



SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

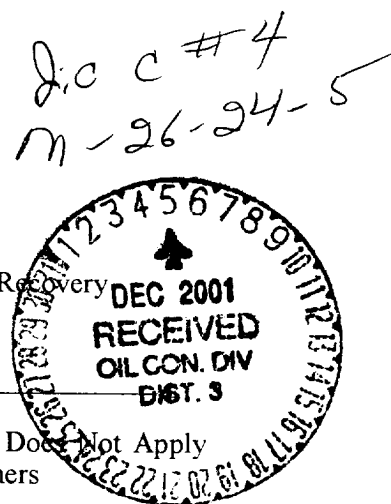
- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]
 [A] Location - Spacing Unit - Simultaneous Dedication
NSL NSP SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

- [D] Other: Specify _____



- [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or _ Does Not Apply
 [A] Working, Royalty or Overriding Royalty Interest Owners
 [B] Offset Operators, Leaseholders or Surface Owner
 [C] Application is One Which Requires Published Legal Notice
 [D] Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] Waivers are Attached

- [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no** action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

BRIAN WOOD
 (505) 466-8120
 FAX 466-9682

CONSULTANT

12-2-01

e-mail Address

brian@permitswest.com

REQUEST FOR ADMINISTRATIVE APPROVAL FOR NON-STANDARD LOCATION
FOR ELM RIDGE RESOURCES, INC.

JICARILLA C #4 WELL

OTERO GALLUP FIELD & POOL

885' FSL & 1095' FWL SEC. 26, T. 24 N., R. 5 W., RIO ARRIBA COUNTY, NM

I. The well is on Jicarilla Apache tribal surface and a Jicarilla Apache tribal oil and gas lease (BIA #13). The proposed location is non-standard for the Gallup. A standard Gallup location must be at least 330' from the quarter-quarter line. This well is staked 105' further east than standard. (Closest standard location would be 885' FSL and 990' FWL and in an arroyo.) The APD is attached.

II. A Form C-102 showing the well location and proration unit (SW4SW4 for the Gallup) is attached. The lease (contains 1,920 acres: SE4 Sec. 22, S2 Sec. 23, all Sec. 26, E2 Sec. 27, NE4 Sec. 34, and N2 Sec. 35; all T. 24 N., R. 5 W.) is shown on the attached copy of the Otero Store USGS topo map.

III. According to NM Oil Conservation Division records reviewed in their Santa Fe office on December 1, 2001; the closest producer is Elm Ridge's Apache C #3 - a Pictured Cliffs well which is 1,877' south at 990' FNL & 990' FWL 35-24n-5w. The closest Gallup producer is Dugan's Jicarilla Otero #1 well which is 7,538' northwest at 890 FSL & 990 FWL 22-24n-5w.

A copy of the Otero Store 7.5' USGS map is attached. The map shows the proposed well site, proposed Gallup acreage dedication (dashed line including all of SW4SW4 Sec. 26), lease (solid line), and other existing well bores within a one mile radius (0 Gallup or Dakota + 1 P&A + 5 Pictured Cliffs = 6). There is only one lease within a minimum 3,525' radius. Elm Ridge is the operator of the Gallup and Dakota rights in the tribal lease.

Registered letters were sent on December 2, 2001 to all offset interest owners. Copies of all the letters and green cards are attached.

IV. A copy of the Otero Store USGS map is attached. The proposed well site is marked. Proration unit for the Gallup is the 40 acre southwest quarter of the southwest quarter of Section 26, Township 24 North, Range 5 West, NMPM, Rio Arriba County, NM.



PERMITS WEST, INC.
PROVIDING PERMITS FOR LAND USERS

State of New Mexico
Energy, Minerals & Mining Resources Department

Form C - 102

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

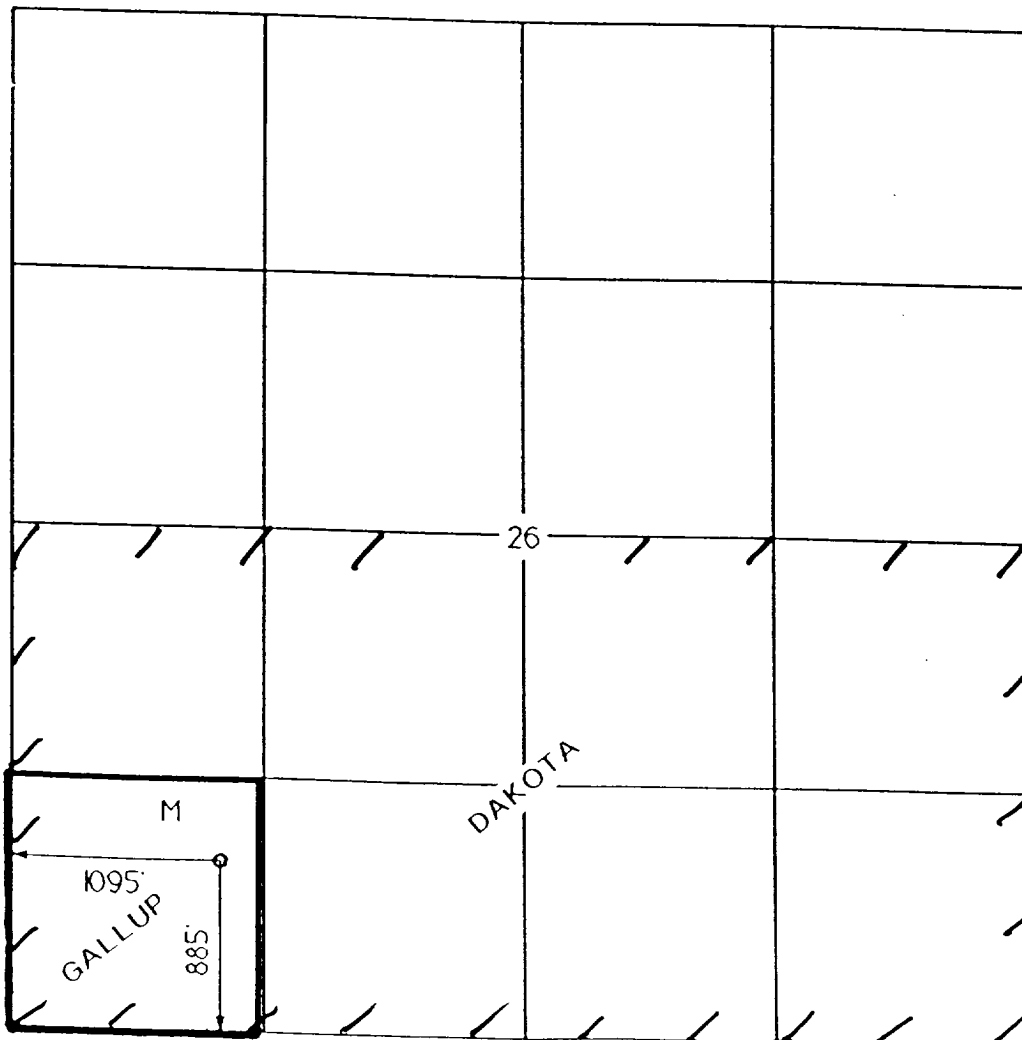
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number	Pool Code 48450 & 71599	Pool Name OTERO GALLUP & BASIN DAKOTA
Property Code	Property Name JICARILLA C	Well Number 4
OGRID No. 149052	Operator Name ELM RIDGE RESOURCES	Elevation 6675

Surface Location									
UL or Lot . M	Sec. 26	Twp. 24 N.	Rge. .5 W.	Lot Ltn.	Feet from >	North/South SOUTH	Feet from >	East/West WEST	County RIO ARriba

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn.	Feet from >	North/South	Feet from >	East/West	County
Dedication	Joint ?	Consolidation			Order No.				

