App. E/PROF.

ENIU 1047903

SCHLUMBERGER INDUCTION - ELECTRICAL LOG

LATEROLOG

COUNTY ITALY
FIELD or LOCATION WILDCAT
WELL CANOSA - 1X & 1A
COMPANY GULF ITALIA

2402 BH

Canosa-1ax

FINAL LOG

AGIP - AMI ARCHIVIO CEDI

Gulf

es/f1

LOCATION 44° 15' 20" N Latitude
- 16° 07' 44" E Greenwich
> 03° 40' 36" E Rome
Sec. ______ Twp. ______ Rge. ______

Other Services:

ARCHIVIO POZZI AGEO

Permanent Datum: GROUND, Elev. 110.0m
Log Measured From KB, 4.87m Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elev.: K.B. 114.87
D.F. ______
G.L. 110.00

Date	08/12/73	22/01/74		
Run No.	1 (IES)	1 (LL-7)	CANOSA - 1X	ONLY
Depth—Driller	0921.0	2171.0		
Depth—Logger	0922.0	2165.0		
Btm. Log Interval	0921.5	2164.0		
Top Log Interval	0149.5	0919.0		
Casing—Driller	26" @ 150	13 3/8@ 921	@	@
Casing—Logger	0149.5	0919.0		
Bit Size	17 1/2"	12 1/4"		
Type Fluid in Hole	WATER	WATER		
Dens. | Visc.	1800 | 200			
pH | Fluid Loss	10.5 | 30+ ml	ml	ml	ml
Source of Sample	PIT			
R_m @ Meas. Temp.	1.07@ 66 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	1.07@ 68 °F	0.15 @ 93 °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	0.63@ 64 °F	@ °F	@ °F	@ °F
Source: R_{mf} R_{mc}	MEASURED			
R_m @ BHT	@ °F	0.15 @ 93 °F	@ °F	@ °F
Time Since Circ.	8 HOURS			
Max. Rec. Temp.	86 °F	93 °F	°F	°F
Equip. | Location	2523 | PES	4573 | PES		
Recorded By	RAIHANI	GRENIER		
Witnessed By	BRANCO	BRANCO		

THESE TWO RUNS WERE OBTAINED IN CANOSA-1X

SWS-1089-K

C 73 048 - NOV 71 DH

Schlumberger

LATEROLOG

COUNTRY Italy
FIELD or LOCATION Wildcat
WELL Canosa-1AX
COMPANY Gulf Italia

COMPANY GULF ITALIA
WELL CANOSA-1AX
FIELD WILDCAT
COUNTRY ITALY STATE Puglia

LOCATION 41°15'19.4" North
16°07'42.3" East
Sec. ______ Twp. ______ Rge. ______

Other Services:

Permanent Datum: Ground, Elev. 110.0 m
Log Measured From K.B. 4.87m, Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elev.: K.B. 114.87
D.F. ______
G.L. 110.00

Date	29 07 74	1.08.74	26/09/74	
Run No.	1 (LL-7)	2 (LL-7)	1 (LL-9)	
Depth—Driller	2760.0	2760.0	4003.0	
Depth—Logger	2501.2	2756.2	3994.0	
Btm. Log Interval	2500.0	2755.0	3992.0	
Top Log Interval	2000.0	2470.0	2700.0	
Casing—Driller	13.3 @ 478	13 3/8@ 478	13 3/8 478	@
Casing—Logger	n.a		477.5	
Bit Size	12.1 4	12.1 4	12 1/4"	
Type Fluid in Hole	Bentonite	Bentonite	Bentonite	
Dens. | Visc.	1080 | 200	1.08 | 230	9.1 | 200	
pH | Fluid Loss	10 | 23 ml	10 | 23 ml	10.5 | 7.5 ml	ml
Source of Sample	Mud Pit	Flowline	MUD PIT	
R_m @ Meas. Temp.	1.20 @ 20.5°C	1.20 @ 20.5°C	2.3 @ 10 C	@ °
R_{mf} @ Meas. Temp.	0.97 @ " °C	0.97 @ " °C	1.08 @ 10 C	@ °
R_{mc} @ Meas. Temp.	1.56 @ " °C	1.56 @ " °C	2.10 @ 10 C	@ °
Source: R_{mf} R_{mc}	Measured	Measured	PRESS | PRESS	
R_m @ BHT	@ °	0.79 @ 10.5C	@ 40 °	@ °
Time Since Circ.	6 hours	6 hours	6 hours	
Max. Rec. Temp.	°	10.5 °C	40 °C	
Equip. | Location	4654 | PES	4654 | PES	4654 | PES	
Recorded By	Raihani	Boisvert	Sodini	
Witnessed By	J.Branco	J.Branco	Schaefer	

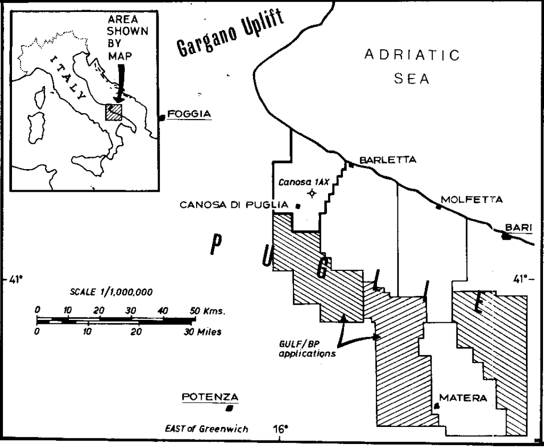
THESE TWO RUNS WERE OBTAINED IN CANOSA-1AX

