

El Paso Natural Gas Company

El Paso, Texas 79978

February 14, 1974

ADDRESS REPLY TO
POST OFFICE BOX 890
FARMINGTON NEW MEXICO 87401

Mr. Jerry Long
U. S. Geological Survey
Post Office Box 1809
Durango, Colorado 81301

Re: Application for Permit to Drill
San Juan 27-5 Unit #182
NE/4 Section 23, T-27-N, R-5-W
Tapacito Pictured Cliffs

Dear Mr. Long:

Details regarding existing roads, pipelines, wells, etc. relative to the above well location are included on the previously submitted base maps, "Field Road Map" and "Composite Map No. 1".

The proposed new well location, new roads and new pipeline are shown on the attached plat along with connecting existing roads and pipelines in the vicinity of the proposed new well.

Water for drilling and completion operations will be obtained from the following location:

Cereza Creek

Waste material will be disposed of by burial in the burn pit, latrine, or reserve pit as applicable. There will be no camp nor air strip associated with drilling this well. Upon completion or abandonment of this well, the location will be cleaned and leveled and a dry hole marker placed, if applicable.

Yours very truly,

D. G. Brisco

D. G. Brisco
Drilling Clerk



RECEIVED

FEB 15 1974

U. S. GEOLOGICAL SURVEY
FARMINGTON, N.M.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

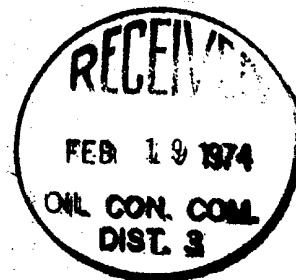
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. SF 079492-B	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR El Paso Natural Gas Company			7. UNIT AGREEMENT NAME San Juan 27-5 Unit	
3. ADDRESS OF OPERATOR PO Box 990, Farmington, NM 87401			8. FARM OR LEASE NAME San Juan 27-5 Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1600'N, 1500'E At proposed prod. zone			9. WELL NO. 182	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*			10. FIELD AND POOL, OR WILDCAT Tapacito Pictured Cliffs	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)			11. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA Sec. 23, T-27-N, R-5-W NMPM	
16. NO. OF ACRES IN LEASE			12. COUNTY OR PARISH Rio Arriba	
17. NO. OF ACRES ASSIGNED TO THIS WELL 160.00			13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			20. ROTARY OR CABLE TOOLS Rotary	
19. PROPOSED DEPTH 3540'			22. APPROX. DATE WORK WILL START*	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6551'GL				

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24.0#	120'	106 cu.ft. to circulate
6 3/4"	2 7/8"	6.4#	3540'	236 cu.ft. to cover Ojo Alamo

Selectively perforate and sandwater fracture the Pictured Cliffs formation.

The NE 1/4 of Section 23 is dedicated to this well.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Drilling Clerk DATE February 14, 1974

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY [Signature] TITLE _____ DATE Feb 15 1974
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

