Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM 36408

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

1a. Type of Work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Rose Federal ~~18~~ 17 27/25

2. Name of Operator
EXCO Resouces, Inc. 190763

9. API Well No.
30-005-63405

3a. Address
6500 Greenville Ave., Suite 600 Dallas, TX 75206

3b. Phone No. *(include area code)*
214 368 2084

10. Field and Pool, or Exploratory
Pecos Slope ~~EIA 547405~~ Abo

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

11. Sec., T., R., M., or Blk. and Survey or Area
Section 21-5S-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

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'

16. No. of Acres in lease
1,840.76 gross acres

17. Spacing Unit dedicated to this well
SW/4 of Section 21, 160 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1867'

19. Proposed Depth
4150'

20. BLM/BIA Bond No. on file
NM 2831

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3773'

22. Approximate date work will start*
September 12, 2001

23. Estimated duration
15 days

24. Attachments ROSWELL CONTROLLED WATER BASIN

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

Title
Consulting Engineering

Approved by *(Signature)*
Name *(Printed/Typed)*
Date

Title Assistant Field Manager, Lands And Minerals
Office ROSWELL FIELD OFFICE
APPROVED FOR 1 YEAR

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, 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)*

DECLARED WATER BASIN

WITNESS

CEMENT BEHIND THE 11¾" CASING MUST BE CIRCULATED

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
ARTESIA

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

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

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
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

Property Code	Property Name	Well Number
	ROSE FEDERAL	17
OGRID No.	**Operator Name**	**Elevation**
	EXCO RESOURCES INC.	3773'

Surface Location

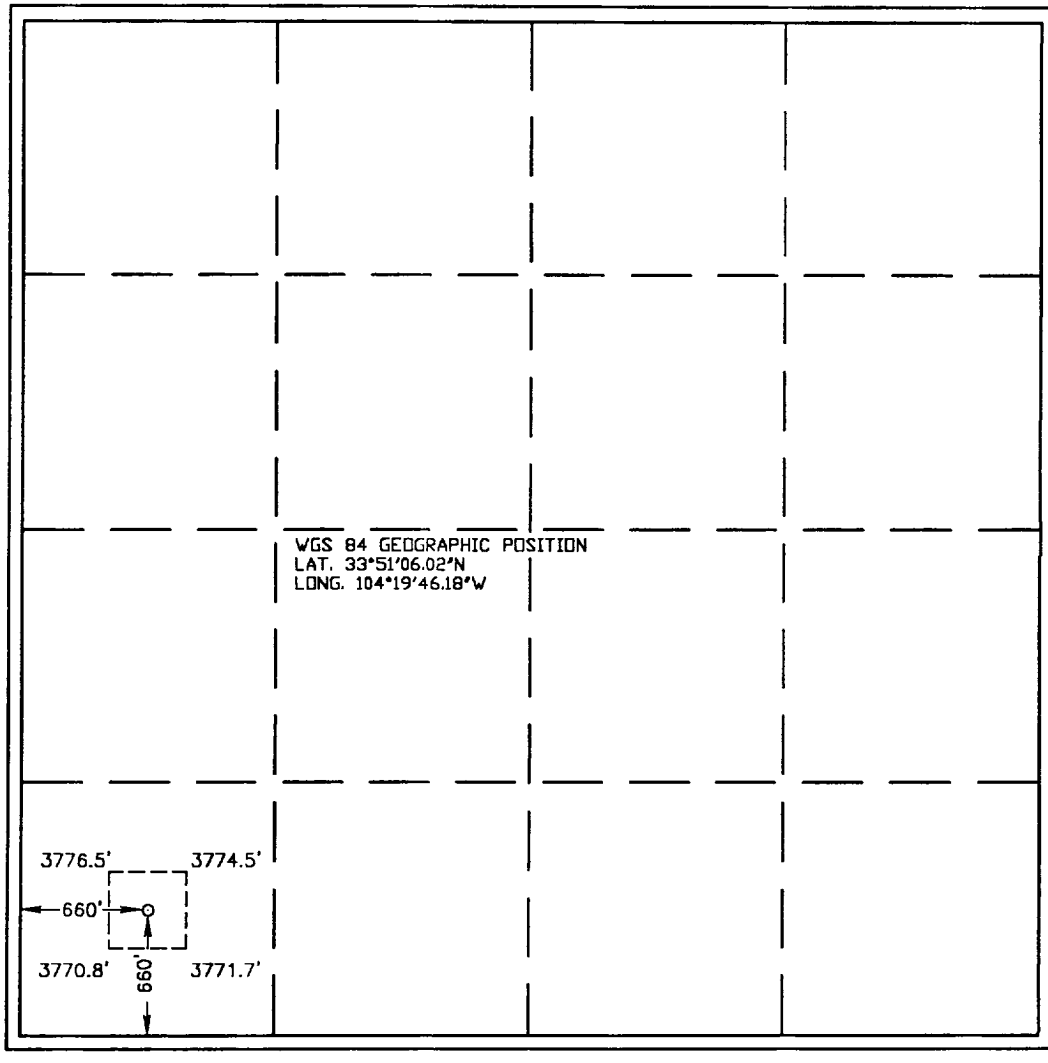
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	5-S	25-E		660	SOUTH	660	WEST	CHAVES

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.

