Form 3160-3
(December 1990)

NM OIL CONS. COMMISSION
SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-81904

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Caverns Federal #1

9. API WELL NO.: 30-015-22967

10. FIELD AND POOL, OR WILDCAT: Wildcat Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 25-T24S-R25E

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

1b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Snow Oil & Gas, Inc. (915) 524-2371

3. ADDRESS AND TELEPHONE NO.: P.O. Box 1277 Andrews, TX 79714

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2030' FNL & 1980' FWL Ut. F
At proposed prod. zone: Same

DEC 13 1993

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 16 miles SW of Carlsbad, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
610'	1040	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
N/A	4710' Top of plug	Workover Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3578' GL

22. APPROX. DATE WORK WILL START*: December 1, 1993

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	13-3/8"	61.0#	520'	580 sx circ. (existing)
12-1/4"	10-3/4"	55.0#	1800'	1230 sx "C" (existing)
9-7/8"	5-1/2" J-55	15.5#	4710'	780 sx "C" (tieback 200' into 10 3/4")

Mud Program:

	Mud Wt.	Vis.	W/L Control
0' - 4900': Fresh water mud:	10.0 ppg	28	No W/L cont.

BOP Program:
A 10" 3000 psi wp Shaffer Series 900 BOP will be installed on the 10 3/4" casing. Casing and BOP will be tested before drilling out plug at 1720' depth. BOP will be tested daily. See exhibit "E" for BOP.

Note: Propose to re-enter well with a workover drilling rig and drill out existing cement plugs to a T.D. of 4710' (plug). Will test and install production equipment if well is commercial.

Former: The Superior O.I Co.
Caverns Fed #1
OTD: 11,772 PBA: 2-20-80

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 Margaret Smith TITLE Agent for: Snow Oil & Gas, Inc. DATE Nov. 8, 1993

(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 _____ TITLE _____ DATE 12/10/93

*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.

NEW MEXICO OIL CONSERVATION C[illegible]MISSION

WELL LOCATION AND ACREAGE DEDIC[illegible]TION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
SUPERIOR OIL COMPANY	Cavern Federal Com.	1

Unit Letter	Section	Township	Range	County
F	25	24 South	25 East	Eddy

Actual Footage Location of Well:
2030 feet from the North line and 1980 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3578	~~Morrow~~ Del.	~~White City~~ Und.	~~640~~ 40 Acres

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

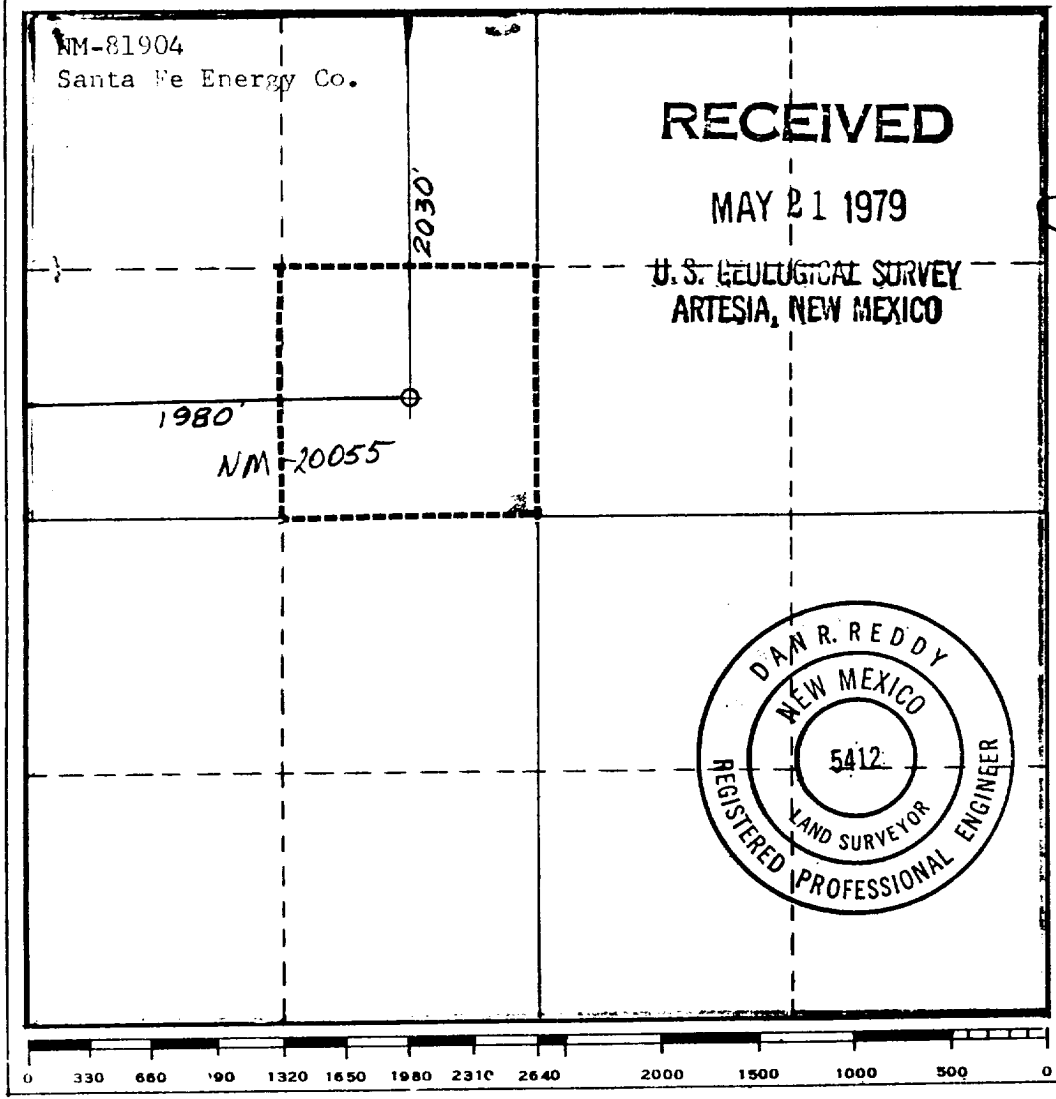
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. 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?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: The Superior Oil Co

