

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

30-045-28526

5. LEASE DESIGNATION AND SERIAL NO.
NM-38289

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Scorpion AGX Federal

9. WELL NO.
#1

10. FIELD AND POOL, OR WILDCAT
Bisti-Gallup Ext. 58970

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
36-25N-12W
0-1-24n-12W NMPM

12. COUNTY OR PARISH
San Juan

13. STATE
NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK
DRILL DEEPEN PLUG BACK

B. TYPE OF WELL
OIL WELL GAS WELL OTHER
SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Yates Petroleum Corporation (505) 748-1471

3. ADDRESS OF OPERATOR
105 South 4th St., Artesia, NM 88210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface
300' FSL & 1980' FEL 36-25n-12W

At proposed prod. zone
330' FNL & 1980' FEL 1-24n-12W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
26 air miles S of Bloomfield, NM

16. NO. OF ACRES IN LEASE
330' 685.43

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.
N/A

21. ELEVATIONS (Show whether DF, ET, GR, etc.)
6,335' ungraded ground

17. NO. OF ACRES ASSIGNED
TO THIS WELL W/85.98

19. PROPOSED DEPTH
5,000'

20. ROTARY OR CABLE TOOL
Rotary

22. APPROX. DATE WORK SHALL START*
Oct. 10, 1990

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

PROPOSED CASING AND CEMENTING PROGRAM

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO PERMITS WITH ATTACHED
"GENERAL CONDITIONS".
QUANTITY OF CEMENT
≈ 230 cu ft of to surface
≈ 1,750 cu ft of to surface

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12-1/4"	8-5/8"	24* (J-55, ST&C)	275'
7-7/8"	5-1/2"	15.5* (J-55, ST&C)	5,000'

Well is being directionally drilled from a surface location outside the
De-Na-Zin Wilderness to a BHL under the Wilderness. True vertical total
depth will be 5,000'. Measured total depth will be ≈ 5,060'.

43-28
42-22
35-18

This APD is also a BLM right-of-way application for a road 2.0 mi. long by
35' wide and a wellsite 290' long by 195' wide. Road crosses NWSW &
S2SW4 Sec. 25 and SWSE & E2E2 Sec. 36; both T. 25 N., R. 12 W. Wellsite is
in S2SWSE Sec. 36, T. 25 N., R. 12 W. All San Juan County, NM.

not to be
holds together

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give details of 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 [Signature] TITLE Consultant DATE 8-22-90

(This space for Federal or State office use)

