

INFILL DRILLING FINDINGS PURSUANT TO  
SECTION 271.305(b) OF THE FEDERAL ENERGY REGULATORY  
COMMISSION REGULATIONS, NATURAL GAS POLICY ACT OF 1978  
AND OIL CONSERVATION DIVISION ORDER NO. R-6013-A

Operator James L. Ludwick Well Name and No. Jicarilla Well No. 6-J  
Location: Unit 0 Sec. 28 Twp. 24N Rng. 5W Cty. Rio Arriba

I.  
THE DIVISION FINDS:

- 1) That Section 271.305(b) of the Federal Energy Regulatory Commission Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find that the infill well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit.
- 2) That by Order No. R-6013-A, dated February 8, 1980, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.
- 3) That the well for which a finding is sought is completed in the Ballard Pictured Cliffs Pool, and the standard spacing unit in said pool is 160 acres.
- 4) That a 160 -acre proration unit comprising the SE/4 of Sec. 28, Twp. 24N, Rng. 5W, is currently dedicated to the James L. Ludwick Jicarilla Well No. 6 located in Unit I of said section.
- 5) That this proration unit is (X) standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. \_\_\_\_\_.
- 6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.
- 7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 125,000 MCF of gas from the proration unit which would not otherwise be recovered.
- 8) That all the requirements of Order No. R-6013-A have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- 9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved.

IT IS THEREFORE ORDERED:

1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization or infill drilling granted by this order is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

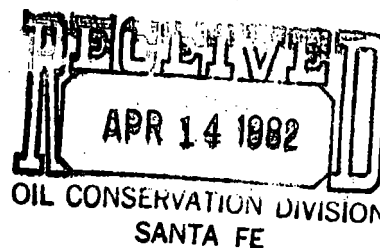
ONE at Santa Fe, New Mexico, on this 17th day of August, 19 82.

  
DIVISION DIRECTOR

EXAMINER

CLAUDE C. KENNEDY  
INDEPENDENT OIL AND GAS OPERATOR

April 12, 1982



New Mexico OCD  
Attn: Mr. Michael Stogner  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Re: APPLICATION FOR ADMINISTRATIVE  
APPROVAL OF NFL ORDER for:  
James L. Ludwick  
6-J Jicarilla  
Unit O, 800'FSL, 1520'FEL,  
Section 28, T24N, R5W,  
Rio Arriba County, New Mexico.

Gentlemen:

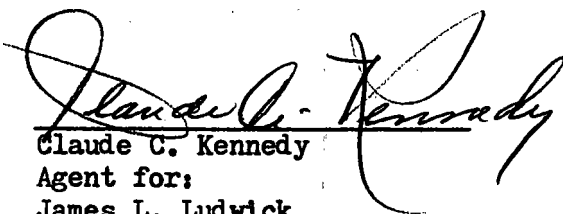
This application is filed in order to qualify the subject well for  
the section 103 gas price.

The attached data is furnished to aid in this determination.

Please advise if any additional information is required.

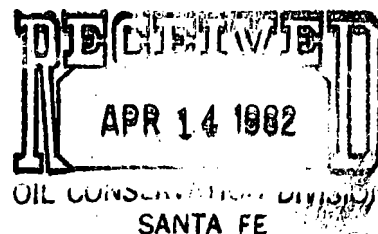
Thanking you, I remain

Very truly yours,

  
Claude C. Kennedy  
Agent for:  
James L. Ludwick

CLAUDE C. KENNEDY  
INDEPENDENT OIL AND GAS OPERATOR

April 12, 1982



- Rule 5: Proration Unit:  
T24N, R5W, Section 28; SE $\frac{1}{4}$ .  
C-101 & C-102 attached.
- Rule 6: Pool: Ballard Pictured Cliffs.
- Rule 7: Standard Location.
- Rule 8: Original Proration Unit Well:  
Jay J. Harris  
6- Jicarilla  
Unit I, 1650'FSL, 790'FEL,  
Sec. 28, T24N, R5W.

Spud: 4-1-1955  
Complete: 5-18-1955

During the year 1981 this well ceased to produce and the Proration Unit was purchased by James L. Ludwick.

Operator, James L. Ludwick re-entered this well on 10-23-1981. It was determined that the well was logged off by fluid. Due to the original open hole completion, it required five (5) days to reach original TD 2219 because of the slumping and caving hole conditions encountered.

The 2-3/8 tubing was replaced with a string of 1 inch tubing landed at 2170 and the well was returned to production on 10-30-1981.

Delivery against current line pressure shows an average of 30 MCF per day.