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

R.L. Hilburn
Printed Name

Consulting Engineer
Title

06-05-01
Date

SURVEYOR CERTIFICATION

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

MAY 22, 2001
Date Surveyed AWB

Signature & Seal of Professional Surveyor

Ronald J. Eidson 6/14/01

01-11-0652

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

RECEIVED

2001 JUN 18 AM 10: 18

BUREAU OF LAND MGMT.
BOZEMAN OFFICE

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
EXCO RESOURCES, INC.
Rose Federal #18
660' FSL & 660' FWL
Section 21, 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 1 mile south on Roosevelt turn east .2 mile to location.

2. Planned Access Road

The proposed new access will be approximately 907' in length and will lie in a east-west 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

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

Gayle Baker, Contract Landman
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.

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

June 8, 2001

EXCO RESOURCES, INC.
Rose Federal #18
660' FSL & 660' FWL
Section 21, T05S-R25E
Chaves County, New Mexico

1. The estimated tops of geologic markers are:

San Andres	570'
P1	1002'
P2	1050'
P3	1217'
Glorieta	1488'
Yeso	1590'
Tubbs	3071'
Abo	3634'

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_2S 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 availibility. 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 18

Legal Description of Land: SW/4 of Section 21, 160 acres

Formation(s) (if applicable): Abo

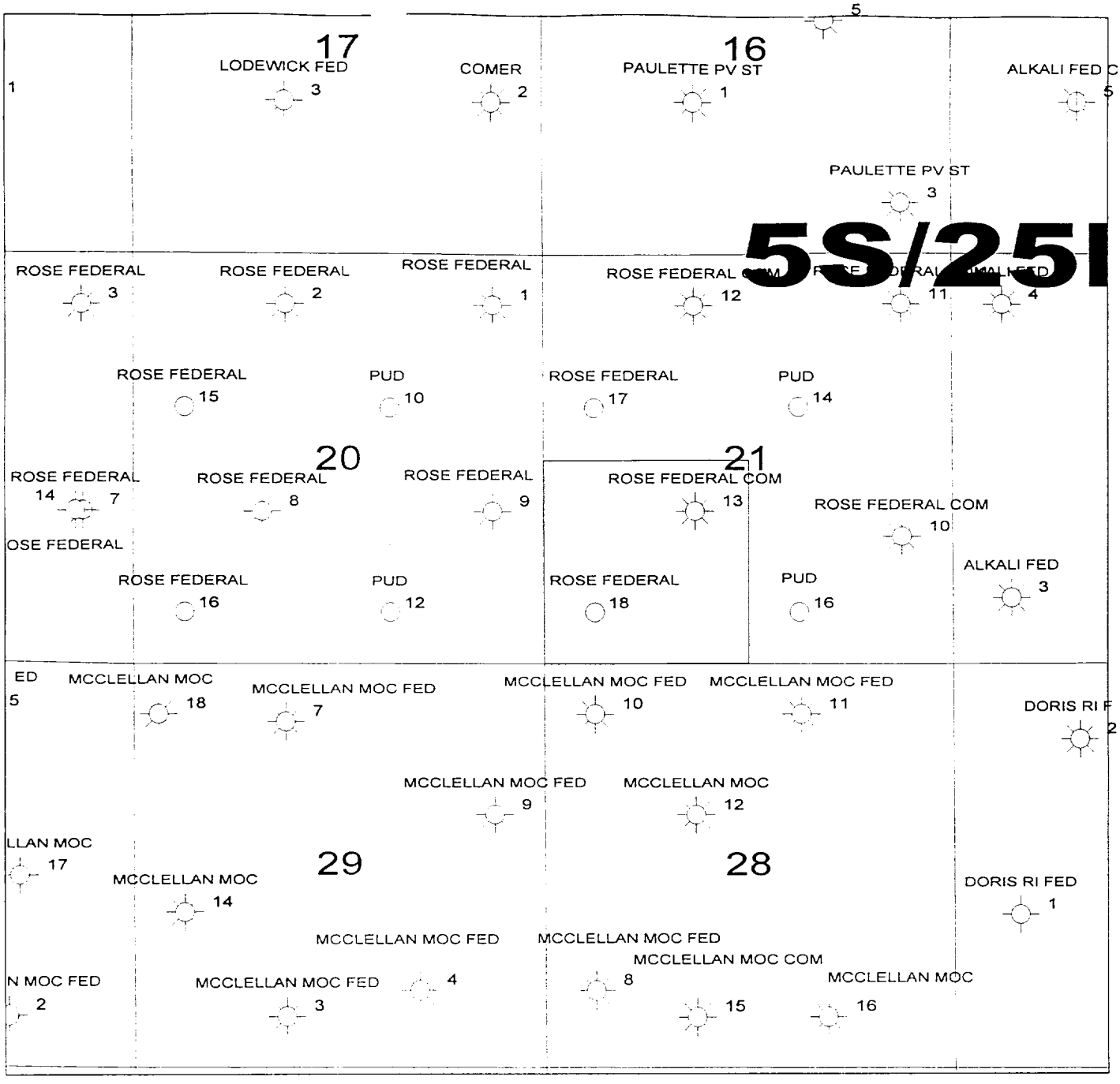
Bond Coverage (State if individually bonded or another's bond): Statewide

