7458 BN

AGIP
…VIO POZZI
DAGE

A

E/PROF 1

ENIU 1044185

TEXACO ENERGIA S.P.A.

COMPOSITE WELL LOG – MONTE TABURNO - 1

Scale: 1 : 500

LICENCE / COUNTRY: TOCCO CAUDIO / ITALY

WELL CATEGORY: EXPLORATION

JOINT VENTURE:		
	TEXACO ENERGIA S.P.A.	38%
	AGIP	42%
	BRITISH GAS RIMI	20%

SURFACE LOCATION:
MONTE MARIO 1940:
41° 07' 19.93" N
02° 15' 32.75" W

GREENWICH ED50:
41° 07' 19.93" N
14° 42' 41.15" E

UTM MONTE MARIO 1940:
X = 2495519.12
Y = 4552259.06

UTM GREENWICH (ZONE 33):
X = 475774.63
Y = 4552442.49

BOTTOM HOLE LOCATION:
FROM SURFACE LOCATION:
X = 6.33 N
Y = 45.89 W

RTE: 9.28 M ABOVE GROUND LEVEL
219.60 M ABOVE MEAN SEA LEVEL OF GENOA

TOTAL DEPTH:
DRILLER: 3733.0 MBRT; 3730.4 MBRT TVD; 3510.8 MSS
LOGGER: 3738.0 MBRT; 3735.4 MBRT TVD; 3515.8 MSS

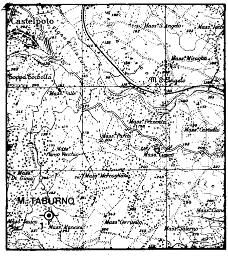
CONTRACTOR / RIG: PERGEMINE/ RIG NO. 12; NATIONAL 1320 UE

DATE SPUDDED: NOVEMBER 1ST, 1996

DATE TOTAL DEPTH: MARCH 13TH, 1997

END OPERATIONS: APRIL 19TH, 1997

WELL STATUS: PLUGGED AND ABANDONED.



SCALE 1:25,000

CHRONOSTRATIGRAPHY

BIOSTRATIGRAPHY

LITHOSTRATIGRAPHY

BRECCIA / CONGLOMERATE
SAND / SANDSTONE
SILT / SILTSTONE
CLAY / CLAYSTONE
MARL
LIMESTONE
DOLOMITIC LIMESTONE
CALCAREOUS DOLOMITE
DOLOMITE

ANHYDRITE
CHERT
CALCITE
FORAMINIFERA
MARLY
SILTY
m MUDSTONE
w WACKESTONE
p PACKSTONE
g GRAINSTONE
x RECRYSTALLIZED
UC UNCONFORMITY

THRUST / REVERSE FAULT
23 STRUCTURAL DIP
25 MUDLOSS (MAXIMUM INSTANTANEOUS LOSS IN M³/HR)
GAIN / KICK
15 MDT
1 DST
CORE
RECOVERED
UNRECOVERED
SIDEWALL CORE
RECOVERED
UNRECOVERED