- Rule 8: In-Fill Proration Unit Well:  
James L. Ludwick  
6-J Jicarilla  
Unit O, 800'FSL, 1520'FEL,  
Sec. 28, T24N, R5W.

Spud: 12-12-1981  
Complete: 3-22-1982

When this in-fill well reached TD 2295, the attempt to run electric logs failed due to heaving, caving hole conditions.

CLAUDE C. KENNEDY  
INDEPENDENT OIL AND GAS OPERATOR

Page - 2

April 12, 1982

Gamma Ray Casing Collar Locator log was run, the casing was selectively perforated, and the formation was stimulated with a fracture treatment using 500 barrels of N<sub>2</sub> Foam and 50,000 pounds of sand.

During the clean out procedure the hole on several occasions filled with sand. While attempting to clean out, it was determined that a 3 foot coal lens was present some 10 feet below the main Pictured Cliffs coal marker.

Due to drainage, this coal lens is re-acting as a "thief zone" in the new well.

This "thief zone" theory is evident due to complete lost returns during the clean out procedure while using air. With the bottom of the hole sanded off, it was impossible to build pressure after several hours blowing air into this zone which is present at 2185-88.

Rule 8:       g.     Need for In-Fill Well:

A detailed geological and engineering study was made of all wells within 1½ miles of the subject proration unit.

Within this study area, wells have been completed from a minimum of 14 feet to a maximum of 82 feet.

The isopac map attached shows that the subject well is located in the area indicating a Pictured Cliffs thickness in excess of 60 feet.

The original proration unit well exposed only the upper 41 feet of the Pictured Cliffs zone to production.

It was concluded that the In-Fill well was required to effectively and efficiently drain the bottom 41 feet of the Pictured Cliffs which appears to be present in this locality.