Position: Engr Asst.

Company

Date: 5-18-79

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: May 10, 1979

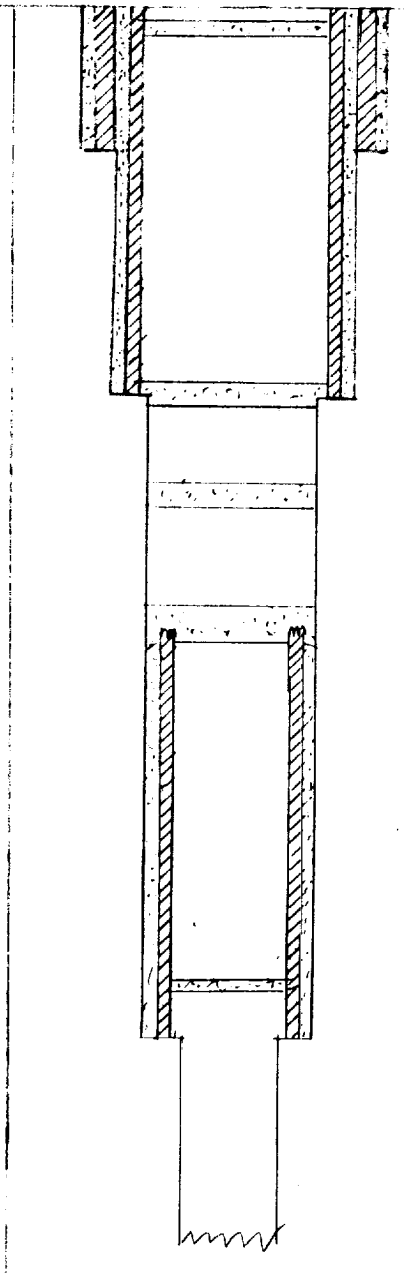
Registered Professional Engineer and/or Land Surveyor

Certificate No. NMPE&LS #5412

SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Lease No.: NM-81904
Eddy County, New Mexico
(Exploratory Well-Re-entry)

EXISTING CASING
The Superior Oil Company
Drilled: 11/79

EXISTING PLUGS	BIT	CASING	DEPTH	CEMENT
Spot 20 sx "H" 10' - 50'	17"	13 3/8" 61#	520'	Circ. 580 sx "C"
	12 1/4"	10 3/4" 55.5#	1800'	Circ. 1035 "C"
Spot 60 sx "H" 1720' - 1850'				
Spot 60 sx "H" 3220 - 3350'				
Spot 60 sx "H" 4710' - 4850'				
	9 7/8"	7 5/8" 26.4#	9200'	700 sx "H"
Spot 30 sx "H" 8840' - 9000'				
	6 1/2"			



TD = 11,772'

APPLICATION FOR DRILLING

SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Eddy County, New Mexico
Lease No.: NM-81904
(Exploratory Well Re-entry)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Snow Oil & Gas, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Top of Delaware	2382'	T.D.	4710'
Cherry Canyon	2980'		
Brushy Canyon	3910'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

   Water: Surface water is behind cemented casing, which runs to a depth of 1800'.

