

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-101  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 6 Copies  
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN OR ADD A ZONE

Operator Name and Address: NORTHWEST PIPELINE CORPORATION c/o Walsh Engr. & Prod. Corp. 7415 E. Main Farmington, New Mexico 87402		OGRID Number 16189
Property Code 008480	Property Name ROSA UNIT	API Number 0-039-25412
		Well No. 79A

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
E	22	31N	6W		1597'	FNL	790'	FEL	Rio Arriba

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
Blanco Mesa Verde 72319					Wildcat: Rosa Pictured Cliffs 96175				

Work Type Code N	Well Type Code M	Cable/Rotary R	Lease Type Code S E-289-50	Ground Level Elevation 6272'GR
Multiple Yes	Proposed Depth 5975'	Formation Mesa Verde	Contractor Four Corners	Spud Date June 10, 1994

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8" K-55	36.0#	500'	315 cuft	Circ
8-3/4"	7" K-55	20.0#	3605'	950 cuft	Circ
6-1/4"	4-1/2" K-55	10.5#	3505-5975'	407 cuft	3505

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

NORTHWEST PIPELINE proposes to drill a vertical well to develop the Pictured Cliffs and Mesa Verde formations at the above described location in accordance with the attached drilling plan. After surface pipe is set, a 3000# BOP will be installed for the remainder of the well. Please refer to the attached BOP and Choke Manifold Diagrams.

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

Signature:

*Paul C. Thompson*

Printed name: Paul C. Thompson, P.E.

Title: Agent

Date: 5/26/94

Phone: 505 327-4892

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date:

MAY 26 1994

Expiration Date:

MAY 26 1995

Conditions of Approval:

Attached ☐

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PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2000, Santa Fe, NM 87504-2000

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Energy, Minerals & Natural Resources Department

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OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

* API Number		* Pool Code 72319		* Pool Name BLANCO / MESA VERDE	
* Property Code 008480		* Property Name ROSA UNIT			* Well Number # 79A
* OGRID No. 16189		* Operator Name NORTHWEST PIPELINE CORPORATION			* Elevation 6272

10 Surface Location

UL or lot no. E	Section 22	Township 31N	Range 6W	Lot Idn	Feet from the 1597'	North/South line FNL	Feet from the 790'	East/West line FWL	County RIO ARRI
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11 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
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12 Dedicated Acres W/ 320	13 Joint or Infill Y	14 Consolidation Code U	15 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

16 73.21 1597' 790'	SEC. 22	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Paul C. Thompson Signature Paul C. Thompson, P.E. Printed Name Agent Date 5/16/94	
		18 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. MAY 11, 1994 Date of Survey Signature and Seal of Professional Surveyor: Harry W. Johnson Certificate Number 1707	
		RECEIVED MAY 26 1994 OIL CON. DIV. DIST. 3	

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State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-10  
Revised February 10, 1999  
Instructions on back  
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 96175		3 Pool Name WILDCAT: ROSE -PICTURED CLIFF	
4 Property Code 008480		5 Property Name ROSA UNIT			6 Well Number # 79A
7 OGRID No. 16189		8 Operator Name NORTHWEST PIPELINE CORPORATION			9 Elevation 6272

10 Surface Location

UL or lot no. E	Section 22	Township 31N	Range 6W	Lot Idn	Feet from the 1597'	North/South line FNL	Feet from the 790'	East/West line FWL	County RIO ARriba
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11 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
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12 Dedicated Acres 160	13 Joint or Infill Y	14 Consolidation Code U	15 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

16	1597'				
790'					
		SEC. 22			

MAY 26 1994

17 OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Paul C. Thompson*  
Signature  
Paul C. Thompson, P.E.  
Printed Name  
Agent  
Title  
5/16/94  
Date

18 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.

MAY 11, 1994  
Date of Survey  
Signature and Seal of Professional Surveyor:  
*Larry A. Jeter*  
6707  
Certificate Number

**NORTHWEST PIPELINE CORPORATION**  
**OPERATIONS PLAN**

DATE: 04/29/94

WELLNAME: ROSA UNIT #79A

FIELD: Rosa PC/Blanco MV

LOCATION: SW/4 NW/4 Sec. 22, T31N, R6W  
Rio Arriba Co., NM

SURFACE: Bureau of Rec.

ELEVATION: 6266' GR

MINERALS: Federal

TOTAL DEPTH: 5975'

LEASE # SF-078766

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS:

Ojo Alamo	2318'	Cliff House	5303'
Kirtland	2428'	Menefee	5343'
Fruitland	2863'	Point Lookout	5575'
Pictured Cliffs	3165'	Mancos	5738'
Lewis	3455'	Total Depth	5975'

B. LOGGING PROGRAM: IND/GR, CDL/SNL. Log the Pictured Cliffs from TD to the Kirtland. Log the Mesa Verde from TD to 500' above the Cliff House.

