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Santa Fé, New Mexico 87504-2265

April 4, 1989

RECEIVED

APR 4 1989

HAND-DELIVERED

OIL CONSERVATION DIVISION

Mr. William J. LeMay
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 9658

Re: Application of Parker & Parsley
for Approval of the Pardue Farms
"27" Well #8-D for Salt Water
Disposal, Eddy County, New Mexico

Dear Mr. LeMay:

On behalf of Parker & Parsley Petroleum Company, please find enclosed Division Form C-108 which is an application for approval of the referenced well for salt water disposal.

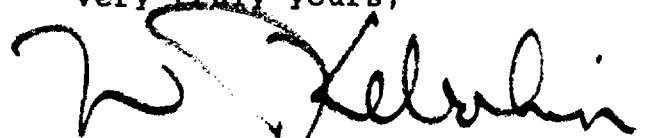
We would request that this cause be set for hearing on the Examiner's docket now scheduled for April 26, 1989.

We suggest the following for an advertisement for this matter:

Application for Parker & Parsley Petroleum Company for salt water disposal, Eddy County, New Mexico. Applicant in the above styled cause seeks authority to dispose of produced water into the Delaware formation (Bushy Canyon and Cherry Canyon) in the perforated interval from approximately 3,500' to 4,800' in its Pardue Farms "27" #8-D Well located 2,069' FNL and 632' FEL (Unit H) of Section 27, T23S, R28E, NMPM. Applicant further seeks an administrative procedure to increase the surface injection pressure for the well. Said well is located approximately 2 miles Southeast by East of Loving, New Mexico.

By copy of this letter we are forwarding a copy of the Form C-108 to all offset operators within one-half mile and to the owner of the surface.

Very truly yours,



W. Thomas Kellahin

KELLAHIN, KELLAHIN and AUBREY

Mr. William J. LeMay
April 4, 1989
Page 2

WTK/rs
Encl.

cc: Randy Johnson - Parker & Parsley

Certified Mail Return-Receipt Requested:

Mr. Milton Wessels
P.O. Box 940
Marble Falls, Texas 77090

HNG Oil Company
c/o Enron Oil & Gas
P.O. Box 2267
Midland, Texas 79702

Amoco Production Company
P.O. Box 4072
Odessa, Texas 79760

Mr. Billie Queen
Route 211 Ash Road
Loving, New Mexico 86256

Mr. Mike Williams
Oil Conservation Division
P.O. Drawer DD
Artesia, New Mexico 88210
Original and three copies of letter.

Case 9658

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Parker & Parslev Petroleum Co.
Address: P. O. Box 3178, Midland, Texas 79702
Contact party: Randy R. Johnson Phone: 915/683-4768
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Randy R. Johnson Title: Operations Engineer
Signature: Randy R. Johnson Date: 3-30-89
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

[illegible]

PARDUE FARMS "27" #8D

III.

- A. 1. Pardue Farms 27 #8D
Sec. 27, T-23S, R-28E
Unit Letter: H, 2069' FNL & 632' FEL
- 2. 9 5/8", set @ 500', cmt'd w/ 500 sx Class "C"
12 1/4" hole, cmt circulated
7", set @ 4800', cmt'd w/ 800 sx Class "C"
8 3/4" hole, cmt circulated
- 3. 3 1/2" Fiberglass tbg set @ +3400'
- 4. Otis Perma-Latch @ +3400'
- B. 1. Delaware (Bell Canyon & Cherry Canyon)
- 2. 3500' - 4800'
- 3. Drilled for injection
- 4. None
- 5. Higher Zone - None known
Lower Zone - Brushy Canyon & Bone Springs

VI.

Pardue Farms 27 #1
Oil Well
Spud: 7-30-78 Completed: 4-1-81
Location: Unit H, 1980' FNL & 990' FEL;
Sec. 27, 23-S, 28-E
Depth: 13,100'
PBSD: 8,000'
Perfs: 6588 - 7036'

Pardue Farms 27 #2
Oil Well
Spud: 3-22-81 Completed: 5-3-81
Location: Unit B, 1980' FEL & 660' FNL;
Sec. 27, 23S, 28E
Depth: 7550'
PBSD: 7500'
Perfs: 6252 - 7165'

Pardue Farms 27 #3

Oil Well

Spud: 5-21-81 Completed: 7-8-81

Location: Unit J, 1980' FSL & 1980' FEL;
Sec. 27, 23-S, 28-E

Depth: 7,550'

PBTD: 7,510'