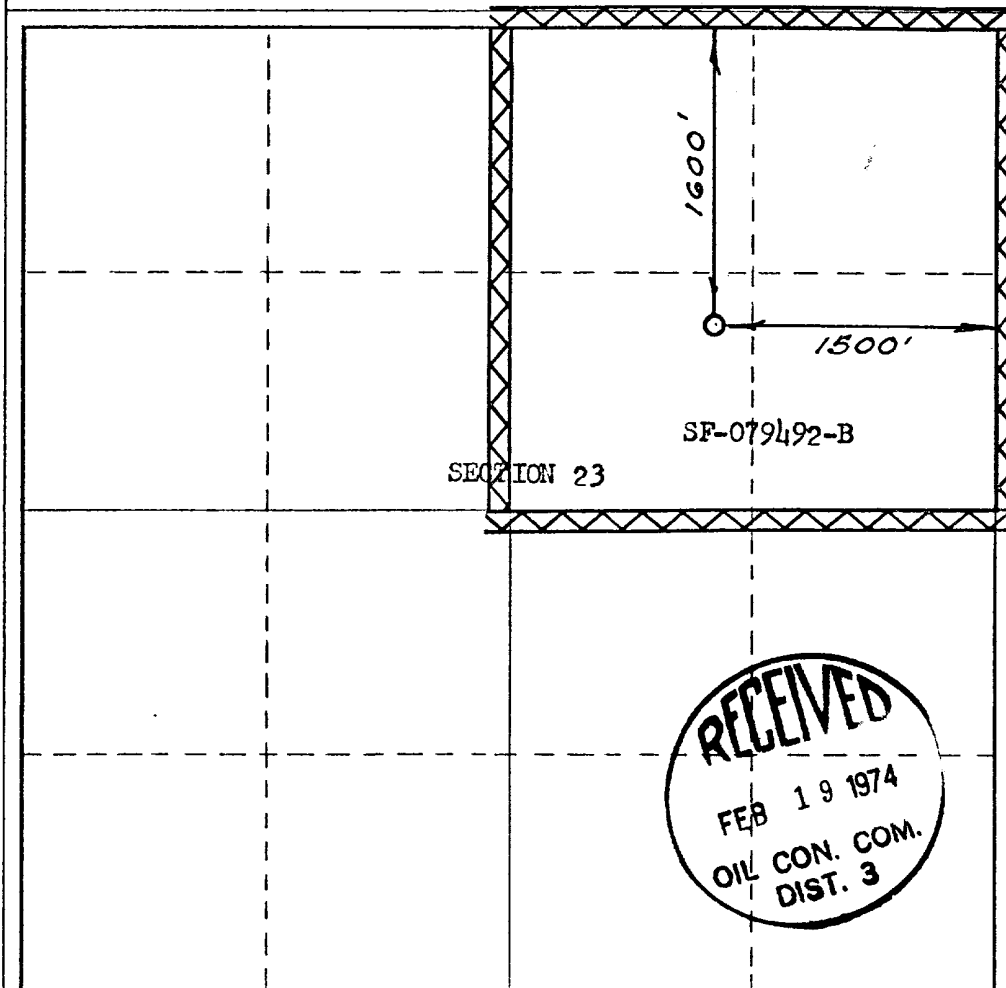
Operator EL PASO NATURAL GAS COMPANY		Lease SAN JUAN 27-5 UNIT (SF-079492-B)		Well No. 182
Unit Letter G	Section 23	Township 27-N	Range 5-W	County RIO ARriba
Actual Footage Location of Well: 1600 feet from the NORTH line and 1500 feet from the EAST line				
Ground Level Elev. 6551	Producing Formation PICTURED CLIFFS	Pool TAPACITO PICTURED CLIFFS	Dedicated Acreage: 160.00 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Original Signed by

Name **D. G. Brisco**

Position **El Paso Natural Gas Co.**

Company **El Paso Natural Gas Co.**

Date **December 14, 1974**

Date

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 knowledge and belief.

Date Surveyed

DECEMBER 27, 1973

Registered Professional Engineer and/or Land Surveyor

[Signature]