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. LSND to log and run pipe.

B. BOP TESTING: While drill pipe is in use, the pipe rams will be tested not less than once each day. The blind rams will be tested once each trip. The drum brakes will inspected and tested each tour. All tests and inspections will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CASING SIZE</u>	<u>WT. &amp; GRADE</u>
Surface	12-1/4"	500'	9-5/8"	36# K-55
Intermediate	8-3/4"	3605'	7"	20# K-55
Prod. Liner	6-1/4"	3505-5975'	4-1/2"	10.5# K-55

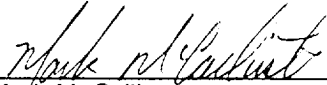
B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and five(5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 2428' to the surface. Total centralizers = 5 regular and 20 turbulent.
3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a float collar and an insert float on top of bottom joint.

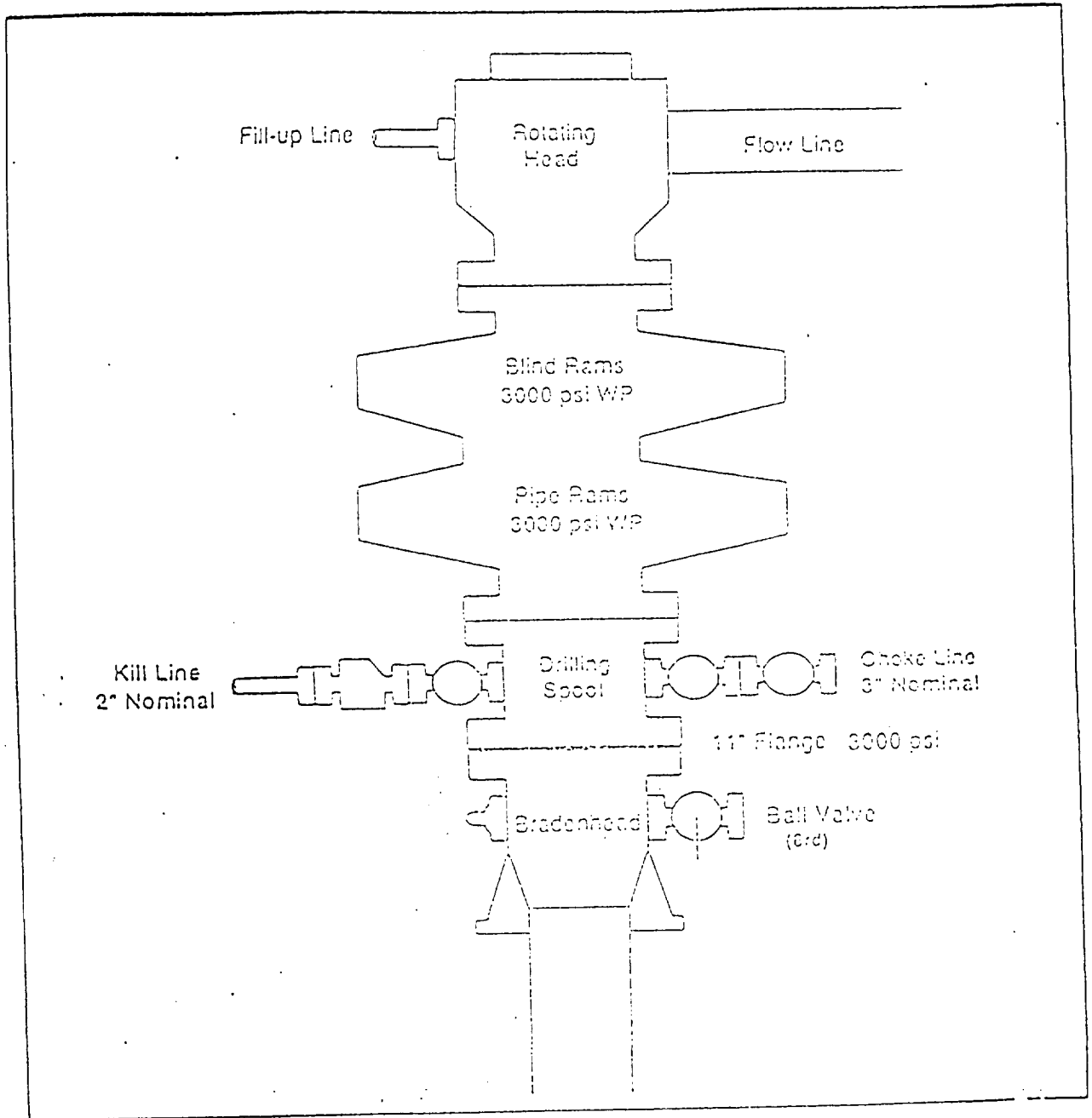
C. CEMENTING:

1. SURFACE: Use 265 sx (315 cu.ft.) of class "B" with 3% CaCl<sub>2</sub> and 1/4# of cello-flake/sk (Yield = 1.19 cu.ft./sk, Weight = 15.6 #/gal.). Use 100% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead - 355 sx (746 cu.ft.) of class "B" 65/35 poz with 12% gel and 1/4# cello-flake/sk (Yield = 2.1 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 150 sx (204 cu.ft.) of class "B" with 2% gel, 1/4# cello-flake/sk and 2% CaCl<sub>2</sub> (Yield = 1.36 cu.ft./sk, Weight = 14.7#/gal.). Use 75% excess to circulate the surface. Total volume = 950 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
3. PRODUCTION LINER: Use 235 sx (407 cu.ft.) of class "B" with 4% gel, 6-1/4# fine gilsonite/sk and 0.5% Halad 9 (Yield = 1.73 cu.ft./sk, Weight = 13.5 #/gal.). Displace cement at a minimum of 10 BPM. Use 60% excess to cover liner top. WOC 12 hours. Run a temperature survey after 8 hours if liner top is not circulated.

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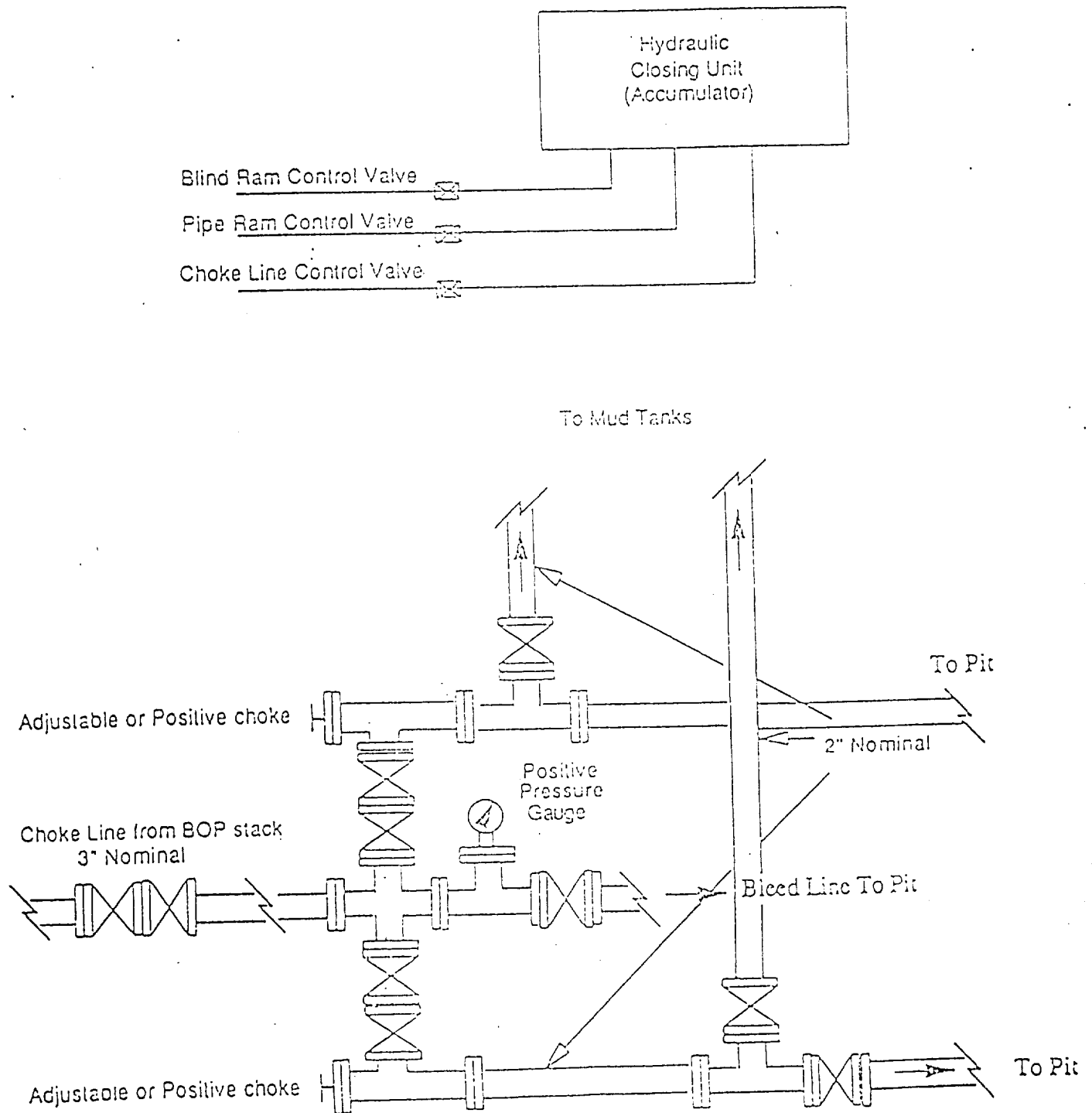
  