BLM Bond File No.: NM 2831

Authorized Signature: _____
R.L. Hilbun, P.E.

Title: Consulting Engineer

Date: June 5, 2001



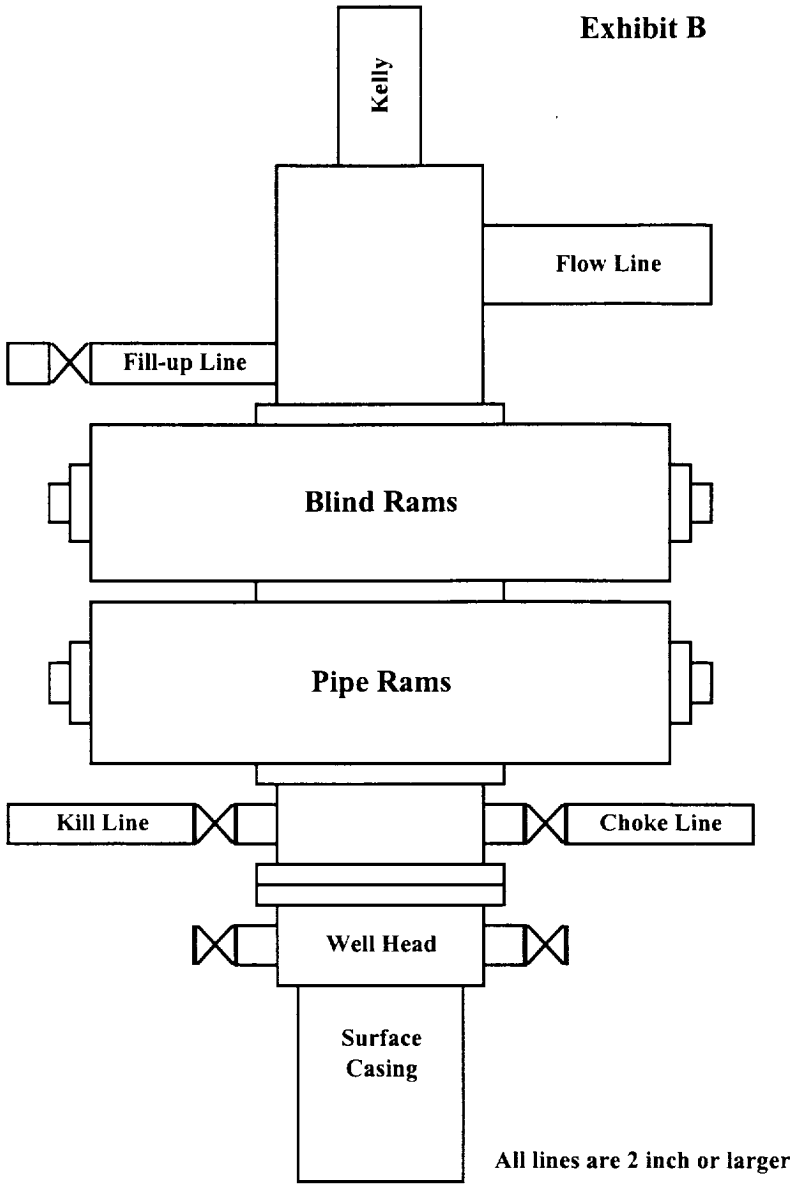
1st well and 2nd proposed well in existing spacing unit

EXCO Resources, Inc.

