Form 3160-3
(August 1999)

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

5. Lease Serial No.
NMSF080377

1a. Type of Work [X] DRILL [ ] REENTER

6. If Indian, Alloteeor Tribe Name

1b. Type of Well [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

7. Unit or CA Agreement Name and No.
San Juan 29-6 Unit-NMNM78416A

2. Name of Operator
Phillips Petroleum Company 1454

8. Lease Name and Well No.
SJ 29-6 Unit #66B

3a. Address
5525 Highway 64, NBU 3004, Farmington, NM 87401

3b. Phone No. (include area code)
505-599-3454

9. API Well No.
30-039-26800

4. Location of Well (Report location clearly and in accordance with any State equirements)*
At surface Unit L, 1734' FSL & 493' FWL

10. Field and Pool, or Exploratory
Blanco Mesaverde

At proposed prod. zone same as above

11. Sec., T., R., M., or Blk. and Survey or Area
Sec. 9, T29N, R6W

14. Distance in miles and direction from nearest town or post office*
20 miles east of Blanco, NM

12. County or Parish
Rio Arriba

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
493'	1278.0 acres	320 acres W/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	6162'	ES0048
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will start*	23. Estimated duration
6673' GL	4th Qtr 2001	20 days

AUG 2001
RECEIVED
OIL CON. DIV.
DIST. 3

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.
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	Name (Printed/Typed)	Date
Patsy Clugston	Patsy Clugston	8/7/01

Title
Sr. Regulatory/Proration Clerk

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Joel Farrell		AUG 28
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 knowlingly 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
PO 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] API Number	[2] Pool Code	[3] Pool Name
30-039-26800	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
009257	SAN JUAN 29-6 UNIT	66B

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	PHILLIPS PETROLEUM COMPANY	6673'

[10] Surface Location

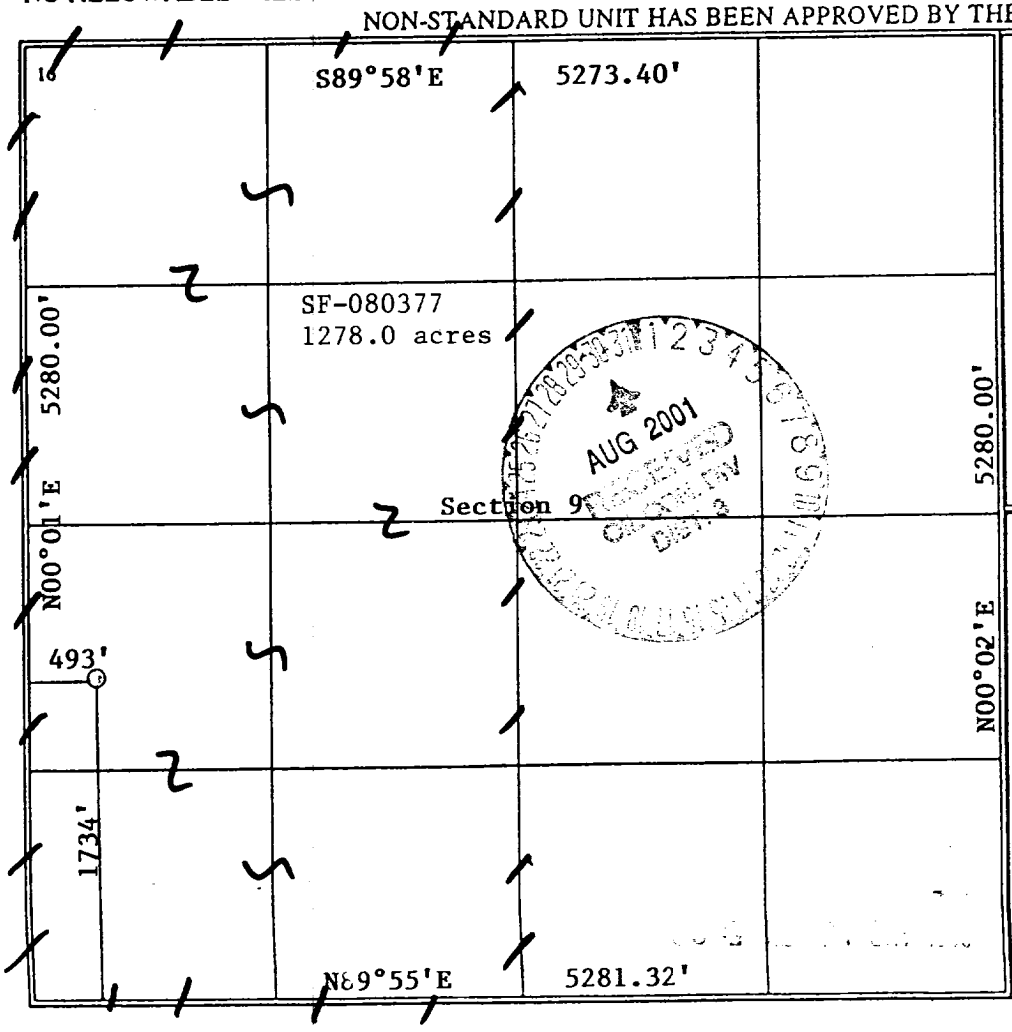
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	9	29N	6W		1734'	SOUTH	493'	WEST	RIO ARRIBA

[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
L									

[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



[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

Patsy Clugston
Printed Name

Sr. Regulatory/Proration Clerk
Title

5/7/01
Date

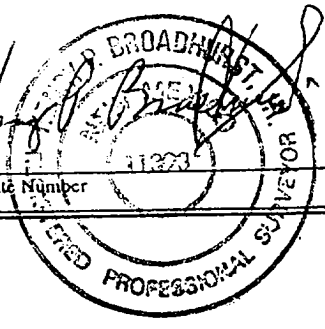
[18] SURVEYOR CERTIFICATION

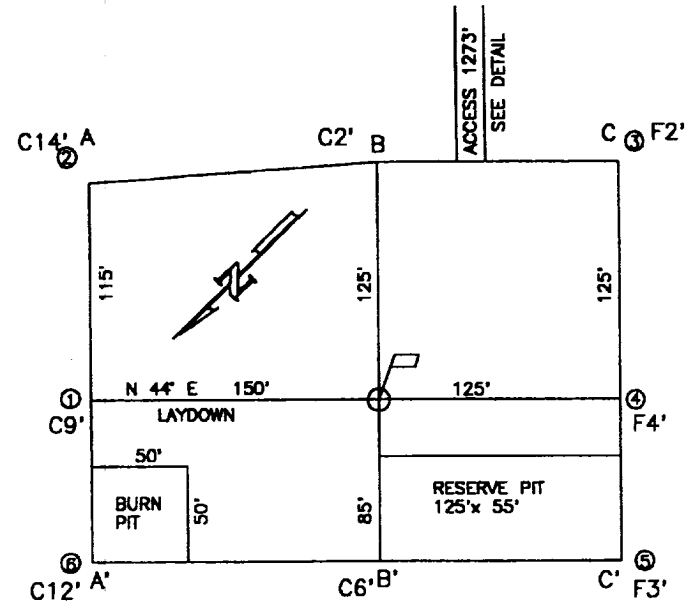
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