Rule 9:       Structure Map Attached  
              Isopac Map Attached

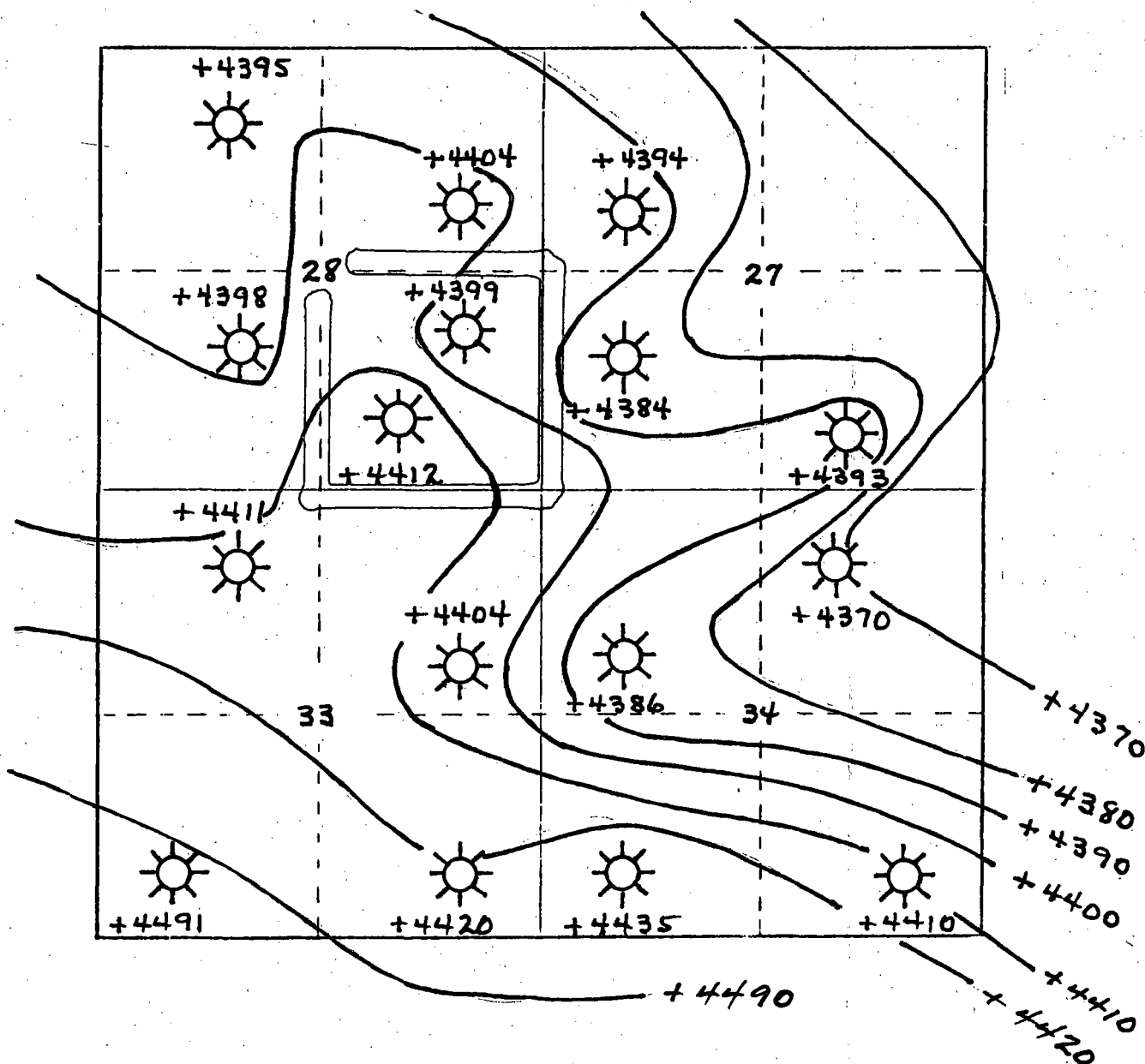
EXPECTED INCREASED ULTIMATE RECOVERY:     125 MMCF

We arrive at the above figure, expecting to deliver 25% of 250 mcf potential, projecting a 10% decline over 10 years.

Rule 11:     El Paso Natural Gas Company  
              is the Operator of all direct offset wells.  
  
              El Paso Natural Gas Company  
              has been notified of this application by Certified Mail.

# PICTURED CLIFFS - CONTOURS

SCALE 1 IN. = 1000 FT.



SECTION: 28 | 27  
33 | 34 TOWNSHIP 24-NORTH RANGE 5-WEST

STATE NEW MEXICO COUNTY RIO ARriba



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒OTHER ☐SINGLE  
ZONE ☐MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

James L. Ludwick

## 3. ADDRESS OF OPERATOR

P. O. Box 70

Farmington, New Mexico 87401

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

At surface

800' FSL, 1520' FEL

At proposed prod. zone

same

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

10 miles northeast Councilor's, New Mexico

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any)

800'

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1200'

## 16. NO. OF ACRES IN LEASE

2560

## 19. PROPOSED DEPTH

2400 PC

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

## 20. ROTA. \* OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6592 GR.

## 22. APPROX. DATE WORK WILL START\*

11-25-1981

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 3/4	7	24#	100'	100 sx circ.
6 1/4	2 7/8	6.5#	2400'	200 sx

See NTL-6 Attachments

Gas is dedicated: EPNG

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

(This space for Federal or State office use)

TITLE

Agent

DATE

10-26-1981

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

## OIL CONSERVATION DIVISION

P. O. BOX 2088

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form C-102  
Revised 10-1-78

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

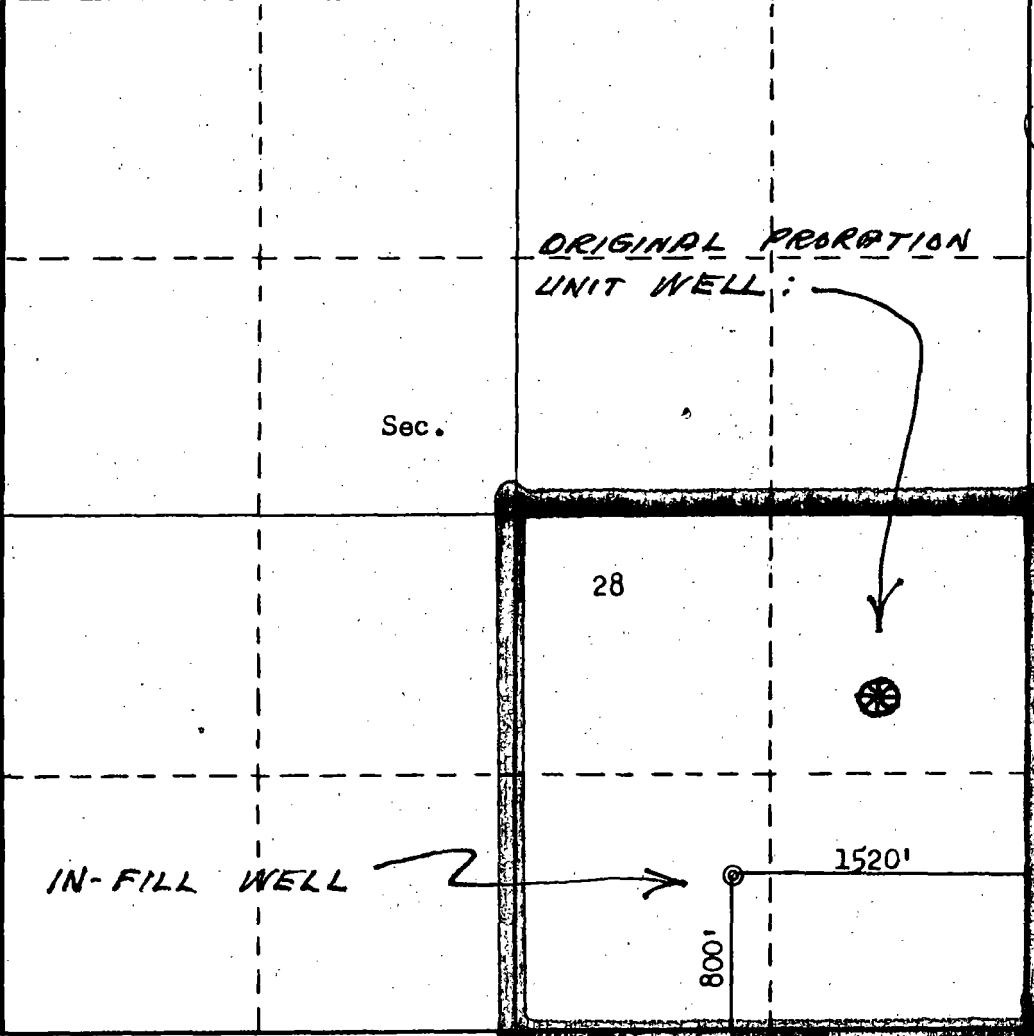
Operator <b>JAMES L. LUDWICK</b>			Lease <b>JICARILLA</b>		Well No. <b>1 = J</b>
Unit Letter <b>0</b>	Section <b>28</b>	Township <b>24N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>800</b> feet from the <b>South</b> line and <b>1520</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6592</b>	Producing Formation <b>Pictured Cliffs</b>		Pool <b>Ballard Pictured Cliffs</b>	Dedicated Acreage: <b>160</b> 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 \_\_\_\_\_