RECEIVED

cc: Beardemphi, BLM
APPROVED
AS AMENDED

APPROVED BY [Signature] TITLE NMOC DATE MAR 1 1991

Hold e-ON-CON. DIV.
DB order DIST 3

MAR 05 1991
AREA MANAGER

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

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

top hole
 bottom hole

DISTRICT I
 P.O. Box 1925, Hobbs, NM 88240

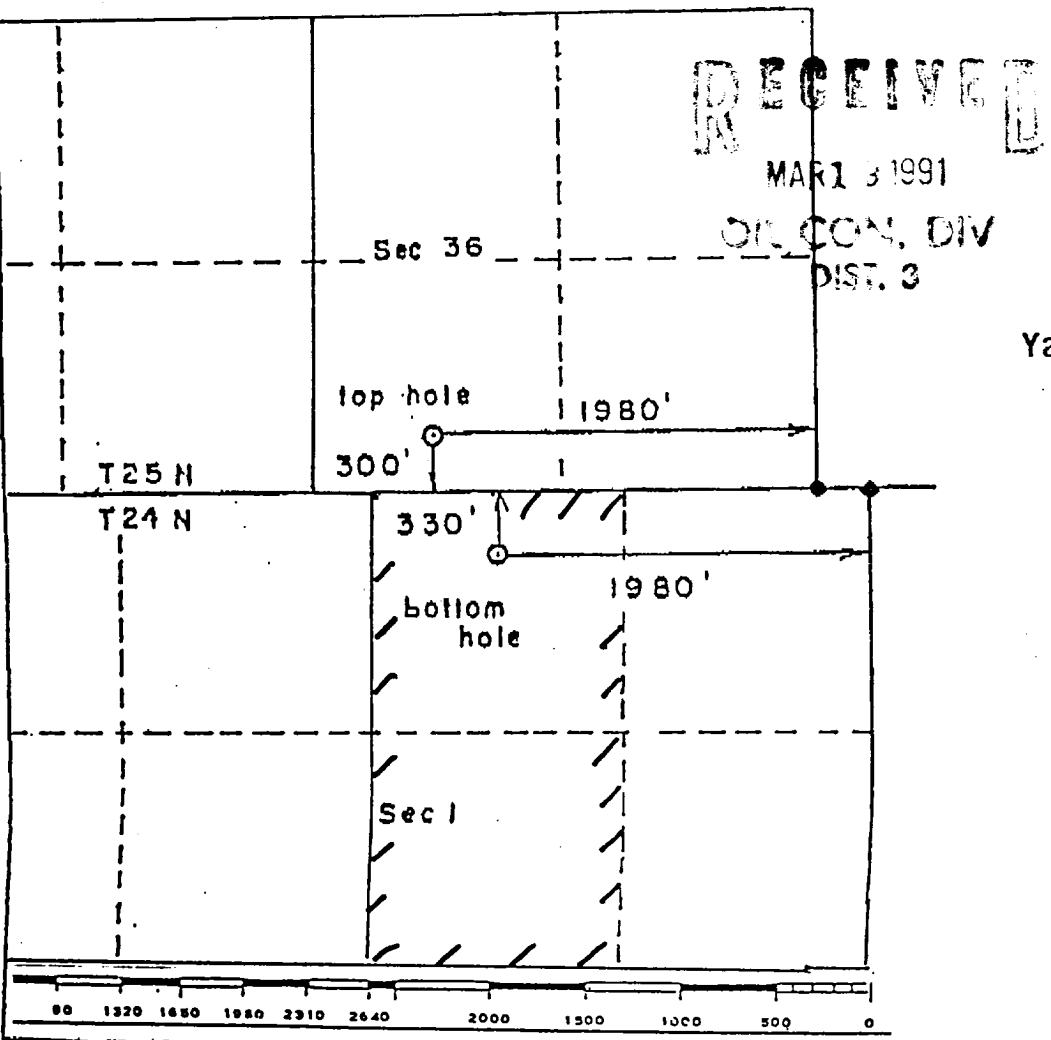
DISTRICT II
 P.O. Drawer DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT
 All Distances must be from the outer boundaries of the section

Operator YATES PETROLEUM CORPORATION		Lease Scorpion AGX Federal		Well # 1
Unit Letter A	Section 36	Township 25 N 24 N	Range 12 W	County San Juan
Actual Focus Location of Wells 300 feet from the South line and 1980 feet from the East				
Ground level Elev. 6335'	Producing Formations Gallup	Pool Bisbee Gallup Extension	Dedicated Acreage 85.98 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - If more than one lease of different ownership is dedicated to the well, have the interest 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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



RECEIVED
 MARCH 3 1991
 OIL CON. DIV
 DIST. 3

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

Signature: *Brian Wood*
 Printed Name: **Brian Wood**
 Position: **Consultant**
 Company: **Yates Petroleum Corporation**
 Date: **March 16, 1991**

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 supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: **15 MARCH 1991**
 Signature & Seal of Professional Surveyor: *[Signature]*
 Certificate No: **6877**

