' – 13800'	10.0 – 10.2	36-42	<8	Add 3% KCL and reduce FL w/ starch and XCD polymer. Maintain properties to TD. Spot a high vis pill on bottom for logs.

APPLICATION TO DRILL

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, SNP, LDT, SONIC, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.

B. Cased hole logs: Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.

C. DST's as shows and geologist direct.

D. Mud logger on hole at 5200' to TD.

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 6000 PSI, and Estimated BHT 190°.

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 48 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

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General H-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing 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 Hobbs New Mexico take U.S. Hi-way 62-180 West toward Carlsbad New Mexico go 30± miles to Smith Ranch road, turn Right go 2.1± miles, turn Left follow caliche road along two pole powerline for 3.3± miles turn Right go 1.2 miles, turn Right and go .6± miles, turn Right on proposed road go .45 ± miles to location.

   C. Exhibit "C" shows proposed roads and possible powerline routes if the well is completed as a producer.

2. PLANNED ACCESS ROADS : Approximately .45 miles of new road will be constructed

   A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.

   B. Gradient of all roads will be sess than 5.00%.

   C. If turn-outs are necessary they will be constructed.

   D. If needed roads will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.

   E. Center-line for new roads will be flagged. Earth-work will b done as field conditions require.

   F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilize low water crossings for drainage as required by topography.

3. LOCATION OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"

A. Water wells	Water well located approximately 1.5 miles East
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. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit"C" .

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 operations 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 indicated proposed location of reserve and sump pits and living facilities.

C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.

D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B 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 erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

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

SURFACE USE PLAN

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

11. OTHER INFORMATION:

A. Topography has a slight dip to the East with some drainage into salt lakes in the vicinity. Soil is of alkli in nature. Vegetation consists of native grasses, mesquite and some yucca.

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 and the results will be filed with The Bureau of Land Management Carlsbad Field office in Carlsbad NM.

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:

COG OPERATING, LLC.
550 WEST TEXAS AVE.
SUITE 1300
MIDLAND, TEXAS 79701
ERICK NELSON PHONE: 432-685-4342

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 COG OPERATING, LLC. 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 : 10/07/04
TITLE : Agent