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.

 <p>Sec. 28</p> <p>800'</p> <p>1520'</p> <p>IN-FILL WELL</p> <p>ORIGINAL PROPORTION UNIT WELL</p>	<b>CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Claude C. Kennedy</i> Name <b>Claude C. Kennedy</b> Position <b>Agent</b> Company <b>James L. Ludwick</b> Date <b>October 26, 1981</b>
	  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 <b>October 26, 1981</b> Registered Professional Engineer and/or Land Surveyor <i>Fred E. Kerr Jr.</i> Certificate No. <b>3950</b>



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse 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.)

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR  
James L. Ludwick

3. ADDRESS OF OPERATOR  
P.O. Box 70  
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  
1650' FSL, 790' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, ST, GR, etc.)  
6574 Gr

5. LEASE DESIGNATION AND SERIAL NO.  
Jicarilla Contract 12

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
Jicarilla Tribal

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Jicarilla

9. WELL NO.  
63

10. FIELD AND POOL, OR WILDCAT  
Ballard Pictured Cliffs

11. SEC. T. R. M. OR BLK. AND SURVEY OR AREA  
Sec. 28, T24N, R5W

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
New Mex.

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	MULTIPLE COMPLETE	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(Other)	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
		FRACTURE TREATMENT	<input type="checkbox"/>
		SHOOTING OR ACIDIZING	<input type="checkbox"/>
		(Other) Return to Production	<input checked="" type="checkbox"/>

(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.)\*

TOTAL DEPTH 2219

10-23-1981 MICT - Pull Tubing,

10-24 Well logged off w/fluid - unloaded hole,

10-26 Attempting to clean out at 2190,

10-27 Stuck in cave at 2200,

10-28 Cleaning out at 2200, Open hole caving,

10-29 Open hole continues to cave,  
Ran 1" tubing @ 2170,  
Return to line.

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

SIGNED Frank A. Kennedy TITLE Agent

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DATE 11-24-1981

DATE

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.

Jicarilla Contract #12

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla

9. WELL NO.

6-J

10. FIELD AND POOL, OR WILDCAT

Ballard Pictured Cliffs

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

Sec. 28, T24N, R5W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

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

James L. Ludwick

3. ADDRESS OF OPERATOR

P.O. Box 70  
Farmington, New Mexico 874014. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

800'FSL, 1520'FEL

14. PERMIT NO.

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

6592'Gr.

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) Surface Casing

REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐

X

(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.)\*

CHANGE WELL NO. FROM: 1-J to 6-J

To comply with request from N.M.O.C.D.

Spud: 12-12-1981

Set 3 jts, 7" casing, 24#, Set at 102', cemented 65 sacks,  
Class 'B', 2% CaCl, circulated 3 barrels.

