

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

30-039-25700

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

Union Oil Company of California

3. ADDRESS OF OPERATOR

3300 N. Butler Ste 200

Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface

At proposed prod. zone 1615 FNL & 1830 FEL
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

25 miles SE of Blanco, NM

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1615

16. NO. OF ACRES IN LEASE

2605.33

17. NO. OF ACRES ASSIGNED TO THIS WELL

E/2-322-68 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 317

19. PROPOSED DEPTH

7705'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DP, RT, or other) Section is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

6606' Gr.

22. APPROX. DATE WORK WILL START*

07/15/92

23. PROPOSED CASING AND CEMENTING PROGRAM

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REGULATIONS"

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12.25"	8.625"	24#	350
7.875"	5.50"	17#	7705

Stage tool @ 4600' +-

loss control tail with 100 sxs (117 cuft) Cl. B. 2nd stage 450 sxs+/- (1265 cuft) Cl. B with 3% sodium metasilicate tailed with 100 sxs (117 cuft) Cl B.

Union Oil Company of California wishes to advise that we intend to drill a 12.25" hole to 350' with mud. Run 8.625" casing to 350' and cement to surface with 250 sxs+/- Cl B cement. Nipple up and test BOP. Drill 7.875" hole to 7705' with mud. Log well. Run 5.5" production casing to 7705'. Cement with 550 sxs+/- 50/50/2 Poz. Tailed with 100 sxs Cl. B. Second stage 450 sxs+/- Cl. B with 3% sodium metasilicate, tailed by 100 sxs Cl.B. Perforate pay section in the Mesaverde and Dakota Sands. Stimulate as required.

RECEIVED
JUL 20 1992

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give bearing and distance on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Tom Benson

TITLE Dist. Drlg. Supt.

DATE 6/10/92

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED
AS AMENDED

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE JUL 17 1992

NMOOD

*See Instructions On Reverse Side

AREA MANAGER

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.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

RECEIVED
BLM

92 JUN 11 AM 10:36

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

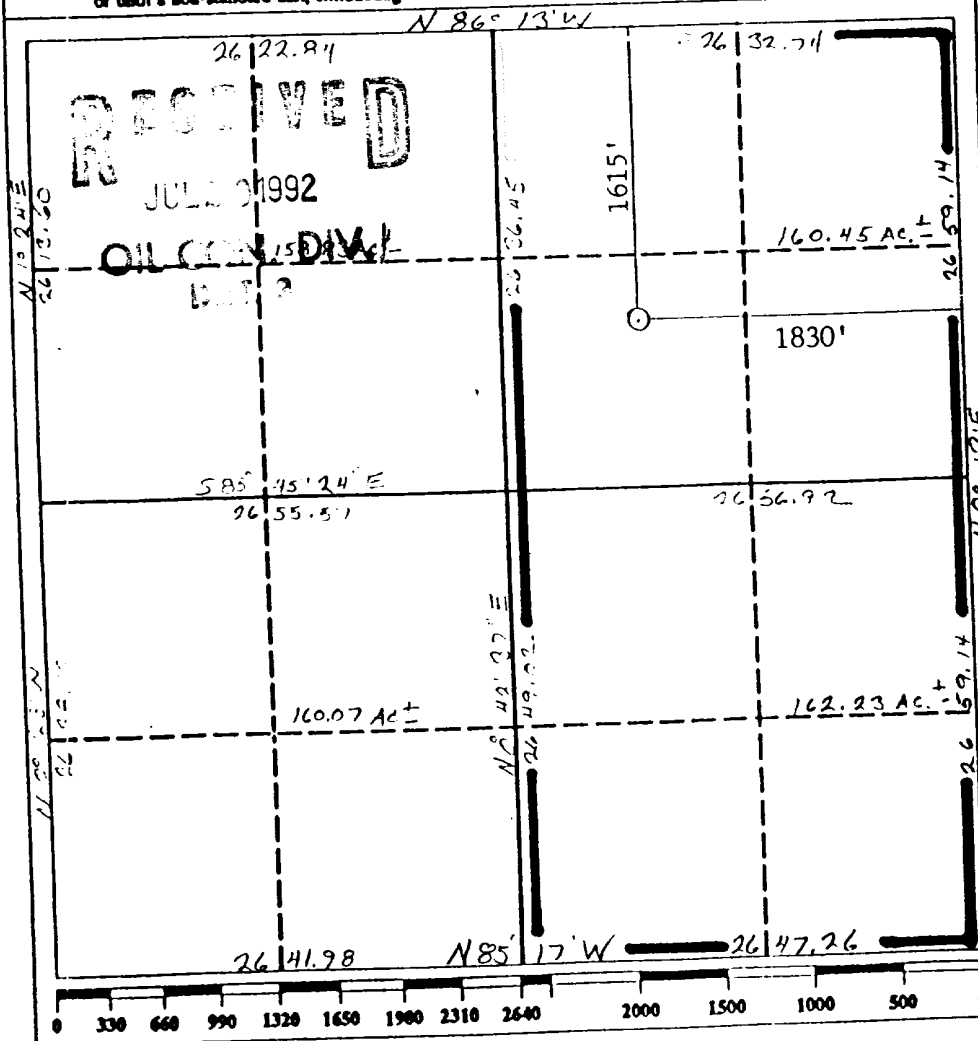
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

91S FARMINGTON, N.M.