Perfs: 6261 - 7112'

Pardue Farms 27 #4

Oil Well

Spud: 6-11-81 Completed: 9-25-81

Location: Unit P, 660' FSL & 660' FEL;
Sec. 27, 23-S, 28-E

Depth: 7300'

PBTD: 6265'

Perfs: 6070 - 6248'

Pardue Farms 27 #7

Oil Well

Spud: 12-14-88 Completed: 1-16-89

Location: Unit A, 560' FNL & 560' FEL;
Sec. 27, 23-S, 28-E

Depth: 7,508'

PBTD: 6,260'

Perfs: 6040 - 6251'

Pardue Farms 26 #1

Gas Well

Spud: 9-16-78 Completed: 1-7-79

Location: Unit E, 1980' FNL & 660' FWL;
Sec. 26, 23-S, 28-E

Depth: 13,117'

PBTD: 11,885'

Perfs: 11,758 - 11,782'

Pardue Farms 26 #2

Oil Well

Spud: 10-10-80 Completed: 10-26-80

Location: Unit D, 760' FNL & 990' FWL;
Sec. 26, 23-S, 28-E

Depth: 7,063'

PBTD: 6,790'

Perfs: 6,406 - 6,676'

Pardue Farms 26 #3
Oil Well
Spud: 2-4-81 Completed: 4-30-81
Location: Unit F, 2980 FNL & 1980 FWL;
 Sec. 26, 23-S, 28-E
Depth: 8,000'
PBSD: 7,200'
Perfs: 6,262 - 7,104'

Flyer #1
Oil Well
Spud: 12-30-82 Completed: 1-28-83
Location: Unit , 1980' FNL & 1980 FWL;
 Sec. 27, 23-S, 28-E
Depth: 6,750'
PBSD: 6,698'
Perfs: 6,356 - 6,374'

VII. 1. Average: 1500 BWPB
Maximum: 2000 BWPB

2. Closed

3. Average: 1000 psig
Masimum: 1500 psig

4. Bone Spring and Brushy Canyon, see attachment.

5. See attachment.

VIII. Proposed disposal zone is the Delaware Cherry Canyon and Bell Canyon at a depth of 3500 - 4800'. Lithology is a fine grain quartz sandstone and siltstone interbedded w/ very fine grain gray shales.

The Rustler is the only aquifer overlying the proposed disposal zone. Base of the Rustler is @ 400'.

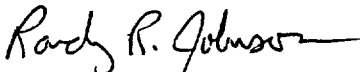
IX. Proposed stimulation: 5000 gals 15% NEFE acid.

X. Logs & test data will be filed when the proposed well is drilled and completed.

XI. None available.

- XII. I, Randy R. Johnson, have examined available geologic and engineering data, and find no evidence of open faults or any other hydrologic connection between the disposal zone and any under ground source of drinking water.

Parker & Parsley Petroleum Co.


Randy R. Johnson
Operations Engineer

BJ TITAN SERVICES

PLEASE REPLY: 525 S. GRANDVIEW
P.O. BOX 9078
ODESSA, TX 79760

Parker & Parsley
Pardue Farms
Station: Hobbs

3-21-89
Craig Bailey
Waters & Oils

PURPOSE: To analyze the water samples and check the compatibility of the oil samples with each other.

INJECTION FLUID

WATER ANALYSIS:

Bone Springs Brush Canyon

Specific Gravity @ 60°F:	1.186	1.196
pH:	5.94	6.08

RADICALS

Total Hardness	80,000	88,000
Calcium	28,800	32,800
Magnesium	1,920	1,440
Iron(Dissolved)	38	1
Barium	ND	ND
*Sodium	91,701	87,998
Chlorides	198,000	198,000
Sulfate	282	295
Bicarbonate	312	171
Sulfide	NP	NP

Hydrogen Sulfide	NP	NP
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TDS	321,053	320,705
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Scaling Tendency:		
CaCO ₃ :	Probable	Probable
CaSO ₄ :	Possible	Possible

OIL ANALYSIS:

API GRAVITY @ 60°F:	42.0	45.0
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There was no emulsion problems observed between the two oil samples at a 50:50 mixture.

*Sodium is a calculated value to balance the equation.