P.D. 6:20 P.M., 12-12-1981.

USGS notified, witness not present.

12-18-1981: Drilling @ 1700'

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

SIGNED

TITLE

Agent

DATE

12-18-1981

(This space for Federal or State official use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPL  
(Other instructions  
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.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. <b>Jicarilla Contract #12</b>
2. NAME OF OPERATOR <b>James L. Ludwick</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>Jicarilla Tribe</b>
3. ADDRESS OF OPERATOR <b>P.O. Box 70 Farmington, New Mexico 87401</b>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <b>800'FSL, 1520'FEL</b>		8. FARM OR LEASE NAME <b>Jicarilla</b>
14. PERMIT NO.		9. WELL NO. <b>6-J</b>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6592 Gr.</b>		10. FIELD AND POOL, OR WILDCAT <b>Ballard Pictured Cliffs</b>
		11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 28, T24N, R5W</b>
		12. COUNTY OR PARISH <b>Rio Arriba</b>
		13. STATE <b>New Mexico</b>

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL 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) **Production Casing**

(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.) \*

12-22-1981 TD 2295' Unable to run electric logs due to heaving, caving hole conditions.

12-23-1981 TD 2295' PB 2285' Wait on Completion ,  
Ran 79 jts, J-55, New, 2-7/8 casing, 6.5#,  
2296' landed @ 2295', cemented with 200 sacks,  
Class B cement, 2% CaCl, good circulation during  
jog. Cement did not circulate.  
P.D. @ 5:00 P.M., 12-23-1981.  
Ran Bond log. Cement top at 1025'.

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

SIGNED

TITLE

Agent

DATE 12-29-1981

(This space for Federal or State official use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

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.

JICARILLA CONTRACT #12

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

JICARILLA TRIBE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

JICARILLA

9. WELL NO.

6-J

10. FIELD AND POOL, OR WILDCAT

Ballard Pictured Cliffs

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

Sec. 28, T24N, R5W

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

James L. Ludwick

3. ADDRESS OF OPERATOR

P.O. Box 70  
Farmington, New Mexico 874014. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)

At surface

800'FSL, 1520'FEL

14. PERMIT NO.

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

6592 Gr.

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.)\*

TD 2295' PB 2285' Cleaning Out Frac on 1-25-1982.

Perf 1 SPF @ 2181-85, 2188-2204, 2207-08,

1 SPF @ 2210, 2214, 2216, 2218, 2222,  
2224, 2226, 2233, 2236, 2239,  
2242, 2244, 2248, 2251, 2254,  
2256, 2259, 2262, Total 40 holes.Frac 2181-2262  
500 Barrels N<sub>2</sub> FOAM,  
50,000 # Sand,  
BDP 2600, TP 2000,  
IR: 15 B/M.

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

SIGNED

TITLE Agent

DATE 1-25-1982

(This space for Federal or State official use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

