

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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. NMSF078997	
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. NMNM78419A, B & E	
3a. Address 5525 Highway 64, NBU 3004, Farmington, NM 87401		8. Lease Name and Well No. San Juan 30-5 Unit #49M	
3b. Phone No. (include area code) 505-599-3454		9. API Well No. 30-037-26803	
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface Unit D, 660' FNL & 660' 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 northeast of Blanco, NM		11. Sec., T., R., M., or Blk. and Surveyor Area Section 9, T30N, R5W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660'	16. No. of Acres in lease 2560 acres	17. Spacing Unit dedicated to this well N/2 DK & W/2 MV - both 320 ac	
18. Distance from proposed location* to nearest well, drilling completed, applied for, on this lease, ft.	19. Proposed Depth 7888'	20. BLM/BIA Bond No. on file ES0048	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6366' GL	22. Approximate date work will start* 4th 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 8/20/01
Title Sr. Regulatory/Proration Clerk		
Approved by (Signature) <i>/s/ Joel Fallon</i>	Name (Printed/Typed)	Date AUG 24
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 3165.3 and appeal pursuant to 43 CFR 3165.4.

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

NMOCD

District I
P.O. Box 1980, Hobbs, NM 88241-1980
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 AIX Number 30-039-26803	² Pool Code 72319	³ Pool Name Blanco Mesaverde
⁴ Property Code 009258	⁵ Property Name SAN JUAN 30-5 UNIT	⁶ Well Number 49M
⁷ OGRID No. D17654	⁸ Operator Name PHILLIPS PETROLEUM COMPANY	⁹ Elevation 6366'

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
D	9	30N	5W		660'	North	660'	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
D									

¹² Dedicated Acres 320.0 W/2	¹³ Joint or Infill Y	¹⁴ Consolidation Code U	¹⁵ 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

16 660' 660'	N89°42'E 5261.52'		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 4-3-2001 Date
5280.00' N00°01'E	SF-078997 2560 acres Section 9 SF-078997 N89°44'E 5260.20'		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. 03/09/01 Date of Survey Signature and Seal of Professional Surveyer: HENRY P. BROADHURST, JR. NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR

District I
191 Box 1980, Hobbs, NM 88241-1980
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

APN Number 30-039-26803		Pool Code 71599	Pool Name Basin Dakota
Property Code 009258	Property Name SAN JUAN 30-5 UNIT		Well Number 49M
OCRID No. 017654	Operator Name PHILLIPS PETROLEUM COMPANY		Elevation 6366'

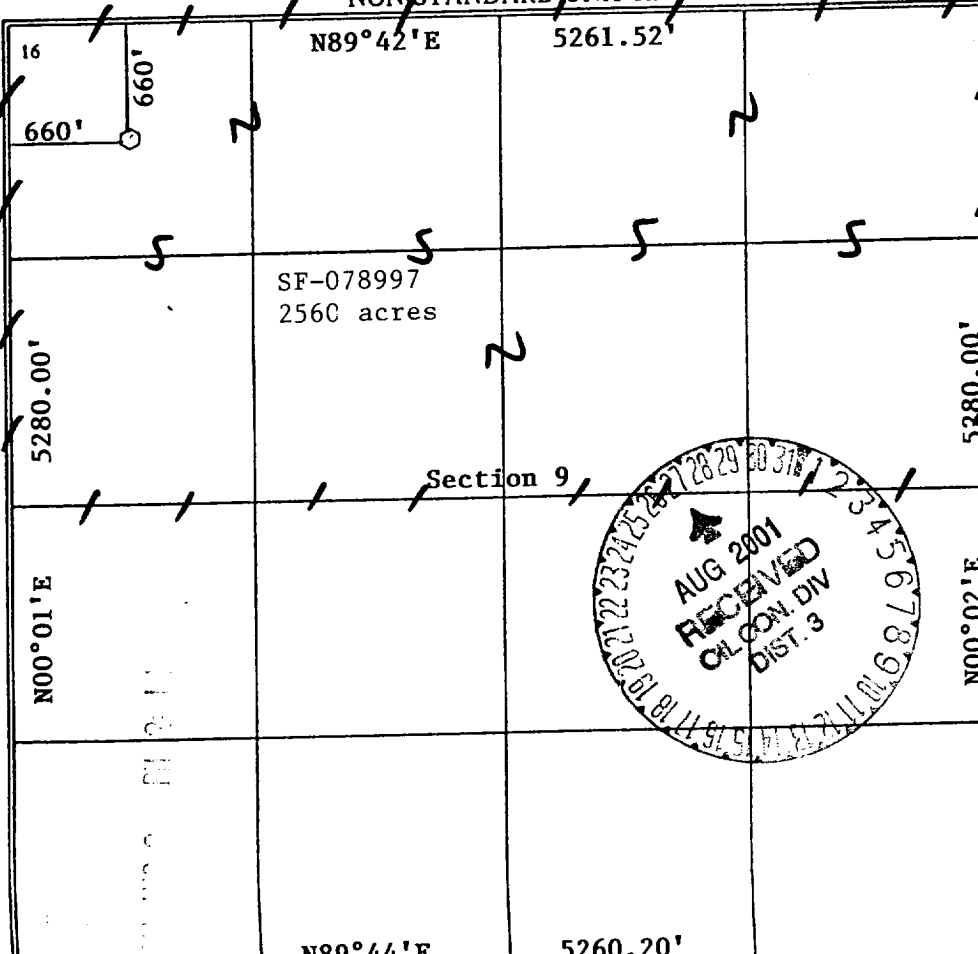
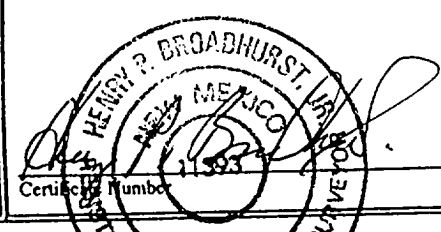
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	9	30N	5W		660'	North	660'	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
D									
Dedicated Acres 320 N/2		Joint or Infill Y	Consolidation Code U		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