Lab. Report: 3W-032
Analyzed By: David Ellison

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

API NO. (assigned by OCD on New Wells)

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒

RE-ENTER ☐

DEEPEN ☐

PLUG BACK ☐

b. Type of Well:

OIL
WELL ☐

GAS
WELL ☐

OTHER ☐

SWD

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

7. Lease Name or Unit Agreement Name

Pardue Farms 27

2. Name of Operator

Parker & Parsley Petroleum Company

8. Well No.

8-D

3. Address of Operator

P. O. Box 3178, Midland, Texas 79702

9. Pool name or Wildcat

Delaware (Bell Canyon)

4. Well Location

Unit Letter H : 2069 Feet From The North Line and 632 Feet From The East Line

Section 27

Township 23S

Range 28E

NMPM

Eddy

County

10. Proposed Depth

4800

11. Formation

Bell Canyon

12. Rotary or C.T.

Rotary

13. Elevations (Show whether DF, RT, GR, etc.)

3033.1 GR

14. Kind & Status Plug. Bond

Blanket-Active

15. Drilling Contractor

Capstarr

16. Approx. Date Work will start

4-1-89

17.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4	9 5/8	36#	500'	500	Surf.
8 3/4	7"	24#	4800'	800	Surf.

BOP's - 500-4800'

10" 3000 psi double ram preventers, nearest resistance
approximately 400'.

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE

Randy R. Johnson

TITLE

Operations Engineer

DATE

3-27-89

TYPE OR PRINT NAME

Randy Johnson

TELEPHONE NO. 915 683 47

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

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

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

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

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

Operator Parker & Parsley			Lease Pardue Farms 27		Well No. 8-D
Unit Letter H	Section 27	Township 23 South	Range 28 East	County Eddy	
Actual Footage Location of Well: 2069 feet from the north line and 632 feet from the east line					
Ground level Elev. 3033.1	Producing Formation Bell Canyon	Pool Delaware (Bell Canyon)		Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. 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.?

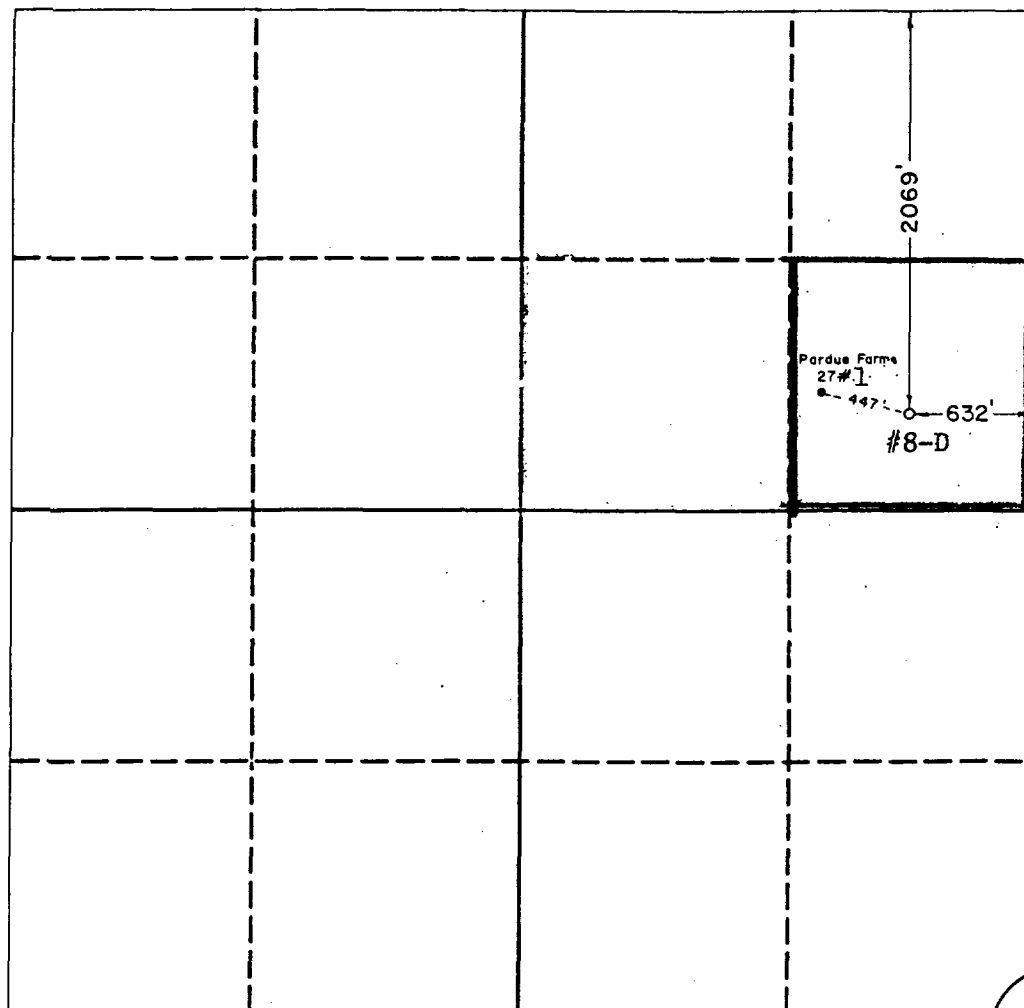
☒ Yes

☐ No

If answer is "yes" type of consolidation Designation of pooled or unitized area

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.

