

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

5. Lease Serial No.
NM-053434

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.
Lea Federal Unit, Well No. 26

8. Lease Name and Well No.

9. API Well No.
30-025-38008

10. Field and Pool, or Exploratory
Lea Bone Spring

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 13-T20S-R34E

12. County or Parish

Lea

13. State

NM

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

Samson Resources

3a. Address

Samson Plaza—Two W. 2nd St. Tulsa, OK 74103

3b. Phone No. (Include area code)

(918) 591-1822

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 990' FNL & 1980' FWL

At proposed prod. zone same

14. Distance in miles and direction from nearest town or post office*

50 miles northeast of Carlsbad, NM.

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 990'

16. No. of Acres in lease

400

17. Spacing Unit dedicated to this well

80

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 990'

19. Proposed Depth

10,600'

20. BLM/BIA Bond No. on file

NM-2037

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3655' GL

22. Approximate date work will start*

July 24, 2006

23. Estimated duration

5 weeks

24. Attachments

Capitan Controlled Water Bonds

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.
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

George R. Smith

Name (Printed/Typed)

George R. Smith

Date

5/30/06

Title

Agent for Samson Resources

Approved by (Signature)

/s/ James Stovall

Name (Printed/Typed)

/s/ James Stovall

Date

JUL 06 2006

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.

George R. Smith
George R. Smith, agent

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DISTRICT I

1625 N. FRANCE DR., HOBBBS, NM 88240

DISTRICT II

1901 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-38008	Pool Code 37570	Pool Name Lea Bone Spring
Property Code 34342	Property Name LEA FEDERAL UNIT	Well Number 26
OGRID No. 20165	Operator Name SAMSON RESOURCES	Elevation 3655'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	13	20-S	34-E		990	NORTH	1980	WEST	LEA

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 80	Joint or Infill	Consolidation Code	Order No.
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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>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=574781.1 N X=751952.7 E</p> <p>LAT.=32°34'39.06" N LONG.=103°30'55.48" W</p>	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <u>George R. Smith</u> 5/30/06 Signature Date <u>George R. Smith, agent</u> Printed Name
	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 belief. APRIL 11, 2006 Date Surveyed MR Signature & Seal of Professional Surveyor Certificate No. GARY KIDSON 12641

APPLICATION FOR DRILLING

SAMSON RESOURCES

Lea Federal Unit, Well No. 26
990' FNL & 1980' FWL, Sec. 13-T20S-R34E
Lea County, New Mexico
Lease No.: NM-053434
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Samson Resources 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	1,600'	Delaware	5,600'
Top of Salt	1,655'	Bone Spring	8,200'
Base of salt	3,150'	1st Bone Spring	9,500'
Yates	3,500'	Bone Spring Dolomite	9,600'
Capitan Reef	3,900'	T.D.	10,600'
Queen	4,665'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:
Water: Surface water between 100' - 350'.
Oil: Possible in the Delaware below 5600' and Bone Spring below 8200'.
Gas: Possible in Bone Spring below 8,200'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
7 1/2"	13 3/8"	54.5#	J-55	BT&C	0' - 1,650'	Circ. 1350 sx. "C" to surface
12 1/4"	9 5/8"	40.0#	N-80	BT&C	0' - 5,500'	Circ. 2000 sx "C"
8 3/4"	5 1/2"	17.0#	P110	LT&C	0' - 10,600'	1000 sx "C" TOC 5,400'

5. Minimum Specifications for Pressure Control Equipment:

A NU 13 5/8" 10M WP Double Gate BOP over single 13 5/8" 5M Hydril annular preventer will be installed on the 13 3/8" before drilling 12 1/4" and 8 3/4" holes and operated as a 5000 psi system. Will perform a 3M test on the casing and BOP before drilling 12.1/4" hole and a 3M test before drilling the 8 3/4" hole.