Operator UNOCAL			Lease 30-039-25200			Well No. 1-E		
Unit Letter G	Section 30	Township 27 N	Range 6 West	County NMPM	Dedicated Acreage: E/2 322.68 Acres			
Actual Footage Location of Well: 1615 feet from the NORTH line and 1830 feet from the East line								
Ground level Elev. 6606		Producing Formation Mesaverde/Dakota		Pool Blanco/Basin				

- 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 Unitization
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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

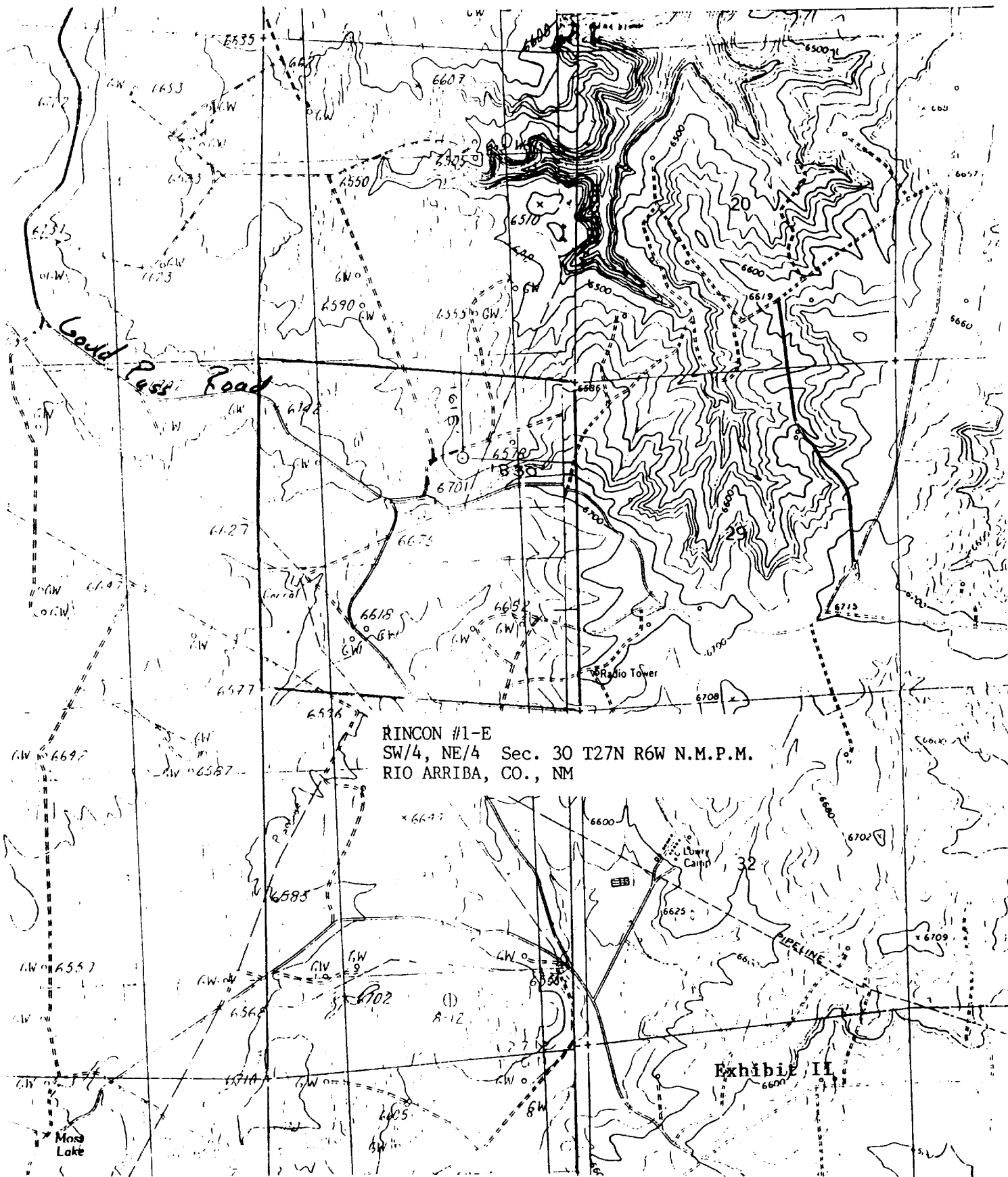
Signature: Robert C. Frank
Printed Name: Robert C. Frank
Position: Agent
Company: Union Oil Company of California
Date: May 30, 1992

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: April 28, 1992
Signature: Cesar B. Tullis
Professional Land Surveyor
Certificate No. 9672