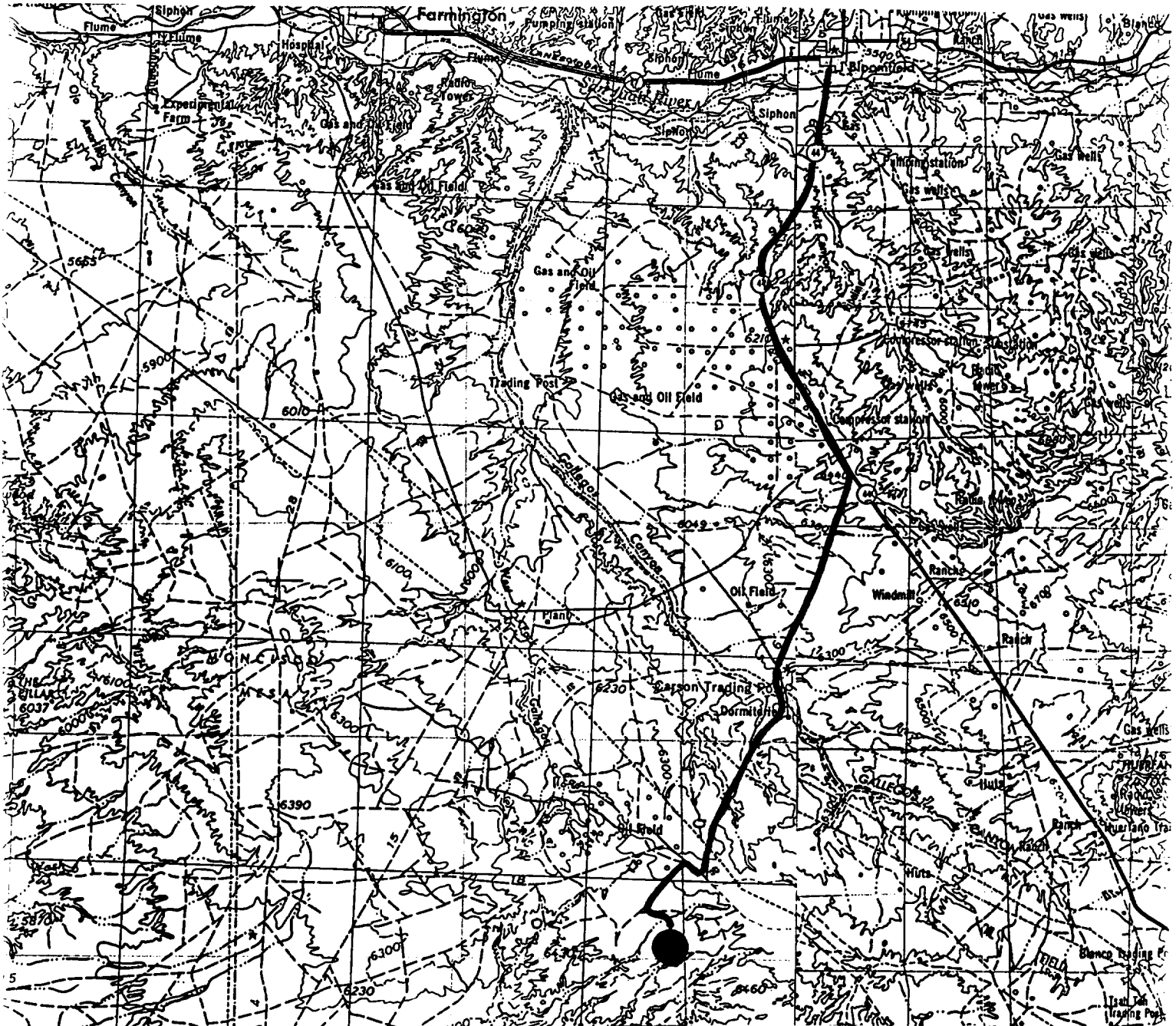
NEW MEXICO LAND SURVEYORS
 8844
 GERMER

Scorpion AGX Federal #1

Surface: 100' FSL & 1980' FEL Sec. 36, T. 25 N., R. 12 W.

BHL: 330' FNL & 1980' FEL Sec. 1, T. 24 N., R. 12 W.

San Juan County, NM



Proposed Well: ●

Access Route: ~

**Yates Petroleum Corporation
Scorpion AGX Federal #1**

PAGE 1

**Surface: 100' FSL & 1980' FEL Sec. 36, T. 25 N., R. 12 W.
BHL: 330' FNL & 1980' FEL Sec. 1, T. 24 N., R. 12 W.
San Juan County, New Mexico**

Drilling Program

1. FORMATION TOPS

The estimated tops of important geologic markers are:

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Ojo Alamo Ss	000'	12'	+6,338'
Kirtland Shale	375'	387'	+5,963'
Fruitland	775'	787'	+5,563'
Pictured Cliffs Ss	1,005'	1,017'	+5,333'
Chacra	1,345'	1,357'	+4,993'
Cliff House Ss	1,760'	1,772'	+4,578'
Menefee Shale	2,235'	2,247'	+4,103'
Point Lookout Ss	3,415'	3,427'	+2,923'
Upper Mancos Shale	3,600'	3,612'	+2,738'
Gallup Shale	4,485'	4,497'	+1,853'
Total Depth (TVD)**	5,000'	5,012'	+1,338'

* all elevations are true vertical depths and reflect the ungraded ground level of 6,338'

** measured total depth projected to be 5,060'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland (775')	Fruitland (775')	Fruitland (775')
Pictured Cliffs (1,005')	Pictured Cliffs (1,005')	Pictured Cliffs (1,005')
Cliff House (1,760')	Cliff House (1,760')	Menefee (2,235')
Menefee (2,235')	Menefee (2,235')	
Point Lookout (3,415')	Point Lookout (3,415')	
Gallup (4,485')		

Primary objective is the Gallup Shale. Completion will probably require

Yates Petroleum Corporation

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Scorpion AGX Federal #1

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San Juan County, New Mexico

fracturing with a sand water foam.

The entire well bore will be cased throughout its length and cemented. Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL (Also see PAGES 3 & 4)

BOP systems will follow Onshore Order #2. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical model is on PAGE 3. Auxiliary equipment will include a kelly cock, pit level indicator, flow sensor, and sub with full opening valve on the floor.

Once out from under the surface casing, a minimum 3,000 psi BOP and choke manifold system will be used. BOP controls will be installed before drilling the surface casing plug, and until the well is completed or abandoned.

Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. All BOP mechanical and pressure tests will be recorded on the driller's log.

BOPs will be inspected and operated at least daily to assure good mechanical working order. The inspection will be recorded on the daily drilling report.

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San Juan County, New Mexico

4. CASING & CEMENT

The proposed casing program is:

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24	J-55	ST&C	New	0' - 275'
7-7/8"	5-1/2"	15.5	J-55	ST&C	New	0' - 5,000'

Surface casing will be cemented to the surface in one stage with ≈ 230 cubic feet of Class B with 3% CaCl_2 + 1/4 lb/sk cellophane. Float will be at $\approx 235'$.

Production casing will be cemented to the surface in two stages. First stage (≈ 550 cubic feet) will be cemented with 50/50 Poz B + 2% gel + 1/4#/sk cellophane + 4#/sk Hiseal. Second stage ($\approx 1,200$ cubic feet) will be cemented with 65/35 Poz B + 12% gel + 1/4#/sk cellophane + 4#/sk Hiseal. Float will be set at $\approx 4,960'$. DV tool at $\approx 3,500'$

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0' - 500'	Native spud mud w/ fresh water	8.4-9.0	35-45	NC
500' - 5,000'	Fresh water gel + LSND, gel & polymer, NaOH	8.6-9.0	32-50	<20 cc

A LSND system will be used with the addition of gel and polymer for shale control and sodium hydroxide for pH control. Drispac may be used for filtration control. LCM will be present for lost circulation zones.

6. CORING, TESTING, & LOGGING

No cores are planned. DSTs are most likely in the Gallup Shale. DIL and N-D logs may be run.

**Yates Petroleum Corporation
Scorpion A6X Federal #1**

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Surface: 100' FSL & 1980' FEL Sec. 36, T. 25 N., R. 12 W.

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San Juan County, New Mexico

7. DOWNHOLE CONDITIONS

Neither abnormal temperatures nor hydrogen sulfide are anticipated. Lost circulation, due to subnormal pressures, can occur in the Pictured Cliffs and Gallup zones. Maximum pressure will be $\approx 2,000$ psi.

Well will be directionally drilled from site outside De-Na-Zin Wilderness to a bottomhole location (BHL) under wilderness. Downhole motor and bent sub assembly will be used for directional drilling. Kickoff point will be $\approx 2,380'$ (TVD). Will build at a rate of $1^\circ/100'$. Maximum angle will be 15° . Horizontal displacement will be $\approx 430'$. Single shot surveys will be run while drilling. A multi-shot survey will be run once TD is reached.