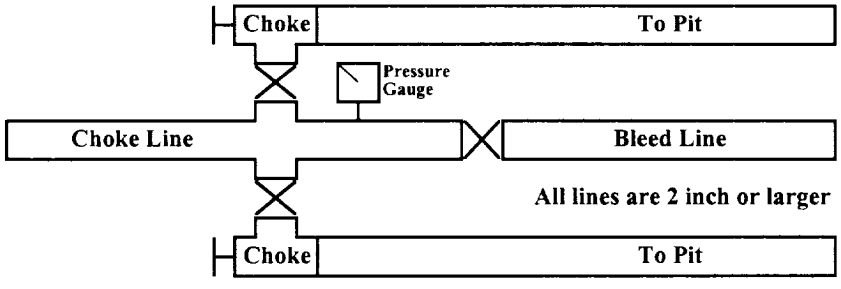
Pecos Slope Field
T25S / R25E, Chaves County, NM
Rose Federal No. 18

Mitch Meyer		5/24/01
	1" = 2,000'	

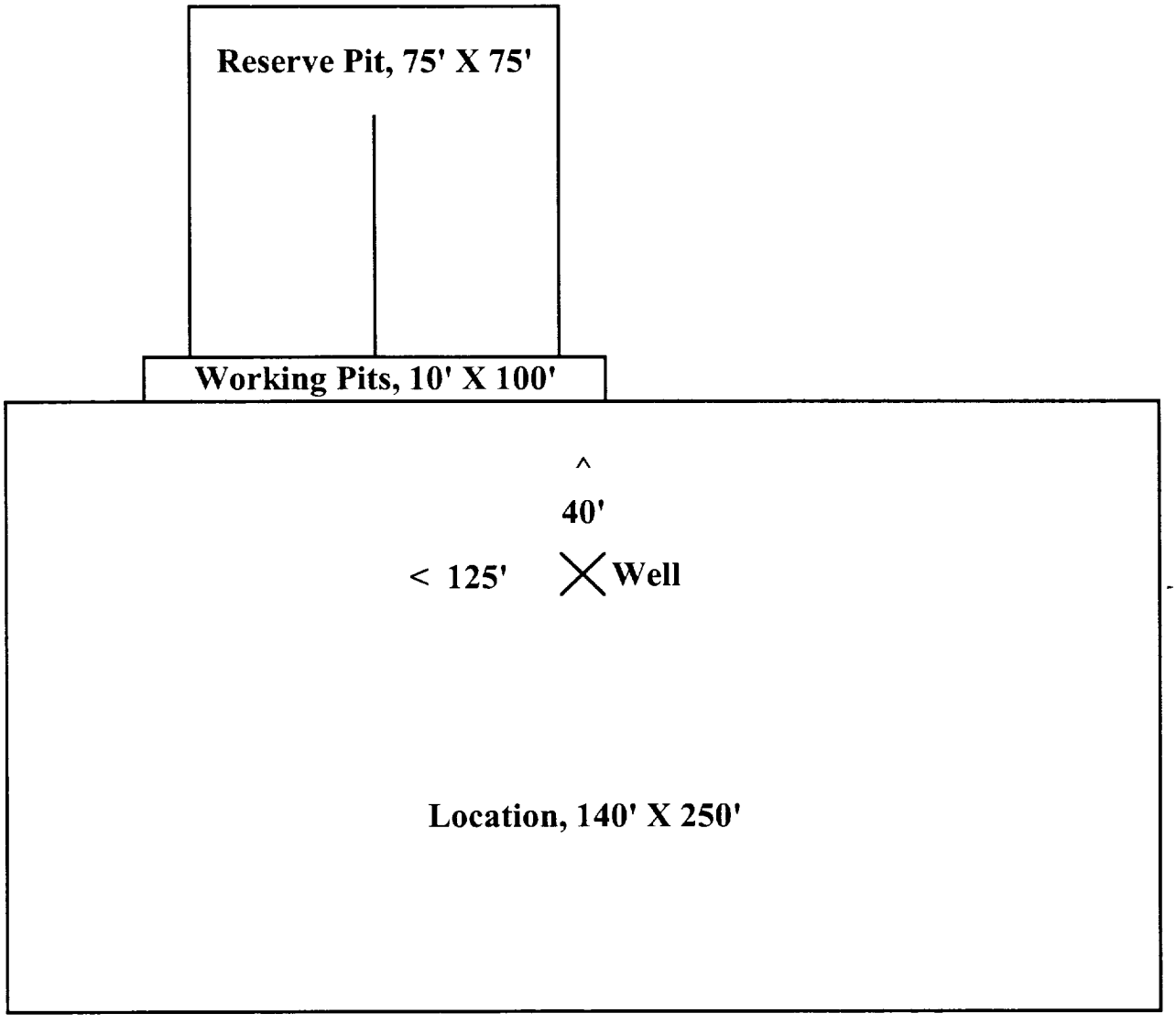
Exhibit B



2,000 psi wp Preventer and Well Head Assembly

