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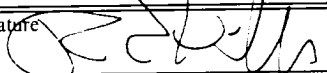
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM 36408
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator EXCO Resources, Inc.		7. If Unit or CA Agreement, Name and No.
3a. Address 6500 Greenville Ave., Suite 600 Dallas, TX 75206	3b. Phone No. (include area code) 214 368 2084	8. Lease Name and Well No. Rose Federal 14 27435
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SW SW 660' FSL and 660' FWL At proposed prod. zone SW SW 660' FSL and 660' FWL		9. API Well No. 50-005-63413
10. Field and Pool, or Exploratory Pecos Slope EIA 547405		11. Sec., T., R., M., or Blk. and Survey or Area Section 19-5S-25E NMPM
14. Distance in miles and direction from nearest town or post office* 48 miles north and east from Roswell, NM		12. County or Parish Chaves
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		13. State NM
16. No. of Acres in lease 1,840.76 gross acres		17. Spacing Unit dedicated to this well SW/4 of Section 19, 160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1867'		20. BLM/BIA Bond No. on file NM 2831
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3874'		22. Approximate date work will start* July 6, 2001
23. Estimated duration 15 days		24. Attachment: <b>ROSWELL CONTROLLED WATER BASIN</b>

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed Typed) R.L. Hilbun, P.E.	Date 06/05/01
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Title

Consulting Engineering

Approved by (Signature)  /S/LARRY D. BRAY

Name (Printed Typed)

Date  
AUG 16 2001

Title

Assistant Field Manager,

Office

Application approval does not constitute a warranty 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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

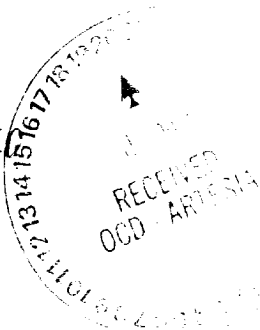
\*(Instructions on reverse)

WITNESS

DECLARED WATER BASIN

CEMENT BEHIND THE  
CASING MUST BE

CIRCULATE



APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS ATTACHED

\*\*\*\*\*

BUREAU OF LAND MGMT.  
ROSWEIL OFFICE

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RECEIVED

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**EXCO RESOURCES, INC.**  
**Rose Federal #14**  
**660' FSL & 660' FWL**  
**Section 19, T05S-R25E**  
**Chaves County, New Mexico**

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

**1. Existing Roads**

Exhibit A is a portion of the BLM map showing the well, access route and existing roads in the vicinity of the proposed location. The proposed well site is located approximately 35 miles northeast of Roswell, New Mexico.

Directions, From Prices' truck stop 25 miles north on 285 to Dona Ana Road. East on Dona Ana Road for 21.1 miles to Eddy Road. Go south from Eddy Road .5 mile on Roosevelt to Lease Road, west on Lease Road 1.7 mile turn south for .2 mile to Rose Federal #6, southeast for .3 mile to location.

**2. Planned Access Road**

The proposed new access will be approximately 2052' in length and will lie in a northeast-southwest direction.

The new road's driving surface will be 14 feet in width and will be adequately drained to control runoff and soil erosion.

The new road will be bladed with drainage on one side. Traffic turnouts may be built.

The route of the road is visible.

Existing roads will be maintained in the same or better condition.

**3. Location Of Existing Well**

Exhibit D shows existing wells within a one-mile radius of the proposed well site.

**4. Location Of Existing And Proposed Facilities**

There are production facilities on this lease at the present time.

In the event that the well is productive, the necessary production facilities will be installed on the drilling pad.

**5. Location And Type Of Water Supply**

It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads as shown in exhibit A.

**6. Source Of Construction Materials**

Dirt contractor will locate closest pit and obtain any material and permits if needed for construction.

## **7. Methods Of Handling Waste Disposal**

Drill cuttings will be disposed of in the reserve pits.

Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.

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

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

All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

## **8. Ancillary Facilities**

None.

## **9. Well Site Layout**

A 400' X 400' area has been staked and flagged.

Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.

The reserve pits will be plastic lined.

## **10. Plans For Restoration**

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

Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.

If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

## **11. Surface Ownership**

Bureau of Land Management, Roswell, New Mexico.

## **12. Other Information**

Topography Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

The primary surface use is for grazing.