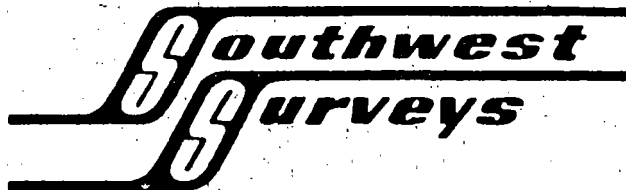
(See instructions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:				OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other _____		
b. TYPE OF COMPLETION:				NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESVR. <input type="checkbox"/>	Other _____
2. NAME OF OPERATOR James L. Ludwick									
3. ADDRESS OF OPERATOR P.O. Box 70 Farmington, New Mexico 87401									
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 800' FSL, 1520' FEL At top prod. interval reported below Same At total depth Same									
14. PERMIT NO.					DATE ISSUED				
5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract -12									
6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Tribe									
7. UNIT AGREEMENT NAME									
8. FARM OR LEASE NAME Jicarilla									
9. WELL NO. 6-J									
10. FIELD AND POOL, OR WILDCAT Ballard Pictured Cliffs									
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 28, T24N, R5W									
12. COUNTY OR PARISH Rio Arriba					13. STATE New Mexico				
15. DATE SPUDDED 12-12-81		16. DATE T.D. REACHED 12-22-81		17. DATE COMPL. (Ready to prod.) 3-22-1982		18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 6592 Gr.		19. ELEV. CASINGHEAD 6593	
20. TOTAL DEPTH, MD & TVD TD 2295		21. PLUG, BACK T.D., MD & TVD PB 2285		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY →		24. ROTARY TOOLS 0-2285	
25. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 2181-2262 Pictured Cliffs								26. WAS DIRECTIONAL SURVEY MADE Yes	
27. TYPE ELECTRIC AND OTHER LOGS RUN GRCCCL only								28. WAS WELL CORRED No	
29. CASING RECORD (Report all strings set in well)									
CASINO SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD	
7		24#		102 Gr		8-3/4		65 sx Circ Cl "B" 2% CaCl <sub>2</sub>	
2-7/8		6.5#		2295 Gr		6-1/4		200 sx CT 1025' Cl "B" 2% CaCl <sub>2</sub>	
30. LINER RECORD									
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)	
31. TUBING RECORD									
SIZE		DEPTH SET (MD)		PACKER SET (MD)					
1 1/4		2255							
32. PERFORATION RECORD (Interval, size and number) 1-SPF (0.40) Hole at 2181-85, 2188-2204, 2207, 2208, 2210, 2214, 2216, 2218, 2222, 2224, 2226, 2233, 2236, 2239, 2242, 2244, 2248, 2251, 2254, 2256, 2259, 2262. Total: 40									
33. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.									
DEPTH INTERVAL (MD)					AMOUNT AND KIND OF MATERIAL USED				
2181-2262					500 bbl. N <sub>2</sub> Foam 50,000# Sand BDP 2600 IR: 15 B/M				
34. PRODUCTION									
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)						WELL STATUS (Producing or shut-in)	
SHUT IN WAITING ON PIPELINE CONNECTION								SI/WOPLC	
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD		OIL—BBL.	
3-22-82		3		3/4		→		31	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BBL.		GAS—MCF.	
SIPT 180		7 da		→				250	
35. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold								TEST WITNESSED BY James L. Ludwick	
36. LIST OF ATTACHMENTS									
37. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records									
SIGNED		TITLE				Agent		DATE	
Claude L. Ludwick								3-23-1982	