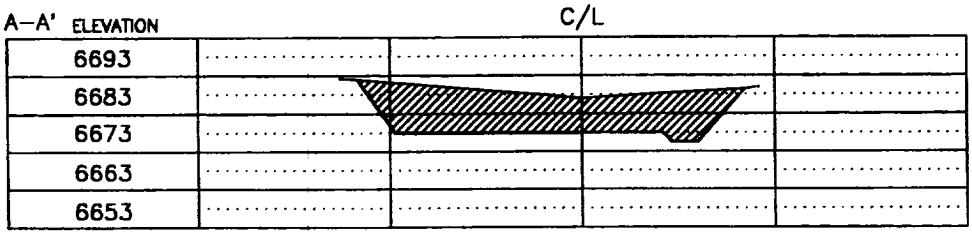
04/19/01
Date of Survey

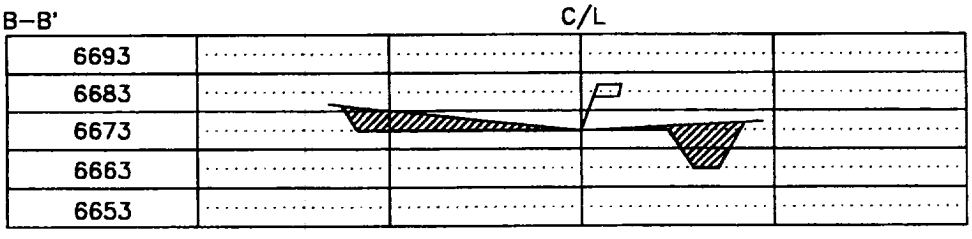
Signature and Seal of Professional Surveyer:

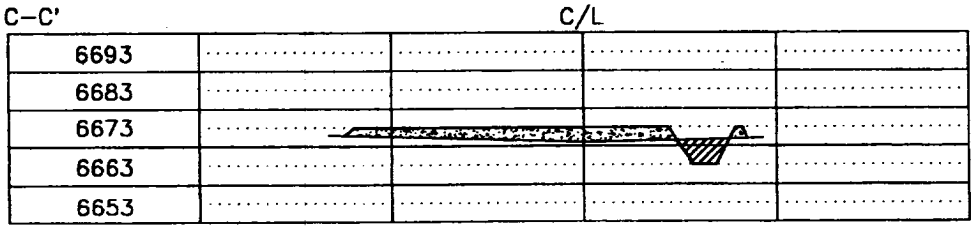
Certificate Number

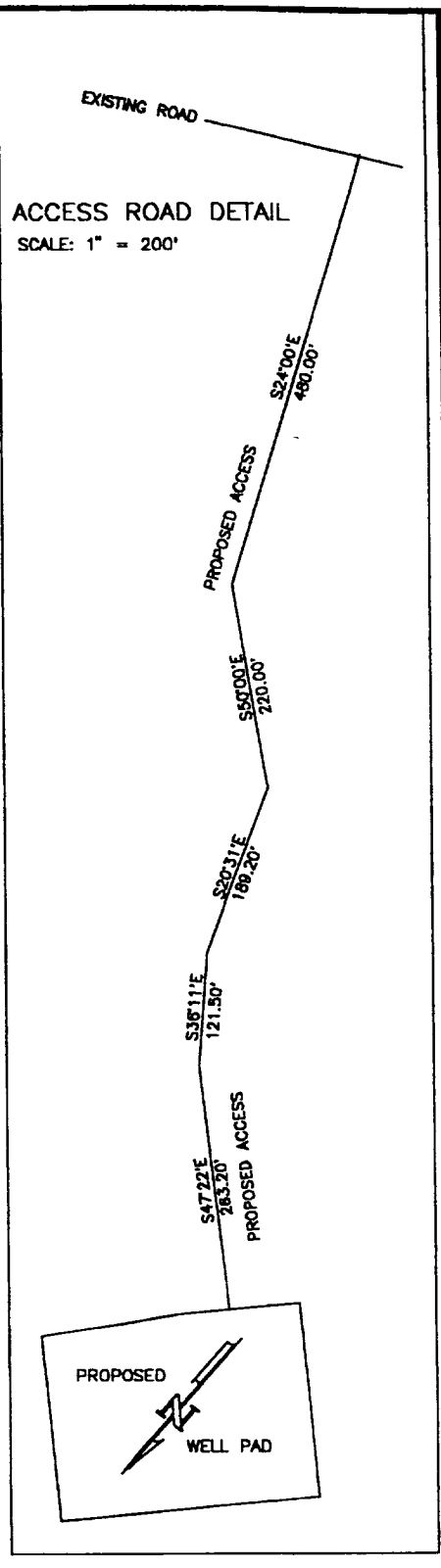












COMPANY: PHILLIPS PETROLEUM CO.

LEASE: SAN JUAN 29–6 UNIT NO. 66B

FOOTAGE: 1734 FSL 493 FWL UNIT L

SEC. 9 TWN. 29 N RNG. 6 W N.M.P.M.

COUNTY: RIO ARRIBA STATE: N.M.

ELEVATION: 6673

LATITUDE: 36–44–16

LONGITUDE: 107–28–30

PHILLIPS 66

PHILLIPS PETROLEUM CO.

FARMINGTON, NEW MEXICO

SURVEYED: 4/19/01	REV. DATE:	APP. BY
DRAWN BY: K.REA	DATE DRAWN: 4/20/01	FILE NAME: UF143

UNITED FIELD SERVICES INC.