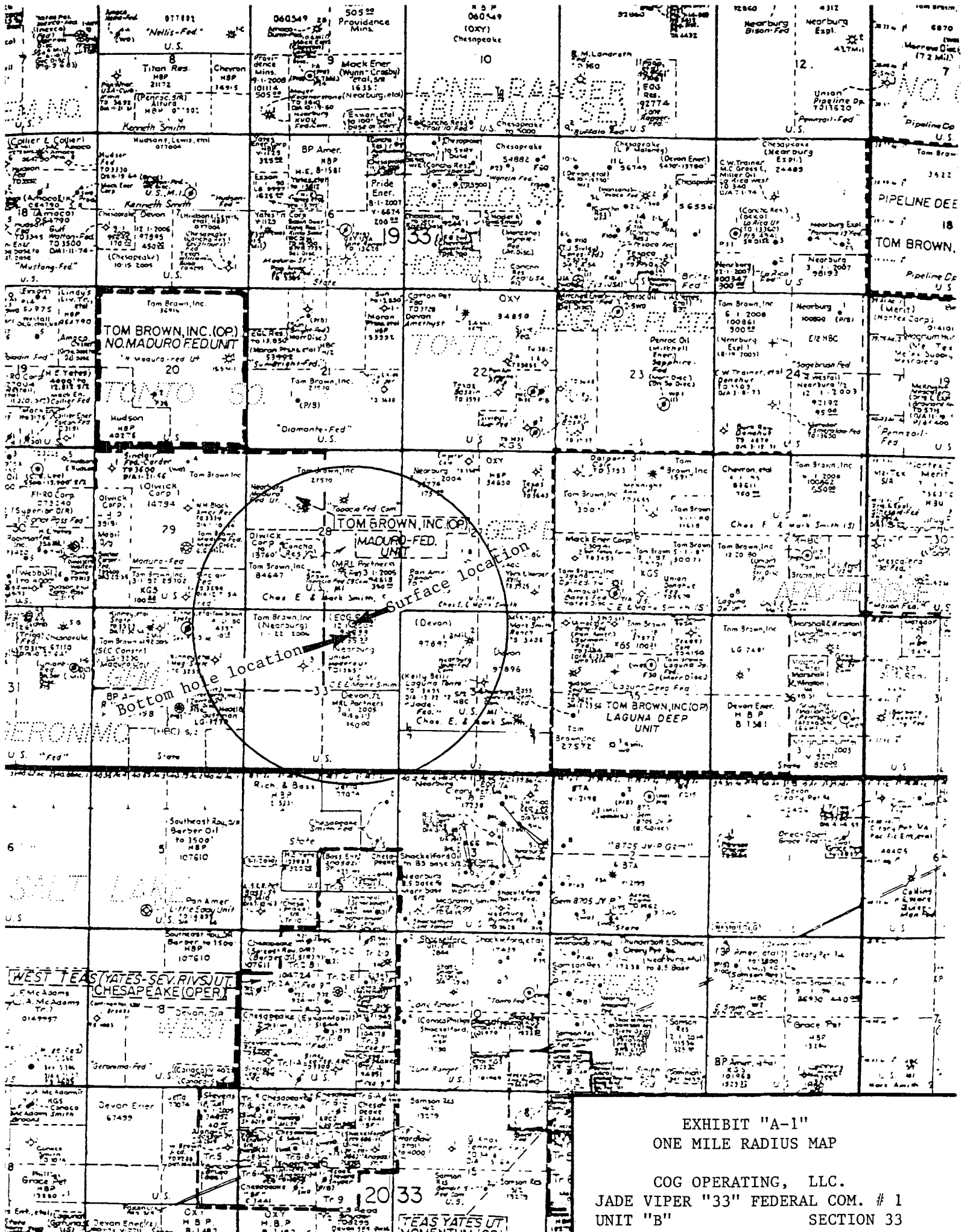


EXHIBIT "A-1"
ONE MILE RADIUS MAP

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