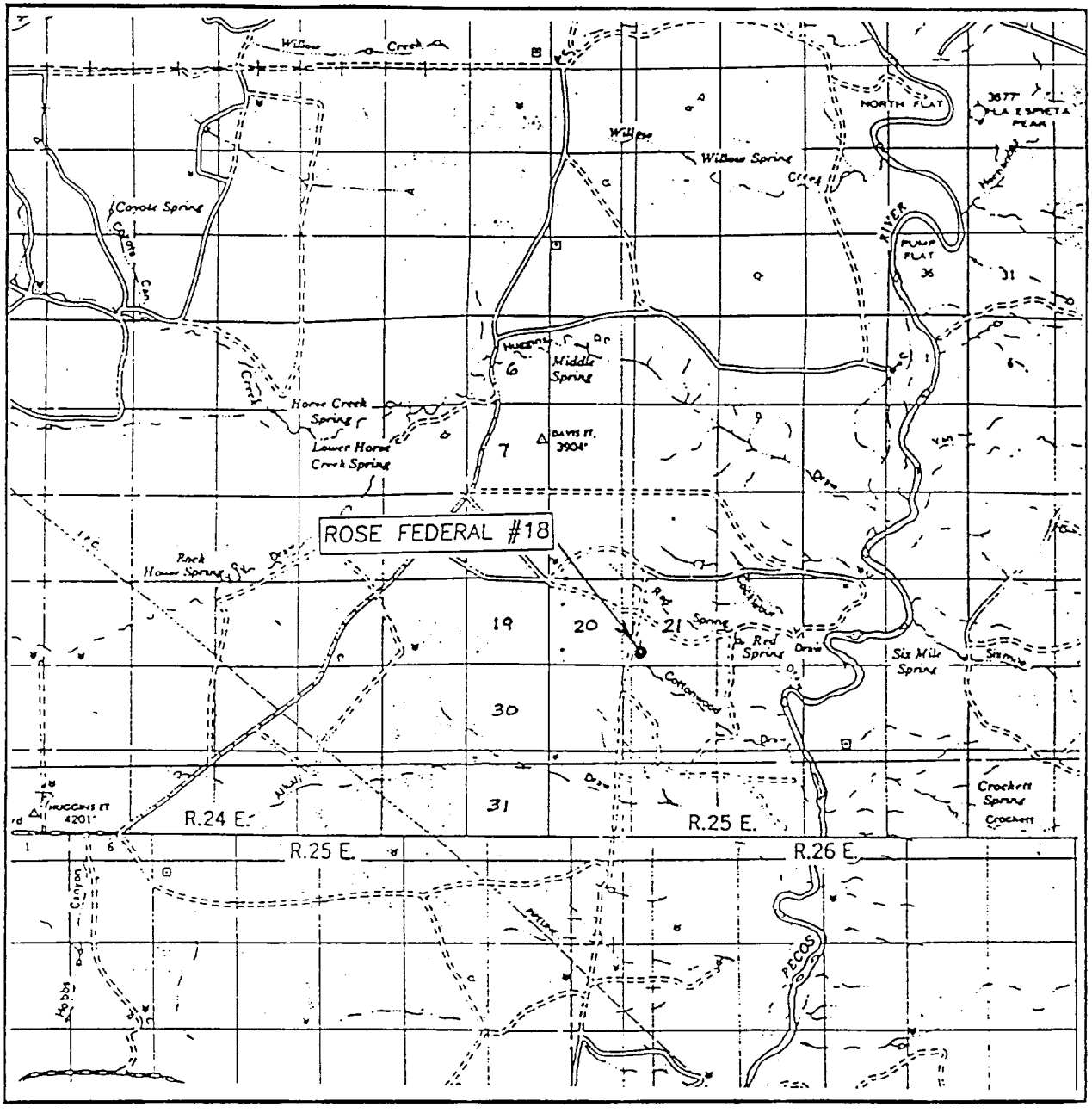


2,000 psi wp Choke Manifold Assembly



Drill Site Plat, Exhibit B

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 21 TWP. 5-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 660' FSL & 660' FWL