Exhibit I



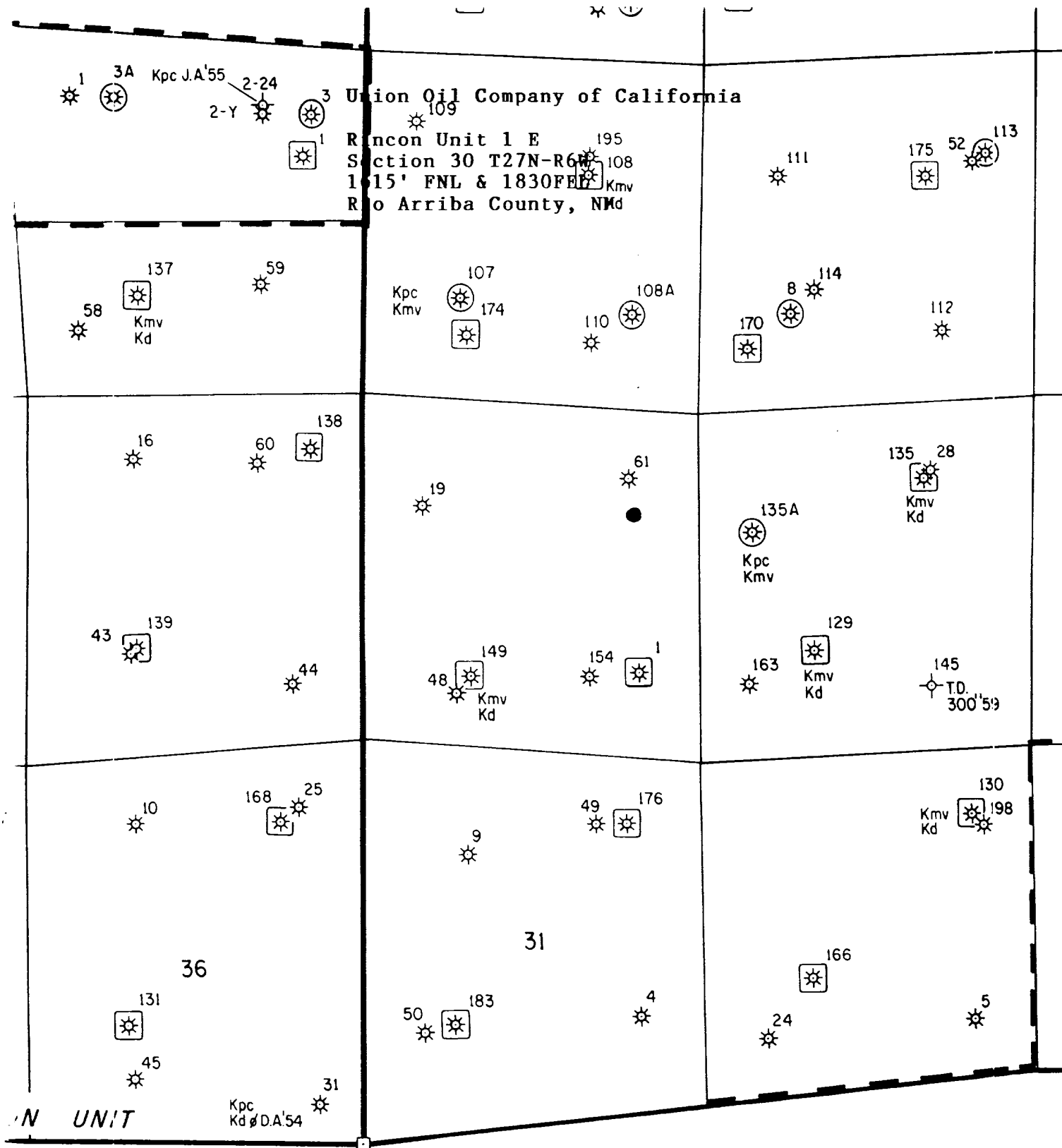


Exhibit III
1 of 2

ON —

WELL HISTORY











TEMPORARILY ABANDONED

PERMANENTLY ABANDONED

2
NP-81 — PICTURED CLIFFS COMPLETED IN 1981
NO PRODUCTION SHOWN

— EXPLANATION —

PRODUCING INTERVAL

Kfm 	FARMINGTON	Kfm	
Kk 	KIRTLAND	Kk	
	FRUITLAND	Kf	
	PICTURED CLIFFS	Kpc	
	CHACRA	Kc	
	LA VENTANA	Klv	
	MESAVERDE	Kmv	<div> <div>Kch CLIFFHOUSE</div> <div>Km MENEFEE</div> <div>Kpl POINT LOOKOUT</div> </div>
	GALLUP	Kgl	
		<div> <div>Kt TOCITO</div> <div>Kgh GREENHORN</div> </div>	
	DAKOTA	Kd	
	ALL PRODUCTION BELOW CRETACEOUS	Je	- ENTRADA
		Pp	- PARADOX
		Pbc	- BARKER CREEK
		MI	- LEADVILLE

WELL STATUS



 - GAS WELL	T - TEMPORARILY ABANDONED
● - OIL WELL	A - PERMANENTLY ABANDONED
⊘ - TEST TEMPORARILY ABANDONED	D - DISCONNECTED
⊗ - INJECTION WELL	S - SHUT IN
⊕ - TEST DRY & ABANDONED	U - UNREPORTED
 - PRODUCER NOW PLUGGED & ABANDONED	I - INPUT WELL
○ - TEST DRILLED WO INFO.	X - INTENT TO ABANDON
	NP - NO PRODUCTION SHOWN

Exhibit III
2 of 2

EXHIBIT IV

EIGHT POINT DRILLING PLAN

Attachment to Form 3160-3 (APD)
Union Oil Company of California
Rincon Unit 1 E
1615 FNL & 1830 FEL
Section 30-T27N-R6W
Rio Arriba County, New Mexico

I. GEOLOGICAL MARKER TOPS:

Formation	Top
Ojo Alamo	2156
Kirtland	2506
Fruitland	2834
Pictured Cliffs	3055
Mesaverde	4812
Mancos	5466
Niobrara	6370
Dakota	7455
TD	7705

II. MINERAL OR WATER BEARING FORMATIONS:

Formation	Top - Bottom	Possible Content
Fruitland	2834 - 3055	Gas and water
Pictured Cliffs	3055 - 3155	Gas and water
Mesaverde	4812 - 5466	Gas and water
Dakota	7455 - 7605	Gas and water

III. SPECIFICATIONS FOR PRESSURE CONTROL:

A. Blowout prevention hook-up schematic with minimum specifications is attached, Exhibit V. One double gate BOP with 4.5" pipe rams and blind rams. The BOP will be hydraulically operated by an accumulator with 1.5 times the necessary capacity to close the rams.

A kelly cock will be utilized and a stabbing valve will be on the rig floor.

Two choke manifold will be equipped with adjustable and positive chokes. The choke line be as straight as possible and turns, if required, will use "T" blocks.

The BOP and choke manifold will be rated at 3000 psi.

The blooie line and related equipment will meet all rquirements of Onshore Oil and Gas Order No. 2.

B. There will be a rotating head.

C. Location of hydraulic BOP controls

1. Remote unit on ground between doghouse and toolpusher's trailer.

D. The BOP Rams will be tested to their rated working pressures or to 70% of the internal yield of the surface pipe.

1. When they are installed.
2. Prior to drilling out surface casing.
3. Minimum of once a month or whenever the seals are broken.

IV. CASING AND CEMENTING PROGRAMS:

A. Casing Program

Depth (Ft.)	Bit Size (In.)	Csg. Size (In.)	Weight (ppf)	Grade	Coupling	Type	Collapse Pressure at bottom	Collapse resistance in tension	Collapse Design Factor
0-350'	12-1/4	8-5/8	24.0	J/K 55	ST&C	Surf	170	1370	8.1
0-6200'	7-7/8	5.50	17.0	J/K 55	LT&C	Prod	3030	3732	1.2
6200'- 7705'	7-7/8	5.50	17.0	N-80	LT&C	Prod	3766	6155	1.6

Cementing hardware:

Surface casing:

Guide shoe with insert float collar
Centralize shoe joint

Production casing:

Guide shoe with insert float collar
Centralize shoe joint and next five joints
Centralize and turbalize above and below stage tool,
oil and gas zones as needed and across Ojo Alamo formation.
Stage tool at approximately 4700'.

B. Cementing Program (Stage tool at 4700'+/-)

Depth (Ft.)	Bit Size (In.)	Casing Size (In./Wt.)	Cement types and volumes
Surface:			
0-350'	12-1/4	8-5/8 / 24.0	250 Sxs+/- (293 cu. ft.) Cl "B" w/2% CaCl ₂ and 1/4# cello flakes. Volume plus 100 % excess. Circulate to surface. Slurry weight: 15.7 ppg Yield: 1.17 cf/sk

Production: Stage tool at 4700'+/-.