### 13. Operator's Representatives

Charles Evans, VP-Engineering/Operations  
Hal Hickey, Operations Manager  
EXCO Resources, Inc.  
6500 Greenville Avenue, Suite 600  
Dallas, TX 75206-1000  
Phone (214) 368-2084  
Fax (214) 368-2087

Gayle Baker, Contract Landman  
EXCO Resources, Inc.  
1775 Sherman Street, Suite 2600  
Denver, CO 80203-4322  
Phone (303) 830-1490  
Fax (303) 831-1397

Mitch Meyer, Senior Geologist  
EXCO Resources, Inc.  
1775 Sherman Street, Suite 2600  
Denver, CO 80203-4322  
Phone (303) 830-1490  
Fax (303) 831-1397

R.L. Hilbun, P.E.  
Summa Engineering, Inc.  
200 North Harvey Avenue, Suite 1415  
Oklahoma City, OK 73102-4003  
Phone (405) 232-8338  
Fax (405) 232-8339

### 14. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EXCO Resources, 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.



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R.L. Hilbun, P.E.  
Consulting Engineer  
Summa Engineering, Inc.

June 8, 2001

**EXCO RESOURCES, INC.**  
**Rose Federal #14**  
**660' FSL & 660' FWL**  
**Section 19, T05S-R25E**  
**Chaves County, New Mexico**

**1. The estimated tops of geologic markers are:**

San Andres	608'
P1	1032'
P2	1084'
P3	1224'
Glorieta	1486'
Yeso	1590'
Tubbs	3063'
Abo	3625'

**2. The depths at which fluid bearing formations are expected to be encountered are:**

Water,	200' – 300'
Oil or Gas,	3634' to 4150'

**3. Pressure Control Equipment**

A 2000 psi wp (API RP 53) blow-out preventer will be installed on the 11-3/4' casing. The controls will be installed and the preventer and well head will be pressure tested before drilling the shoe of any casing string. The preventer will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. A diagram of the blow-out prevention and control equipment is attached and labeled as exhibit B.

EXCO requests a variance be granted in requiring the casing and blow-out preventer to be tested to 2000 psi and instead allow testing to 500 psi. The rig pumps will be used for the test cannot safely test above 500 PSI. We would have to go to the greater expense of hiring an independent service company to do the testing. Also, the bottom hole pressure in this field is proven to be near 500 psi due to depletion. A shut in surface pressure would be less than 500 psi. The Abo formation usually requires stimulation before it can produce any significant amount of gas. We feel that a 500 psi test will demonstrate that the equipment is functioning properly, and in the unlikely event of a gas influx that the well could be controlled.

Auxiliary Equipment, a Kelly cock and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

**4. Proposed Casing And Cementing Program**

Hole Size	Casing Size	Weight, ppf	Grade	Coupling	Interval	Length
14-3/4"	11-3/4"	42	H-40	ST&C	0- 900'	900'
11"	8-5/8"	24	J-55	ST&C	0-1500'	1500'
7-7/8"	4-1/2"	10.5	J-55	ST&C	0-5300'	5300'

The 8 5/8" casing will be set only if lost circulation is encountered and otherwise the hole size will be reduced from 11" to 7-7/8" at 1500'.

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.80

## Cementing Program

Surface casing, cement with 200 sacks of Lite class C lead cement with a yield of 2.0 cubic feet per sack at a weight of 12.5 ppg and 200 sacks class C tail cement with a yield of 1.33 cubic feet per sack at a weight of 15.6 ppg and containing 2% CaCl. The cement is to be circulated to the surface and if that does not happen then one inch pipe will be run on the outside of the casing and cement circulated to the surface in that fashion.

Intermediate casing, cement with 250 sacks Lite sacks of Lite class C lead cement with a yield of 2.0 cubic feet per sack at a weight of 12.5 ppg and 200 sacks class C tail cement with a yield of 1.33 cubic feet per sack at a weight of 15.6 ppg and containing 2% CaCl.

Production casing, cement with 350 sacks super class C with a yield of 1.67 cubic feet per sack and at a weight of 13 ppg. The cement should cover up to 3100'.

## 5. Mud Program And Auxiliary Equipment

Interval	Type	Weight	Viscosity	Fluid Loss
0'- 900'	FWGel/Paper/LCM	8.6-9.0	32-36	no control
900'-1500'	Cut Brine	8.6-9.0	29	no control
1500'-3530'	Brine	10.0-10.2	28	no control
3530'-4150'	Salt Gel/Starch/Oil/LCM	9.0-9.8	34-45	<10cc

Sufficient mud materials to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

## 6. Evaluation Program

10' cutting samples will be collected from the base of the surface casing to the total depth.