Certificate No. **1760**

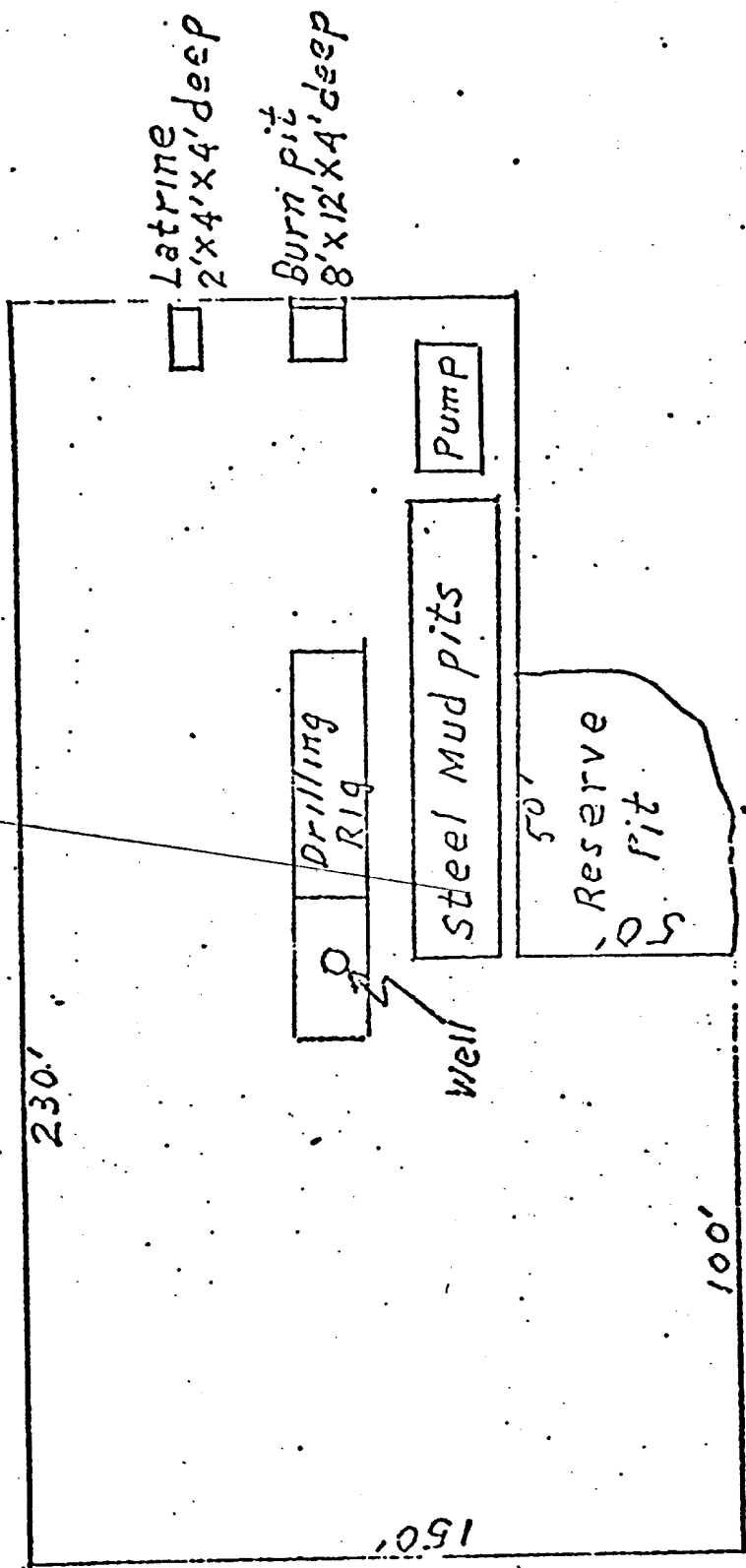


LOCATION AND EQUIPMENT LAY-OUT

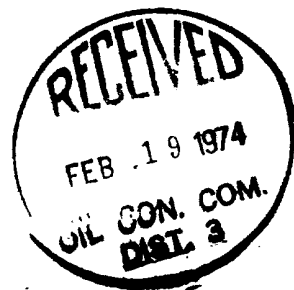
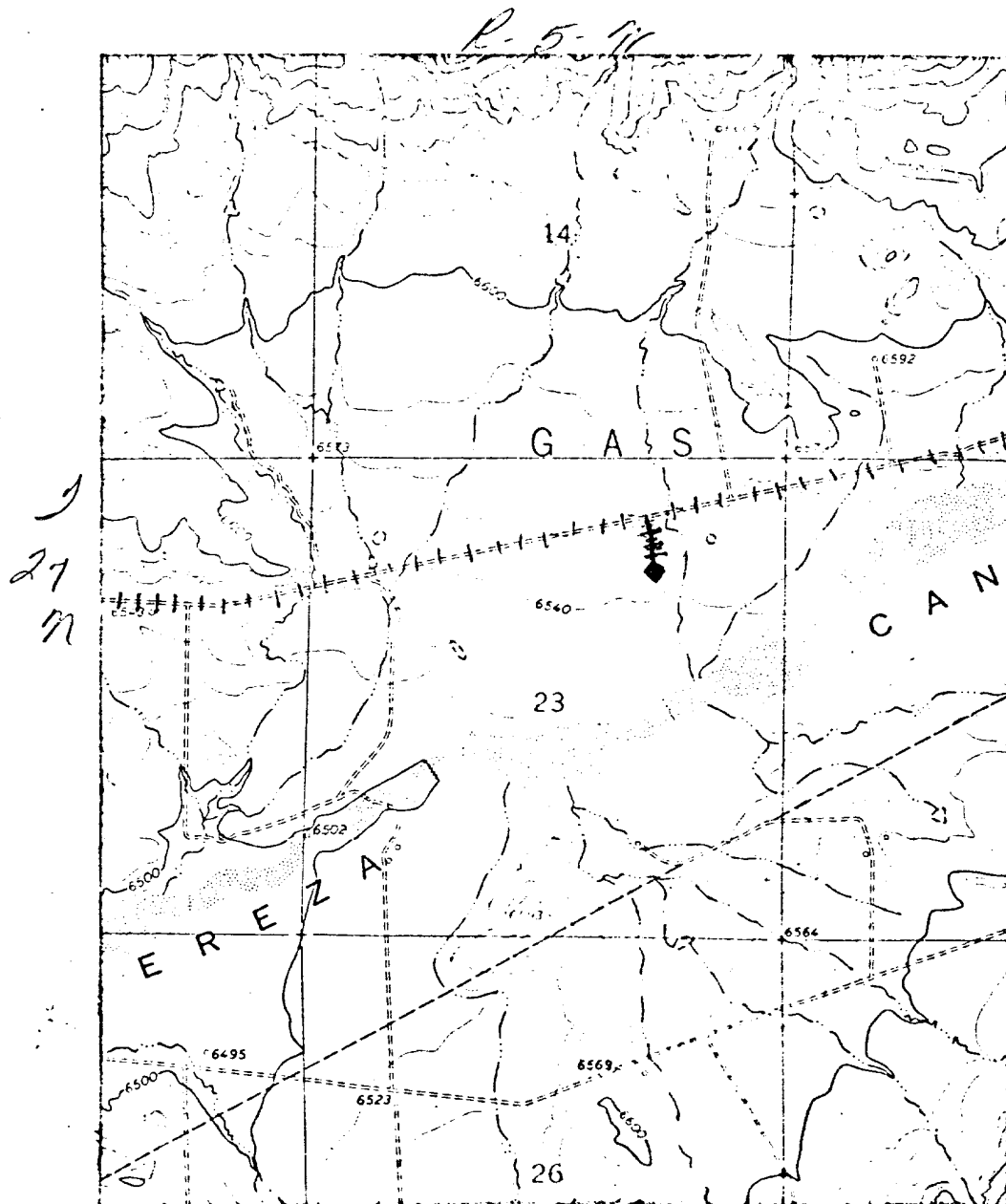
Sandstone 3 UNIT 100

Sec. 23, T-29-N, R-5-W

N



*San Juan 24-5 Unit #182
 SW 1/4 Sec 23, T-24-N, R-5-W*



LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS	—————
EXISTING PIPELINES	— + + + —
EXISTING ROAD & PIPELINE	— + + + —
PROPOSED ROADS	—————
PROPOSED PIPELINES	+ + + +
PROPOSED ROAD & PIPELINE	+ + + +

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SF 079492-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

San Juan 27-5 Unit

8. FARM OR LEASE NAME

San Juan 27-5 Unit

9. WELL NO.

182

10. FIELD AND POOL, OR WILDCAT

Tapacito Pictured Cliffs

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 23, T-27-N, R-3-W

S NMPM

12. COUNTY OR PARISH

13. STATE

Rio Arriba New Mexico

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 "APPLICATION FOR PERMIT—" for such proposals.)