Actual cement volumes to recalculated based upon caliper logs.

Depth (Ft.)	Bit Size (In.)	Casing Size (In./Wt.)	Cement types and volumes
0-7705'	7-7/8	5.50 / 17.0	1 st stage: 550 Sxs+/- (699 cu.ft.) 50/50/2 po containing gel, dispersant, fluid loss control free water control agent and cello flakes. Slurry weight: 13 ppg. Yield 1.27 cf/sk. Tail with 100 sxs of Cl. B with fluid loss control. Slurry weight: 15.7 ppg. Yield: 1.17 cf/sk. 2 nd stage: 450 sxs+/- of Cl. B with 3% sodium metasilicate. Volume plus 35%. Circulate to surface. Slurry weight: 11.4 ppg. Yield 2.81 cf/sk. Tail with 100 sxs Class B. Slurry weight 15.7 ppg. Yield 1.17 cf/sk.

C. Casing Pressure Testing

All casing strings will be tested to a minimum of 0.22 psi/ft or 1500 psi (whichever is greater) but not to exceed 70% of minimum internal yield.

APPROXIMATE TESTING PRESSURES AND DURATION

	Casing	Test
Surface	8-5/8" @ 350'	600 psi for 30 minutes
Production	5.50" @ 7705'	1500 psi for 30 minutes

D. Additional Drilling Equipment

1. Kelly Cock.
2. Stabbing valve when Kelly is out of the string.
3. Rotating head below surface.

V. DRILLING FLUIDS PROGRAM:

- A. System volume on hand (steel tanks only) will be approximately 400 bbls.

Depth (Ft.)	Bit Size (In.)	Mud Wt, (PPG)	Mud Vis Secs	F.L. (C.C. in 30 Secs	Comments
0-350'	12-1/4	8.4-8.5	30-33	N/C	Fresh water spud mud, with aquagel. Flocculated with lime to provide adequate viscosity to clean the hole. Keep LCM on hand.
350-7705'	7-7/8	8.5-9.2	35-45	< 10	Drill out of surface casing w/clear water. Mud up prior as hole conditions indicate, with 1/4#/bbl soda ash, 1/2#/bbl caustic soda, 15#/bbl aquagel and barite to control gas.

- B. Level of mud tanks will be monitored visually. Offset drilling did not indicate any abnormal pressures or flows.
-

VI. TESTING, LOGGING AND CORING

A. No DST's are planned.

B. Electric Logging:

- | | |
|---------------|-----------|
| 1. DIL-GR | TD - 350' |
| 2. FDC-CNL-GR | TD - 350' |

C. Coring: None Planned

D. Completion:

1. Perforate pay section in Mesaverde and Dakota sands.
2. Break down perforations, hydraulically fracture as necessary.
3. Produce through 2-3/8" tubing. A packer will isolate the sandstone reservoirs.

VII. BHP AND ABNORMAL CONDITIONS:

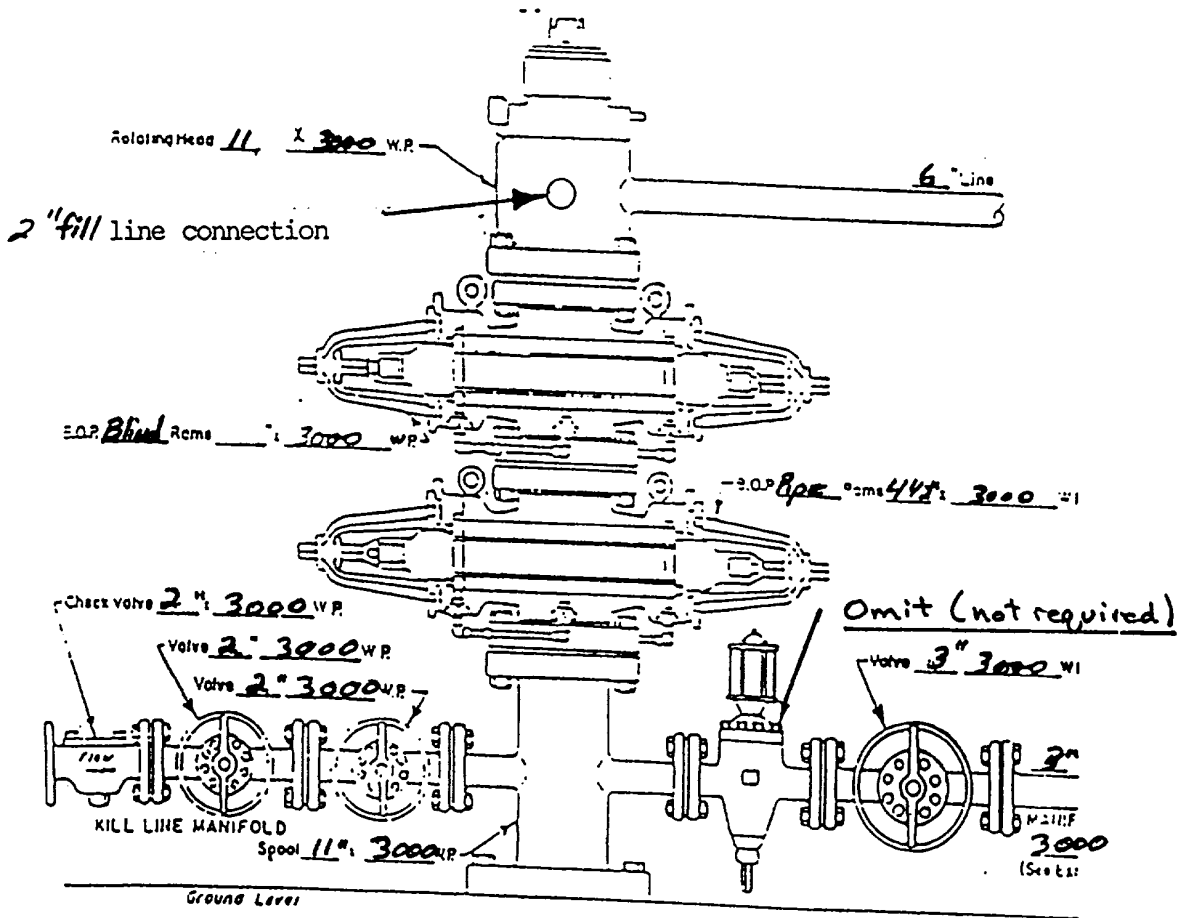
- A. No unexpected abnormal pressures are anticipated. There have been numerous wells drilled nearby and no abnormal pressures were evident in any prior drilling.
- B. Hydrogen sulfide is not present in the offset wells.
- C. No abnormally high temperatures are expected.