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 1,650':	F/W native mud:	8.4 - 9.2 ppg	28 - 29
1,650' - 5,500':	Brine mud:	10.0 ppg	26 - 29
	Will switch to fresh water if lost circulation encountered.		
5,500' - 10,600':	Cut brine:	9.2 - 9.5 ppg	26 - 29

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

SAMSON RESOURCES

Lea Federal Unit, Well No. 26

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8. Testing, Logging, and Coring Program:

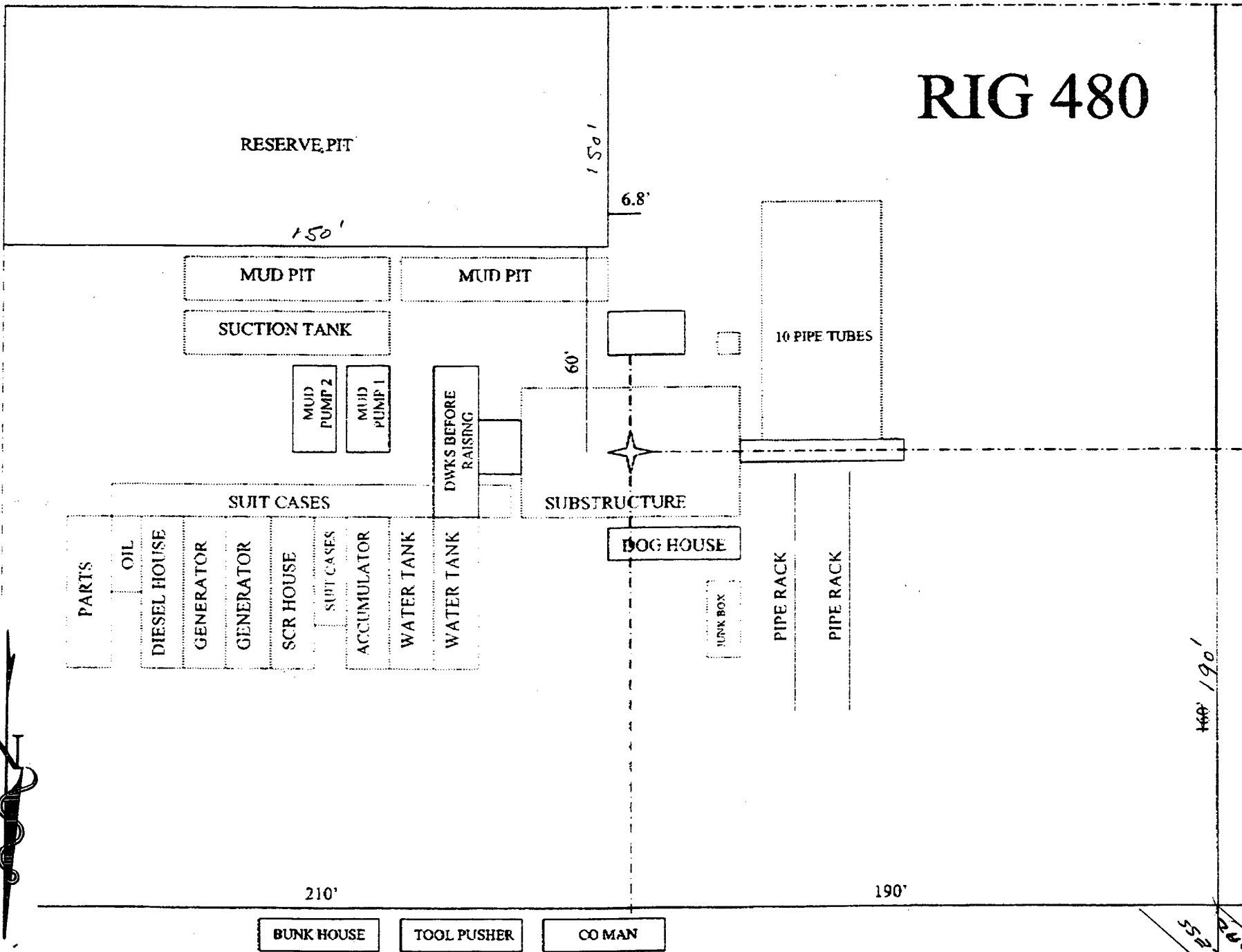
Drill Stem Tests: None unless conditions warrant.

Logging: 5,500' to T.D.: CNL-DNL w/GR-Cal.