	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Patsy Clugston</i> Signature Patsy Clugston Printed Name Sr. Regulatory/Proration Clerk Title 4-3-2001 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. 03/09/01 Date of Survey Signature and Seal of Professional Surveyor: 

PHILLIPS PETROLEUM COMPANY

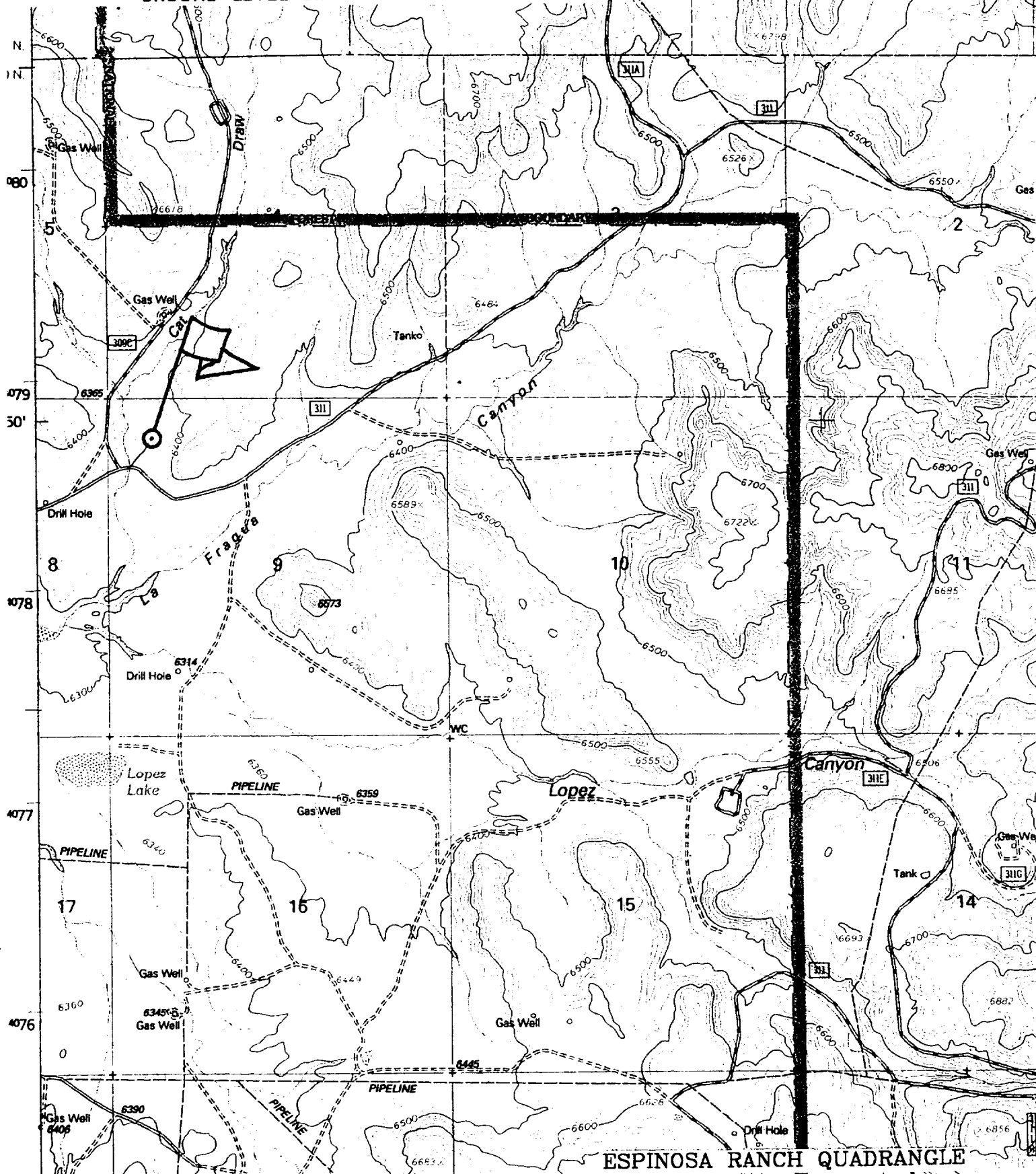
SAN JUAN 30-5 UNIT No. 49M

660' FNL, 660' FWL

NW/4 SEC. 9, T-30-N, R-05-W, N.M.P.M.,

RIO ARRIBA COUNTY, NEW MEXICO

GROUND LEVEL ELEVATION: 6366'



PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 30-5 Unit #49M MV/DK

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit D. 660' FNL & 660' FWL,
Section 9, T30N, R5W

2. Unprepared Ground Elevation: @ 6366' (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 7888'.

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

<u>Nacimiento - 1268'</u>	
<u>Ojo Alamo - 2434'</u>	<u>Menefee - 5331'</u>
<u>Kirtland Sh - 2562'</u>	<u>Pt. Lookout - 5549'</u>
<u>Fruitland Fm. 2962'</u>	<u>Mancos Sh - 5820'</u>
<u>Pictured Cliffs - 3145'</u>	<u>Gallup Ss - 6723'</u>
<u>Lewis Shale - 3411'</u>	<u>Graneros Sh - 7612'</u>
