

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4216
Order No. R-3836

APPLICATION OF TAMARACK PETROLEUM
COMPANY, INC., FOR APPROVAL OF THE
NORTHEAST PEARL-QUEEN UNIT AGREE-
MENT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 10, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 12th day of September, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Tamarack Petroleum Company, Inc.,
seeks approval of the Northeast Pearl-Queen Unit Agreement
covering 920 acres, more or less, of State and Fee lands described
as follows:

LEA COUNTY, NEW MEXICO
TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 15: E/2 SW/4, W/2 SE/4, and
SE/4 SE/4
Section 22: E/2 NE/4
Section 23: N/2 and N/2 S/2
Section 24: NW/4 SW/4, W/2 NW/4, and
NE/4 NW/4

(3) That approval of the proposed unit agreement should
promote the prevention of waste and the protection of correlative
rights within the unit area.

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CASE No. 4216

Order No. R-3836

IT IS THEREFORE ORDERED:

(1) That the Northeast Pearl-Queen Unit Agreement is hereby approved.

(2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

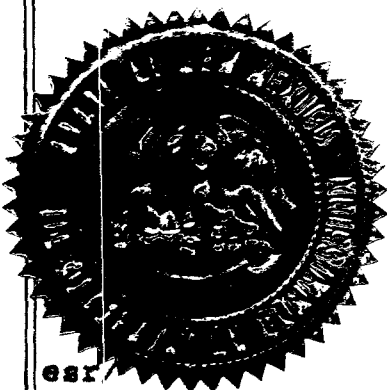
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman

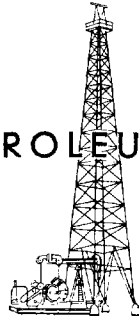

ALEX J. ARMILLO, Member


A. L. PORTER, Jr., Secretary-Director



103 AUG 20 PM 4 2

TAMARACK PETROLEUM COMPANY, INC.



910 BANK OF THE SOUTHWEST BLDG.
MIDLAND, TEXAS 79701

August 19, 1969

TELEPHONE: MUTUAL 3-5474

Case 4216

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico 87501

Attention: Mr. D. S. Nutter

Gentlemen:

Please consider this our request for hearing to approve, both Unitization and Secondary Recovery by water flooding the Unit Area, our Northeast Pearl Queen Unit, Pearl Queen Field, Lea County. It is requested that these hearings be placed on your docket for September 10, 1969.

The following described land constitutes the Unit Area:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, N. M. P. M.

Section 15	E/2 of SW/4, W/2 of SE/4, SE/4 of SE/4
Section 22	E/2 of NE/4
Section 23	N/2, N/2 of S/2
Section 24	N/2 of NW/4, SW/4 of NW/4, NW/4 of SW/4

The Unit Area contains 920 acres, more or less, of which 520 acres are State land and 400 acres are Patented land.

DOCKET MAILED

Date SEP 10 1969

New Mexico Oil Conservation Commission
August 19, 1969
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As required by Rule 701-B of the Rules and Regulations of the New Mexico Oil Conservation Commission, the following material is submitted with the application:

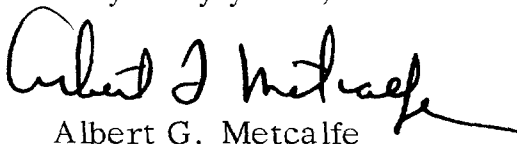
1. Plat showing the unit area and the location of the proposed injection wells.
2. Logs of proposed injection wells.
3. Diagrammatic sketch of proposed injection wells.

The "Unitized Formation" is the Queen Sand zone, more specifically defined as occurring between 4,517 feet and 5,078 feet on the Schlumberger Gamma Ray-Sonic log dated December 17, 1961 for the Tamarack - Texaco Moran No. 2 well.

It is anticipated that a total volume of 2,000 barrels per day will be injected in the Unit Area. This water will be supplied by the existing system furnishing water to the Shell Oil Company - East Pearl Queen Unit, the Gulf Oil Corporation - West Pearl Queen Unit and the Tamarack - South Pearl Queen Unit.

If any additional information is required in connection with this application, please advise.