VIII. ADDITIONAL INFORMATION:

None at this time. Should conditions change which alter any part of this drilling plan, the Bureau of Land Management will be promptly notified.

Union Oil Company of California

Rincon Unit 1 E
1615' FNL & 1830' FEL
Section 30-T27N-R6W
Rio Arriba County, NM



WELL HEAD B.O.P.
3000 W.P.

☐ Manual
☒ Hydraulic

To Drill $7\frac{7}{8}$ " or $8\frac{3}{4}$ " Hole

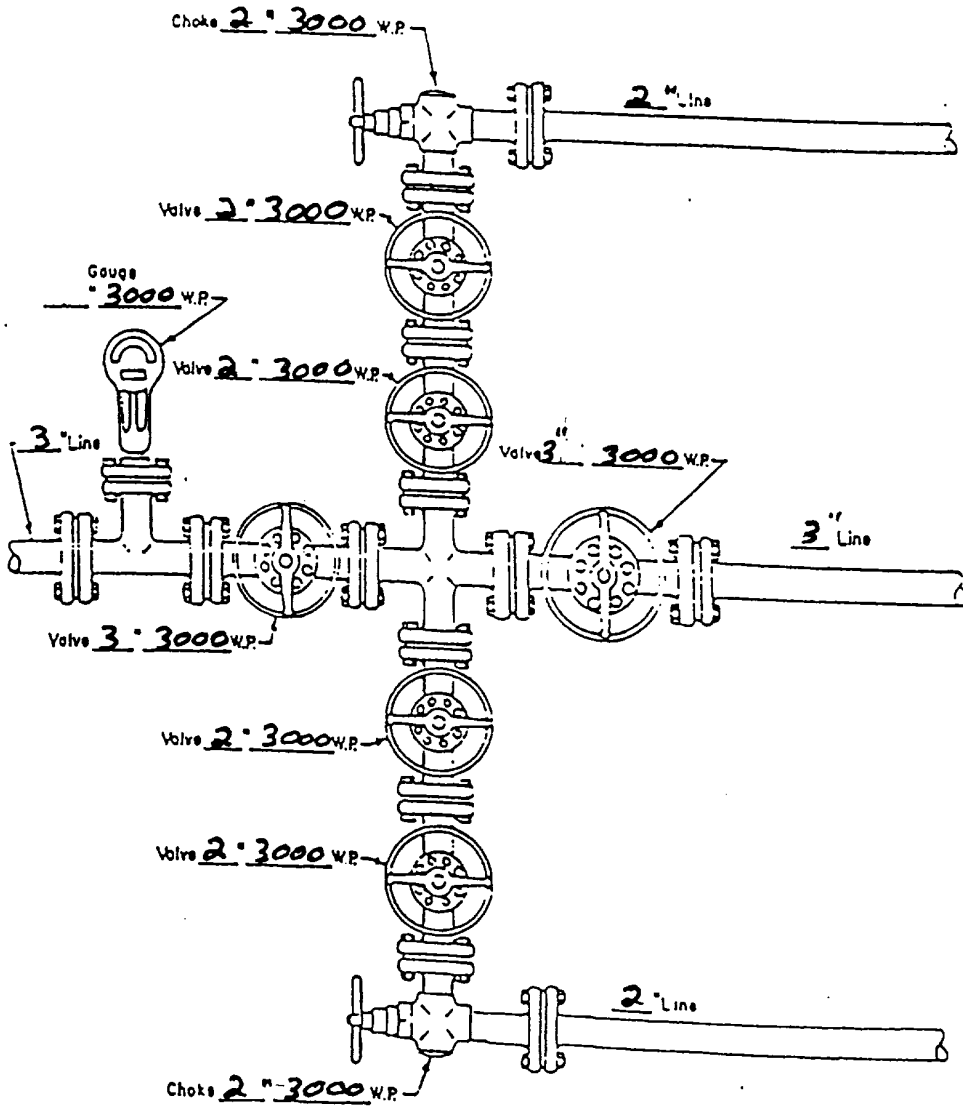
Note: An upper kelly cock valve with handles available.

Plus, safety valve and subs to fit all drill
string connections in use.

Exhibit V
1d.2

Union Oil Company of California

Rincon Unit 1 E
1615' PNL & 1830' FEL
Section 30-T27N-R6W
Rio Arriba County, NM



MANIFOLD
3000 # W.P.

☒ Manual
☐ Hydraulic

Exhibit V

2 of 2

EXHIBIT VI

THIRTEEN POINT SURFACE USE PLAN

Attachment to form 3160-3 (APD)
Union Oil Company of California
Rincon Unit 1 E
1615 FNL & 1830 FEL
Section 30-T27N-R6W
Rio Arriba County, NM

I. EXISTING ROADS;

A. Existing roads and the site access road are shown on Exhibit II. BLM ROW previously acquired under separate APDs. No off lease ROW required pursuant to verbal communication from Mr. Bill Liese, Bureau of Land Management.

B. The proposed well site, location of top soil, reserve pit and excess materials are shown on Exhibit VII.

C. The Surveyors plat with the well location is Exhibit I.

D. From Blanco, New Mexico proceed East on US 64 to the intersection of County Road 4450 (Largo Canyon Road) and turn South for 25 miles to State Hwy 403. Take turn to Gobernador (Ice Box Canyon Road) and proceed up State Hwy 403 to the top and take the left fork of a Y towards Lowry Camp. Take Y for 3.5 miles (pass entrance to Lowry camp). Turn right for 0.1 mile. Turn left and proceed down a short, steep hill for 0.2 mile to a fork. Take the right side of the fork to location.

E. Existing roads and any newly constructed roads will be maintained in the same or better condition, in accordance with the standards of the BLM and/or surface owner agreement, as exist when the project is implemented.