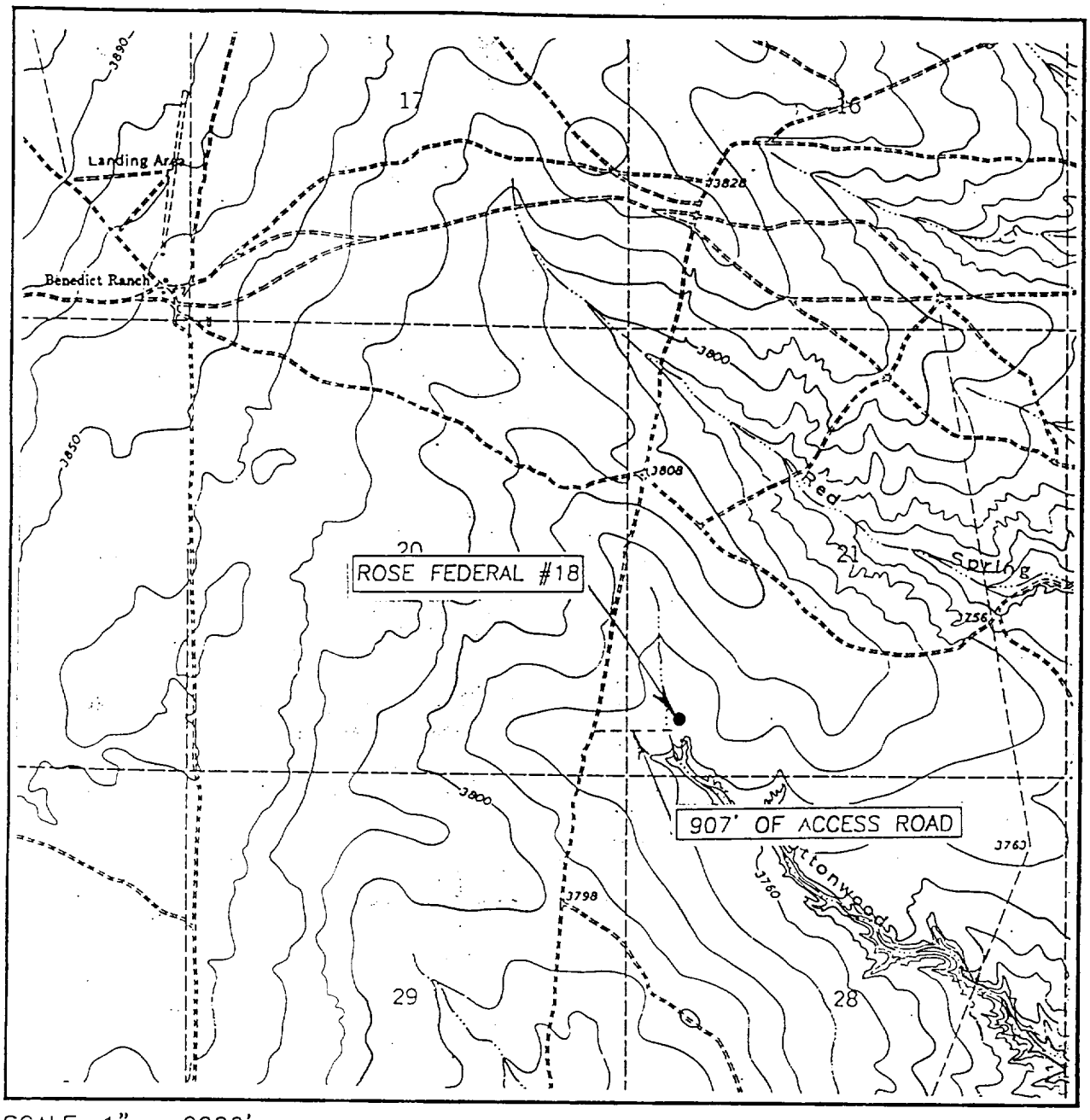
ELEVATION 3773'

OPERATOR EXCO RESOUCES INC.

LEASE ROSE FEDERAL

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

LOCATION VERFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

COTTENWOOD DRAW, N.M.

SEC. 21 TWP. 5-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 660' FSL & 660' FWL

ELEVATION 3773'

OPERATOR EXCO RESOUCES INC.

LEASE ROSE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
COTTENWOOD DRAW, N.M.

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

BLM/ RDO 1/95

TITLE PAGE/ABSTRACT/ NEGATIVE SITE REPORT ROSWELL DISTRICT

1. BLM Report No.
2. (ACCEPTED) (REJECTED)
3. NMCRIS No. 74852

4. Title of Report (Project Title): EXCO Resources' Proposed Rose Federal 14,15,16,17, 18, and Vance Federal No. 4 and Access Easements
5. Project Date(s): 21MAY01-24MAY01

6. Report Date: 29 May, 2001

7. Consultant Name & Address: Pecos Archeological Consultants, P.O. Box 1771, Carlsbad, N.M.
Direct Charge: ROBERT J. MARTIN
Name: PAC, CARLSBAD, NM
Address: P.O. Box 1771, Carlsbad, NM 88220
Authors Name: ROBERT J. MARTIN
field personnel names: Robert J. Martin
Phone (505-887-7029)
8. Permit No. : BLM Survey Permit No. 6-2920-01

9. Consultant Report No. : 01027

10. Sponsor Name and Address: EXCO Resources, Inc.
Indiv. Responsible: Mr. Hal Hickey
Name:
Address: 6500 Greenville Ave. Suite 600, Dallas, TX 75206-1000
Phone (214) 368-2084

11. For BLM Use only.

12. ACREAGE:
Total No. of acres surveyed: 30.99

SURFACE OWNERSHIP: Federal
State_____, Private, _____ Federal , 30.99 ACRES
13. Location: (Maps Attached if negative survey):
Rose Fed. Well No. 14: SW1/4 SW1/4, Section 19, T5S, R25E, Chaves County, N.M.
The Road for the No. 2:
SW1/4 SW1/4, Section 19, T5S, R25E, Chaves County, N.M.
NW1/4 SW1/4, Section 19, T5S, R25E, Chaves County, N.M.
NE1/4 SW1/4, Section 19, T5S, R25E, Chaves County, N.M.

