12/2/97

SWD 690

Verbal to Randy Stevens on 12-19-97

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Oil Conservation Div.
2040 Pacheco St.
Santa Fe, NM 87505

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: X Secondary Recovery ______ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? X Yes ___ No

II. OPERATOR: Permian Resources, Inc. dba Permian Partners, Inc.

ADDRESS: P. O. Box 590 Midland, TX 79702

CONTACT PARTY: Robert H. Marshall PHONE: 915/ 685-0113

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project: ___ Yes X No
If yes, give the Division order number authorizing the project ______________

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/1 or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Robert H. Marshall TITLE: Vice President

SIGNATURE: [signature] DATE: Nov. 11, 1997

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. ______________

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

When an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

PERMIAN RESOURCES INCORPORATED

November 17, 1997

Oil Conservation Division
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for Authorization to Inject
Permian Resources, Inc.
Quail State #1
Quail (Queen) Field
660 fsl, 1980 fel
Section 11, T-19-S, R-34-E
Lea County, New Mexico

Sirs:

Enclosed, please find the documents for the referenced application.

- Form C-108
- Injection Well Data Sheet
- map identifying all wells and leases within the area of review
- tabulation of well data within area of review
- data on proposed operation
- geological data on injection zone
- proposed stimulation program
- logging data on well
- chemical analysis of fresh water
- statement of examination of geologic and engineering data
- proof of notice to newspaper
- proof of notice to surface owner
- sundry notice to BLM

Very truly yours,

Robert H. Marshall

P. O. BOX 590 · MIDLAND, TEXAS 79702-0590
PHONE: (915) 685-0113 · FAX: (915) 685-3621

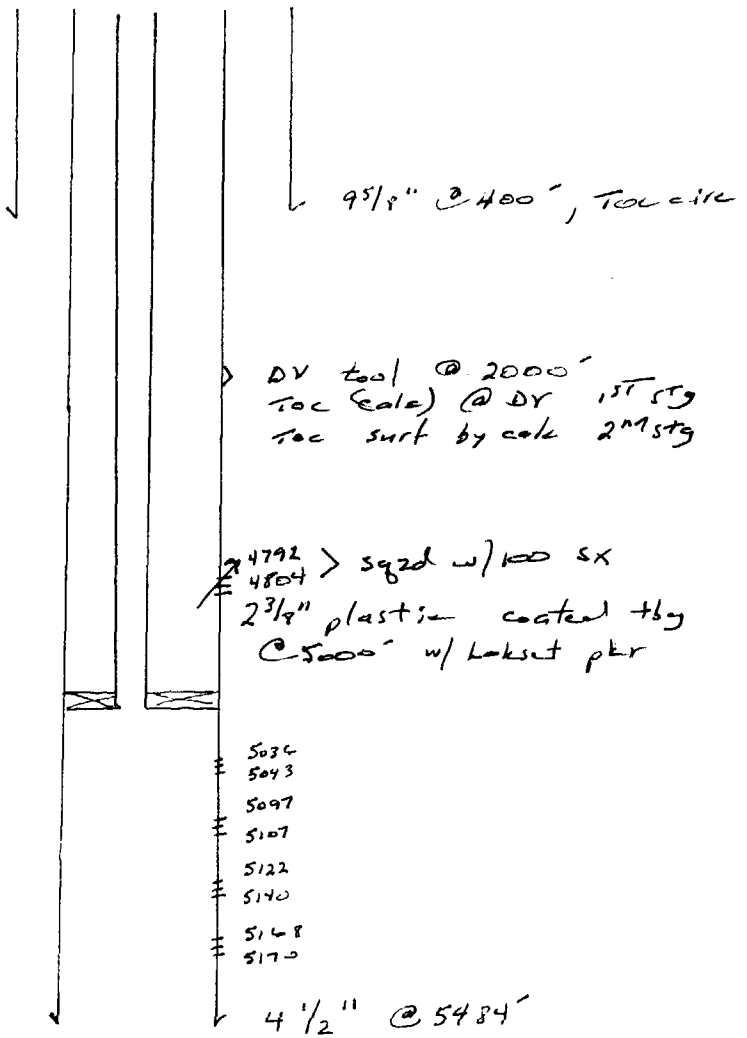
INJECTION WELL DATA SHEET

III. Side 1

OPERATOR: Permian Resources, Inc. dba Permian Partners, Inc. LEASE: Quail State

WELL NO. 1 | 660' FSL 1980' FEL (FOOTAGE LOCATION) | 11 (SECTION) | 19 South (TOWNSHIP) | 34 East (RANGE)

Schematic



Well Construction Data

Surface Casing

Size 9-5/8" Cemented with 240 sx.

TOC Circ. feet determined by Circ.

Hole Size 12-1/4"

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole Size _____

Long String

Size 4-1/2" Cemented with 1115 sx. in two stages

TOC surf by calc, feet determined by w/DV tool

Hole Size 7-7/8"

Total Depth 5484' RKB PBTD

Injection Interval 5036 - 5043; 5097 - 5107; 5122 - 5140; 5168 - 5170; 52 holes

Perf'd 5036 feet to 5170 feet

(perforated or open-hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size 2-3/8" lined with plastic coated (type of internal coating) set in a Lokset packer at 5000 feet

Other type of tubing / casing seal if applicable _____

Other Data

1. Is this a new well drilled for injection? ____ Yes X No

   If no, for what purpose was the well originally drilled? oil well

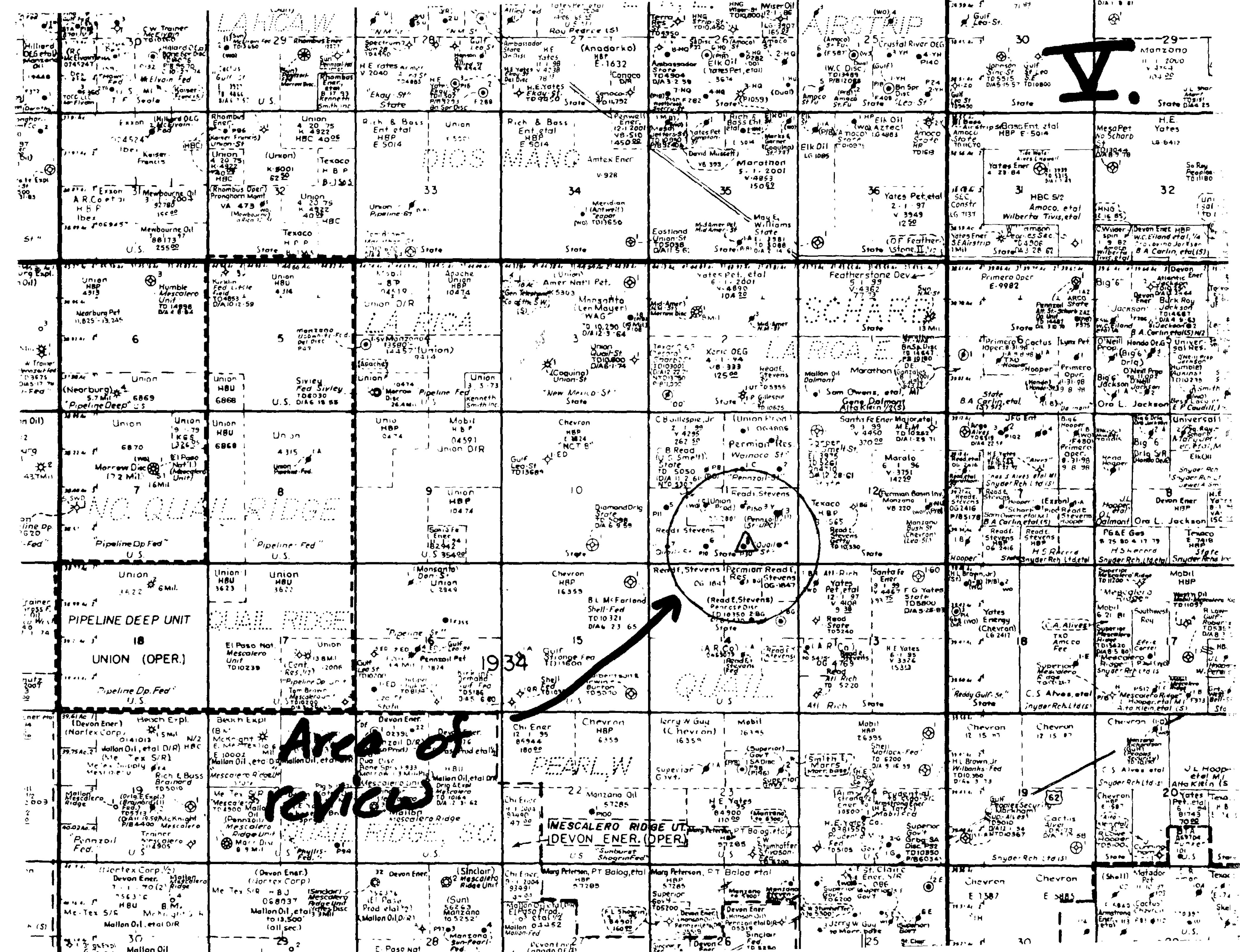
2. Name of the injection formation Queen (Penrose) Sand

3. Name of Field or Pool (if applicable) Quail (Queen)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Perfed Queen 4792'-4804', squeezed w/100 sxs.

5. Give the names and depths of any over or underlying oil of gas zones (pools) in this area.

   None active - Bone Springs produced 2000± BO in area of review in 1968 @ 9786'±.



V.
Area of review
PIPELINE DEEP UNIT
UNION (OPER.)
MESCALERO RIDGE UT.
DEVON ENER. (OPER.)
1934

VI. Tabulation of Well Data for Wells Within the Area of Review

Permian Resources, Inc.:

- Pennzoil State #1C

1980' fnl, 1980' fel, Section 11, T-19-S, R-34-E, Unit G
Completed 12-14-68, IP P 75 BOPD, 75 BWPD
Perfs: 4992-5234', acidized 2000 gals, fraced 50,000 gal/ 50,000 # sd
Current status: producing
8 5/8" csg @ 397' cmtd with 150 sx
4 1/2" csg @ 5297' cmtd with 250 sx
TD 5300'

- State "C" #1

2080' fsl, 1980' fwl, Section 11, T-19-S, R-34-E, Unit K
Completed 9-1-69, IP P 7 BOPD, 15 BWPD
Perfs: 4783-5120', acidized 2500 gals, fraced 86,000 gal/ 50,000 # sd
Current status: producing
8 5/8" csg @ 407' cmtd with 150 sx
5 1/2" csg @ 5168' cmtd with 250 sx
TD 5168'

- Quail State #2

1980' fsl, 1980' fel, Section 11, T-19-S, R-34-E, Unit J
Completed 4-15-78, IP P 150 BOPD, 37 BWPD
Perfs: 5082-90', acidized 1000 gals, fraced 20,000 gal/ 25,000 # sd
Current status: producing
12 3/4" csg @ 28' cmtd with 15 sx
8 5/8" csg @ 1900' cmtd with 375 sx
4 1/2" csg @ 5414' cmtd with 500 sx
TD 5415'

- Quail State #3Y

1841' fsl, 759' fel, Section 11, T-19-S, R-34-E, Unit I
Completed 3-11-79, IP P 35 BOPD
Perfs: 5002-5540', acidized 3250 gals, fraced 54,700 gal/ 51,000 # sd
Current status: producing
8 5/8" csg @ 1850' cmtd with 575 sx
4 1/2" csg @ 5600' cmtd with 550 sx
TD 5600'

- Quail State #4

660' fsl, 660' fel, Section 11, T-19-S, R-34-E, Unit P
Completed 1-1-80, IP P 25 BOPD, 6 BWPD
Perfs: 5080-5122', completed natural
Current status: producing
8 5/8" csg @ 1855' cmtd with 675 sx
4 1/2" csg @ 6200' cmtd with 1500 sx
TD 6200'

