

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.	
2. Name of Operator Samson Resources		8. Lease Name and Well No. Lightning 24 Federal Com. #1	
3a. Address Samson Plaza--Two W. 2nd St. Tulsa, OK 74103		9. API Well No. 30-015-33001	
3b. Phone No. (include area code) (918) 591-1846		10. Field and Pool, or Exploratory Undesignated Morrow	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FNL & 1980' FEL At proposed prod. zone same		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 24-T25S-R26E	
14. Distance in miles and direction from nearest town or post office* 19 miles south of Carlsbad, NM		12. County or Parish Eddy	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 120	17. Spacing Unit dedicated to this well 320 (120)	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 12,000'	20. BLM/BIA Bond No. on file NM-2037	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3251' GL	22. Approximate date work will start* September 1, 2003	23. Estimated duration 6 weeks	

24. Attachments

CARLSBAD 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 8/5/03
Title Agent for Samson Resources		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 10 SEP 2003
Title ACTING FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

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.

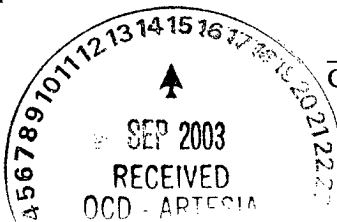
APPROVAL FOR 1 YEAR

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)

Lease Responsibility Statement: Samson Resources Co. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED



George R. Smith
George R. Smith, agent

District I
1825 N. French Dr. Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999
Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name Undesignated Morrow
Property Code	Property Name LIGHTNING 24 FEDERAL	Well Number 1
OGRID No.	Operation Name SAMSON RESOURCES	Elevation 3251

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
B	24	25S	26E		660	NORTH	1980	EAST	EDDY

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 320	Joint or Infill	Consolidation Code Com	Order No.						

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

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. <i>George R. Smith</i> Signature George R. Smith, agent Printed Name for Samson Resources Title August 5, 2003 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 SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. JULY 22, 2003 Date of Survey DAN R. REDD Signature and Seal of Professional Surveyor
	Certificate Number

SAMSON RESOURCES
Lightning 24 Federal Com., Well No. 1
660' FNL & 1980' FEL, Sec. 24-T25S-R26E
Eddy County, New Mexico
Lease No.: NM-109748
(Exploratory Well)

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Water: Surface water between 100' - 200'.
Oil: Possible in the Delaware and Bone Spring below 1900' and 5600'.
Gas: Possible in Wolfcamp, Strawn and the Morrow.

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	0' - 400'	Circ. 340 sx HLC & Prem Plus
12 1/4"	9 5/8"	36.0#	K-55	LT&C	0' - 2,000'	Circ. 625 sx. HLC & Prem Plus
8 3/4"	7"	26.0#	N-80	LT&C	0' - 8,800'	870 sx. Interfill C & Prem TOC 1800'
6 1/4"	3 1/2"	9.3#	P110	LT&C	0' - 12,000'	420 sx Super H TOC 8,600'

A 13 5/8" 10,000 psi WP Shaffer, LWS Double Gate BOP will be installed on the 9 5/8" casing and tested as per Onshore Oil & Gas Order #2 as a 3,000 psi system.. An annular preventer will be installed on the 13 3/8" casing to drill to the 2000" depth. The casing and BOP will be tested before drilling out with the 8 3/4" and 6 1/4". See Exhibit "E".

6. MUD PROGRAM:		MUD WEIGHT	VIS.	W/L CONTROL
0' - 400':	Fresh water mud:	8.4 - 9.0 ppg	32 - 36	No W/L control
400' - 2,000':	Cut brine	9.2 - 9.7 ppg	28 - 29	No W/L control
2,000' - 8,800':	Fresh water/cut brine	8.4 - 9.7 ppg	28 - 29	No W/L control
8,800' - 12,000':	Cut brine/xcd Polymer	10.0 - 10.6 ppg	32 - 36	W/L control <12 cc

Drill Stem Tests: None unless conditions warrant.
Logging: 8,800' to T.D: CNL-DNL w/GR-Cal.
 2,000' to 8,800' " " " , if warranted.
 2,000' to Surface: CNL-GR
Coring: Rotary sidewall if dictated by logs.

SAMSON RESOURCES

Lightning 24 Federal Com., Well No. 1

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9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 4800 psi and surface pressure of 2640 psi with a temperature of 180°.
10. H_2S : None expected. None reported in wells within a mile radius.
11. Anticipated starting date: September 1, 2003.
Anticipated completion of drilling operations: Approximately 5-6 weeks.