   Oil: Possible in the Cherry Canyon Delaware at approximately 3600'.

   Gas: None expected.

4. Proposed Casing Program: See Form 3160-3 for existing and proposed casing.

5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".

6. Mud Program: See Form 3160-3.

7. Auxiliary Equipment: Blowout Preventer.

8. Testing, Logging, and Coring Program:

   Drill Stem Tests: None.

   Logging: None planned at this time.

   Coring: None planned.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated: BHP = 2500 psi, BH temp. = 107°

10. H_2S: None expected based on previous drilling information of the well.

11. Anticipated starting date: December 1, 1993.
    Anticipated completion of drilling operations: Approx. 3 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Lease No.: NM-81904
Eddy County, New Mexico
(Exploratory Well-Re-entry)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

   A. Exhibit "A" is a portion of a New Mexico Highway map showing the location of the proposed well as staked. The well site location is approximately 16 road miles southwest of Carlsbad, New Mexico. There will be approximately 15.3 miles of paved highway and .2 mile of gravel oilfield roads.

   B. Directions: Travel west from Carlsbad, NM on U. S. Highway 62/180 for 15.3 miles from the turnoff of Highway 285 and .4 mile past MM# 18 to a steel gate on the right (north) side of the road. Turn right and continue through gate for .2 mile to southwest corner of existing old pad and dry hole marker of the Cavern Fed., Well No. 1.

2. PLANNED ACCESS ROAD;

   A. Length and Width: The 1000 feet of existing access road will be water and bladed to a 15' width (20' Max.).

   B. Construction: The existing access road will be repaired by grading and topping with the compacted caliche presently on the road as needed and will be properly drained.

   C. Turnouts: None required.

   D. Culverts: None required.

   E. Cuts and Fills: None required.

   F. Gates, Cattleguards: The existing steel gate at the highway will be used.

   G. Off Lease R/W: None required.

3. LOCATION OF EXISTING WELLS:

   A. Existing wells within a two mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

   A. There are no production facilities on the lease at this time.

   B. If the well proves to be commercial, the necessary production facilities and gas separation-process equipment and tank battery will be installed on the drill pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

   A. It is planned to drill out the plugs in the well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

   A. If additional caliche for surfacing the existing access roads and well site pad will be obtained from materials available on site. No surface materials will be disturbed except those necessary for actual grading and repairing of the existing drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

   A. Drill cuttings will be disposed of in the working pit.

   B. Drilling fluids will be allowed to evaporate in the working pit until the pit is dry.

   C. The pit will be fenced with normal fencing materials to prevent livestock and wildlife from entering the area.

   D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.

   E. Oil produced during operations will be stored in tanks until sold.

   F. Current laws and regulations pertaining to the disposal of human waste will be complied with.

   G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

   A. None required.

9. WELL SITE LAYOUT:

   A. Exhibit "D" shows the relative location and dimensions of the well pad, working pit, and major rig components. The well pad and pit area will be confined to the existing disturbed area of the old location.

   B. Mat Size: 150' X 150', including mud pit, which will be located northeast of the location.

   C. Cut & Fill: None required.

   D. The surface will be topped with the compacted caliche presently on location and the mud pit will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.

B. Any unguarded pits containing fluids will be fenced and screened until they are filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment or when dry enough to work.

11. OTHER INFORMATION:

A. Topography: The existing well site and access road are in the upland plains (rolling hills) located west of the Pecos River and east of the Guadalupe Mountains. The location elevation is 3578'. The immediate area has a 1.4% slope to the east.

B. Soil: The topsoil at the well site is a shallow light calcareous loam with considerable caliche scatter and underlain with fractured limestone that also outcrops the surface. The soils are of the Upton gravelly loam series.

C. Flora and Fauna: The vegetation cover on the existing location and immediate surrounding area is a sparse grass cover of dropseed, grama, and three-awn, along with plants of mesquite, yucca, snake broomweed, sage, creosote bush, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.

D. Ponds and Streams: The intermittent drainage Chinaberry Draw is approximately 250-300 feet north of the location.

E. Residences and Other Structures: None in the immediate area. White City is 7000 feet to the southwest.

F. Land Use: Cattle grazing.

G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.

H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey was originally conducted by New Mexico Archaeological Services, Inc., P. O. Box 1341, Carlsbad, NM 88220, and their report was submitted to the appropriate government agencies on May 21, 1979.