\_\_\_\_\_  
Mark McCallister  
Sr. Engineer, Production & Drilling

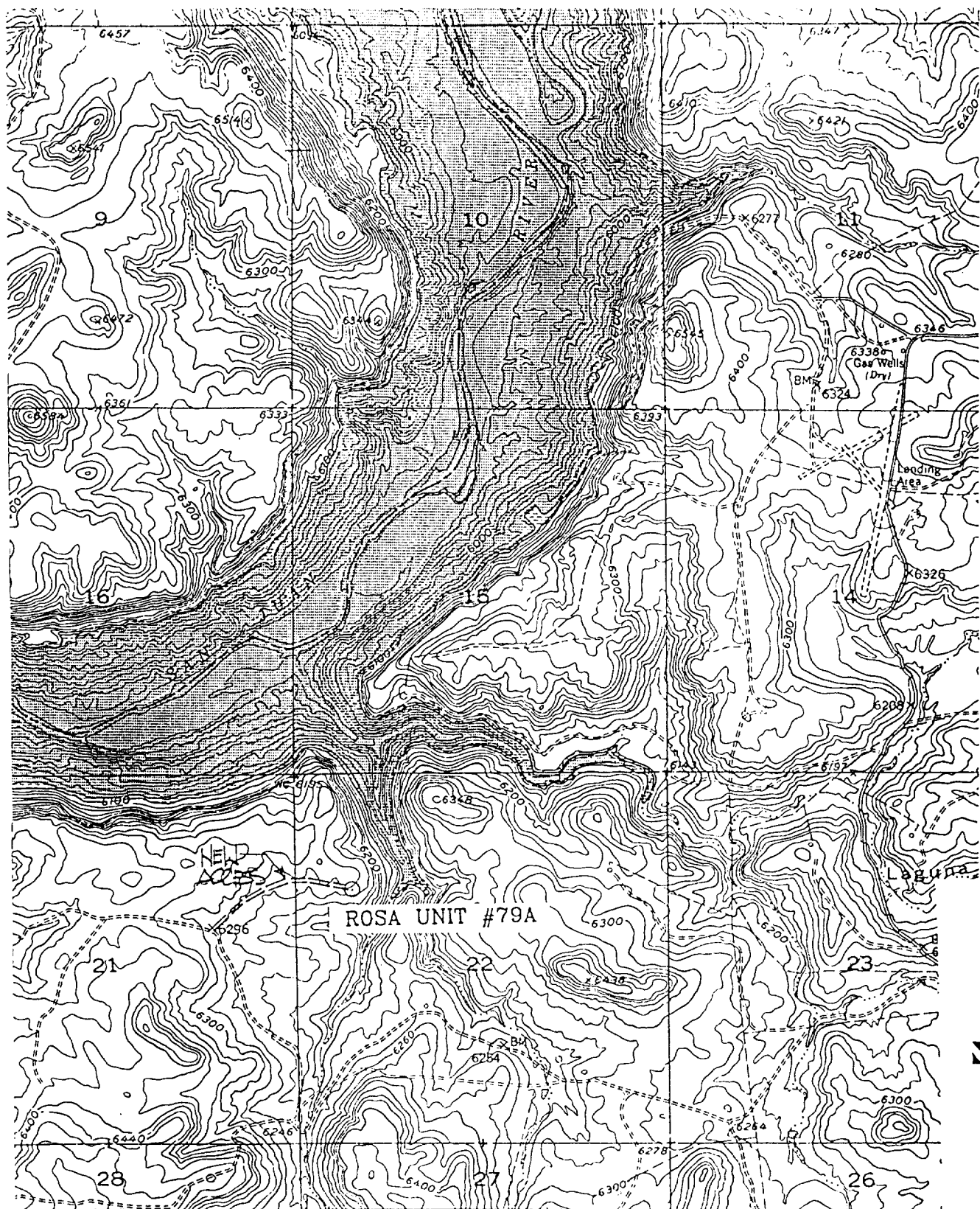
# BOP STACK ARRANGEMENT



All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 600 psi. The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 3000 psi.