FOLD HERE

THIS HEADING CONFORMS TO API RP 31

	CANOSA-1X	CANOSA-1AX
TOTAL DEPTH:	2401m	4003m
SPUD DATE:	01/10/73	21/03/74
DATE TD REACHED:	02/03/74	25/09/74
RIG RELEASE DATE:	06/03/74	29/09/74
SPUD CLASSIFICATION:	NFW	NFW
COMPLETION CLASSIFICATION:	dry NFW	dry NFW
WELL STATUS:	P & A	P & A
DRILLING CONTRACTOR:	SAIPEM	SAIPEM
RIG NO.:	5836	5836
GULF INTEREST:	50%	33.1/3%
PARTNERS:	BP	BP, AGIP

Canosa-1AX is located 34m S 45° W from canosa-1X



REMARKS CANOSA - 1X, IES log, RUN NO. 1

Changes in Mud Type or Additional Samples		
Date | Sample No.		
Depth—Driller		
Type Fluid in Hole		
Dens. | Visc.		
ph | Fluid Loss	ml	
Source of Sample		
R_m @ Meas. Temp.	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F
Source: R_{mf} | R_{mc}		
R_m @ BHT	@ °F	@ °F
R_{mf} @ BHT	@ °F	@ °F
R_{mc} @ BHT	@ °F	@ °F

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole

Equipment Data

Run No.	Tool Type	Tool Position	Other
1	IRT.F	1.5	

Run No.: 1
C.D.: S
S.O.: 1 1/2
Equip. PANEL No.: IRP - B 739
Used: CART. No.: IRC - F 786
SONDE No.: IRS - M 964
IAP No.: MMP - B 177
S.B.R.: 1

Check one, filling in blanks where applicable:
☒ Surface determined sonde errors used for 6FF40
☐ 6FF40 sonde error corrected for inch borehole signal at Rm
6FF40 zero set in hole at depth of feet

REMARKS [illegible]

Type Fluid in Hole

Dens. | Visc.		
ph | Fluid Loss	ml	
Source of Sample		
R_m @ Meas. Temp.	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F
Source: R_{mf} | R_{mc}		
R_m @ BHT	@ °F	@ °F
R_{mf} @ BHT	@ °F	@ °F
R_{mc} @ BHT	@ °F	@ °F

Equipment Data

Run No.	Tool Type	Pad Type	Tool Pos	Other
2	LL7 (LLC.h)			

	Run N°1	Run N°2
Equip. Used CART. No.		
PANEL No.	LLP.D 705	PTS. Set
SONDE No.	.E 806	
Spacing : 80" BEAM WIDTH : [illegible]"		
2i RETURN	Surface	Surface

SPONTANEOUS POTENTIAL
millivolts

– |↔| +
10

DEPTHS

RESISTIVITY
ohms - m²/m

A - 16" - M
SHORT NORMAL

0 100
0 1000

INDUCTION

0 100

0 1000

AMP. SHORT NORMAL

CONDUCTIVITY
millimhos/m = $\frac{1000}{\text{ohms-m}^2/\text{m}}$

6FF40
INDUCTION

200 0

GAMMA RAY
API UNITS

GAMMA RAY
(traced from other logs)

0	135m to 920m	200
0		400
0	920m to 2145m	75
0	2145m to TD	100

DEPTHS

1:1000

1:200

RESISTIVITY
OHMS M² M

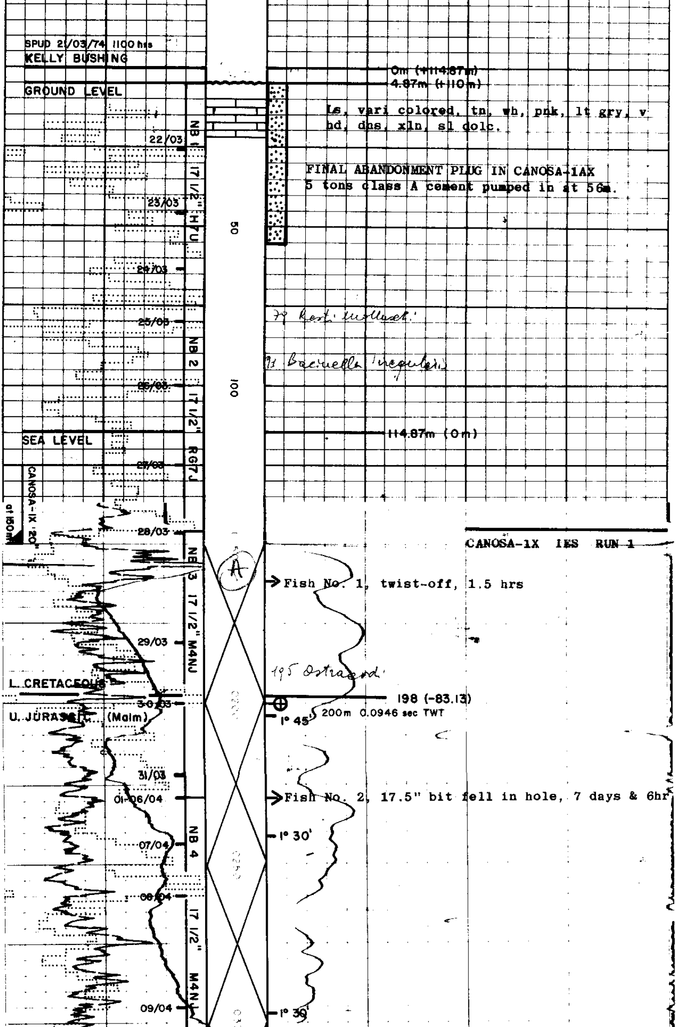
(Note: LL-9 shallow curve is dashed)

0.2 1.0 10 100 1000 2000

2000 10,000 BACKUP SCALE

DRILLING RATE
(MINUTES PER 2m.)

20 60 100 140 180
0 40 80 120 160



Ls, vari colored, tn, wh, pnk, lt gry, v hd, dns, xln, sl dolc.

FINAL ABANDONMENT PLUG IN CANOSA-1AX
5 tons class A cement pumped in at 56m.

79 Rest. mollusk.

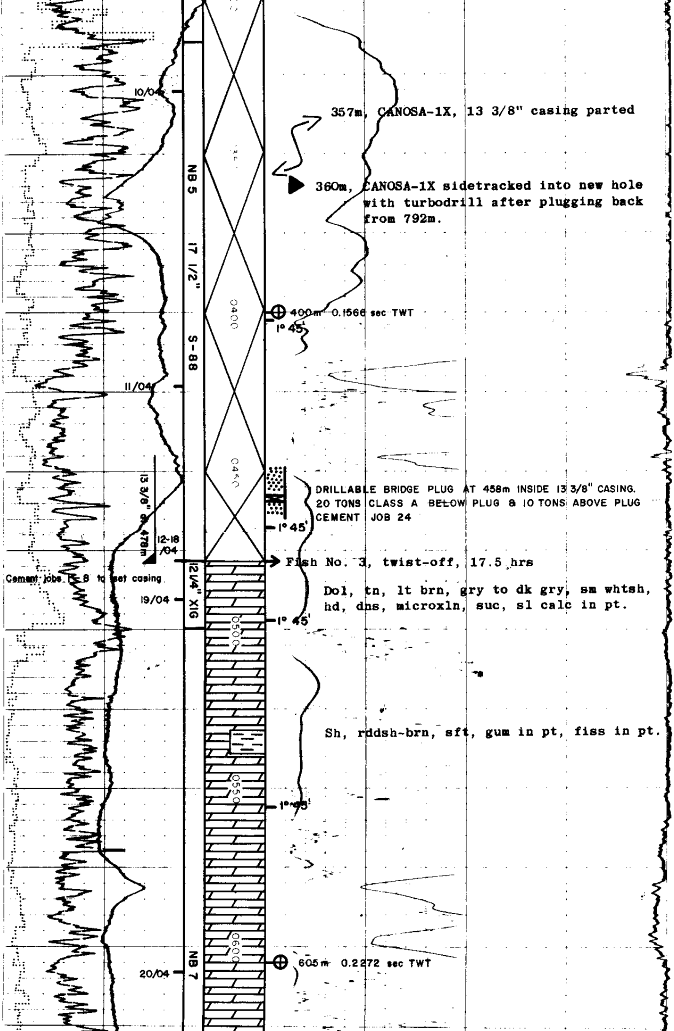
91 Bacinella 'irregularis'

→Fish No. 1, twist-off, 1.5 hrs

195 Ostracod

→Fish No. 2, 17.5" bit fell in hole, 7 days & 6hr

OK √ 198



357m, CANOSA-1X, 13 3/8" casing parted

360m, CANOSA-1X sidetracked into new hole with turbodrill after plugging back from 792m.

400m 0.1566 sec TWT

DRILLABLE BRIDGE PLUG AT 458m INSIDE 13 3/8" CASING.
20 TONS CLASS A BELOW PLUG & 10 TONS ABOVE PLUG
CEMENT JOB 24

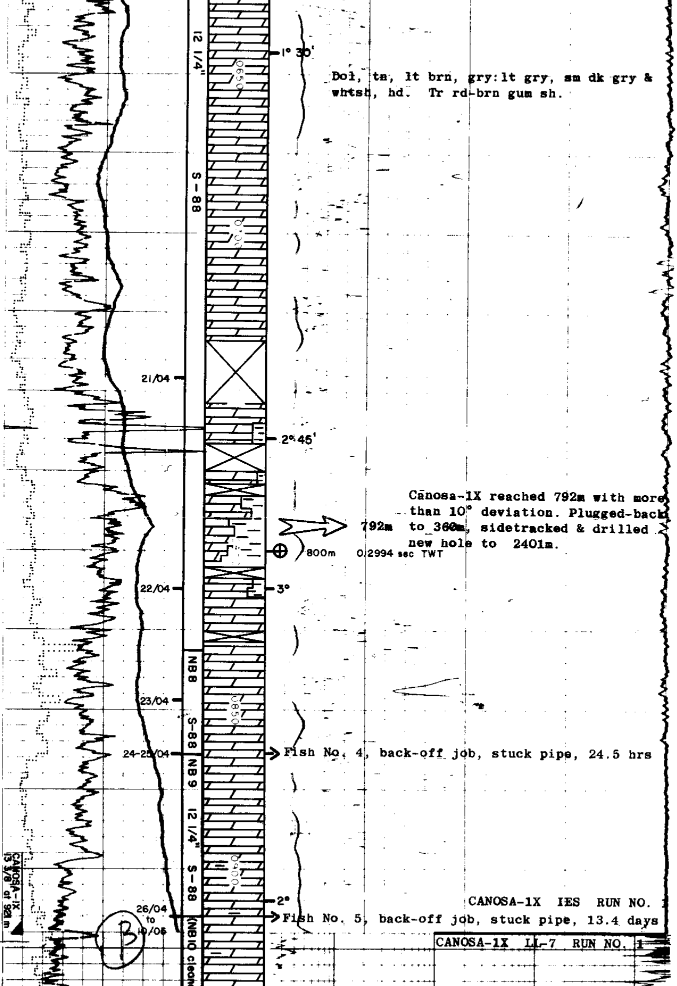
Cement jobs 1-8 to set casing

Fish No. 3, twist-off, 17.5 hrs

Dol, tn, lt brn, gry to dk gry, sm whtsh, hd, dns, microxln, suc, sl calc in pt.

Sh, rddsh-brn, sft, gum in pt, fiss in pt.

605m 0.2272 sec TWT



Dol, tn, lt brn, gry:lt gry, sm dk gry & whtsh, hd. Tr rd-brn gum sh.

Canosa-1X reached 792m with more than 10° deviation. Plugged-back to 360m, sidetracked & drilled new hole to 2401m.

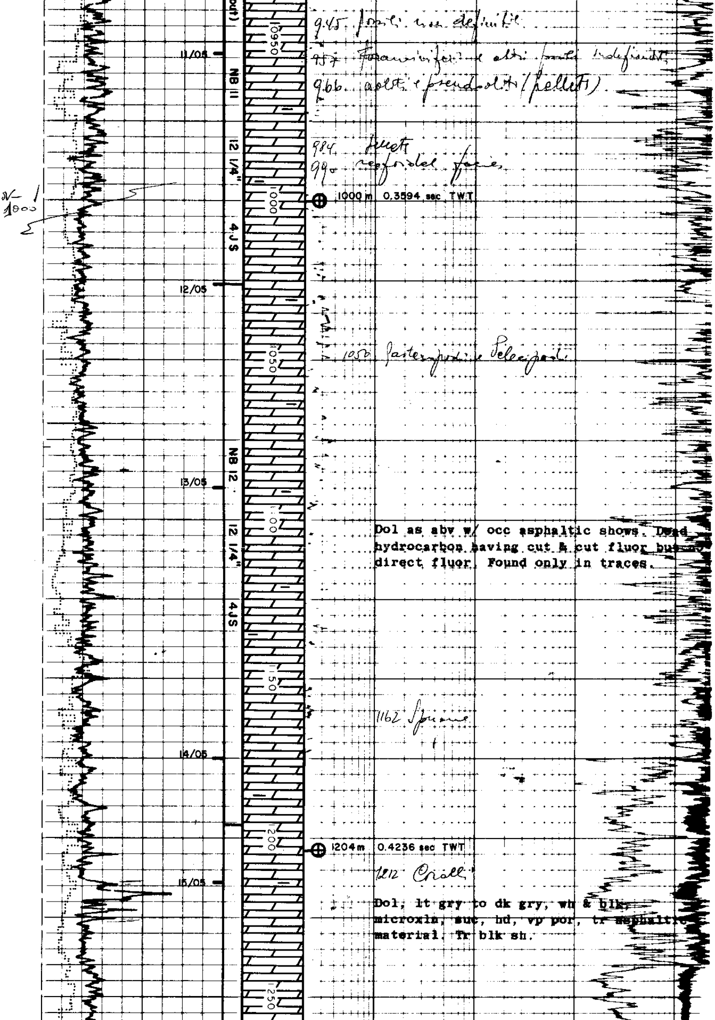
Fish No. 4, back-off job, stuck pipe, 24.5 hrs

CANOSA-1X IES RUN NO. 1

Fish No. 5, back-off job, stuck pipe, 13.4 days

CANOSA-1X LL-7 RUN NO. 1

ok ✓
923



945 fossili non definibili

957 Foraminiferi e altri fossili indefiniti

966 ooliti e pseudooliti (pellets)

984 pellets

990 reefoidal facies

1000 m 0.3594 sec TWT

1050 Gasteropodi e Pelecipodi

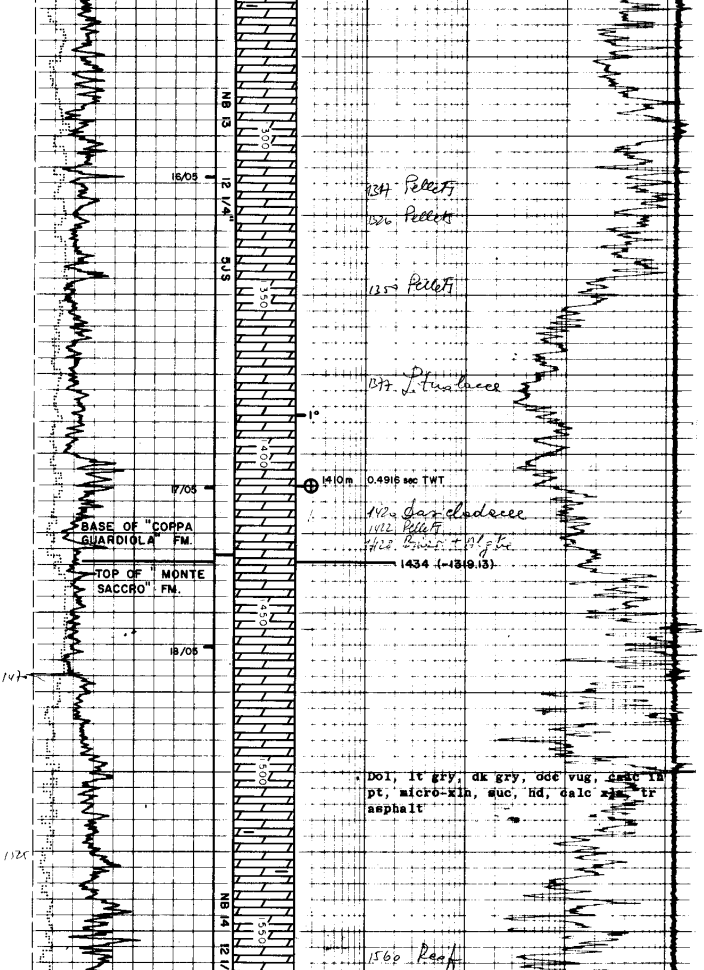
Dol as abv w/ occ asphaltic shows. Dead hydrocarbon having cut & cut fluor bu[illegible] direct fluor. Found only in traces.

1162 Spugne

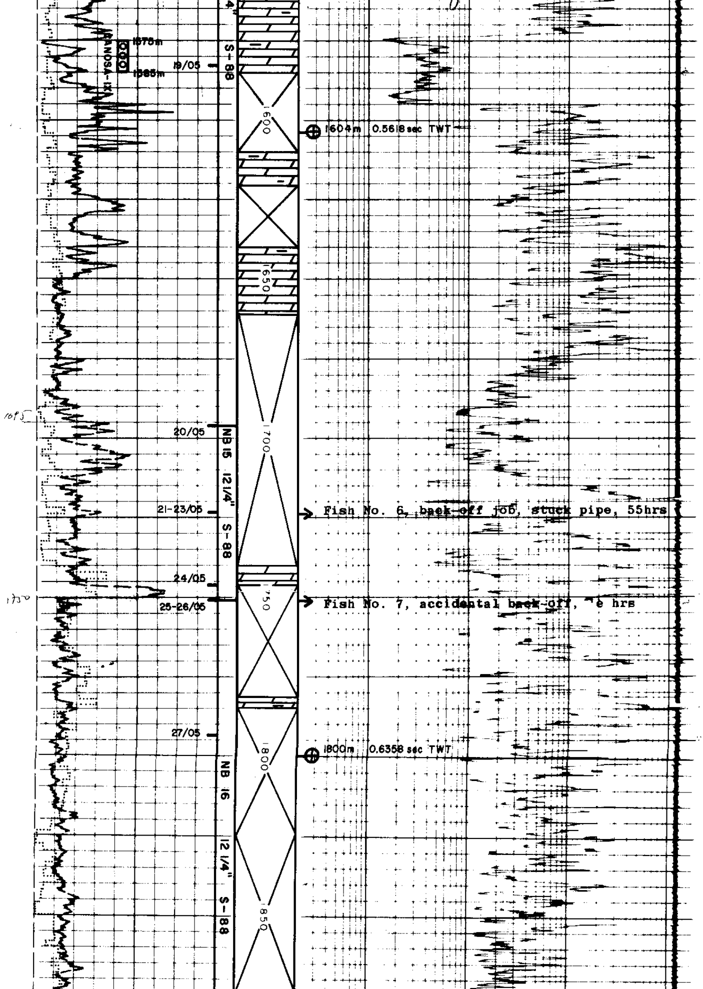
1204 m 0.4236 sec TWT

1212 Crinoidi

Dol, lt gry to dk gry, wh & blk, microxln, suc, hd, vp por, tr asphaltic material. Tr blk sh.

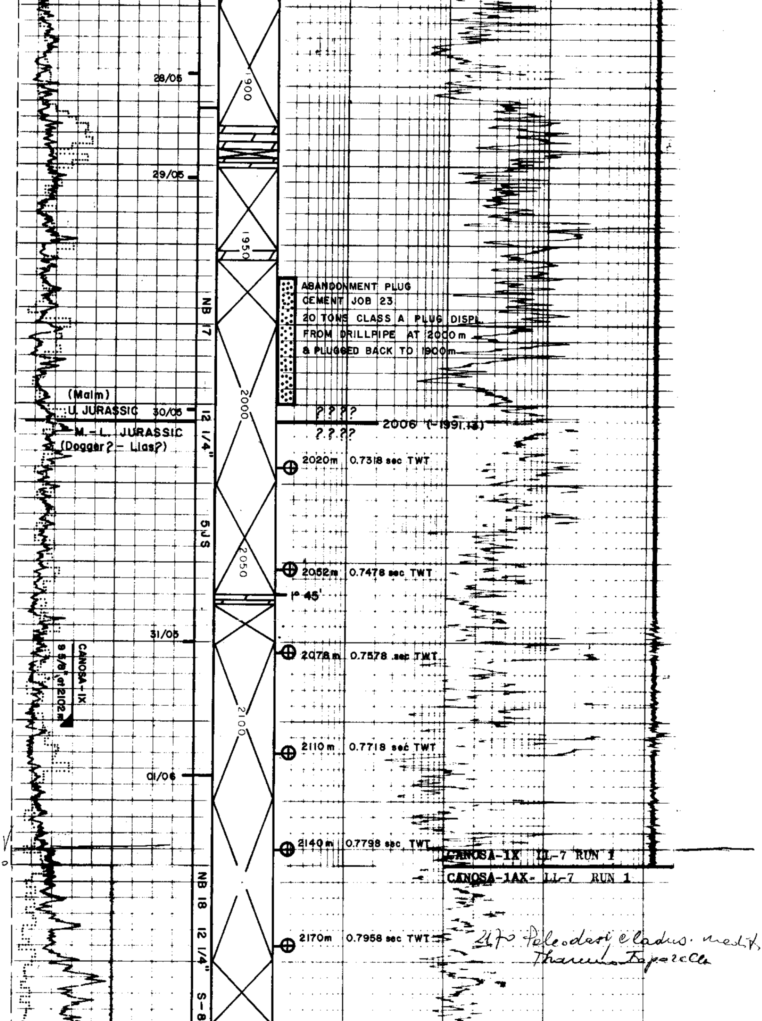


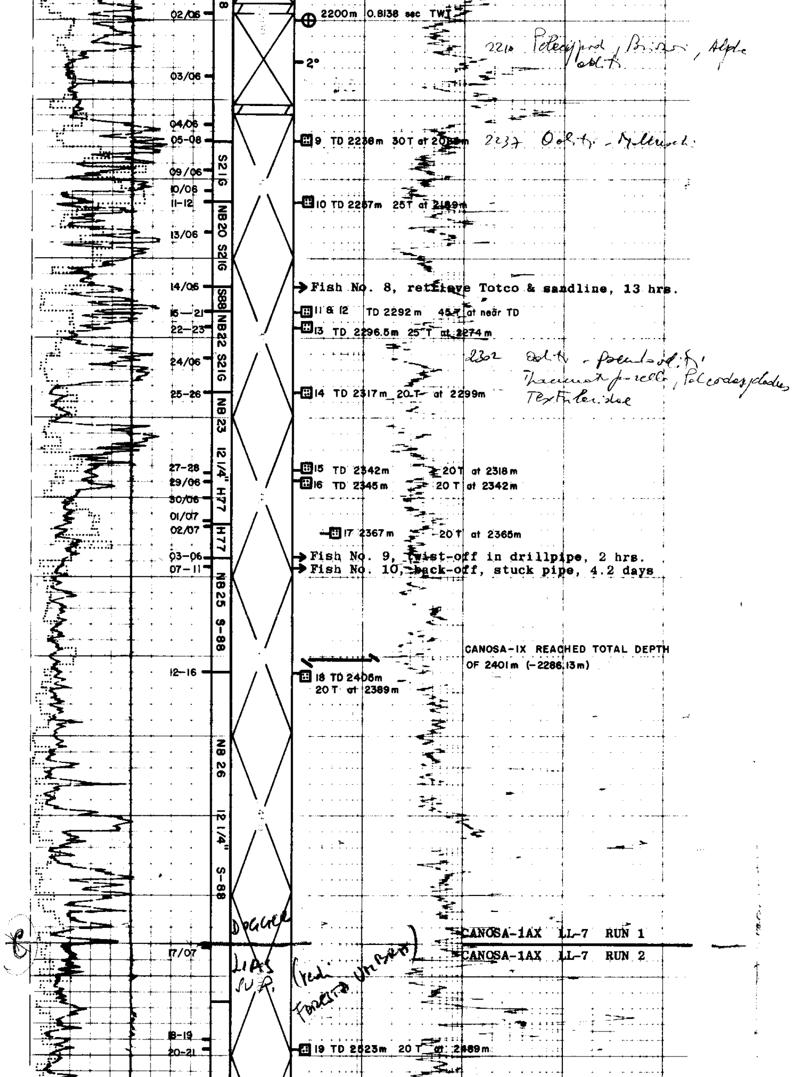
Dol, lt gry, dk gry, occ vug, calc in pt, micro-xln, suc, hd, calc xln, tr asphalt

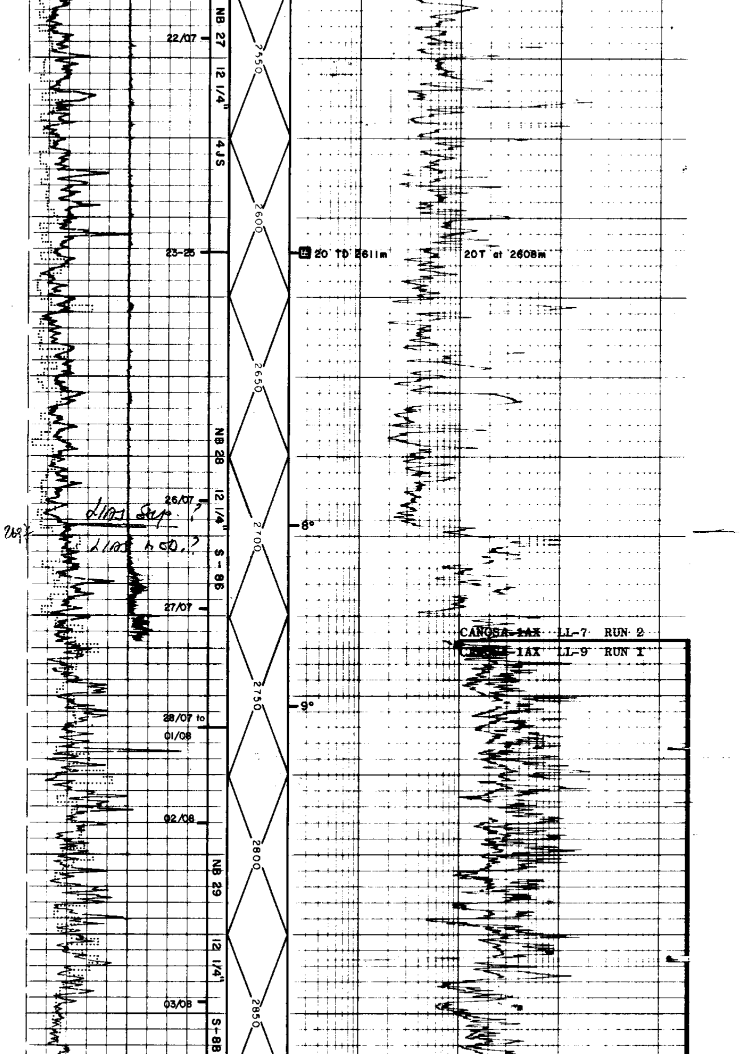


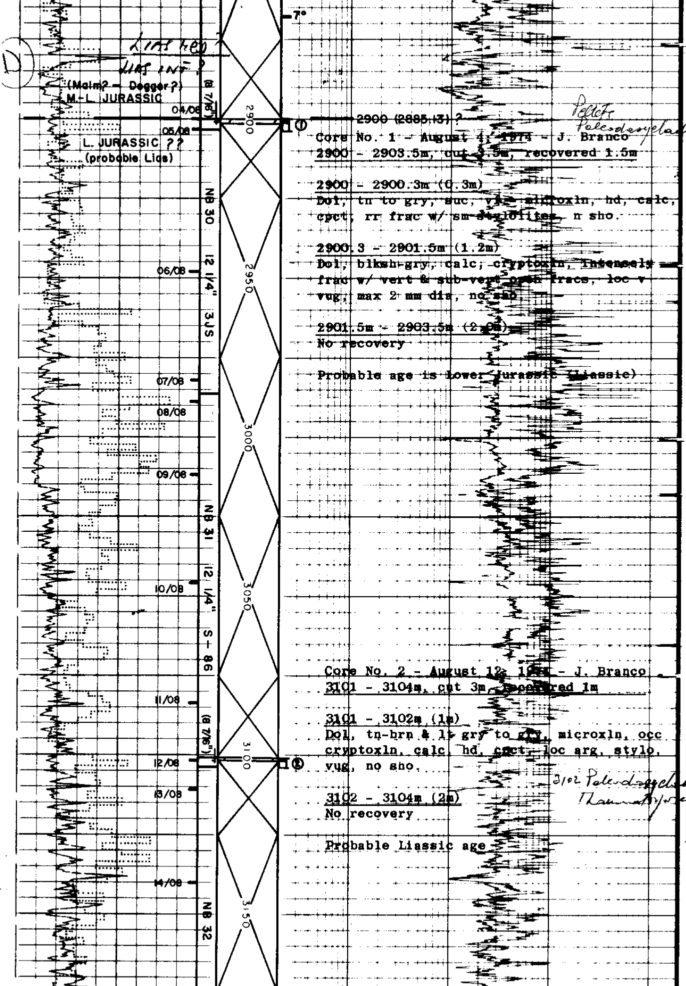
Fish No. 6, back-off job, stuck pipe, 55hrs

Fish No. 7, accidental back-off, [illegible] hrs









2900 (2885.13) ?

Core No. 1 - August 4, 1974 - J. Branco
2900 - 2903.5m, cut 3.5m, recovered 1.5m

Pelletr
Paleodasycladus

2900 - 2900.3m (0.3m)
Dol, tn to gry, suc, v f microxln, hd, calc, cpct, rr frac w/ sm stylolites, n sho.

2900.3 - 2901.5m (1.2m)
Dol, blksh-gry, calc, cryptoxln, intensely frac w/ vert & sub-vert open fracs, loc v vug, max 2 mm dia, no sho.

2901.5m - 2903.5m (2.0m)
No recovery

Probable age is Lower Jurassic (Liassic)

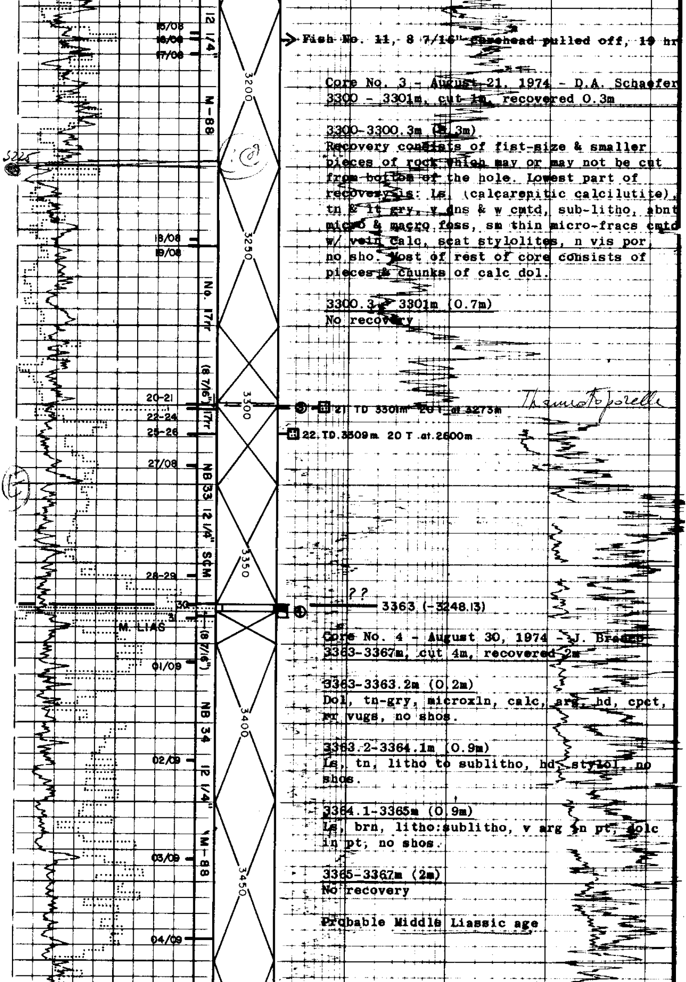
Core No. 2 - August 12, 1974 - J. Branco
3101 - 3104m, cut 3m, recovered 1m

3101 - 3102m (1m)
Dol, tn-brn & lt gry to gry, microxln, occ cryptoxln, calc, hd, cpct, loc arg, stylo, vug, no sho.

3102 Paleodasycladus
Thaumatoporella

3102 - 3104m (2m)
No recovery

Probable Liassic age



→ Fish No. 11, 8 7/16" conehead pulled off, 19 hr

Core No. 3 - August 21, 1974 - D.A. Schaefer
3300 - 3301m, cut 1m, recovered 0.3m

3300-3300.3m (0.3m)
Recovery consists of fist-size & smaller pieces of rock which may or may not be cut from bottom of the hole. Lowest part of recovery is: ls. (calcarenitic calcilutite), tn & lt gry, v dns & w cmtd, sub-litho, abnt micro & macro foss, sm thin micro-fracs cmtd w/ vein calc, scat stylolites, n vis por, no sho. Most of rest of core consists of pieces & chunks of calc dol.

3300.3 - 3301m (0.7m)
No recovery

Core No. 4 - August 30, 1974 - J. Bre[illegible]
3363-3367m, cut 4m, recovered 2m

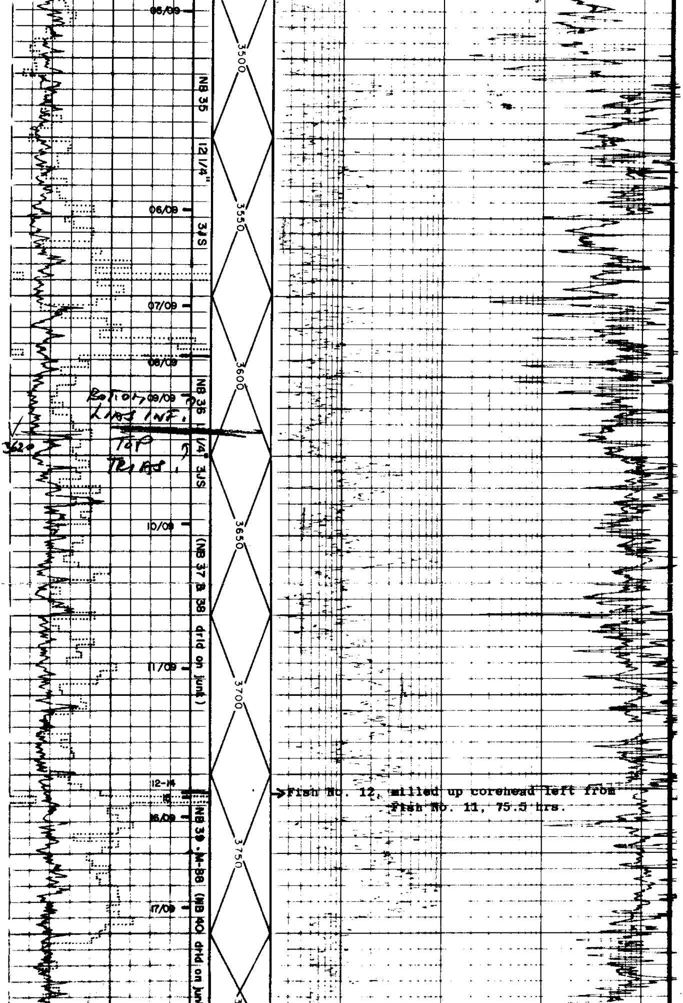
3363-3363.2m (0.2m)
Dol, tn-gry, microxln, calc, arg, hd, cpct, pr vugs, no shos.

3363.2-3364.1m (0.9m)
Ls, tn, litho to sublitho, hd, stylol, no shos.

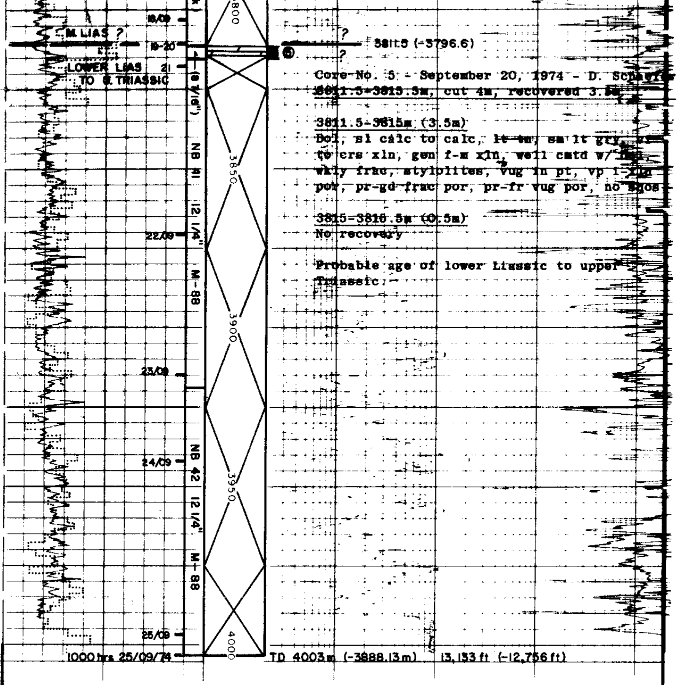
3364.1-3365m (0.9m)
Ls, brn, litho:sublitho, v arg in pt, dolc in pt, no shos.

3365-3367m (2m)
No recovery

Probable Middle Liassic age



→Fish No. 12, milled up corehead left from Fish No. 11, 75.5 hrs.



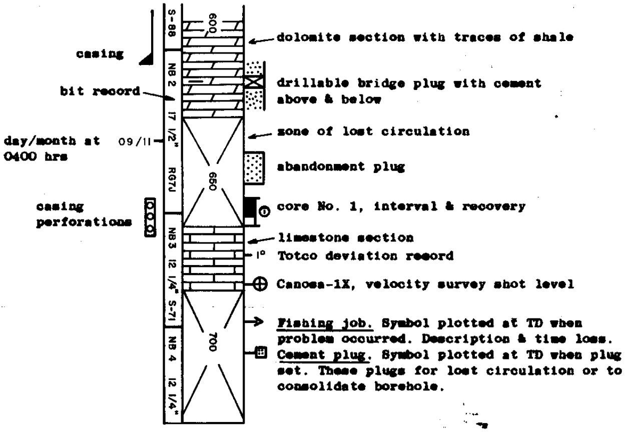
Core No. 5 - September 20, 1974 - D. Sch
3811.5-3815.5m, cut 4m, recovered 3.5m

3811.5-3815m (3.5m)
Dol, sl calc to calc, lt tn, sm lt gry, to crs xln, gen f-m xln, well catd w/ [illegible] wkly frac, stylolites, vug in pt, vp i-xln por, pr-gd frac por, pr-fr vug por, no shos

3815-3816.5m (0.5m)
No recovery

Probable age of lower Liassic to upper Triassic.

KEY TO BOREHOLE SYMBOLS



casing
bit record
day/month at 0400 hrs 09/11
casing perforations
dolomite section with traces of shale
drillable bridge plug with cement above & below
zone of lost circulation
abandonment plug
core No. 1, interval & recovery
limestone section
Totco deviation record
Canosa-1X, velocity survey shot level

Fishing job. Symbol plotted at TD when problem occurred. Description & time loss.
Cement plug. Symbol plotted at TD when plug set. These plugs for lost circulation or to consolidate borehole.

CANOSA-IAX

GULF ITALIA COMPANY

Gulf