12. OPERATOR'S REPRESENTATIVE:

A. The field representative for assuring compliance with the approved surface use and operations plan is as follows:

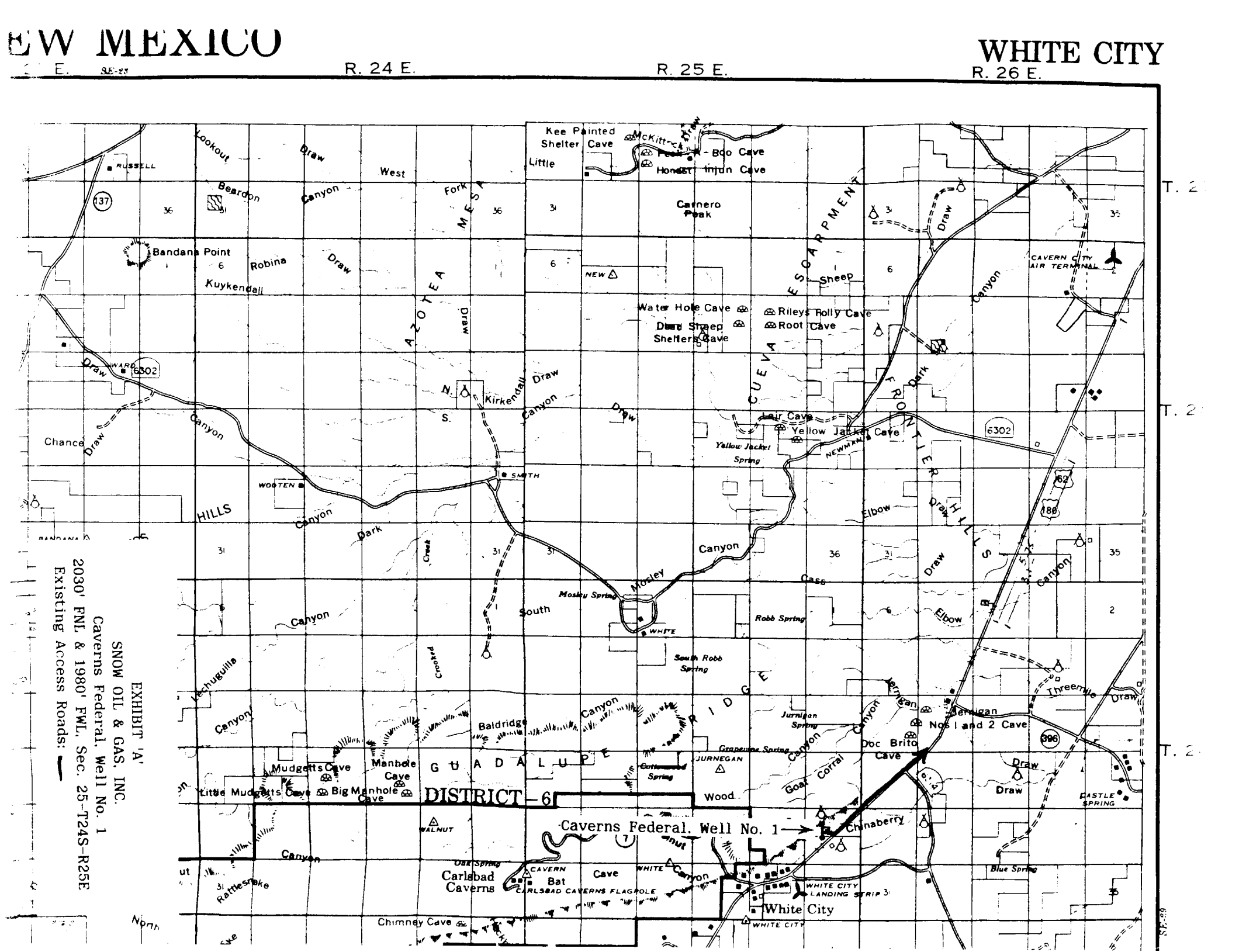
Dan Snow, Vice President
Snow Oil & Gas, Inc.
P.O. Box 1277
Andrews, TX 79714
Office Phone: (915) 524-2371
Home Phone: (915) 524-6623

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Snow Oil & Gas, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

November 8, 1993

George R. Smith
Agent for: Snow Oil & Gas, Inc.