<u>Cliffhouse - 5274'</u>	<u>Dakota Ss - 7738'</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 - 2434' - 2562'</u>
Gas & Water:	<u>Fruitland - 2962' - 3145'</u>
Gas:	<u>Mesaverde - 5274' - 5549'</u>
	<u>Dakota - 7738' - 7888' ✓</u>

8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, J/K-55 @ 320' *

Intermediate String: 7", 20#, J/K-55 @ 3556' (J-55 will be used, unless the K-55 is the only casing available.

Production String: 4-1/2", 11.6#, I-80 @ 7888' (TD)

* The surface casing will be set at a minimum of 320', but could be set deeper if required to maintain hole stability.

circulate cement

9. Cement Program:

Surface String: 197.7 sx Type III cement + 2% bwoc Calcium Chloride + 0.25#/sx Cello-flake + 60.6% FW (1.41 yield = 279 cf).

Intermediate String: **Lead Cement:** 445.5 sx Type III cement (35:65) Poz + 5#/sx Gilsonite + 0.25 #/sx Cello-Flake + 6% bwoc Bentonite + 10#/sx CSE + 3% bwow KCL + 0.4% bwoc FL-25 + 0.02#/sx static free + 129% FW (2.37 yield = 1056 cf). Cement to surface with 120% excess casing/hole annular volume.

Tail Cement: 50.0 sx Type III cement + 0.25#/sx Cello-Flake + 1% Calcium Chloride + 60.5% FW (1.4 yield = 70 cf). Cement to surface with 120% excess of casing/hole annulus volume.