NO ALLOWABLE WELL 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 that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Brian Wood

Printed Name BRIAN WOOD

Title CONSULTANT

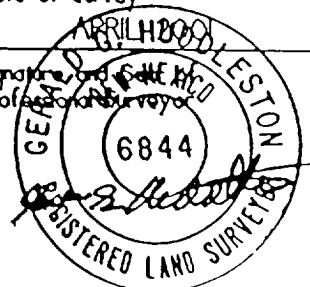
Date JULY 6, 2001

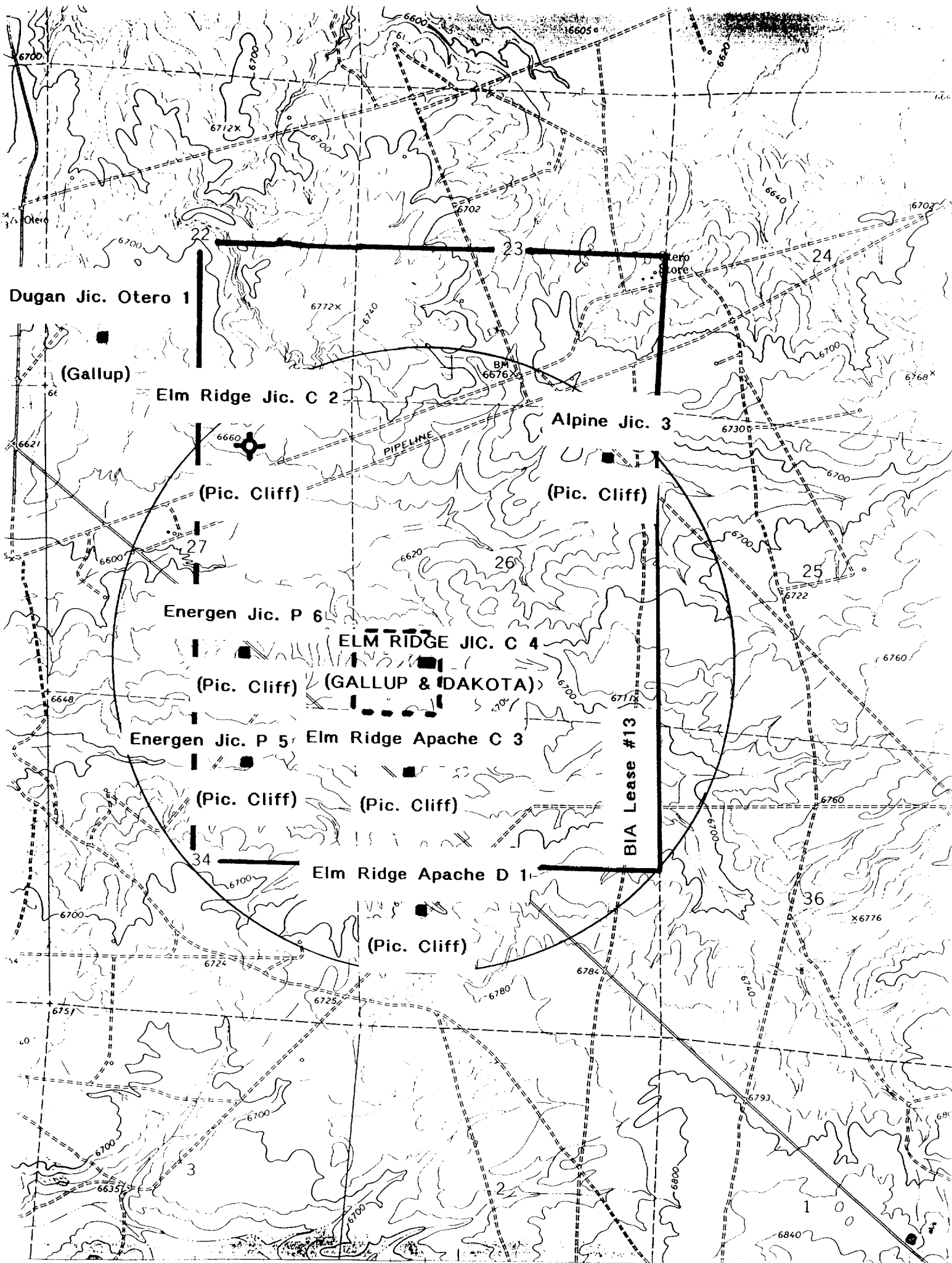
SURVEYOR CERTIFICATION

I hereby certify that the well location 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 belief.

Date of Survey

Signature of State Registered Professional Surveyor





PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

December 2, 2001

Alpine Oil & Gas Corp.
P. O. Box 2567
Durango, Co. 81302

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following non-standard location (NSL) for a well. This letter is a notice only. No action is needed unless you have questions or objections.

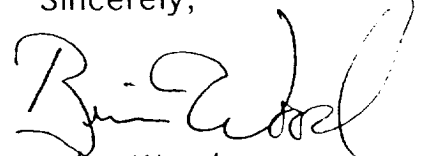
Elm Ridge Resources, Inc. is applying to drill its Jicarilla C 4 well. The minimum state distance for a Otero Gallup Basin Dakota oil well is 330' from a quarter-quarter line. The proposed well is 105' further east than is standard. Thus, it is a non-standard location. The NSL is due to erosion. It is 3,525' from the closest lease boundary. It is 1,877' from the closest producing well. A standard location would be closer to the lease boundary.

Well Name: Jicarilla C 4 Total Depth: 6,900'
Proposed NSL Producing Zone: Gallup sandstone
NSL Acreage Dedication: 40.00 ac. (SW4SW4 Sec. 26) to Gallup
Location: 885' FSL & 1095' FWL Sec. 26, T. 24 N., R. 5 W.,
Rio Arriba County, NM on tribal lease BIA #13
Approximate Location: ≈9 air miles northeast of Counselor, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a non-standard location will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3440.

