

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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		5. Lease Serial No. SF-078282	
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 checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Phillips Petroleum Company		7. Unit or CA Agreement Name and No. San Juan 29-5 Unit	
3a. Address 5525 Highway 64, NBU 3004, Farmington, NM 87401		8. Lease Name and Well No. SJ 29-5 Unit #51M	
3b. Phone No. (include area code) 505-599-3454		9. API Well No. 30-039-26562	
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface Unit C, 1185' FNL & 1835' FWL At proposed prod. zone Same as above		10. Field and Pool, or Exploratory Basin DK and Blanco MV	
14. Distance in miles and direction from nearest town or post office* 24 miles west of Blanco, NM		11. Sec., T., R., M., or Blk. and Survey or Area Section 19, T29N, R5W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1185'		12. County or Parish Rio Arriba, NM	
16. No. of Acres in lease 1280.90 acres		13. State NM	
17. Spacing Unit dedicated to this well MV & DK - 320 W/2			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth 8100'	
20. BLM/BIA Bond No. on file ES0048			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6679' GL		22. Approximate date work will start* 1st Qtr 2001	
23. Estimated duration 20 days			

24. Attachments

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>Patsy Clugston</i>	Name (Printed/Typed) Patsy Clugston	Date 11/10/00
Title Sr. Regulatory/Proration Clerk		
Approved by (Signature) <i>PE</i>	Name (Printed/Typed) FFO	Date 1/12/01
Title 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.

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)

This action is subject to technical and procedural review pursuant to 43 CFR 3135.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

District I  
P.O. Box 1900, Hobbs, NM 88241-1900  
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 Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-26562		2 Pool Code 72319		3 Pool Name Blanco Mesaverde			
4 Property Code 009256		5 Property Name SAN JUAN 29-5 UNIT				6 Well Number 51M	
7 OGRID No. 017654		8 Operator Name PHILLIPS PETROLEUM COMPANY				9 Elevation 6679'	

10 Surface Location

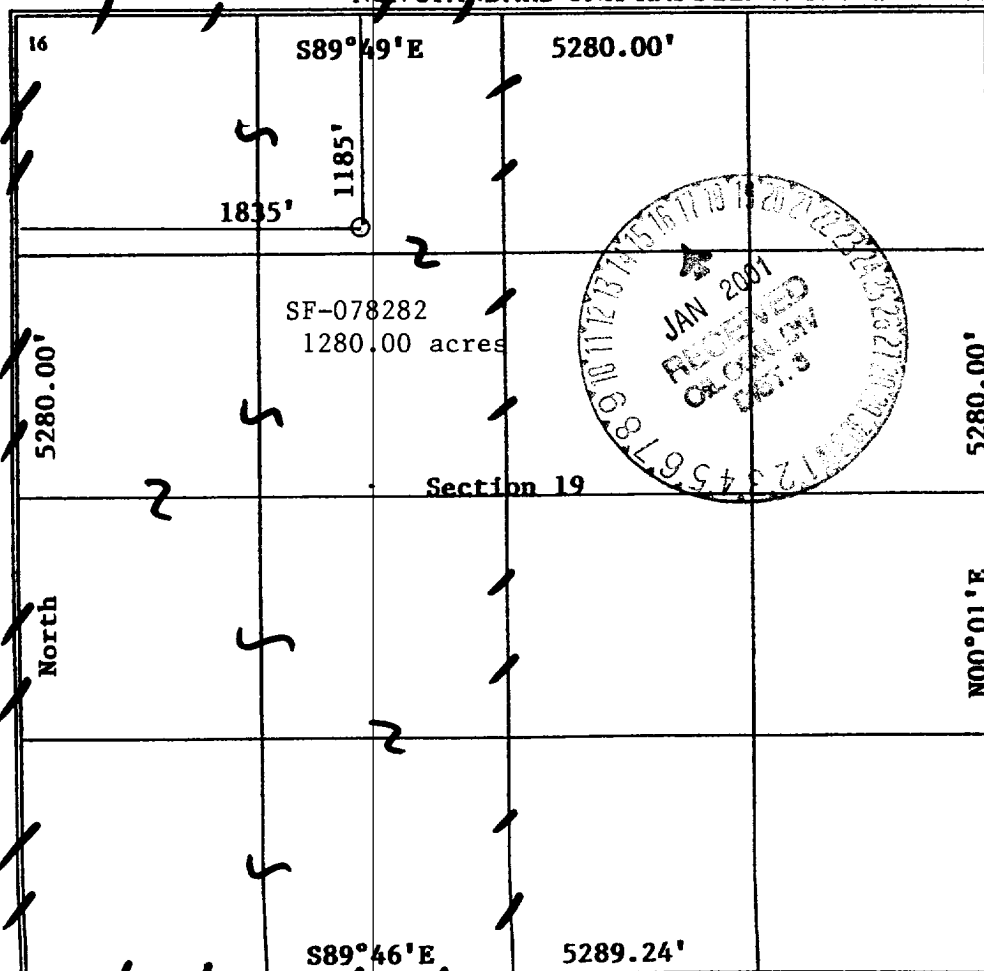
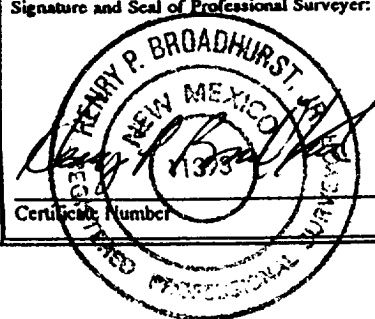
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	29N	5W		1185'	NORTH	1835'	WEST	RIO ARriba