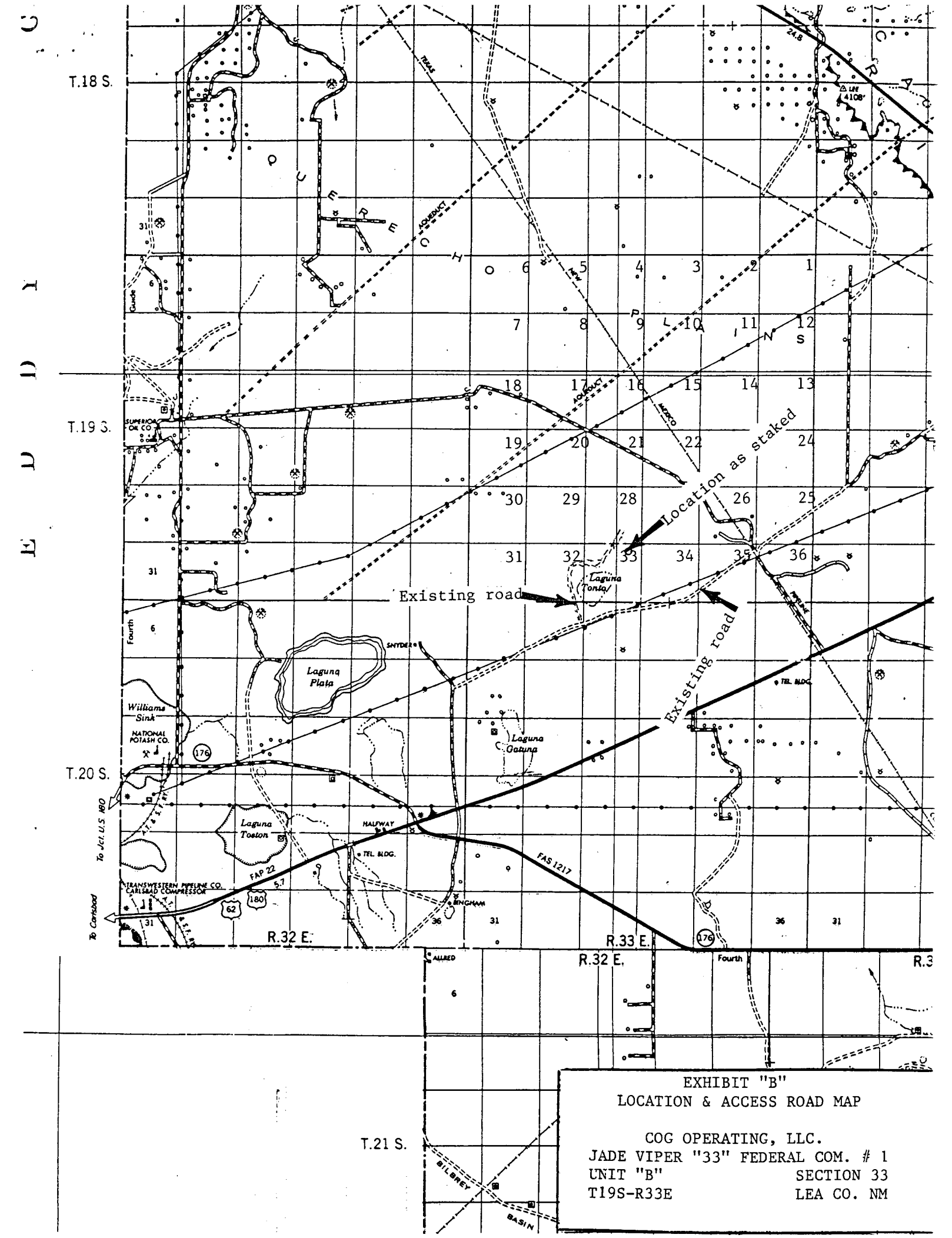


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