/ questions.

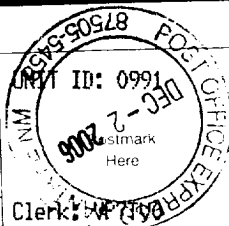
Sincerely,


Brian Wood

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

DURANGO, CO 81302

Postage	\$ 0.34
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 3.94



Sent to: Alpine Oil & Gas
Street, Apt. No.: P.O. Box 2567
City, State, Zip: Durango Co 81302

PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

December 2, 2001

BIA
P. O. Box 167
Dulce, NM 87528

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following non-standard location (NSL) for a well. This letter is a notice only. No action is needed unless you have questions or objections.

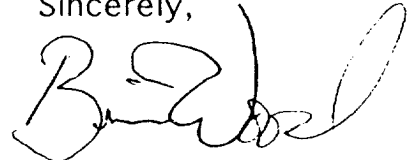
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questions.

Sincerely,


Brian Wood

U.S. Postal Service

CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

DULCE, NM 87528	
Postage	\$ 0.34
Postage Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 3.94
UNIT ID# 0991	
Clerk: VP7TV0	
12/02/01	

Unit To: BIA
Street Apt. Suite or PO Box No.: PO Box 167
City: Dulce NM 87528

PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

December 2, 2001

BLM
435 Montano NE
Albuquerque, NM 87107

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following non-standard location (NSL) for a well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying to drill its Jicarilla C 4 well. The minimum state distance for a Otero Gallup Basin Dakota oil well is 330' from a quarter-quarter line. The proposed well is 105' further east than is standard. Thus, it is a non-standard location. The NSL is due to erosion. It is 3,525' from the closest lease boundary. It is 1,877' from the closest producing well. A standard location would be closer to the lease boundary.

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Approximate Location: ≈9 air miles northeast of Counselor, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a non-standard location will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3440.

questions.

Sincerely,

Brian Wood

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

ALBUQUERQUE, NM 87107

Postage	\$ 0.34
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 3.94

UNIT ID: 89001
Postmark Here: DEC 2 2001
Clerk: VP7TV0
12/02/01

Sent to: BLM
Street, Apt. No., or P.O. Box No.: 435 Montano NE
City, State, and ZIP+4: Albuquerque NM 87107

7000 1670 0012 5356 8759

PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

December 2, 2001

Energen Resources Corp.
2198 Bloomfield Highway
Farmington, NM 87401-8108

Dear Rich,

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following non-standard location (NSL) for a well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying to drill its Jicarilla C 4 well. The minimum state distance for a Otero Gallup Basin Dakota oil well is 330' from a quarter-quarter line. The proposed well is 105' further east than is standard. Thus, it is a non-standard location. The NSL is due to erosion. It is 3,525' from the closest lease boundary. It is 1,877' from the closest producing well. A standard location would be closer to the lease boundary.

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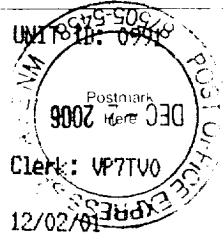
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address is 1220 South St. Francis Dr. Santa
number is (505) 476-3440.

questions.

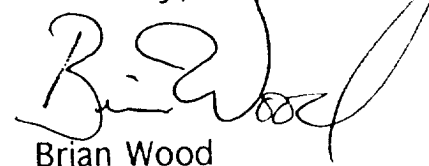
U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

FARMINGTON, NM 87401

Postage	\$ 0.34	
Certified Fee	2.10	
Return Receipt Fee (Endorsement Required)	1.50	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 3.94	

Sent To: *Energen*
Street, Apt. No. or PO Box: *2198 Bloomfield Hwy*
City, State, ZIP: *Farmington NM 87401*

Sincerely,


Brian Wood

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY
37 Verano Loop, Santa Fe, New Mexico 87505 (505) 984-8120

December 2, 2001

Oil & Gas Administration
P. O. Box 507
Dulce, NM 87528

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following non-standard location (NSL) for a well. This letter is a notice only. No action is needed unless you have questions or objections.

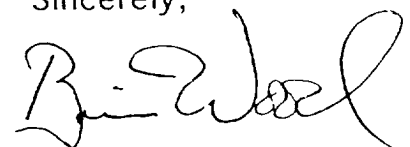
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Rio Arriba County, NM on tribal lease BIA #13
Approximate Location: ≈9 air miles northeast of Counselor, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a non-standard location will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3440.

Questions.

Sincerely,

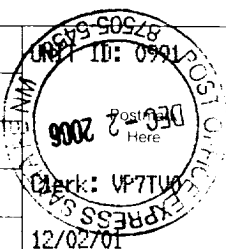


Brian Wood

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

DULCE, NM 87528

Postage	\$ 0.34
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 3.94



Sent To: Oil & Gas Admin
Street Apt No or PO Box No: PO Box 507
City State Zip: Dulce NM 87528

2000 1670 0012 5355 8735

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

2. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☐

MULTIPLE
ZONE ☒

3. NAME OF OPERATOR

Elm Ridge Resources, Inc.

(505) 632-3476

4. ADDRESS AND TELEPHONE

P. O. Box 189, Farmington, NM 87499

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

At surface

885' FSL & 1095' FWL

At proposed prod. zone

Same

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

9 air miles NE of Counselor

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

3,525'

16. NO. OF ACRES IN LEASE

1,920

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40 & 320

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

1,877'

19. PROPOSED DEPTH

6,900'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,675' ungraded

22. APPROX. DATE WORK WILL START*

Aug. 20, 2001

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55 8-5/8"	24	350'	≈250 cu. ft. & to surface
7-7/8"	J-55 4-1/2"	10.5	6,900'	≈3,235 cu. ft. & to surface

cc: BIA, BLM, Elm (D&F), OCD (via BLM), Tribe

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 conditions and measured and true vertical depths. Give blowout prevention program, if any.