- Quail State #6

660' fsl, 1980' fwl, Section 11, T-19-S, R-34-E, Unit N
Completed 9-22-80, IP P 10 BOPD, 35 BWPD
Perfs: 5056-5158', acidized 1000 gals, fraced 20,000 gal/ 25,000 # sd
Current status: producing
8 5/8" csg @ 1904' cmtd with 800 sx
4 1/2" csg @ 6200' cmtd with 850 sx
TD 6200'

- Quail State #7

660' fsl, 660' fwl, Section 11, T-19-S, R-34-E, Unit M
Completed 7-12-81, IP P 2 BOPD, 24 BWPD
Perfs: 5062-5157', acidized 1000 gals, fraced 20,000 gal/ 20,000 # sd
Current status: shut in
8 5/8" csg @ 1882' cmtd with 700 sx
4 1/2" csg @ 5312' cmtd with 685 sx
TD 5312'

- State BG #2

1980' fnl, 1680' fel, Section 14, T-19-S, R-34-E, Unit G
Completed 5-8-77, IP P 24 BOPD, 71 BWPD
Perfs: 5178-5186', acidized 1000 gals, fraced 20,000 gal/ 36,000 # sd
Current status: producing
9 5/8" csg @ 415' cmtd with 190 sx
4 1/2" csg @ 5570' cmtd with 100 sx
TD 5570'

- State BG #3

660' fnl, 1980' fel, Section 14, T-19-S, R-34-E, Unit B
Completed 8-1-77, IP P 20 BOPD, 92 BWPD
Perfs: 5136-5142', acidized 1000 gals, fraced 12,100 gal/ 10,000 # sd
Current status: producing
9 5/8" csg @ 420' cmtd with 150 sx
4 1/2" csg @ 5548' cmtd with 1190 sx
TD 5548'

Pennzoil.:

- State UPC #11-1

1830' fsl, 660' fel, Section 11, T-19-S, R-34-E, Unit I
Completed 4-1-68, IP F 186 BOPD 18/64
Perfs: 9786-9787' Bone Spring, acidized 500 gals
Current status: P&A
13 7/8" csg @ 350' cmtd with 280 sx
8 5/8" csg @ 4000' cmtd with 650 sx
4 1/2" csg @ 10500' cmtd with 600 sx
TD 10,500'

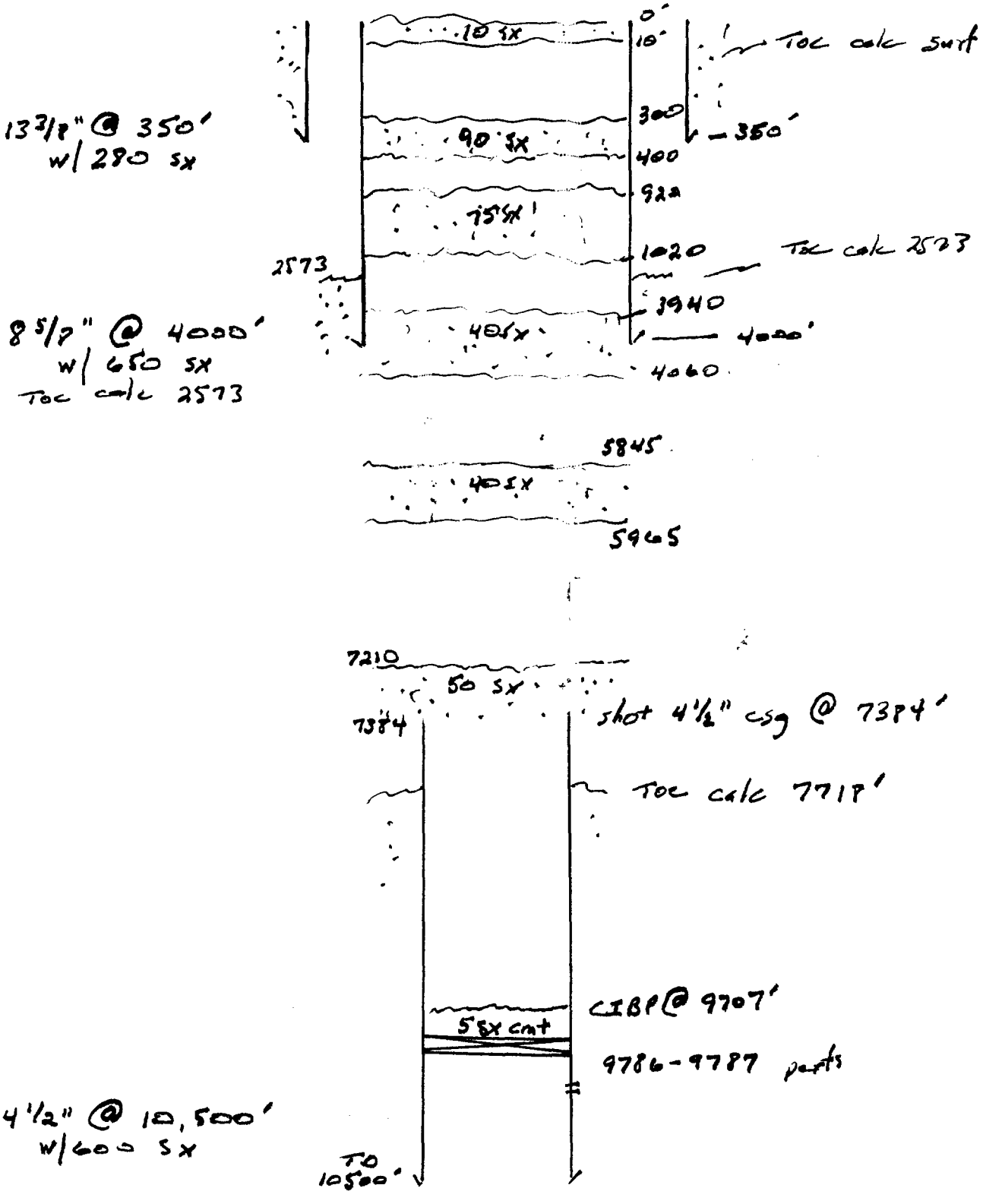
Read & Stevens, Inc.:

- Quail State #3 (formerly, Pennzoil State UPC #11-1)

1830' fsl, 660' fel, Section 11, T-19-S, R-34-E, Unit I
no new potential, cleaned out to 1098' then P&A
Perfs: no new perfs
Current status: P&A
set 75 sx plug 1020' to 920', 90 sx plug 400' to 300', 10 sx plug 10' to surf; 1-31-79
13 7/8" csg @ 350' cmtd with 280 sx
8 5/8" csg @ 4000' cmtd with 650 sx
4 1/2" csg @ 10500' cmtd with 600 sx
TD 10,500'

State UPC #11-1
aka Quail State #3

1830 fsl 660 fel Sect. 11 T-19-S, R-34-E, Unit I



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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: OG - 2001

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 —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER.

7. Unit Agreement Name:

2. Name of Operator: Pennzoil United, Inc.

8. Farm or Lease Name: State U.P.C. "11"

3. Address of Operator: P. O. Drawer 1828 - Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER I, 1830 FEET FROM THE South LINE AND 660 FEET FROM THE East LINE, SECTION 11 TOWNSHIP 19-S RANGE 34-E NMPM.

10. Field and Pool, or Wildcat: Scharb Bone Spring

15. Elevation (Show whether DF, RT, GR, etc.): 3971 KB

12. County: Lea

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER [ ]	

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Well plugged & abandoned on March 4, 1972 as follows:

Set C.I.B.P. @ 9707'. - Dumped 5 sx cement on top.
Shot 4 1/2" casing @ 7384'
Set 50 sk plug from 7384-7210'
Set 40 sk plug from 5965-5845'
Set 40 sk plug from 4060-3940'
Shot 8 5/8" casing @ 1015'
Set 50 sk plug from 1015-915'
Set 50 sk plug from 390-290'
Set 10 sk plug from 25' to surface.

Welded plate on top of 13 3/8" casing & erected dry hole marker.

Brine w/25 sx gel per 100 bbls. water placed between all plugs.

Job complete @ 12:00 noon on March 4, 1972

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

SIGNED [signature] TITLE Drilling Superintendent DATE 3-13-72

APPROVED BY Nathan E. Clegg TITLE OIL & GAS INSPECTOR DATE NOV 15 1972

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED		
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STATE FE		
E		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: OG-2001

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 —" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL [ ] GAS WELL [ ] OTHER- Dry Hole

7. Unit Agreement Name: --

2. Name of Operator: Read & Stevens, Inc.

8. Farm or Lease Name: Quail State

3. Address of Operator: P. O. Box 1518, Roswell, NM 88201

9. Well No.: 3

4. Location of Well: UNIT LETTER I, 1830 FEET FROM THE South LINE AND 660 FEET FROM THE East LINE, SECTION 11 TOWNSHIP 19-S RANGE 34-E NMPM.

10. Field and Pool, or Wildcat: Quail Queen

15. Elevation (Show whether DF, RT, GR, etc.): 3960' GR

12. County: Lea

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER [ ]	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Old TD 10,500', cleaned out to 1098'. Plugged and abandoned as follows:

1. Laid down drill collars and ran tubing open ended to 1020'.
2. Set 75 sx. Class H cement plug 1020' to 920'.
3. Set 90 sx. Class H cement plug 400' to 300'.
4. Set 10 sx. Class H cement plug 10' to surface.
5. Installed Dry Hole marker.
6. Released rig @ 3:00 P.M., 1-31-79.

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

SIGNED John L. Anderson Jr. TITLE Agent DATE 2-12-79

APPROVED BY Chris Williams TITLE OIL & GAS INSPECTOR DATE 2-13-80

CONDITIONS OF APPROVAL, IF ANY:

VII. Data on the Proposed Operation

1. proposed average injection rate: 50 BWPD
   proposed maximum injection rate: 800 BWPD
2. type of system: closed
3. proposed average injection pressure: 250 psi
   proposed maximum injection pressure: 1200 psi
4. sources of injection fluid: Quail (Queen) field produced water
5. not applicable

VII. Geological Data on Injection Zone

Lithologic detail:

sandstone, medium to fine-grained, subangular, subrounded with occasional large round frosted grains, some dolomite and/or dolomite cement

Sources of drinking water in area of review:

per State of NM Land Office Geologist; Section 11: Ogallala sand from 74 to 150', limited quantity of water; Section 14: aeolian sands from 75 to 130", very limited quantities of water; no water wells in area of review or within one mile of proposed injection well

IX. Proposed Stimulation Program

none anticipated, up to 2,500 gal nefe HCL if necessary

X. Logging and Test Data

see attached

XI. Chemical Analysis of Fresh Water

no fresh water wells within one mile of proposed injection well

XII. Geological Statement

I have examined all geologic and engineering data available for the Quail (Queen) field and find no evidence of open faults and other hydrologic connection between the disposal zone and any underground drinking water sources.