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

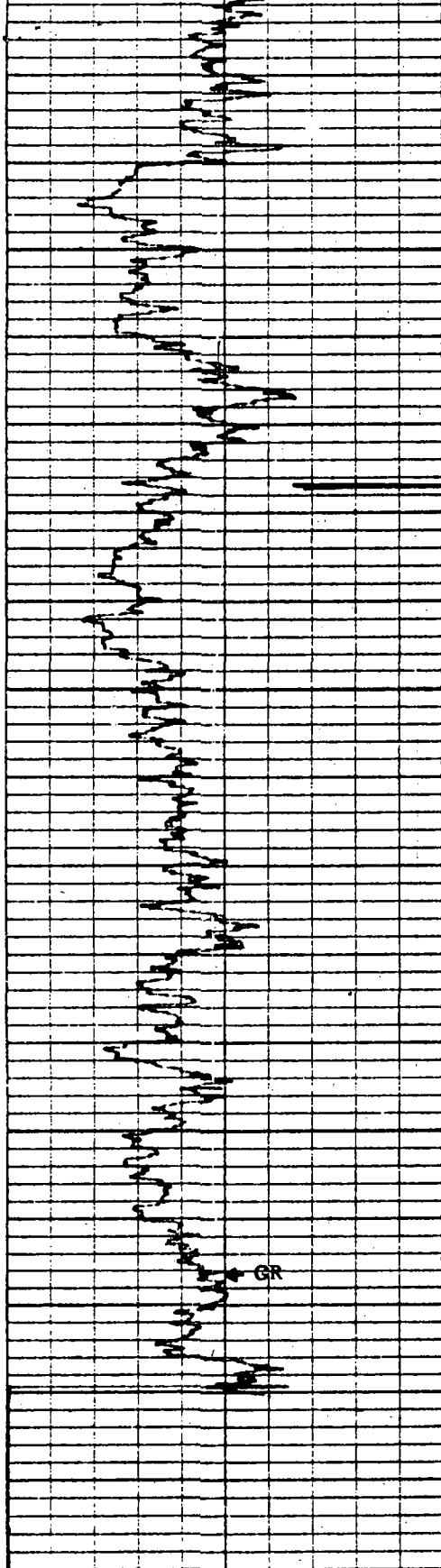
PICTURED CLIFFS TOP: 2180



GAMMA RAY NEUTRON

FILING NO.  	COMPANY <u>JAMES L. LUDWICK</u> WELL <u>JICARILLA #6-J</u> FIELD <u>BALLARD PICTURED CLIFFS</u> COUNTY <u>RIO ARriba</u> STATE <u>NEW MEXICO</u>						
LOCATION: <u>800' FSL &amp; 1520' FEL</u> SEC. <u>28</u> T. <u>24N</u> R. <u>5W</u>					OTHER SERVICES: <u>CBL</u>		
PERMANENT DATUM: <u>GROUND LEVEL</u> ELEV. <u>6592</u> LOG MEASURED FROM <u>G.L.</u> <u>0</u> FT. ABOVE PERM. DATUM DRILLING MEASURED FROM <u>G.L.</u>					ELEV. K.B. <u>-</u> D.F. <u>-</u> G.L. <u>6592</u>		
DATE		12-26-81					
RUN NO.		One					
TYPE LOG		GRN-CCL					
DEPTH-DRILLER		2295					
DEPTH-LOGGER		2284					
BOTTOM LOGGED INTERVAL		2284					
TOP LOGGED INTERVAL		800					
TYPE FLUID IN HOLE		Water					
SALINITY, PPM CL.		-					
DENSITY		-					
LEVEL		Full					
MAX. REC. TEMP., DEG F.		-					
OPERATING RIG TIME		2 Hours					
RECORDED BY		Akins-Pearson					
WITNESSED BY		Mr. Ludwick					
RUN		BORE-HOLE RECORD				CASING RECORD	
NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
1	8 3/4	Surf.	103	7"	24	Surf.	101
	5 1/8	103	2295	2 7/8	6.5	Surf.	2285