Consultant (505) 466-8120

7-6-01

TITLE

DATE

(This space for Federal or State office use)

APPROVAL DATE

Approval 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

APPROVAL DATE

TITLE

DATE

*See Instructions On Reverse Side

State of New Mexico
Energy, Minerals & Mining Resources Department

Form C - 102

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

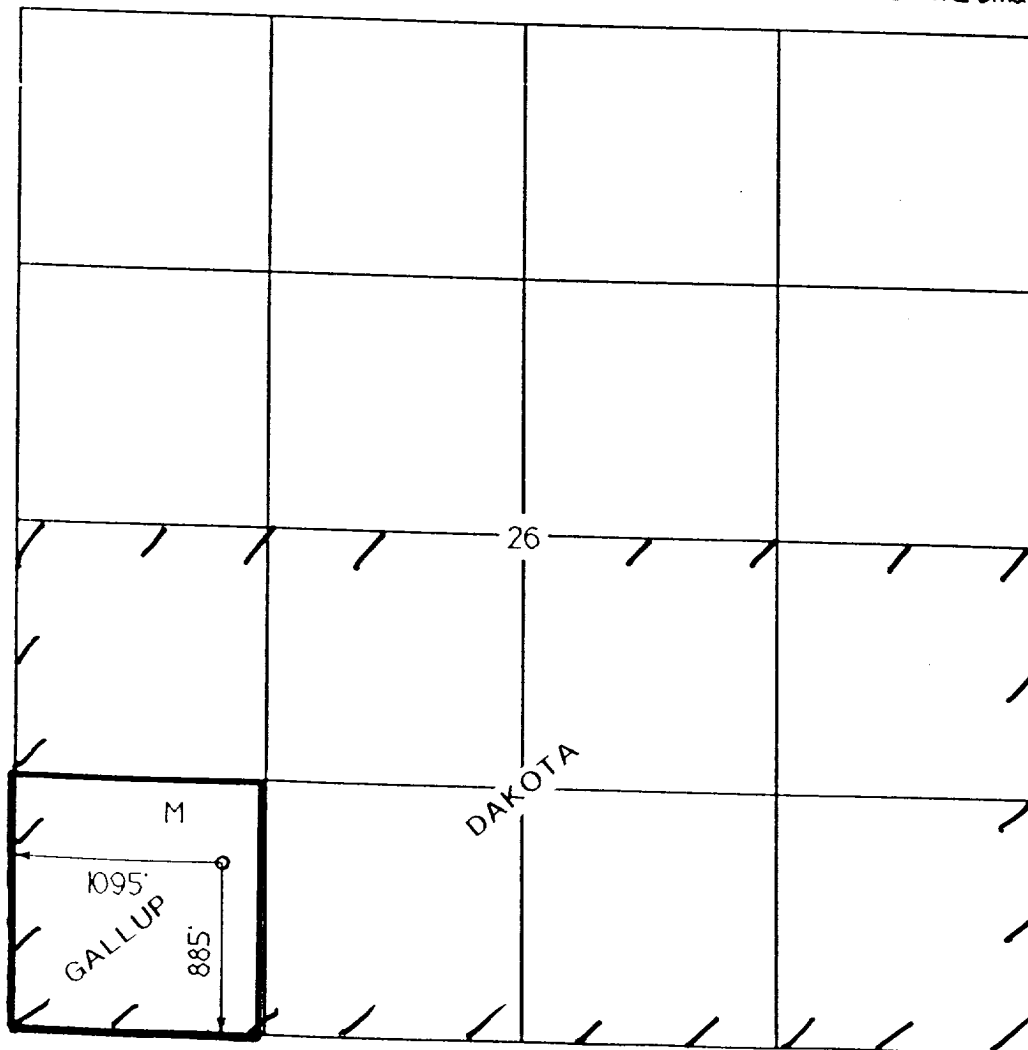
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number	Pool Code	Pool Name
	48450 & 71599	OTERO GALLUP & BASIN DAKOTA
Property Code	Property Name	Well Number
	JICARILLA C	4
GRID No.	Operator Name	Elevation
149052	ELM RIDGE RESOURCES	6675

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from	North/South	Feet from	East/West	County
M	26	24 N.	5 W.		885	SOUTH	1095	WEST	RIO ARriba

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from	North/South	Feet from	East/West	County
Dedication	Joint ?	Consolidation	Order No.						

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <i>Brian Wood</i></p> <p>Printed Name BRIAN WOOD</p> <p>Title CONSULTANT</p> <p>Date JULY 6, 2001</p>	
<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location 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 belief.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p>APRIL 2001 6844 REGISTERED LAND SURVEYOR</p>	

Elm Ridge Resources, Inc.
Jicarilla C 4
885' FSL & 1095' FWL
Sec. 26, T. 24 N., R. 5 W.
Rio Arriba County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
San Jose	000'	12'	+6,675'
Ojo Alamo	1,940'	1,952'	+4,735'
Kirtland Fm	2,100'	2,112'	+4,575'
Fruitland Coal	2,275'	2,287'	+4,400'
Pictured Cliffs Ss	2,425'	2,437'	+4,250'
Lewis Shale	2,545'	2,557'	+4,130'
Gallup Ss	5,450'	5,462'	+1,225'
Dakota Ss	6,600'	6,337'	+75'
Burro Canyon	6,875'	6,887'	-200'
Total Depth (TD)*	6,900'	6,912'	-225'

* all elevations reflect the ungraded ground level of 6,675'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	San Jose	Fruitland
Pictured Cliffs	Ojo Alamo	
Gallup	Fruitland	
Dakota		

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.

Elm Ridge Resources, Inc.
Jicarilla C 4
885' FSL & 1095' FWL
Sec. 26, T. 24 N., R. 5 W.
Rio Arriba County, New Mexico

PAGE 2

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3.

A $\geq 3,000$ psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a 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.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

<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	K-55	ST&C	New	350'
7-7/8"	4-1/2"	10.5	J-55	LT&C	New	6,900'

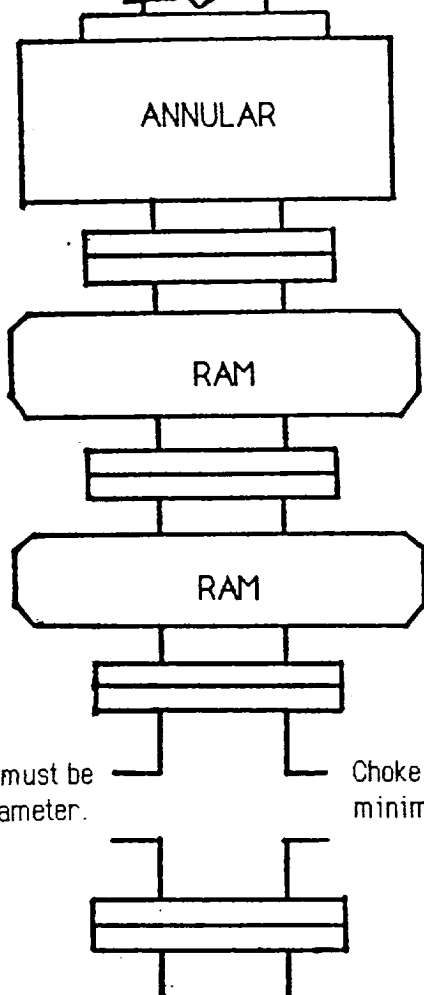
Surface casing will be cemented to the surface with ≈ 250 cubic feet (≈ 250 sx) Class B with 1/4#/sk Flocele + 2% CaCl₂. Volume is based on 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

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FILL LINE

FLOW LINE



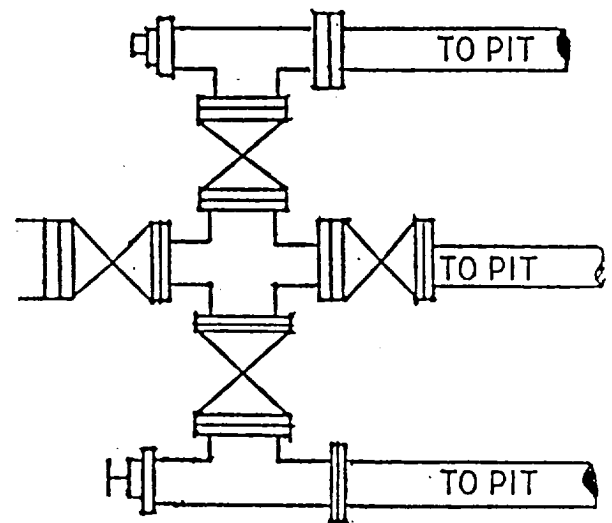
Kill side outlet must be minimum 2" diameter.