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
C									

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320 W/2	Y	U	

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>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Patsy Clugston</i> Signature Patsy Clugston Printed Name Sr. Regulatory/Proration Clerk Title November 9, 2000 Date</p>
	<p>18 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>08/22/00 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number</p>

District I  
P.O. Box 1900, Hobbs, NM 88241-1900  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Bravo Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

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Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. APN Number 30-039-26562	2. Pool Code 71599	3. Pool Name Basin Dakota
4. Property Code 009256	5. Property Name SAN JUAN 29-5 UNIT	6. Well Number 51M
7. OGRID No. 017654	8. Operator Name PHILLIPS PETROLEUM COMPANY	9. Elevation 6679'

10 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	19	29N	5W		1185'	NORTH	1835'	WEST	RIO ARriba

11 Bottom Hole Location If Different From Surface

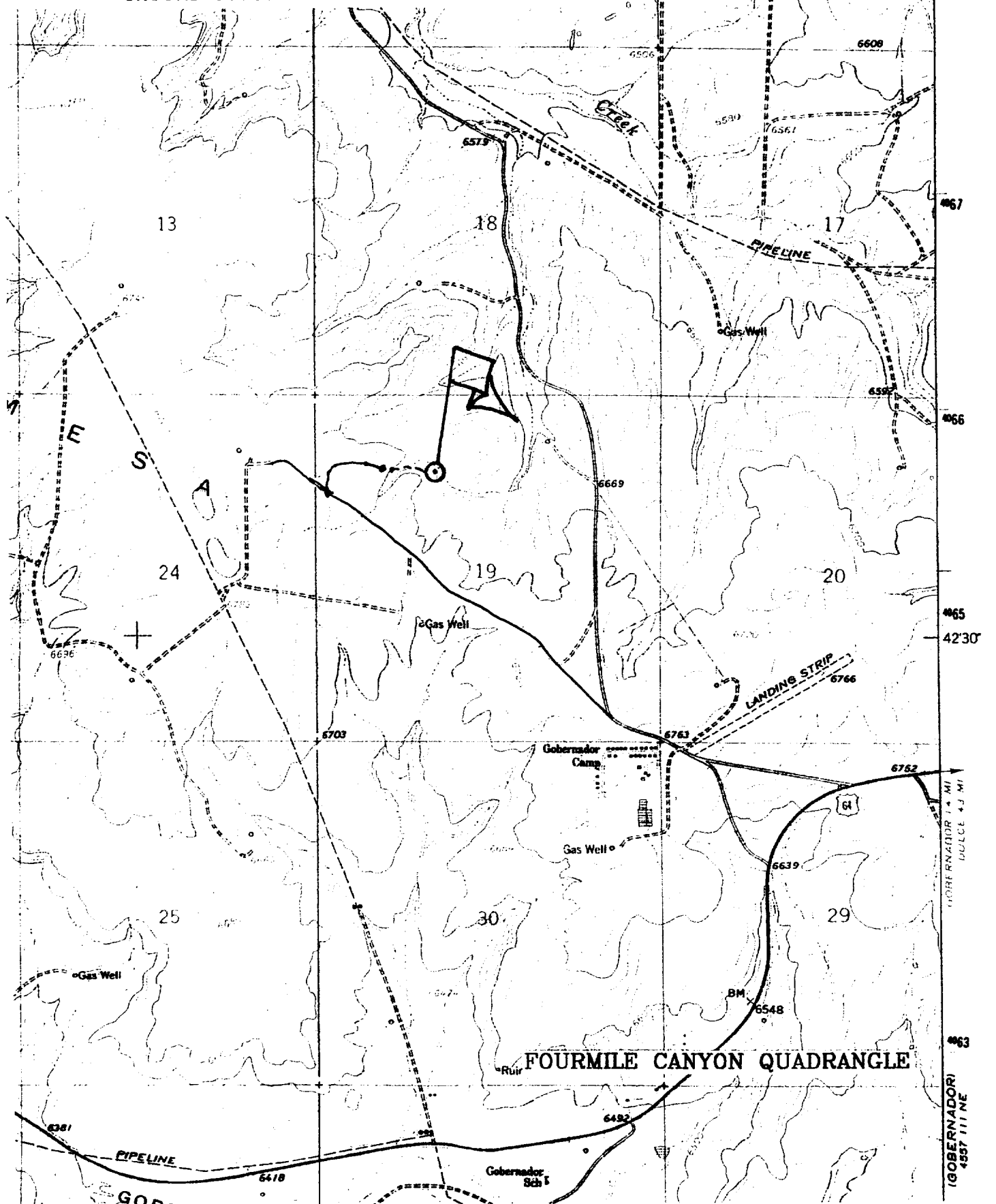
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C									

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320 W/2	Y	U	