Robert Marshall, Certified Petroleum Geologist #2528

Dresser Atlas

COMPENSATED **Densilog**
COMPENSATED **Neutron**

~~READ & STEVENS, INC.~~
~~P. O. BOX 1518~~
~~ROSWELL, NEW MEXICO 88201~~

COMPANY	Read & Stevens Inc.
WELL	Quail State #1
FIELD	Quail
COUNTY	Lea
STATE	New Mexico
LOCATION:	1980 FEL & 660 FSL
Other Services	DLL, MLL
SEC	11
TWP	19S
RGE	34E

Permanent Datum	GL	Elev	3963.8
Log Measured from	KB	10' Ft Above Permanent Datum	
Drilling Measured from	KB		

Elevations: KB 3974, DF —, GL 3963.8

Date	7-2-77			
Run No.	One			
Depth—Driller	5500			
Depth—Logger	5476			
Bottom Logged Interval	5474			
Top Logged Interval	Surf			
Casing—Driller	9 5/8 @ 400	@	@	@
Casing—Logger	394			
Bit Size	7 7/8			
Type Fluid in Hole	Sea Mud + 4 Starch			
Density and Viscosity	10.3 | 41			
pH and Fluid Loss	8.5 | 9.6 cc	cc	cc	cc
Source of Sample	Flowline			
Rm @ Meas. Temp.	.066 @ 85 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.061 @ 85 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	M | —			
Rm @ BHT	.055 @ 107 °F	@ °F	@ °F	@ °F
Time Since Circ.	4.0 hrs			
Max. Rec. Temp. Deg. F.	107 °F	°F	°F	°F
Equip. No. and Location	6124 Hobbs			
Recorded By	Duewke			
Witnessed By	Reddy			

FOLD HERE

Remarks:
CN recorded w/ bowspring decentralizer
Pb φ Dg = 2.71
Df = 1.10

Equipment Used			
Series No.	2207M	2413	1306
Run No.	One		
S.O.	76367		
Tool No.	31486	30480	31081
Elec. No.	—		
Panel No.	31535	28613	32559

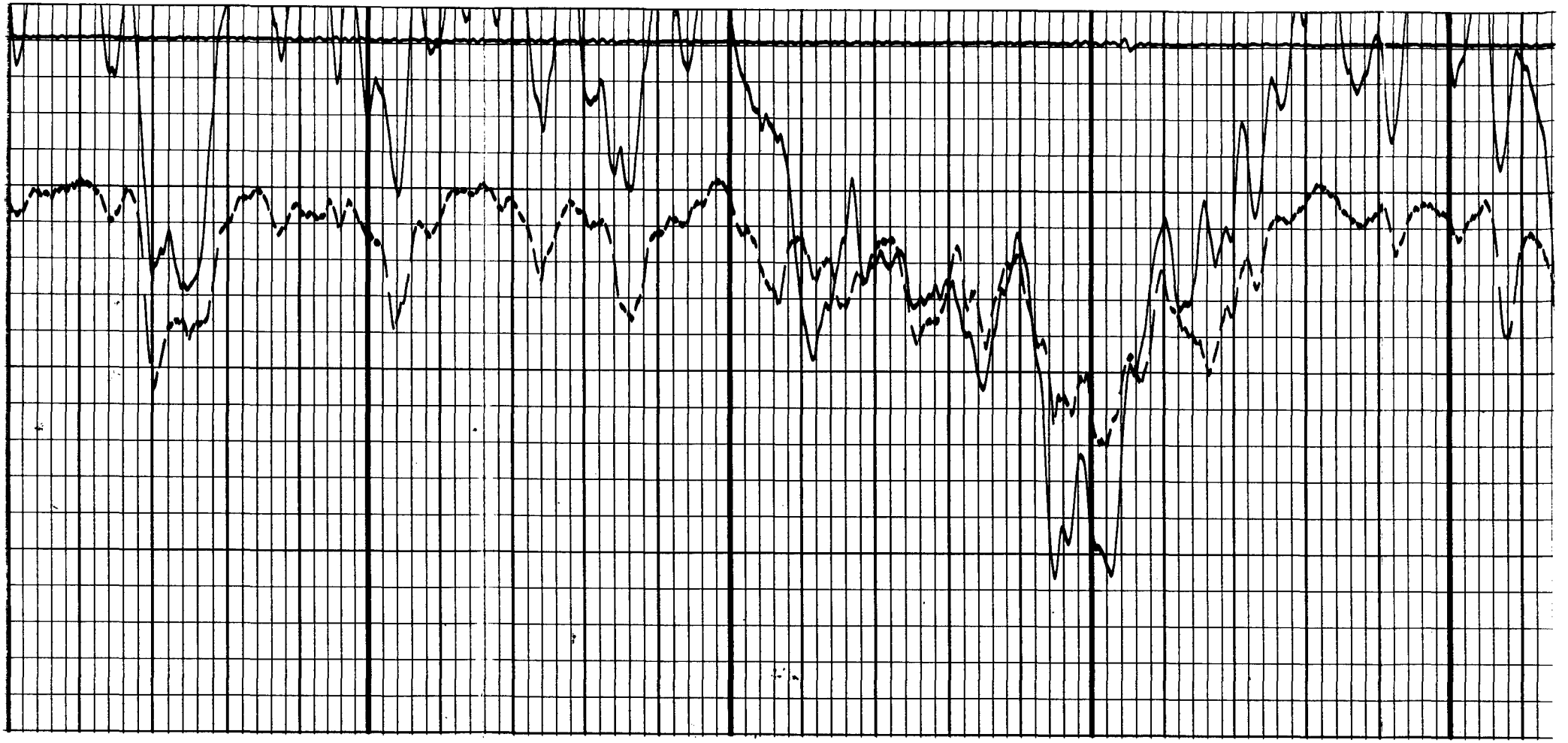
Equipment Data

Gamma Ray			Compensated Densilog		Compensated Neutron
Run No.	One		Run No.	One	One
Tool Model No.	1306		Tool Model No.	2207M	2413
Serial No.	31081		Serial No.	31486	30480
Diam.	3.5"		Diam.	5.5"	3.62"
Detect. Model No.	D6G4		Computer Model No.	2254	2254
Type	Scint		Serial No.	31535	28613
Length	6"		Source Model No.	S3T20	S1752054
Dist. to Source	10'		Serial No.	425	30797

General			Computer Data
Hoist Truck No.			
Auxiliary Equipment			

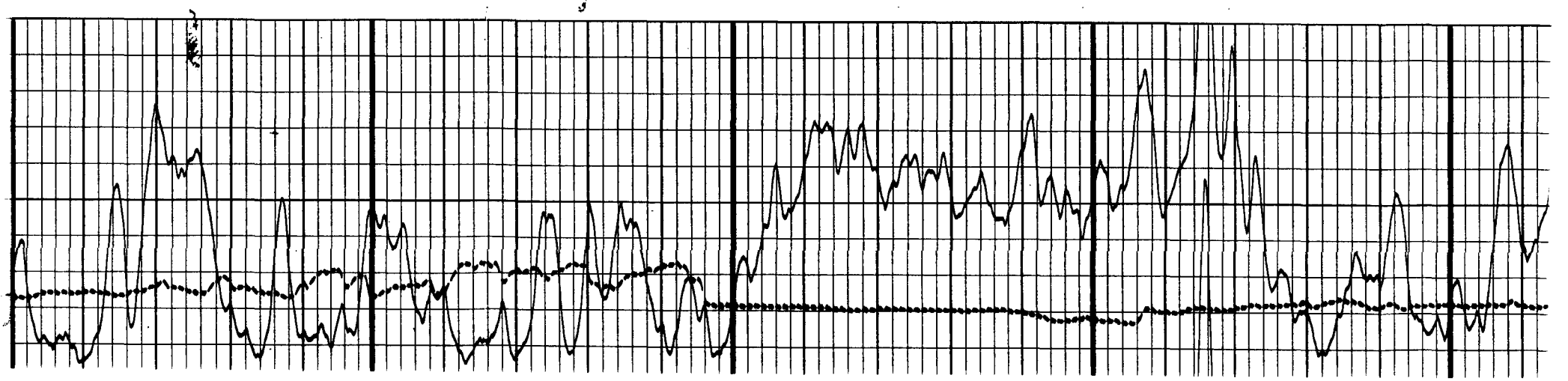
Logging Data

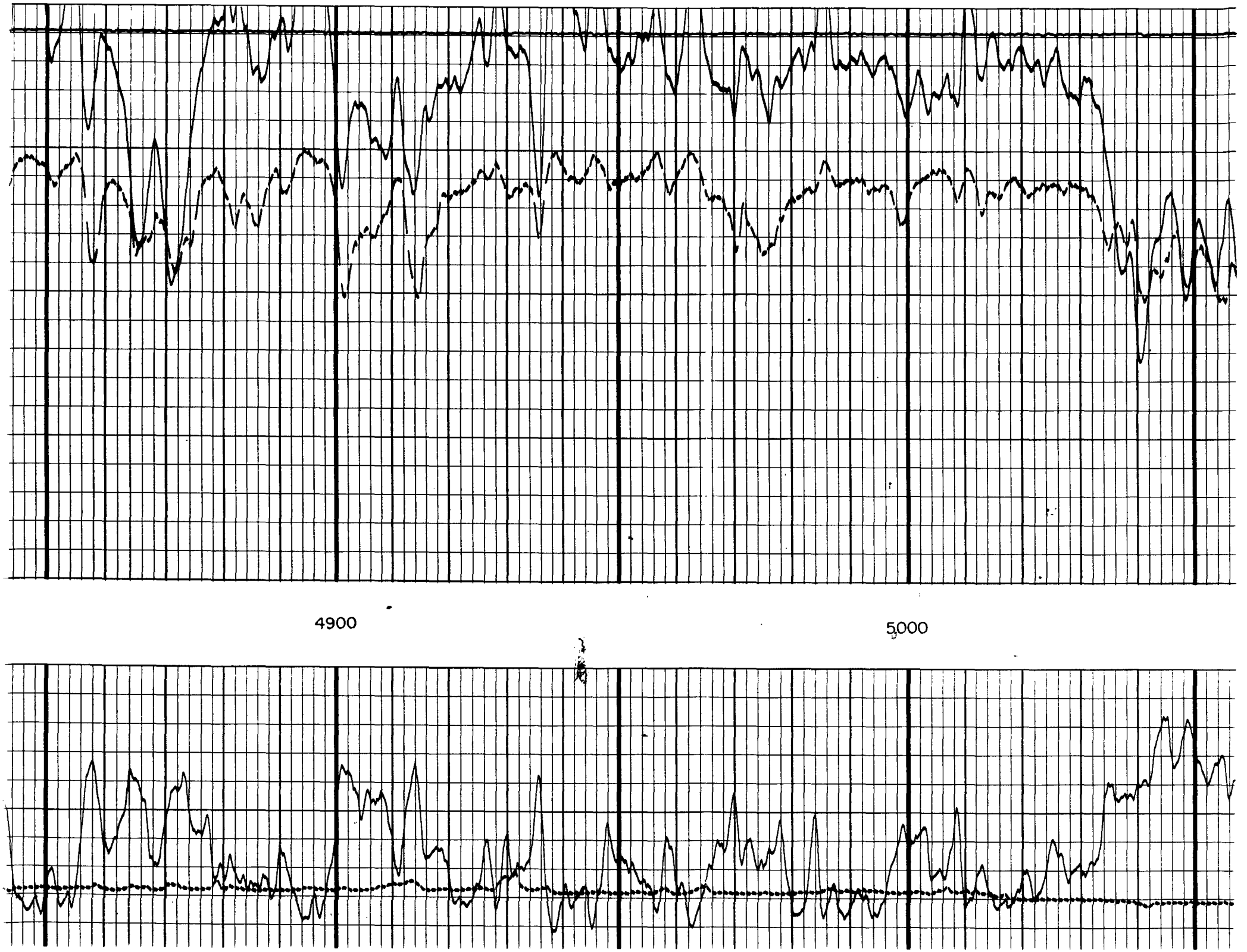
Run No.	Depths From	Depths To	Speed Ft./Min.	T.C. Sec.	Density Scale	Correction Scale	Porosity Scale Data	T.C. Sec.	Sens Settings	Zero Div. L or R	API G R Units/Div
1	5476		Rec	CCTC	2.0-3.0	.1/CD	Dg = 2.71	2	698	0	10
1	3300	Surf					Df = 1.10	1	698	0	10