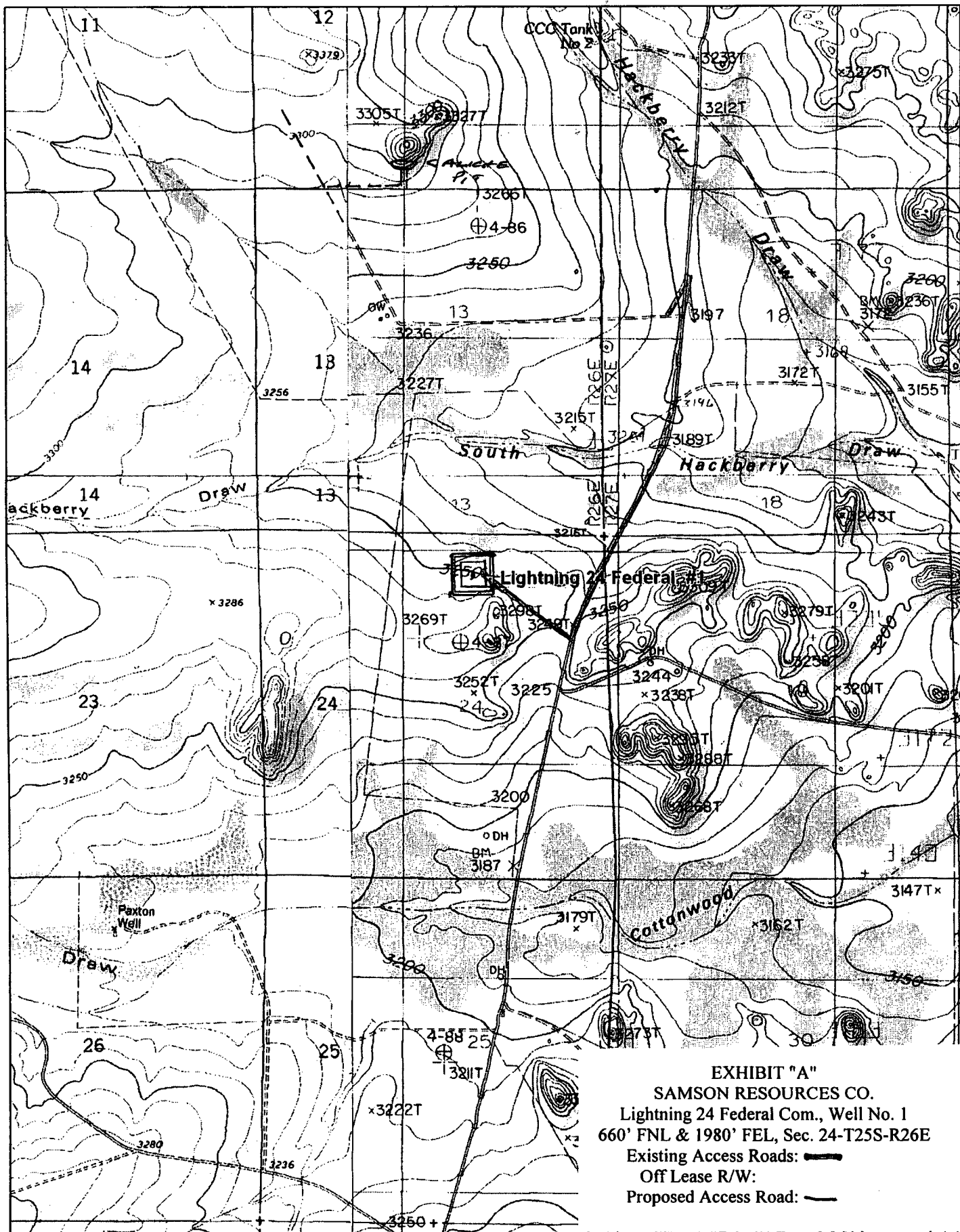


EXHIBIT "A"

SAMSON RESOURCES CO.