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	S89°49'E 1185' 1835'	5280.00'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Patsy Clugston Printed Name Sr. Regulatory/Proration Clerk Title November 9, 2000 Date
5280.00'	SF-078282 1280.00 acres	5280.00'	
Section 19			
North			
	S89°46'E 5289.24'		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. 08/22/00 Date of Survey Signature and Seal of Professional Surveyer:  HENRY P. BROADHURST NEW MEXICO 1373 Certificate Number

RIO ARriba COUNTY, NEW MEXICO  
GROUND LEVEL ELEVATION: 6679'



## PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 29-5 Unit #51M MV/DK

### DRILLING PROGNOSIS

1. Location of Proposed Well: Unit C, 1185' FNL & 1835' FWL,  
Section 19, T29N, R5W

2. Unprepared Ground Elevation: @ 6679' (unprepared).

3. The geological name of the surface formation is San Jose.

4. Type of drilling tools will be rotary.

5. Proposed drilling depth is 8100'.

6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 1565'</u>	<u>Menefee Fm. - 5546'</u>
<u>Ojo Alamo - 2686'</u>	<u>Pt. Lookout - 5796'</u>
<u>Kirtland Sh - 2879'</u>	<u>Mancos Sh - 5965'</u>
<u>Fruitland Fm. - 3306'</u>	<u>Gallup Ss. - 6841'</u>
<u>Pictured Cliffs - 3581'</u>	<u>Greenhorn Ls. - 7779'</u>
<u>Lewis Shale - 3699'</u>	<u>Graneros Sh. - 7829'</u>
<u>Cliff House Ss - 5464'</u>	<u>Dakota Ss - 7950'</u>

