

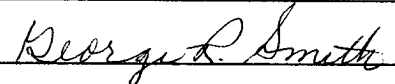
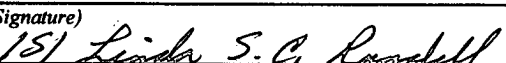
N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-14791
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		6. If Indian, Allottee or Tribe Name
2. Name of Operator Samson Resources		7. If Unit or CA Agreement, Name and No.
3a. Address Samson Plaza--Two W. 2nd St. Tulsa, OK 74103		8. Lease Name and Well No. New Mexico A Federal, # 7
3b. Phone No. (include area code) (918) 591-1821		9. API Well No. 30-025-36273
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1650' FNL & 1000' FWL At proposed prod. zone same E R-111-P Pctosh		10. Field and Pool, or Exploratory So. Salt Lake Morrow
14. Distance in miles and direction from nearest town or post office* 39 miles northeast of Carlsbad, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 4-T21S-R32E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1000'	16. No. of Acres in lease 2,282.84	12. County or Parish Lea
17. Spacing Unit dedicated to this well 320	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 660'	13. State NM
19. Proposed Depth 14,200'	20. BLM/BIA Bond No. on file NM-2037	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3659' GL	22. Approximate date work will start* April 14, 2003	23. Estimated duration 6 weeks
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
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| 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) George R. Smith	Date 2/24/03
Title Agent for Samson Resources		
Approved by (Signature) 	Name (Printed/Typed) LINDA S. C. RUNDELL	Date APR 25 2003
Title STATE DIRECTOR		
NM STATE 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.

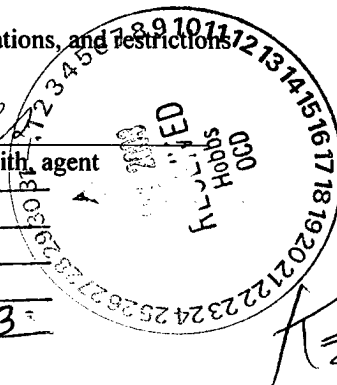
*(Instructions on reverse)

Lease Responsibility Statement: Samson Resources 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**

OPER. OGRID NO. **20165**
PROPERTY NO. **32310**
POOL CODE **84480**
EFF. DATE **5-6-03**
API NO. **30-025-36273**

George R. Smith, agent



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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-36273	Pool Code 84480	Pool Name So. Salt Lake Morrow
Property Code 32310	Property Name NEW MEXICO "A" FEDERAL	Well Number 7
GRID No. 20165	Operator Name SAMSON RESOURCES	Elevation 3659'