II. ACCESS ROAD TO BE CONSTRUCTED;

There is no new road to be constructed. There will be no fence cuts, cattle guards, or turnouts.

III. LOCATION OF EXISTING WELLS:

A. Existing wells are shown on Exhibit III, with their appropriate symbols.

IV. LOCATION OF PROPOSED FACILITIES:

A. There are no existing facilities on this well pad.

B. Facilities to be constructed will be similar to those shown on Exhibit X.

C. Any additional construction materials will be purchased locally. There is no additional construction materials anticipated.

D. If necessary, any ancillary pits will be fenced and flagged to protect livestock and wildlife.

E. Restoration of Surface: Three (3) sides of the reserve pit will be fenced during the drilling operations. After the rig moves off the fourth side of the pit will be fenced. After the well is completed, the location will be cleaned up and bladed. The reserve will be allowed to dry for a period not to exceed one year and then will be backfilled and the area returned to its' natural contours. Revegetation will be carried out per stipulations or the surface owner agreement.

F. The above ground facilities will be painted within six (6) months of completion, and the reseeding will take place during the next designated season for reseeding.

V. LOCATION AND TYPE OF WATER:

A. The water will be obtained from UNOCAL'S water supply at Lowry Camp, (SW/4, Sec 32-T27N-R6W). The water will be trucked into location.

VI. CONSTRUCTION MATERIALS:

A. Need for additional construction materials is not anticipated. Cut and fill diagram, Exhibit VII, indicates that there will be sufficient material. Any excess material will be stockpiled on the West side of location.

VII. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be buried in the reserve pit.

B. Drilling fluids will be held in the reserve pit unless transferred to the next well within the unit, (see VII. F).

C. Chemical latrines will be provided for human waste.

D. Garbage and non-flammable solid waste, salt and other chemical compounds evolving from drilling or testing will be handled in a fenced trash bin. Drill fluids, water, drilling mud and cuttings will be kept in the reserve pit. The trash bin will be totally enclosed with a small mesh wire to prevent wind scattering trash before it is hauled away. The trash will be hauled to the San Juan County, Regional Landfill

E. After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. All open pits will be fenced and kept closed until such time as the pit is leveled.

F. The free water and drilling fluids remaining in the reserve pit after drilling operations have ceased will be trucked to the next location to be used for drilling fluids. This will facilitate the "drying up" of the reserve pit, so reclamation may start sooner and decrease the amount of "new water" that has to be trucked to the new location. All proposed wells are in the Rincon Unit and no fluids will be transferred outside of the unit unless to an approved disposal site.

VIII. ANCILLARY FACILITIES:

A. There are no ancillary facilities (camps, airstrips, etc...) planned.

IX. WELL SITE LAYOUT:

A. The well site layout is shown on Exhibit IX.

B. Cross sections with topographic features and cuts and fills are shown on Exhibit VIII.

C. Exhibit X shows the layout of the proposed production facilities.

D. The reserve pit will not be lined unless stipulated by the BLM. UNOCAL requests that a determination to line or not to line be made during or just after completing construction of the pit. If it is determined to line the pit, a 8 mil (min.), reinforced liner, that is resistant to liquid hydrocarbons will be used.

E. Test tanks, if used, will be located such that any spills will flow to the reserve pit.

X. PLANS FOR SURFACE RECLAMATION:

A. Backfilling, leveling and recontouring are planned as soon as all pits have dried or within twelve months of completion. Waste and spoils materials will be buried. If production is obtained, the unused portion of the well pad will be reclaimed within twelve months.

B. The soil banked material will be spread over the area. Revegetation will be accomplished by broadcast spreading or drilling seed pursuant to the BLM or surface owner requirements.

C. The reserve pit fencing will be maintained until such time as restoration operations commence.

D. If any oil is on the pit and is not immediately removed after operations cease. the pit will be flagged or covered with a small mesh wire.

E. The rehabilitation operations will begin, pending rehabilitation plan approval, immediately after the completion rig is removed. Other cleanup will be done as needed. Planting and revegetation will be completed between July 1 and September 15 of the year in which the reserve pit is closed.

XI. LAND STATUS

A. The surface is owned by United States of America and administered by the Bureau of Land Management.

XII. OTHER INFORMATION

A. The closest water is the Carrizo Canyon Arroyo approximately 3.5 miles to the N.

B. There are no occupied dwellings within 2 miles of location.

C. Archaeological Survey has been performed and has been sent under separate cover. (Casa 92-20)

D. Drilling is planned on or about July 15, 1992. It is anticipated that the casing point will be reached within 20 days of spud.

E. Pipeline ROW and connection will be determined at a later date.

F. Lessee's or Operator's Representative:

Union Oil Company of California
3300 N. Butler, Ste. 200
Farmington, NM 87401

Frank Consulting, INC.
4705 Caspian Street
Farmington, NM 87402

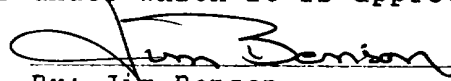
Attn: Jim Benson
326-7600

Attn: Robert C. Frank
326-1962

XIII. 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 Union Oil Company of California and its contractors/subcontractors in conformity with this plan and the terms and conditions under which it is approved.