4700

4800

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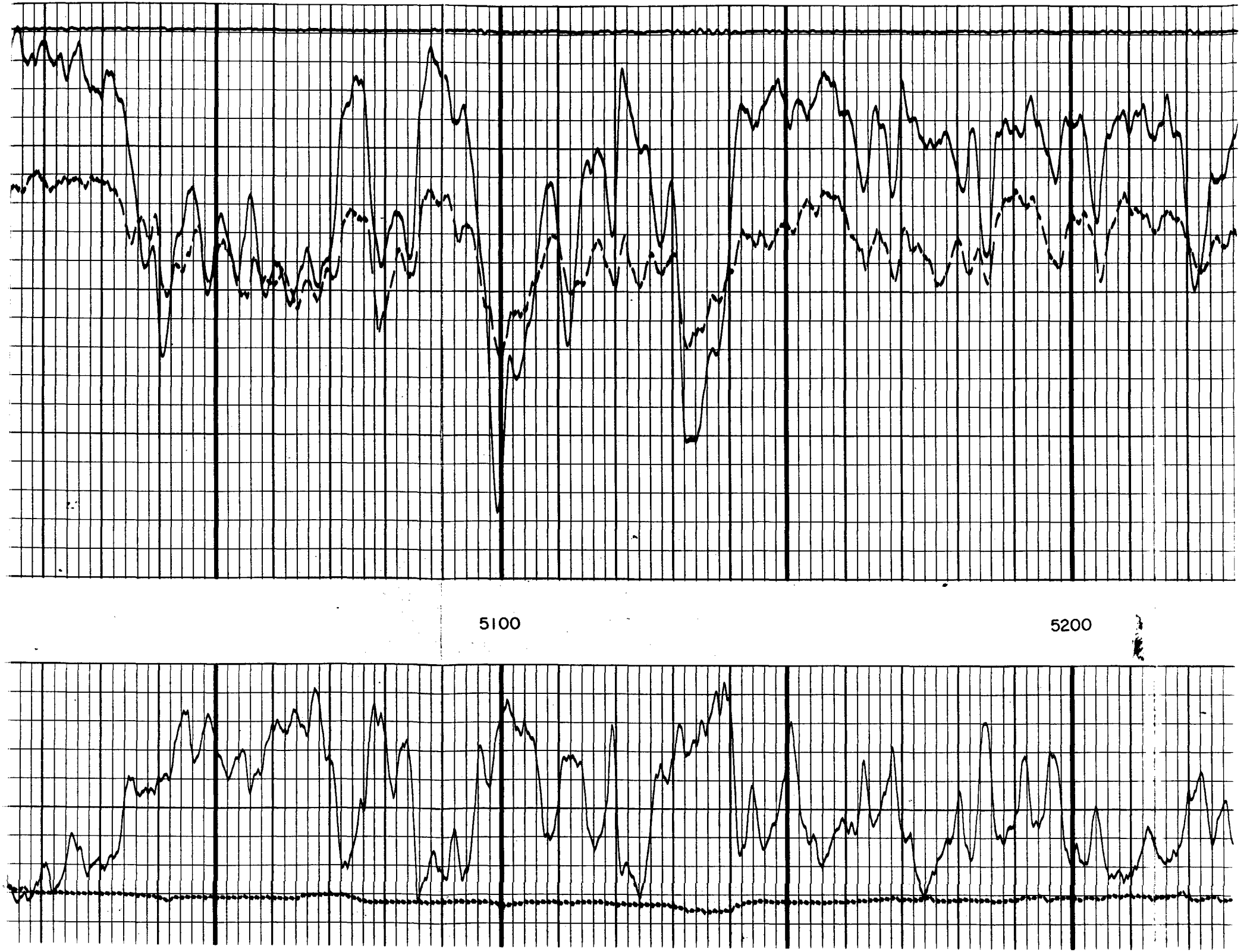
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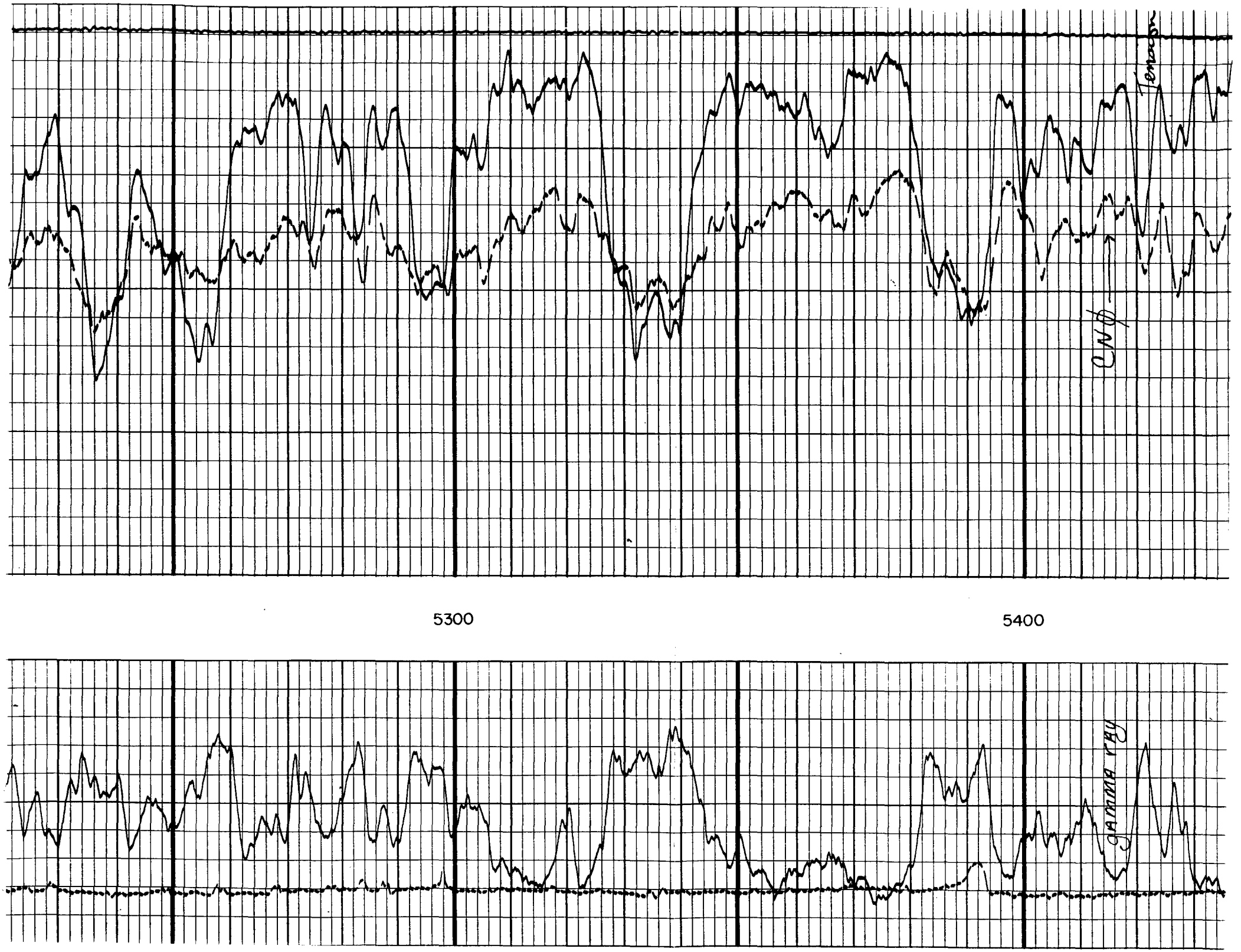

Tension
CNL
5300
5400
GAMMA RAY

Dresser Atlas — Dual Laterolog

RxO

FILE NO.

COMPANY Read & Stevens Inc.

WELL Quail State #1

FIELD Quail

COUNTY Lea STATE New Mexico

LOCATION: 1980 FEL & 660 FSL SEC 11 TWP 19S RGE 34E

Other Services: CN/CDL

Elevations: KB 3974 DF GL 3963.8

Permanent Datum GL Elev. 3963.8

Log Measured from KB 10 Ft. Above Permanent Datum

Drilling Measured from KB

Date	7-2-77		
Run No.	One		
Depth—Driller	5500		
Depth—Logger	5475		
Bottom Logged Interval	5472		
Top Logged Interval	3300		
Casing—Driller	9 5/8 @ 400	@	@
Casing—Logger	not reach	@	@
Bit Size	7 7/8		
Type Fluid in Hole	Sea Mud + Starch		
Density and Viscosity	10.3 41		
pH and Fluid Loss	8.5 9.6 cc	cc	cc
Source of Sample	Flowline		
Rm @ Meas. Temp.	.066 @ 85 °F	@ °F	@ °F
Rmf @ Meas. Temp.	.061 @ 85 °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F
Source of Rmf and Rmc	M —		
Rm @ BHT	.055 @ 102 °F	@ °F	@ °F
Time Since Circ.	8 hrs	°F	°F
Max. Rec. Temp. Deg. F.	102 °F	°F	°F
Equip. No. and Location	6124 Hobbs		
Recorded By	Dueweke		
Witnessed By	Reddy		

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP 31

REMARKS

Equipment Used

Series No.	1221	3501	1308	3102
Run No.	One			
S.O.	76367			
Tool No.	31395	31380	31409	34948
Elec. No.	31756			
Panel No.	31427			

Changes in Mud Type or Additional Samples

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Dens.	Visc.				
pH	Fluid Loss	cc		cc	
Source of Sample					
Rm @ Meas. Temp.		@ °F		@ °F	
Rmf @ Meas. Temp.		@ °F		@ °F	
Rmc @ Meas. Temp.		@ °F		@ °F	
Source Rmf	Rmc				
Rm @ BHT		@ °F		@ °F	
Rmf @ BHT		@ °F		@ °F	
Rmc @ BHT		@ °F		@ °F	