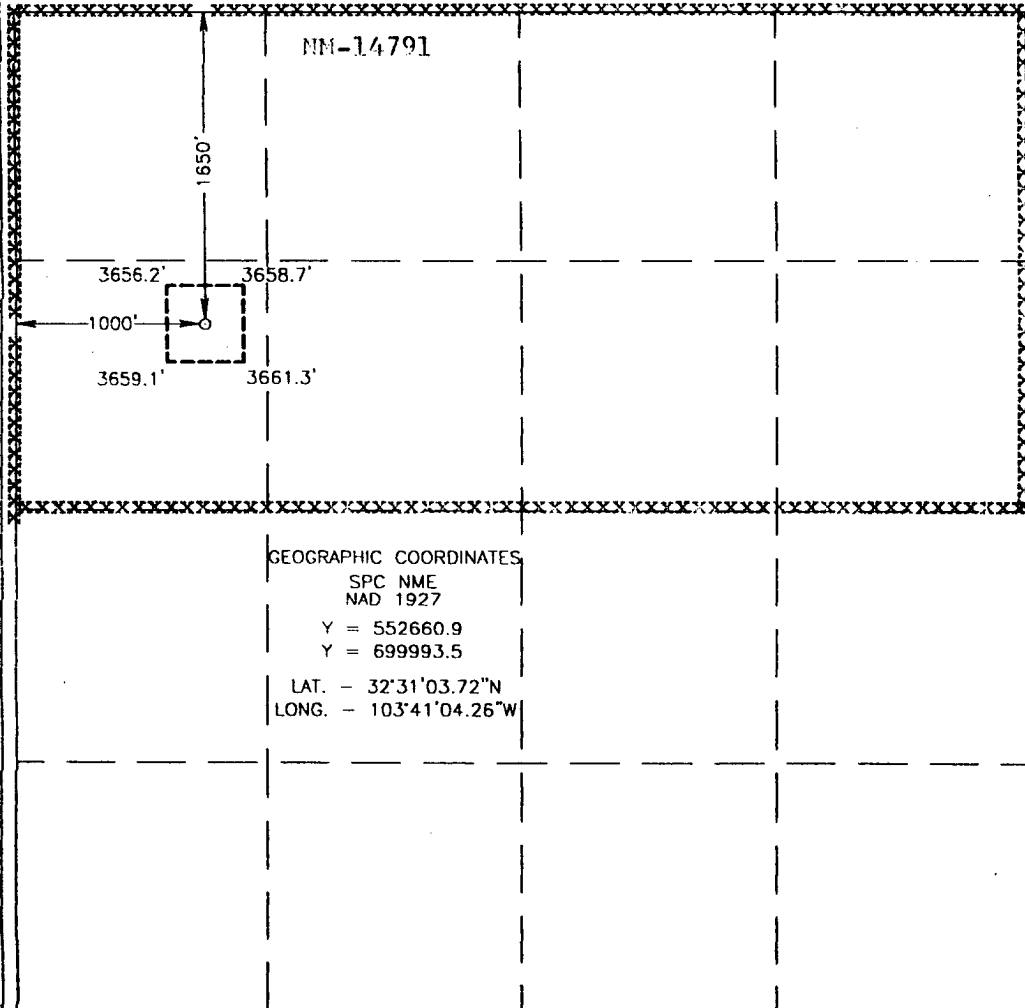
Surface Location

UL or lot No. E	Section 4	Township 21-S	Range 32-E	Lot Idn	Feet from the 1650	North/South line NORTH	Feet from the 1000	East/West line WEST	County LEA
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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	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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>George R. Smith</i> Signature George R. Smith, agent Printed Name Samson Resources Title February 24, 2003 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>FEBRUARY 10, 2003 Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald E. Edson</i> 2/12/03 03.11.0163</p> <p>Certificate No. RONALD E. EDSON 3239 GARY EDSON 12641</p>
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APPLICATION FOR DRILLING

SAMSON RESOURCES

New Mexico A Federal, Well No. 7
1650' FNL & 1000' FWL, Sec. 4-T21S-R32E
Lea County, New Mexico
Lease No.: NM-14791
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Samson Resources Co. submits the following items of pertinent information in accordance with BLM requirements:

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:

Rustler	1,345'	Wolfcamp	11,575'
Top of salt	1,495'	Strawn	12,365'
Base of salt	3,250'	Atoka	12,715'
Yates	3,350'	Morrow	13,082'
Capitan	3,555'	Chester	13,857'
Delaware	4,820'	T.D.	14,200'
1 st Bone Spring	8,405'		
Wolfcamp	11,575'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 300'.

Oil: Possible in the Delaware at 6800' and Bone Spring at 9450'.

Gas: Possible in the Morrow below 13,300'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
18 1/2"	16"	75.0#	K-55	BT&C	0' - 1,450'	Circ 800 sx "C" cement
14 3/4"	11 3/4"	54.5#	K-55	BT&C	0' - 3,300'	Circ. 1860 sx. HLC Prem Plus
10 5/8"	8 5/8"	32.0#	N-80	LT&C	0' - 4,850'	Circ.960 sx. Interfill C & Prem
7 7/8"	5 1/2"	20.0#	P110	LT&C	0' - 14,200'	840 sx Interfill H & Super H TOC 6,800'

5. Minimum Specifications for Pressure Control Equipment:

A 13 5/8" 10,000 psi WP Shaffer, LWS Double Gate BOP will be installed on the 11 3/4" casing and tested as per Onshore Oil & Gas Order #2 as a 5,000 psi system.. An annular preventer will be installed on the 16" casing to drill to the 3000" depth. The casing and BOP will be tested before drilling out with the 10 5/8" and 7 7/8". See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 1,450': Fresh water mud:	8.6 - 9.0 ppg	32 - 36	No W/L control
1,450' - 3,000': Fresh/native brine	10.0 - 10.1 ppg	28 - 29	No W/L control
3,000' - 4,850': Fresh water + addit.	8.4 - 8.5 ppg	28 - 29	No W/L control
4,850' - 11,500': Fresh water/Cut brine	8.4 - 9.2 ppg	28 - 29	No W/L control
11,500' - 12,900': Cut Brine	8.8 - 9.6 ppg	28 - 29	No W/L control
12,900' - 14,200': Cut Brine/xcd Polymer	9.4 - 11.5 ppg	38 - 42	W/L control: 15cc to 8cc

7. Auxiliary Equipment: Blowout Preventer, flow sensors and stabbing valve.

SAMSON RESOURCES

New Mexico A Federal, Well No. 7

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: None unless conditions warrant.