5,500' 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 = 4664 psi and surface pressure of 2332 psi with a temperature of 166°.
10. H_2S : None expected. None in existing wells in close vicinity, but the Mud Log Unit will be cautioned to use a gas trap to detect H_2S and if any is detected the mud weight will be increased along with H_2S inhibitors sufficient to control the gas.
11. Anticipated starting date: July 24, 2006.
Anticipated completion of drilling operations: Approximately 6 weeks.



RIG 480

EXHIBIT "D"
SAMSON RESOURCES CO.
Lea Federal Unit, Well No. 26
Pad & Pit Layout

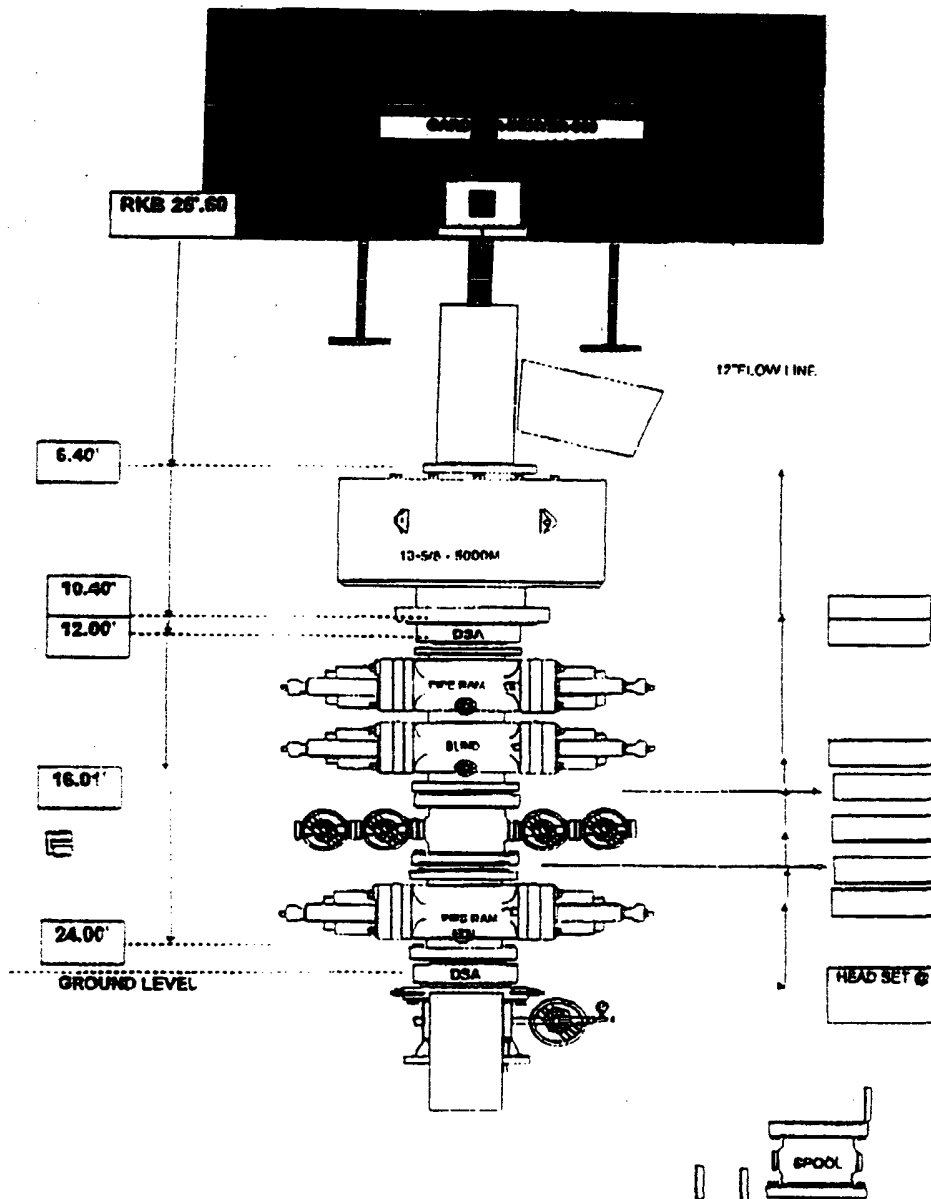
APP-11-2006 11:04

PATTERSON-UTI DRILLING

4326838295

P.01/01

4/10/06
505-623-4440



N.D.U.S.A.