P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505)334-0408

PHILLIPS PETROLEUM COMPANY

SAN JUAN 29-6 UNIT No. 66B

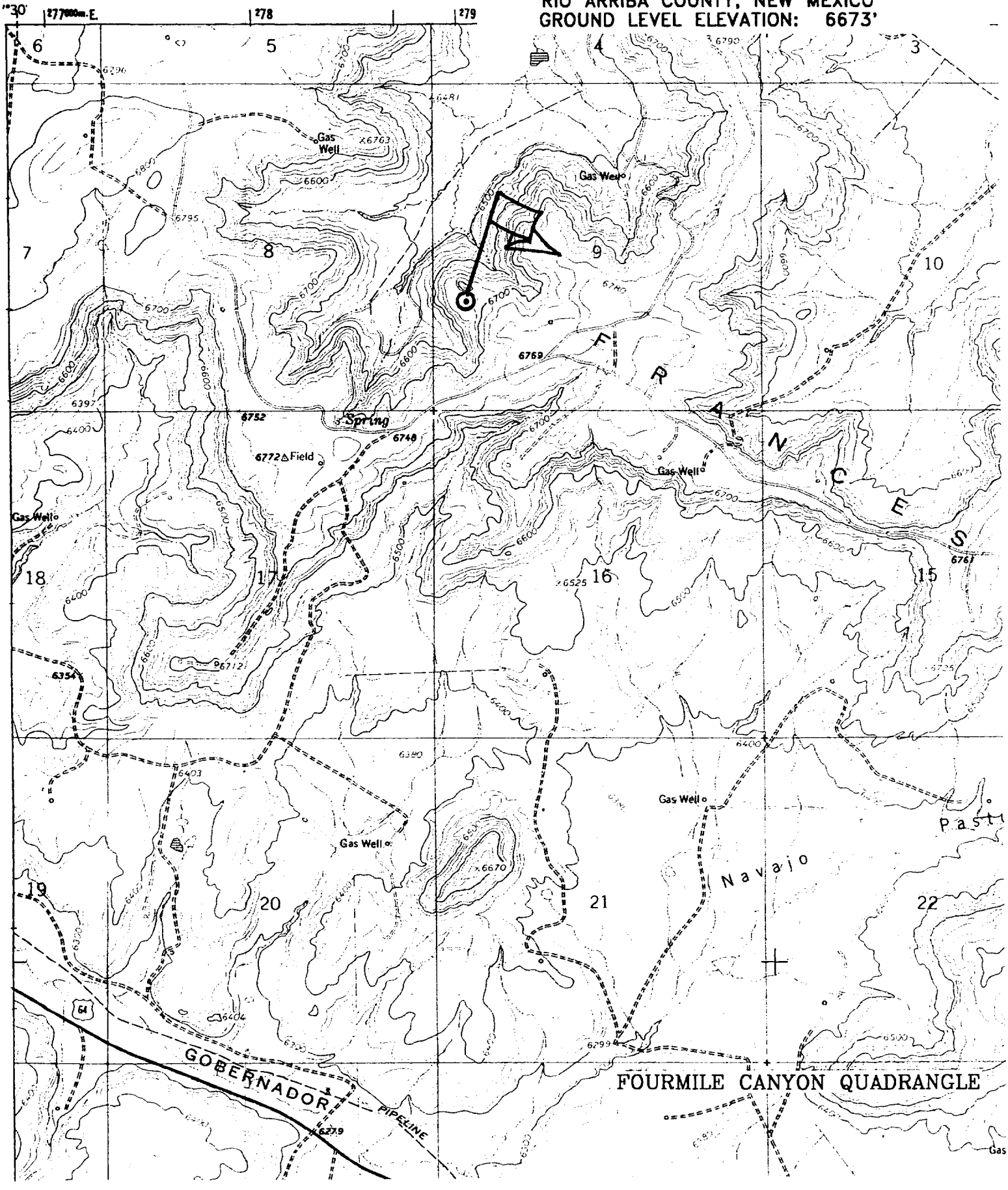
1734' FSL, 493' FWL

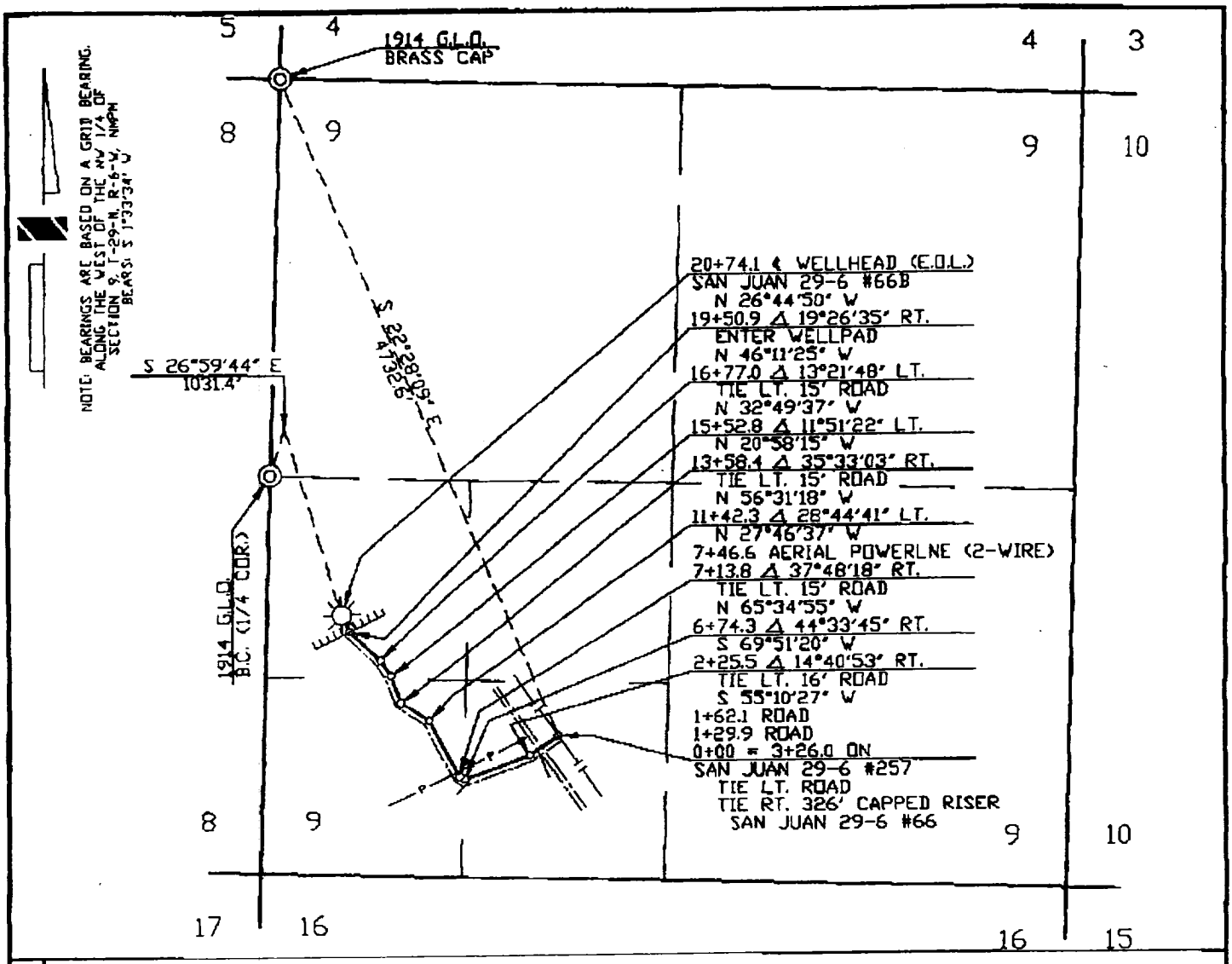
SW/4 SEC. 9, T-29-N, R-06-W, N.M.P.M.,

RIO ARRIBA COUNTY, NEW MEXICO

GROUND LEVEL ELEVATION: 6673'