Choke side outlet must be minimum 3" diameter.

Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Upper kelly cock will have handle available.
 Safety valve and subs will fit all drill string connections in use.
 All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

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Production casing will be cemented to the surface in 2 stages with a stage tool set at $\approx 4,550'$. First stage volume will be $\approx 1,410$ cu ft consisting of ≈ 345 sx Halliburton Lite with 1/4 #/sk Flocele followed by ≈ 640 sx Class B with 2% CaCl_2 . Second stage volume will be $\approx 1,825$ cu ft consisting of ≈ 990 sx of Halliburton Lite with 2% CaCl_2 followed by ≈ 50 sx Class B with 2% CaCl_2 to cover the Mesa Verde, Pictured Cliffs, and Ojo Alamo. Volume is based on 75% excess, but caliper log will be used to determine actual volume needed. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter for a total of ≈ 30 centralizers. Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' - 350'	Fresh water gel chem	9.0	50	NC	9
350' - TD'	Fresh water gel chem	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

6. CORING, TESTING, & LOGGING

No cores or DSTs are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments. Samples will be collected every 10' from 200' above the Point Lookout to the base of the Point Lookout and through the Gallup and Dakota. Samples will be collected every 30' elsewhere.

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7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum pressure will be $\leq 2,800$ psi.

8. OTHER INFORMATION

The anticipated spud date is August 20, 2001. It is expected it will take ≈ 2 weeks to drill and ≈ 10 days to complete the well. Completion is expected to include ≈ 1000 to ≈ 1500 gallons 15% HCl and a 50 to 60 ton sand frac.

Questions or notices concerning down hole matters should be directed to BLM's petroleum engineer Dave Sitzler in Albuquerque at 505-761-8919 or petroleum engineering technician Al Yepa in Cuba at 505-289-3748.

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Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See Pages 10 & 11)

From the equivalent of Milepost 4.4 at the junction of J-36 and NM 537 ...

Go northwest 6.3 miles on J-36

Then turn right onto the C 3 well pad and drive to the north side of the pad

Then follow flags cross country 0.4 miles north to the well site

Roads will be maintained to a standard at least equal to their present condition.

2. ROADS TO BE BUILT OR IMPROVED

Four-tenths of a mile of new road will be built. It will initially be flat bladed with a $\approx 15'$ wide running surface. (It will be crowned and ditched if production results. Borrow ditches will turn out and be skewed to drain at least once every 500'.) One 18" x 40' CMP culvert will be installed at the entrance to the pad. No fence is crossed. No turnout is needed. No upgrading of existing roads is needed. Maximum disturbance will be 30'. Maximum grade will be 7%.

3. EXISTING WELLS (See PAGE 11)

There are 6 existing oil or gas wells and one P&A well within a mile radius. There are no water or injection wells.

4. PROPOSED PRODUCTION FACILITIES (See Page 14)

Production facilities will include a pipeline, separator, dehydrator, meter run, and 210 bbl tank. Above ground equipment will be painted a flat juniper green.

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A steel ≤ 4 " O.D. natural gas pipeline will be laid south 7,993.28" along roads to an existing Elm Ridge gas pipeline near Elm Ridge's AXI Apache C 9 pad. The pipeline will operate at ≈ 250 psi, be tested to $\approx 2,500$ psi, has a burst rating of $\approx 11,010$ psi, and will be buried at least 36" deep.

5. WATER SUPPLY

Water will be trucked from the Otero Ranch water hole.

6. CONSTRUCTION MATERIALS & METHODS

The top 6" of soil and brush will be stripped and piled south of the pad. A diversion ditch will be cut south of the pile. A minimum 12 mil plastic liner will be installed in the reserve pit.

7. WASTE DISPOSAL

The reserve pit will be fenced sheep tight on 3 sides with woven wire fence topped with barbed wire. The fourth side will be fenced once the rig moves off. The fence will be kept in good repair while the pit dries. Once dry, contents of the reserve pit will be buried in place.

All trash will be placed in a portable trash cage and hauled to an approved landfill. Human waste will be disposed of in 10' deep rat holes under trailers or in chemical toilets. Holes will be filled when the trailers are removed.

8. ANCILLARY FACILITIES

There will be no air strips or camps. Camper trailers will be on location for

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the company man, tool pusher, and mud logger.

9. WELL SITE LAYOUT

See Pages 12 and 13 for depictions of the well pad, cross sections, cut and fill diagrams, reserve pit, trash cage, access road onto the location, parking, living facilities, soil stockpile, and rig orientation.

10. RECLAMATION

Reclamation starts once the reserve pit is dry. It usually takes a year for a reserve pit to fully evaporate, at which point it will be backfilled. The pad, road, pipeline, and backfilled pit will be recontoured to a natural appearance, soil spread evenly over disturbed areas, and disturbed areas ripped or harrowed. The south half seed mix will be drilled as prescribed by the BIA and Tribe. Bladed brush will be used as mulch.

If the well is a producer, then the reserve pit and any other areas not needed for workovers will be reclaimed as previously described. All of the topsoil pile will be used to reclaim the reserve pit.

11. SURFACE OWNER

The well, road, and pipeline are all on Jicarilla Apache Tribal Trust land.

12. OTHER INFORMATION

The nearest clinics are an hour plus drive away in Cuba and Dulce. The nearest hospital is over two hours away in southwest Farmington.

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13. REPRESENTATION

Anyone having questions concerning the APD should contact:

Brian Wood, Consultant

Permits West, Inc.

37 Verano Loop

Santa Fe, NM 87505

(505) 466-8120

FAX: (505) 466-9682

Mobile: (505) 699-2276

The field representative will be:

Doug Endsley

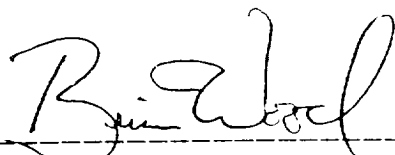
Elm Ridge Resources, Inc.