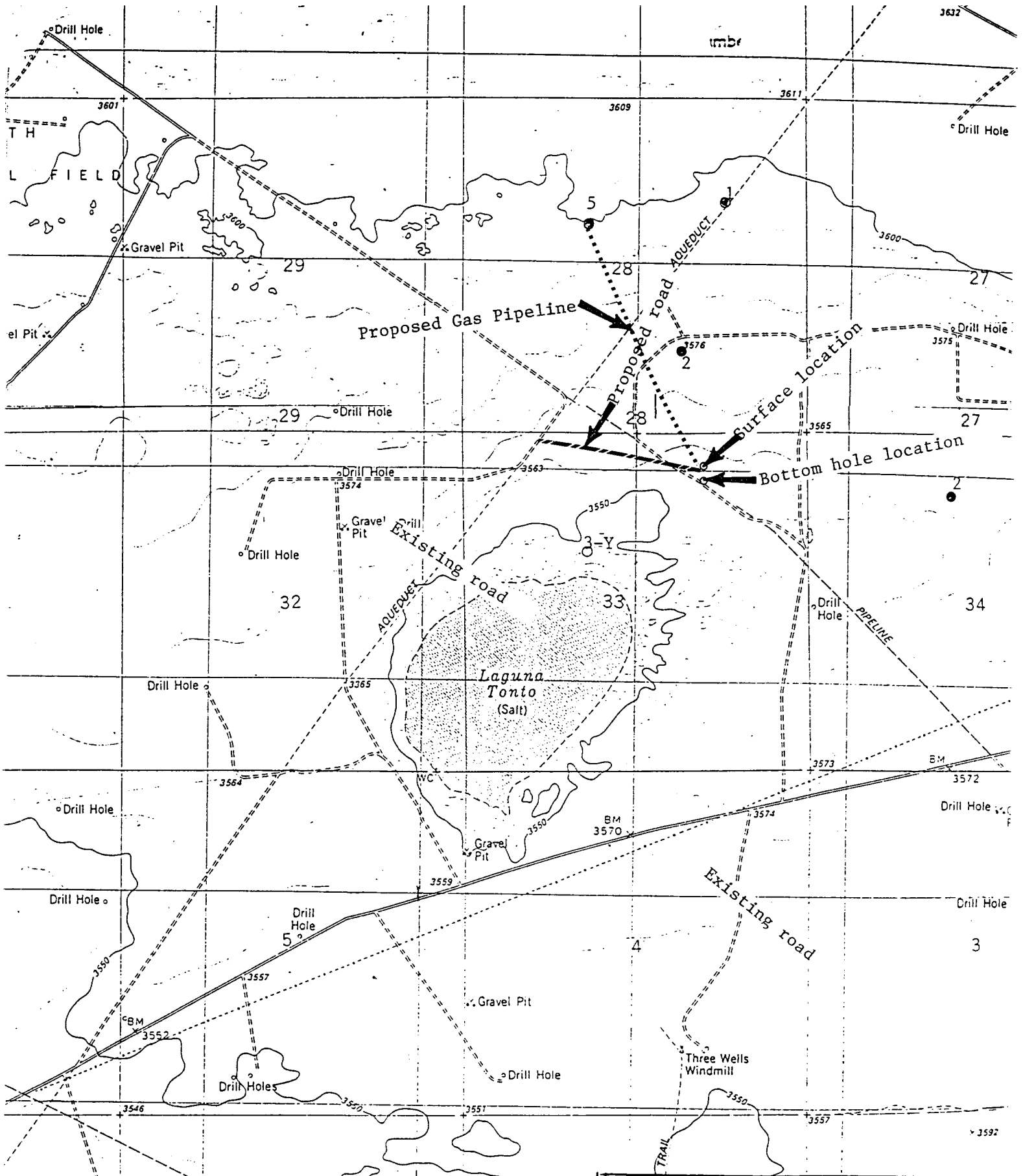
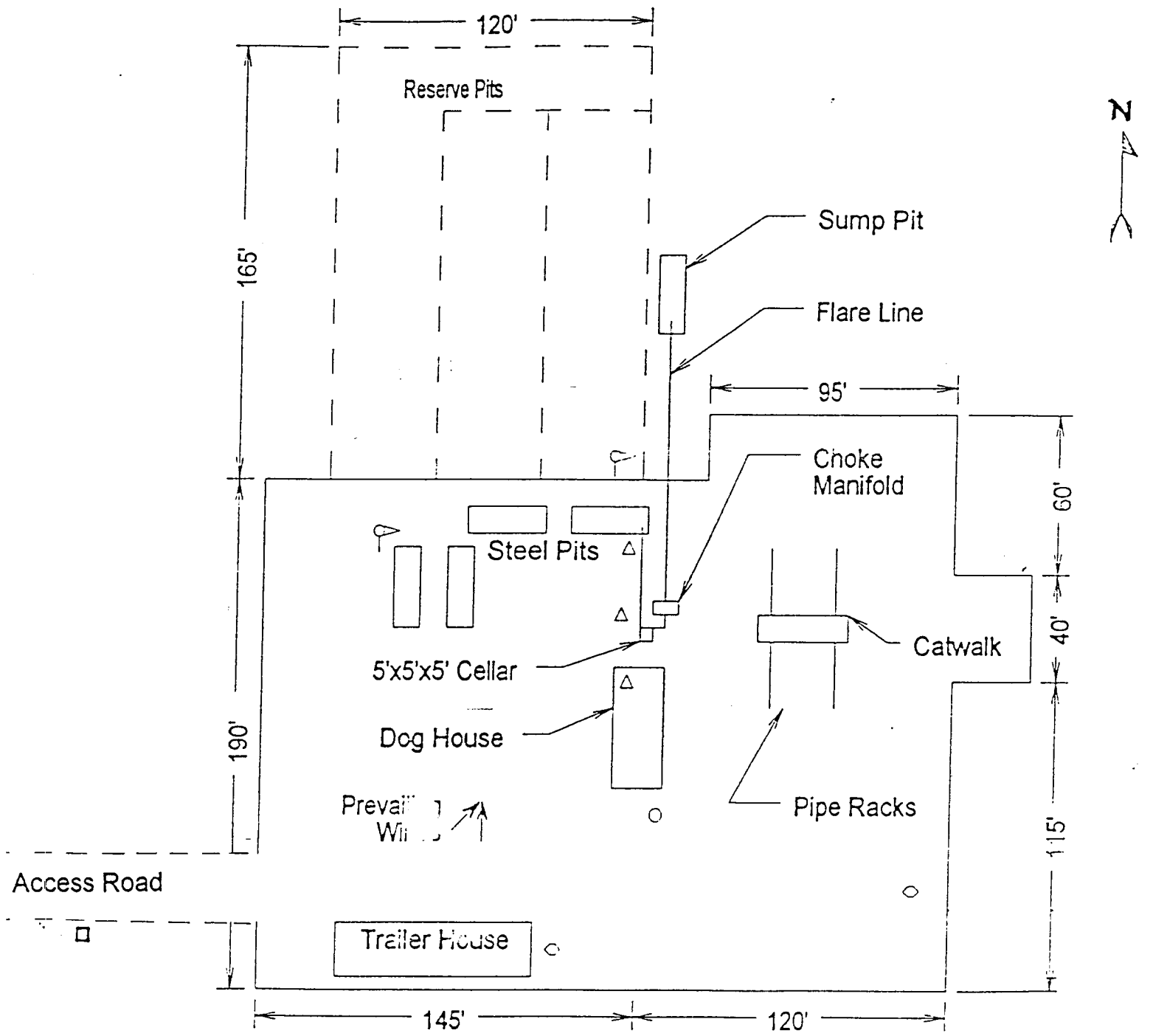