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY





PIPE DATA

OWNERSHIP

SUBDIVISION	OWNER	FEET	MILES	ACRES	RODS
0+00 TO 20+74.1	GOMEZ y GOMEZ, INC.	2074.1	0.393	1.905	125.703

REVISION

NO.	DATE	BY	DESCRIPTION	W.O.NO.	CHK.	APP.
1	5/03/01	RS	ISSUED FOR REVIEW		PB	

NO.	DATE	BY	DESCRIPTION	W.O.NO.	CHK.	APP.

INFO		DRAFTING	BY	DATE
R/W #:	04904	DRAWN BY	RS	5/03/01
METER #:		CHECKED BY	PB	5/04/01
SURVEYED:	4/24/01	APPROVED BY		
		ENGINEER	BY	DATE
		DESIGNED BY		
		PROJ. APPROVED		

STATE: NEW MEXICO
COUNTY: RIO ARRIBA

WILLIAMS GAS PROCESSING
ONE OF THE WILLIAMS COMPANIES

SAN JUAN GATHERING SYSTEM
PPCO - SAN JUAN 29-6 UNIT #66B
0+00 = 3+26.0 ON SAN JUAN 29-6 #257
(REF DWG. 6G765.0-27-1)
SEC. 9, T-29-N, R-6-W, NMPM

SCALE: 1" = 1000'
W.O. NO.

DWG. NO. 6G765.0-42-1

SHEET 1 OF 1 | REV 1

T:\GIS\MAPPING\DRAWINGS\SANJUAN\765\00\6G765D-42-1_RDI.DWG 05/07/2001 9:05AM PAUL B

SURFACE USE PLAN

Phillips Petroleum Company, San Juan 29-6 Unit #66B, NNWSW/4, Section 9, T29N, R6W, Rio Arriba County, New Mexico. (Federal Lease No. SF-080377).

This plan is to accompany Application for "Permit to Drill" the subject well which is located approximately 20 miles east of Blanco, New Mexico. The following is a discussion of pertinent information concerning the possible effect which the proposed drilling well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and sub-contractors will be aware of all items of this plan.

1. **Directions to well and pad mitigation:**

Directions:

To reach the proposed location, take US 64 east of Blanco to NM 527and go to mile post 102 + .5. Turn left on NM 527 ½ mile. Turn left thru double cattleguard and follow lease road thru 2 locked gates 5.5 miles. Turn right ¼ mile to location.

Pad Mitigation:

The top 6" of topsoil will be stockpiled for surface rehab. Pad drainage will be above the cut on the north side draining west. Will rehab pad back to a 3:1 ratio. The pit will be lined. No compressor or pump-jack is planned for this well at this time. Downed trees will be asdirected by fee title owner. Will use the BLM's Seed Mix #3 for surface rehab. All surface equipment will be painted Fed Juniper Green.

2. **Planned Access Roads:**

A. The access road is shown on the attached map. All existing roads used to access the proposed location shall be maintained in the same or better condition than presently found. The access road is to be classified "Temporary Resource Road".
B. Turnouts: None
C. Culverts, Cuts and Fills: See cut and Fill Sketch.
D. Surfacing Material: Natural materials at the well site.
E. Gates, Cattleguards, Fences: As required
F. Proposed Road: 1273' new access.

3. **Location of Existing Wells** – see Attachment II – location of wells with a 1 mile radius: **Section 9** – 29-6 #66A, #257, #259, #64, #66, #257R, #64A, **Section 8** – 29-6 #245, #19R, #246, #20, #19A, **Section 17** – 29-6 #71, #209, **Sec. 16** – 29-6 #38A, #93, #94M, #260, #37, **Sec. 10** - 29-6 #31B, **Sec. 4** - 29-6 #54, #216, **Sec. 5** – 29-6 # 59A

4. **Location of Tank Batteries, Production Facilities, Production Gathering and Service Lines:**

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion (including compression). The condensate tank will be enclosed by a dike. Upon completion of drilling, the location and surrounding area will be cleared of debris.

The flow-line from this well will have to be constructed. It will be 4-1/2" diameter buried steel gas pipeline that is125.703 rods = 2071.1' in length (see WFS Survey). It will run adjacent to the access road and tie into SJ 29-6 #66. The pipe-wall thickness is 0.156" and the pipe-wall strength is X-42. The line is owned & operated by Williams Energy Group. This pipeline will be used to transport gas to drill the well. Williams will be getting pipeline approval from the Surface Owner.

If this well makes any water it will be stored on location in storage tanks and then trucked to an approved SWD facility.

5. **Water Supply Source:** Will be provided by the drilling contractor and trucked to the drilling site. See Attachment No. 1 - WATER SUPPLY SOURCES.

6. **Source of Construction Materials:**

No additional construction materials will be required to build the proposed location. The dirt from the reserve pit will be back-sloped and saved for use when the pit is rehabilitated.

7. **Methods for Handling Waste Disposal:**

A. A Conventional Drilling System will be used. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be fenced with wire mesh on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The reserve pit will be backfilled and leveled as soon as practical.

B. All garbage and trash will be placed in specially constructed wire mesh containers. Upon cleanup, the refuse in the containers will be hauled to an approved landfill site.

All produced water will be collected in tanks until piped and transported to an approved disposal system.

8. **Ancillary Facilities:** None

9. **Well Site Layout:** Attached sketch shows the relative location and dimensions of the well pad, and reserve pit. Location will be 275' X 210'.

10. **Plans for Restoration of Surface:**

Pit will be filled and leveled as soon as practical. If well is productive, drilling pad will remain as well service pad. If dry hole, the pad will be ripped and re-seeded per regulations. Reserve pit dirt will be saved to be used during restoration of the pit area.

11. **Other Information:**

A. Terrain/Topography: located on a mesa north of Frances Canyon.
B. Soil: Sandy and clay loam, Vessilla-Menefee-Orlie Mapping complex.
C. Vegetation: Pad is in a pinyon/juniper vegetation community with approximately 10 to 15 percent ground cover.
D. Surface Use: grazing, and gas development.
F. Residences and Buildings: There are no occupied residences or buildings within one quarter of a mile of the proposed well location.
G. Arroyos, Canyons, etc.: not is it in a BLM vulnerable watershed area.
H. Well Sign: Sign identifying and locating the well will be maintained at drill site with the spudding of the well.
J. Archaeological Resources: See Archaeological Survey LAC Report 2001-8r. There was one cultural resource encountered during the survey, but it can be avoided.

12. **Operator's Representives:** Field personnel who can be contacted concerning compliance of the Surface Use Plan is as follows:

Drilling and Production

Thomas Ferg
5525 Hwy. 64
Farmington, NM 87401
Phone: 505-599-3424

or

R. A. Allred
5525 Hwy. 64
Farmington, NM 87401
Phone: 505-599-3403

13. **Surface Ownership:** Gomez Ranch

14. **Certification:**

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by Phillips Petroleum Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Thomas E. Ferg
Typed or Printed Name

Thom E. Ferg
Signature

8-7-01
Date

296#66Bmvsup.doc

PHILLIPS PETROLEUM COMPANY
BORGER REGION OFFICE
P. O. BOX 358
BORGER, TEXAS 79008-0358

PROPERTY TAXES, REAL ESTATE AND CLAIMS

FAX: 806-275-3706

May 17, 2001

Drill San Juan 29-6 Unit #66B & #19B

Rio Arriba County, New Mexico
Rio Arriba 293 and 294
Gomez Y Gomez

Gomez Y Gomez
c/o Mr. Celso Gomez
Gomez Ranch
Blanco, New Mexico 87412

Dear Celso:

Phillips Petroleum Company has plans to drill the following wells on your land in Rio Arriba County, New Mexico as follows:

San Juan 29-6 Unit #66B Section 9, T29N, R6W 1734' FSL and 493' FWL
San Juan 29-6 Unit #19B Section 8, T29N, R6W 373' FNL and 10' FEL

The Farmington Office has advised me that the wellhead and part of the location for the San Juan 29-6 Unit #19B well is on BLM land. I am enclosing plats showing the location of these wells. At this time, we do not have actual spud dates for these wells. As soon as the Farmington Office advises me of same, I will promptly notify you.

Please indicate your acknowledgement in the space provided below of Phillips Petroleum Company's plan to drill the above wells on your property. I would appreciate your sending the signed copy of the letter back to me in the envelope provided, which is postage paid. If you prefer, you could drop the signed copy of this letter off at our Farmington Office and give it to either Richard Allred or Patsy Clugson. Please give Richard Allred a call if you have any questions about these wells. I will send out the well location payments to you when we get closer to the spud dates for these wells.

Phillips appreciates your assistance in the matter of the drilling of these wells. I can be reached at 806 275-3704 in Borger, Texas, and Richard Allred's number in the Farmington Office is 505 599-3401. Thank you.

Sincerely,

Mike Moore

Michael J. Moore
Enclosure

Signed this _____ day of May, 2001.

_____
Celso Gomez for Gomez Y Gomez

PHILLIPS PETROLEUM COMPANY
BORGER REGION OFFICE
P. O. BOX 358
BORGER, TEXAS 79008-0358

FAX: 806-275-3706

PROPERTY TAXES, REAL ESTATE AND CLAIMS

May 17, 2001

Drill San Juan 29-6 Unit #66B & #19B

Rio Arriba County, New Mexico
Rio Arriba 293 and 294
Gomez Y Gomez

Gomez Y Gomez
c/o Mr. Celso Gomez
Gomez Ranch
Blanco, New Mexico 87412

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Please indicate your acknowled[illegible] to drill the above wells on yo[illegible] back to me in the envelope pr[illegible] of this letter off at our Farmin[illegible] Richard Allred a call if you ha[illegible] payments to you when we get

Phillips appreciates your assis[illegible] 3704 in Borger, Texas, and P[illegible] you.

Sincerely,

Mike Moore

Michael J. Moore
Enclosure

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
GOMEZ Y GOMEZ
C/O MR CELSO GOMEZ
GOMEZ RANCH
BLANCO, NM 87412

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) Tim Gomez B. Date of De MAY 23 200[illegible]
C. Signature X [signature] ☐ Agent ☐ Addre
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchand
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label) 7099 3220 0006 1137 2349

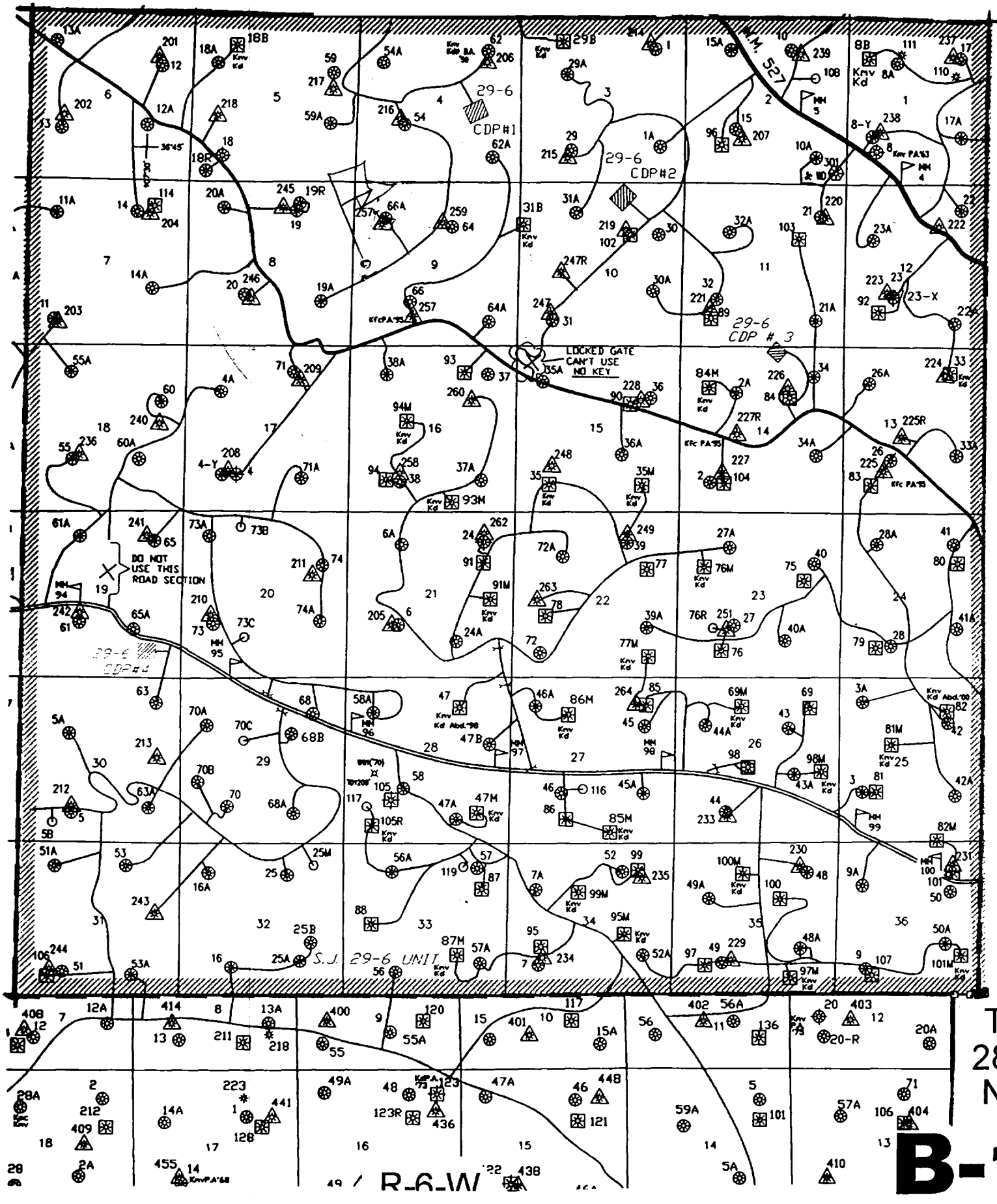
PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-095

Signed this _____ day of May, 2001.

_____
Celso Gomez for Gomez Y Gomez

SJ 29-6 Unit #66B

L, 1734' FSL 493' FWL



ATTACHMENT II

B-1

PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 29-6 Unit #66B MV

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit L. 1734' FSL & 493' FWL, Section 9, T29N, R6W

2. Unprepared Ground Elevation: @ 6673' (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 6162'.

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

Naciamento - 1385'	Lewis Shale - 3730'
Ojo Alamo - 2670'	Cliff House Ss – 5347'
Kirtland Sh - 2803'	Menefee Fm. - 5435'
Fruitland Fm. 3225'	Pt. Lookout - 5734'
Pictured Cliffs –3585'	Mancos Sh - 6022'

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

Water:	Ojo Alamo - 2670' – 2803'
Gas & Water:	Fruitland - 3225' – 3585'
Gas:	Mesaverde - 5734' – 6022'

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 @ 3855' (J-55 will be used, unless the K-55 is the only casing available.
Production String: 4-1/2", 11.6#, J-55 @ 6162' (TD)

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

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:** 487.2 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 = 1155 cf). Cement to surface with 110% 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 110% 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: 96 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 = 223 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 60% 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 H_2S equipment will be used.

Estimated Bottomhole pressure:
Mesaverde - 1000 psi

14. The anticipated starting date is approximately 4th Qtr 2001 with duration of drilling / completion operations for approximately 20 days thereafter.

2001drill\296#66Bmvprog

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.

drilling\BOPck_lst

ATTACHMENT 1

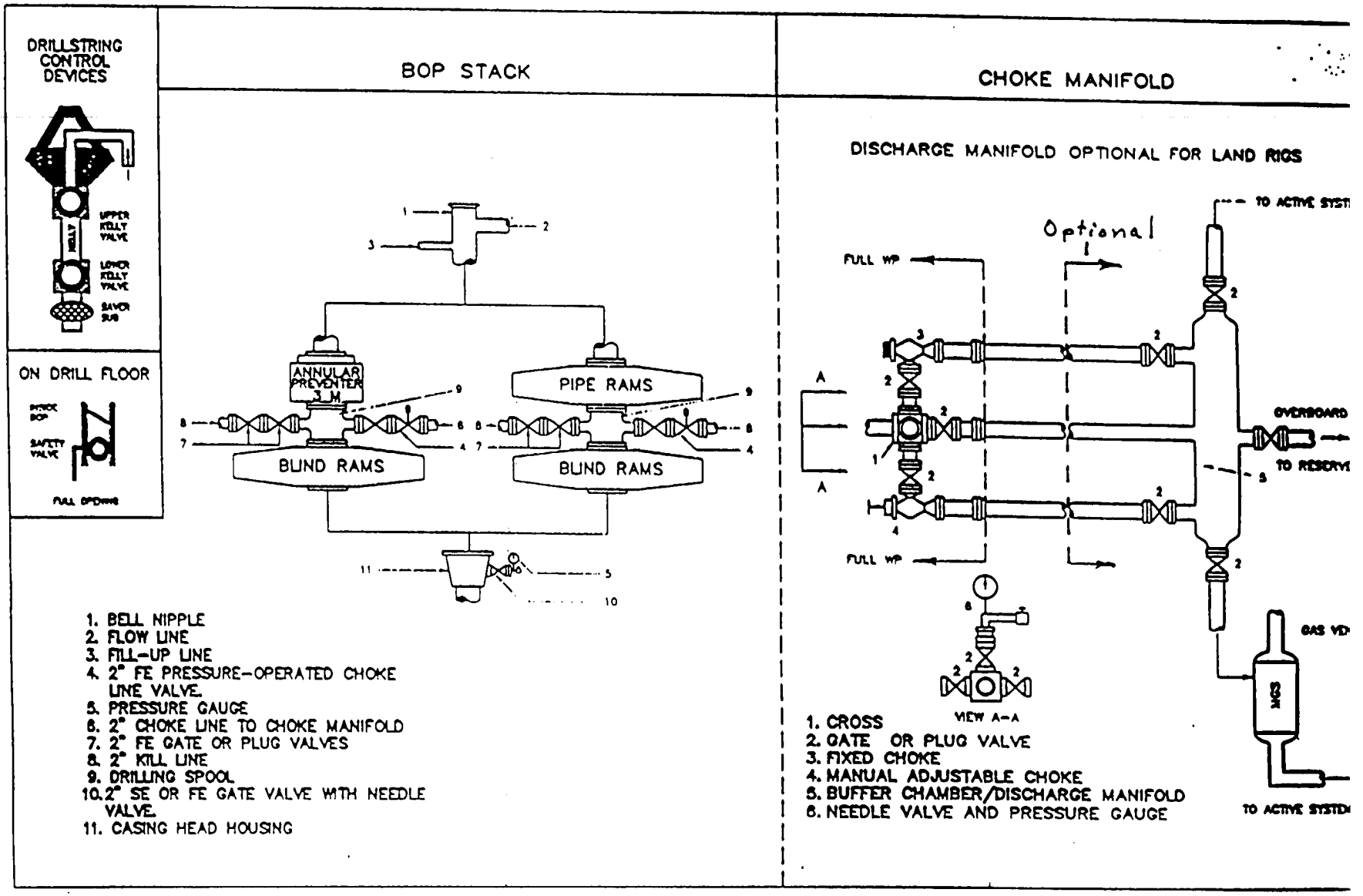
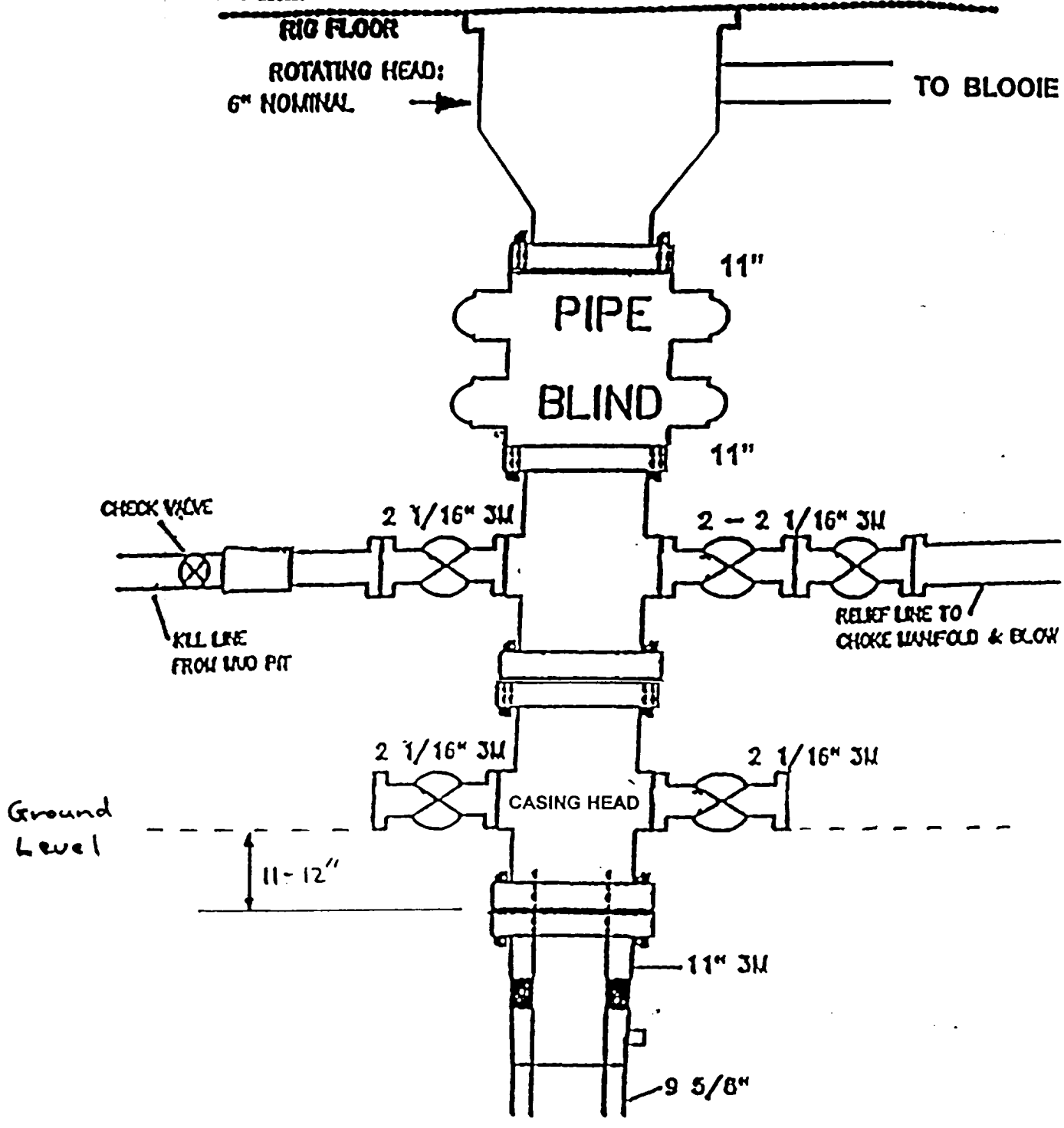


Fig. 2.4. Class 2 BOP and Choke Manifold.

AIR DRILLING BOP / WELLHEAD CONFIGURATION



San Juan 29-6 Unit #66B
SF-80377; Unit L, 1734' FSL & 493' FWL
Section 9, T29N, R6W; Rio Arriba County, NM

Cathodic Protection

Phillips proposes to drill a cathodic protection deep well groundbed for the subject well. Will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on existing well pad and a Farmington based company will be doing the drilling for Phillips.

WATER SUPPLY SOURCE
Surface Use Plan

Attachment No 1

Depending on which drilling contractor is used, the water for drilling and completion operations will come from one of the following locations:

1. San Juan River at Blanco Bridge, NW SE SE Section 18, T29N, R9W.
2. 29-6 Waterhole in Unit L, Section 28, T29N, R6W.
3. Navajo Reservoir, SW NW SE Section 14, T30N, R7W.
4. Sims Mesa (SJ #14) NW SW Section 35, T31N, R7W.
5. La Jara Water Hole, Unit M, Section 11, T30N, R6W.
6. Pine River
7. City of Ignacio, CO.
8. Produced Water
9. City of Aztec, NM.

SURFACE USE PLAN

Phillips Petroleum Company, San Juan 29-6 Unit #66B, NNWSW/4, Section 9, T29N, R6W, Rio Arriba County, New Mexico. (Federal Lease No. SF-080377).

This plan is to accompany Application for "Permit to Drill" the subject well which is located approximately 20 miles east of Blanco, New Mexico. The following is a discussion of pertinent information concerning the possible effect which the proposed drilling well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and sub-contractors will be aware of all items of this plan.

1. **Directions to well and pad mitigation:**

Directions:

To reach the proposed location, take US 64 east of Blanco to NM 527and go to mile post 102 + .5. Turn left on NM 527 ½ mile. Turn left thru double cattleguard and follow lease road thru 2 locked gates 5.5 miles. Turn right ¼ mile to location.

Pad Mitigation:

The top 6" of topsoil will be stockpiled for surface rehab. Pad drainage will be above the cut on the north side draining west. Will rehab pad back to a 3:1 ratio. The pit will be lined. No compressor or pump-jack is planned for this well at this time. Downed trees will be asdirected by fee title owner. Will use the BLM's Seed Mix #3 for surface rehab. All surface equipment will be painted Fed Juniper Green.