NEW MEXICO
WHITE CITY
R. 24 E.
R. 25 E.
R. 26 E.
T. 2
T. 2
T. 2
Kee Painted Shelter Cave
Little
McKittrick Draw
Peek-A-Boo Cave
Honest Injun Cave
Carnero Peak
Lookout
Draw
West
Fork
Beardon
Canyon
AZOTEA MESA
Bandana Point
Robina
Draw
Kuykendall
NEW
Water Hole Cave
Riley's Holly Cave
Dead Sheep Shelter Cave
Root Cave
CUEVA ESCARPMENT
Sheep
Canyon
CAVERN CITY AIR TERMINAL
Draw
WARD
6302
N.
S.
Kirkendall
Draw
Canyon
Draw
Dark
FRONTIER HILLS
Lair Cave
Yellow Jacket Cave
Yellow Jacket Spring
NEWMAN
Chance
Draw
Canyon
WOOTEN
SMITH
HILLS
Canyon
Dark
Creek
Elbow
Draw
Canyon
Mosley
Mosley Spring
Cass
Draw
Canyon
South
Robb Spring
WHITE
Elbow
Crooked
South Robb Spring
Canyon
Baldridge
Canyon
GUADALUPE RIDGE
Jurnigan Spring
Jernigan
Nos 1 and 2 Cave
Threemile
Draw
Canyon
Canyon
Doc Brito Cave
Grapevine Spring
JURNEGAN
Cottonwood Spring
Goat Corral
Mudgetts Cave
Manhole Cave
Little Mudgetts Cave
Big Manhole Cave
DISTRICT-6
Wood
Draw
CASTLE SPRING
Caverns Federal, Well No. 1
Chinaberry
WALNUT
Canyon
Oak Spring
Carlsbad Caverns
CAVERN
Bat Cave
CARLSBAD CAVERNS FLAGPOLE
WHITE
Canyon
Blue Spring
WHITE CITY LANDING STRIP
White City
WHITE CITY
Rattlesnake
Chimney Cave
EXHIBIT 'A'
SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Existing Access Roads:

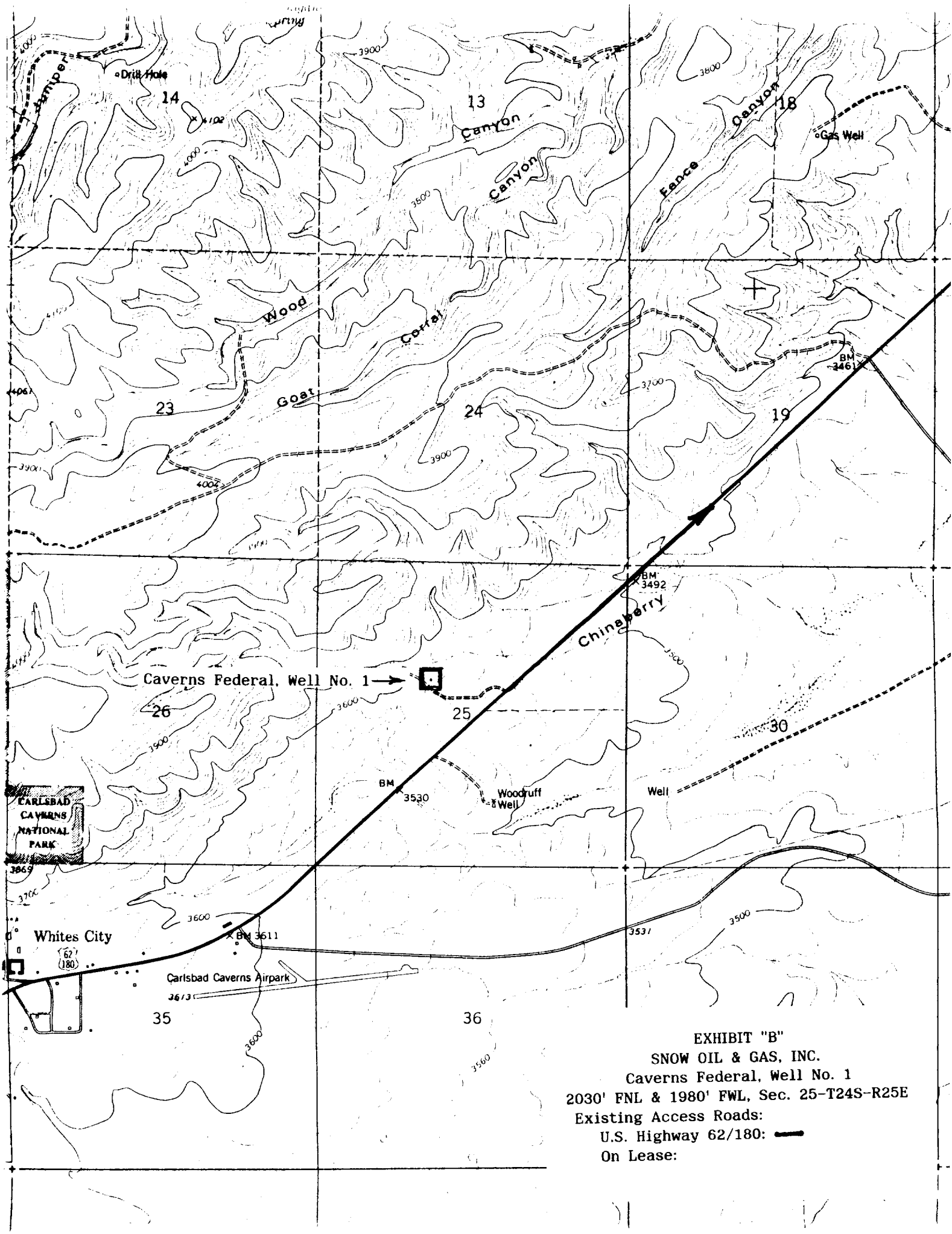


EXHIBIT "B"
SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Existing Access Roads:
U.S. Highway 62/180:
On Lease:

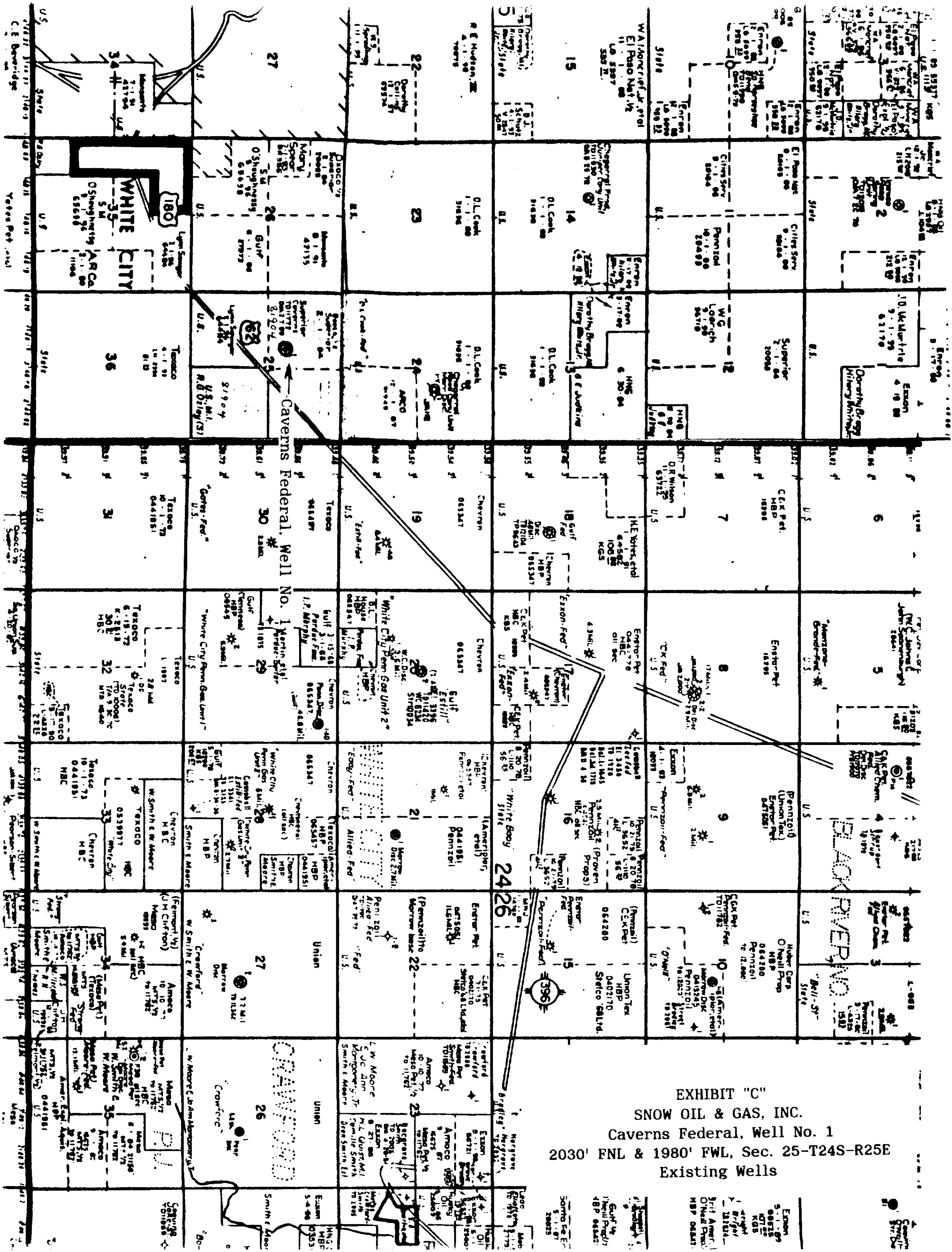


EXHIBIT "C"
SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
2030' FNL & 1980' FWL, Sec. 25-T24S-R25E
Existing Wells