MANIFOLD SETUP

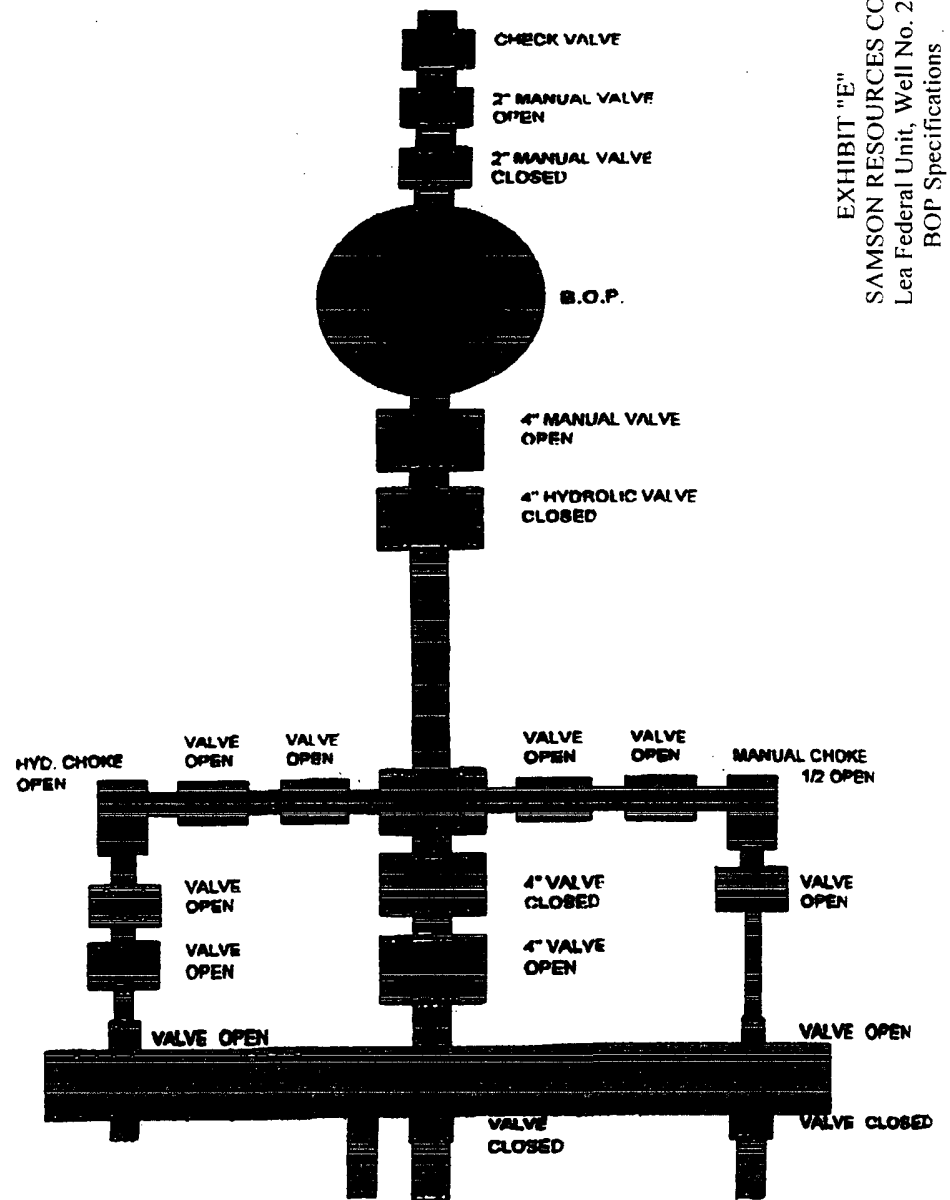


EXHIBIT "E"
 SAMSON RESOURCES CO.
 Lea Federal Unit, Well No. 26
 BOP Specifications