6/10/92
Date


By: Jim Benson
Union Oil Company
of California

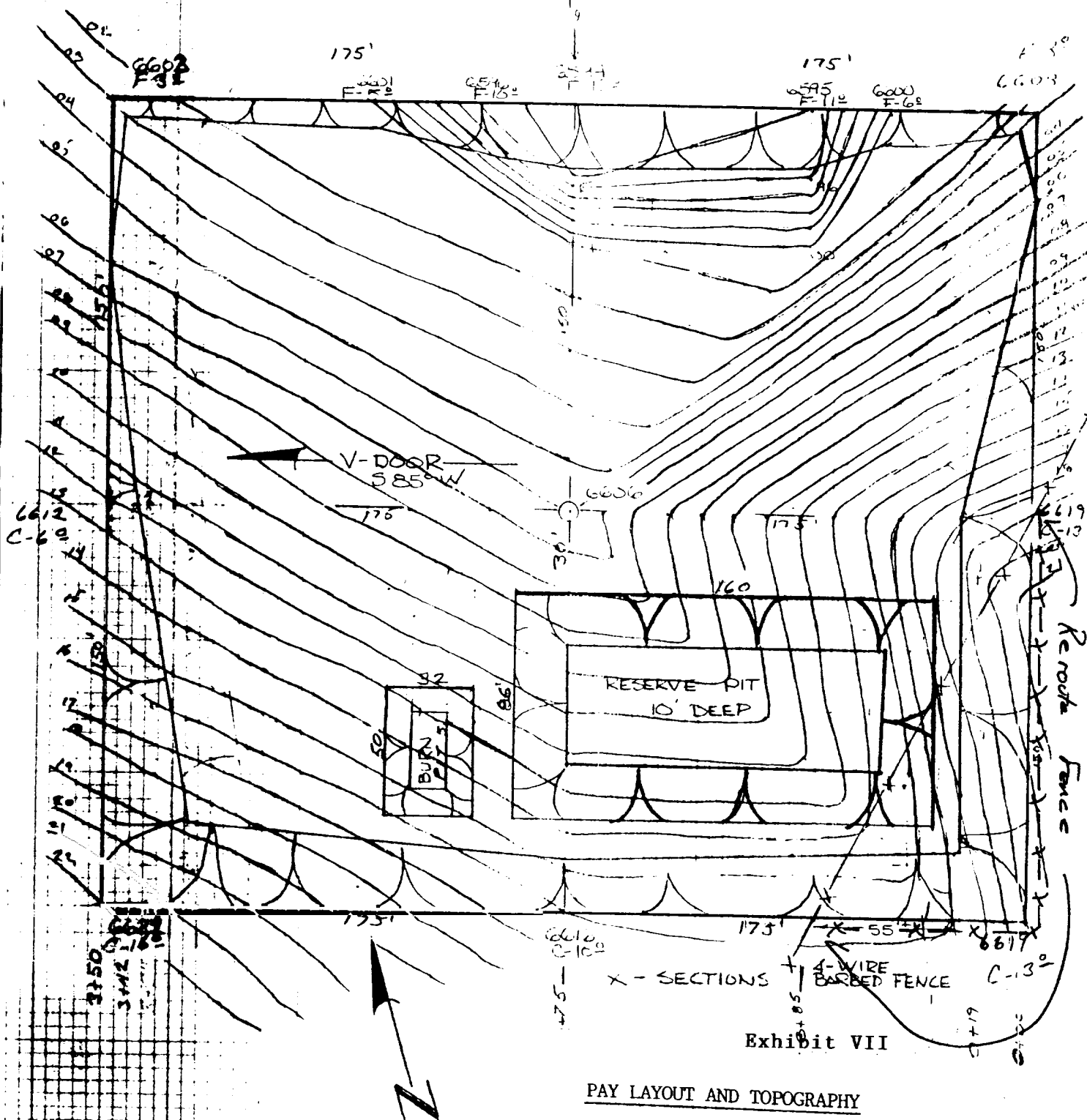
SCALE: 1" = 50'

UNOCAL

Contour Int. = 1'

RINCON #1-E
1615 F/NL & 1830 F/EL
Sec. 30 T27N R6W N.M.P.M.
Rio Arriba County, New Mexico

EXISTING
WELLHEAD



0+00

$\frac{19}{-150}$

SCALE: HORZ. 1" = 50'
VERT. 1" = 10'

ZERO CUT/FILL

UNOCAL

RINCON #1-E

X-SECTIONS AND VOLUMES

0+19

$\frac{06}{-124}$

19
0

06
0

$\frac{06}{+144}$

$\frac{03}{+150}$

16
-150

12
0

06
0

06
128

0+83

06
-130

06
0

08
100

92
125

95
150

18
-180

1+75

06
-130

RESERVE PIT
10' DEEP

06
0

06
126

01
180

15
120

14
150

22
-180

11
0

06
0

06
+144

03
+150

CUT.....16,117 CU. YDS.
FILL.....4,591 CU. YDS.
PIT EXCAVATION.....3,585 CU. YDS.