P. O. Box 189

Farmington, NM 87499

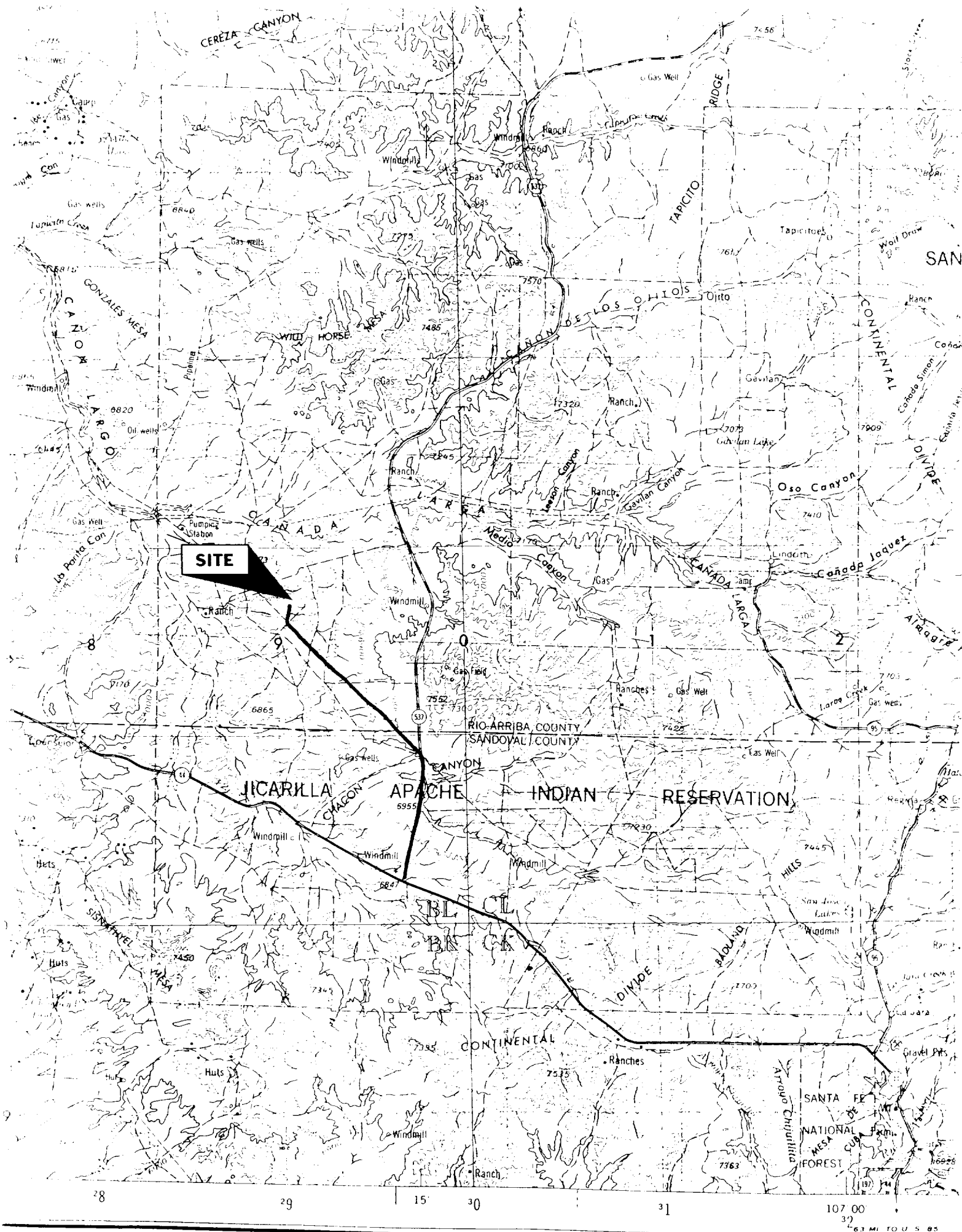
(505) 632-3476

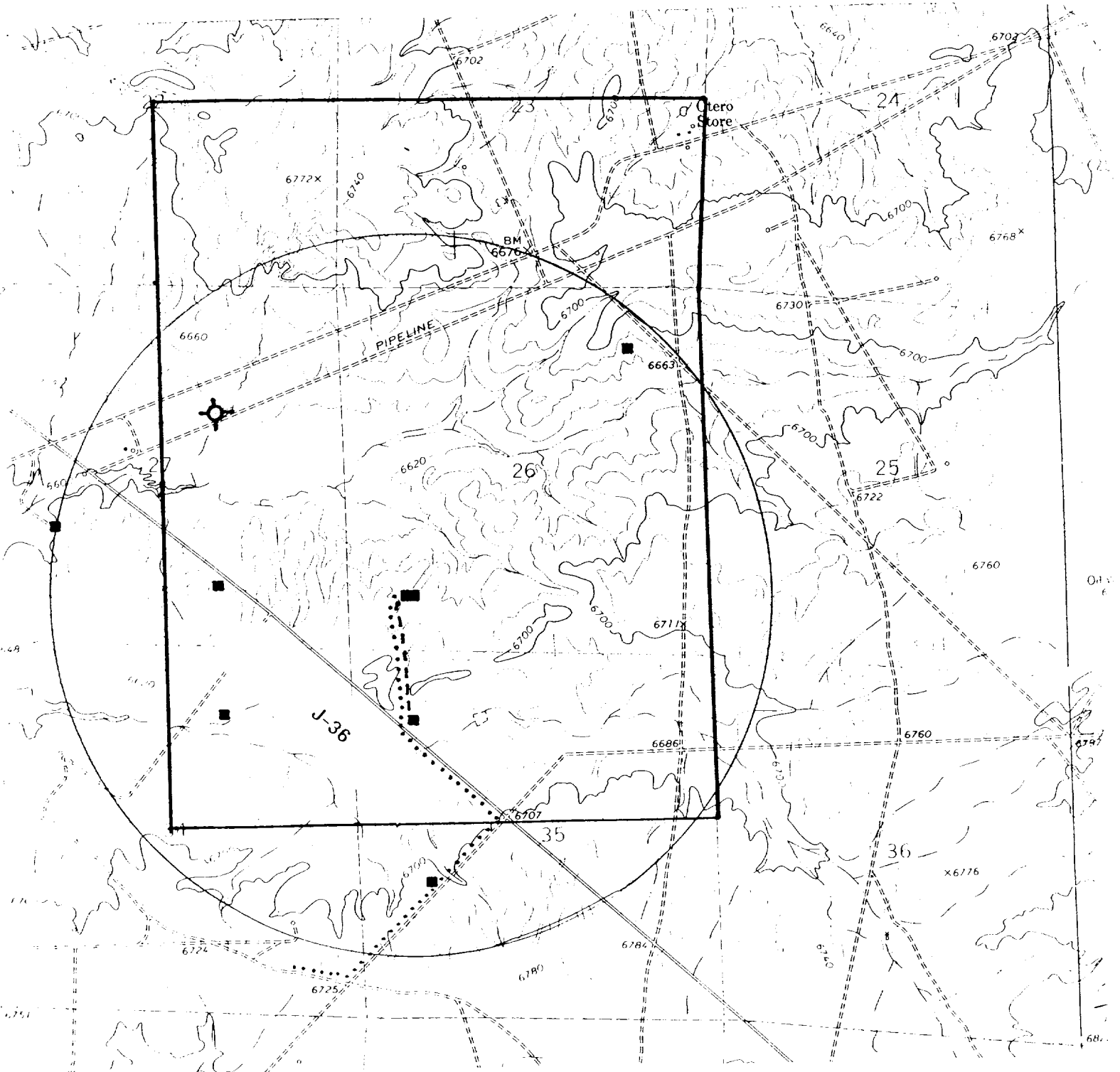
Elm Ridge Resources, Inc. has the necessary consents from the proper lease owners to conduct lease operations in conjunction with this well. Bond coverage pursuant to 43 CFR 3104 for lease activities and operations is being provided by Elm Ridge Resources, Inc. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Elm Ridge 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.