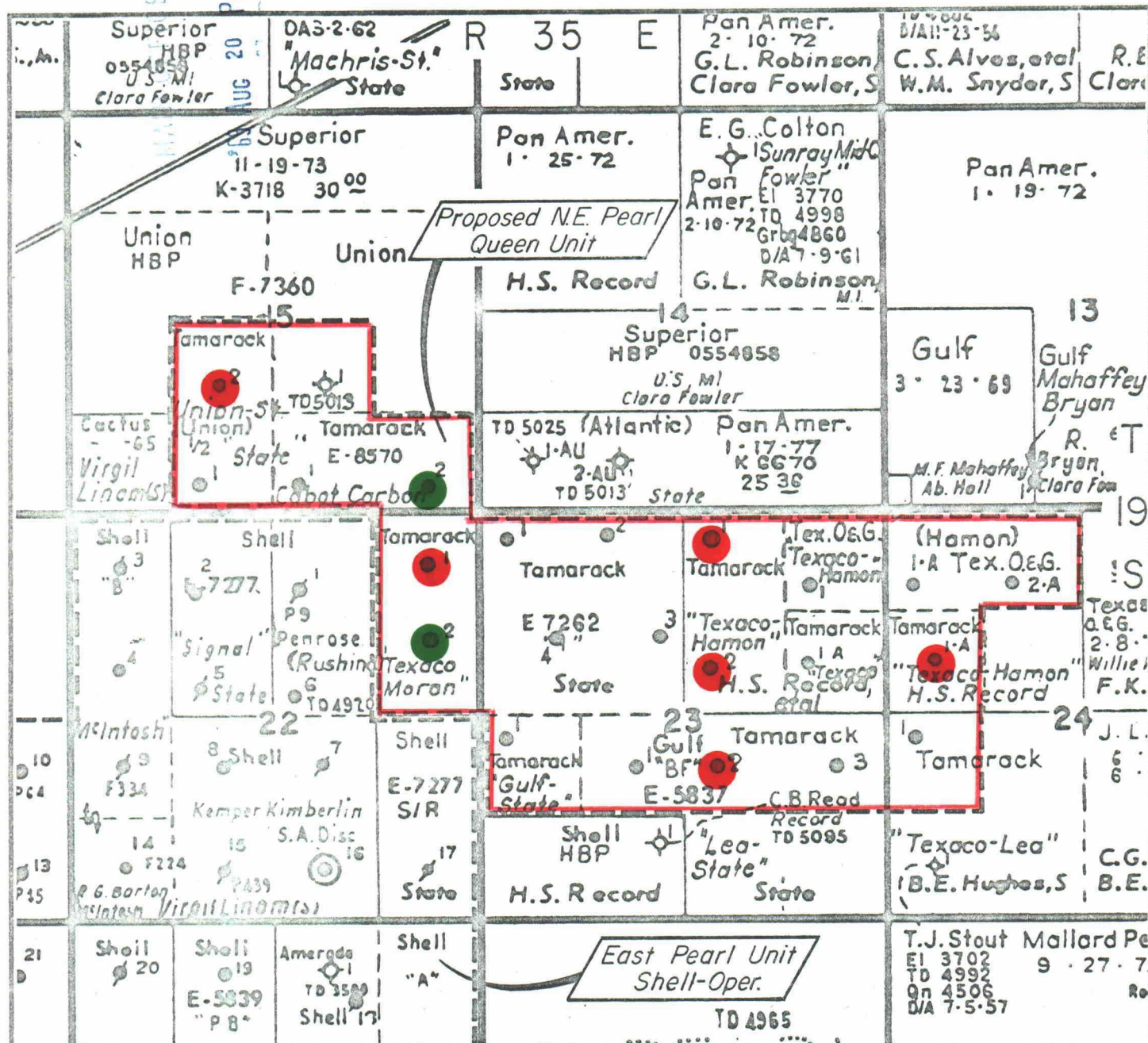
Very truly yours,


Albert G. Metcalfe

AGM:wat

cc: State Engineer Office
State of New Mexico
Santa Fe, New Mexico 87501

ENCLOSURES



LEGEND

- Current Injection Well
- Proposed Injection Well



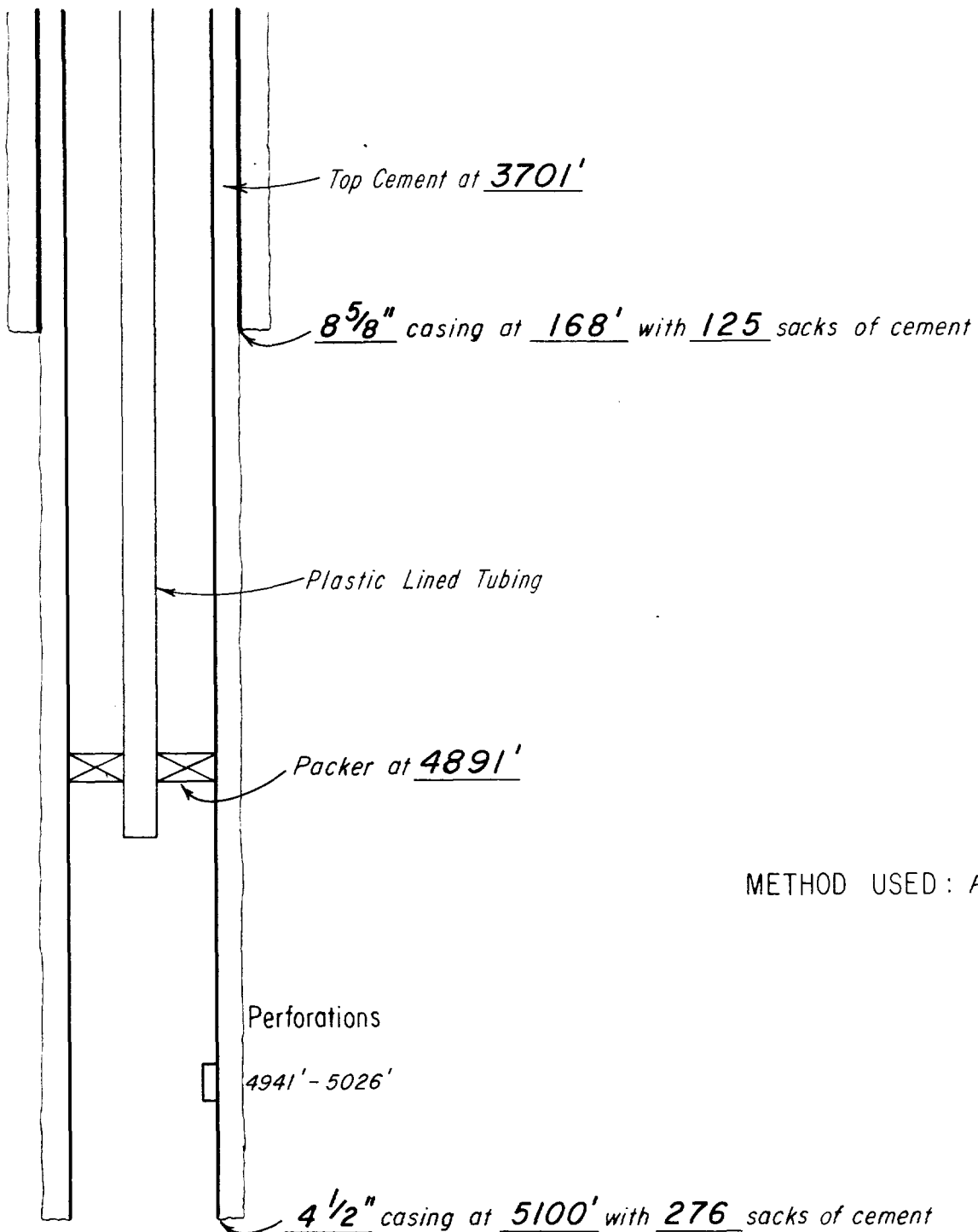
SCALE: 1" = 1,000'

PROPOSED N. E. PEARL QUEEN UNIT

FIELD	PEARL QUEEN	COUNTY	LEA	STATE	NEW MEX.
Engineer	R. C. W.	Date	8-1-69	Drwn. By	Del
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.					FIGURE NO. 1
CONSULTING ENGINEERS					1100 V&J TOWER MIDLAND, TEXAS