Production String *: **Lead Cement:** 50 sx Type III (35:65) POZ L (Fly Ash L) with 6% gel Bentonite, 5#/sx Phenoseal, 0.2% bwoc CD-32, 0.75 bwoc FL-52 1#/sx LCM-1 0.25#/sx Cello-Flake, 10#/sx CSE, 0.02#/sx Static Free (2.34 yield = 117 cf).

2nd Lead Cement: 229.8 sx Type III (35:65) POZ L (Fly Ash L) with 6% gel Bentonite, 2.5#/sx Phenoseal, 0.2% bwoc CD-32, 0.75 bwoc FL-52 1#/sx LCM-1 0.25#/sx Cello-Flake, 10#/sx CSE, 0.02#/sx Static Free (2.32 yield = 533 cf)

Tail Cement - 20 sx Type III (35:65) POZ L (Fly Ash L) with 6% gel Bentonite, 5#/sx Phenoseal, 0.2% bwoc CD-32, 0.75 bwoc FL-52 1#/sx LCM-1 0.25#/sx Cello-Flake, 10#/sx CSE, 0.02#/sx Static Free (1.91 yield = 38 cf).

*The production casing cement is calculated to cover the openhole interval with 50% excess and annular volume 200' within intermediate shoe. Depending on hole conditions, the well may be cemented in a single stage or two staged.

Centralizer Program:

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

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

Production: None planned.

Turbulators: Total Three (3) – on intermediate casing at 1st 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.
11. Drilling Mud Prognosis: Surface - spud mud on surface casing.
 Intermediate - spud mud generated from natural clays with gel sweeps pretreated w/LCM before entering coal interval.
 Below Intermediate - air or gas drilled.
12. The testing, logging, and coring programs are as follows:
D.S.T.s or cores: _____
Logs: GR/CCL/CBL & GSL over zones of interest
13. Anticipated no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H₂S equipment will be used.

Estimated Bottomhole pressure:
 Fruitland – 600 psi
 Mesaverde - 900 psi
 Dakota – 1800 psi
14. The anticipated starting date is approximately 4th Qtr 2001 with duration of drilling / completion operations for approximately 20 days thereafter.

2001drill\305#49M mvdKprog

San Juan 30-5 Unit #49M (MV/DK)

SURFACE CASING :

Drill Bit Diameter	12.25 "	
Casing Outside Diameter	9.625 "	8.989
Casing Weight	32.3 ppf	
Casing Grade	H-40	
Shoe Depth	320 '	
Cement Yield	1.41 cuft/sk	
Excess Cement	165 %	

Hole / Casing Annulus Capacity 0.0558 bbl/ft 0.3132 cuft/ft

Cement Required 197.7 sx

SHOE 320 ', 9.625 ", 32.3 ppf, H-40

INTERMEDIATE CASING :

Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	6.455
Casing Weight	20 ppf	
Casing Grade	J-55	
Shoe Depth	3556 '	
Lead Cement Yield	2.37 cuft/sk	
Lead Cement Excess	120 %	
Tail Cement Length	211.6 '	
Tail Cement Yield	1.4 cuft/sk	
Tail Cement Excess	120 %	

Casing / Casing Annulus Capacity 0.0309 bbl/ft 0.1734 cuft/ft

Hole / Casing Annulus Capacity 0.0268 bbl/ft 0.1503 cuft/ft

Casing Capacity 0.0405 bbl/ft 0.2272 cuft/ft

Lead Cement Required 445.5 sx

Tail Cement Required 50.0 sx

SHOE 3556 ', 7 ", 20 ppf, J-55

PRODUCTION CASING :

Drill Bit Diameter	6.25 "	
Casing Outside Diameter	4.5 "	4.000
Casing Weight	11.6 ppf	
Casing Grade	I-80	
Shoe Depth	7888 '	
Lead Cement Yield	2.33 cuft/sk	
Lead Cement Excess	50 %	Lap
Tail Cement Length	248 '	200 '
Tail Cement Yield	1.91 cuft/sk	
Tail Cement Excess	50 %	

Casing / Casing Annulus Capacity 0.0208 bbl/ft 0.1168 cuft/ft

Hole / Casing Annulus Capacity 0.0183 bbl/ft 0.1026 cuft/ft

Casing Capacity 0.0155 bbl/ft 0.0872 cuft/ft

Lead Cement Required 279.8 sx

Tail Cement Required 20.0 sx

SHOE 7888 ', 4.5 ", 11.6 ppf, I-80

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.