Rose Fed. Well No. 15: SW1/4 NW1/4 , Section 20, T5S, R25E, Chaves County, N.M.

Rose Fed. Well No. 16: SW1/4 SW1/4, Section 20, T5S, R25E, Chaves Sounty, N.M.
The Road for the No. 16:
SW1/4 SW1/4, Section 20, T5S, R25E, NMPM, Chaves County, N.M.

Rose Fed. Well No. 17:

SW1/4 NW1/4, Section 21, T5S, R25E, Chaves County, N.M.

Rose Fed. Well No. 18: SW1/4 SW1/4, Section 21, T5S, R25E, Chaves County, N.M.
Road for the No. 18: SW1/4 SW1/4, Section 21, T5S, R25E, Chaves County, N.M.
SE1/4 SE1/4, Section 20, T5S, R25E, Chaves Sounty, N.M.

Vance Fed. Well No. 4: NE1/4 NW1/4, Section 34, T7S, R26E, Chaves County, N.M.
Road for the No. 4: NE1/4 NW1/4, Section 34, T7S, R26E, Chaves Sounty, N.M.
a. State: NM b. County: Chaves
c. District: Roswell, Roswell Field Office D. nearest city or Town: Roswell, NM

e.
Area, Block: 6 ea. 400' X 400'; Actual Area Surveyed: 6 ea. 400' X 400'
Area, Linear: Road: 25' X 487'; Actual Area Surveyed: 100' X 487'
Road: 25' X 2052'; Actual Area Surveyed: 100' X 2052'
Road: 25' X 463'; Actual Area Surveyed: 100' X 463'
Road: 25' X 907'; Actual Area Surveyed: 100' X 907

f. Footages: Rose Fed. No. 14: 660' FSL, 660' FWL, Sect. 19
Rose Fed. No. 15: 1980' FNL, 660' FWL, Sect. 20
Rose Fed. No. 16: 660' FSL, 660' FWL, Sect. 20
Rose Fed. No. 17: 1980' FNL, 660' FWL, Sect. 21
Rose Fed. No. 18: 660' FSL, 660' FWL, Sect. 21
Vance Fed. No. 4 : 660'FNL, 1980' FWL, Sect. 34

g. Quad. name and Code: USGS Cottonwood Draw Quadrangle, 7.5 Minute Series, 1967; 33104 G-3
USGS Eightmile Draw Quadrangle, 7.5 Minute Series, 1962; 33104 F-3

14. a. Literature Search: Location: BLM
Date: 23 May 2001
List By LA#: NONE within 1/4 mile of Project area. (Pat Flanary, BLM Archeologist, Roswell Field Office, Roswell, NM, personal communication/consultation

b. Description of Undertaking: Six well pads and four associated easements as/per the enclosed plats

c. Environmental Setting (NRCS soil designation; vegetative community; etc.: Local soils consist of loams of the Sotim-Pajarito soil association, or shallow to deep well drained soils on a gently sloping landform, and Redona-Ratliff-Blakeney soil association, or shallow to deep loams on gently sloping or terraced areas. Microrelief ranges from 0.10 - 0.25m, in the form of occasional hummocks. Flora include mesquite, creosote bush, prickly pear, cholla cactus, bunch grass, ring muhley, and croton.

d. Field Methods: Transect Intervals: 15 M
Crew Size: 1 (archeologist)
Time in Field: 2.0hrs.
Collections: None

15. Cultural Resource Findings: None seen nor recorded

a. Identification and Description:

16. Management Summary: clearance for the project is recommended.
I certify that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: signature _____ date: 29. May. 2001

NOTICE OF STAKING

(Not To Be Used In Place Of Application of Permit to Drill Form 3160-3)

Pud 15

1. ~~Oil Well~~ Gas Well ~~Other (Specify)~~ Rose Federal 18	6. Lease Number: NM 36408
	7. If Indian, Allotee or Tribe Name
2. Name of Operator: EXCO Rescources, Inc. 6500 Greenville Avenue, Suite 600 Dallas, TX 75206-1000 214 368 2084	8. Unit Agreement Name
3. Name of Specific Contact Person: R.L. Hilbun	9. Farm or Lease Name: Rose Federal
4. Address and Phone Number of Operator or Agent: Summa Engineering Inc. 200 North Harvey, Suite 1415 Oklahoma City, OK 73102-4003 405 232 8338 office 405 850 9385 mobile	10. Well Number: 18
5. Surface Location of Well: SW SW 660' FSL, 660' FWL	11. Field or Wildcat: Pecos Slope EIA 547405
	12. Section, Township, Range or Block and Survey or Area: Sec 21, 5S-25E, NMPM
15. Formation Objective (s): Abo	16. Estimated Well Depth: 4150
	13. County or Parish: Chaves
	14. State: NM

17. Additional Information (as appropriate, shall include surface owner's name, address and, if known, telephone number.)