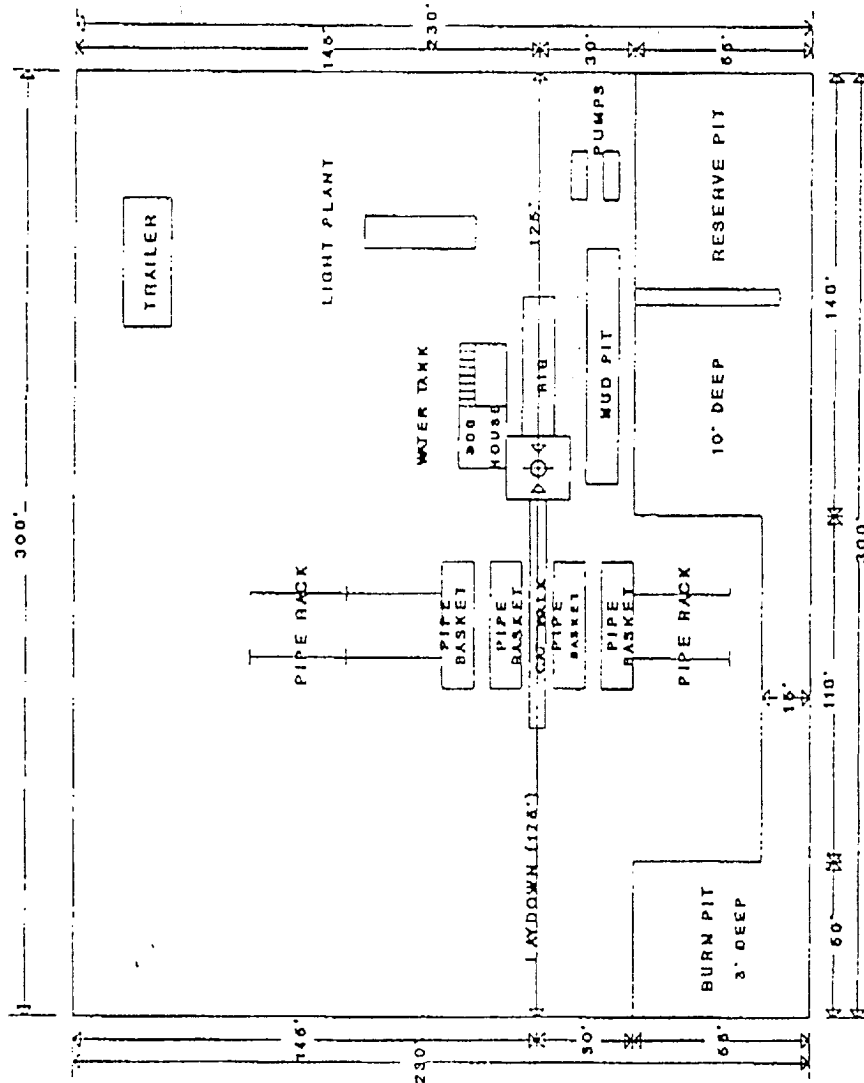
# Choke Manifold & Accumulator Schematic





ROSA UNIT #79A      NORTHWEST PIPELINE CORPORATION  
 1597' FNL, 790' FWL, SEC. 22, T.31 N., R.6 W. N.M.P.M.  
 RIO ARRIBA COUNTY, NEW MEXICO  
 BANCOS MESA NW  
 ELEV.= 6272

**NORTHWEST PIPELINE CORPORATION**  
**LOCATION DIAGRAM**



NORTHWEST PIPELINE CORPORATION  
ROSA UNIT #79A  
1597'FNL & 790'FWL, SEC. 22, T31N, R6W  
Rio Arriba County, New Mexico

COMPANY: NORTHWEST PIPELINE CORPORATION  
LEASE: ROSA UNIT #79A  
FOOTAGE: 1597' FNL, 790' FWL  
SEC: 22 TWN: 31-N RNG: 6-W NMPM  
GROUND ELEVATION: 6272



ELEV.	A-A'	C/L
6302		
6292		
6282		
6272		
6262		
6252		

ELEV.	B-B'	C/L
6302		
6292		
6282		
6272		
6262		
6252		

ELEV.	C-C'	C/L
6302		
6292		
6282		
6272		
6262		
6252		