1.

OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

El Paso Natural Gas Company.

3. ADDRESS OF OPERATOR

Box 990, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

1600'N, 1500'E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6551' GL

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

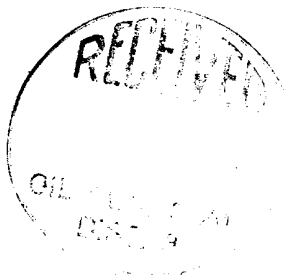
ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)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 perti-
nent to this work.)*

3-26-74

Spudded well. Drilled surface hole.

Ran 3 joints 8 5/8", 24#, J-55 surface casing, 116' set at 116'GL.

Cemented with 106 cu. ft. cement. Circulated to surface. WOC
12 hours.

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

SIGNED

A. P. Lucas

TITLE

Drilling Clerk

DATE

4-1-74

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

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 "APPLICATION FOR PERMIT--" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.

ST 070422-2

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

San Juan 27-5 Unit

8. FARM OR LEASE NAME

San Juan 27-5 Unit

9. WELL NO.

182

10. FIELD AND POOL, OR WILDCAT

Tapacito Pictured Cliffs

11. SEC., T., R., M., OR DEPT. AND
SURVEY OR AREA

Sec. 23, T-27-N, R-5-W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

New Mexico

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

Box 990, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1600'N, 1500'E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6551'GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐

FULL OR ALTER CASING

☐

FRACTURE TREAT

☐

MULTIPLE COMPLETE

☐

SHOOT OR ACIDIZE

☐

ABANDON*

☐

REPAIR WELL

☐

CHANGE PLANS

☐

(Other)

☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☒

REPAIRING WELL

☐

FRACTURE TREATMENT

☒

ALTERING CASING

☐

SHOOTING OR ACIDIZING

☐

ABANDONMENT*

☐

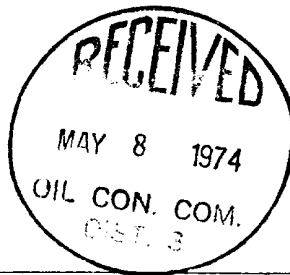
(Other)

☐(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

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.)*

4-8-74 Tested surface casing; held 600#/30 minutes.

4-12-74 T.D. 3525'. Ran 119 joints 2 7/8", 6.4#, J-55 production casing, 3514' set at 3525'. Baffle set at 3514'. Cemented with 235 cu.ft. cement. WOC 18 hours. Top of cement at 2550'.

5-2-74 Tested casing to 4000#-OK.
PBTD 3514'. Perf'd 3358-70', 3396-3426' with 18 shots per zone. Frac'd with 47,000# 10/20 sand and 42,680 gallons treated water. Dropped one set of 18 balls. Flushed with 840 gallons water.

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

SIGNED

R. P. Dwyer

TITLE

Drilling Clerk

DATE

5-3-74

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE June 11, 1974

Operator El Paso Natural Gas Company		Lease San Juan 27-5 Unit #182	
Location 1600/N. 1500/E, Sec. 23. T27N, R5W		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapacito	
Casing: Diameter 2.875	Set At: Feet 3525'	Tubing: Diameter No Tubing	Set At: Feet --
Pay Zone: From 3358'	To 3426'	Total Depth: PETD 3525'	Shut In 3514'
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing 5-21-74