Brian Wood, Consultant

July 6, 2001





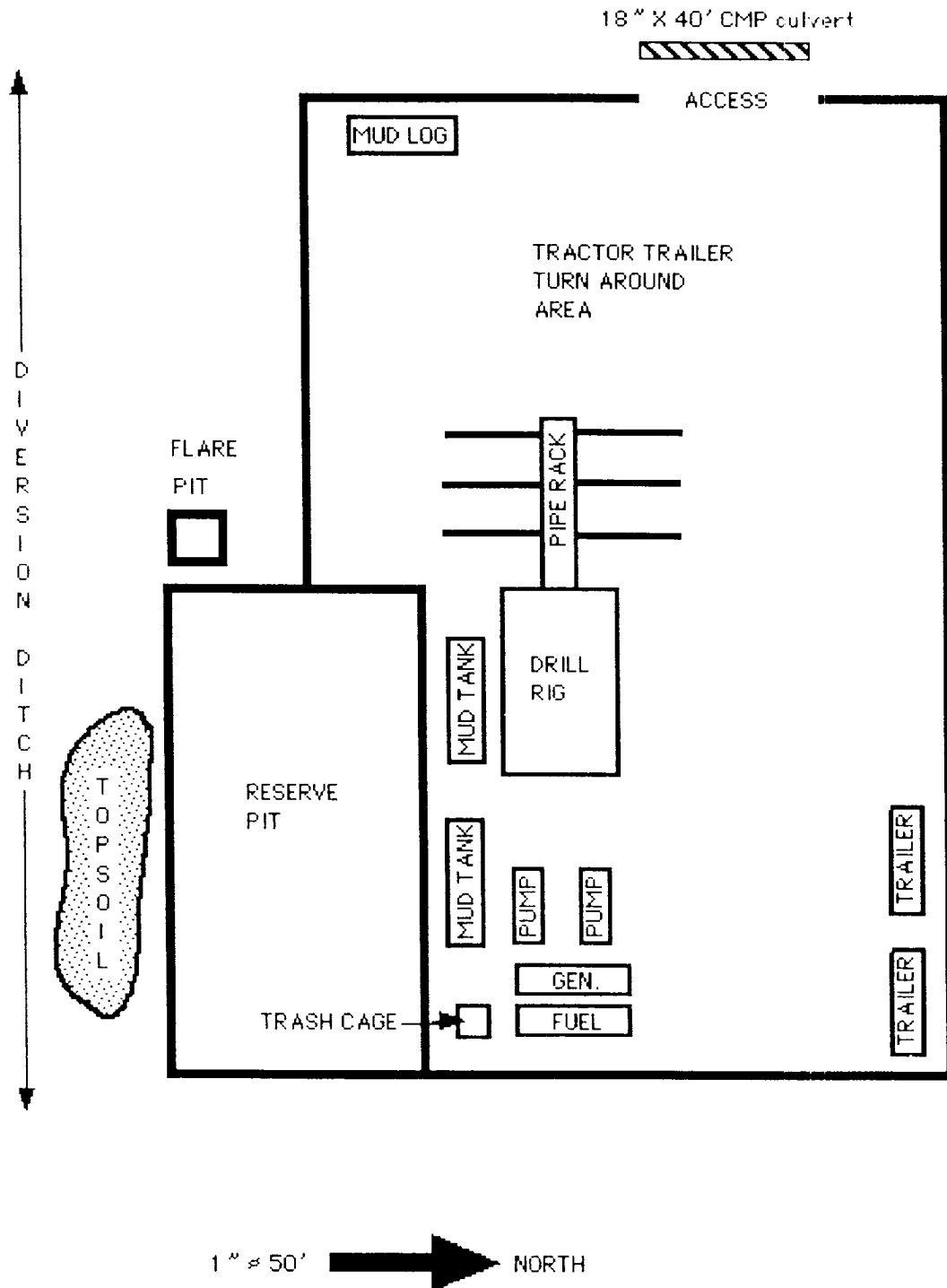
PROPOSED WELL: ■ PROPOSED PIPELINE:
EXISTING WELL: ■ NEW ROAD: - - -
P & A WELL: ⊕ LEASE: ┌