Case 4216

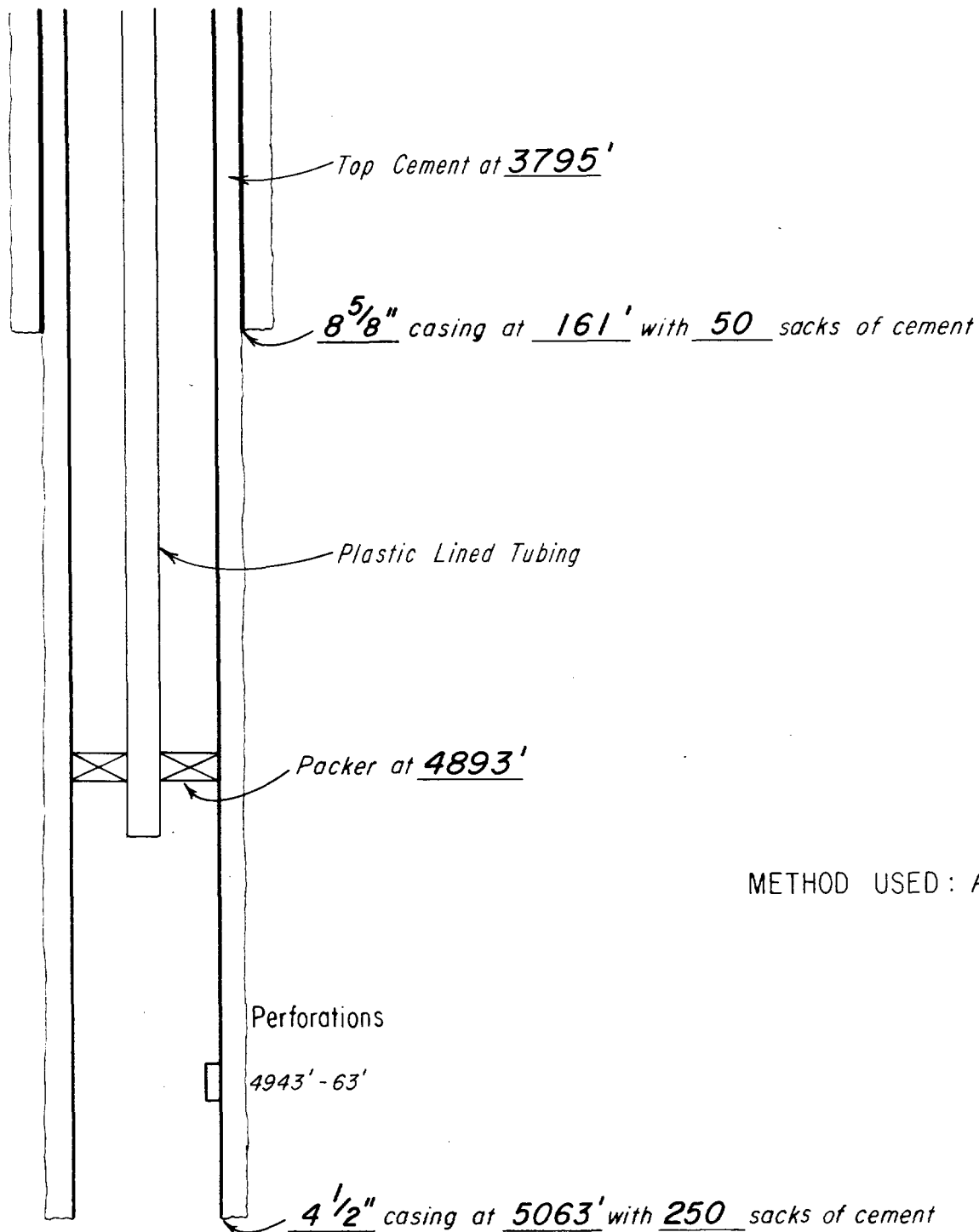
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METHOD USED : Pump & Plug

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL GULF "BF" NO. 2

FIELD N. E. PEARL QUEEN		COUNTY LEA		STATE NEW MEX.
Engineer R. C. W.	Date 8 - 5 - 69	Drwn. By Del	File PEARL QUEEN, N. E.	
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.			FIGURE NO.	
CONSULTING ENGINEERS		1100 V&J TOWER MIDLAND, TEXAS		



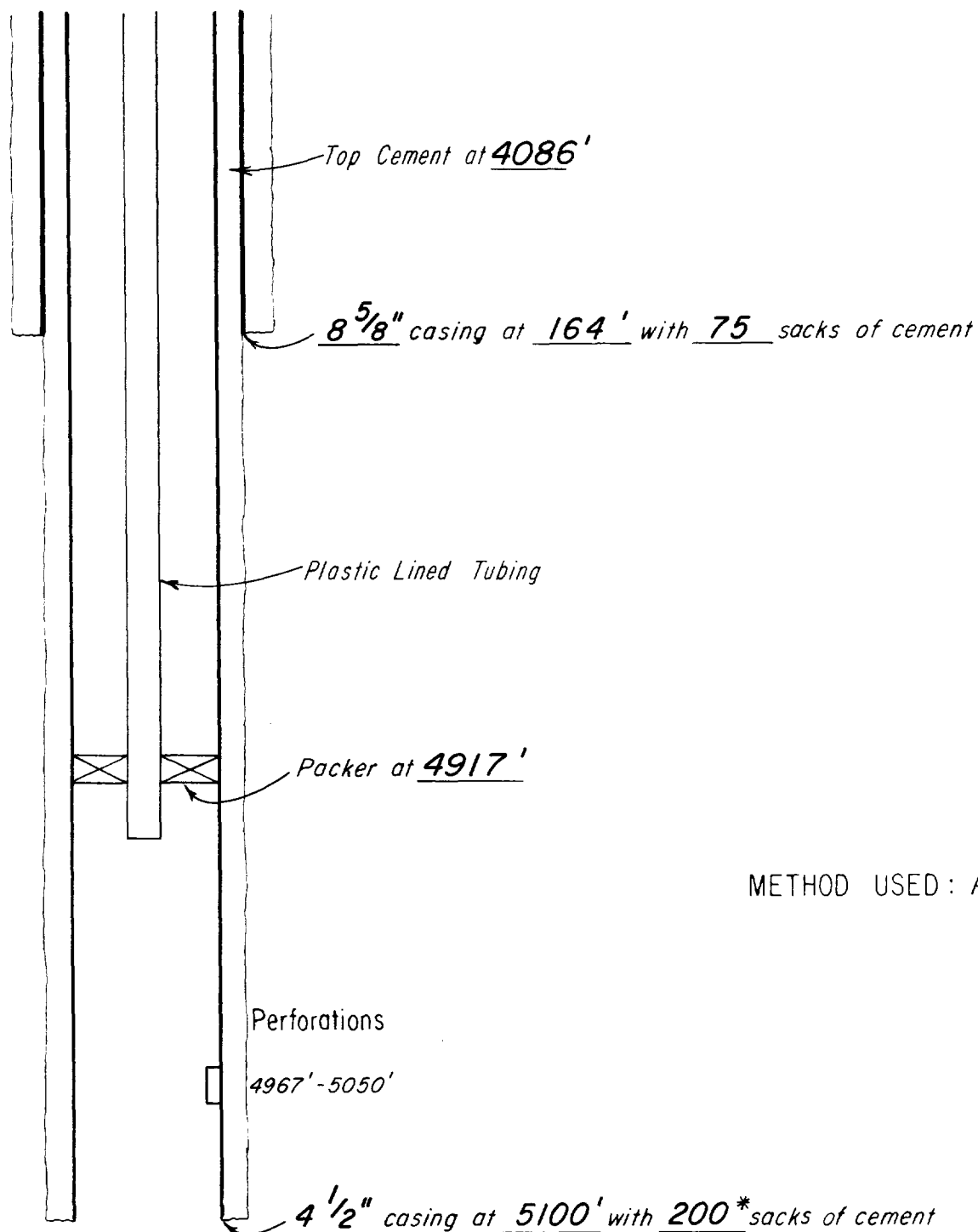
METHOD USED : Pump & Plug

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL TEXACO HAMON NO. 1

FIELD		N. E. PEARL QUEEN		COUNTY		LEA		STATE		NEW MEX.					
Engineer		R. C. W.		Date		8 - 5 - 69		Drwn. By		Del		File		PEARL QUEEN, N.E.	
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.												FIGURE NO.			
CONSULTING ENGINEERS															
1100 V&J TOWER MIDLAND, TEXAS															