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole

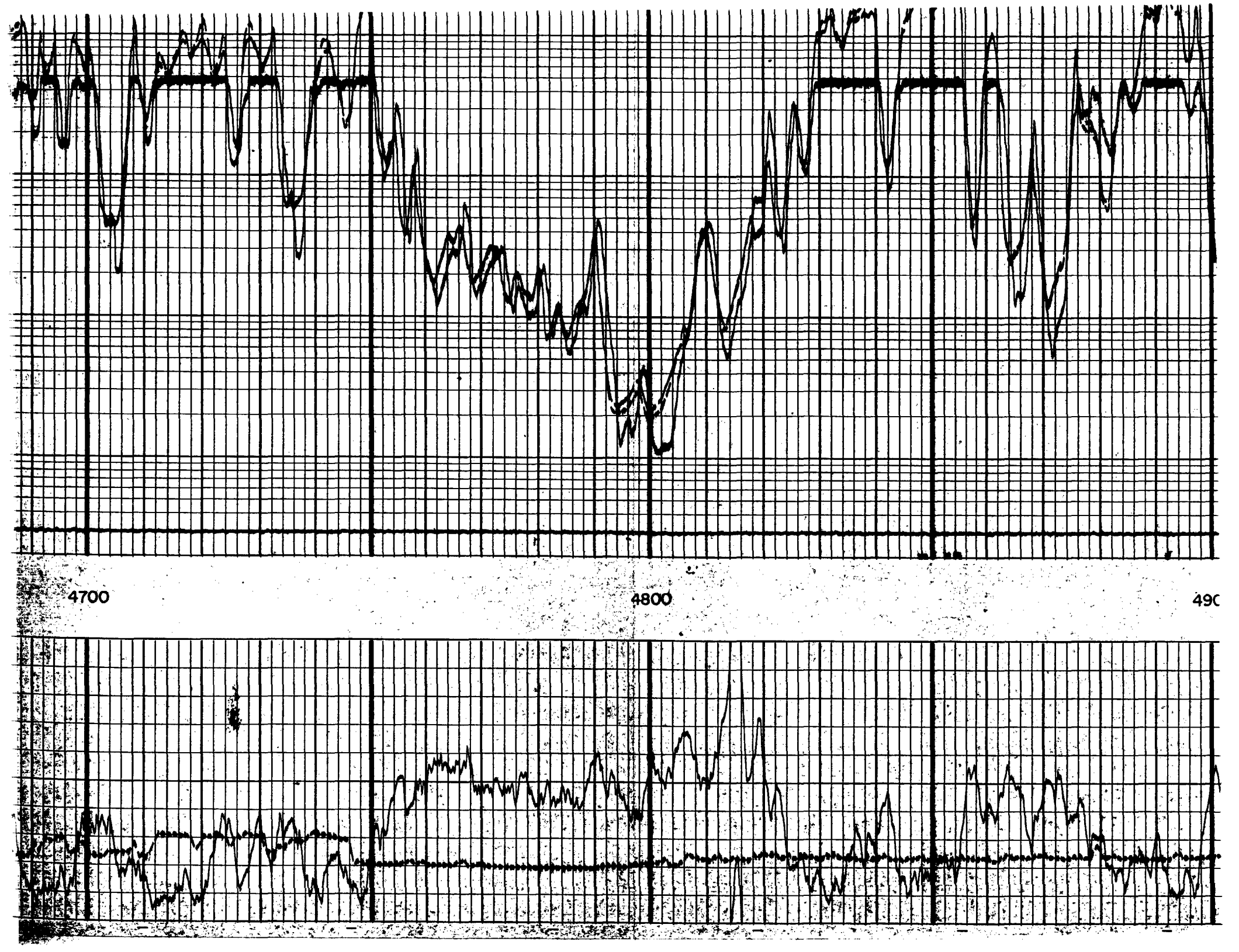
Equipment Data

Run No.	Tool Type	Pad Type	Tool Position	Other
One	See Above	—	Cent	—

DETECTOR TYPE

DETECTOR LENGTH

BEAM WIDTH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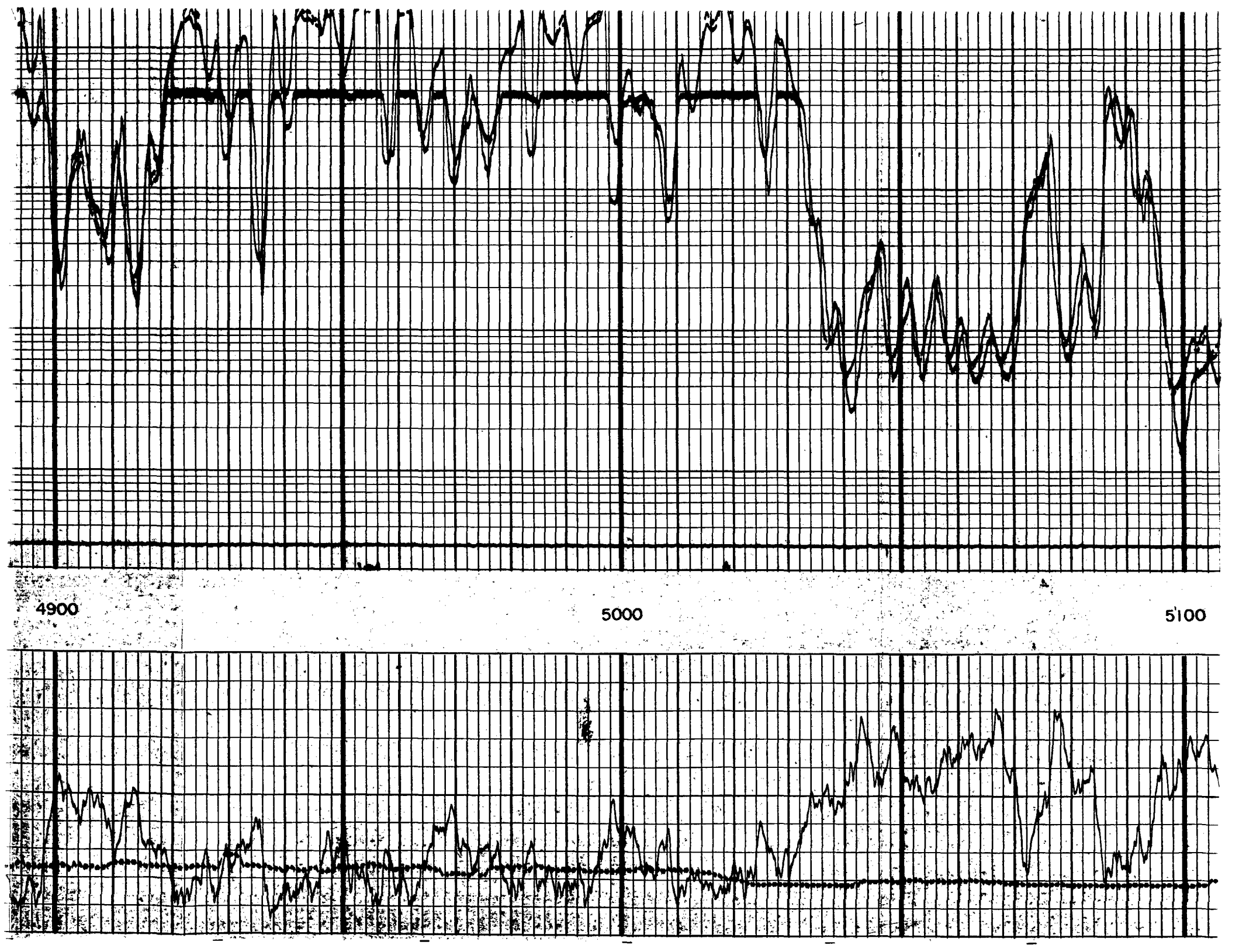
4800
490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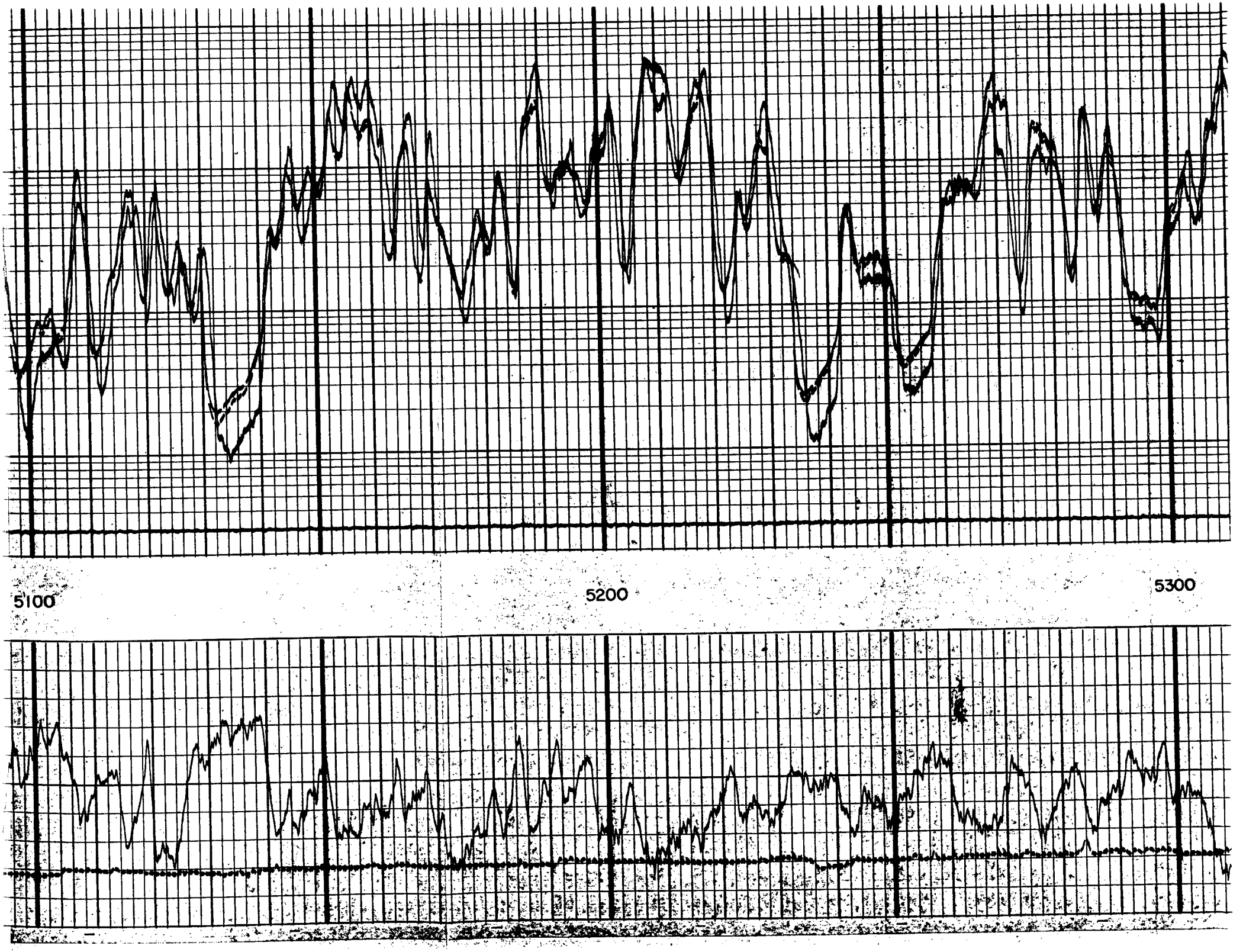
5000
5100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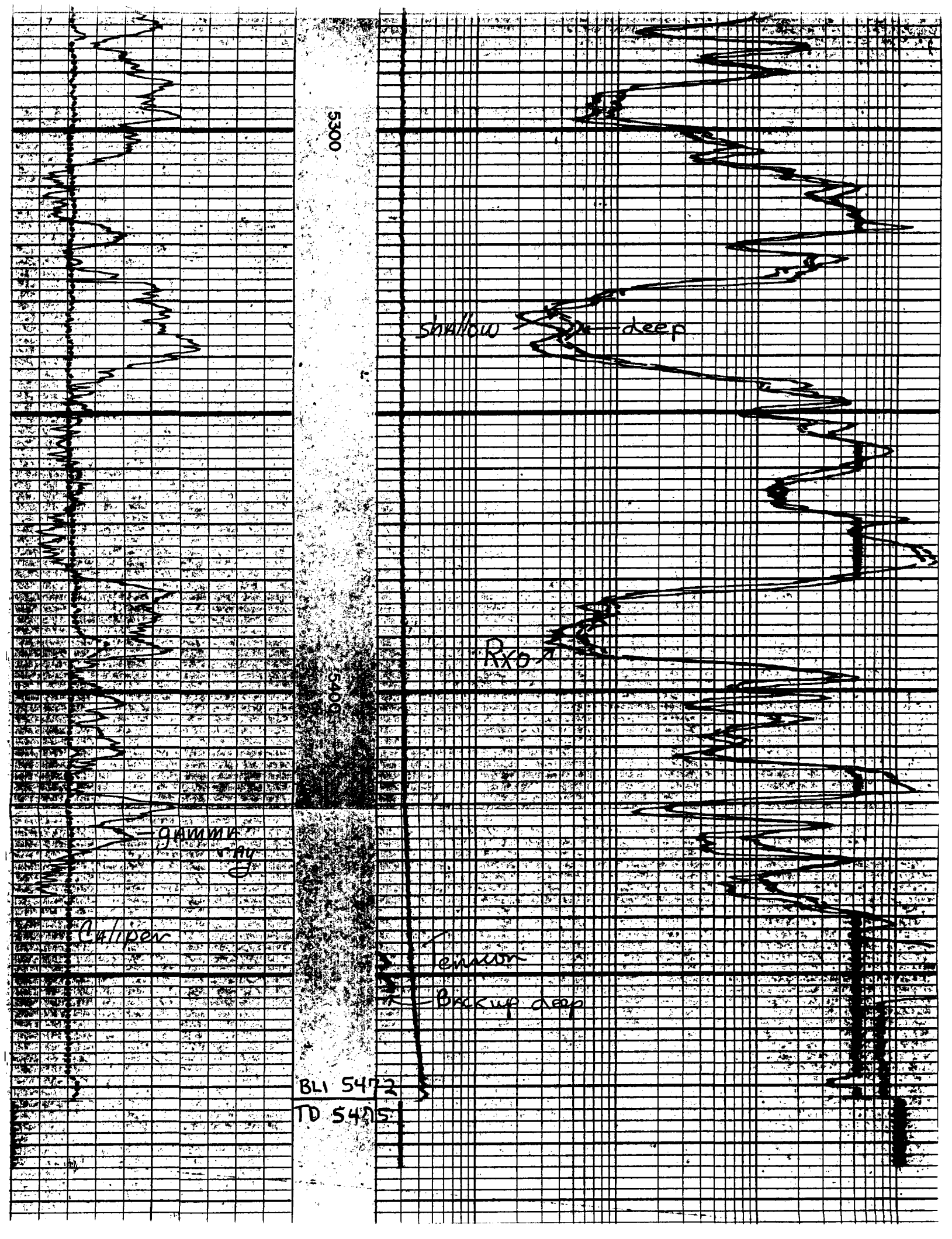
5300
shallow
deep
Rxo
5400
GAMMA RAY
Caliper
Tension
Backup deep
BLI 5472
TD 5405