Randy R. Johnson
Signature

Randy Johnson

Printed Name

Operations Engineer

Position

Parker & Parsley Petr. Co.

Company

3-27-89

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.

Date Surveyed

March 21, 1989

Signature & Seal of
Professional Surveyor

Ronald J. Eidson
REGISTERED PROFESSIONAL LAND SURVEYOR
NEW MEXICO
Certificate No. 676 W. WEST 676
RONALD J. EIDSON 3239
JOHN W. WEST

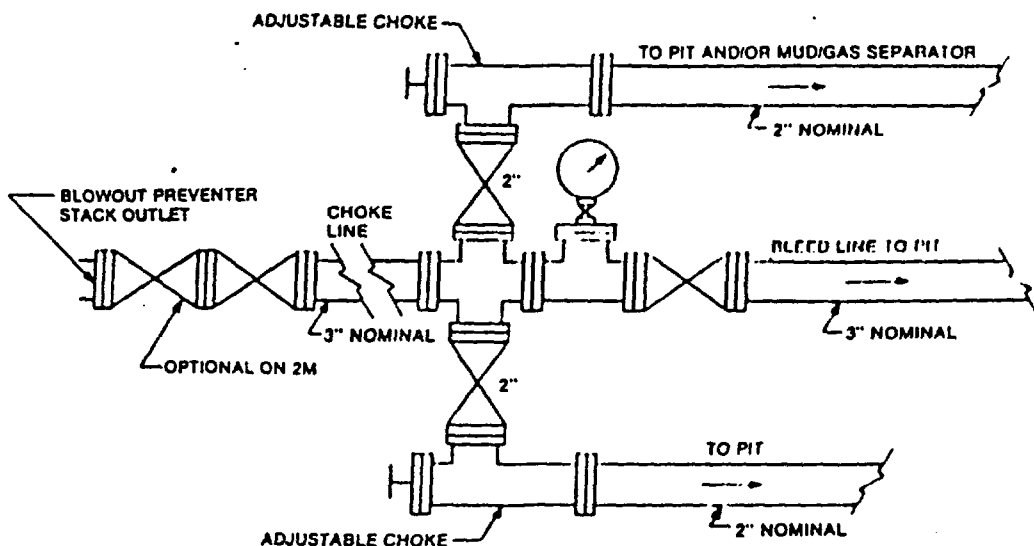


FIGURE K4-1. Typical choke manifold assembly for 3M rated working pressure service — surface installation.

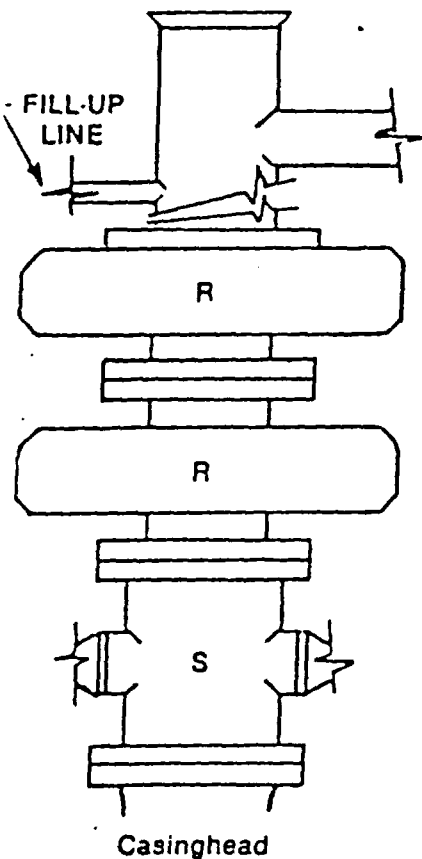


FIGURE K1-1. Recommended IADC Class 2 BOP stack; 3000 psi WP. Either SRd (left) or SA (right) arrangement is acceptable and drilling spool is optional.