1100 V&J TOWER MIDLAND, TEXAS

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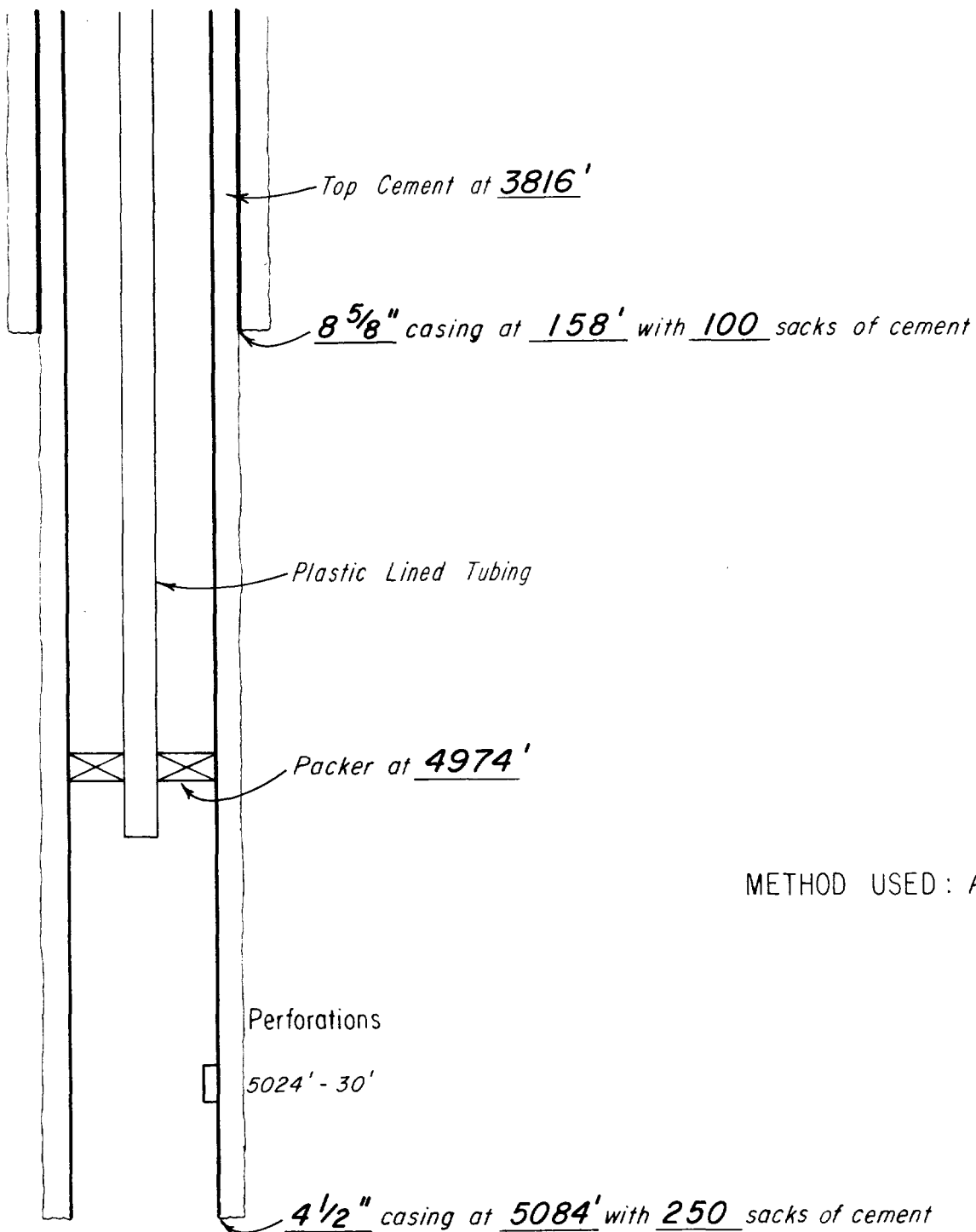
METHOD USED : Pump & Plug

* Plus 45 gallons of Latex

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL TEXACO HAMON NO 2

FIELD	N. E. PEARL QUEEN	COUNTY	LEA	STATE	NEW MEX.
Engineer	R. C. W.	Date	8 - 5 - 69	Drwn. By	Del
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC. CONSULTING ENGINEERS				File	PEARL QUEEN, N.E.
1100 V&J TOWER MIDLAND, TEXAS				FIGURE NO.	

Handwritten signature/initials



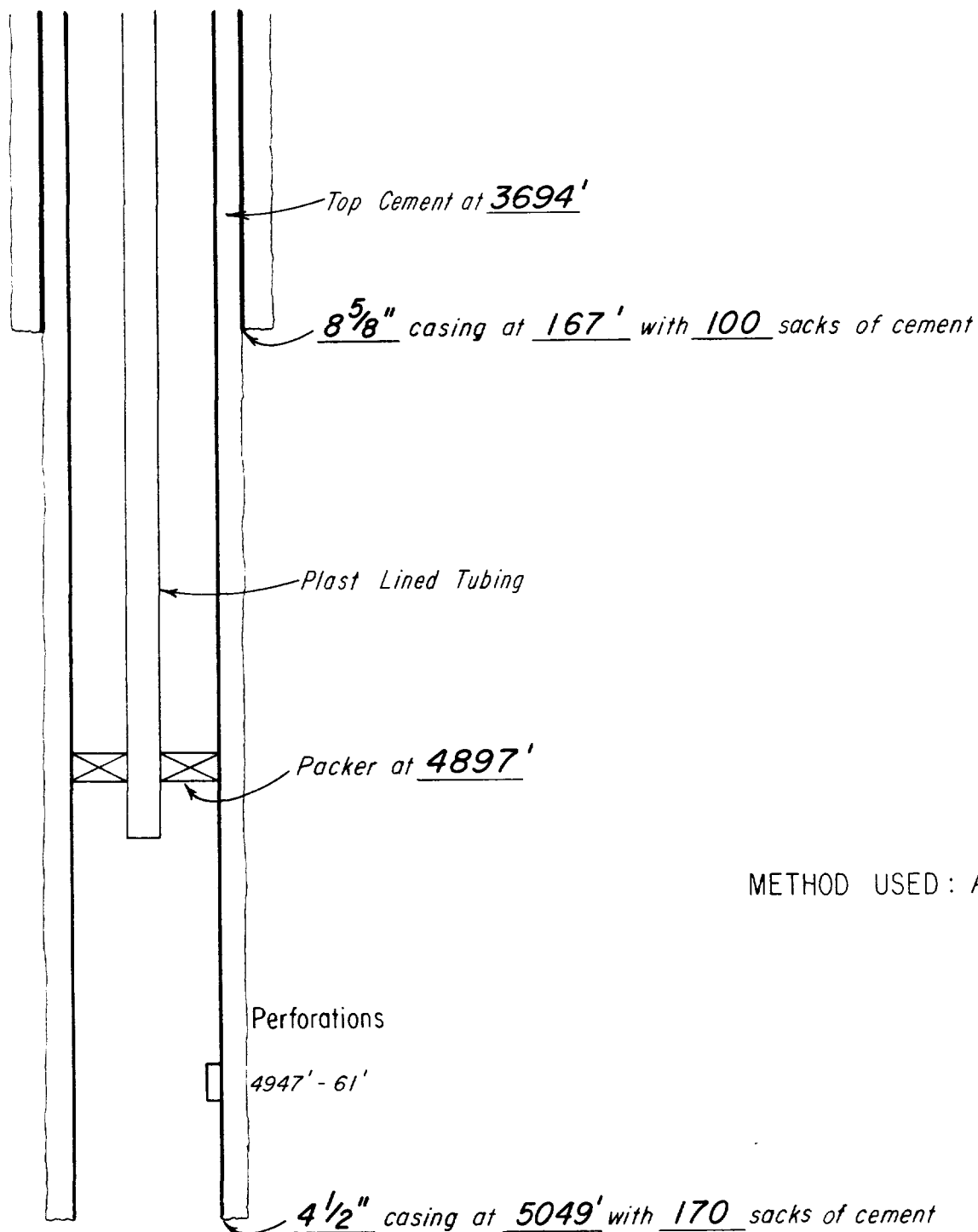
METHOD USED : Pump & Plug

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL TEXACO HAMON "A" NO. 1

FIELD	N. E. PEARL QUEEN	COUNTY	LEA	STATE	NEW MEX.
Engineer	R. C. W.	Date	8 - 5 - 69	Drwn. By	Del
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.				File	PEARL QUEEN, N. E.
CONSULTING ENGINEERS				FIGURE NO.	

1100 V & J TOWER MIDLAND, TEXAS

1100 V & J TOWER



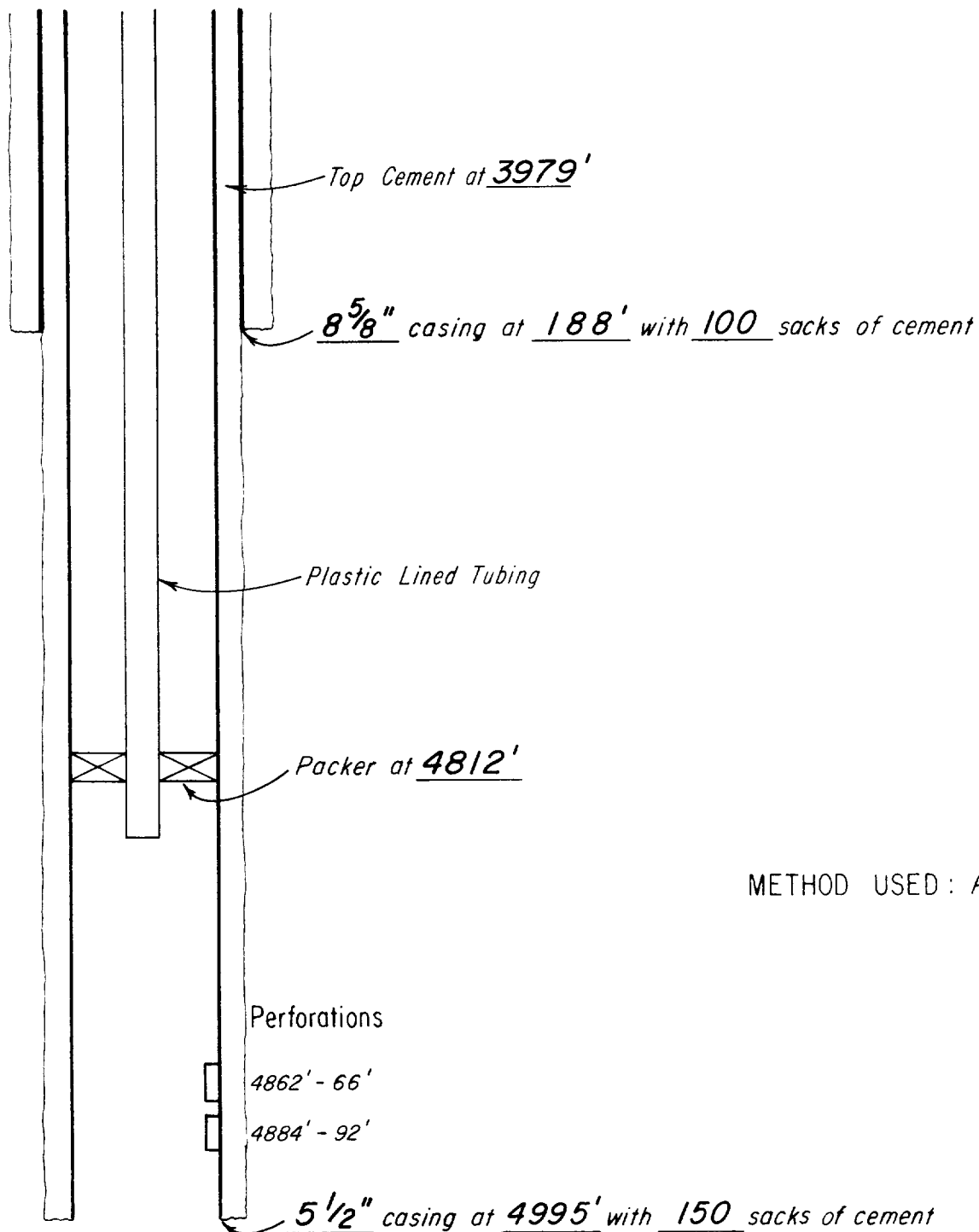
METHOD USED : Pump & Plug

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL TEXACO MORAN NO. 1

FIELD	N. E. PEARL QUEEN	COUNTY	LEA	STATE	NEW MEX.
Engineer	R. C. W.	Date	8 - 5 - 69	Drwn. By	Del
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.				File	PEARL QUEEN, N.E.
CONSULTING ENGINEERS				FIGURE NO.	

1100 V&J TOWER MIDLAND, TEXAS

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METHOD USED : *Pump & Plug*

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL UNION STATE NO. 2

FIELD	N. E. PEARL QUEEN	COUNTY	LEA	STATE	NEW MEX.
Engineer	R. C. W.	Date	8 - 5 - 69	Drwn. By	Del
BAILEY, SIPES, WILLIAMSON & RUNYAN, INC.				File	PEARL QUEEN, N. E.
CONSULTING ENGINEERS				FIGURE NO.	

1100 V&J TOWER MIDLAND, TEXAS

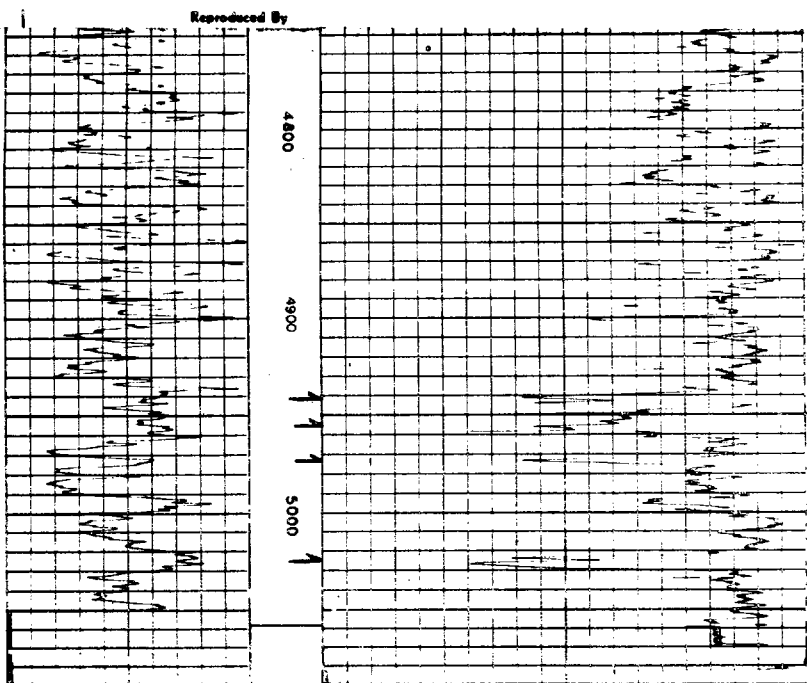
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PAN GEO ATLAS CORP.
P G A C *Acoustic-Gamma Log*


FILE NO. _____	COMPANY <u>GULF OIL CORPORATION</u>		
	WELL <u>LEA STATE "RF" #</u>		
	FIELD <u>PEARL LUTHER</u>		
	COUNTY <u>LEA</u> STATE <u>NEW MEXICO</u>		
	LOCATION: <u>1980' FSL & 2180' FEL</u>		
		SEC <u>23</u> TWP <u>19-S</u> RGE <u>35-E</u>	Other Services _____
Permanent Datum <u>GROUND LEVEL</u> Elev. <u>3747</u>			
Log Measured from <u>K.B.</u> <u>11'</u> Ft. Above Permanent Datum			
Drilling Measured from <u>K.B.</u>			
Date <u>11/19/62</u>			
Run No. <u>ONE</u>			
Total Depth Driller <u>5100</u>			
Total Depth Logger <u>5065</u>			
Casing Driller <u>170</u>			
Casing Logger <u>-</u>			
Footage Logged <u>4959</u>			
Mud Type <u>SALT GEL.</u>			
Density Visc. <u>10.2</u> <u>36</u>			
Max. Temp. (°F) <u>98°F</u>			
Direction <u>UP</u>			
Rec. To Rec. Spacing <u>1'</u>			
Trans. To Rec. Spcg. <u>4'</u>			
Logging Instrument <u>TLA4-53-22-6381</u>			
Equip. No. <u>EL-25</u>			
Recorded By <u>CAREY</u>			
Witnessed By <u>MR. MUSSETT</u>			

BORE HOLE RECORD			CASING RECORD		
Bit Size	From	To	Csg. Size	Csg. Wt.	From To
12 1/4	SURF.	170	8 5/8		SURF. 170
7 7/8	170	5100			

LEA, N. M.



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Schlumberger

Sonic Log

COMPANY: EARL G. COLTON

WELL: TEXACO-HAMON

STATE: TX

FIELD: PEARL QUEEN

LOCATION: SEC 23 19S 25E

COUNTY: LEA

STATE: NEW MEXICO

Location of Well

330' FROM N/2

270' FROM E/2

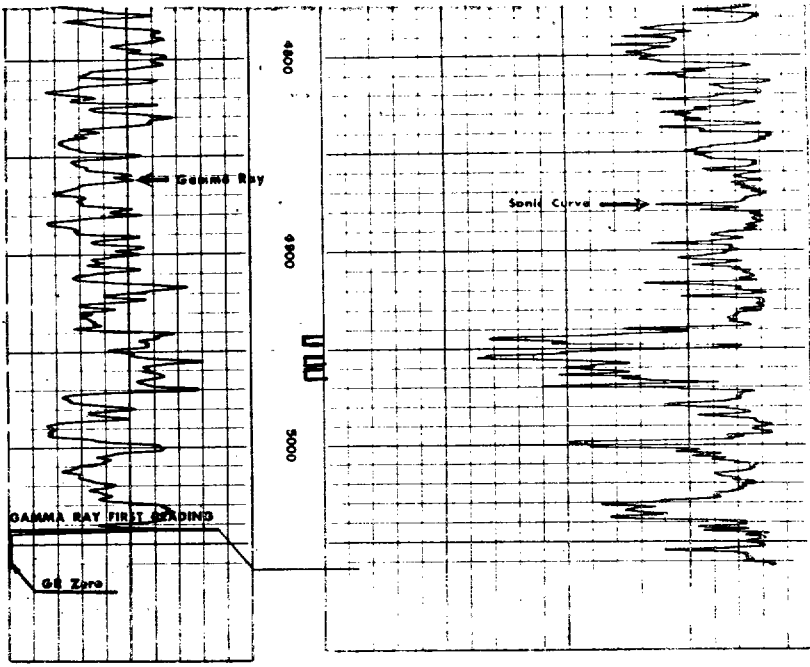
Elevation: K.B. 3293

D.F.:

or G.L. 3280

Log Depths Measured From KB 13 Ft. above GL

RUN No.	ONE		
Date	3-17-62		
First Reading	5063		
Last Reading	0		
Feet Measured	5063		
Csg. Schlum.			
Csg. Driller	165		
Depth Reached	5067		
Bottom Driller	5065		
Mud Nat.	SAL I		
Dens.	Visc.	10	18
Mud Resist.	0.55	@ 72 °F	@ °F
Res. BHT	042	@ 95 °F	@ °F
pH	@	@ °F	@ °F
Wtr. Loss	CC 30 min	CC 30 min	CC 30 min
Rmf	0.36	@ 95 °F	@ °F
Bit Size	7 7/8"		
Spacing:			
T J R. I R.	3000	To 5063	To
T J R. 3 R.	400	To 3000	To
Opr. Rig Time	3 1/2 HOURS		
Truck No.	2526-HOBBS		
Recorded By	WILSON		
Witness	JOHN		



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SCHLUMBERGER		SOUND LOG	
COUNTY LEA FIELD or LOCATION PEARL QUEEN WELL TEXACO HAMMON # 2 COMPANY EARL G. COLTON	COMPANY EARL G. COLTON		Other Surveys
	WELL TEXACO HAMMON # 2		Location of Well 1980' FROM N/L 2310' FROM E/L
	FIELD PEARL QUEEN		
	LOCATION SEC. 23-19S-35E		
	COUNTY LEA		Elevation K.B.: 3787 D.F.: or G.L.: 3774
STATE NEW MEXICO			
Log Depths Measured From KB 13 Ft. above GL			
RUN No.	ONE		
Date	7-9-62		
First Reading	5097		
Last Reading	0		
Feet Measured	5097		
Csg. Schlum.	-		
Csg. Driller	179		
Depth Reached	5104		
Bottom Driller	5103		
Mud Mat.	SAL T-GEL-OIL		
Dens. T. Visc.	9.2 36		
Mud Resist.	.045 81 *F		
" Res. BHT	" " "F		
" pH	" " "F		
" Wtr. Loss	20 CC 30 min		
" Rmt	" " "F		
Bit Size	7 7/8"		
Spacing	T 3 R 1 R 2 CSG. To TD To To To		
Opr. Rig Time	3 HOURS		
Truck No.	3701-HOBBS		
Recorded By	OWEN		
Witness	THINK		

LEA New Mexico

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Dallas 2, Texas

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REFERENCE W4991G

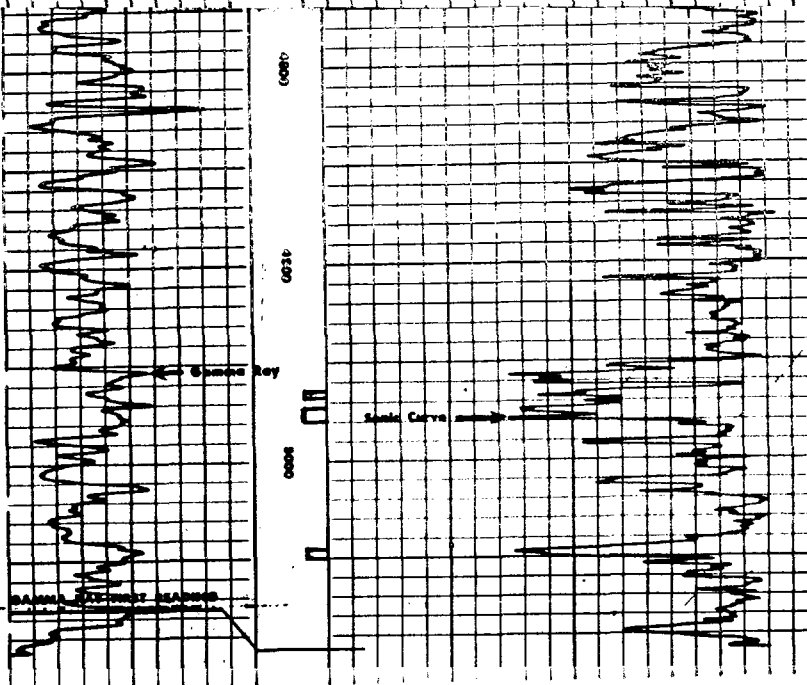
12 COMPLETION RECORD

SPUD DATE

COMP DATE

DST RECORD

SPONTANEOUS-POTENTIAL millivolts	DENSITIES	INTERVAL TRANSIT TIME microseconds per foot ← increase →	
		100	70 40
GAMMA RAY			
0 API UNITS 125			
125 250			



Case 4216

LEA N.W. 31

Schlumberger		SONIC LOG	
COUNTY LEA FIELD or LOCATION PEARL QUEEN WELL TEXACO-HAMON STATE A-1 COMPANY EARL COLTON	COMPANY EARL COLTON		Other Surveys
	WELL TEXACO-HAMON		Location of Well
	STATE A-1		1650' FROM N/L
	FIELD PEARL QUEEN		660' FROM W/L
	LOCATION SEC 24 19S-35E		
COUNTY LEA		Elevation: K.B.: 3251	
STATE NEW MEXICO		D.F.: 3250	
		or G.L.: 2738	
Log Depths Measured From KB 15 Ft. above GL			
RUN No. ONE			
Date 4 11 62			
First Reading 5083			
Last Reading 0			
Feet Measured 5083			
Csg. Schlum.			
Csg. Driller 8 5/8" x 160'			
Depth Reached 5090			
Bottom Driller 5085			
Mud Mat. SALT			
Dens. Visc. 10.7 38			
Mud Resist. @ °F @ °F @ °F @ °F			
" Res. BHT @ °F @ °F @ °F @ °F			
" pH 6 @ °F @ °F @ °F @ °F			
" Wtr. Loss 4 CC 30 min CC 30 min CC 30 min			
" Rmi @ °F @ °F @ °F @ °F			
Bit Size 7 7/8"			
Spacing:			
T 3 R. 1 R. 0 To 3155 To To To			
T R. R. 3155 To 5083 To To To			
Opr. Rig time 4 HOURS			
Truck No. 2526 HOBBS			
Recorded By WILSON			
Witness JOHN			

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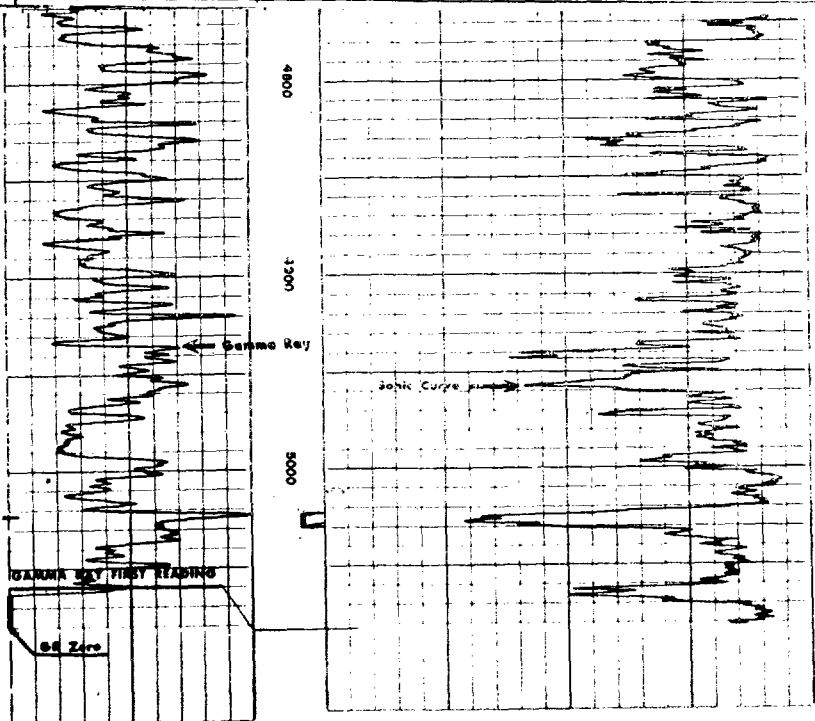
REFERENCE W3079H




12

COMPLETION RECORD

SPUD DATE
COMP DATE
DST RECORD



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Schlumberger

Sonic Log

Schlumberger Well Logging Services

COUNTY <u>LEA</u> FIELD or LOCATION <u>PEARL QUEEN</u> WELL <u>TEXACO RUSHING</u> COMPANY <u>EARL G. COLTON</u>	COMPANY <u>EARL G. COLTON</u>	Other Surveys NONE
	WELL <u>Moran</u> <u>TEXACO RUSHING</u>	Location of Well 660' FROM N&E/L
	FIELD <u>PEARL QUEEN</u>	
	LOCATION <u>SEC. 22 19S-35E</u>	
	COUNTY <u>LEA</u>	Elevation: K.B. <u>3791</u> D.F. <u>3790</u> or G.L. <u>3778</u>
STATE <u>NEW MEXICO</u>		

Log Depths Measured From		KB	13 Ft. above GL
RUN No.	ONE		
Date	10-26-61		
First Reading	5050		
Last Reading	0		
Feet Measured	5050		
Csg. Schlum.			
Csg. Driller	180		
Depth Reached	5054		
Bottom Driller	5050		
Mud Nat.	SALT		
Dens. Visc.	16.2	4.1	
Mud Resist.	26	75	°F
" Res. BHT			°F
" pH	4.5		°F
" Wtr. Loss	4	CC 30 min	°F
" Rmf			°F
Bit Size	5"		
Spacing:			
T.R. I.R.	180	To 4400	To
T.R. I.R.	4400	To 5050	To
Opr. Rig Time	3 HOURS		
Truck No.	2526-HOBBS		
Recorded By	WILSON		
Witness	JOHN		

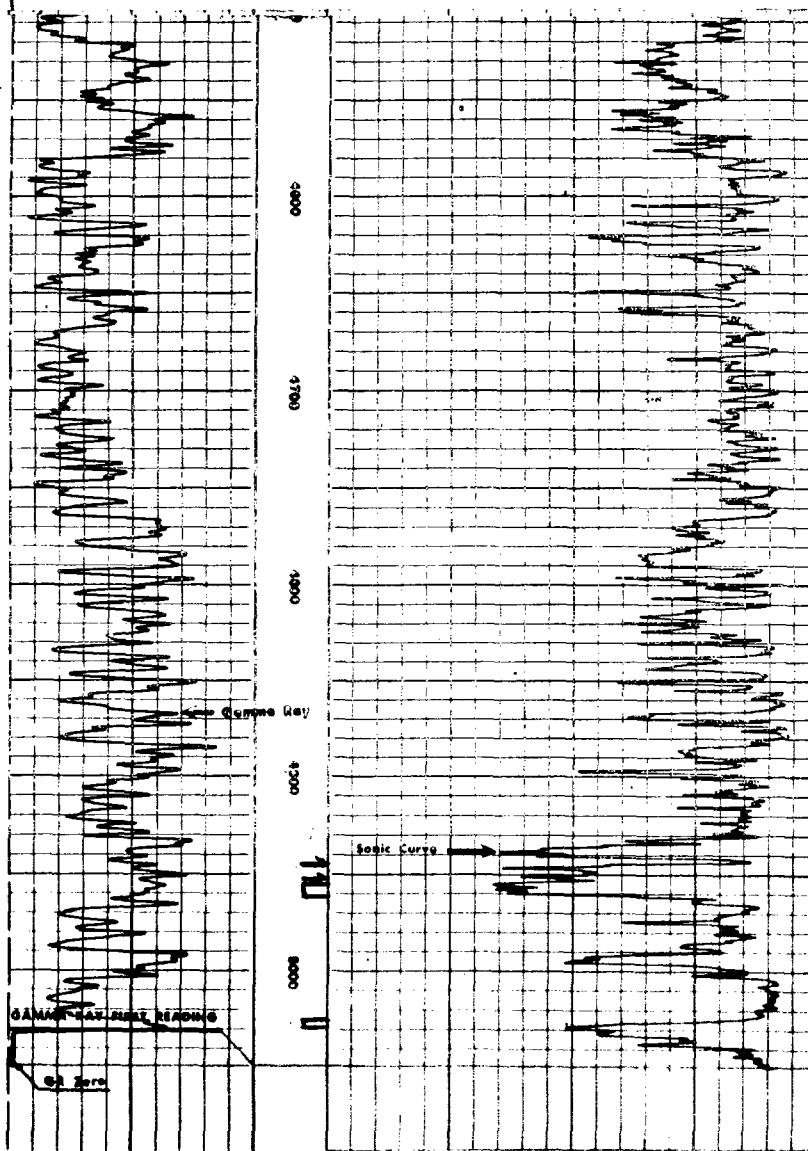
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 REFERENCE W1655L 

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COMPLETION RECORD



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SCHLUMBERGER WELL SURVEYING CORPORATION
ESTD 1919

Soyuz *MAIR*

COUNTY FIELD OF LOCATION WELL COMPANY	COMPANY EARL COLTON	Other Surveys
	WELL UNION STATE 2	Location of Well
	FIELD PEARL QUEEN	
	LOCATION SEC 15-12-351	
	COUNTY LEA	Elevation: K.B.: 3279
	STATE NEW MEXICO	D.F.: or G.L.: 3268

Log Depths Measured From KB 11 Ft. above GL

RUN No.	ONE		
Date	5-2-61		
First Reading	4966		
Last Reading	0		
Feet Measured	4466		
Csg. Schlum.			
Csg. Driller	190		
Depth Reached	4972		
Bottom Driller	4966		
Mud Mat.	SALT GEL STARCH		
Dens. Visc.	10.4	35	
Mud Resist.	052 @ 77 "F	@ "F	@ "F
Res. BHT	043 @ 96 "F	@ "F	@ "F
pH	5.5	@ "F	@ "F
Wir. Loss	10.4 CC 30 min	@ CC 30 min	@ CC 30 min
Rmf	046 @ 76 "F	@ "F	@ "F
Bit Size	2 7/8"		
Spacing:			
T 1 R 2 R SURE	To 4400	To	To
T 1 R 1 R	To 4400	To	To
Opr. Rig Time	1.10 HRS		
Truck No.	2527-10BBS		
Recorded By	SCHAEFFER		
Witness	COLTON		

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COMPLETION RECORD

8