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OPERATOR		

Form C-105
Revised 11-1-58

X.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: OG-2001

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] OTHER

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name: ----------

8. Farm or Lease Name: Quail State

2. Name of Operator: Read & Stevens, Inc.

9. Well No.: 1

3. Address of Operator: P.O. Box 2126, Roswell, New Mexico 88201

10. Field and Pool, or Wildcat: Quail Queen

4. Location of Well

UNIT LETTER 0 LOCATED 660 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE OF SEC. 11 TWP. 19-S RGE. 34-E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
6-2-77	7-1-77	10-12-77	3963.77' GR-3974' RKB	3964'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
5500'	5484'	----------	⟶	0-5500'	None

24. Producing Interval(s), of this completion — Top, Bottom, Name

5036'-5043', 5097'-5107', 5132'-5140' & 5168'-5170', Queen Sand

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run

-CN-CDL, DLL-RXD

27. Was Well Cored: Yes

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

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	400'	12 1/4"	240 sx-circulated	None
4 1/2"	9.5# &10.5#	5484'	7 7/8"	1115 sx- 2 stages w/ DV tool @ 2000'	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 3/8"	5224'	5193' (seating nipple)

31. Perforation Record (Interval, size and number)

4792'-4804' w/ 24(½") shots-Squeezed
5036'-5043' w/ 14(½") shots-Producing
5097'-5107' w/ 18(½") shots-Producing
5132'-5140' w/ 16(½") shots-Producing
5168'-5170' w/ 4 (½") shots-Producing

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

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
See Schedule	

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)	Well Status (Prod. or Shut-in)
7-17-77	Pumping	Producing

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period ⟶	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas—Oil Ratio
10-12-77	24	--------	⟶	30	TSTM	30	TSTM

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate ⟶	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)
--------	----------	⟶	30	TSTM	30	33°

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Fuel

Test Witnessed By: Dan Lough

35. List of Attachments

2 copies Logs & Inclination Report

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED John R. Anderson Jr. TITLE Agent DATE 10-13-77

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 36 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	1846' (+2128)	T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt	1973' (+2001)	T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt	3312' (+662)	T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates	3577' (+397)	T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen	4750'(-776)	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from 5036' to 5043' oil sand No. 4, from 5168' to 5170' oil sand

No. 2, from 5097' to 5107' oil sand No. 5, from ..... to .....

No. 3, from 5132' to 5140' oil sand No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from 4792' to 4804' feet. Pump 92 BSWPD

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1846'	1846'	Red Beds				
1846'	1973'	127'	Anhy.				
1973'	3312'	1339'	Salt				
3312'	3577'	265'	Anhy. & dolo.				
3577'	4750'	1173'	Anhy., dolo., sand & shale				
4750'	5500'	750'	Sand, dolo., anhy. & shale				

Read & Stevens, Inc. #1 Quail State
Schedule

32. Acid, Shot, Fracture, Cement Squeeze, etc.

4792'-4804'	Acidized w/ 1000 gals. 15% NE acid & Fraced w/ 20,000 gals. gelled water & 25,000# 20/40 sand & 5000# 10/20 sand. Squeezed w/ 100 sx. Class "C" cement w/ .5 of 1% CFR-2.
5036'-5043'	Acidized w/ 500 gals. 15% NE acid & Fraced w/ 16,200 gals. gelled water & 10,000# 20/40 sand & 4,000# 10/20 sand.
5097'-5107'	Acidized w/ 500 gals. 15% NE acid & Fraced w/ 20,000 gals. gelled water & 23,000# 20/40 sand & 5,000# 10/20 sand.
5132'-40' & 5168'-70'	Acidized w/ 600 gals. 15% NE acid & Fraced w/ 25,500 gals. gelled water & 35,000# 20/40 sand & 5,000# 10/20 sand.

Cores

See attached core descriptions on six conventional cores and selected sidewall cores taken in this well.

Drill Stem Tests

There were no drill stem tests taken in this well.

INCLINATION REPORT

OPERATOR Read & Stevens Inc. ADDRESS P.O. Box 2126, Roswell, New Mexico 88201

LEASE NAME Quail State WELL NO. 1 FIELD

LOCATION Sec. 11, T-19S, R-34E, Lea County, New Mexico

DEPTH	ANGLE INCLINATION DEGREES	DISPLACEMENT	DISPLACEMENT ACCUMULATED
400	3/4	5.2400	5.2400
802	1/4	1.7688	7.0088
1287	1/2	4.2195	11.2283
1403	3/4	1.5196	12.7479
1885	1	8.4350	21.1829
2222	1	5.8975	27.0804
2697	1	8.3125	35.3929
3197	1	8.7500	44.1429
3400	1 1/2	5.3186	49.4615
3681	2	9.8069	59.2684
3980	2	10.4351	69.7035
4153	1 3/4	5.2765	74.9800
4328	1 1/2	4.5850	79.5650
4472	1 1/4	3.1392	82.7042
4689	1	3.7975	86.5017
4750	1	1.0675	87.5692
4943	1	3.3775	90.9467
5500	1/4	2.4508	93.3975

I hereby certify that the above data as set forth is true and correct to the best of my knowledge and belief.

CACTUS DRILLING COMPANY

Garlin Taylor

TITLE Garlin Taylor, Admn. Asst.

AFFIDAVIT:

Before me, the undersigned authority, appeared Garlin Taylor known to me to be the person whose name is subscribed herebelow, who, on making deposition, under oath states that he is acting for and in behalf of the operator of the well identified above, and that to the best of his knowledge and belief such well was not intentionally deviated from the true vertical whatsoever.

Garlin Taylor

AFFIANT'S SIGNATURE

Sworn and subscribed to in my presence on this the 21st day of July, 1977

MY COMMISSION EXPIRES MARCH 1, 1980

Jessy L. Myrick

Notary Public in and for the County of Lea, State of New Mexico

SEAL

Read & Stevens, Inc.
Quail State No. 1

660' FSL & 1980' FEL Sec. 11, T-19S, R-34E
Lea Co., New Mexico

Core No. 1 3980-4041
Cut 61 feet, Recovered 61 feet

3980-81	Anhydrite clear, dense-crystalline w/bff, dense dolomite crystals
82	Anhydrite light red, dense-w/interbedded thin red & gray shale laminations
83	Anhydrite clear, finely crystalline
84	Shale red & gray, laminated w/anhydrite nodule inclusions
85	Anhydrite, clear, dense-crystalline w/interbedded thin red & gray shale laminations
86	Anhydrite, light red, dense-crystalline
87	Anhydrite, clear, dense-crystalline
88	Anhydrite, clear, dense-crystalline
89	Anhydrite, light tan red, dense w/interbedded thin red shale laminations
3990	Anhydrite, light tan red, dense w/interbedded htin red shale laminations
91	Shale, dark gray w/interbedded buff, dense dolomite & clear anhydrite crystals
92	Shale, dark gray w/interbedded buff, dense dolomite & clear anhydrite crystals
93	Anhydrite, red, crystalline w/interbedded tan, dense dolomite
94	Anhydrite light red, crystalline
95	Anhydrite, clear-lt. red, crystalline
96	Anhydrite, clear-lt. red, crystalline
97	Anhydrite, clear crystalline w/interbedded thin gray shale laminations
98	Shale red slightly anhydritic
99	Shale red w/anhydrite nodules
4000	Dolomite, light red-tan, dense, sl. fractured w/interbedded red, anhydritic shale
01	Anhydrite, light red, crystalline
02	Anhydrite, light red, crystalline w/interbedded buff, dense dolomite
03	Dolomite, buff-light tan red, dense w/anhydrite nodules
04	Anhydrite, clear-light red, crystalline w/thin, dark gray shale laminations

4004-05	Shale, dark gray-red, anhydritic w/interbedded clear, crystalline anhydrite
06	Anhydrite, lightred, crystalline w/interbedded dark gray shale
07	Shale, red w/clear crystalline anhydrite nodules
08	Anhydrite, light red w/interbedded dark red-gray shale
09	Anhydrite, clear-light red, crystalline-dense
4010	Anhydrite, clear-light red, crystalline-dense
11	Anhydrite, light red, crystalline, w/interbedded thin red & gray shale & buff, dense dolomite
12	Anhydrite, light red, crystalline
13	Anhydrite, light red, crystalline w/interbedded buff, dense dolomite
14	Dolomite, red-gray, dense-very finely crystalline, anhydritic
15	Shale, red w/anhydrite nodules
16	Shale
17	Anhydrite, light red, crystalline w/interbedded tan-red, dense shaly dolomite
18	Anhydrite, light red, crystalline w/interbedded thin, red shale laminations
19	Anhydrite, clear, crystalline
4020	Anhydrite, clear, crystalline
21	Anhydrite, clear, crystalline w/buff, dense dolomite nodules
22	Anhydrite clear crystalline
23	Dolomite, buff, dense w/clear, crystalline anhydrite Slight bleeding oil, slight odor good stain on anhydrite crystals, fair-good bright yellow Fluoresence
24	Anhydrite, clear, crystalline
25	Dolomite, buff, dense w/thin, gray shale laminations & clear, crystalline anhydrite nodules staining, slight odor, good fluoresence
26	Dolomite, buff, very fine-coarsely crystalline w/clear, crystalline anhydrite nodules
27	Dolomite, buff, dense w/scattered coarse crystals
28	Dolomite, buff, dense
29	Dolomite, tan, dense w/interbedded clear-red, crystalline anhydrite
4030	Shale, dark gray-black, anhydritic w/buff-tan, dense dolomite nodules
31	Anhydrite, light red-clear, crystalline
32	Shale, dark red-gray w/clear anhydrite crystal inclusions
33	Siltstone, red, anhydritic, shaly
34	Siltstone, red-gray, shaly w/anhydrite nodules
35	Sandstone, gray, very fine grained, anhydritic, shaly (clay filled?)

4035-36	Sandstone, gray, very fine grained, anhydritic, shaly w/clear crystalline anhydrite
37	Sandstone, gray, very fine grained, anhydritic, less shaly
38	Sandstone, gray, very fine grained, anhydritic, less shaly w/tr D. O. S.
39	Sandstone, gray, very fine grained, slightly anhydritic, less shaly, w/tr D. O. S.
4040	Sandstone, gray, very fine grained, more anhydritic, less shaly, w/tr D. O. S.
41	Sandstone, light gray, very fine grained, slightly anhydritic, less shaly, sl. tr D. O. S.