Choke Size, Inches .750		Choke Constant: C 12.365		Tubingless Completion	
Shut-In Pressure, Casing, PSIG 1068	+ 12 = PSIA 1080	Days Shut-In 21	Shut-In Pressure, Tubing PSIG No Tubing	+ 12 = PSIA --	
Flowing Pressure: P PSIG 61	+ 12 = PSIA 73		Working Pressure: Pw PSIG Calculated	+ 12 = PSIA 94	
Temperature: T = 65 °F	Ft = .9952	n = .85	Fpv (From Tables) 1.0090	Gravity .655	Fg = .9571

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_t \times F_g \times F_{pv}$$

$$Q = 12.365 (73)(.9952)(.9571)(1.0090) = \underline{868} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left(\frac{1166400}{1157564} \right)^n = 868(1.0076)^{.85} = 868(1.0065)$$

$$Aof = \underline{873} \text{ MCF/D}$$

Note: The well blew a dry gas.

TESTED BY J. B. Goodwin

WITNESSED BY _____

Loren W Fothergill
Loren W. Fothergill
Well Test Engineer



EL PASO NATURAL GAS COMPANY

DEVIATION REPORT

Name Of Company El Paso Natural Gas Company			Address P. O. Box 990, Farmington, N.M.		
Lease San Juan 27-5 Unit	Well No. 182	Unit Letter G	Section 23	Township 27 N	Range 5 W
Pool Tapacito P. C.			County Rio Arriba		

DEPTH

758'
1214'
2297'
2797'
3012'

DEVIATION

$3/4^{\circ}$
 1°
 $1\ 1/4^{\circ}$
 $1\ 1/2^{\circ}$
 $1\ 1/2^{\circ}$



I, the undersigned, certify that I, acting in my capacity as Petroleum Engineer of El Paso Natural Gas Company, am authorized by said Company to make this report; and that this report was prepared by me or under my supervision and directions and that the facts stated therein are true to the best of my knowledge and belief.

[Signature]

Subscribed and sworn to before me this 17th day of June, 1974.

[Signature]
Notary Public in and for San Juan County, New Mexico

My commission expires October 5, 1976.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 990, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1600'N, 1500'E

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

5. LEASE DESIGNATION AND SERIAL NO.

SF 079402-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

San Juan 27-5 Unit

8. FARM OR LEASE NAME

San Juan 27-5 Unit

9. WELL NO.

182

10. FIELD AND POOL, OR WILDCAT

Tapacito Pictured Cliffs

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 23, T27N, R5W

NMPM

12. COUNTY OR PARISH

Rio Arriba

13. STATE

New Mexico

15. DATE SPUDDED

3/26/74

16. DATE T.D. REACHED

4/11/74

17. DATE COMPL. (Ready to prod.)

6/11/74

18. ELEVATIONS (DF, REB, RT, GR, ETC.)*

6551' GL

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

3525'

21. PLUG, BACK T.D., MD & TVD

3514'

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

0-3525

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

3358-3426 (P.C.)

25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN

IEL; CDL-GR; Temperature Survey

27. WAS WILD-CORRECTED

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD
8 5/8"	24#	116' GL	12 1/4"	106 cu. ft.
2 7/8"	6.4#	3525'	6 3/4"	235 cu. ft.

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
Tubingless		

31. PERFORATION RECORD (Interval, size and number)

3358-70; 3396-3426 with 18 SPZ.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3358-3426	47,000# sand; 42,680 gals. water

33.*

PRODUCTION

DATE FIRST PRODUCTION

PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

Flowing

WELL STATUS (Producing or shut-in)

Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6/11/74	3	3/4"	→				
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
-----	SI 1080	→		873 Mcf/d- A of			

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

J. B. Goodwin

35. LIST OF ATTACHMENTS

36. I hereby certify, that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

A. G. Bischo

TITLE

Drilling Clerk

DATE

June 17, 1974

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
			P. C.	3356	