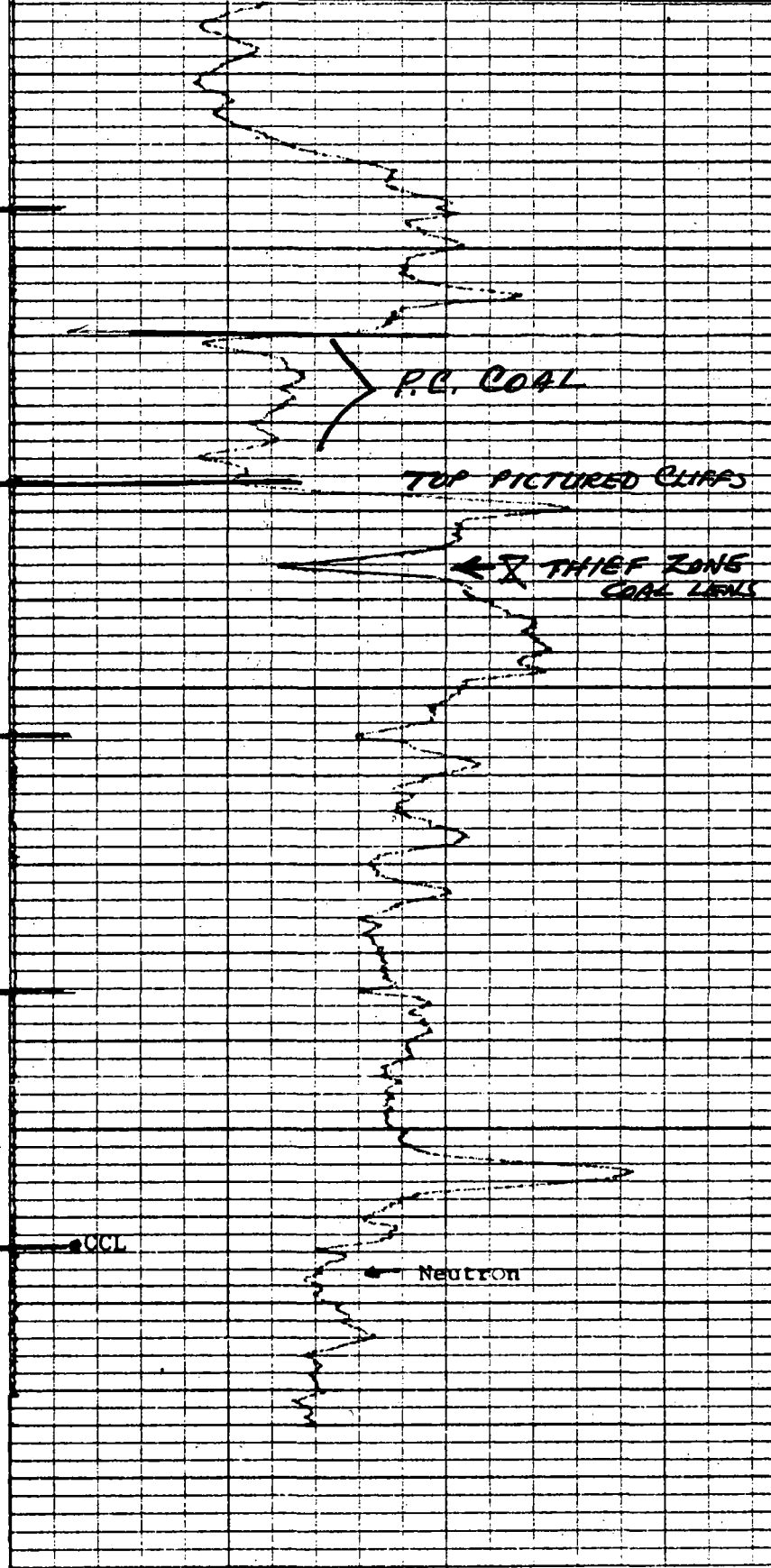
THIS HEADING AND LOG CONFORMS TO API RP 33 FOLD HERE



GR

2200

2284  
TD



P.C. COAL

TOP PICTURED CLIPS

THIEF ZONE  
COAL LENS

OCL

Neutron



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

May 19, 1982

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Claude C. Kennedy  
6109 Del Campo Place, NE  
Albuquerque, NM 87109

Re: Application for NGPA Infill Well  
Findings Under Provisions of  
Order No. R-6013-A James L. Ludwick,  
Jicarilla Well No. 6-J, Unit O, Section  
28; Township 24 North, Range 5 West,  
Rio Arriba County, New Mexico

Dear Mr. Kennedy:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Stogner".

Michael E. Stogner,  
Petroleum Engineer

MES/dp



- ☐ A copy of Form C-101 must be submitted.
- ☐ A copy of Form C-102 must be submitted.
- ☐ The pool name must be shown.
- ☐ The standard spacing unit size for the pool must be shown.
- ☐ Give the Division Order No. which granted the non-standard proration unit.
- ☐ Please state whether or not the well has been spudded and give the spud date, if any.
- ☐ Information relative to other wells on the proration unit is incomplete.

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- ☒ The geologic and reservoir data is incomplete or insufficient.  
Please submit a more detailed account on how the increase of production  
was determined, include production decline curves and calculation.

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- ☐ Other:

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CLAUDE C. KENNEDY  
INDEPENDENT OIL AND GAS OPERATOR

July 7, 1982

JUL 08 1982

OIL COMPANY  
SANTA FE

New Mexico OGD  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. Michael Stogner

Re: APPLICATION FOR ADMINISTRATIVE  
APPROVAL OF NFL ORDER for:  
James L. Ludwick  
6-J Jicarilla  
Unit O, 800'FSL, 1520'FEL  
Section 28, T24N, R5W  
Rio Arriba County, New Mexico

Dear Mr. Stogner:

In reply to your letter dated May 19, 1982 requesting additional information, we furnish the following:

1. Subject well is waiting on pipeline connection; therefore, a decline production curve can not be furnished.

On page 2 of the original application it was stated:

EXPECTED INCREASED ULTIMATE RECOVERY: 125 MMCF

We arrive at the above figure, expecting to deliver 25% of 250 mcf potential, projecting a 10% decline over 10 years.

The expected recovery could be tabulated as follows:

<u>Year</u>	<u>Recovery MCF</u>
1st	22,000
2nd	20,000
3rd	18,000
4th	16,000
5th	14,000
6th	12,000
7th	10,000
8th	8,000
9th	7,000
10th	6,000

CLAUDE C. KENNEDY  
INDEPENDENT OIL AND GAS OPERATOR

JUL 08 1982

July 7, 1982

page - 2

Letter - New Mexico OCD  
Attn: Mr. Michael Stogner

ESTIMATED PROJECTED 10 YR RECOVERY: 133 MMCF

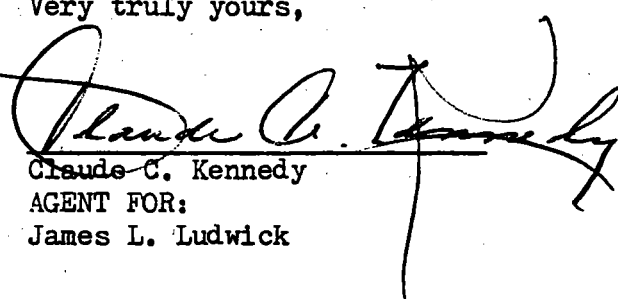
As a comparison, the projection can be compared to the actual decline as shown below which represents production for the offset well in Unit C, Section 33, T24N, R5W.

1972	22,455 MCF
1973	14,306
1974	8,791
1975	8,015
1976	7,356
1977	8,150
1978	7,332
1979	5,602
1980	3,768
1981	4,061

TOTAL: 90,133 MCF

Under the circumstances, I would think that this Expected Recovery as presented would be as accurate as could be expected, since this is the first infill drilling in this immediate area.

Very truly yours,

  
Claude C. Kennedy  
AGENT FOR:  
James L. Ludwick