DA&S Oil Well Servicing, Inc.
Unit #648
Re-Entry Location Pad

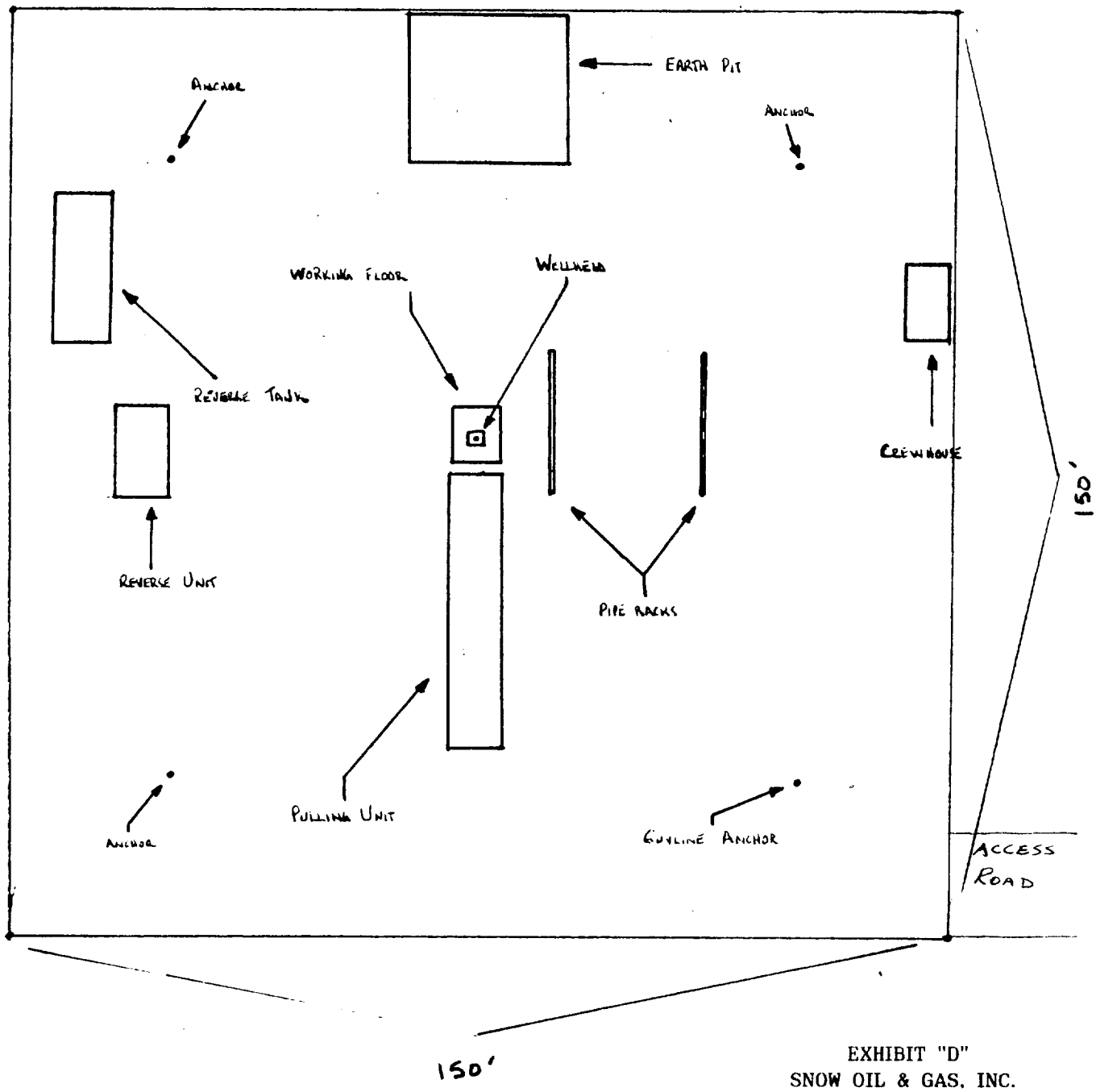
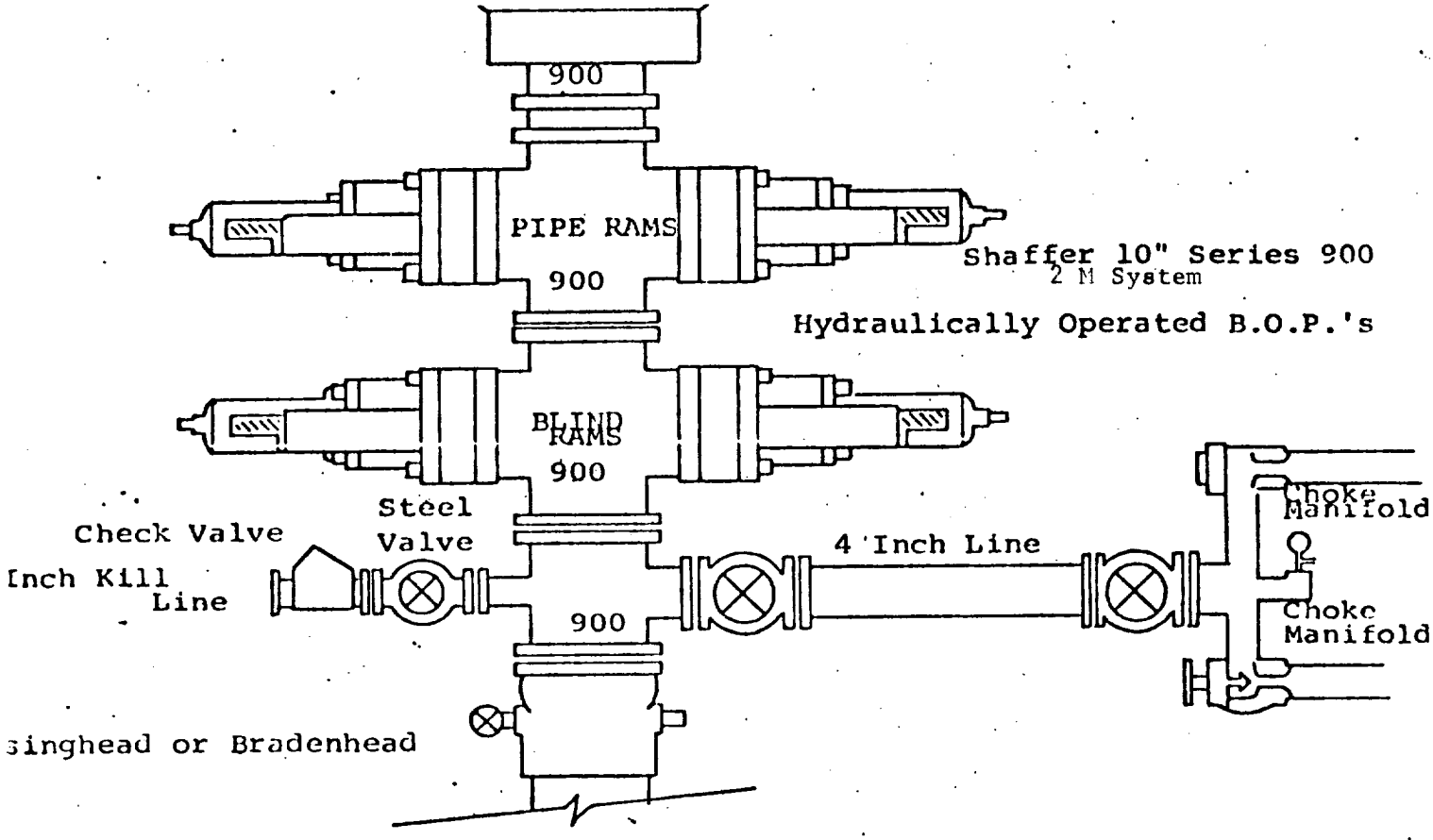


EXHIBIT "D"
SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
Pad & Pit Layout



E FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

All preventers to be hydraulically operated with secondary manual controls installed prior to drilling out from under casing.
Choke outlet to be a minimum of 4" diameter.
Kill line to be of all steel construction of 2" minimum diameter.
All connections from operating manifolds to preventers to be all steel.
hole or tube a minimum of one inch in diameter.
The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate the B.O.P.'s.
All connections to and from preventer to have a pressure rating equivalent to that of the B.O.P.'s.
Inside blowout preventer to be available on rig floor.
Operating controls located a safe distance from the rig floor
Hole must be kept filled on trips below intermediate casing. Operator not responsible for blowouts resulting from not keeping hole full.
D. P. float must be installed and used below zone of first gas intrusion.

EXHIBIT "E"
SNOW OIL & GAS, INC.
Caverns Federal, Well No. 1
BOP Specifications