Lightning 24 Federal Com., Well No. 1

660' FNL & 1980' FEL, Sec. 24-T25S-R26E

Existing Access Roads:

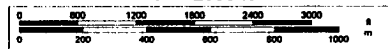
Off Lease R/W:

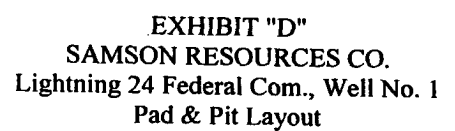
Proposed Access Road:

DeLORME

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www.delorme.com

Scale 1 : 24,000
1" = 2000 ft

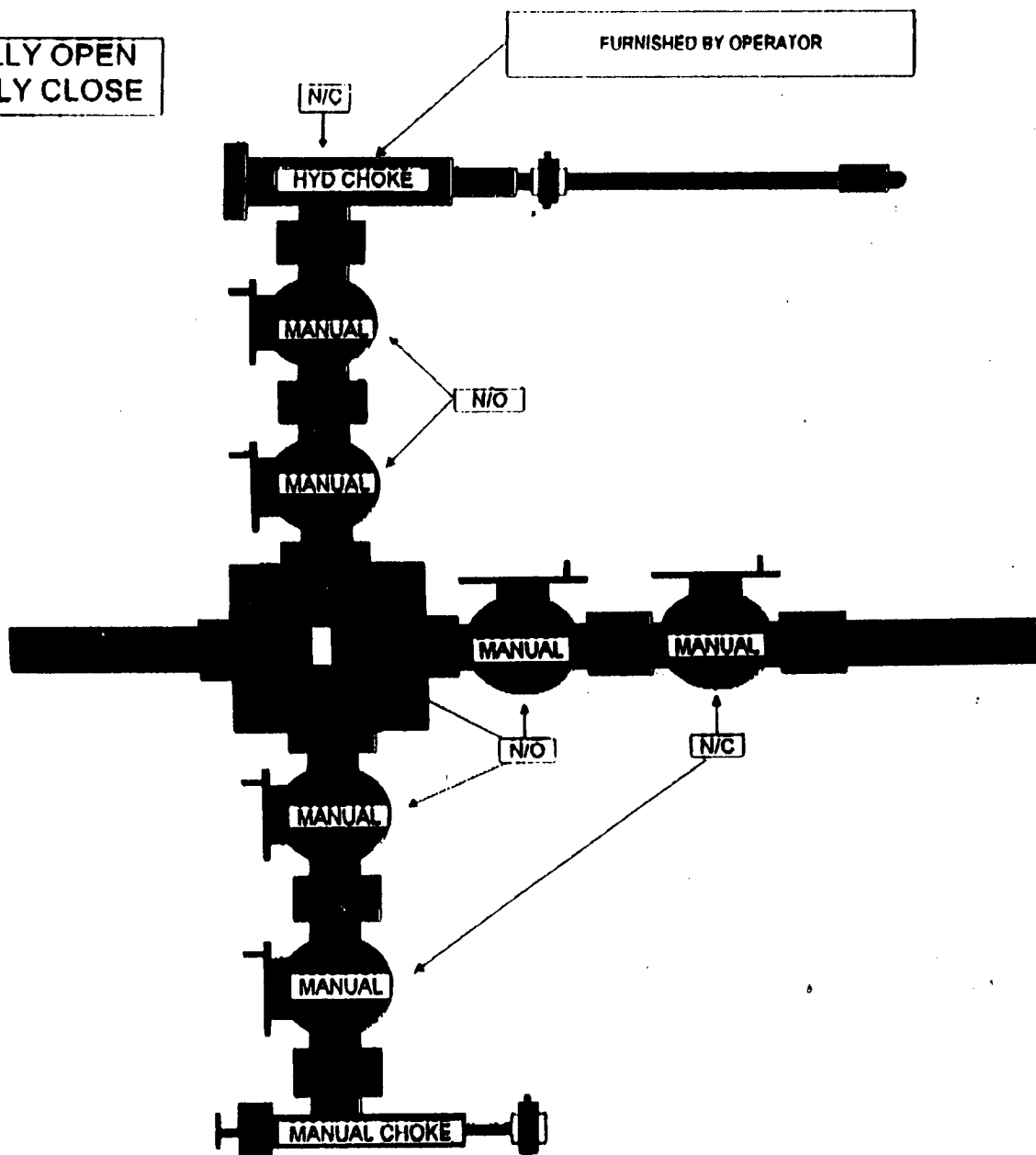




NABORS DRILLING
U.S.A., INC.



N/O = NORMALLY OPEN
N/C = NORMALLY CLOSE





RIG 715 BOP LAYOUT

