Form 3160-3 (August 1990)

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. NMSF078999	
Typ: of Work			llotee or Tribe Name	
b. Type of Well Oil Well X Gas Well Other X Single Zone Multiple Zone		٠ ١	7. Unit or CA Agreement Name and No. NMNM78421C	
2. Name of Operator			8. Lease Name and Well No.	
Phillips Petroleum Company	3b. Phone No. (include area coo		Unit #220R	
a Address 5525 Highway 64, NBU 3004, Farmington, NM 87401	505-599-3454	9. API Well N	039-26965	
Location of Well (Report location clearly and in accordance with any State At surface Unit A, 660' FNL & 660' FEL NENE		10. Field and P Basin F	ool, or Exploratory ruitland Coal	
	Fred March	A	, M., or Blk. and Survey or Area	
At proposed prod. zone same as above	· · · · · · · · · · · · · · · · · · ·	A Section	33, T31N, R6W	
4. Distance in miles and direction from nearest town or post office*		12.County or	Parish 13. State	
same as above	: 	Rio Arrib	a, NM	
5. Distance from proposed* location to nearest	16 No. of Acres in lease	17. Spacing Unit ded	icated to this well	
property or lease line, ft. (Also to nearest drg. unit line, if any)	2560.0 acres	320	acres E/2	
Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth	20.BLM/BIA Bond	l No. on file	
applied for, on this lease, ft.	3348'	ES0048		
1. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will sta	rt* 23.Estim	ated duration	
6498' GL	3rd Qtr 2002]	20 days	
DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS" 2	24 Attachments procedural re	subject to technical a view pursuant to 43 (ursuant to 43 CFR 31	CFR 3165.2	
The following, completed in accordance with the requirements of Onshore O	il and Gas Order No. 1, shall be attache	ed to this form:		
. Well plat certified by a registered surveyor.	4. Bond to cover the operati	ons unless covered by	y an existing bond on file (see	
3. A Surface Use Plan (if the location is on National Forest System Lands,	· · · · · · · · · · · · · · · · · · ·			
SUPO shall be filed with the appropriate Forest Service Office).	6. Such other site specific in authorized officer.	nformation and/or pla	ns as may be required by the	
25. Signµature	Name (Printed/Typed)		Date	
Talsy Cluster	Patsy Clugston		3/28/02	
Title Company Character Clark				
Sr. Regulatory/Proration Clerk Approved by (Signautre)	Name (Printed/Typed)		Date	
Approved by (Signautre) /e/ David J. Mankiewicz	Tune (Timew Types)		JUN 20	
Title	Office			
Application approval does not warrant or certify that the applicant holds le conduct operations thereon.	gal or equitable title to those rights in	the subject lease whi	ch would entitle the applicant to	
Conditions of approval, if any, are attached.				

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

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-10 Revised October 18, 199 Instructions on bac Submit to Appropriate District Offic State Lease - 4 Copi Fee Lease - 3 Copi

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

LI AMENDED REPOR

2040 South Pacheco, Santa Fe, NM 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Name 1 Pool Code Basin Fruitland Coal 71629 * Well Number ⁵ Property Name 4 Property Code 220R 009259 SAN JUAN 31-6 UNIT Operator Name * Elevation 017654 No. 64981 PHILLIPS PETROLEUM COMPANY 10 Surface Location Feet from the North/South line Feet from the East/West line County Township Range Lot Idn UL or lot no. Section NORTH 6601 EAST RIO ARRIBA 660° 33 31N 6W Bottom Hole Location If Different From Surface Feet from the East/West line UL or lot no. Lot Idn Feet from the North/South line County Section Township Range Α 12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No. U 320. E/2 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 17 OPERATOR CERTIFICATION 16 5281.321 N89°59'E I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief 660 Patsy Clugston SF-078999 Printed Name 5280.00 2560.0 acres Regulatory/Proration Cler Title 10-8-01 Date 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat NO0°01'E was plotted from field notes of actual surveys made by me that the same is true and 9/4/01 Certificate Number 5280.001 West

PHILLIPS PETROLEUM COMPANY

SAN JUAN 31-6 UNIT No. 220R 660' FNL, 660' FEL 27'30, 281 184 NE/4 SEC. 33, T-31-N, R-06-W, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO GROUND LEVEL ELEVATION: 6498' 28 34 GOMEZ RANCH QUADRANGLE

PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 31-6 Unit #220R Note the 31-6 Unit #220 well is currently being used as a Pressure Observation Well.				
DRIL	LING PROGNOSIS			
1.	Location of Proposed Well: A, 660' FNL & 660' FEL Section 33, T31N, R6W			
2.	Unprepared Ground Elevation: <u>@ 6498'</u> .			
3.	The geological name of the surface formation is <u>San Jose</u> .			
4.	Type of drilling tools will be <u>rotary</u> .			
5.	Proposed drilling depth is3348'			
6.	The estimated tops of important geologic markers are as follows: Naciamento - 1023' Ojo Alamo - 2513' Base of Coal - 3343' Kirtland - 2613' Picture Cliffs - 3468' Fruitland - 3088' Interm. Casing - 3168' Top of Coal - 3188' T. D 3348'			
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 - 2513' - 2613' Oil: none Gas: Fruitland Coal - 3188' - 3343' Gas & Water: Fruitland Coal - 3188' - 3343'			
8.	The proposed casing program is as follows:			
	Surface String: 9-5/8", 32.3#, H-40 @ 200' * Intermediate String: 7", 20#, J/K-55 @ 3168' Production Liner: 5-1/2", 15.5# J/K-55 @ 3148' - 3348' (see details below)			
	* The surface casing will be set at a minimum of 200', but could be set deeper if required to maintain hole stablity.			
9.	Cement Program: <u>Surface String:</u> 102.7 sx Type III cement. Cement to surface w/110% excess of casing/hole annulus volume w/Type III cement + 2% bwoc Calcium Chloride + 0.25#/sx Cello-flake + 60.6% Fresh water (14.5 ppg). (1.41 cf/sx yield = 145 cf)			

9. Cement program: (continued from Page 1)

Intermediate String: Lead Cement: 360.5 sx Type III cement. Cement to surface -

110% excess casing/hole annular volume w/ Type III cement + 0.25#/sx Cello-flake + 5#/sx Gilsonite + 6% bwoc Bentonite + 10#/sx CSE + 3% bwow KCL + 0.4% bwoc FL-25 mixed + 0.02#/sx static free mixed at 12.0 ppg. (2.52 cf/sx yield = 908.5cf)

Tail: 50 sx Type III cement + 0.25#/sx Cello-flake + 1% Calcium Chloride mixed at 14.5 ppg. (1.40 cf/sx yield = 70 cf)

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

Centralizer Program:

Surface: Total four (4) - 10' above shoe and top of 2nd, 3rd, & 4th jts.

Intermediate: Total seven (7) - 10' above shoe and top of 1st, 2nd, 4th, 6th, 8th, &

1st jt. into shoe.

Turbulators: Total three (3) - one at 1st it below Ojo Alamo and next 2 its up.

Liner:

- If the coal is cleated a 5 ½" 15.5# liner will be run in the open hole without being cemented.
- If the coal is not cleated, a 4-1/2" 11.6# liner will be run & cemented. The well will then be completed by fracture stimulation.
- 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 - fresh water w/polymer sweeps. Bentonite as

required for viscosity.

Below Intermediate - air drilled.

12. The testing, logging, and coring programs are as follows:

D.S.T.s or cores:

Logs: Mud logs only

San Juan 31-6 Unit #220R

SURFACE CASING:

Drill Bit Diameter	12.25 "
Oi Outside Diameter	0.625 "

Casing Outside Diameter 9.625 " 8.989

Casing Weight 32.3 ppf
Casing Grade H-40

Shoe Depth 200 ' 30 '
Cement Yield 1.41 cuft/sk

Excess Cement 110 %

Casing Capacity 0.0785 bbl/ft 0.4407 cuft/ft Hole / Casing Annulus Capacity 0.0558 bbl/ft 0.3132 cuft/ft

Cement Required 102.7 sx

SHOE 200 ', 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 K-55
Shoe Depth 3168 '
Lead Cement Yield 2.52 cuft/sk
Lead Cement Excess 110 %
Tail Cement Length 200 '

Tail Cement Yield 1.4 cuft/sk
Tail Cement Excess 110 %

Casing Capacity 0.0405 bbl/ft 0.2272 cuft/ft Casing / Casing Annulus Capacity 0.0309 bbl/ft 0.1734 cuft/ft Hole / Casing Annulus Capacity 0.0268 bbl/ft 0.1503 cuft/ft

30 '

Lead Cement Required 360.5 sx Tail Cement Required 50.0 sx

LINER TOP 3148 '

SHOE 3168', 7", 20 ppf, K-55

LINER BOTTOM 3348 '

BOP AND RELATED EQUIPMENT CHECK LIST

2M 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