3+42

06
-118

BURN PIT
5' DEEP

06
0

3+80

ZERO CUT/FILL

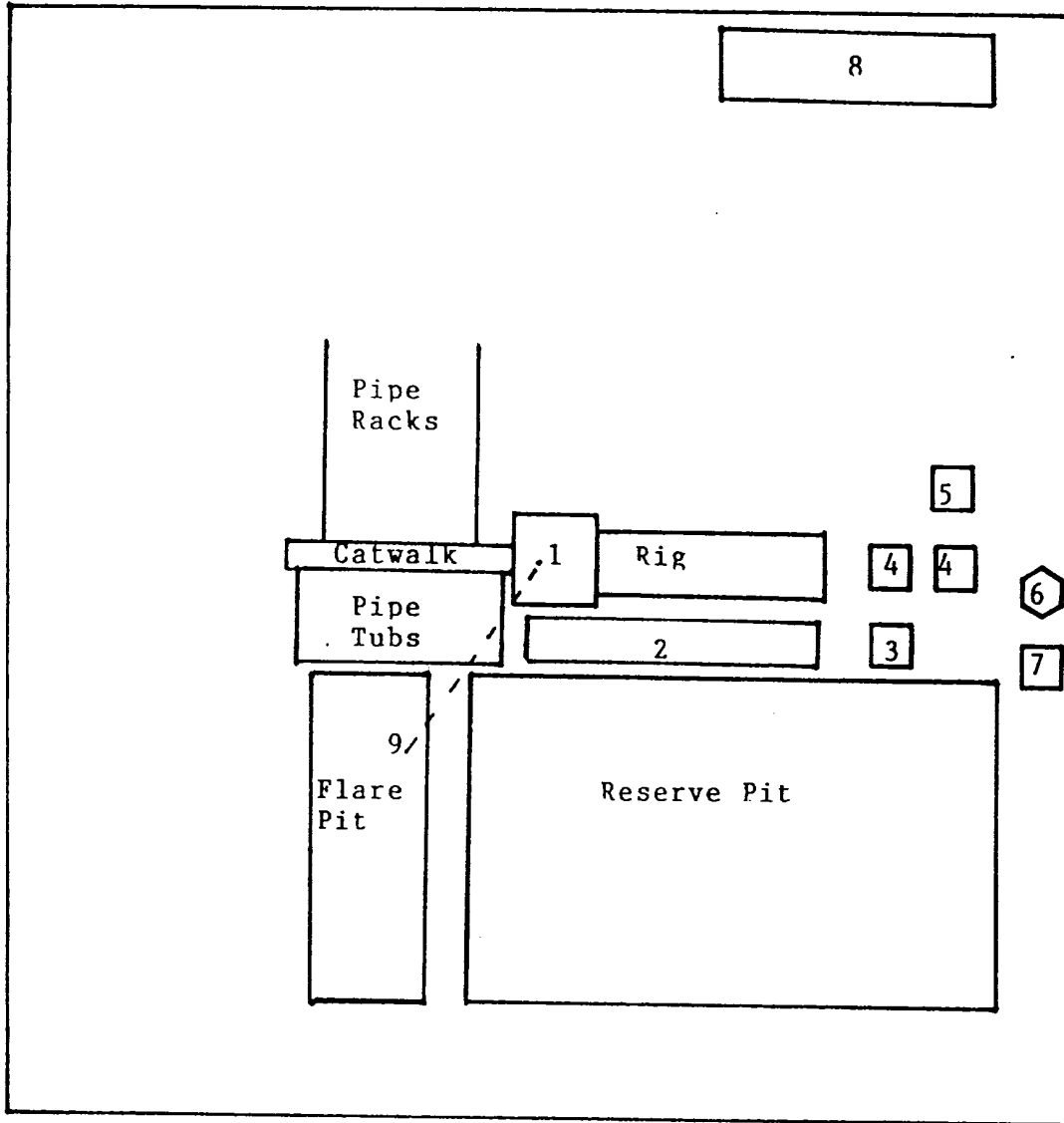
Exhibit VIII

Union Oil Company of California

Rincon Unit 1 E
1615' FNL & 1830' FEL
Section 30-T27N-R6W
Rio Arriba County, NM

Drill Pad Schematic

Not to scale



- 1) Substructure & Doghouse
- 2) Steel Mud Tank
- 3) Mud trailer/supply
- 4) Mud Pump
- 5) Generator
- 6) Latrine
- 7) Trashpit/ Burn Pit
- 8) Trailer (variable numbers)
- 9) Blooie Line

Exhibit IX

Union Oil Company of California

Rincon Unit 1 E
1615' FNL & 1830' FEL
Section 30-T27N-R6W
Rio Arriba County, NM

PRODUCTION FACILITY SCHEMATIC

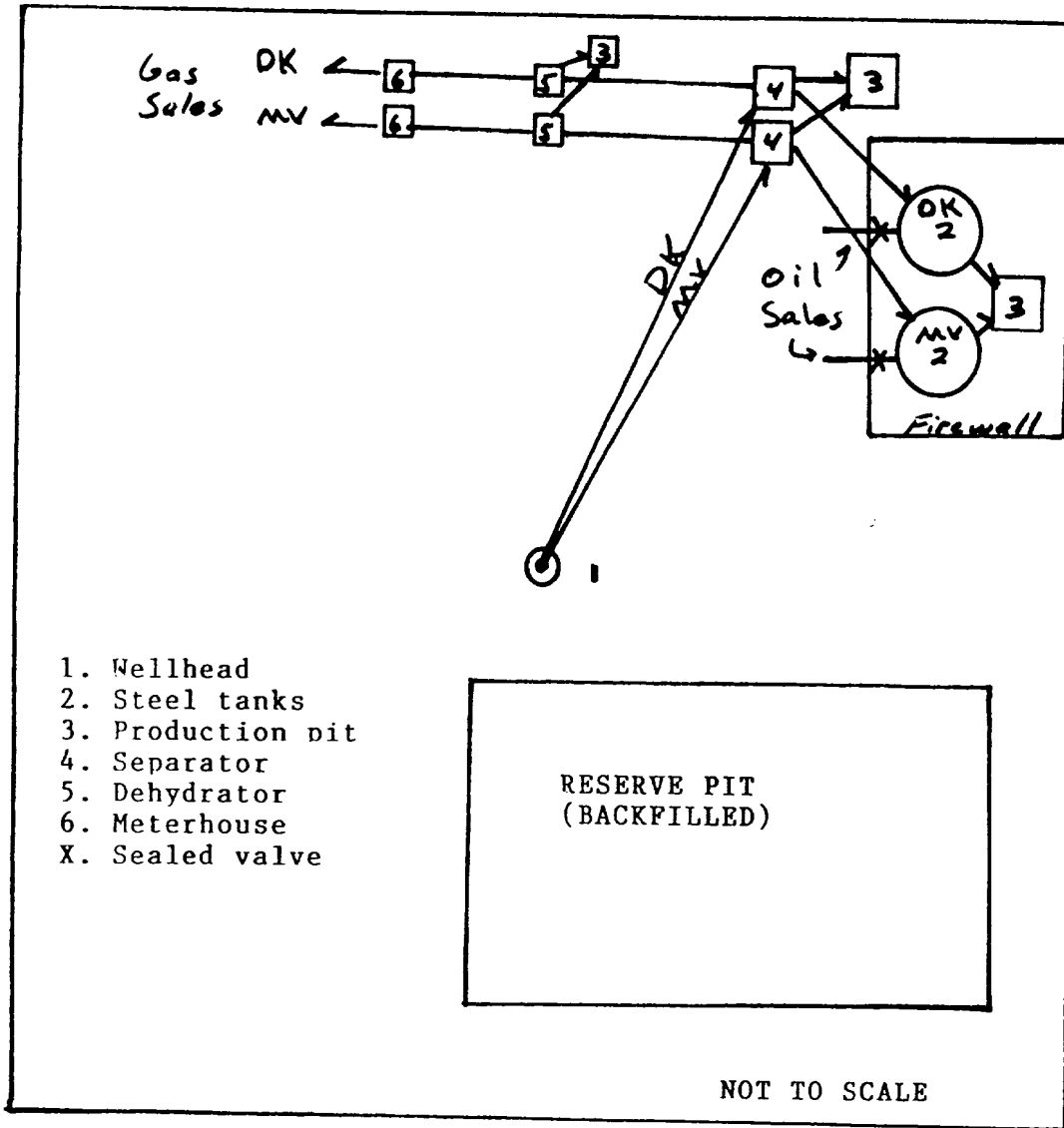


EXHIBIT X