Lateral resistivity, density, gamma ray and caliper logs will be run.

No coring is anticipated.

No drill stem test are anticipated.

## 7. Abnormal Conditions, Bottom Hole Pressure, And Potential Hazards

Anticipated bottom hole pressures:

0'- 900'	375 psi
900'- 4150'	2500 psi

No abnormal pressures are anticipated.

No lost circulation zones are anticipated.

No H<sub>2</sub>S bearing formations are anticipated.

The maximum bottom hole temperature should be 110° F.

## 8. Anticipated Starting Date

Plans are to drill this well as soon as possible after receiving approval pending rig availability. It should take approximately 20 days to build the location and drill the well with the completion taking another 10 days.

UNITED STATES DEPARTMENT OF THE INTERIOR  
Bureau of Land Management  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

EXCO Resources, Inc.  
6500 Greenville Avenue, Suite 600  
Dallas, Texas  
75206-1000

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM 36408, Rose Federal 14

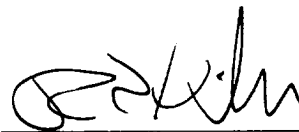
Legal Description of Land: SW/4 of Section 19, 160 acres

Formation(s) (if applicable): Abo

Bond Coverage (State if individually bonded or another's bond): Statewide

BLM Bond File No.: NM 2831

Authorized Signature: \_\_\_\_\_

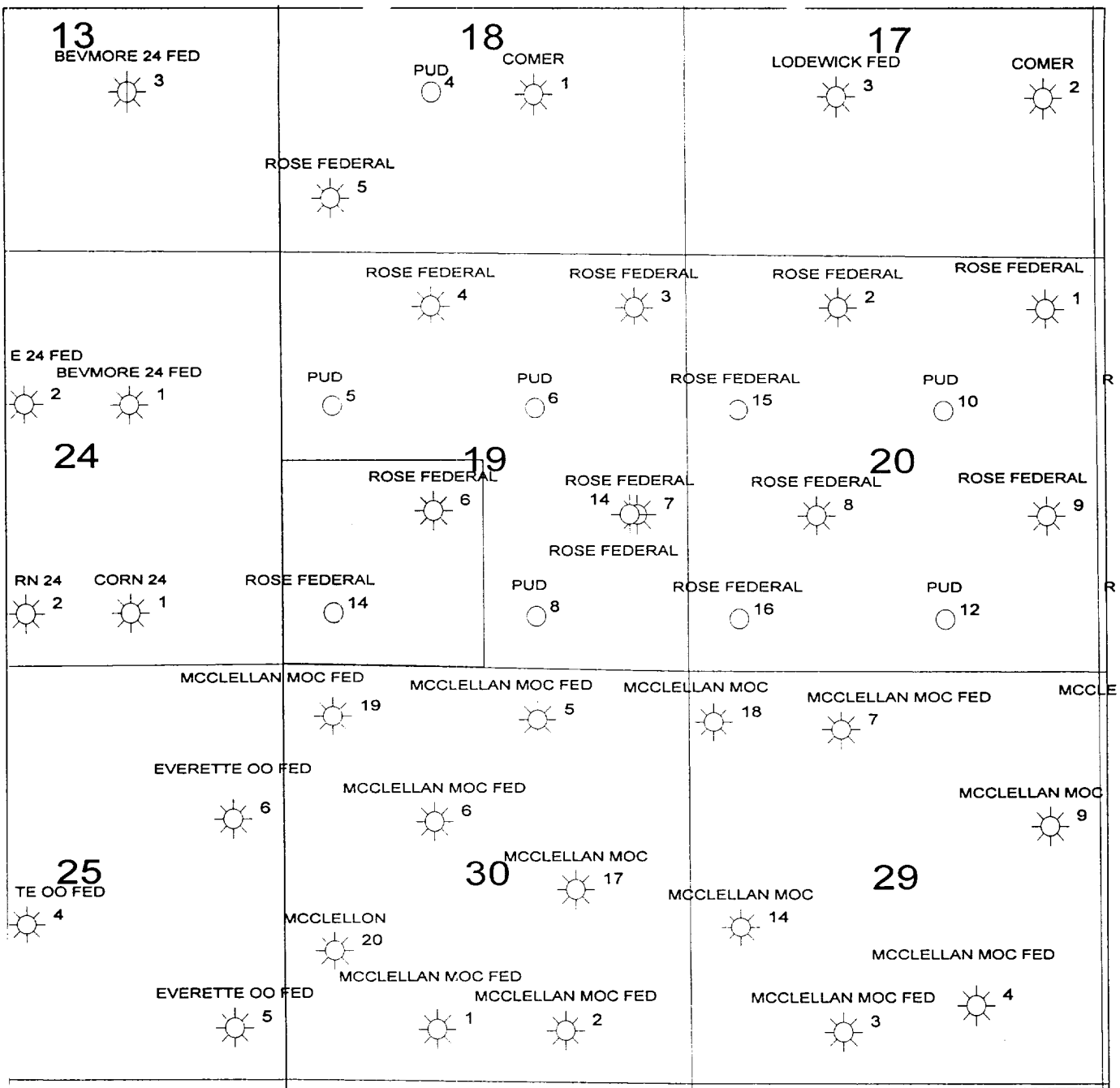


R.L. Hilbun, P.E.

Title: Consulting Engineer

Date: June 5, 2001





1st well and 2nd proposed  
well in existing spacing unit



EXCO Resources, Inc.

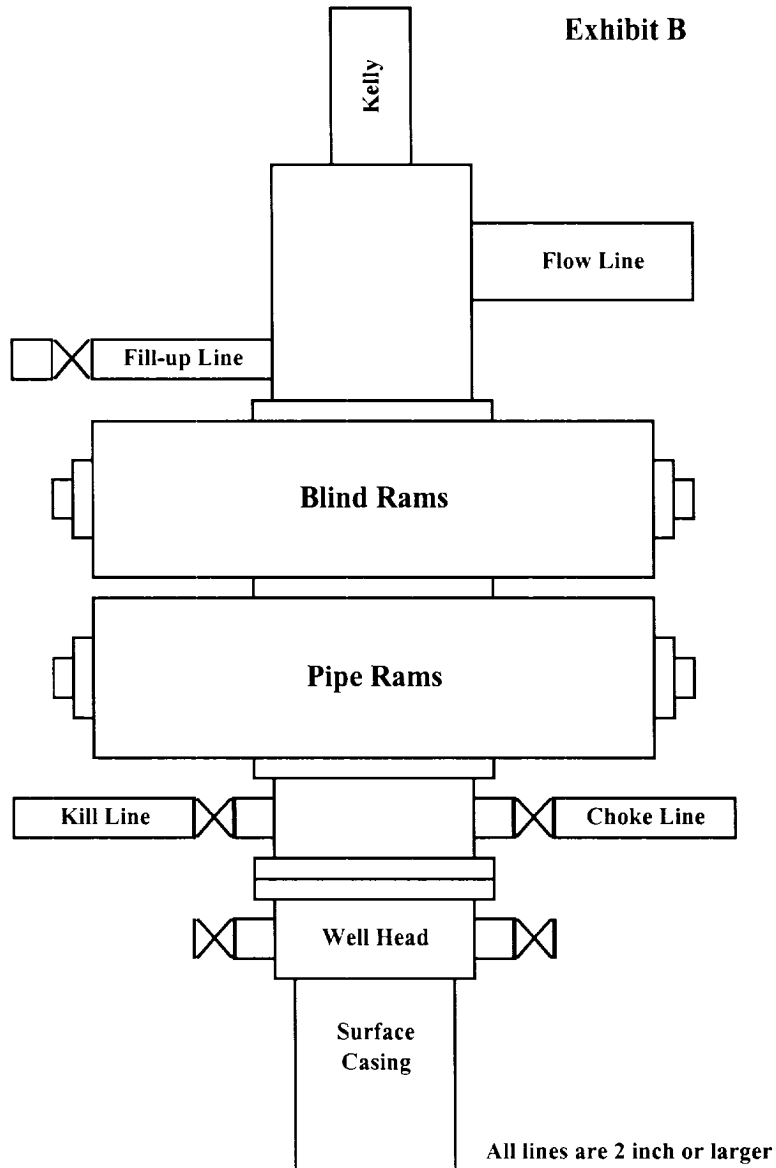
**Pecos Slope Field**  
**T25S / R25E, Chaves County, NM**  
**Rose Federal No. 14**

Mitch Meyer

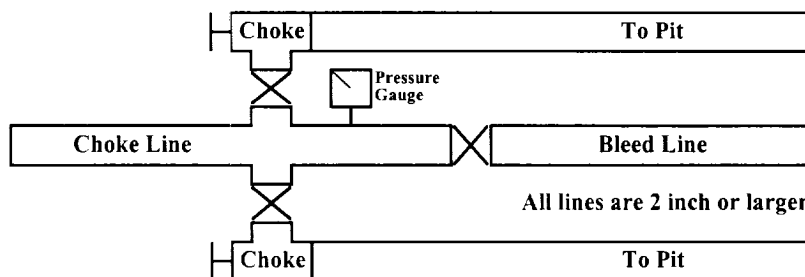
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1" = 2,000'