8. OTHER INFORMATION

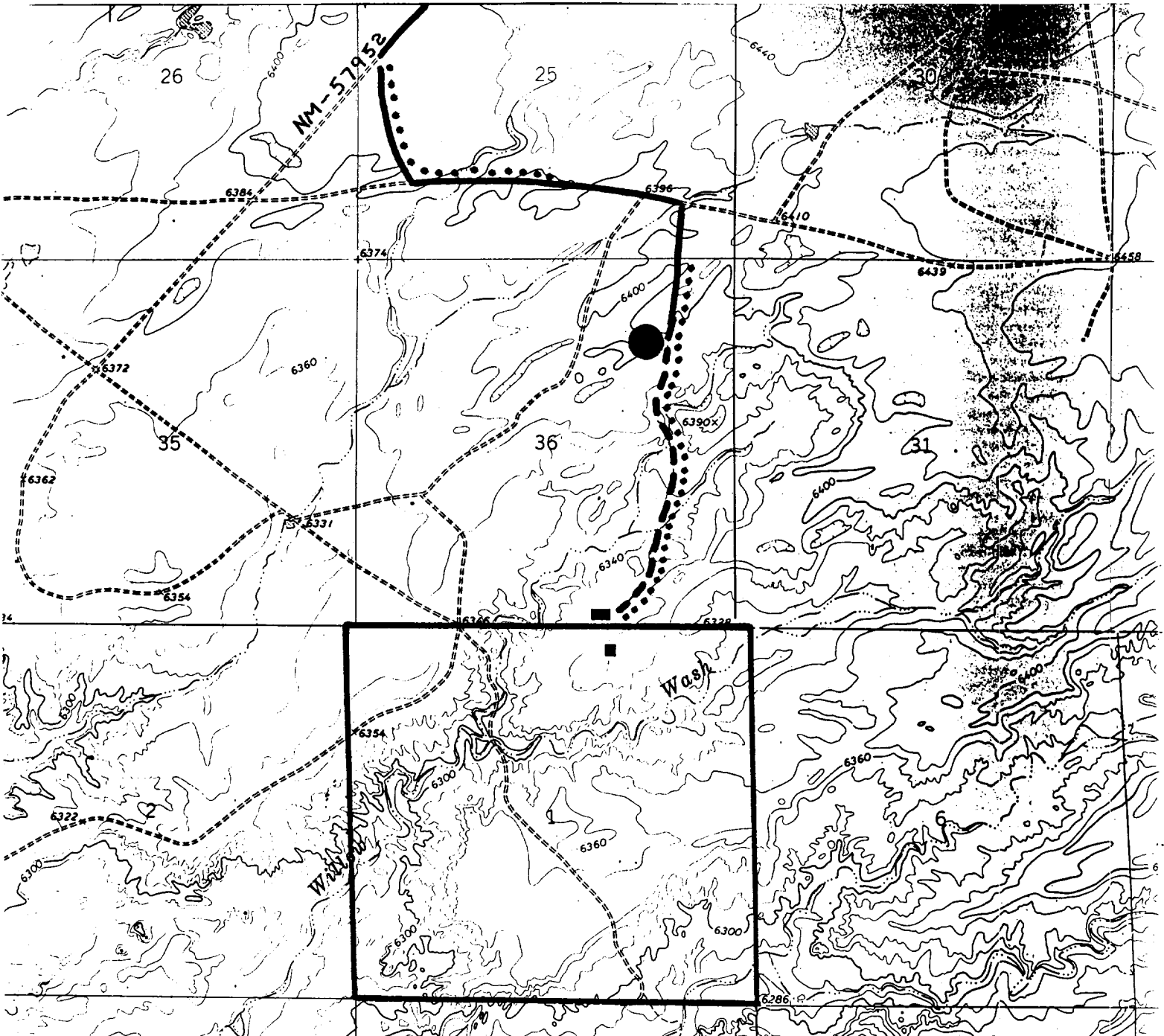
The anticipated spud date is October 10, 1990. It is expected it will take ≈ 10 days to drill and ≈ 10 days to complete the well.

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San Juan County, NM



Proposed Well (Surface): ■

Existing Well: ●

Proposed Well (BHL): ■

Lease Line: ┌

New/Upgraded Road: - - -

Existing Road: ~

BLM Right-of-Way Appln: ...