Federal Surface

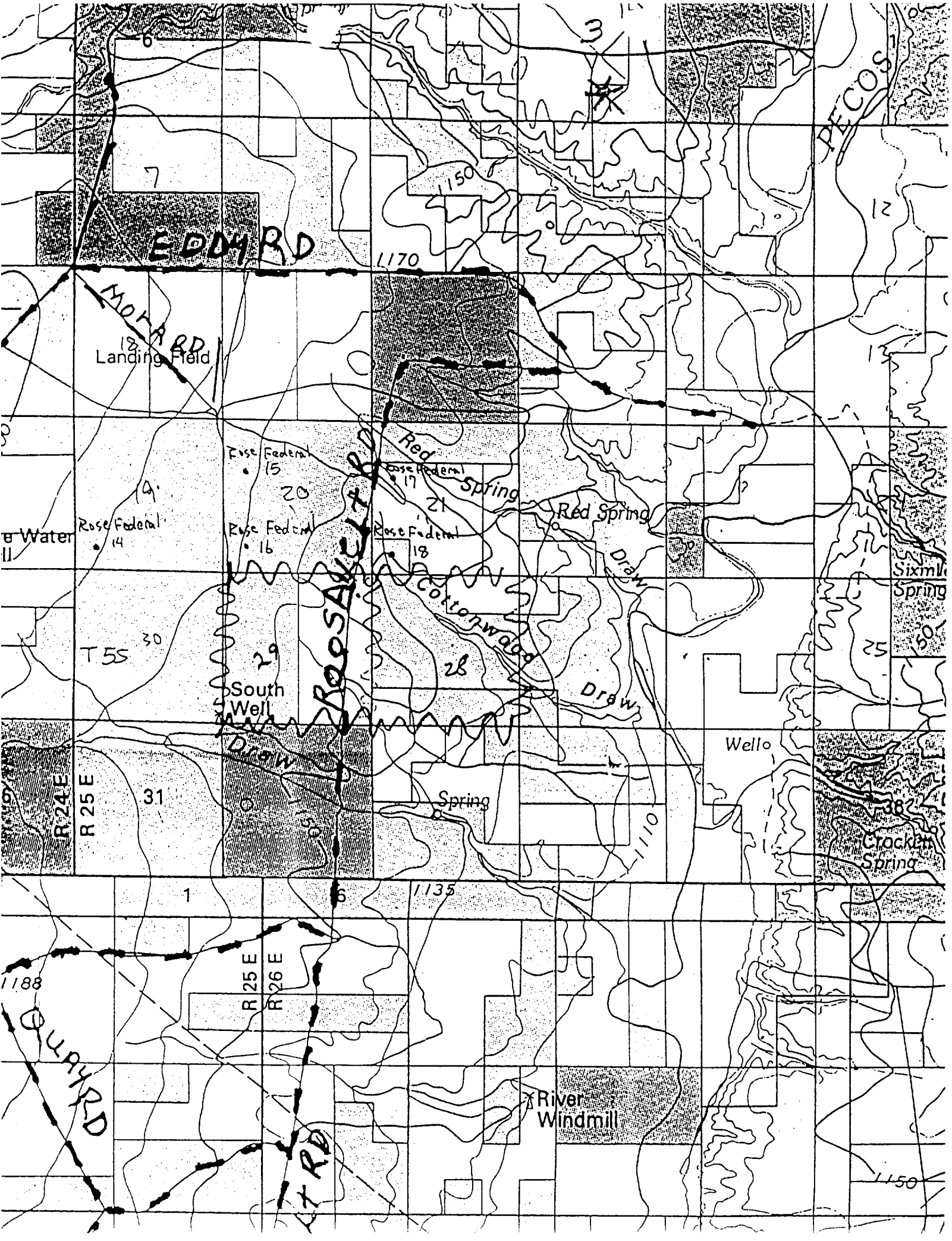
18. Signed: _____ May 17, 2001

R.L. Hilbun, P.E., Consulting Engineer

Note: Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the onsite predrill inspection and notify you accordingly. The location must be staked and access road must be flagged prior to the onsite inspection.

Operators must consider the following prior to the onsite:

1) H_2S Potential
2) Cultural Resources (Archeology)
3) Federal Right of Way or Special Use Permit


EDDY RD
MORRRD
Landing Field
Rose Federal 15
Rose Federal 17
Rose Federal 14
Rose Federal 16
Rose Federal 18
Red Spring
Red Spring
Cottonwood Draw
Draw
Draw
ROSA RD
South Well
T 55
R 24 E
R 25 E
R 25 E
R 26 E
Spring
Wello
Crocker Spring
PECOS
River Windmill
QUAY RD
1150
1170
1110
1135
1188
1150