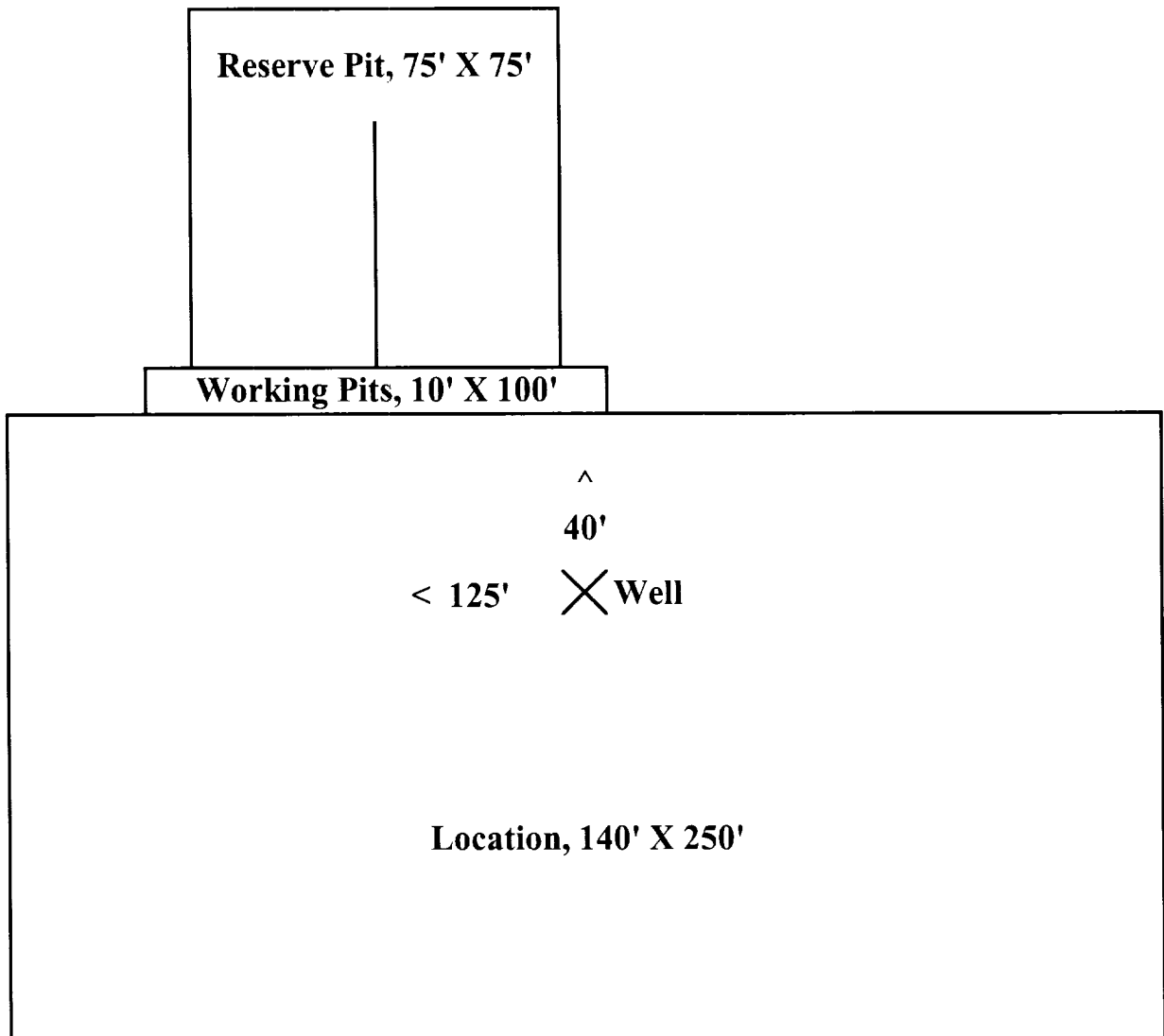
**Exhibit B**



**2,000 psi wp Preventer and Well Head Assembly**



**2,000 psi wp Choke Manifold Assembly**



**Drill Site Plat, Exhibit B**