7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 2686' - 2879'</u>
Gas & Water:	<u>Fruitland - 3306' - 3581'</u>
Gas:	<u>Mesaverde - 5464' - 5965'</u>
	<u>Dakota - 7950' - 8100' -</u>

8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, H-40 @ 320'  
Intermediate String: 7", 20#, J/K-55 @ 3824'  
Production String: 4-1/2", 11.6#, N-80 @ 8100' (TD)

9. Cement Program:

Surface String: 158.5 sx Type III cement with 2% bwoc CaCl<sub>2</sub> + 1/4#/sx Cello-flake mixed at 14.5 ppg with a 1.41 ft<sup>3</sup>/sx yield w/46.5% H<sub>2</sub>O or sufficient to circulate to surface - 223 cf.

Note: Cement slurry calculations based on cement to surface with 110% excess hole volume.

Intermediate String: **Lead Cement:** 459.6 sx Type III cement (35:65) POZ with 5#/sx Gilsonite, 1/4#/sx Cello-flake, 6% bwoc gel (bentonite), 10#/sx CSE, 3% bwow KCL, 0.4% bwoc FL-25 mixed and 0.02#/sx Static Free mixed at 12.0 ppg with a yield of 2.37 ft<sup>3</sup>/sx – 1089 cf.

**Tail Cement:** 50 sx – Type III cement with 1/4#/sx Cello-flake and 1% CaCl<sub>2</sub> mixed at 14.5 ppg with a 1.40 ft<sup>3</sup>/sx yield (70 cf).

In the event we encounter fluid loss during drilling operations, a contingency plan for cementing the intermediate casing may require a stage collar. Phillips cannot predict exact volumes. However the 1<sup>st</sup> stage will be CI H cement w/5#/sx Gilsonite, 0.25#/sx Cello-flake, 0.3% FL-25 & 2% CaCl<sub>2</sub> mixed at 15.2 ppg 1.28 yield. Stage 2 - lead slurry: 65 % Class H & 35% POZ w/6% Bentonite mixed at 12.6 ppg 1.79 cf/sx Tail Slurry - Class H w/2% CaCl<sub>2</sub> mixed at 15.6 ppg 1.20 yield. All attempt to be circulated to surface.

#### Production String

**Lead:** 335.9 sx Type III (35/65 POZ (Fly Ash) with 6% bwoc Bentonite, 10#/sx CSE, 0.2#/sx Static Free, 1% bwoc FL-52, 0.3% bwoc CD-32, 0.3% bwoc R-3 & 0.25#/sx Cello-Flake mixed at 12.3 ppg with a yield of 2.13 ft<sup>3</sup>/sx – 715 cf.

Note: The Production String casing cement is designed to cover openhole section (with 40% excess) and 100' inside the 7" shoe.

Note: Phillips Petroleum continually works to improve the cement slurries on our wells. BJ Services is currently trying to improve what we are using now and before we would use a new cement program it would have to have stronger properties than we are currently using.

#### Centralizer Program:

Surface: Total four (4) 1 @ 10' above shoe & top of 2<sup>nd</sup>, 4<sup>th</sup> & 6<sup>th</sup> joint

Intermediate: Total seven (7) – 10' above shoe, top of 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, & 8<sup>th</sup> jts & 1 jt. Above surface casing.

Production: None planned.

Turbulators: Total Three (3) – on intermediate casing at 1<sup>st</sup> jt. Below the Ojo Alamo and next 2 jts up.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.

## **BOP AND RELATED EQUIPMENT CHECK LIST**

### **3M SYSTEM:**

2 hydr. rams (pipe & blind) or hydr. ram and annular with blind ram on bottom

Kill Line (2-inch minimum)

1 kill line valve (2-inch minimum)

1 choke line valve

2 chokes (refer to diagram in attachment 1) on choke manifold

Upper kelly cock valve in open position with handle available

Safety valve (in open position) and subs to fit all drill strings in use (with handle available)

Pressure gauged on choke manifold

2 inch minimum choke line

Fill-up line above the uppermost preventer

*The BOPs will be pressure tested according to Onshore Order #2 III, A 1 and 30% safety factor.*