2. **Planned Access Roads:**

A. The access road is shown on the attached map. All existing roads used to access the proposed location shall be maintained in the same or better condition than presently found. The access road is to be classified "Temporary Resource Road".
B. Turnouts: None
C. Culverts, Cuts and Fills: See cut and Fill Sketch.
D. Surfacing Material: Natural materials at the well site.
E. Gates, Cattleguards, Fences: As required
F. Proposed Road: 1273' new access.

3. **Location of Existing Wells** – see Attachment II – location of wells with a 1 mile radius: **Section 9** – 29-6 #66A, #257, #259, #64, #66, #257R, #64A, **Section 8** – 29-6 #245, #19R, #246, #20, #19A, **Section 17** – 29-6 #71, #209, **Sec. 16** – 29-6 #38A, #93, #94M, #260, #37, **Sec. 10** - 29-6 #31B, **Sec. 4** - 29-6 #54, #216, **Sec. 5** – 29-6 # 59A

4. **Location of Tank Batteries, Production Facilities, Production Gathering and Service Lines:**

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion (including compression). The condensate tank will be enclosed by a dike. Upon completion of drilling, the location and surrounding area will be cleared of debris.

The flow-line from this well will have to be constructed. It will be 4-1/2" diameter buried steel gas pipeline that is125.703 rods = 2071.1' in length (see WFS Survey). It will run adjacent to the access road and tie into SJ 29-6 #66. The pipe-wall thickness is 0.156" and the pipe-wall strength is X-42. The line is owned & operated by Williams Energy Group. This pipeline will be used to transport gas to drill the well. Williams will be getting pipeline approval from the Surface Owner.

If this well makes any water it will be stored on location in storage tanks and then trucked to an approved SWD facility.

5. **Water Supply Source:** Will be provided by the drilling contractor and trucked to the drilling site. See Attachment No. 1 - WATER SUPPLY SOURCES.

6. **Source of Construction Materials:**

No additional construction materials will be required to build the proposed location. The dirt from the reserve pit will be back-sloped and saved for use when the pit is rehabilitated.

7. **Methods for Handling Waste Disposal:**

A. A Conventional Drilling System will be used. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be fenced with wire mesh on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The reserve pit will be backfilled and leveled as soon as practical.

B. All garbage and trash will be placed in specially constructed wire mesh containers. Upon cleanup, the refuse in the containers will be hauled to an approved landfill site.

All produced water will be collected in tanks until piped and transported to an approved disposal system.

8. **Ancillary Facilities:** None

9. **Well Site Layout:** Attached sketch shows the relative location and dimensions of the well pad, and reserve pit. Location will be 275' X 210'.

10. **Plans for Restoration of Surface:**

Pit will be filled and leveled as soon as practical. If well is productive, drilling pad will remain as well service pad. If dry hole, the pad will be ripped and re-seeded per regulations. Reserve pit dirt will be saved to be used during restoration of the pit area.

11. **Other Information:**

A. Terrain/Topography: located on a mesa north of Frances Canyon.
B. Soil: Sandy and clay loam, Vessilla-Menefee-Orlie Mapping complex.
C. Vegetation: Pad is in a pinyon/juniper vegetation community with approximately 10 to 15 percent ground cover.
D. Surface Use: grazing, and gas development.
F. Residences and Buildings: There are no occupied residences or buildings within one quarter of a mile of the proposed well location.
G. Arroyos, Canyons, etc.: not is it in a BLM vulnerable watershed area.
H. Well Sign: Sign identifying and locating the well will be maintained at drill site with the spudding of the well.
J. Archaeological Resources: See Archaeological Survey LAC Report 2001-8r. There was one cultural resource encountered during the survey, but it can be avoided.

12. **Operator's Representives:** Field personnel who can be contacted concerning compliance of the Surface Use Plan is as follows:

Drilling and Production

Thomas Ferg
5525 Hwy. 64
Farmington, NM 87401
Phone: 505-599-3424

or

R. A. Allred
5525 Hwy. 64
Farmington, NM 87401
Phone: 505-599-3403

13. **Surface Ownership:** Gomez Ranch

14. **Certification:**

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by Phillips Petroleum Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Thomas E. Ferg _____
Typed or Printed Name

_____
Signature

8-7-01
Date

Casing Design Worksheet - MV wells

Surface Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
9-5/8"	H-40	32.3	1400	2270	254	ST&C	320	10,336

Intermediate Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
7"	J-55	20	2270	3740	254	ST&C	3,855	77,100
								-
								-
								-
							Total Weight	77,100

Production Casing

Size	Grade	#/foot	Collapse	Yield	Tensile	Coupling	Length	Weight
4-1/2"	J-55	11.6	4960	5350	162	LT&C	6,162	71,479
								-
								-
								-
							Total Weight	71,479

Casing Parameters

Tensile

SF_t = Tensile / ; Must Exceed 1.8 for Dry or 1.6 for Bouyant

9-5/8"	Surf.	254000	/ 10,336	=	24.6
7"	Int.	254000	/ 77,100	=	3.3
4-1/2"	Prod.	162000	/ 71,479	=	2.3

Collapse

SF_c = Collapse / (Maximum Formation Pressure) or (Mud Gradient X T. V. D.); Must Exceed 1.125

9-5/8"	Surf.	1400	/ 160	=	8.8
7"	Int.	2270	/ 1300	=	1.7
4-1/2"	Prod.	4960	/ 1000	=	5.0

Burst

SF_b = Burst / (Maximum Formation Pressure) or (Mud Gradient X T. V.D.); Must Exceed 1.0

9-5/8"	Surf.	2270	/ 160	=	14.2
7"	Int.	3740	/ 1300	=	2.9
4-1/2"	Prod.	5350	/ 3300	=	1.6

B.O.P. Requirement - (Maximum Formation Pore Pressure) or (Mud Weight X 0.05195 x T. V. D.) - 0.22 X T.V.D.

1,000

Excess Cement Volumes

Surface	110%
Intermediate	110%
Production	N.A.

Note: Cement volume calculations are stored in the computer log.

Blowout Preventer Equipment (BOPE)

ABHP= 1000 PSI; TVD = 6,162 Feet; Mud Weight = NA*

*Air drilled hole for production casing.

Operator's Gradient (ABHP / TVD) = 0.162 PSI/Ft. *is / is not* appropriate and *does / does not* coincide with the Anticipated Mud Weight for each drilled interval.

The most credible ABHP is 0.162 PSI/Ft.

Mud Weight x 0.05195 = Gradient

NA* X 0.05195 = #VALUE!

ABHP - (0.22 x TVD) = ASP

1000 - (0.22 X 6162) -356 psi

Operator's proposed BOPE of 3 M *exceeds / does not exceed* the ASP and is therefore *adequate / not adequate*.

Note ASP - Anticipated Surface Pressure
ABHP - Anticipated Bottom Hole Pressure

Thomas E. Gray 08/07/2001