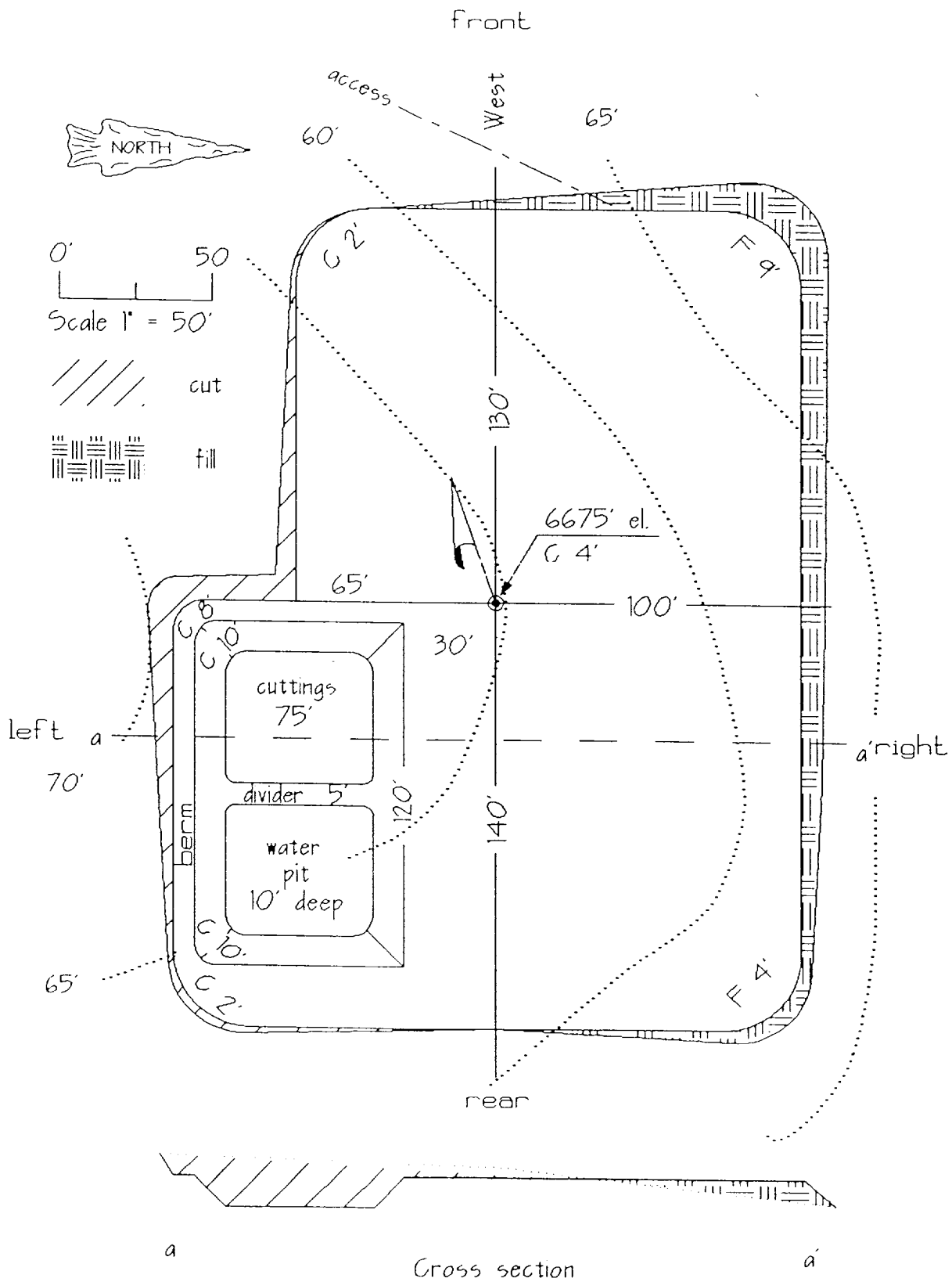
PERMITS WEST, INC.
PROVIDING PERMITS FOR LAND USERS

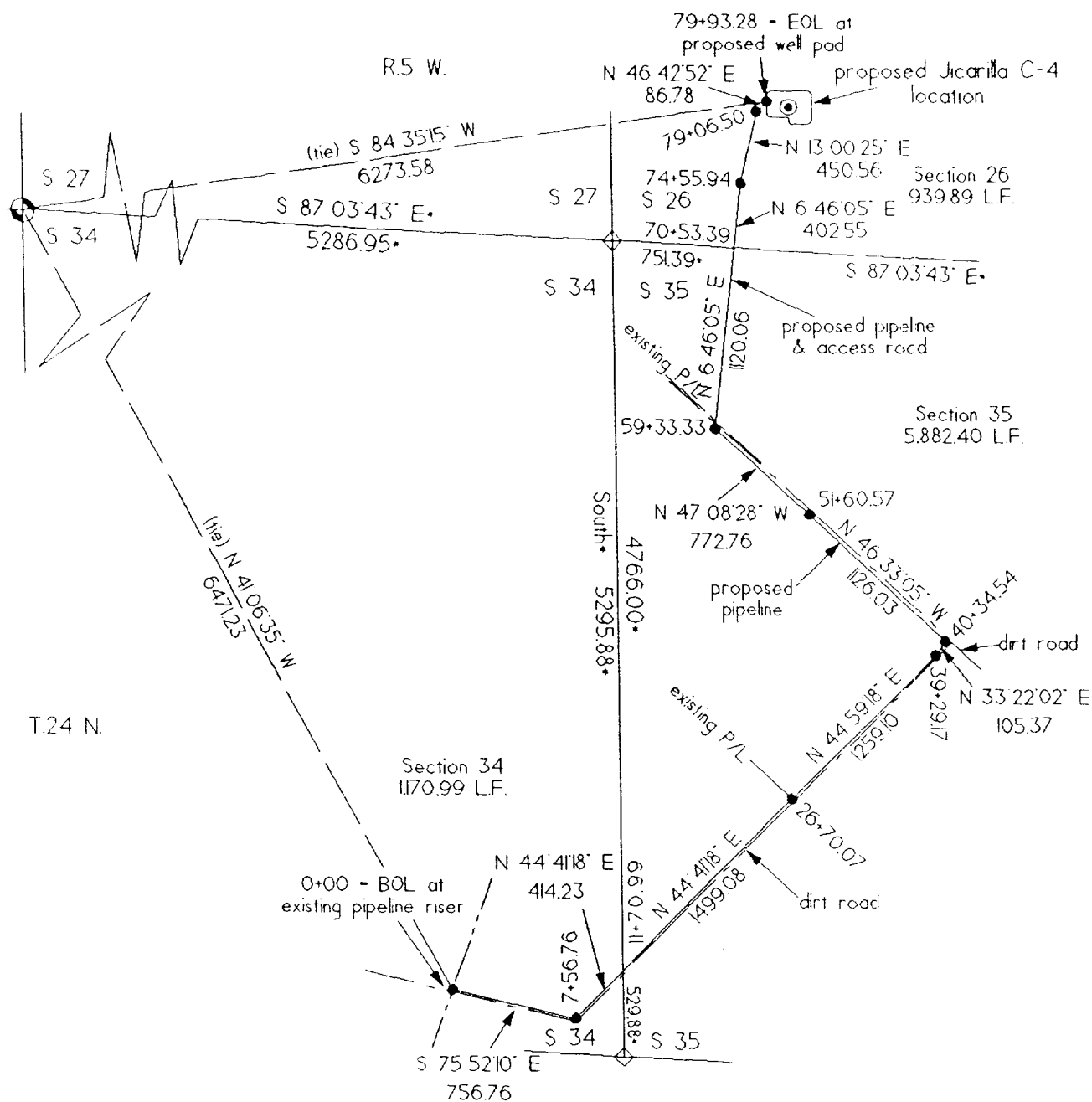
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Jicarilla C - 4
well pad & section





Basis of Bearing:
GPS state plane coordinates
rotated.



0' 1000'

Scale 1" = 1000'

- ⊕ find. original stone n fenceline
- calculated distance/bearing
- ◇ calculated corner
- survey centerline PI