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

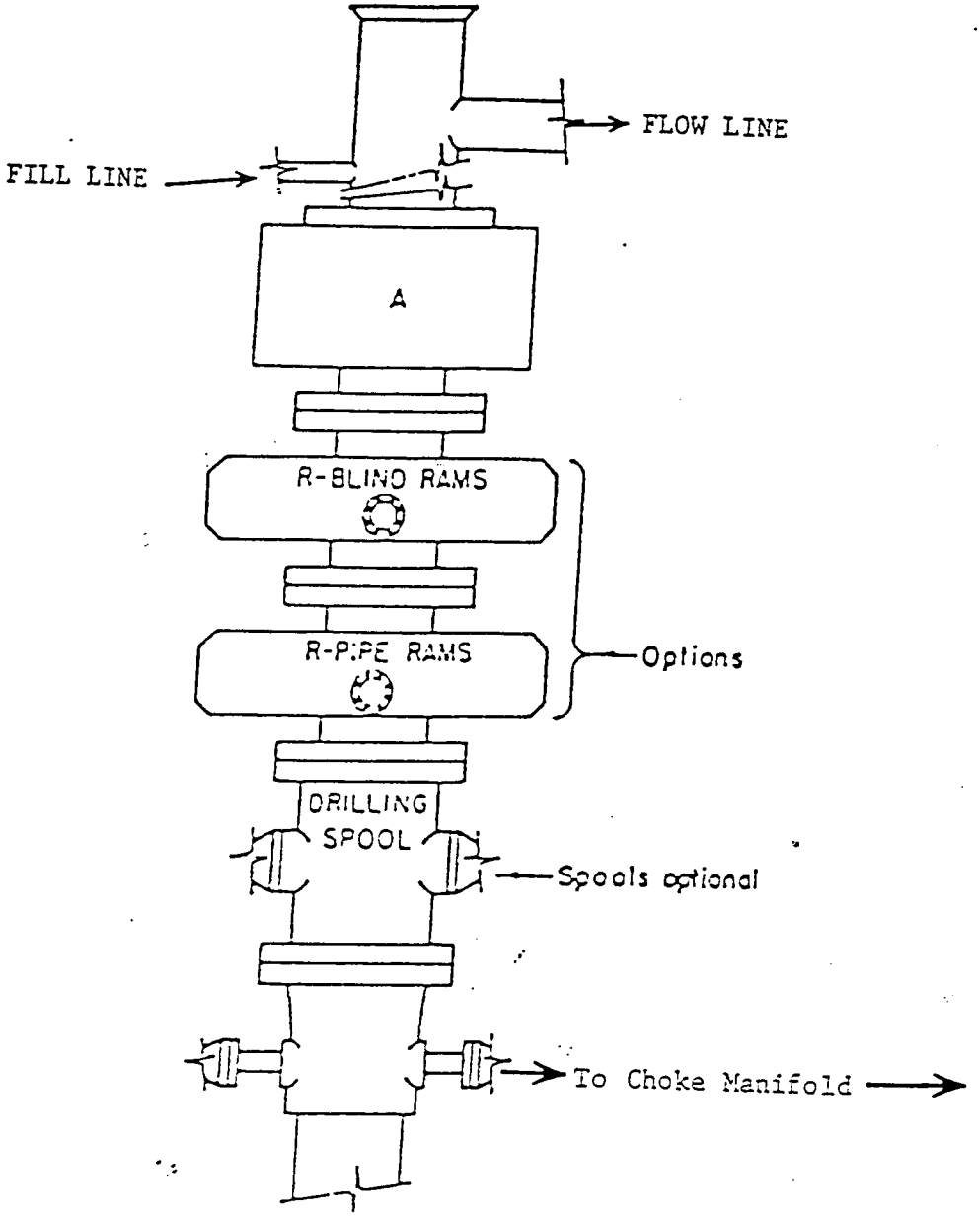
COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM



- 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

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. #1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