Read & Stevens, Inc.
Quail State No. 1

660' FSL & 1980' FEL Sec. 11, T-19S, R-34E
Lea Co., New Mexico

Core No. 2 4505-4565
Cut 60 feet, Recovered 60 feet

4505-06	Anhydrite, clear, crystalline
07	Anhydrite, clear, crystalline w/buff, dense dolomite inclusions
08	Anhydrite, clear, crystalline.
09	Anhydrite, clear, crystalline w/buff, dense dolomite inclusions
10	Anhydrite clear, crystalline
11	Anhydrite clear, crystalline
12	Anhydrite clear, crystalline
13	Anhydrite clear, crystalline w/buff, dense dolomite inclusions & thin, black shale, laminations
14	Anhydrite clear, crystalline w/buff, dense
15	Anhydrite clear, crystalline
16	Anhydrite clear, crystalline w/buff, dense dolomite inclusions
17	Anhydrite clear, crystalline
18	Anhydrite clear, crystalline w/buff, dense dolomite inclusions
19	Dolomite, buff, dense w/crystalline anhydrite nodules
20	Dolomite, buff, dense w/small anhydrite crystals, thin black shale laminations
21	Dolomite, buff, dense w/crystalline anhydrite nodules, thin black shale laminations
22	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
23	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
24	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
25	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
26	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
27	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)

4527-28	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
29	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
30	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
31	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
32	Sand gray, very fine grained, slightly dolomitic, anhydritic, (clay filled?)
33	Anhydrite clear, crystalline w/interbedded thin black shale
34	Anhydrite clear, crystalline slightly dolomitic, silty
35	Siltstone gray, very fine grained dolomitic, anhydritic
36	Siltstone gray, very fine grained dolomitic, anhydritic
37	Anhydrite clear, crystalline w/interbedded siltstone as above
38	Anhydrite clear, crystalline w/interbedded siltstone as above
39	Anhydrite clear, crystalline w/interbedded siltstone as above
40	Dolomite, buff, tan gray, dense w/crystalline anhydrite inclusions
41	Dolomite, buff, tan gray, dense w/crystalline anhydrite inclusions
42	Dolomite, buff, tan gray, dense w/crystalline anhydrite inclusions
43	Anhydrite clear, crystalline
44	Dolomite, buff-tan, dense w/crystalline anhydrite, thin black shale laminations
45	Anhydrite clear, crystalline
46	Dolomite, buff-tan, dense w/crystalline anhydrite
47	Anhydrite clear, crystalline
48	Anhydrite clear, crystalline w/buff, dense dolomite inclusions, thin, black shale laminations
49	Anhydrite clear, crystalline w/buff, dense dolomite inclusions
50	Dolomite, buff-tan, dense w/crystalline anhydrite, thin black shale laminations
51	Dolomite, buff-tan, dense w/crystalline anhydrite, thin black shale laminations
52	Anhydrite clear, crystalline w/buff, dense dolomite inclusions
53	Dolomite tan, dense w/crystalline anhydrite inclusions
54	Anhydrite clear, crystalline
55	Anhydrite clear, crystalline

4555-56	Anhydrite clear, crystalline
57	Anhydrite clear, crystalline w/buff, dense dolomite interbedded
58	Anhydrite clear, crystalline
59	Anhydrite clear, crystalline
60	Anhydrite clear, crystalline
61	Anhydrite clear, crystalline
62	Dolomite buff-tan, dense w/crystalline anhydrite, thin black shale laminations
63	Dolomite buff-tan, dense w/crystalline anhydrite, thin black shale laminations
64	Anhydrite clear, crystalline
65	Anhydrite clear, crystalline

Read & Stevens, Inc.
Quail State No. 1

660' FSL & 1980' FEL Sec. 11, T-19S, R-34E
Lea Co., New Mexico

Core No. 3 4750-4811
Cut 61 feet, Recovered 61 feet

4750-51	Anhydrite clear, crystalline w/buff, dense, sandy-silty dolomite interbedded
52	Anhydrite clear, crystalline
53	Anhydrite clear, crystalline
54	Anhydrite clear, crystalline w/tr dense, sandy-silty dolomite interbedded
55	Dolomite buff, dense w/tr anhydrite crystal inclusions
56	Dolomite buff, dense w/tr anhydrite crystal inclusions
57	Anhydrite clear, crystalline w/buff, dense, sandy-silty dolomite interbedded
58	Dolomite buff, dense, sandy-silty w/crystalline anhydrite nodules
59	Same as above
60	Same as above
61	Same as above
62	Anhydrite clear, crystalline w/tr buff, dense dolomite interbedded
63	Dolomite buff, dense w/tr crystalline anhydrite & tr black, sandy shale nodules - pale yellow fluorescence
64	Dolomite buff, dense w/interbedded very fine-fine grained sand, tr FQG's, tite-pale yellow fluorescence
65	Sand clear-light gray, very fine-fine grained-clay filled (?), very slightly dolomitic
66	Same as above
67	Same as above
68	Same as above
69	Sand clear-light gray, very fine-fine grained-clay filled (?), very slightly dolomitic w/many anhydrite crystals, dull yellow flourescence, tr very faint cut
70	Same as above
71	Dolomite gray, dense, very sandy, crystalline anhydrite inclusions
72	Same as above
73	Sand, light gray, very fine grained, tight w/thin, shaley dolomite laminations, dull yellow fluorescence tr very faint cut

4773-74 Sand, light gray, very fine grained, tight clay filled w/thin, shaley dolomite laminations, dull yellow flourescence tr very faint cut

75 Same as above

76 Same as above

77 Same as above

78 Same as above

79 Same as above

80 Sand, light gray, very fine grained, tight, very slightly dolomitic cement, dull yellow fluorescence, tr very faint cut

81 Same as above

82 Same as above

83 Same as above

84 Same as above

85 Same as above

86 Sand, light gray, very fine grained, tight very slightly dolomitic cement, w/some crystalline anhydrite nodules w/some medium grained, rounded FQG's, dull yellow fluorescence, tr very faint cut

87 Sand, light brown, very fine grained, tight, very slightly dolomitic cement, dull yellow fluorescence, fair to good cut

88 Sand, light gray, very fine grained, tight, very slightly dolomitic cement, dull yellow fluorescence, fair to good cut

89 Sand, light brown, very fine grained, tight very slightly dolomitic cement, dull yellow fluorescence, fair to good cut

90 Sand, light brown, very fine grained, tight very slightly dolomitic cement, w/many medium grained, rounded FQG's, dull yellow fluorescence, fair to good cut

91 Sand, light brown-gray, very fine grained, tight very slightly dolomitic cement, w/many medium grained rounded FQG's, dull yellow fluorescence, fair to good cut

92 Sand, light gray, very fine grained, tight very slightly dolomitic cement, w/tr medium grained, rounded FQG's, dull yellow fluorescence, fair to good cut

93 Sand, light brown-gray, very fine grained, tight very slightly dolomitic cement, w/tr medium grained, rounded FQG's, dull yellow fluorescence, fair to good cut

4793-94	Sand, light gray, very fine grained, tight very slightly dolomitic cement, w/tr medium grained, rounded FQG's dull yellow fluorescence, fair to good cut
95	Same as above
96	Sand, light gray, very fine grained, tight very slightly dolomitic cement w/crystalline anhydrite nodules, very scattered fluorescence, slight trace very faint cut
97	Sand, light gray, very fine grained, intergranular porosity, dull yellow fluorescence, trace very faint cut
98	Same as above
99	Same as above
4799-4800	Sand, light brown-gray, very fine grained, friable, intergranular porosity, saturated yellow gold, excellent cut, good odor
01	Same as above
02	Same as above
03	Same as above
04	Same as above
05	Same as above
06	Same as above
07	Sand, light gray, very fine grained, friable, intergranular porosity, saturated dull yellow fluorescence, trace cut
08	Sand, light brown, very fine grained, friable, intergranular porosity, saturated yellow gold fluorescence, excellent cut, good odor
09	Sand, light red, very fine grained, friable, intergranular porosity, slightly saturated dull yellow fluorescence, trace cut, slight odor
10	Sand, light red, very fine grained, friable, intergranular porosity, trace dull yellow fluorescence, trace cut, slight odor
11	Same as above

Read & Stevens, Inc.
Quail State No. 1

660' FSL & 1980' FEL Sec. 11, T 19S, R 34E
Lea Co., New Mexico

Core No. 4 5029-5089
Cut 60 feet, Recovered 58 feet

5029-30 Dolo., tan & brown VF-VCX, Dense, No show
31 Dolo., AA, N.S.
32 Dolo., AA, N.S.
33 Dolo, AA W/inclusions of clr. CX anhydrite, N.S.
34 Dolo, w/anhydrite AA, N.S.
35 Dolo, gray tan, micro x-VFX w/incl. Brn CX Dolo & clr VCX anhy. Dense, N.S.
36 Dolo, gray tan, VFX w/inclusions Gry VCX Anhy. Dense, N.S.
37 Dolo, gray, Micro-VFX, w/scattered incl. MX Brn-gray Anhy, Dense, N.S.
38 Anhy, gray, FX, argill, Dolo., N.S.
39 Anhy, clr-gray, VFX Dense w/incl. Whi-clr. massive anhy, N.S.
40 Dolo, gray, micro-VFX, w/scattered incl. MX Brn-gray anhy., Dense, N.S.
41 Dolo., Tan-Brn, VF-MX, Dns, anhy., N.S.
42 Dolo, gray-tan, Micro-VFX w/scattered incl. CX Dolo & anhy., Dense, N.S.
43 Dolo, AA, N.S.
44 Dolo, AA, N.S.
45 Dolo, AA, N.S.
46 Dolo, AA, N.S.
47 Dolo, AA, N.S.
48 Shale, Dk gray, mic, anhy., Dolo., sli sdy, N.S.
49 Sandstone, tan-gray, FG, A-SA, Dolo. & anhy. cmt & matrix, fair light brn oil staining & good spotty yellow fluor. Looks tight.
50 Sandstone, light gray, VFG, A-SA, Dolo & Anhy. cmt & matrix, Looks tight, N.S.
51 Sandstone, AA, N.S.
52 Sandstone, AA, showing scattered areas w/fair porosity and light brown oil staining & good yellow fluor.
53 Sandstone, tan, FG, SA-SR, well sorted, sli friable, showing fair porosity w/good even light brown oil stain & yellow flourescence. Traces bleeding oil on outside of core.
54 Sandstone, AA, w/show oil.

5054-55 Sandstone, light gray, VFG-FG, SA-SR, Dolo cmt & Anhy. filling looks tight, N.S.
56 Sandstone, AA w/incr. in Anhy.
57 Dolo, Gray, F-MX, Sandy, Anhy., N.S.
58 Siltstone, Gray, sandy, argill, anhy., Dolo., N.S.
59 Dolo., Gray-tan, VF-MX, w/CX Anhy., incl., sli sdy, N.S.
60 Sandstone, FG, SA-SR, Glauc., Sli Dolo, Fair sorting, Fair porosity, N.S.
61 Sandstone, AA, N.S.
62 Sandstone, AA, w/incr. in Dolo. matrix, Dense, N.S.
63 Sandstone, AA, Dense, N.S.
64 Dolo, gray, FX, sandy, Dense, N.S.
65 Sandstone, gray, FG, SR-R, Dolo. cmt, fair porosity, N.S.
66 Sandstone, tan-gray, FG, A-SR, well sorted w/laminae of fair to good porosity showing light brown oil staining and good yellow fluor. intercallated w/laminae having denser matrix and no show.
67 Sandstone, gray VFG-FG, SR, Dolo. cmt, w/5-10% Dark minerals Scattered medium-size grains of well rounded, frosted qtz. grains, No show.
68 Dolo, tan-brn, Micro X, interlamin w/brn argill VFX Dolo, N.S.
69 Dolo, Gray, VFX, sandy, Anhy., Dense, N.S.
70 Sandstone, gray, VFG-FG, SA-SR, Fair srtg, Dolo & Anhy. matrix, poor-fair porosity, N.S.
71 Sandstone, AA, N.S.
72 Sandstone, AA, w/denser matrix - incr. anhy (?), N.S.
73 Dolo., Gray, VF-FX, anhy., V/sandy, N.S.
74 Sandstone, gray, VF-FG, SR-SA, Dolo. cmt., Tight, N.S.
75 Sandstone, AA, N.S.
76 Sandstone, AA, W/scattered fair porosity, N.S.
77 Sandstone, AA, AA, N.S.
78 Dolo, gray, VF-FX, anhy, V/sandy, N.S.
79 Dolo, AA, N.S.
80 Sandstone, light gray, VFG, Dolo, cmt., N.S.
81 Sandstone, light gray, FG, A-SR, well sorted, pyr., Dolo, cmt. w/scattered areas of good porosity, Tr Stain & Fluor.
82 Sandstone, AA, N.S.
83 Sandstone, light gray, VFG, well sorted w/matrix of Dolo & anhy., Dense, tight, N.S.
84 Dolo, tan, micro-X, Dense, N.S.
85 Dolo, AA
86 Dolo, AA
87 Dolo, AA w clr VCX anhy. incl., N.S.
88¼ Dolo, Brn, VFX, Dense, N.S.
89 No recovery

George R. Reddy

Consulting Geologist

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200 West First Street
Roswell, New Mexico 88201

