

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other ☐

2. NAME OF OPERATOR
Northwest Pipeline Corporation

3. ADDRESS OF OPERATOR
PO Box 90, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1040' FNL & 1830' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

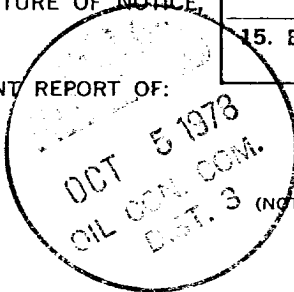
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐
(other) "Drilling Summary" ☒

SUBSEQUENT REPORT OF:

☐
☐
☐
☐
☐
☐
☐
☐
☐
☒



(NOTE: Report results of multiple completion or zone change on Form 9-330.)

5. LEASE
SF 078917
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
San Juan 29-5 Unit
8. FARM OR LEASE NAME
San Juan 29-5 Unit
9. WELL NO.
87
10. FIELD OR WILDCAT NAME
Gobernador Pictured Cliffs
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 25 T29N R5N
12. COUNTY OR PARISH
Rio Arriba
13. STATE
New Mexico
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
6566' GR

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

9-20-78 Spud 12-1/4" surface hole @ 2100 hrs. Drilled to 135'. Ran 8-5/8" csg set @ 135'. Cmted w/ 90 sks. Good circ.
9-21-78 Plug down @ 0200 hrs. Circ 2 bbls cmt. WOC. Tested csg to 600 psi, held OK. Drilling.
9-26-78 Reached TD 3710'. Ran I-ES & GR-Density logs.
9-27-78 Ran 2-7/8", 6.5#, J-55, EUE csg set @ 3680'. Cmted w/ 170 sks. Plug down @ 1045 hrs. Pressure tested to 4000 psi for 30 min, held OK. Rig released @ 1200 hrs. Ran temp survey & found top of cmt @ 2600' & PBD @ 3671'.

Waiting on completion.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Rubén C. Herrera TITLE Production Clerk DATE September 29, 1978

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

OCT 3 1978

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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1. oil ☐ gas ☒ other ☐
2. NAME OF OPERATOR
Northwest Pipeline Corporation
3. ADDRESS OF OPERATOR
PO Box 90, Farmington, New Mexico 87401
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1040' FNL & 1830' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other) "Completion Operations"		

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

5-17-79 Ran GR-CCL from 3668' to 2500'.
5-21-79 Perfed from 3590' to 3528' w/ 14 shots. Pr tested lines to 4000 psig, held OK. Pumped 5000 gal 7-1/2% HCl w/ 30 ball sealers. Balled off @ 4200 psig. Pumped 5000 gal pad. Fraced w/ 50,000# 10/20 sand @ 1 PPG, flushed w/ 21 BW. All fluid contained 2-1/2# FR-2/1000 gal. Breakdown @ 1700 psig. AIP 3600 psig, AIR 25 BPM, MIP 4000 psig, MIR 29 BPM, ISIP 800 psig. 10 min 500 psig. 1140 bbls to recover. Frac job complete @ 1200 hrs.
5-31-79 Well open & vaporizing (liquid @ surface).

Subsurface Safety Valve: Manu. and Type _____

18. I hereby certify that the foregoing is true and correct

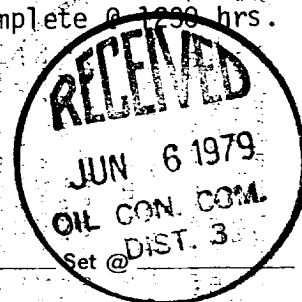
SIGNED Barbara E. Rex TITLE Production Clerk DATE June 1, 1979

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

5. LEASE
SF 078917
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
San Juan 29-5 Unit
8. FARM OR LEASE NAME
San Juan 29-5 Unit
9. WELL NO. 87
10. FIELD OR WILDCAT NAME
Gobernador Pictured Cliffs
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 25 T29N R5W
12. COUNTY OR PARISH
Rio Arriba
13. STATE
New Mexico
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
6566' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)