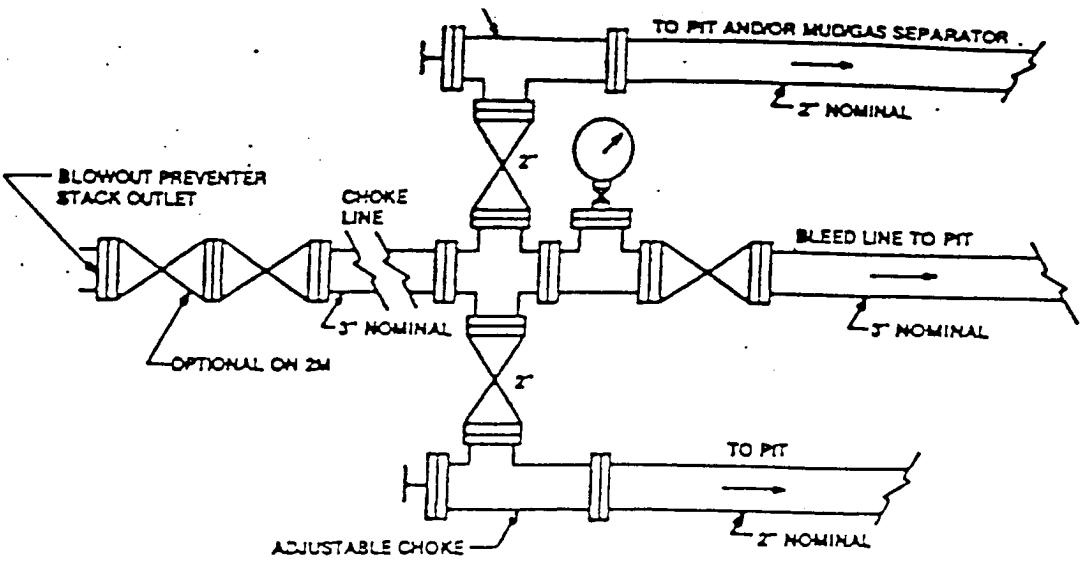


ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM



Typical choke manifold assembly for 3M WP system

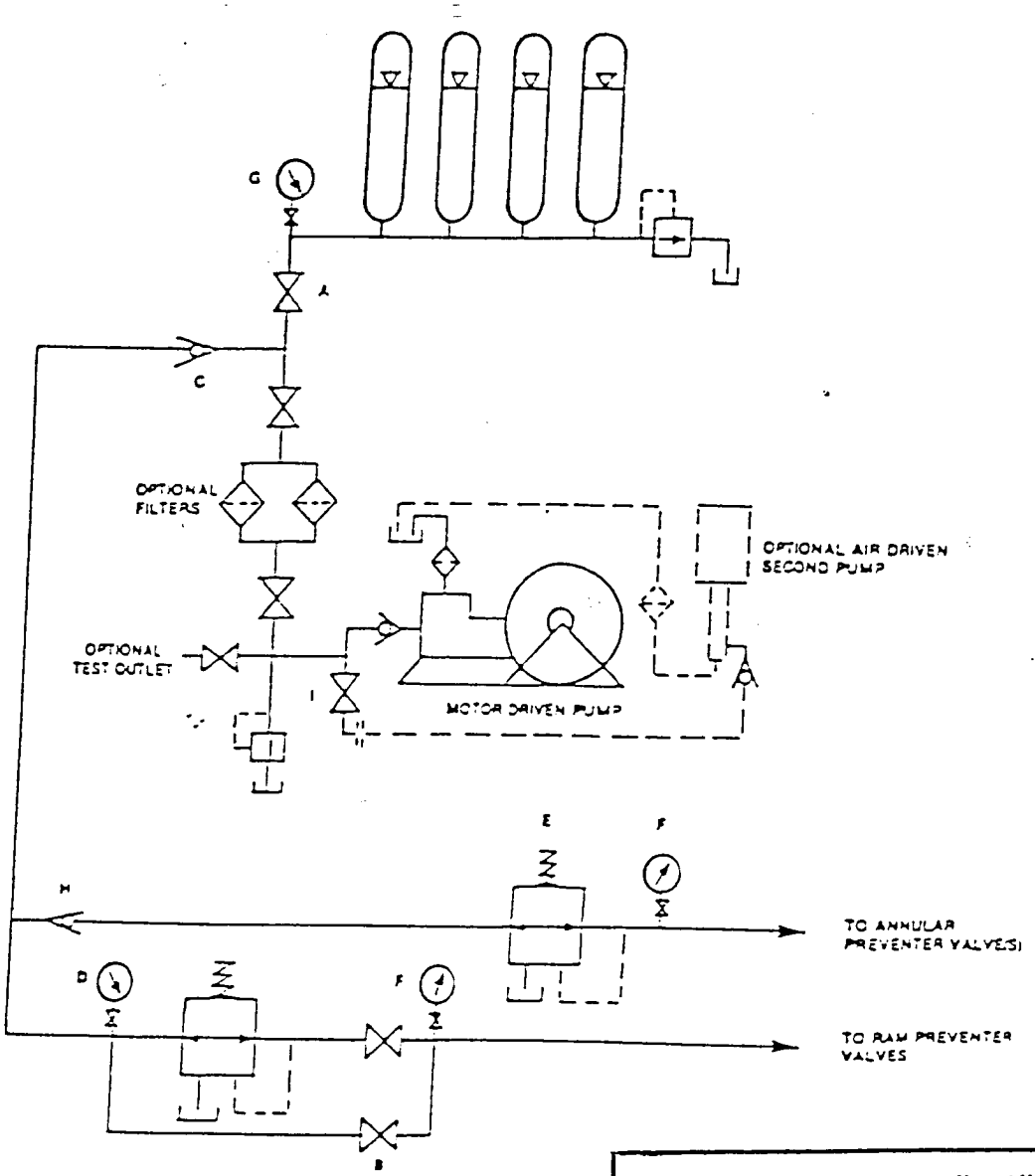
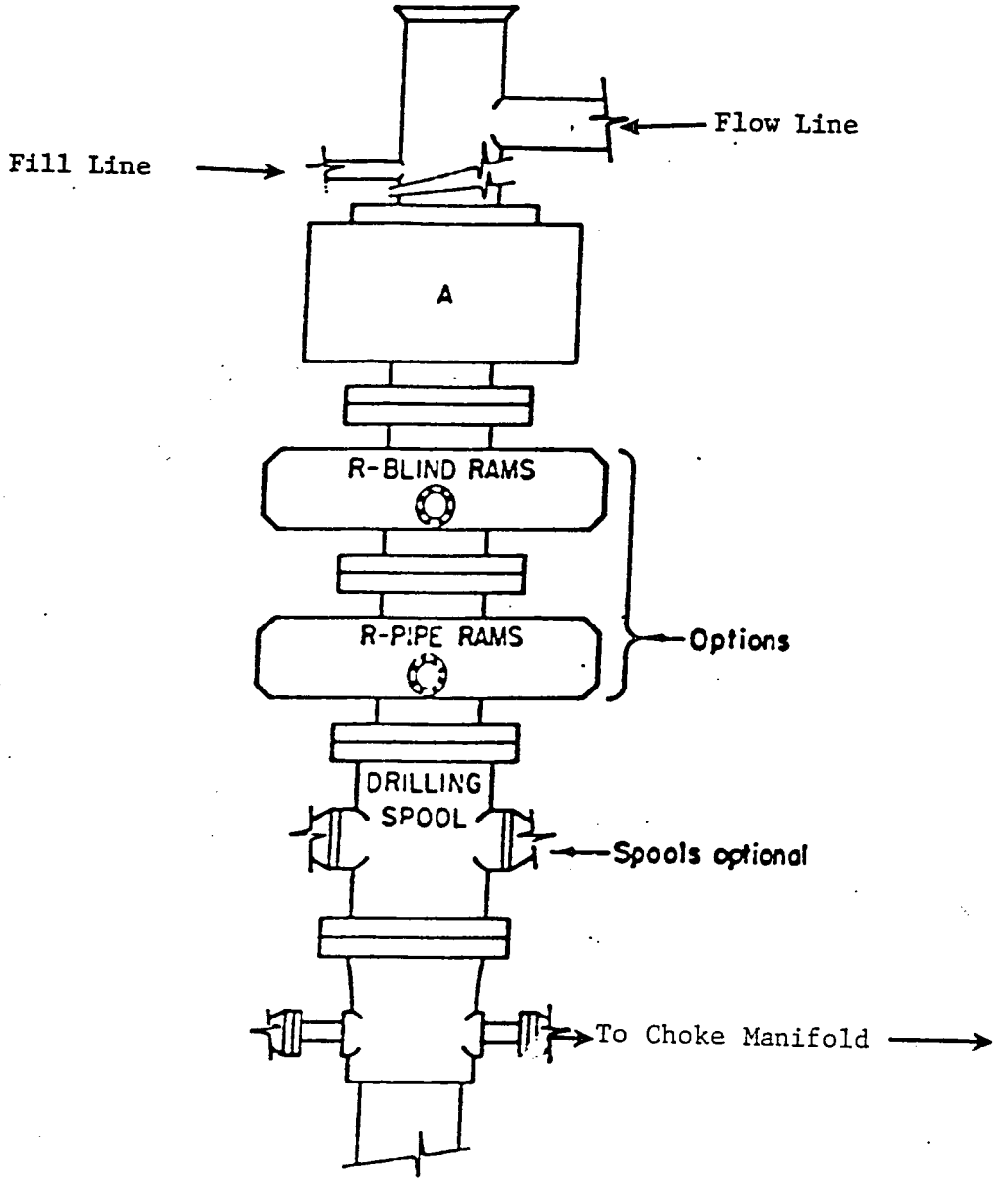