ANNULAR	= 13 5/8 - 68 HYDR. GK ANN
DOUBLE	= 13 5/8 - 100 SHAFER SL (DBL) BOP
BRIGLE	= 13 5/8 - 100 SHAFER SL POSLOK BOP
WELL HEAD	= 11" SH
KILL LINE VALVE	= 2 1/16 10M
CHOKE LINE VALVE	= 4 1/16 10M

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Samson Resources Well Name & #: Lea Federal Unit # 26
Location: 990' FNL & 1980' FWL, Section 13, T. 20 S., R. 34 E. Lease: NM-053434
County: Lea State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- (X) Lesser Prairie Chicken (stips attached) () Flood plain (stips attached)
() San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(X) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

(X) Other: **Reserve Pits East, V-Door South**

Reclamation is required of any surface previously disturbed that is not necessary for continued production operations. This includes reduction of square footage on this well pad by 25 % during pit closure operations.

In order to plan for successful reclamation, the operator shall notify the Inspection and Enforcement Department of the Carlsbad Field Office before placement of production facilities such as tanks, heaters, pipeline risers and gunbarrel separators. The operator is responsible for site preparation to include ripping and/or removal of caliche, spreading topsoil to a depth to match surrounding landscape, tilling, disking on contour, and dozer track-imprinting. Disturbed areas shall be revegetated after the site has been satisfactorily prepared. Seeding should be accomplished by drilling on the contour or by other approved methods (for example, dozer track-walking followed by broadcast seeding). Mulching, fertilizing, and noxious weed control are recommended for successful reclamation. Earthwork for interim and final reclamation must be completed within 6 months of reserve pit closure or well plugging. It is the operator's responsibility to monitor the site, take the necessary steps to ensure reclamation success, and to notify the Carlsbad Field Office when success is achieved.

III. WELL COMPLETION REQUIREMENTS

() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(X) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture. **See attached seed mixture.**

() A. Seed Mixture 1 (Loamy Sites)

Side Oats Grama (*Bouteloua curtipendula*) 5.0

Sand Dropseed (*Sporobolus cryptandrus*) 1.0

() B. Seed Mixture 2 (Sandy Sites)

Sand Dropseed (*Sporobolus cryptandrus*) 1.0

Sand Lovegrass (*Eragrostis trichodes*) 1.0

Plains Bristlegrass (*Setaria magrostachya*) 2.0

() C. Seed Mixture 3 (Shallow Sites)

Side oats Grama (*Boute curtipendula*) 1.0

() D. Seed Mixture 4 (Gypsum Sites)

Alkali Sacaton (*Sporobolus airoides*) 1.0

Four-Wing Saltbush (*Atriplex canescens*) 5.0

(x) OTHER Lesser Prairie Chicken Seed Mix

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 26 – LEA FEDERAL UNIT
Operator's Name: SAMSON RESOURCES
Location: 990' FNL & 1980' FWL – SEC 13 – T20S – R34E – LEA COUNTY
Lease: NM-053434

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at 1650 feet below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is circulate cement to the surface. Note: Upon loss of circulation in the Capitan Reef, the operator will notify the Hobbs PET staff to arrange for witnessing the change to fresh water.

4. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall tie back 200 feet into the 9-5/8 inch intermediate casing.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is 3000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
March 12, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Samson Resources (Brad Hargrove) Telephone: (918) 591-1939 e-mail address:

Address: Samson Plaza Two W. Second St. Tulsa, OK 74103

Facility or well name: Lea Federal Unit, Well #26 U/L or Qtr/Qtr NE4NW4 Sec 13_T_20S_R34E

County: Eddy Latitude 32°34'39.06" N Longitude 103°30'55.48" W NAD: 1927 X 1983 ☐ Surface Owner Federal X State Private ☐

Indian ☐

30-025-38008

Pit

Type: Drilling X Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined X Unlined ☐

Liner type: Synthetic X Thickness 12 mil Clay ☐ Volume 10,000 bbl+

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)
Ranking Score (Total Points)		-0-

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility (3) Attach a general description of remedial action taken including remediation start date and

end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: May 30, 2006

Printed Name/Title: George R. Smith, agent Signature: George R. Smith

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date:

Printed Name/Title: JUL 13 2006

Signature: