Case No
7226

Large Exhibits

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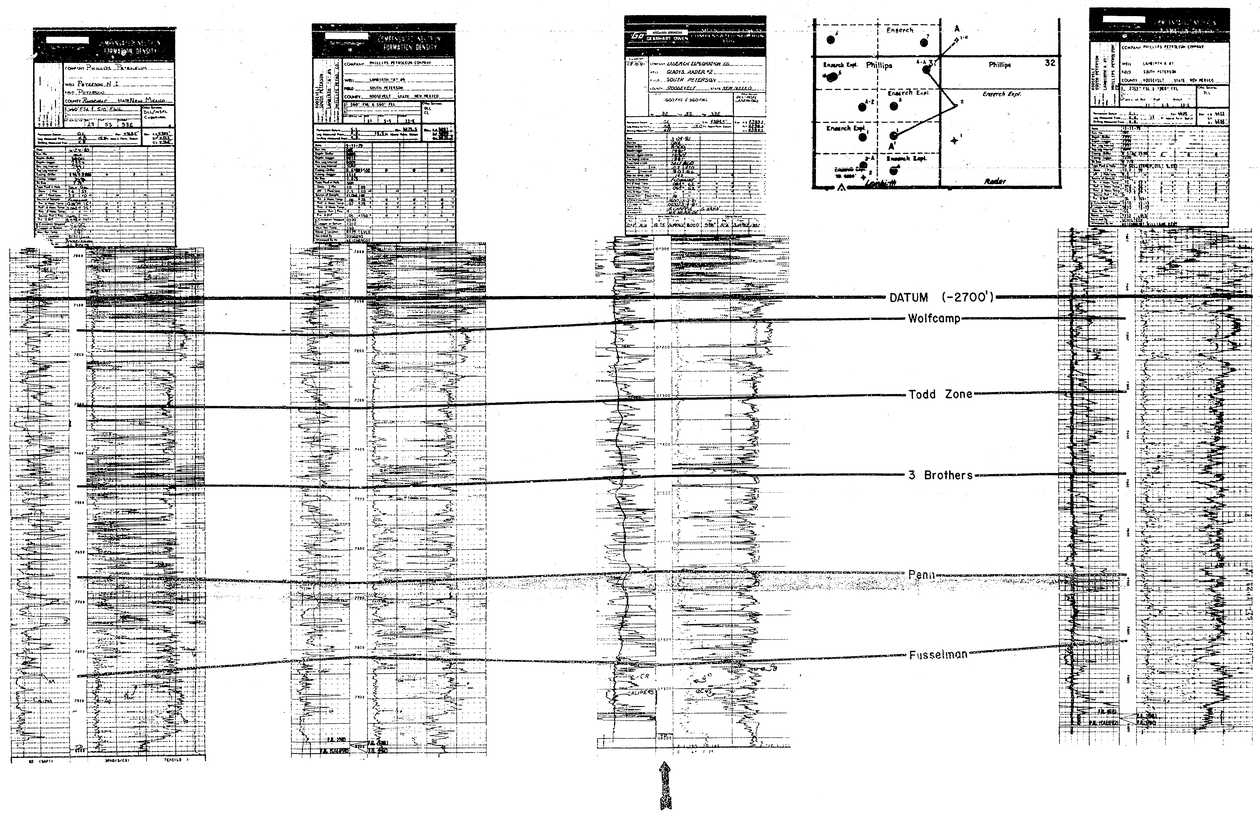
PETERSON, SOUTH FIELD
ROOSEVELT COUNTY, NEW MEXICO
N – S CROSS SECTION

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
PPG EXHIBIT NO. 2
CASE NO. 7226

A

A'



N.M.O.C.C. MICROGRAPHICS
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NORTH
A

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION INCORPORATED
WELL LAMBIRTH #7
FIELD SOUTH PETERSON
COUNTY ROOSEVELT STATE NEW MEXICO
660' FEL & 510' FNL
SEC 30, T-5-S, R-33-E
Other Services: DLL

Permanent Datum: G.L. Elev. 4376.5
Log Measured From: K.B. 14.5 Ft. Above Perm. Datum
Drilling Measured From: K.B.
Elev.: K.B. 4391 D.F. 4390 G.L. 4376.5

Date	4-28-79					
Run No.	ONE					
Depth-Driller	7975					
Depth-Logger	7963					
Btm. Log Interval	7961					
Top Log Interval	7000					
Casing-Driller	8 5/8@2000	@	@	@		
Casing-Logger	1991					
Bit Size	7 7/8					
Type Fluid in Hole	SALT H2O					
Dens. / Visc.	9.7 61					
pH / Fluid Loss	10.5 13.8 ml		ml		ml	ml
Source of Sample	PIT					
Rm @ Meas. Temp.	.10 @ 78	@ °F	@ °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78	@ °F	@ °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.		@ °F	@ °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M					
Rm @ BHT	.072 @ 130 °F	@ °F	@ °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0630					
Time Logger on Bottom	1300					
Max. Rec. Temp.	130 °F		°F	°F	°F	°F
Equip. / Location	7732 / LVLD					
Recorded By	DIGGINS					
Witnessed By Mr.	MAGIMS					

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY PHILLIPS PETROLEUM COMPANY
WELL LAMBIRTH "A" #4
FIELD SOUTH PETERSON
COUNTY ROOSEVELT STATE NEW MEXICO
660' FNL & 560' FEL
Other Services: DLL CL
Sec. 31 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4375.5
Log Measured From: K.B. 15.5 Ft. Above Perm. Datum
Drilling Measured From: K.B.
Elev.: K.B. 4391 D.F. 4390 G.L. 4375.5

Date	9-11-79					
Run No.	ONE					
Depth-Driller	8050					
Depth-Logger	8012					
Btm. Log Interval	8008					
Top Log Interval	SURF					
Casing-Driller	8 5/8@1500	@	@	@		
Casing-Logger	1512					
Bit Size	7 7/8					
Type Fluid in Hole	SGM					
Dens. / Visc.	10 39					
pH / Fluid Loss	7.5 10 ml		ml		ml	ml
Source of Sample	FLOWLINE					
Rm @ Meas. Temp.	.06 @ 78	@ °F	@ °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78	@ °F	@ °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.		@ °F	@ °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M					
Rm @ BHT	.05 @ 140 °F	@ °F	@ °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0300					
Time Logger on Bottom	1010					
Max. Rec. Temp.	140 °F		°F	°F	°F	°F
Equip. / Location	8179 / LVLD					
Recorded By	DIGGONS					
Witnessed By Mr.	WEICHBRODT					

-3200'

7600

7700

7800

7900

Top Peterson Lime

Pre-Penn Unconformity

Fusselman

W.R.M.C.F. MICROGRAPHICS

BEST AVAILABLE COPY

Elev. Kelly Bushing	3197			
Elev. Ground	3182			
Date	8-7-78			
Depth-Driller	7900	@	@	@
Depth-Logger	7900			
Btm. Log Interval	7900			
Top Log Interval	2000			
Casing-Driller	13 3/8 @ 2000	@	@	@
Casing-Logger	2000			
Bit Size	12 1/4			
Type Fluid in Hole	GEL CHEM			
Dens. / Visc.	9.0 / 41			
pH / Fluid Loss	10.5 / 13.8 ml	ml	ml	ml
Source of Sample	PIT			
Rm @ Meas. Temp.	.10 @ 78 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M			
Rm @ BHT	.072 @ 110 °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0610			
Time Logger on Bottom	1520			
Max. Rec. Temp.	130 °F	°F	°F	°F
Equip. / Location	2732 / LVLS			
Recorded By	DIGGONS			
Witnessed By Mr.	HAGLINS			

Elev. Kelly Bushing	3197			
Elev. Ground	3182			
Date	8-14-78			
Depth-Driller	8159 @ 8159	@	@	@
Depth-Logger	8158			
Btm. Log Interval	8159			
Top Log Interval	2000			
Casing-Driller	13 3/8 @ 2000	@	@	@
Casing-Logger	2000			
Bit Size	7 7/8			
Type Fluid in Hole	SOBM			
Dens. / Visc.	10 / 39			
pH / Fluid Loss	7.5 / 10 ml	ml	ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.09 @ 78 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M			
Rm @ BHT	.05 @ 140 °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0100			
Time Logger on Bottom	1030			
Max. Rec. Temp.	140 °F	°F	°F	°F
Equip. / Location	2732 / LVLS			
Recorded By	DIGGONS			
Witnessed By Mr.	WEICHBRODT			

-3200'

Top Peterson Lime

Pre-Penn Unconformity

Fusselman

Top Montoya

Top Basement

BEST AVAILABLE COPY

SOUTH
A'

GEARHART — COMPENSATED DENSITY COMPENSATED NEUTRON LOG

FILING NO.

COMPANY Enserch Exploration Company

WELL Gladys Rader No. 2

FIELD South Peterson

COUNTY Roosevelt STATE New Mexico

Location: 1830' FSL & 660' FWL

Other Services:

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum	G.L.	Elev. 4384.5					Elev. K.B.	4399.5
Log Measured from	K.B.	15 Ft. Above Perm. Datum					D.F.	4398.5
Drilling Measured From	K.B.						G.L.	4384.5
Date	3-4-81							
Run No.	One							
Depth-Driller	8000							
Depth-Logger	7991							
Bottom logged interval	7990							
Top Log Interval	1987							
Type Fluid in hole	Salt Mud							
Density / Visc.	10.7 / 47							
pH / Fluid Loss	9 / 8.6							
Max rec. temp., deg. F.	132	°F			°F			°F
Source of Samples	Flowline							
Rm @ Meas. Temp.	.084 @ 62	°F		@	°F		@	°F
Rmf @ Meas. Temp.	.068 @ 62	°F		@	°F		@	°F
Rmc @ Meas. Temp.	N/A @ N/A	°F		@	°F		@	°F
Source Rmf / Source Rmc	Mem. / N/A							
Rm @ BHT	.060 @ 138	°F		@	°F		@	°F
Time Circulation Stopped	1600 3-3-81							
Time Logger on Bottom	0030 3-4-81							
Recorded By	Chisholm							
Witnessed By	Mr. McBride							

Run No.	Bore-hole Record Bit	From	To	Size	Casing Record Wgt.	From	To
One	N/A 8.75	1987	8000	9 5/8	N/A	Surface	1987

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION, INC.

WELL GLADYS RADER #1

FIELD S. PETERSON (FUSSELMAN)

COUNTY ROOSEVELT STATE NEW MEXICO

1830' FSL & 660' FWL

Other Services: DLL BHC CYBERLOOK

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum	G.L.	Elev. 4393.5					Elev. K.B.	4410.5
Log Measured From	K.B.	17 Ft. Above Perm. Datum					D.F.	4409.5
Drilling Measured From	K.B.						G.L.	4393.5
Date	7-04-79							
Run No.	ONE							
Depth-Driller	7818							
Depth-Logger	7816							
Btm. Log Interval	7811							
Top Log Interval	1500	& WAY CONTINUOUS						
Casing-Driller	@ 5/8@ 3025	@		@		@		@
Casing-Logger								
Bit Size	7 7/8							
Type Fluid in Hole	GEL							
Dens. / Visc.	10.01 / 62							
pH / Fluid Loss	10.5 / 10.6ml							
Source of Sample	CIRC							
Rm @ Meas. Temp.	.085 @ 85 °F							
Rmf @ Meas. Temp.	.067 @ 68 °F							
Rmc @ Meas. Temp.	.271 @ 76 °F							
Source Rmf / Rmc	M / M							
Rm @ BHT	.052 @ 138 °F							
Time Circulation Stopped	04:30							
Time Logger on Bottom	17:00							
Max. Rec. Temp.	138 °F							
Equip. / Location	9139 / LVLD							
Recorded By	MOORE							
Witnessed By Mr.	BOWDEN							

-3200'

7600

7700

7800

7900

Top Peterson Lime

Penn Detrital "Wedge"

Fusselman

Perf 7902 - 7930 (MONTOYA) FOR WTR DISPOSAL

7600

7700

7800

7900

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Run Number		1987						
Type Fluid in Hole		Salt Mud						
Density	Visc.	10.7	47					
pH	Fluid Loss	9	8.6					
Res. @ Meas. Temp.		142		°F				°F
Source of Samples		Flowline						
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A	@ N/A	°F	@	°F	@	°F
Source Rmf / Source Rmc		Meas.	N/A					
Time Since Circulation		1600 3-3-87						
Time Logger on Bottom		0030 3-4-87						
Recorded By		Chappie/Hahn						
Witnessed By		Mr. McBride						

Run No.	Bore-Hole Record Bit Level	Bit	From	To	Casing Record Size	Wgt.	From	To
One	N/A	8.75	1987	8000	9 5/8	N/A	Surface	1987

Run No.	One							
Top Log Interval	1987							
Casing - Driller	8 5/8 @ 2045		@		@		@	
Casing - Logger								
Bit Size	7 7/8							
Type Fluid in Hole	Salt							
Density	Visc.	10.0	42					
pH	Fluid Loss	10.5	10.6	ml		ml		ml
Source of Sample		Flo						
Rm @ Meas. Temp.		.062 @ 85	°F	@	°F	@	°F	@ °F
Rmf @ Meas. Temp.		.067 @ 85	°F	@	°F	@	°F	@ °F
Rmc @ Meas. Temp.		.077 @ 75	°F	@	°F	@	°F	@ °F
Source: Rmf / Rmc		M	M					
Rm @ BHT		.052 @ 138	°	@	°F	@	°F	@ °F
Time Circulation Stopped		0430						
Time Logger on Bottom		1700						
Max. Rec. Temp.		138	°F		°F		°F	°F
Equip. Location		8178	LVLD					
Recorded By		MOORE						
Witnessed By		BORGAN						

-3200'

07600

07700

Top Peterson Lime

Ran cmt retainer @ 7830'
Sqz 7760,51,61,74, w/4 JSPF
A/1500 mca 20% acid
swbd dry - no oil or gas
Will wipe & lower perfs

Penn Detrital "Wedge"

07800

Perf 7848,49,50,51 w/2 JSPF
A/1000 15% HCL
swbd 95 B HCL & spent acid w/s
no oil or gas

Fusselman

07900

PERF 7902 - 7930 | MONTOYA |
FOR WTR DISPOSAL

Top Montoya

GAMMA RAY

log P. B.
log T. D.

08000

Top Basement

NEUTRON CALIPER
DENSITY CALIPER

DENSITY POROSITY
NEUTRON POROSITY

7600

7700

7800

7900

8000

SFL
ILM
ILD

T
S

R 32 E
R 33 E
R 34 E

TANNEYHILL
ELIDA
LINE OF CROSS SECTION
A
A'

Tanneyhill
Granite
High

Enc Ex 3
Co 7226

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date April 2nd 1987

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

ELIDA PROSPECT
ROOSEVELT COUNTY, NEW MEXICO

NORTH - SOUTH STRUCTURAL CROSS SECTION

PETERSON, SOUTH FIELD

W.A.M.S. / U. OF A. MICROGRAPHICS

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PETERSON, SOUTH FIELD
ROOSEVELT COUNTY, NEW MEXICO
N – S CROSS SECTION

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
PMCo EXHIBIT NO. 2
CASE NO. 7226

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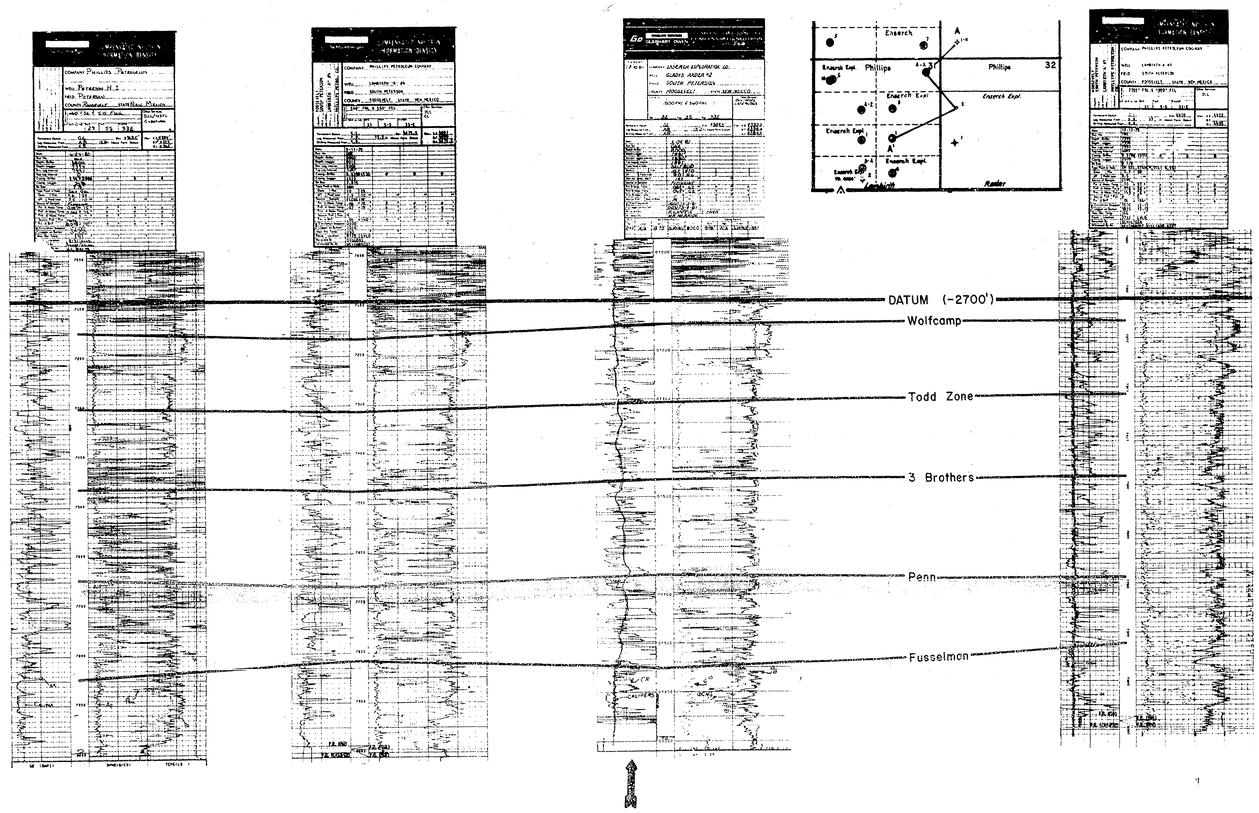

U.S.D.E.P. MICROGRAPHICS

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PETERSON, SOUTH FIELD
ROOSEVELT COUNTY, NEW MEXICO
N – S CROSS SECTION

OIL CONSERVATION DIVISION
EXAMINER NUTTER
Phillips EXHIBIT NO. 2
CASE NO. 7226

A

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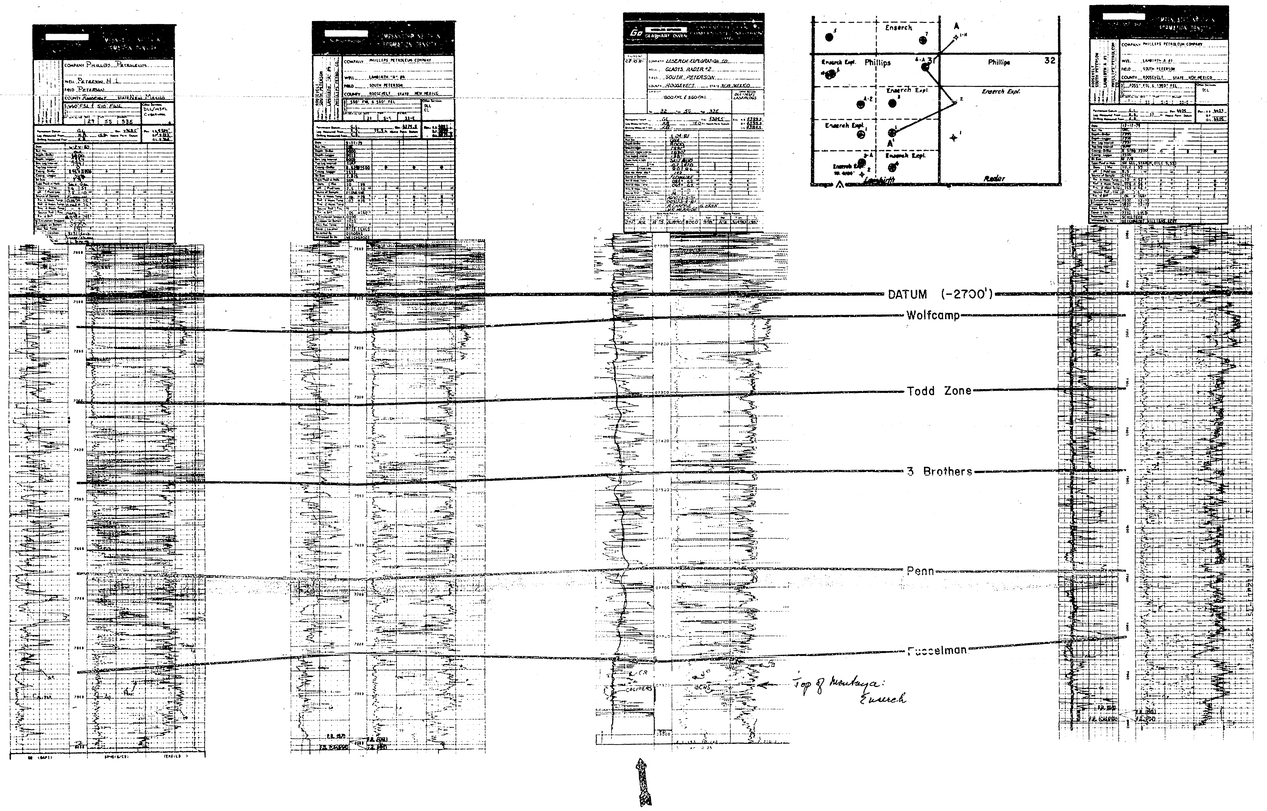


N.M.O.C.C. MICROGRAPHICS
BEST AVAILABLE COPY

DUAL LATEROLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
FDC/CNL CYBERLOOK

RUN HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGOMS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN; DEPTH 3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.80 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.08 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.6 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 141.0 DF
TIME CIRCULATION STOPPED: 0030
TIME LOGGER ON BOTTOM: 0630

COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

RUN HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGOMS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN; DEPTH 3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 23 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

RUN HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGOMS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 7000.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN; DEPTH 3512.0 FEET

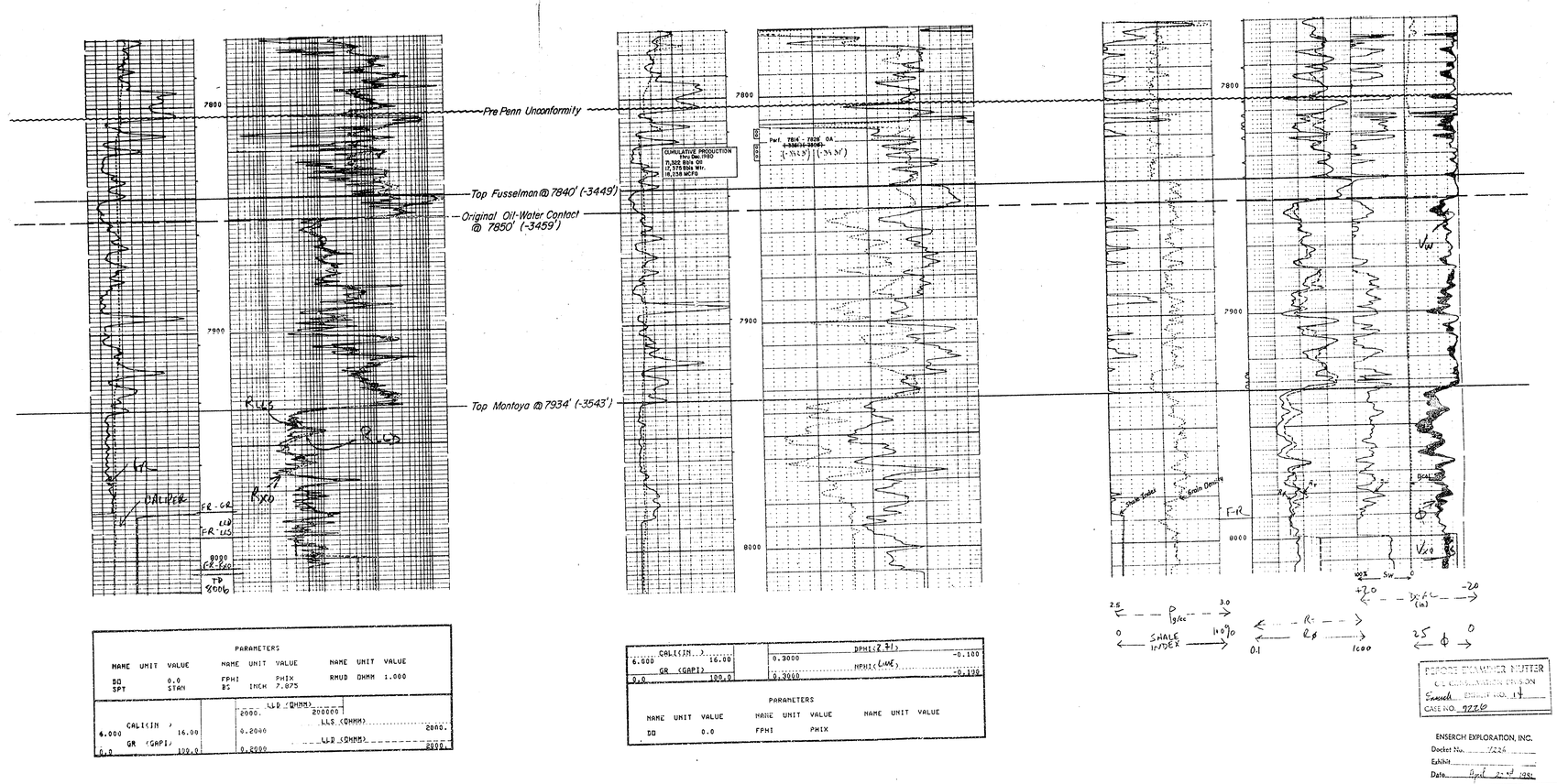
DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK PARAMETER PICKS

DEPTH	RW	RMF	GRCL	GRSH	MD
FDC .045	3	22	80	6.1	
FCSO .045	3	23	65	7	
MFSL .03	RMSH 35	BIT SIZE 7.875			



PARAMETERS								
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX	RMUD	OHMM	1.000
SPT		STAN	BS	INCH	7.875			

CALI(IN)		LLD (OHMM)	
6.000	16.00	2000.	20000
GR (GAPI)		LLS (OHMM)	2000.
0.0	100.0	0.2000	
		LLD (OHMM)	2000.
		0.2000	

CALI(IN)	DPHI(FRAC)
6.000 16.00	0.3000 -0.100
GR (GAPI)	NPHI(LIME)
0.0 100.0	0.3000 -0.198

PARAMETERS								
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX			

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Enserch EXHIBIT NO. 14
CASE NO. 7226

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date April 2nd 1981

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE Vert. 2 in = 100 ft
Horiz.

By: D. Fendutt
Date: April, 1981

W.M.K.C.F. MICROGRAPHICS

BEST AVAILABLE COPY

NORTH
A

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

Company	ENSERCH EXPLORATION INCORPORATED
Well	LAMBIRTH #7
Field	SOUTH PETERSON
County	ROOSEVELT State NEW MEXICO
Location	660' FEL & 510' FSL SEC 30, T-5-S, R-33-E
Other Services	DLL
API Serial No.	Sec. 30 Twp. 5-S Range 33-E
Permanent Datum	G.L. Elev. 4376.5
Log Measured From	K.B. 14.5 Ft. Above Perm. Datum
Drilling Measured From	K.B.
Elev.	K.B. 4391, D.F. 4390, G.L. 4376.5

Date	4-28-79							
Run No.	ONE							
Depth-Driller	7973							
Depth-Logger	7963							
Btm. Log Interval	7962							
Top Log Interval	7000							
Casing-Driller	8 5/8 @ 2000	@		@		@		
Casing-Logger	1993							
Bit Size	7 7/8							
Type Fluid in Hole	SALT MUD							
Dens. / Visc.	9.7 / 61							
pH / Fluid Loss	10.5 / 13.8 ml		ml		ml		ml	
Source of Sample	PIT							
Rm @ Meas. Temp.	.10 @ 78 °F	@ °F		@ °F		@ °F		
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F		@ °F		@ °F		
Rmc @ Meas. Temp.	@ °F	@ °F		@ °F		@ °F		
Source: Rmf / Rmc	M							
Rm @ BHT	.072 @ 130 °F	@ °F		@ °F		@ °F		
Circulation Stopped	0430							
Logger on Bottom	1520							
Max. Rec. Temp.	130 °F		°F		°F		°F	
Equip. / Location	7732 / LVLD							
Recorded By	DIGGONS							
Witnessed By Mr.	MAGINS							

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

Company	PHILLIPS PETROLEUM COMPANY
Well	LAMBIRTH "A" #4
Field	SOUTH PETERSON
County	ROOSEVELT State NEW MEXICO
Location	560' FNL & 560' FEL
Other Services	DLL CL
API Serial No.	Sec. 31 Twp. 5-S Range 33-E
Permanent Datum	G.L. Elev. 4375.5
Log Measured From	K.B. 15.5 Ft. Above Perm. Datum
Drilling Measured From	K.B.
Elev.	K.B. 4391, D.F. 4390, G.L. 4375.5

Date	9-11-79							
Run No.	ONE							
Depth-Driller	8000							
Depth-Logger	8012							
Btm. Log Interval	8009							
Top Log Interval	SURF							
Casing-Driller	8.625 @ 3500	@		@		@		
Casing-Logger	3512							
Bit Size	7.875							
Type Fluid in Hole	SGN							
Dens. / Visc.	10 / 39							
pH / Fluid Loss	7.5 / 10 ml		ml		ml		ml	
Source of Sample	FLOWLINE							
Rm @ Meas. Temp.	.08 @ 78 °F	@ °F		@ °F		@ °F		
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F		@ °F		@ °F		
Rmc @ Meas. Temp.	@ °F	@ °F		@ °F		@ °F		
Source: Rmf / Rmc	M							
Rm @ BHT	.05 @ 140 °F	@ °F		@ °F		@ °F		
Circulation Stopped	0300							
Logger on Bottom	1030							
Max. Rec. Temp.	140 °F		°F		°F		°F	
Equip. / Location	8129 / LVLD							
Recorded By	DIGGONS							
Witnessed By Mr.	WEICHBRODT							

-3200'

7600

7700

7800

7900

Top Peterson Lime

Pre-Penn Unconformity

Fusselman

W.S.M.C.P. MICROGRAPHICS

BEST AVAILABLE COPY

Run No.	ONE
Depth-Driller	8200
Depth-Logger	8192
Btm. Log Interval	8190
Top Log Interval	1800
Casing-Driller	13 3/8 @ 2000
Casing-Logger	1991
Bit Size	7 7/8
Type Fluid in Hole	SALT MUD
Dens. / Visc.	10.4 / 38
pH / Fluid Loss	10.5 / 13.8 cc
Source of Sample	PIT
Rm @ Meas. Temp.	.10 @ 78 °F
Rmf @ Meas. Temp.	.07 @ 78 °F
Rmc @ Meas. Temp.	
Source: Rmf / Rmc	M / M
Rm @ BHT	.072 @ 130 °F
Circulation Stopped	0410
Logger on Bottom	1030
Max. Rec. Temp.	130 °F
Equip. / Location	7732 / LVLD
Recorded By	DIGGINS
Witnessed By Mr.	HAGINS

Date	5-11-79
Run No.	ONE
Depth-Driller	8000
Depth-Logger	8012
Btm. Log Interval	8000
Top Log Interval	1000
Casing-Driller	8 5/8 @ 1500
Casing-Logger	1512
Bit Size	7 7/8
Type Fluid in Hole	SGM
Dens. / Visc.	10 / 39
pH / Fluid Loss	7.5 / 10 cc
Source of Sample	FLOWLINE
Rm @ Meas. Temp.	.08 @ 78 °F
Rmf @ Meas. Temp.	.07 @ 78 °F
Rmc @ Meas. Temp.	
Source: Rmf / Rmc	M / M
Rm @ BHT	.05 @ 140 °F
Circulation Stopped	0100
Logger on Bottom	1010
Max. Rec. Temp.	140 °F
Equip. / Location	8139 / LVLO
Recorded By	DIGGINS
Witnessed By Mr.	MELHUBBARD

-3200'

7600

7700

Top Peterson Lime

Pre-Penn Unconformity

7800

Fusselman

7900

Top Montoya

8000

Top Basement

BEST AVAILABLE COPY

SOUTH

A'

GEARHART — COMPENSATED DENSITY COMPENSATED NEUTRON LOG

FILING NO.

COMPANY Enserch Exploration Company

WELL Gladys Nader No. 2

FIELD South Peterson

COUNTY Roosevelt STATE New Mexico

Location: 1890' FNL & 560' FWL

Other Services: DIL

Sec 32 Twp 5-S Rge 33-E

Permanent Datum: G.L.	Elev.: 4384.5					Elev.: K.B. 4399.5	
Log Measured From: K.B.	15 Ft. Above Perm. Datum					D.F. 4398.5	
Drilling Measured From: K.B.						G.L. 4384.5	
Date	3-4-81						
Run No.	One						
Depth-Driller	8000						
Depth-Logger	7991						
Bottom logged interval	7990						
Top logged interval	1987						
Type fluid in hole	Salt Wat						
Density / Visc.	10.7 47						
pH / Fluid Loss	9 8.0						
Max rec. temp., deg F.	142 °F			°F			°F
Source of Sample	Flowline						
Rm @ Meas. Temp.	.084 @ 62 °F		@ °F		@ °F		
Rmf @ Meas. Temp.	.068 @ 62 °F		@ °F		@ °F		
Rmc @ Meas. Temp.	N/A @ N/A °F		@ °F		@ °F		
Source Rmf / Source Rmc	Meas. / N/A						
Rm @ Circulation	1600 3-3-81						
Rm @ Logger on Bottom	0030 3-4-81						
Recorded By	Chacolo/Hahn						
Witnessed By	Mr. Nichols						

Run	Bore Hole Record				Casing Record			
No.	Level	Bit	From	To	Size	Wgt.	From	To
One	N/A	8.75	1987	8000	9 5/8	N/A	Surface	1987

SCHLUMBERGER — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION, INC.

WELL GLADYS NADER #1

FIELD S. PETERSON (FUSSELMAN)

COUNTY ROOSEVELT STATE NEW MEXICO

Location: 1830' FSL & 660' FWL

Other Services: DLL BHC CYBERLOOK

Sec 32 Twp 5-S Rge 33-E

Permanent Datum: G.L.	Elev. 4393.5					Elev.: K.B. 4410.5	
Log Measured From: K.B.	17 Ft. Above Perm. Datum					D.F.	
Drilling Measured From: K.B.						G.L. 4393.5	
Date	7-04-79						
Run No.	ONE						
Depth-Driller	7918.1						
Depth-Logger	7918						
Btm. Log Interval	7917						
Top Log Interval	1500	& NOT CONTINUOUS					
Casing-Driller	@ 570 1075		@		@		
Casing-Logger							
Bit Size	7 7/8						
Type Fluid in Hole	SGN						
Dens. / Visc.	10.0 62						
pH / Fluid Loss	10.5 10.0cc			cc			cc
Source of Sample	CIRC						
Rm @ Meas. Temp.	.085 @ 86 °F		@ °F		@ °F		@ °F
Rmf @ Meas. Temp.	.067 @ 86 °F		@ °F		@ °F		@ °F
Rmc @ Meas. Temp.	.071 @ 76 °F		@ °F		@ °F		@ °F
Source: Rmf / Rmc	M / M						
Rm @ BHT	.052 @ 138 °F		@ °F		@ °F		@ °F
Time Circulation Stopped	0610						
Time Logger on Bottom	1700						
Max. Rec. Temp.	138 °F		°F		°F		°F
Equip. Location	8129 LVEQ						
Recorded By	MOORE						
Witnessed By Mr.	KORGAN						

-3200'

7600

7700

7800

7900

Top Peterson Lime

Penn Detrital "Wedge"

Fusselman

PERF 7900 - 7930 (4 SHOTS/FT) FOR WTR DISPOSAL

ϕ_{CNL}

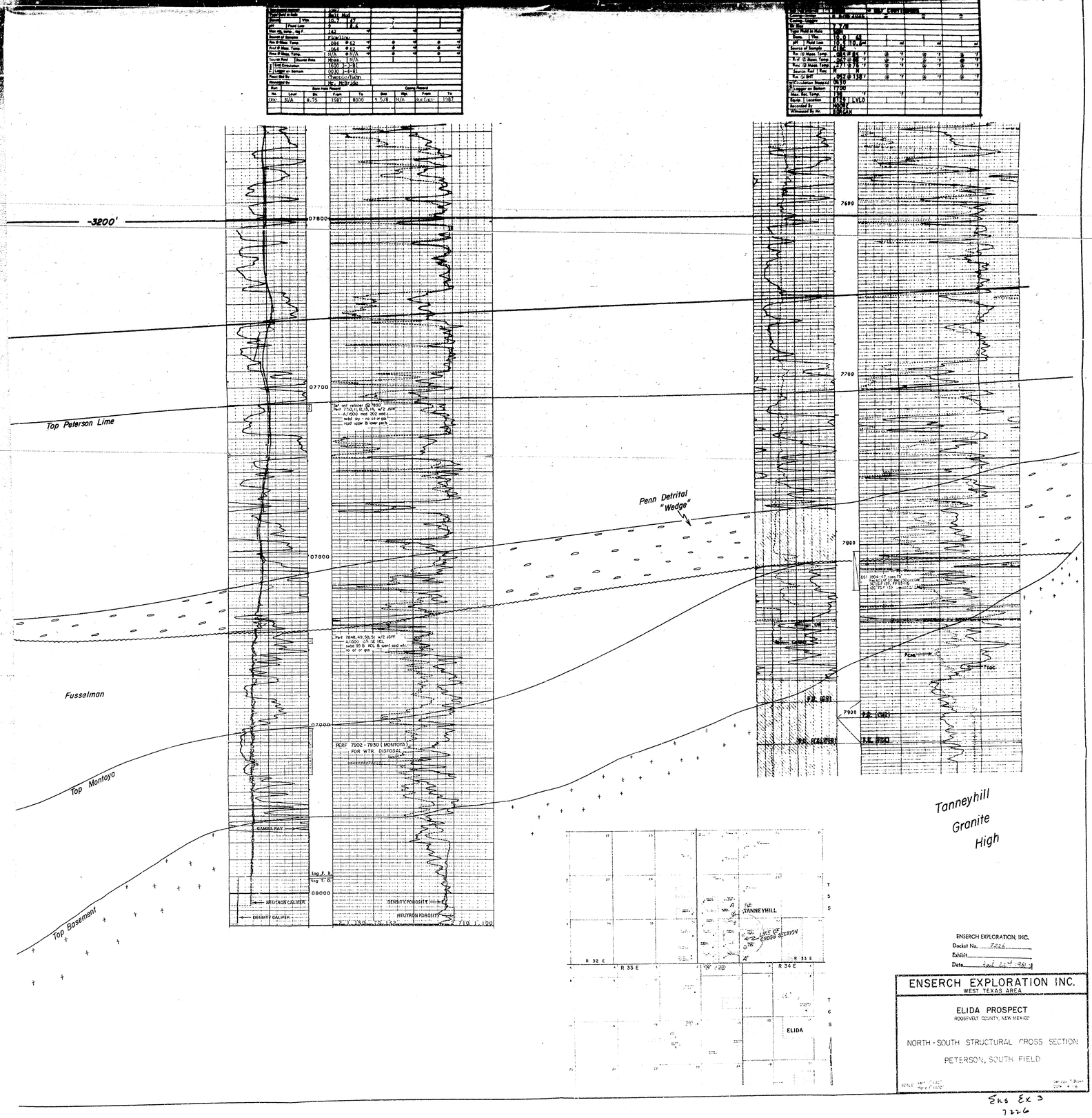
ϕ_{DC}

F.L. (CNL)

F.L. (DC)

W.E.N.C.O. MICROFILMED

BEST AVAILABLE COPY



ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date. April 24th 1981

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

ELIDA PROSPECT
ROOSEVELT COUNTY, NEW MEXICO

NORTH - SOUTH STRUCTURAL CROSS SECTION

PETERSON, SOUTH FIELD

Enrs Ex 3
7226

DUAL LATEROLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
FDC/CNL CYBERLOOK

FOLD HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.08 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 141.0 DF
TIME CIRCULATION STOPPED: 0830
TIME LOGGER ON BOTTOM: 0930

COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 83 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 7600.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

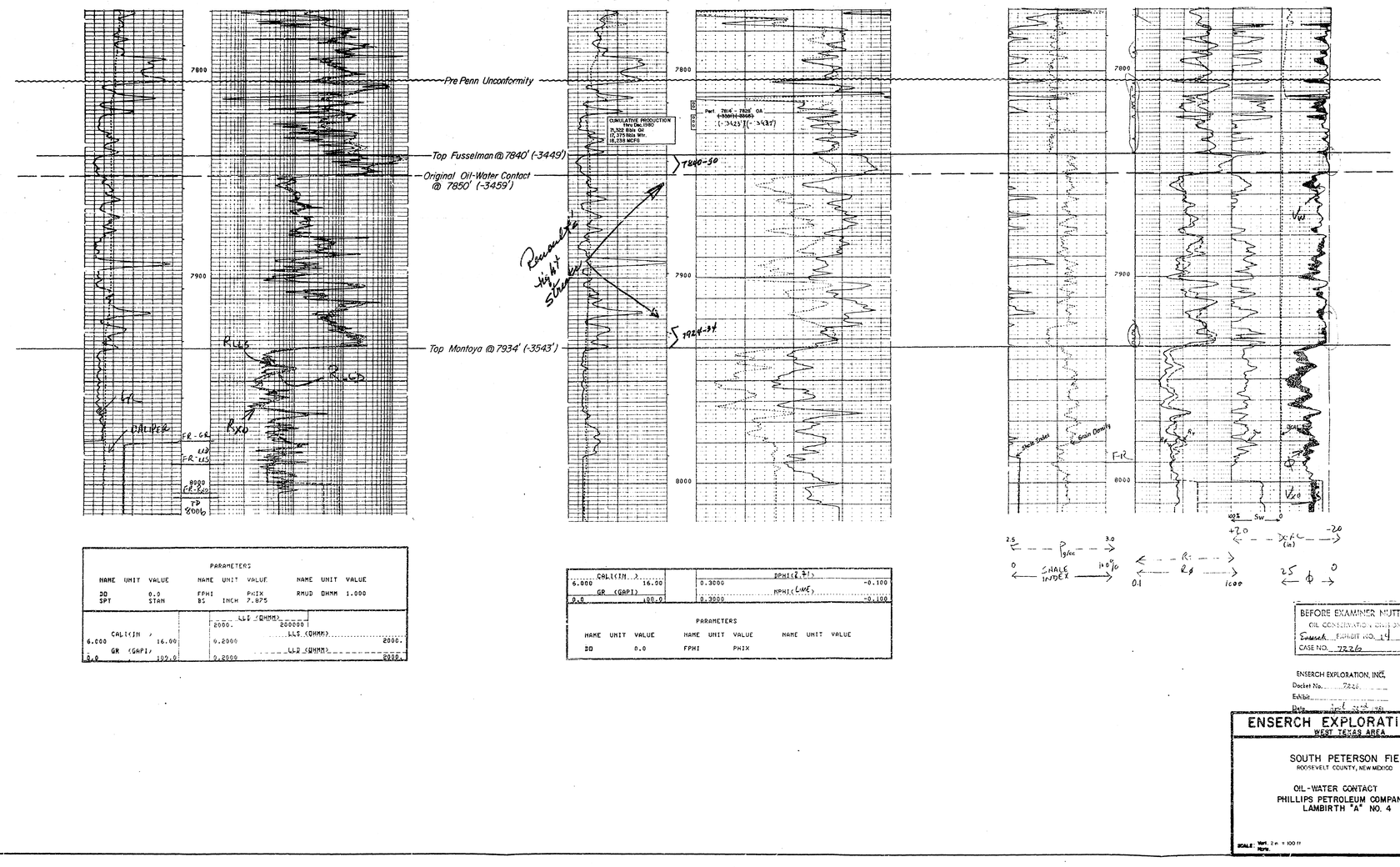
	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK PARAMETER PICKS

DEPTH	RW	RMB	GRCL	GRSH	MD
7800	.045	5	25	90	2.1
7950	.047	5	25	65	2.1

NPCL	NPSH	BIT SIZE
.03	.35	7.875



PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX	RMUD	OHMM	1.000
SPT		STAN	BS	INCH	7.875			

CALI(IN)		LL3 (OHMM)	
6.000	16.00	2000.	200000
GR (GAPI)		LL6 (OHMM)	
0.0	100.0	0.2000	2000.
		LLS (OHMM)	
		0.2000	2000.

CALI(IN)		DPHI(V/V)	
6.000	16.00	0.3000	-0.100
GR (GAPI)		RPHI(LME)	
0.0	100.0	0.3000	-0.100

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX			

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Enserch EXHIBIT NO. 14
CASE NO. 7226

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date Dec 7 1979

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE: Vert. 2" = 100 ft
Horiz.

By: C. Renault
Date: April, 1980

W.H.M.I.F. REPRODUCTIONS

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NORTH
A

Schlumberger
COMPENSATED NEUTRON FORMATION DENSITY

ROOSEVELT / SOUTH PETERSON / LAMBIRTH #7 / ENSERCH EXPLORATION

COMPANY ENSERCH EXPLORATION INCORPORATED
WELL LAMBIRTH #7
FIELD SOUTH PETERSON
COUNTY ROOSEVELT STATE NEW MEXICO

Location: 660' FEL & 510' FSL, SEC 30, T-5-S, R-33-E
API Serial No. | Sec. 30 | Twp. | Rge.
Other Services: DLL

Permanent Datum: G.L. Elev. 4376.5
Log Measured From: K.B. 14.5 Ft. Above Perm. Datum
Drilling Measured From: K.B.
Elev.: K.B. 4391, D.F. 4390, G.L. 4376.5

Date	4-28-79									
Run No.	ONE									
Depth-Driller	7972									
Depth-Logger	7963									
Btm. Log Interval	7961									
Top Log Interval	7000									
Casing-Driller	8 5/8 @ 2000	@		@		@				
Casing-Logger	1998									
Bit Size	7 7/8									
Type Fluid in Hole	SALT MUD									
Dens. / Visc.	9.7 / 51									
pH / Fluid Loss	10.5 / 13.8 ml		ml		ml		ml			
Source of Sample	PIT									
Rm @ Meas. Temp.	.10 @ 78 °F	@ °F		@ °F		@ °F		@ °F		
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F		@ °F		@ °F		@ °F		
Rmc @ Meas. Temp.	@ °F	@ °F		@ °F		@ °F		@ °F		
Source: Rmf / Rmc	M									
Rm @ BHT	.072 @ 130 °F	@ °F		@ °F		@ °F		@ °F		
Time Circulation Stopped	0630									
Time Logger on Bottom	1520									
Max. Rec. Temp.	130 °F	°F		°F		°F		°F		
Equip. / Location	7732 / LVLD									
Recorded By	DIGGONS									
Witnessed By Mr.	HAGANS									

Schlumberger
COMPENSATED NEUTRON FORMATION DENSITY

ROOSEVELT / SOUTH PETERSON / LAMBIRTH "A" #4 / PHILLIPS PETR. CO.

COMPANY PHILLIPS PETROLEUM COMPANY
WELL LAMBIRTH "A" #4
FIELD SOUTH PETERSON
COUNTY ROOSEVELT STATE NEW MEXICO

Location: 560' FNL & 560' FEL
API Serial No. | Sec. 31 | Twp. 5-S | Rge. 33-E
Other Services: DLL, CL

Permanent Datum: G.L. Elev. 4375.5
Log Measured From: K.B. 15.5 Ft. Above Perm. Datum
Drilling Measured From: K.B.
Elev.: K.B. 4391, D.F. 4390, G.L. 4375.5

Date	9-11-79									
Run No.	ONE									
Depth-Driller	8000									
Depth-Logger	8012									
Btm. Log Interval	8009									
Top Log Interval	SURF									
Casing-Driller	8.625 @ 3500	@		@		@				
Casing-Logger	3514									
Bit Size	7.875									
Type Fluid in Hole	SGH									
Dens. / Visc.	10 / 39									
pH / Fluid Loss	12.5 / 10 ml		ml		ml		ml			
Source of Sample	FLOWLINE									
Rm @ Meas. Temp.	.09 @ 78 °F	@ °F		@ °F		@ °F		@ °F		
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F		@ °F		@ °F		@ °F		
Rmc @ Meas. Temp.	@ °F	@ °F		@ °F		@ °F		@ °F		
Source: Rmf / Rmc	M									
Rm @ BHT	.05 @ 140 °F	@ °F		@ °F		@ °F		@ °F		
Time Circulation Stopped	0300									
Time Logger on Bottom	1030									
Max. Rec. Temp.	140 °F	°F		°F		°F		°F		
Equip. / Location	8129 / LVLD									
Recorded By	DIGGONS									
Witnessed By Mr.	HEILBRODT									

-3200'

7600
7700
7800
7900
8000

Top Peterson Lime

Pre-Penn Unconformity

Fusselman

7

Renault
light zone
7924-34

U.S.G.S. PHOTOGRAPHICS
BEST AVAILABLE COPY

Run No.	ONE			
Depth - Driller	8000			
Depth - Logger	8012			
Btm. Log Interval	8000			
Top Log Interval	SURF			
Casing - Driller	8 5/8@3500	@	@	@
Casing - Logger	3512			
Bit Size	7 7/8			
Type Fluid in Hole	GEL			
Dens. | Visc.	10 | 39			
pH | Fluid Loss	7.5 | 10 ml	ml	ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.08 @ 78	@	@	@
Rmf @ Meas. Temp.	.07 @ 78	@	@	@
Rmc @ Meas. Temp.		@	@	@
Source: Rmf | Rmc	M			
Rm @ BHT	.05 @ 140	@	@	@
Circulation Stopped	0100			
Logger on Bottom	1010			
Max. Rec. Temp.	140			
Equip. | Location	8129 | LVLD			
Recorded By	DIGGINS			
Witnessed By	MR. CHABROT			

Run No.	ONE			
Depth - Driller	8000			
Depth - Logger	8012			
Btm. Log Interval	8000			
Top Log Interval	SURF			
Casing - Driller	8 5/8@3500	@	@	@
Casing - Logger	3512			
Bit Size	7 7/8			
Type Fluid in Hole	GEL			
Dens. | Visc.	10 | 39			
pH | Fluid Loss	7.5 | 10 ml	ml	ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.08 @ 78	@	@	@
Rmf @ Meas. Temp.	.07 @ 78	@	@	@
Rmc @ Meas. Temp.		@	@	@
Source: Rmf | Rmc	M			
Rm @ BHT	.05 @ 140	@	@	@
Circulation Stopped	0100			
Logger on Bottom	1010			
Max. Rec. Temp.	140			
Equip. | Location	8129 | LVLD			
Recorded By	DIGGINS			
Witnessed By	MR. CHABROT			

-3800'

7600

7700

7800

7900

8000

Top Peterson Lime

Pre-Penn Unconformity

Fusselman

Top Montoya

Top Basement

Rmf @ 140°F

Rmc @ 140°F

Rm @ 140°F

Rmf @ 78°F

Rmc @ 78°F

Rm @ 78

SOUTH
A'

GEARHART — COMPENSATED DENSITY COMPENSATED NEUTRON LOG

FILING NO.	
COMPANY	Enserch Exploration Company
WELL	Gladys Rader No. 2
FIELD	South Peterson
COUNTY	Roosevelt STATE New Mexico
Location:	1800' FNL & 560' FEL
Other Services:	NGT.
Sec. 32 Twp. 5-S Rge. 33-E	

Permanent Datum	G.L.	Elev. 4384.5	Elev.: K.B. 4399.5
Log Measured From	K.B.	15 Ft. Above Perm. Datum	D.F. 4398.0
Drilling Measured From	K.B.		G.L. 4384.5

Date	3-4-81							
Run No.	One							
Depth-Driller	8000							
Depth-Logger	7991							
Bottom Logged Interval	7990							
Top Logged Interval	1987							
Type Fluid in Hole	Salt Mud							
Density / Visc.	10.7 / 47							
pH / Fluid Loss	9 / 18.6							
Max. rec. temp., deg. F	142	°F		°F			°F	
Source of Samples	Flowline							
Rm @ Meas. Temp.	.084 @ 62	°F	@	°F	@	°F		
Rmf @ Meas. Temp.	.064 @ 62	°F	@	°F	@	°F		
Rmc @ Meas. Temp.	N/A @ N/A	°F	@	°F	@	°F		
Source Rmf / Source Rmc	Meas. / N/A							
Rm @ Meas. Temp.	1600 3-4-81							
Rmf @ Meas. Temp.	0030 3-4-81							
Rmc @ Meas. Temp.	0030 3-4-81							
Recorded By	Chapplow/Hahn							
Witnessed By	Mr. McBride							

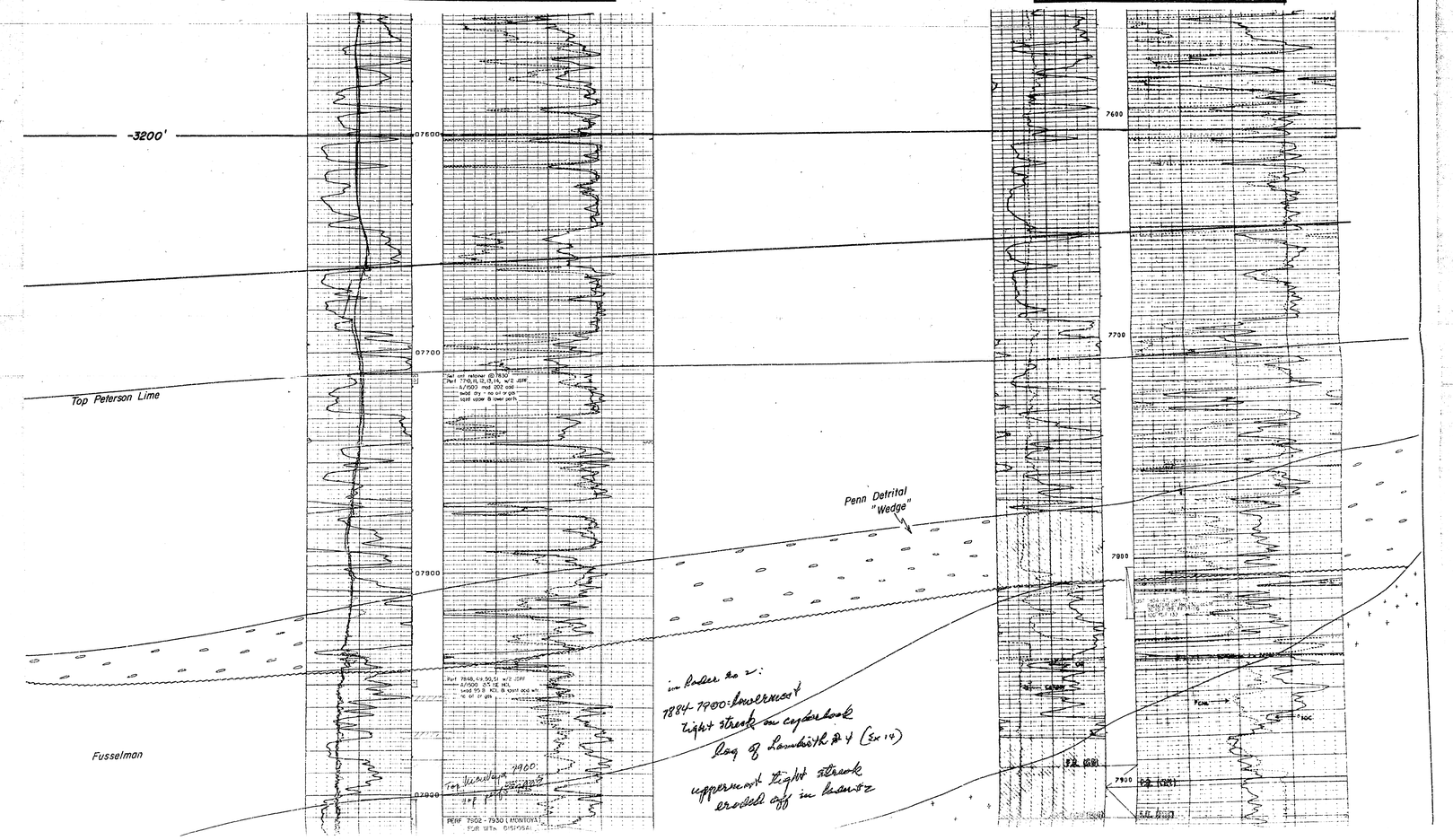
Run No.	Bore-Hole Record: Bit Level	Bit	From	To	Casing Record: Size	Wgt.	From	To
One	N/A	8.75	1987	8000	9 5/8	N/A	Surface	1987

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY	ENSERCH EXPLORATION, INC.
WELL	GLADYS RADER #1
FIELD	S. PETERSON (FUSSELMAN)
COUNTY	ROOSEVELT STATE NEW MEXICO
Location:	1830' FSL & 660' FWL
Other Services:	DLL, BHC, CYBERLOOK
API Serial No.	Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum	G.L.	Elev. 4393.5	Elev.: K.B. 4404.5
Log Measured From	K.B.	11 Ft. Above Perm. Datum	D.F.
Drilling Measured From	K.B.		G.L. 4393.5

Date	7-06-79							
Run No.	ONE							
Depth-Driller	7918.1							
Depth-Logger	7918							
Bottom Log Interval	7911							
Top Log Interval	1500	● NOT CONTINUOUS						
Casing-Driller	9 5/8@ 2025	@		@		@		
Casing-Logger								
Bit Size	7 7/8							
Type Fluid in Hole	SGN							
Dens. / Visc.	10.01 / 62							
pH / Fluid Loss	10.5 / 10.6cc		cc		cc		cc	
Source of Sample	CIRC							
Rm @ Meas. Temp.	.085 @ 85 °F	@	°F	@	°F	@	°F	
Rmf @ Meas. Temp.	.067 @ 68 °F	@	°F	@	°F	@	°F	
Rmc @ Meas. Temp.	.271 @ 76 °F	@	°F	@	°F	@	°F	
Source Rmf / Rmc	M / M							
Rm @ BHT	.052 @ 138 °F	@	°F	@	°F	@	°F	
Time Circulation Stopped	0610							
Time Logger on Bottom	1750							
Max. Rec. Temp.	138 °F		°F		°F		°F	
Equip. Location	8129 / LVLO							
Recorded By	MOORE							
Witnessed By Mr.	MORGAN							



U.S.D.O.E. RECORDS

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Run No.	One	Two	Three				
Date	5 Miles Less	1-3-81					
Elev. (K.B., Gr., etc.)		4192	ft.		ft.		ft.
Depth of Sample		Flowline					
Run @ Meas. Temp.		@84 °F	@	°F	@	°F	
Rmf @ Meas. Temp.		@.064 °F	@	°F	@	°F	
Rmc @ Meas. Temp.		N/A @ N/A °F	@	°F	@	°F	
Source Rmf	Source Rmc	Meas.					
Rm @ BHT		@ 160 °F	@	°F	@	°F	
Time Circ. Ended		1600 1-3-81					
Time Logger on Btm.		0030 1-4-81					
Recorded By		Chastain/Hahn					
Witnessed By		Mr. Norrish					

Run No.	Bit No.	Bit From	Bit To	Size	Wgt.	Casing From	Casing To
One	N/A	8.75	1987	8000	9 5/8	N/A	Surface 1987

Run No.	One						
Type Fluid in Hole	Brine						
Dens. / Visc.	10.1 lb/gal	42 s					
pH / Fluid Loss	11.5	10.4 cc		cc		cc	
Source of Sample	Pit						
Rm @ Meas. Temp.	.085 @ 65 °F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	.067 @ 65 °F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.	.077 @ 65 °F	@	°F	@	°F	@	°F
Source: Rmf / Rmc	R						
Rm @ BHT	.052 @ 178 °F	@	°F	@	°F	@	°F
Time Circulation Stopped	0630						
Time Logger on Bottom	1700						
Max. Rec. Temp.	178 °F		°F		°F		°F
Equip. / Location	8113 / LVLD						
Recorded By	HOBBS						
Witnessed By	MORGAN						

~3200'

Top Peterson Lime

Penn Detrital "Wedge"

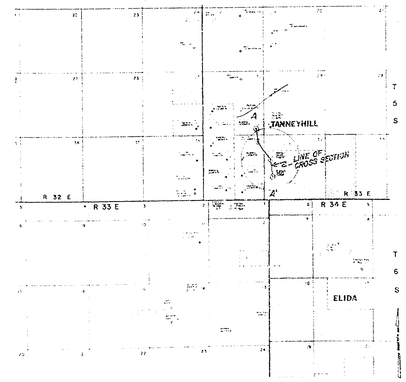
Fusselman

Top Montoya

Top Basement

in holes no 2:
7884-7900: lowest unit
light struck in copybook
log of Landrith #4 (Ex 19)
uppermost light struck
eroded off in hole 2

Tanneyhill Granite High



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Enserch EXHIBIT NO. 3
CASE NO. 7226

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

ELIDA PROSPECT
ROOSEVELT COUNTY, NEW MEXICO

NORTH - SOUTH STRUCTURAL CROSS SECTION

PETERSON, SOUTH FIELD

N.M.O.C.D. RECORDS

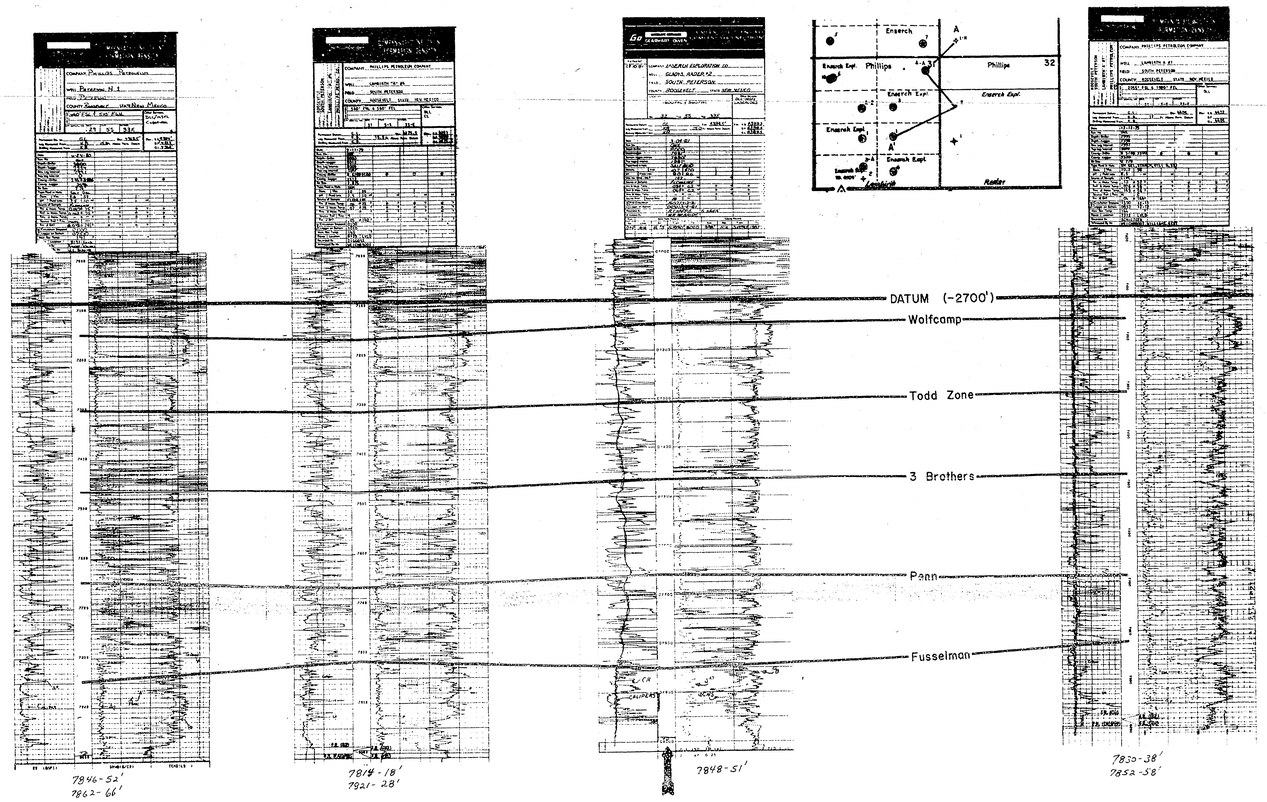
BEST AVAILABLE COPY

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 8226 Exhibit No. 2
Submitted by PHILLIPS
Hearing Date 7-8-81

PETERSON, SOUTH FIELD
ROOSEVELT COUNTY, NEW MEXICO
N – S CROSS SECTION

A

A'



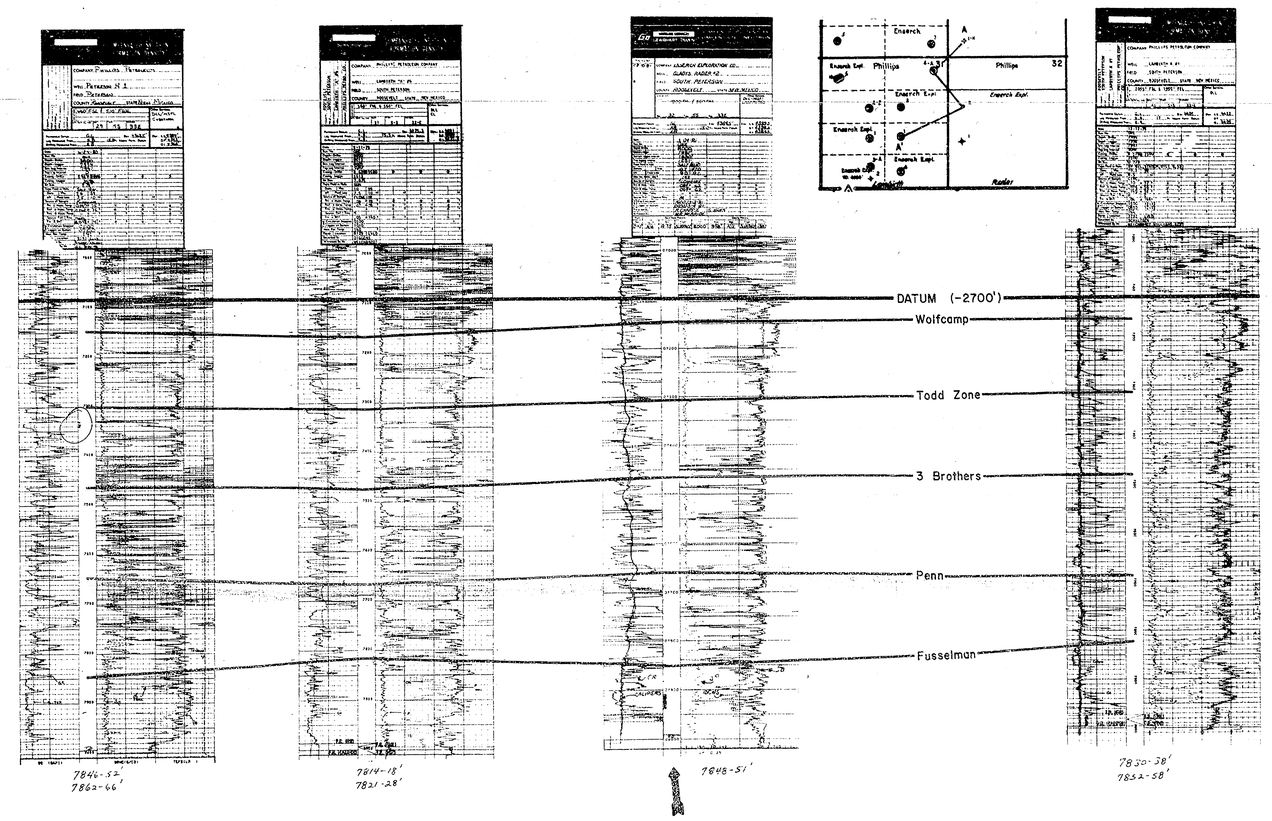
BEST AVAILABLE COPY

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7226 Exhibit No. 2
Submitted by Phillips
Hearing Date 7-8-81

PETERSON, SOUTH FIELD
ROOSEVELT COUNTY, NEW MEXICO
N – S CROSS SECTION

A

A'



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DUAL LATEROLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION:
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES:
FDC/CNL CYBERLOOK

FOLD HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN — DEPTH 3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.80 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.08 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 141.0 DF
TIME CIRCULATION STOPPED: 0030
TIME LOGGER ON BOTTOM: 0630

COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION:
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES:
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN — DEPTH 3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 23 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION:
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES:
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHERDT

TOTAL DEPTH-
DRILLER: 8009.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7996.0 FEET
TOP LOG INTERVAL: 7000.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE 7.875 IN — DEPTH 3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

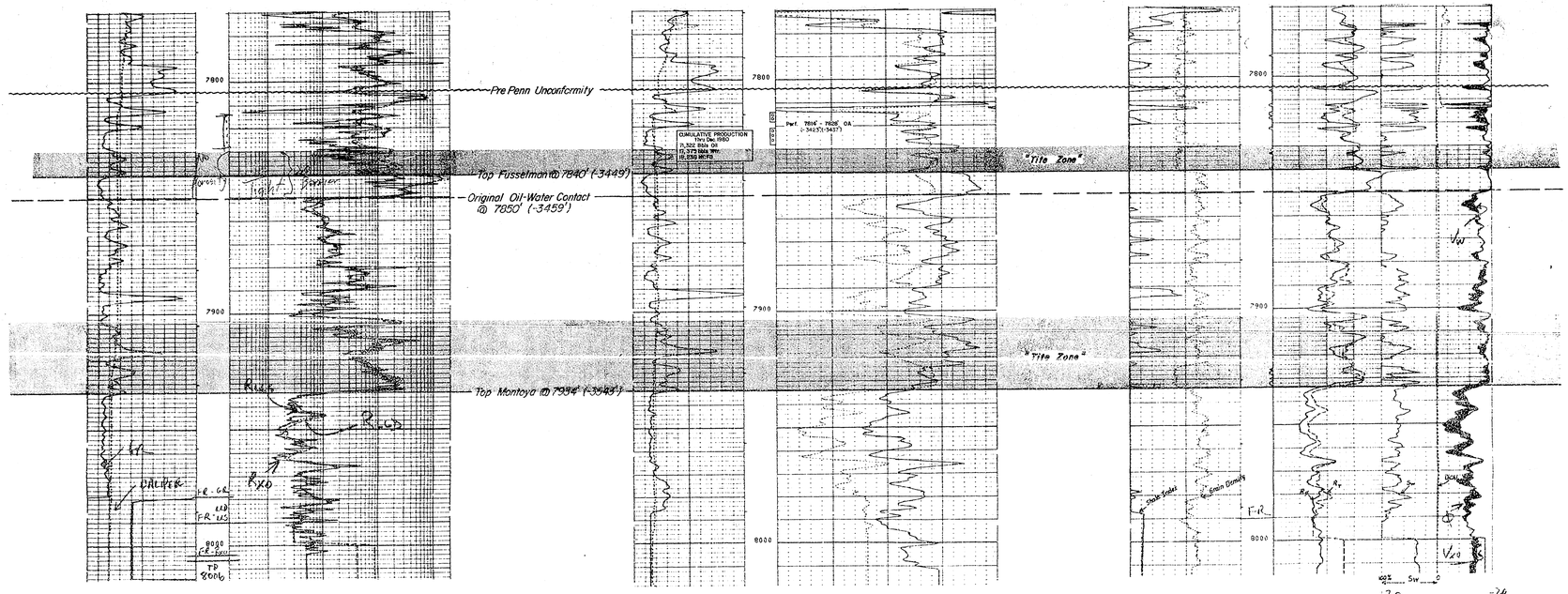
	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	73.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK ANALYSIS PICKS

DEPTH	RW	PHF	GREL	GRSH	MD
TD	.045	5	22	80	C-1
7750	.045	5	22	65	C-1

NPCL	NPSH	BIT SIZE
.03	.35	7.875



PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX	RMUD	OHMM	1.000
SPT		STAN	BS	INCH	7.875			

CALI (IN)		LLS (OHMM)	
6.000	16.00	0.2000	2000.
GR (GAPI)		LLD (OHMM)	
0.0	100.0	0.2000	2000.

CALI (IN)		DPHI (V/V)	
6.000	16.00	0.3000	-0.100
GR (GAPI)		NPHI (LIME)	
0.0	100.0	0.3600	-0.100

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX			

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7726 Exhibit No. 13
Submitted by ENSONIT
Hearing Date 7-8-81

ENSERCH EXPLORATION, INC.
Docket No. 7-81
Exhibit
Date July 8, 1981

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE Vert. 1" = 100 ft
Horiz.

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NORTH
A

Schlumberger

COMPENSATED NEUTRON
FORMATION DENSITY

COMPANY	ENSERCH EXPLORATION INCORPORATED
WELL	LAMBIRTH #7
FIELD	SOUTH PETERSON
COUNTY	ROOSEVELT STATE NEW HEXICO
Location	660' FEL & 510' FSL SEC 30, T-5-S, R-33-E
Other Services	DLL
SEC	30
TWP	5-S
RANGE	33-E

Permanent Datum G.L. Elev. 4376.5
Log Measured From K.B. 14.5 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev. K.B. 4391
D.F. 4390
G.L. 4376.5

Date	4-28-79			
Run No.	ONE			
Depth—Driller	7872			
Depth—Logger	7861			
Btm. Log Interval	7864			
Top Log Interval	7000			
Casing—Driller	8 5/8 @ 2000	@	@	@
Casing—Logger	1993			
Bit Size	7 7/8			
Type Fluid in Hole	SALT MUD			
Dens. / Visc.	9.7 / 51			
pH / Fluid Loss	10.5 / 33.8 ml	ml	ml	ml
Source of Sample	PIT			
Rm @ Meas. Temp.	.10 @ 78 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source Rmf / Rmc	M			
Rm @ BHT	.072 @ 130 °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0630			
Time Logger on Bottom	1520			
Max. Rec. Temp.	130 °F	°F	°F	°F
Equip. / Location	7733 / LVLO			
Recorded By	DIGGONS			
Witnessed By Mr.	HAGINS			

Schlumberger

COMPENSATED NEUTRON
FORMATION DENSITY

COMPANY	PHILLIPS PETROLEUM COMPANY
WELL	LAMBIRTH "A" #4
FIELD	SOUTH PETERSON
COUNTY	ROOSEVELT STATE NEW MEXICO
Location	560' FNL & 560' FEL
Other Services	DLL CL
SEC	31
TWP	5-S
RANGE	33-E

Permanent Datum G.L. Elev. 4375.5
Log Measured From K.B. 15.5 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev. K.B. 4391
D.F. 4390
G.L. 4375.5

Date	9-11-79			
Run No.	ONE			
Depth—Driller	8000			
Depth—Logger	8012			
Btm. Log Interval	8009			
Top Log Interval	SURF			
Casing—Driller	8 @ 8350	@	@	@
Casing—Logger	3513			
Bit Size	7 7/8			
Type Fluid in Hole	SGN			
Dens. / Visc.	10 / 39			
pH / Fluid Loss	7.5 / 10 ml	ml	ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.09 @ 78 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.07 @ 78 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Source Rmf / Rmc	M			
Rm @ BHT	.06 @ 140 °F	@ °F	@ °F	@ °F
Time Circulation Stopped	0320			
Time Logger on Bottom	1030			
Max. Rec. Temp.	140 °F	°F	°F	°F
Equip. / Location	8129 / LVLO			
Recorded By	DIGGONS			
Witnessed By Mr.	WELLBROOT			

-3200'

7600

7700

7800

7900

Top Peterson Lime

Pre-Penn Unconformity

"Tite Zone"

Fusselman

FILING NO.

W.P.M.C.F. MICROGRAPHICS

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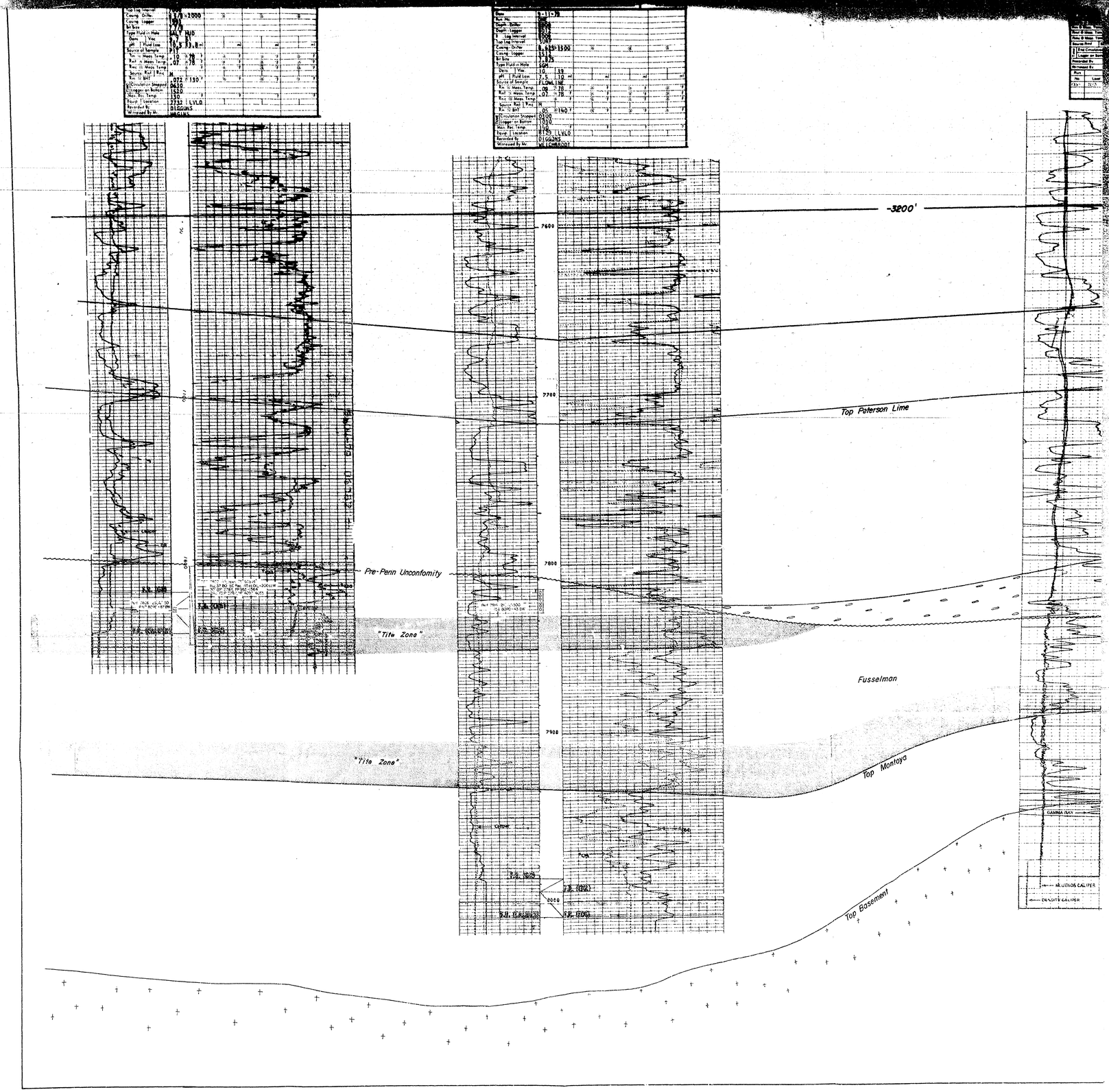
-3200'
Top Paterson Lime
Pre-Penn Unconformity
"Tite Zone"
Fusselman
"Tite Zone"
Top Montoya
Top Basement
7600
7700
7800
7900
8000
GAMMA RAY
RESISTIVITY
DENSITY
CALIPER

SOUTH
A

GEARHART

COMPENSATED DENSITY
COMPENSATED NEUTRON
LOG

FILING NO.

COMPANY Enserch Exploration Company

WELL [illegible] Rader No. 1

FIELD South Peterson

COUNTY Roosevelt STATE New Mexico

Location: 1800' FSL & 660' FWL

Other Services: DIL

Sec. 12 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4383.2 Elev.: K.B. 4396.2
Log Measured from: K.B. 13 Ft. Above Perm. Datum D.F. 4395.2
Drilling Measured From: K.B. G.L. 4383.2

Date	1-4-81						
Run No.	One						
Depth-Driller	8000						
Depth-Logger	7993						
Bottom logged interval	7990						
Top logged interval	1987						
Type fluid in hole	Salt Mud						
Salinity	10.2	32					
pH	Fluid loss	9	8.6	cc			cc
Max rec. temp., deg.F.	142						
Source of sample	Flowline						
Rm @ Meas. Temp.	.084 @ 62			@	°F	@	°F
Rmf @ Meas. Temp.	.064 @ 62			@	°F	@	°F
Rmc @ Meas. Temp.	N/A	@ N/A	°F	@	°F	@	°F
Source Rmf / Rmc	Mudp. / N/A						
Rm @ BHT	1600 1-3-81						
Time Circulation Stopped	0030 1-4-81						
Time Logger on Bottom							
Recorded By	Chapelle/Allen						
Witnessed By	Mr. McBride						

Run No.	Bit Record Level	Bit	From	To	Size	Casing Record Wgt.	From	To
One	N/A	8.75	1987	8000	5 5/8	N/A	Surface	1987

COMPENSATED NEUTRON
FORMATION DENSITY

Schlumberger

COMPANY ENSERCH EXPLORATION, INC.

WELL GLADYS RADER #1

FIELD S. PETERSON (FUSSELMAN)

COUNTY ROOSEVELT STATE NEW MEXICO

Location: 1839' FSL & 660' FWL

Other Services: DLL BHC CYBERLOOK

Sec. 12 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4393.5 Elev.: K.B. 4410.5
Log Measured From: K.B. 17 Ft. Above Perm. Datum D.F. 4409.5
Drilling Measured From: K.B. G.L. 4393.5

Date	7-09-79						
Run No.	ONE						
Depth-Driller	7811						
Depth-Logger	7814						
Btm. Log Interval	7809	* NOT CONTINUOUS					
Top Log Interval	1987						
Casing-Driller	8 5/8 @ 2085						
Casing-Logger	1.770						
Bit Size	7 7/8						
Type Fluid in Hole	SGN						
Dens. / Visc.	10.0 / 42						
pH / Fluid Loss	10.5 / 10.5cc						
Source of Sample	FLRC						
Rm @ Meas. Temp.	.080 @ 82						
Rmf @ Meas. Temp.	.064 @ 82						
Rmc @ Meas. Temp.	.077 @ 82						
Source Rmf / Rmc	M / N						
Rm @ BHT	.052 @ 138°						
Time Circulation Stopped	16:30						
Time Logger on Bottom	1700						
Max. Rec. Temp.	138						
Equip. / Location	8129 / LVLO						
Recorded By	MOORE						
Witnessed By Mr.	LINCOLN						

-3200'

7600

7700

7800

7900

Top Peterson Lime

Penn Detrital "Wedge"

Fusselman

Perf 7770, 11, 12, 13, 14, W/2 JSPF
2.0"DML Hyper Jet Gun
1400 gals - 60 oil or gas
1400 gals - 60 oil or gas
1400 gals - 60 oil or gas

Perf 7840, 49, 50, 51, W/1 JSPF
1,750 gals 15% HCL
1400 gals 15% HCL & Paraflow acid with
1/4 lb of salt

PERF 7930 - 7950 (MONOFRAC)
FOR WITH GEL ACID

Penn

BOC

P.P. 1936

P.P. 1940

P.P. 1944

7500

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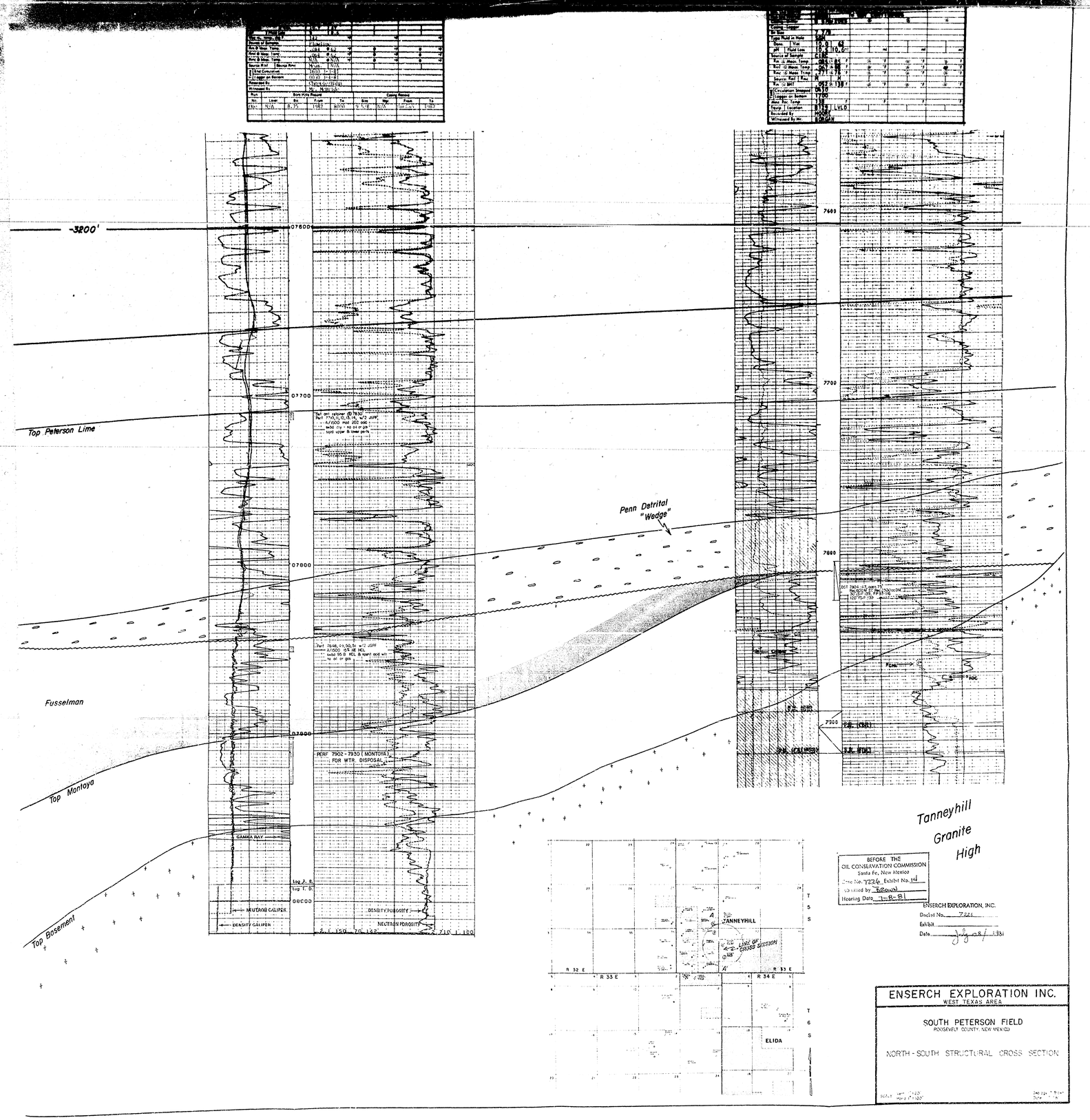

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7226 Exhibit No. 14
Submitted by ENSERCH
Hearing Date 7-8-81

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit _____
Date July 8, 1981

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

NORTH - SOUTH STRUCTURAL CROSS SECTION

N.M.O.C.D. MICROGRAPHICS
BEST AVAILABLE COPY

NORTH

A

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION INCORPORATED

WELL LAMBIRTH #7

FIELD SOUTH PETERSON

COUNTY ROOSEVELT STATE NEW MEXICO

660' FEL & 510' FSL

SEC 30 TWP 7-S RGE R-33-E

Other Services: DLL

Permanent Datum: G.L. Elev. 4376.5

Log Measured From: K.B. 14.5 Ft. Above Perm. Datum

Drilling Measured From: K.B.

Elev.: K.B. 4391 D.F. 4390 G.L. 4376.5

Date	4-28-79			
Run No.	ONE			
Depth-Driller	7873			
Depth-Logger	7864			
Btm. Log Interval	7864			
Top Log Interval	7000			
Casing-Driller	8 5/8 @ 2000	@	@	@
Casing-Logger	1993			
Bit Size	7 7/8			
Type Fluid in Hole	SALT MUD			
Dens. / Visc.	9.7 51			
pH / Fluid Loss	10.5 13.8 ml		ml	ml
Source of Sample	PIT			
Rm @ Meas. Temp.	.10 @ 78 °	@ °	@ °	@ °
Rmf @ Meas. Temp.	.07 @ 78 °	@ °	@ °	@ °
Rmc @ Meas. Temp.	@ °	@ °	@ °	@ °
Source: Rmf / Rmc	M			
Rm @ BHT	.072 @ 130 °	@ °	@ °	@ °
Time Circulation Stopped	0610			
Time Logger on Bottom	1520			
Max. Rec. Temp.	130	°	°	°
Equip. / Location	7732 / LVLD			
Recorded By	DIGGONS			
Witnessed By Mr.	HAGINS			

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

COMPANY PHILLIPS PETROLEUM COMPANY

WELL LAMBIRTH "A" #4

FIELD SOUTH PETERSON

COUNTY ROOSEVELT STATE NEW MEXICO

560' FNL & 560' FEL

SEC 31 TWP 5-S RGE 33-E

Other Services: DLL CL

Permanent Datum: G.L. Elev. 4375.5

Log Measured From: K.B. 15.5 Ft. Above Perm. Datum

Drilling Measured From: K.B.

Elev.: K.B. 4391 D.F. 4390 G.L. 4375.5

Date	9-11-79			
Run No.	ONE			
Depth-Driller	8200			
Depth-Logger	8212			
Btm. Log Interval	8209			
Top Log Interval	SURF			
Casing-Driller	8 5/8 @ 3500	@	@	@
Casing-Logger	3512			
Bit Size	7 7/8			
Type Fluid in Hole	SGN			
Dens. / Visc.	10 39			
pH / Fluid Loss	7.5 10 ml		ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.09 @ 78 °	@ °	@ °	@ °
Rmf @ Meas. Temp.	.07 @ 78 °	@ °	@ °	@ °
Rmc @ Meas. Temp.	@ °	@ °	@ °	@ °
Source: Rmf / Rmc	M			
Rm @ BHT	.05 @ 140 °	@ °	@ °	@ °
Time Circulation Stopped	0300			
Time Logger on Bottom	1030			
Max. Rec. Temp.	190	°	°	°
Equip. / Location	8129 / LVLD			
Recorded By	DIGGONS			
Witnessed By Mr.	WEICHBRODT			

-3200'

7600

7700

7800

7900

Top Peterson Lime

Pre-Penn Unconformity

"Tite Zone"

Fusselman

N.M.M.I.P. MICROGRAPHICS

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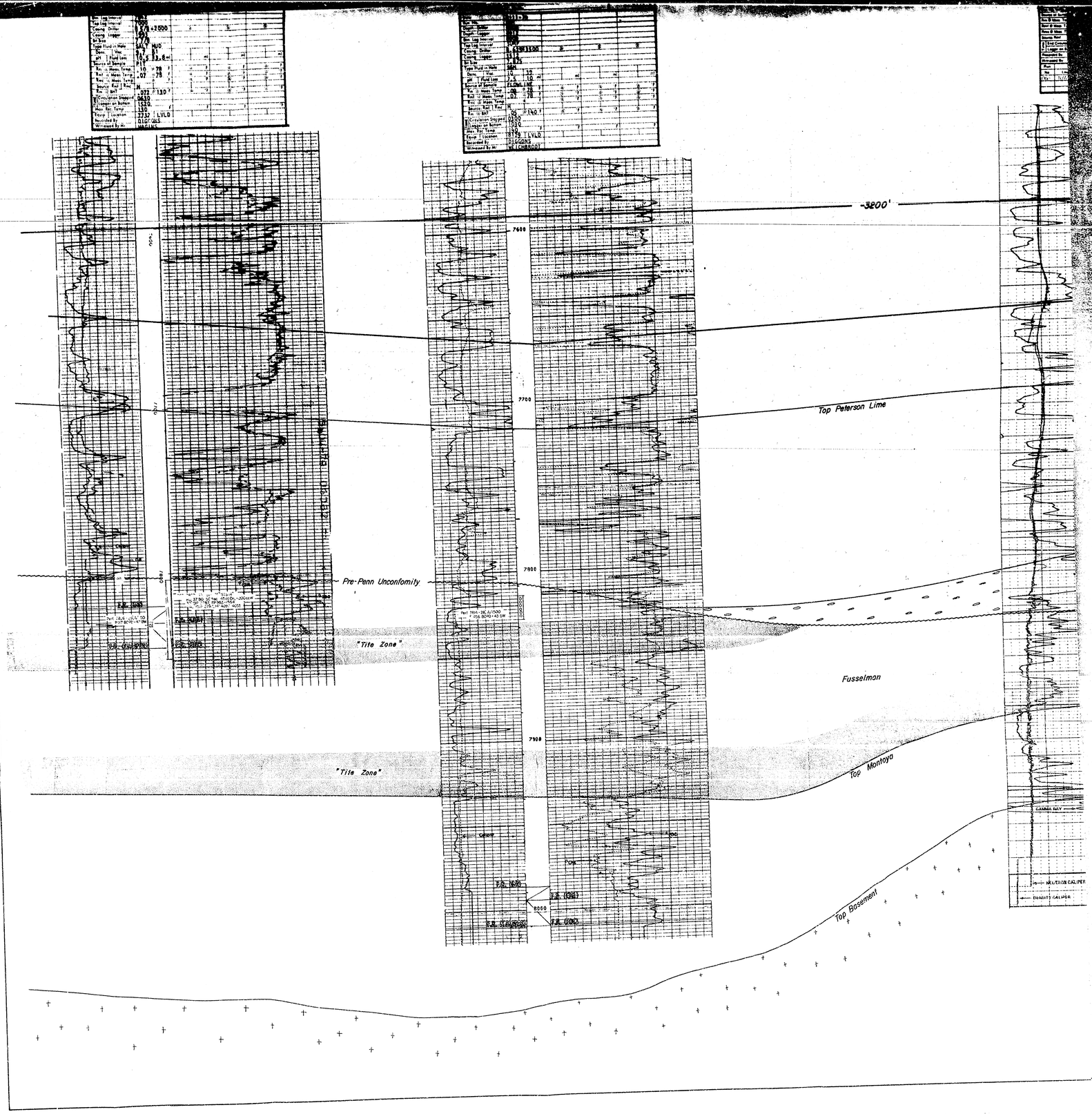
-3200'
Top Peterson Lime
Pre-Penn Unconformity
"Tite Zone"
Fusselman
"Tite Zone"
Top Montoya
Top Basement
7600
7700
7800
7900
8000
8050
GAMMA RAY
NEUTRON CALIPER
DENSITY CALIPER

SOUTH
A'

GEARHART — COMPENSATED DENSITY COMPENSATED NEUTRON LOG

FILING NO.

COMPANY Enserch Exploration Company

WELL Gladys Rader No. 1

FIELD South Peterson

COUNTY Roosevelt STATE New Mexico

Location: 1810' FSL & 660' FWL

Other Services: BHC

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum: G.L.	Elev.: 4381.5					Elev.: K.B. 4393.5	
Log Measured from: K.B.	15 Ft. Above Perm. Datum					D.F. 4392.5	
Drilling Measured from: K.B.						G.L. 4381.5	
Date	1-4-81						
Run No.	One						
Depth-Driller	8000						
Depth-Logger	7991						
Bottom logged interval	7980						
Top logged interval	1982						
Type fluid in hole	Salt Mud						
Density / Visc.	10.2 / 42						
pH / Fluid Loss	9 / 8.6						
Mea. rm. temp. @	142 °F						
Source of Sample	Flowline						
Rm @ Meas. Temp.	.084 @ 62 °F		@ °F		@ °F		@ °F
Rmf @ Meas. Temp.	.064 @ 62 °F		@ °F		@ °F		@ °F
Rmc @ Meas. Temp.	N/A @ N/A °F		@ °F		@ °F		@ °F
Source Rmf / Source Rmc	Pumps / N/A						
Rm @ BHT	1640 1-3-81						
Time Circulation Ended	0030 1-3-81						
Time Logger on Bottom	0630 1-3-81						
Recorded By	Chapple/Fisher						
Witnessed By	Mr. McBride						

Run	Bore-Hole Record				Casing Record			
	No.	Level	Bit	From	To	Size	Wgt.	From	To
One	N/A		8.75	1987	8000	9 5/8	N/A	surface	1987

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION, INC.

WELL GLADYS RADER #1

FIELD S. PETERSON (FUSSLEMAN)

COUNTY ROOSEVELT STATE NEW MEXICO

Location: 1810' FSL & 660' FWL

Other Services: DLL, BHC, CYBERLOOK

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4393.5

Log Measured From: K.B. 17 Ft. Above Perm. Datum

Drilling Measured From: K.B.

Elev.: K.B. 4410.5, D.F. 4393.5, G.L. 4393.5

Date	7-04-79						
Run No.	ONE						
Depth-Driller	7919.1						
Depth-Logger	7918						
Btm. Log Interval	7917						
Top Log Interval	1800	* NOT CONTINUOUS					
Casing-Driller	8 5/8 @ 2025						
Casing-Logger							
Bit Size	7 7/8						
Type Fluid in Hole	SGN						
Dens. / Vis.	10.0 / 43						
pH / Fluid Loss	10.5 / 10.6						
Source of Sample	CIRC						
Rm @ Meas. Temp.	.085 @ 85 °F		@ °F		@ °F		@ °F
Rmf @ Meas. Temp.	.067 @ 68 °F		@ °F		@ °F		@ °F
Rmc @ Meas. Temp.	.071 @ 76 °F		@ °F		@ °F		@ °F
Source Rmf / Rmc	M / M						
Rm @ BHT	.057 @ 138 °F						
Time Circulation Stopped	0430						
Time Logger on Bottom	1700						
Max. Rec. Temp.	138 °F						
Equip. Location	8129 / LVLO						
Recorded By	MOORE						
Witnessed By Mr.	DORGAN						

-3200'

07600

7600

07700

7700

Top Peterson Lime

Set cmt retainer @ 7900
Perf 7870-91, 98, 99, w/2 JSPF
Pmpd 1,000 gal 20% HCl
vac dry - no oil or gas
light vapor @ lower perfs

Penn Detrital "Wedge"

07800

7800

Perf 7648, 49, 50, 51 w/2 JSPF
Pmpd 500 gal 15% HCl
vac dry - no oil or gas

Fusselman

07900

7900

PERF 7902 - 7930 (MONTOYA) FOR WTR DISPOSAL

"Cne"

SOC.

F.E. (BSE)

F.E. (CNL)

F.E. (BSE)

N.M.O.C.D. MICROGRAPHICS

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Type Fluid in Hole		LIME								
Density	Visc.	10.2	42							
pH	Fluid Loss	9	cc							
Mud res. temp. (°F)		142		°F		°F		°F		°F
Source of Sample		Flowline								
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A @ N/A		°F	@	°F	@	°F	@	°F
Source Rmf	Source Rmc	Meas.	N/A							
Rm @ BHT		.060 @ 142								
Time Circ.	Logger on Bottom	1600 1-3-81								
Max. rec. temp. (°F)		142								
Equip. Location		0120 1-4-81								
Recorded By		Christie/Hilts								
Witnessed By		Mr. McBride								

Run No.	Bore-Hole Record Bit	From	To	Size	Wgt.	Casing Record From	To
One	8.75	1987	8030	5 5/8	N/A	surface	1987

Type Fluid in Hole		LIME								
Density	Visc.	10.2	42							
pH	Fluid Loss	9	cc							
Mud res. temp. (°F)		142		°F		°F		°F		°F
Source of Sample		Flowline								
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A @ N/A		°F	@	°F	@	°F	@	°F
Source Rmf	Source Rmc	Meas.	N/A							
Rm @ BHT		.060 @ 142								
Time Circ.	Logger on Bottom	1600 1-3-81								
Recorded By		Christie/Hilts								
Witnessed By		Mr. McBride								

Run No.	Bore-Hole Record Bit	From	To	Size	Wgt.	Casing Record From	To
One	N/A	8.75	7987	8030	5 5/8	N/A	surface	7987

Type Fluid in Hole		LIME								
Density	Visc.	10.2	42							
pH	Fluid Loss	9	cc							
Mud res. temp. (°F)		142		°F		°F		°F		°F
Source of Sample		Flowline								
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A @ N/A		°F	@	°F	@	°F	@	°F
Source Rmf	Source Rmc	Meas.	N/A							
Rm @ BHT		.060 @ 142								
Time Circ.	Logger on Bottom	1600 1-3-81								
Recorded By		Christie/Hilts								
Witnessed By		Mr. McBride								

Run No.	Bore-Hole Record Bit	From	To	Size	Wgt.	Casing Record From	To
One	N/A	8.75	7987	8030	5 5/8	N/A	surface	7987

Type Fluid in Hole		LIME								
Density	Visc.	10.2	42							
pH	Fluid Loss	9	cc							
Mud res. temp. (°F)		142		°F		°F		°F		°F
Source of Sample		Flowline								
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A @ N/A		°F	@	°F	@	°F	@	°F
Source Rmf	Source Rmc	Meas.	N/A							
Rm @ BHT		.060 @ 142								
Time Circ.	Logger on Bottom	1600 1-3-81								
Recorded By		Christie/Hilts								
Witnessed By		Mr. McBride								

Run No.	Bore-Hole Record Bit	From	To	Size	Wgt.	Casing Record From	To
One	N/A	8.75	7987	8030	5 5/8	N/A	surface	7987

Type Fluid in Hole		LIME								
Density	Visc.	10.2	42							
pH	Fluid Loss	9	cc							
Mud res. temp. (°F)		142		°F		°F		°F		°F
Source of Sample		Flowline								
Rm @ Meas. Temp.		.084 @ 62		°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.		.064 @ 62		°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		N/A @ N/A		°F	@	°F	@	°F	@	°F
Source Rmf	Source Rmc	Meas.	N/A							
Rm @ BHT		.060 @ 142								
Time Circ.	Logger on Bottom	1600 1-3-81								
Recorded By		Christie/Hilts								
Witnessed By		Mr. McBride								

Run No.	Bore-Hole Record Bit	From	To	Size	Wgt.	Casing Record From	To
One	N/A	8.75	7987	8030	5 5/8	N/A	surface	7987

-3200'

Top Peterson Lime

Fusselman

Top Montoya

Top Basement

Penn Detrital "Wedge"

Tanneyhill Granite High

07600

07700

07800

07900

08000

7600

7700

7800

7900

Perf 7902 - 7930 (MONTOYA) FOR WTR DISPOSAL

GAMMA RAY

MEUTRON CALIPER

DENSITY CALIPER

DENSITY POROSITY

NEUTRON POROSITY

Log T. D.

Log P. B.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7226 Exhibit No. 4
Submitted by Enserch
Hearing Date 7-8-81

ENSERCH EXPLORATION INC.
Docket No. 7226
Exhibit
Date July 08 1981

TANNEYHILL

ELIDA

R 32 E

R 33 E

R 34 E

T 5 S

T 6 S

LINE OF CROSS SECTION

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

NORTH - SOUTH STRUCTURAL CROSS SECTION

B.A.R.I.F. MICROGRAPHICS

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DUAL LATEROLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
FDC/CNL CYBERLOOK

FOLD HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.80 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.06 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURES: 141.0 DF
TIME CIRCULATION STOPPED: 0030
TIME LOGGER ON BOTTOM: 0630

COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURES: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 23 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 7000.0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	2500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

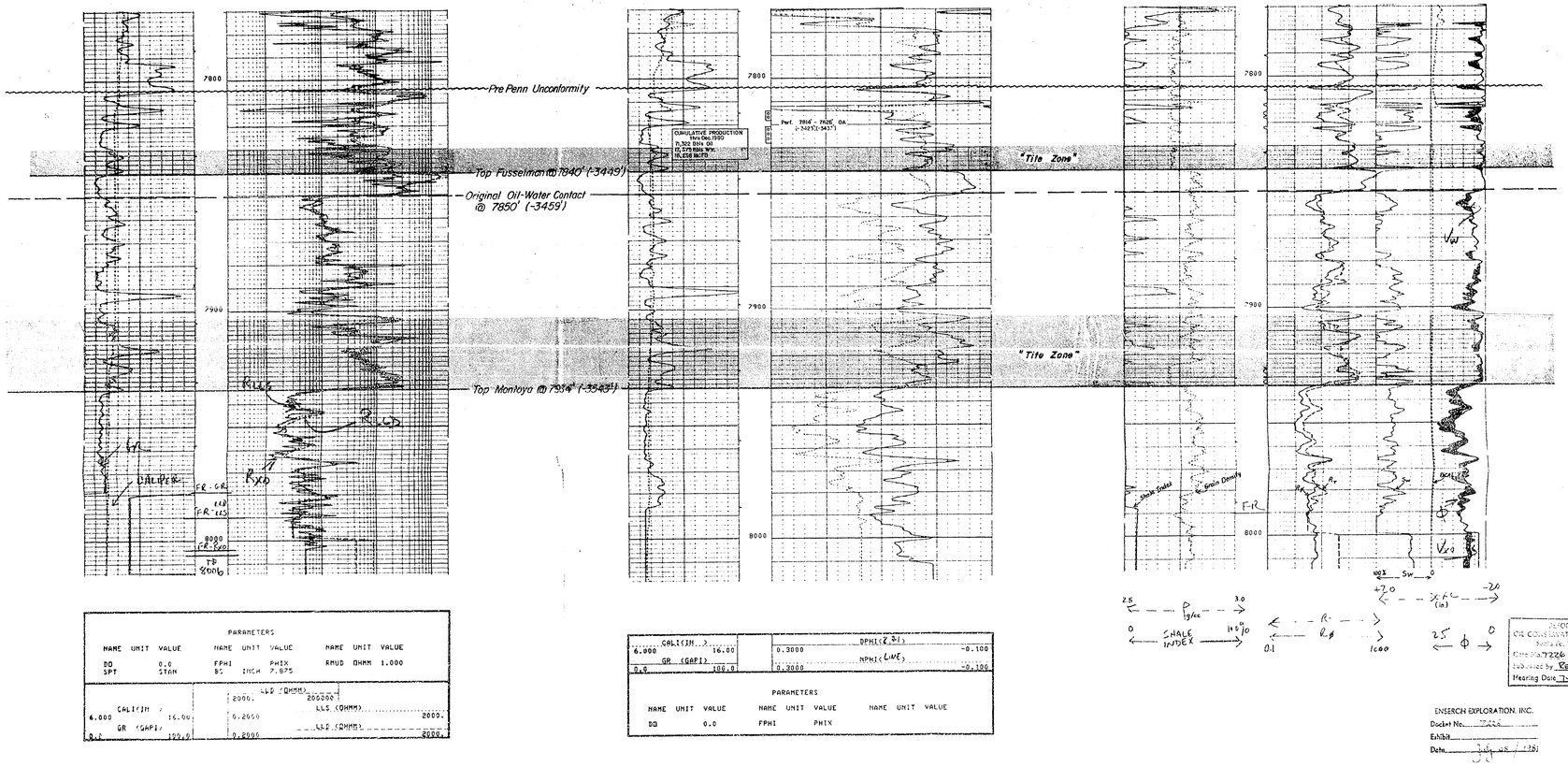
DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.33 OHMS

MAXIMUM RECORDED TEMPERATURES: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK PARAMETER PICKS

DEPTH	RW	RMB	RMCL	GRSH	MD
TD	.045	3	22	80	2.1
TDSP	.045	3	22	65	2.1
NPOR	.03	MPSH	BIT SIZE		
		.35	7.875		



PARAMETERS								
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX	RMUD	OHMM	1.000
SPT		1TAN	BS	INCH	7.875			

CALIPER	LLD (OHMM)	
6.000 16.00	2000.	20000
GR (GAPI)	0.2000	LLS (OHMM) 2000.
0.0 100.0	0.2000	LLD (OHMM) 2000.

CALIPER	DPHI(2.5)	
6.000 16.00	0.3000	-0.100
GR (GAPI)	NPHI(LIME)	
0.0 100.0	0.3000	-0.100

PARAMETERS								
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI		PHIX			

BEFORE THE OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7226 Exhibit No. 13
Submitted by ENSERCH
Hearing Date 7-9-81

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date July 9, 1981

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE Vert. 2" = 100 ft
Horiz.
By: C. Bennett
July 9, 1981

W.R.C.T. MICROGRAPHICS

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NORTH
A

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

Company	ENSERCH EXPLORATION INCORPORATED
Well	LAMBIRTH #7
Field	SOUTH PETERSON
County	ROOSEVELT State NEW MEXICO
Location	660' FEL & 510' FSL SEC 30, T-5-S, R-33-E
Other Services	DLL

Permanent Datum	G.L.	Elev. 4376.5	Elev.: K.B. 4391
Log Measured From	K.B.	14.5 Ft. Above Perm. Datum	D.F. 4390
Drilling Measured From	K.B.		G.L. 4376.5

Date	4-28-79							
Run No.	ONE							
Depth-Driller	7877							
Depth-Logger	7863							
Btm. Log Interval	7860							
Top Log Interval	7000							
Casing-Driller	8 5/8@2000		@		@		@	
Casing-Logger	1991							
Bit Size	7 7/8							
Type Fluid in Hole	SALT MUD							
Dens. / Visc	9.7 / 51							
pH / Fluid Loss	10.5 / 13.8	cc		cc		cc		cc
Source of Sample	PIT							
Rm @ Meas. Temp.	.10 @ 78	°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	.07 @ 78	°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		°F	@	°F	@	°F	@	°F
Source Rmf / Rmc	M							
Rm @ BHT	.072 @ 130	°F	@	°F	@	°F	@	°F
Circulation Stopped	0630							
Logger on Bottom	1020							
Max. Rec. Temp.	130	°F		°F		°F		°F
Equip. / Location	7232 / LVLD							
Recorded By	DIGGINS							
Witnessed By Mr.	HAGINS							

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

Company	PHILLIPS PETROLEUM COMPANY
Well	LAMBIRTH "A" #4
Field	SOUTH PETERSON
County	ROOSEVELT State NEW MEXICO
Location	660' FNL & 660' FEL
Other Services	DLL CL

Sec.	Twp.	Rge.
31	5-S	33-E

Permanent Datum	G.L.	Elev. 4375.5	Elev.: K.B. 4391
Log Measured From	K.B.	15.5 Ft. Above Perm. Datum	D.F. 4390
Drilling Measured From	K.B.		G.L. 4375.5

Date	9-11-79							
Run No.	ONE							
Depth-Driller	8000							
Depth-Logger	8012							
Btm. Log Interval	8009							
Top Log Interval	SURF							
Casing-Driller	8.625@3500		@		@		@	
Casing-Logger	3512							
Bit Size	7.875							
Type Fluid in Hole	SGM							
Dens. / Visc	10 / 39							
pH / Fluid Loss	7.5 / 10	cc		cc		cc		cc
Source of Sample	FLOWLINE							
Rm @ Meas. Temp.	.08 @ 78	°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	.07 @ 78	°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.		°F	@	°F	@	°F	@	°F
Source Rmf / Rmc	M							
Rm @ BHT	.05 @ 140	°F	@	°F	@	°F	@	°F
Circulation Stopped	0300							
Logger on Bottom	1010							
Max. Rec. Temp.	140	°F		°F		°F		°F
Equip. / Location	8129 / LVLD							
Recorded By	DIGGINS							
Witnessed By Mr.	WEICHBRODT							

-3200'

7600

7700

Top Peterson Lime

7800

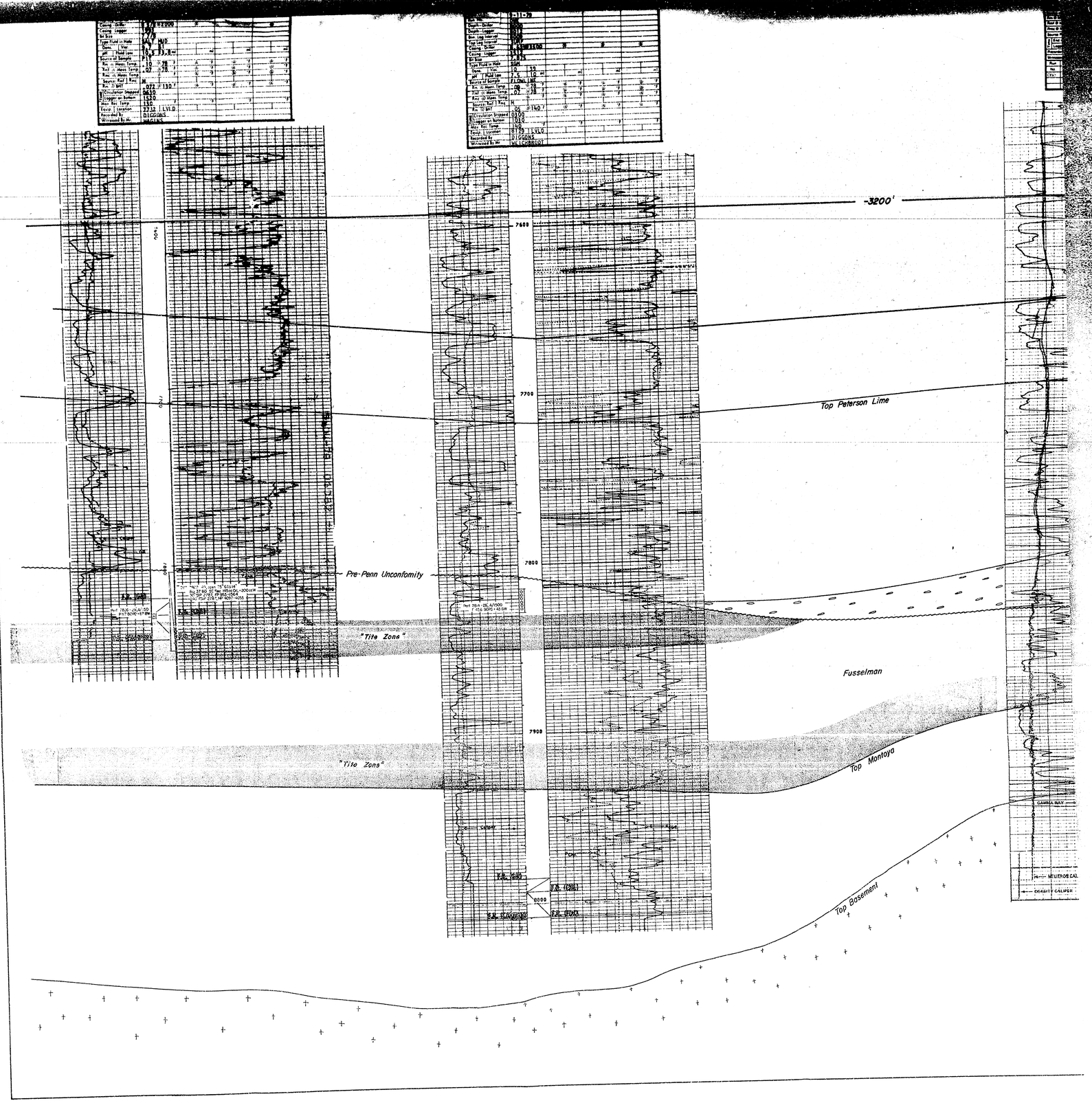
Pre-Penn Unconfomity

"Tite Zone"

Fusselman

7900

BEST AVAILABLE COPY



W.S.U.C.F. MICROGRAPHICS

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SOUTH
A'

GEARHART — COMPENSATED DENSITY COMPENSATED NEUTRON LOG

FILING NO.

COMPANY Enserch Exploration Company

WELL Gladys Nader No. 2

FIELD South Peterson

COUNTY Roosevelt STATE New Mexico

Location: 1800' FNL & 560' FWL — Other Services: GR.

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4384.5
Log Measured from: K.B. 15 Ft. Above Perm. Datum
Drilling Measured from: K.B.

Elev.: K.B. 4399.5, D.F. 4398.5, G.L. 4384.5

Date	3-4-81							
Run No.	One							
Depth-Driller	8000							
Depth-Logger	7993							
Bottom logged interval	7990							
Top logged interval	1987							
Type fluid in hole	Salt Gel							
Density / Visc.	10.7 / 47							
pH / Fluid Loss	9 / 8.6							
Max rec. temp., deg. F.	142		°F		°F		°F	
Source of Sample	Flowline							
Rm @ Meas. Temp.	.084 @ 62	°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	.064 @ 62	°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.	N/A @ N/A	°F	@	°F	@	°F	@	°F
Source Rmf / Source Rmc	Meas. / N/A							
Time	1600 3-1-81							
Time Logger on Bottom	0030 3-4-81							
Recorded By	Chapelo/Hahn							
Witnessed By	Mr. McBride							

Run No.	Bore-Hole Record Bit	From	To	Casing Record Size	Wgt.	From	To
One	8.75	1987	8000	9 5/8	N/A	Surface	1987

Schlumberger — COMPENSATED NEUTRON FORMATION DENSITY

COMPANY ENSERCH EXPLORATION, INC.

WELL GLADYS NADER #1

FIELD S. PETERSON (FUSSLEMAN)

COUNTY ROOSEVELT STATE NEW MEXICO

1810' FSL & 660' FWL

Other Services: DLL, BHC, CYBERLOOK

Sec. 32 Twp. 5-S Rge. 33-E

Permanent Datum: G.L. Elev. 4393.5
Log Measured From: K.B. 17 Ft. Above Perm. Datum
Drilling Measured From: K.B.

Elev.: K.B. 4410.5, D.F., G.L. 4393.5

Date	7-06-79							
Run No.	ONE							
Depth-Driller	7979.1							
Depth-Logger	7918							
Btm. Log Interval	7917							
Top Log Interval	7700	& WAY CONTINUOUS						
Casing-Driller	8 5/8 @ 2025	@		@		@		
Casing-Logger								
Bit Size	7 7/8							
Type Fluid in Hole	SGM							
Dens. / Visc.	10.1 / 42							
pH / Fluid Loss	10.5 / 10.6cc		cc		cc		cc	
Source of Sample	CIRC							
Rm @ Meas. Temp.	.083 @ 86	°F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	.067 @ 68	°F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.	.271 @ 76	°F	@	°F	@	°F	@	°F
Source: Rmf / Rmc	M / M							
Rm @ BHT	.063 @ 138°	°F	@	°F	@	°F	@	°F
Time Circulation Stopped	04:30							
Time Logger on Bottom	17:00							
Max. Rec. Temp.	138		°F		°F		°F	
Equip. Location	8129 / LVLO							
Recorded By	MOORE							
Witnessed By Mr.	BOMGAR							

-3200'

7600

7700

7800

7900

Top Peterson Lime

Penn Detritol "Wedge"

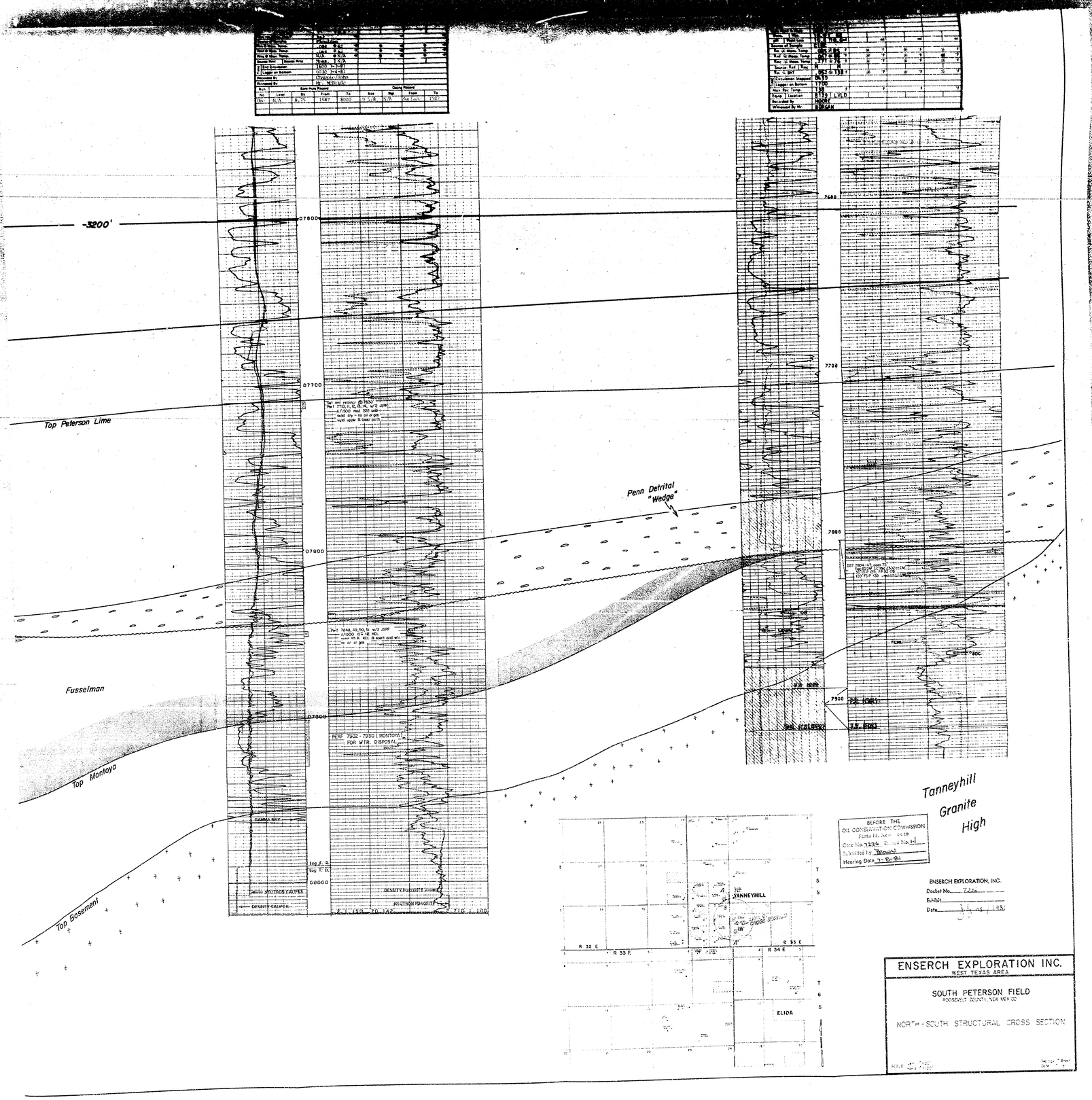
Fusselman

Perf 7698, 99, 50, 51 w/2 JSPF
+ 2/1000 GS HF HCL
+ 66 bbl 15 % HCL in lower and w/
ball sealers & lower perfs

Set cmt retainer @ 7830
Perf 7790, 91, 18, 19, w/2 JSPF
2/1000 mod 202 acid
mod. dry → no oil or gas
Mod acid in lower perfs

REPF 7302 - 7980 (MONITOR FOR WTR. DISPOSAL)

BEST AVAILABLE COPY



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DUAL LATEPOLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION- K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
FDC/CNL CYBERLOOK

FOLD HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: HEICHBRODT

TOTAL DEPTH- DRILLER: 8000.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.80 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.08 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 141.0 DF
TIME CIRCULATION STOPPED: 0030
TIME LOGGER ON BOTTOM: 0630

COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION- K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: HEICHBRODT

TOTAL DEPTH- DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 23 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US LONGITUDE:
LATITUDE:

LOCATION: 560 FNL & 560 FEL SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION- K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: HEICHBRODT

TOTAL DEPTH- DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 3500.0 FEET

CASING SIZE	WEIGHT		BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00	LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

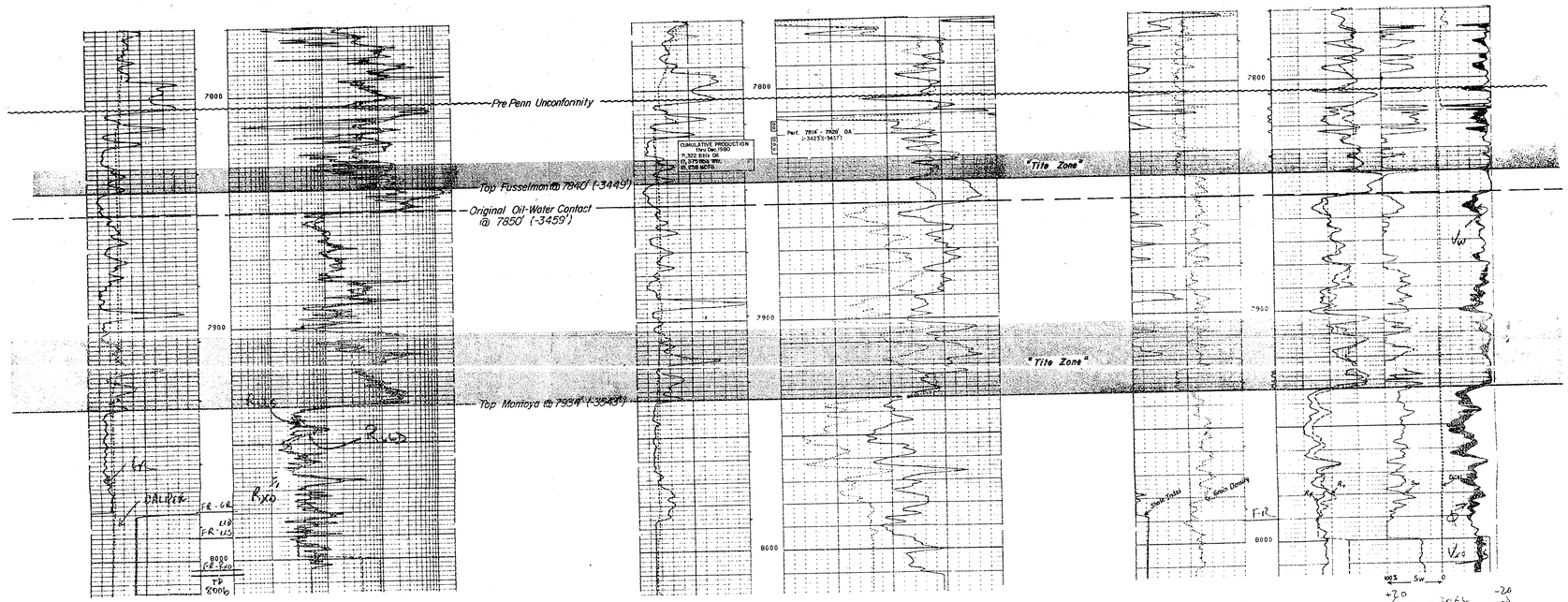
DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVTY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0360 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK PARAMETER PICKS

DEPTH	RW	RWB	GRCL	GRSH	MD
FD	.046	5	22	80	2.1
FPSO	.045	5	23	6	2.1
NPCL	NPSH	BIT SIZE			
.03	.35	7.875			



PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI	SS		RMUD	OHMM	1.000
SPT		STAN	PHIX	INCH	7.875			

	CALI(IN.)		LLD (OHMM)	
6.000		16.00	2000.	200000
	GR (GAPI)		0.2000	LLS (OHMM) 2000.
0.0		100.0	0.2000	LLD (OHMM) 2000.

	CALI(IN.)		DPHI(FRAC)	
6.000		16.00	0.3000	-0.100
	GR (GAPI)		NPHI(LIME)	
0.0		100.0	0.3000	-0.100

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.0	FPHI			PHIX		

ENSERCH EXPLORATION, INC.
Docket No. 7726
Exhibit
Date July 28 '81

W.R.C.V. MICROGRAPHICS

BEST AVAILABLE COPY

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE Vert. 2 in = 100 ft
Horiz.

By C. Randolf
7-15

CSU — DUAL LATEROLOG MSFL

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
FDC/CNL CYBERLOOK

FOLD HERE

DATE: 79/9/10
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8008.0 FEET LOGGER: 8006.0 FEET
BOTTOM LOG INTERVAL: 7996.0 FEET
TOP LOG INTERVAL: 3512.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.10 LB/G VISCOSITY: 37.00 SEC
PH: 9.500 FLUID LOSS: 15.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.08 OHMS	75.0 DF	0.04 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	75.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 141.0 DF
TIME CIRCULATION STOPPED: 0030
TIME LOGGER ON BOTTOM: 0630

CSU — COMPENSATED NEUTRON - FORMATION DENSITY

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 31 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 8009.0 FEET
TOP LOG INTERVAL: .0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030
LOG RUN 23 HRS. AFTER DLL/MSFL.
HOLE CONDITIONED DURING THAT TIME.

CSU — COMPUTER PROCESSED LOG

COMPANY: PHILLIPS PETROLEUM COMPANY
WELL: LAMBIRTH "A" NO. 4
FIELD: SOUTH PETERSON
COUNTY: ROOSEVELT STATE: NEW MEXICO
NATION: US
LATITUDE: LONGITUDE:

LOCATION: 560 FNL & 560 FEL
SEC: 1 TWP: 5S RGE: 33E

PERMANENT DATUM: GL
ELEVATION OF PERMANENT DATUM: 4375.5 FEET
LOG MEASURED FROM: KB
DRILLING MEASURED FROM: KB
ELEVATION-
K.B.: 4391.0 FEET D.F.: 4390.0 FEET G.L.: 4375.5 FEET

OTHER SERVICES-
DLL/MSFL CYBERLOOK

FOLD HERE

DATE: 79/9/11
PROGRAM TAPE VERSION NO.: 14.4
RUN NUMBER: 1
SERVICE ORDER NUMBER: 90505
API SERIAL NUMBER:
LOGGING UNIT NUMBER: 8129
LOGGING UNIT LOCATION: LEVELLAND
LOGGING COMPANY CODE: 3407
ENGINEER'S NAME: DIGGONS
WITNESS' NAME: WEICHBRODT

TOTAL DEPTH-
DRILLER: 8000.0 FEET LOGGER: 8012.0 FEET
BOTTOM LOG INTERVAL: 7990.0 FEET
TOP LOG INTERVAL: 7000.0 FEET

CASING SIZE	WEIGHT	BOTTOM DRILLER	BOTTOM LOGGER
8.625 IN	24.00 LB/F	3500.0 FEET	3512.0 FEET

BIT SIZE	DEPTH
7.875 IN	3512.0 FEET

DRILLING FLUID TYPE: SGM
DENSITY: 10.00 LB/G VISCOSITY: 39.00 SEC
PH: 7.500 FLUID LOSS: 10.00 ML

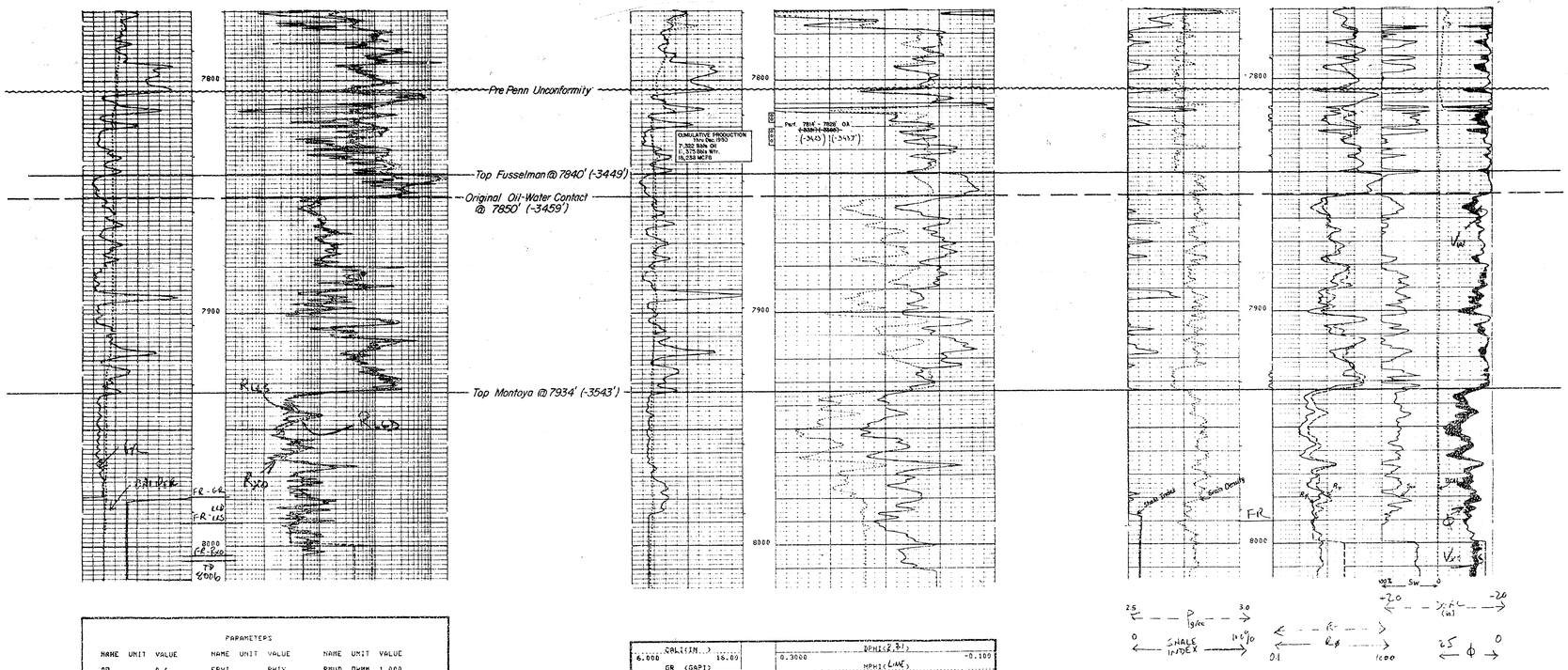
	SOURCE	MEASURED RESISTIVITY	TEMPERATURE	BOTTOM HOLE RESISTIVITY
MUD SAMPLE	FLOWLINE	0.09 OHMS	78.0 DF	0.05 OHMS
MUD FILTRATE SAMPLE	FLOWLINE	0.07 OHMS	78.0 DF	0.03 OHMS

MAXIMUM RECORDED TEMPERATURE: 140.0 DF
TIME CIRCULATION STOPPED: 0300 9/11/79
TIME LOGGER ON BOTTOM: 1030

REMARKS- CYBERLOOK PARAMETER PICKS

DEPTH	RW	RMB	GRCL	GRSH	MD
TD	.095	5	22	80	2.1
7850	.095	5	22	65	2.1

NPCL	NPSH	BIT SIZE
.03	.35	7.875



PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.6	FPHI		PHIX	RMUD	OHMM	1.000
SPT		STAH	BS	INCH	7.875			

CALI(IN) 6.000 16.00
GR (GAPI) 0.0 100.0
LLD (OHMM) 2000. 200000
LLS (OHMM) 0.2000 2000.
LLD (OHMM) 0.2000 2000.

CALI(IN) 6.000 16.00
GR (GAPI) 0.0 100.0
DPHI(PU) 0.3000 -0.100
MPHI(LIME) 0.3000 -0.100

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DD		0.3	FPHI		PHIX			

2.5 ρb/cc 3.0
0 SHALE INDEX 100%
0.1 Rt 1000
100% Sw 0
-20 DPHI (in) -20
0 Φ 25

ENSERCH EXPLORATION, INC.
Docket No. 7226
Exhibit
Date

ENSERCH EXPLORATION INC.
WEST TEXAS AREA

SOUTH PETERSON FIELD
ROOSEVELT COUNTY, NEW MEXICO

OIL-WATER CONTACT
PHILLIPS PETROLEUM COMPANY
LAMBIRTH "A" NO. 4

SCALE Vert. 2 in = 100 ft
Horiz.

BY: C. Samuel
DATE: Apr. '80

U.M.I. MICROGRAPHICS
BEST AVAILABLE COPY