JUN 5 1979

U. S. GEOLOGICAL SURVEY

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

See Instructions
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Operator PHILLIPS PETROLEUM COMPANY		Well API No.
Address 300 W ARRINGTON, SUITE 200, FARMINGTON, NM 87401		
Reason(s) for Filing (Check proper box) New Well ☐ Change in Transporter of: Recompletion ☐ Oil ☐ Dry Gas ☐ Change in Operator ☒ Outgassed Gas ☐ Condensate ☐		
If change of operator give name and address of previous operator Northwest Pipeline Corp., 3535 E. 30th, Farmington, NM 87401		

II. DESCRIPTION OF WELL AND LEASE

Lease Name San Juan 29-5 Unit	Well No. 87	Pool Name, including Formation GOBERNADOR PICTURE CLIFF	Kind of Lease State, Federal or Private	Lease No.
Location Ush Letter C : 1040 Feet From The North Line and 1830 Feet From The West Line Section 25 Township 29N Range 5W , NMPM , Rio Arriba County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒ Gary Energy	Address (Give address to which approved copy of this form is to be sent) P.O. Box 159, Bloomfield, NM 87413					
Name of Authorized Transporter of Outgassed Gas ☐ or Dry Gas ☒ Northwest Pipeline Corp.	Address (Give address to which approved copy of this form is to be sent) P.O. Box 58900, SLC, Utah 84158-0900					
If well produces oil or liquids, give location of lease.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When? Attn: Claire Potter

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Some Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)			
Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF
APR 01 1991			
GAS WELL			
Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Oil or Gas Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-In)	Casing Pressure (Shut-In)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature L. E. Robinson
L. E. Robinson Sr. Drlg. & Prod. Engr.
Printed Name APR 01 1991 Title
Date (505) 599-3412 Telephone No.

OIL CONSERVATION DIVISION

APR 01 1991

Date Approved

By

B. J. Chant

SUPERVISOR DISTRICT #3

Title

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 5-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-26-79	
Company Northwest Pipeline Corp.			Connection New Completion		
Pool Gobernador Pictured Cliffs			Formation Pictured Cliffs		Unit San Juan 29-5 Unit
Completion Date 5-31-79		Total Depth 3710	Plug Back TD 3671	Elevation 6566	Form or Lease Name San Juan 29-5 Unit
Csg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 3680	Perforations: From 3528 To 3540	
Perf. Size NONE	Wt. NONE	d NONE	Set At NONE	Perforations: From To	
Type Well - Single - Brazenhead - G.G. or G.O. Multiple GAS-TUBINGLESS COMPLETION				Packer Set At NONE	Well No. # 87 PC
Producing Thru casing		Reservoir Temp. °F 8	Mean Annual Temp. °F 12.0	County Rio Arriba	
State New Mexico					
L .	H .	G _g .60	% CO ₂ .	% N ₂ .	% H ₂ S .
Prover 3/4 Choke		Meter Run .		Taps .	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1	2" x .750		SIP	100		60°			1092		SIP
2											3 hr
3											
4											
5											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	9.604		112	1.000	1.291	1.007	1398
2							
3							
4							
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas _____ X X X X X X X X
3					Specific Gravity Flowing Fluid _____ X X X X X
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

$P_c = \frac{P_t^2}{P_w^2}$		$P_c^2 = \frac{P_t^2}{P_w^2}$		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.018$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.015$
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	
1	12544	146	21316	1197500	
2					
3					
4					
5					

Absolute Open Flow <u>1419</u> Mcfd @ 15.025		Angle of Slope <u>85</u>
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Remarks: _____					
GL	1-e-s	F _c O ²	R ²	P _t ²	P _t ² +R ²
2154	.145	60222	8732	12544	21276
Approved By Commission:		Conducted By: <u>Ray Graham</u>		Calculated By: <u>R. L. Myers</u>	
				Checked By: <u>B. J. Broughton</u>	