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM



ARRANGEMENT SRRA

1500 Series

5000# Working Pressure

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

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

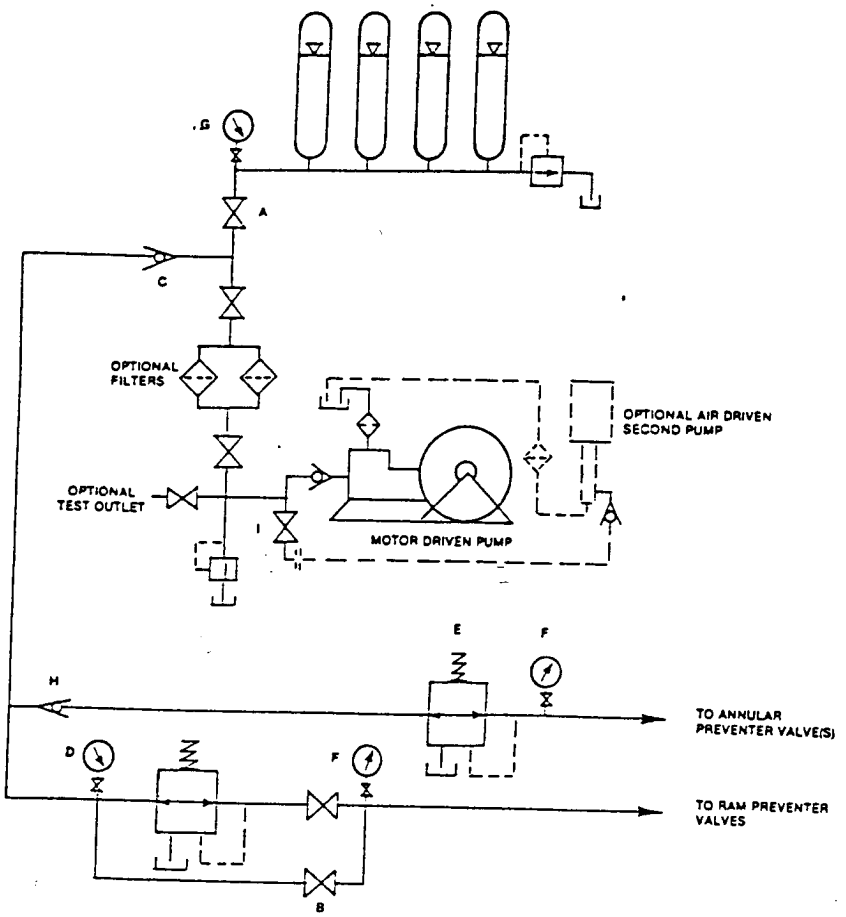


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

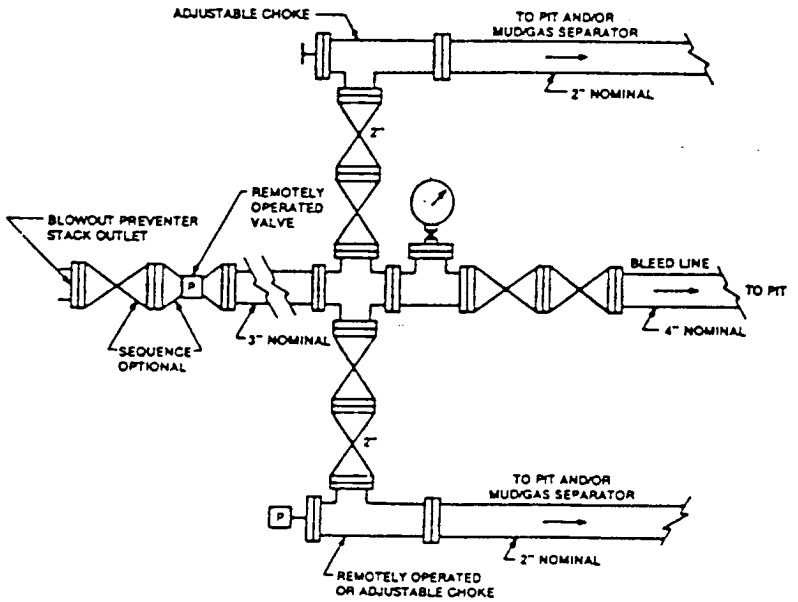


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "F-1"

COG OPERATING, LLC.
JADE VIPER "33" FEDERAL COM. # 1
UNIT "B" SECTION 33
T19S-R33E LEA CO. NM

COG OPERATING LLC
Fasken Center, Tower II
550 W. Texas Ave., Ste. 1300
Midland, Texas 79701
(432) 683-7443
FAX 683-7441

October 18, 2004

Bureau of Land Management
2909 West Second Street
Roswell, NM 88201-2019

Attn: Linda A. Askwig

Re: Jade Viper "33" Fed Com #1 Well
Surface Location 495' FNL and 1650' FEL
Bottom Hole Location 760' FNL and 1650' FEL
Section 33: T-19-S, R-33-E
Lea County, New Mexico

Dear Ms. Askwig:

Pursuant to your letter of October 12, 2004, please be advised that COG Operating LLC has reached an Agreement with the surface owner in the N/2 of Section 33, 19-S, 33-E to utilize the surface of the N/2 of Section 33 for the drilling of the captioned well.

Yours truly,

Michael M. Gray
Senior Landman

MMG:sh

Attachment

cc: Tierra Exploration Inc.
P. O. Box 2018
Hobbs, NM 88241

Erick Nelson

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Amended

Operator: COG Operating LLC Telephone: 432-685-4372 e-mail address: dkuykendall@conchoresourses.com

Address: Fasken Center Tower II, 550 W. Texas Ave., Suite 1300 Midland, TX 79701

Facility or well name: Jade Viper 33 Fed Com #1 API #: 30-025-36955 U/L or Qtr/Qtr B Sec 33 T 19S R 33E

County: Lea Latitude 32'37'20.98" N Longitude 103'39'52.09" W NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 35,000 bbl	Volume: ____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more X	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No X	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more X	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0 points

RECEIVED
Hobbs OCD

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 11/12/04

Printed Name/Title Diane Kuykendall, Regulatory Analyst Signature Diane Kuykendall

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: DEC 29 2004

Printed Name/Title PETROLEUM ENGINEER Signature Date: _____