Read & Stevens, Inc.
No. 1 Quail State

660' FSL & 1980' FEL Sec. 11, T 19S, R 34E
Lea Co., New Mexico

Core No. 5 5089-5149
Cut 60 feet, Recovered 60 feet

5089-90	Dolo, gray-brown, FX, Dns w/scattered incl. CX Dolo, N.S.
91	Shale, Dark gray, Dolo, N.S.
92	Shale, gray, Dolo, N.S.
93	Shale, AA, sandy, N.S.
94	Sandstone, gray, FG, SR-R, Dolo cmt, argill partings, Fair porosity, N.S.
95	Sandstone, AA, N.S.
96	Dolo, gray, FX w/scattered CX Dolo, sandy, N.S.
97	Dolo, AA, N.S.
98	Dolo, Dk gray, FX, argill, carbonaceous, sdy, N.S.
99	Sandstone, gray, FG, SA-SR, well sorted, Dolo, cmt, Fair porosity, N.S.
5100	Dolo, tan, Micro-VFX w/scattered MX Dolo, Dns, N.S.
01	Dolo, AA, N.S.
02	Dolo, gray-tan, AA, N.S.
03	Dolo, gray, AA
04	Dolo, tan, AA w/incl. carbonaceous anhy (?), N.S.
05	Dolo, tan, Micro-CX, Dns, N.S.
06	Dolo, gray-tan, VFX, Dns, N.S.
07	Dolo, gray, AA
08	Dolo, gray, AA
09	Dolo, tan, VFX, oolitic, Dns, N.S.
10	Dolo, gray, VFX, Dns, N.S.
11	Shale, gray, Dolo, N.S.
12	Sandstone, lt. gray, VF-FG, SA-SR, Poor-Fair porosity, lamin, Dolo, cmt, glauc., porous laminae have light oil staining and bright yellow fluor. About 20% of sample has show.
13	Sandstone, AA, w/more even staining & fluor, looks tight.
14	Sandstone, AA, w/more even staining & fluor, fair porosity.
15	Sandstone, gray, VFG-FG, silty, Dolo, matrix filling most pores. Spotty light oil stain & fluor (80%).
16	Sandstone, AA, w/similar show.
17	Sandstone, AA, w/similar show, Denser, more Dolo.
18	Shale, Gray-Brn, Dolo, sdy, N.S.
19	Shale, gray-brown, Dolo, sdy, N.S.
20	Sandstone, gray, VFG, silty, w/Dolo, matrix, Dns, spotty stain lt brown oil & yellow fluor.

5120-5121 Sandstone, gray, VF-FG, SR-R, w/Dolo, matrix, V/Dns, N.S.
22 Dolo, gray, VFX-CX, argill, lamin, N.S.
23 Dolo, gray, VFX-MX, Dns, N.S.
24 Dolo, tan, VFX, Dns, N.S.
25 Sandstone, lt gray, FG, glauc., Dolo, cmt, Fair porosity, N.S.
26 Sandstone, lt gray, VFG-FG, Dolo, cmt, Fair porosity, N.S.
27 Sandstone, AA, N.S.
28 Sandstone, AA, lamin, argill, N.S.
29 Dolo, gray, VFX-MX, Dns, N.S.
30 Dolo, AA
31 Dolo, AA, w/incl. of CX Whi anhy, N.S.
32 Dolo, gray, VFX-CX, Dns, N.S.
33 Dolo, gray, Micro-VFX, Dns, w/gray shale partings, N.S.
34 Dolo, gray, VFX-MX, V/sandy, Dns, N.S.
35 Dolo, lt gray, Micro X w/CX anhy, N.S.
36 Anhy, Brn, VCX, Dns, N.S.
37 Dolo, tan, Micro X, Dns, N.S.
38 Dolo, tan, Micro-VFX, Dns, N.S.
39 Dolo, gray-tan, AA, N.S.
40 Dolo, tan, AA, N.S.
41 Dolo, tan-gray, VFX, Dns, N.S.
42 Sandstone, lt gray, FG, SA-R, Dolo, cmt, tight, N.S.
43 Sandstone, gray, VF-FG, A-SA, poor sorting, Dolo cmt, N.S.
44 Dolo, Gray, VFX, V/sandy, Dns, lamin w/shale partings, N.S.
45 Shale, Dk gray, lamin w/sandy Dolo, N.S.
46 Sandstone, tan-gray, FG, SA-SR, friable, sl. Dolo cmt, even stain of light brown oil and bright yellow fluor, good odor.
47 Sandstone, AA, cleaner, solid staining and fluor, good odor.
48 Sandstone, AA, cleaner, solid staining and fluor, good odor.
49 Sandstone, AA, w/more cement, tighter, good staining & fluor.

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200 West First Street
Roswell, New Mexico 88201

READ & STEVENS, INC.
No. 1 Quail State

660' FSL & 1980 FEL Sec. 11, T 19S, R 34E
Lea County, New Mexico

Sidewall Cores

Depth	Recovery	Description
3606	1½ "	SS, red, VFG, SA, N.S.
3607	½"	Anhy, whi, massive, w/red shale
3875	¼"	Dolo, tan, shy, N.S.
3876	1¼ "	Anhy, whi, massive & SS, red, VFG, N.S.
3877	3/4"	Anhy, AA.
4041	1"	SS, red & gray, VFG-FG, SR, loosely consol, N.S.
4127		NR
4156		NR, Barrell Chipped
4490½	1"	SS, gray, VFG-FG, SR, loosely consol, N.S.
4529		NR
4761½		NR
4785	¼"	SS, tan, FG, SR, Dolo. cmt, N.S.
4795	3/4"	SS, gray, VFG, A-SA, Dolo. cmt, Soft, N.S.
4797	1¼"	SS, gray, FG, SA-R, clean, solid lt brn stains, yellow fluor.
4801	1¼"	SS, AA
4802	1¼"	SS, gray, VFG-FG, SA-A, glauc, Dolo. cmt, N.S.
4803	1½"	SS, gray, FG, SA-R, clean, scattered brn oil stain, Fluor
5037		NR, broke core
5041	½ "	SS, Gray, FG, SR, V/Dolo, gray, hard, N.S.
5042	fragments	SS, Gray, MG, SR-R, Fria, clean, oil stain and Fluor
5098	3/4"	SS, gray, VF-FG, SR, clean, oil stain & Fluor.
5099	½" soft	SS, AA
5100½	1 "	SS, lt gray, VFG-FG, A-SR, looks tight, Dolo cmt, stain, Tr Fluor
5102½	1¼"	SS, gray, FG, SR-A, clean, spotty lt brn stain, solid fluor
5111½	1 "	SS, AA, Lt brn oil stain, good fluor.

Depth	Recovery	Description
5132	N.R.	
5133	¼"	SS, gray, FG, SR, Dolo. cmt, hrd, N.S.
5134	1 "	SS, gray, FG, SA-SR, V/clean, even oil stain & Fluor.
5138	1"	SS, gray, FG, SA-SR, Shly, spotty oil stain
5236	½"	SS, lt gray, FG, SR, Glauc, Dolo. cmt, N.S.
5237½	¼"	SS, gray, FG, SR, Dolo, cmt, N.S.
5254	1 "	SS, lt gray, FG, SR-SA, Dolo. cmt, clean, N.S.
5257	3/4 "	SS, lt gray, FG, SA-SR, Dolo. cmt, tight, N.S.
5295	1"	SS, V lt gray, VF-FG, SA-SR, V/clean, unconsol., N.S.
5332	½"	SS, lt gray, FG, SR-R, Clean, Dolo. cmt, N.S.
5338	3/4"	SS, lt gray, FG, SR-R, Clean, Dolo. cmt, N.S.
5388½	Shot Barrell Off	

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READ & STEVENS, INC.
No. 1 Quail State

660' FSL & 1980' FEL Sec. 11, T 19S, R 34E
Lea Co., New Mexico

Core No. 6 5149-5209
Cut 60 feet, Recovered 57 feet

5149-50	Sandstone, gray, FG, SA-R, Glauc., fair sorting, Dolo cmt. fair porosity, No visible stain or fluor, Fair cut.
51	Sandstone, AA, w/poor porosity, No visible stain or fluor, Fair cut.
52	Sandstone, AA, w/poor porosity, No visible stain or fluor, Fair cut.
53	Sandstone, AA, N.S.
54	Sandstone, AA, N.S.
55	Dolo, tan, Micro-VFX, oolitic, N.S.
56	Dolo, gray, VFX, V/sandy, Dns, N.S.
57	Dolo, lt gray, VFX, V/sandy, N.S.
58	Dolo, gray, VFX, Sli. sandy, Dns, N.S.
59	Dolo, tan, VFX, Dns, N.S.
60	Dolo, gray, VFX, Dns, N.S.
61	Dolo, gray-tan, AA
62	Dolo, brn-gray, VFX-CX, Dns w/carbonaceous incl., N.S.
63	Dolo, gray, VFX, Dns, N.S.
64	Dolo, AA, N.S.
65	Shale, dk gray, lamin w/Dolo, AA, N.S.
66	Shale, AA
67	Dolo, gray, Micro-X, Dns, N.S.
68	Dolo, AA, N.S.
69	Dolo, AA, N.S.
70	Dolo, AA, N.S.
71	Dolo, AA, N.S.
72	Dolo, AA, w/dk gray shale partings
73	Dolo, AA, N.S.
74	Dolo, gray-tan, VFX, Dns, N.S.
75	Dolo, AA, N.S.
76	Dolo, AA, N.S.
77	Dolo, gray, Micro-X, Dns, N.S.
78	Sandstone, dk gray, VF-FG, SR-R, Dns Dolo matrix, N.S.
79	Dolo, gray, VFX, Dns, N.S.

5179-80 Dolo, AA, lamin w/black shale, N.S.
81 Shale, dk gray & blk, lamin w/Dolo, AA, N.S.
82 Shale, AA
83 Sandstone, gray, VF-FG, SR-R, Dolo cmt, looks tight, Trace dull yellow fluor, weak cut
84 Dolo, gray, VFX, Dns, N.S.
85 Dolo, AA, w/shale partings, N.S.
86 Dolo, AA, w/shale partings, N.S.
87 Dolo, tan, VFX, Dns, N.S.
88 Dolo, AA, w/scattered incl. CX brn Dolo, N.S.
89 Dolo, AA, N.S.
90 Dolo, AA, N.S.
91 Dolo, tan-gray, VFX, Dns, N.S.
92 Dolo, Brn-gray, VFX, Dns, N.S.
93 Dolo, AA, w/blk shale partings, N.S.
94 Dolo, gray, VFX, Dns, w/black shale partings, N.S.
95 Sandstone, lt gray, FG, SR-R, Glauc., Dolo cmt, tight, No visible staining, spotty yellow fluor, sli odor, w/weak cut.
96 Dolo, gray, VFX matrix w/scattered VCS clr Dolo, N.S.
97 Dolo, AA
98 Dolo, Dk Gray, VFX, Sdy, Dns, N.S.
99 Dolo, AA, N.S.
5200 Dolo, AA, N.S.
01 Dolo, gray, VFX, Dns, w/incl. VCX clr anhy., N.S.
02 Dolo, AA
03 Dolo, AA
04 Dolo, AA
05 Anhy, gray, massive w/incl. VFX Dolo, N.S.
06 Dolo, gray, VFX, Dns, w/scattered incl. CX clr anhy, N.S.
07 No recovery
08 NR
09 NR

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

weeks.

Beginning with the issue dated

November 9 1997

and ending with the issue dated

November 9 1997

Kathi Bearden

Publisher

Sworn and subscribed to before me this 7th day of

November 1997

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(Seal)

LEGAL NOTICE
November 9, 1997
Water Injection
Permit Request

Permian Resources, Inc., 608 North Main, Midland, Texas 79701, is applying to the New Mexico Oil Conservation Division to convert its Quail State #1 well to a water injection well in the Queen (Penrose) formation at a depth of approximately 5036 to 5170 feet. The Quail State #1 is in the Quail (Queen) Field located in Unit O, Section 11, Township 19 South, Range 34 East (660 fsl,-1980 fel of section) Lea County, New Mexico, approximately 20 miles west of the city of Hobbs. The expected maximum injection rate is 1200 BWPD and the expected maximum injection pressure is 1200 psi. Anyone desiring information about this project should contact the company, attention Robert H. Marshall, at the address listed above or at (915)685-0113. Interested parties must file objections or requests for hearings with the Oil Conservation Division, P.O. Box 2088, Sante Fe, New Mexico 87504-2088. within 15 days.
#15549

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

01102680000 01513771

Permian Resources
P.O. Box 590
a/c# 458930
MIDLAND, TX 79702