Logging: 5,000' to T.D: CNL-DNL w/GR-Cal.

5,000' to Surface: CNL-GR

Coring: Rotary sidewall if dictated by logs.

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 = 6336 psi and surface pressure of 3168 psi with a temperature of 204°.

10. H₂S: None expected. The Minis "2" Fed. #1, in Sec. 2 and producing in the Delaware, was tested and is totally sweet, no H₂S. There is no indication of H₂S in the New Mexico A Fed. Wells 2 – 6 Delaware

11. Anticipated starting date: April 14, 2003.

Anticipated completion of drilling operations: Approximately 6 weeks.

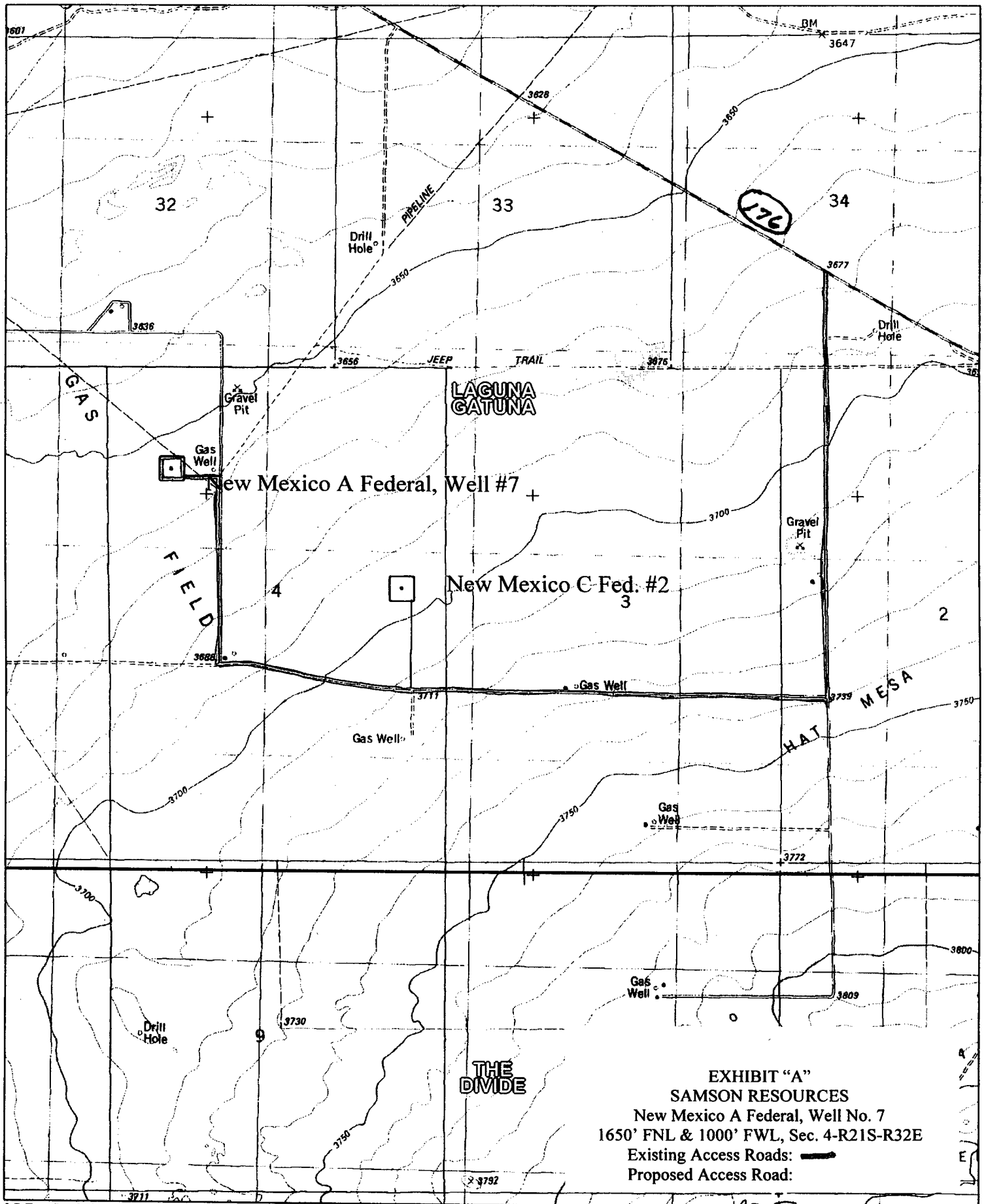


EXHIBIT "A"
 SAMSON RESOURCES
 New Mexico A Federal, Well No. 7
 1650' FNL & 1000' FWL, Sec. 4-R21S-R32E
 Existing Access Roads: ———
 Proposed Access Road: ———



RIG 715 BOP LAYOUT

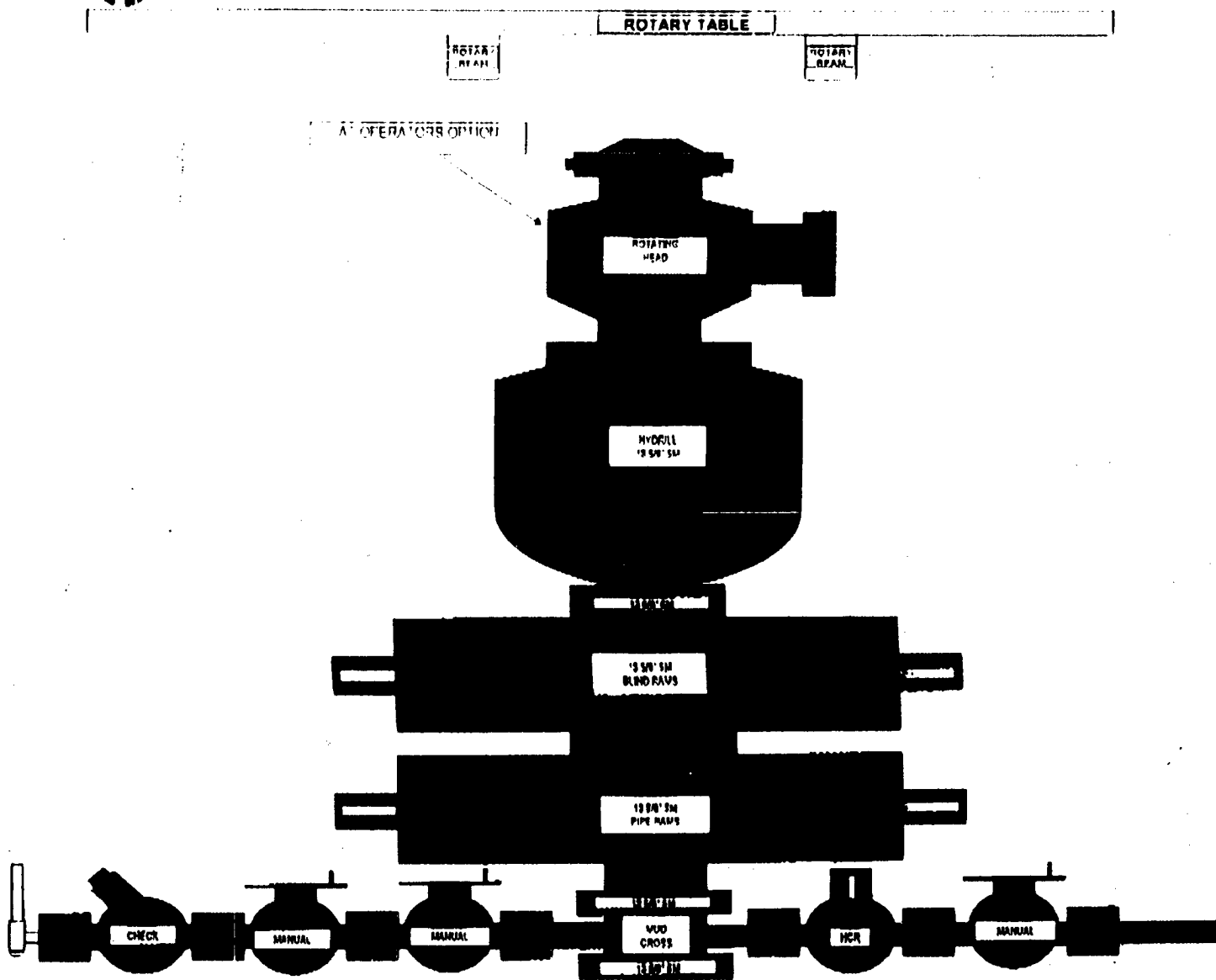


EXHIBIT "E"
 SAMSON RESOURCES
 New Mexico A Federal, Well No. 7
 BOP Specifications