GAS SHOW (C1, C2 .... IN PPM)
CASING SHOE
LINER TOP
EXTERNAL CASING PACKER
PORT COLLAR
CEMENT PLUG
SYNCLINE
ANTICLINE

SYSTEM | SERIES / STAGE | NANNOFOSSILS | MICROFOSSILS | PALYNOLOGY | DEPTH/STRUCTURAL DATA | GROUP | FORMATION | MEMBER

CALIPER (CAL)
6 (INCH) (1549–3707) 26

SPONTANEOUS POTENTIAL
80 (SP) (MV) (48–1530) 20

LITHOLOGY

LATEROLOG SHALLOW (LLS)
20 (OHM.M) (1557-3711) 2000

LATEROLOG SHALLOW (LLS)
0,2 (OHM.M) (1557-3711) 20

LATEROLOG DEEP (LLD)
20 (OHM.M) (1557-3711) 2000

LATEROLOG DEEP (LLD)
0,2 (OHM.M) (1557-3711) 20

LATEROLOG SHALLOW (LLS)
20 (OHM.M) (517-1557) 2000

LATEROLOG SHALLOW (LLS)
0,2 (OHM.M) (517-1557) 20

LATEROLOG DEEP (LLD)
20 (OHM.M) (517-1557) 2000

LATEROLOG SHALLOW (LLS)
2000 (OHM.M) (2350-3711) 200,000

LATEROLOG DEEP (LLD)
2000 (OHM.M) (2350-3711) 200,000

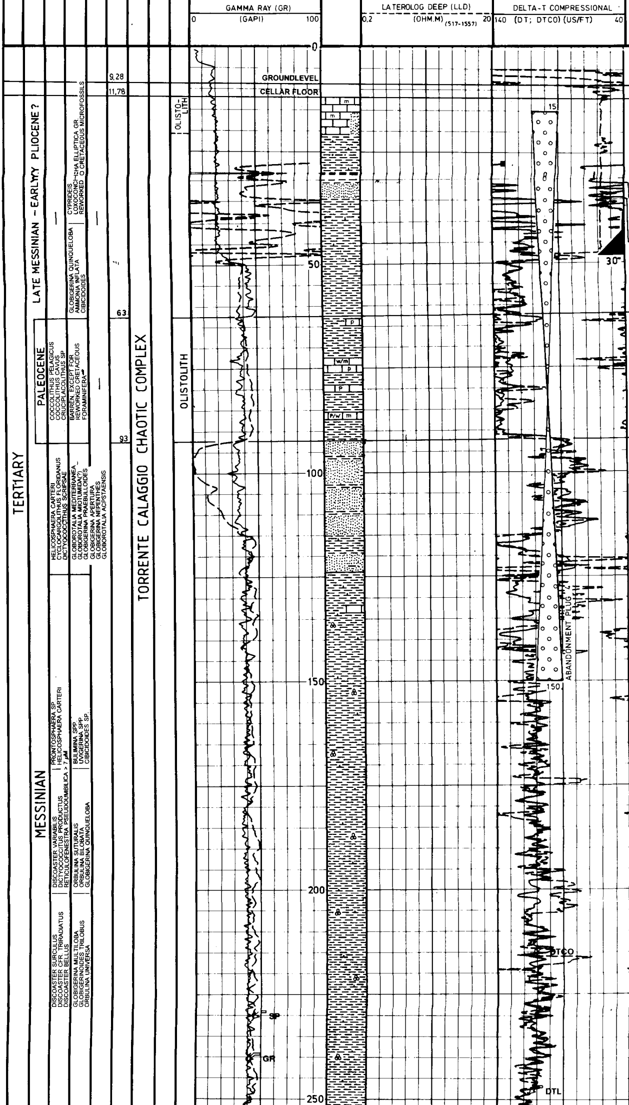
DELTA-T COMP.-FMD (DTS)
240 (US/FT) (517-1550) 140

DELTA-T COMP.-FMD (DTS)
140 (US/FT) (517-1550) 40

DELTA-T LONG (DTL)
140 (US/FT) (48-517) 40

DELTA-T COMPRESSIONAL
240 (DTCO) (US/FT) 140

LITHOLOGICAL DESCRIPTION



SEISMIC DATUM
-180 mBRT TV; 400 mASL; 0.000 sec TWT

ROTARY TABLE
0 mBRT TV; 220 mASL; 0.144 sec TWT

GROUND LEVEL
9 mBRT TV; 210 mASL; 0.144 sec TWT

LIMESTONE: mudstone, off white to buff, hard,
and
SANDSTONE: light grey, brittle, calcareous cement, no visible porosity; predominantly quartz grains: colorless, very fine to fine, moderately to well sorted, subrounded.
and
CLAY/CLAYSTONE: light grey, soft, sticky, silty, marly.
with traces of **SHELL FRAGMENTS**

SANDSTONE: calcareous cement, fully altered by bit into mainly loose quartz grains: colorless to milky, transparent to translucent, medium to coarse, well sorted, subangular to subrounded.

CLAY/CLAYSTONE: as above.
traces of **SHELL FRAGMENTS**.

CLAY/CLAYSTONE: light grey to green and brown to reddish brown, soft, sticky, slightly silty, slightly marly.

with minor
LIMESTONE: packstone/wackestone/mudstone partly recrystallized, off white to buff, hard.

and traces of
CHERT: light brown to milky, translucent, very hard.

SANDSTONE: light grey, hard, calcareous cement, no visible porosity; grains: predominantly quartz minor feldspar, carbonate and lithic fragments, fine to medium occasionally coarse, poor to moderately sorted, subangular to subrounded.

with
CLAY/CLAYSTONE: light grey to green minor brown to reddish brown, soft, sticky, slightly silty, slightly marly.

CLAY/CLAYSTONE: grey to brownish grey, soft, sticky, washable, marly, very fossiliferous (foraminifera).

TERTIARY

EOCENE - EARLY OLIGOCENE

DICTYOCOCCITES BISECTUS
SPHENOLITHUS PRAEDISTENSIS
SPHENOLITHUS PRAEDISTENSIS-DISTENSIS

SPHENOLITHUS DISTENSIS
SPHENOLITHUS TRIBULOSUS
HELICOSPHAERA EUPHRATIS

DICTYOCOCCITES BISECTUS
CYCLICARGOLITHUS FLORIDANUS
CYCLICARGOLITHUS ABISECTUS
HELICOSPHAERA EUPHRATIS
SPHENOLITHUS CONICUS.

BARREN, EXCEPT FOR
REWORKED TERTIARY AND LATE CRETACEOUS
PLANKTONIC FORAMINIFERA IN LIMESTONES

RARE AND BADLY PRESERVED ACARININA (?)

257

410

TORRENTE CALAGGIO CHAOTIC COMPLEX

SICILIDE OLISTOLITH

LANGHIAN-SERRAVALLIAN

RETICULOFENESTRA SPP. < 7 μM
HELICOSPHAERA CARTERI
HELICOSPHAERA CFR. WALBERSDORFENSIS

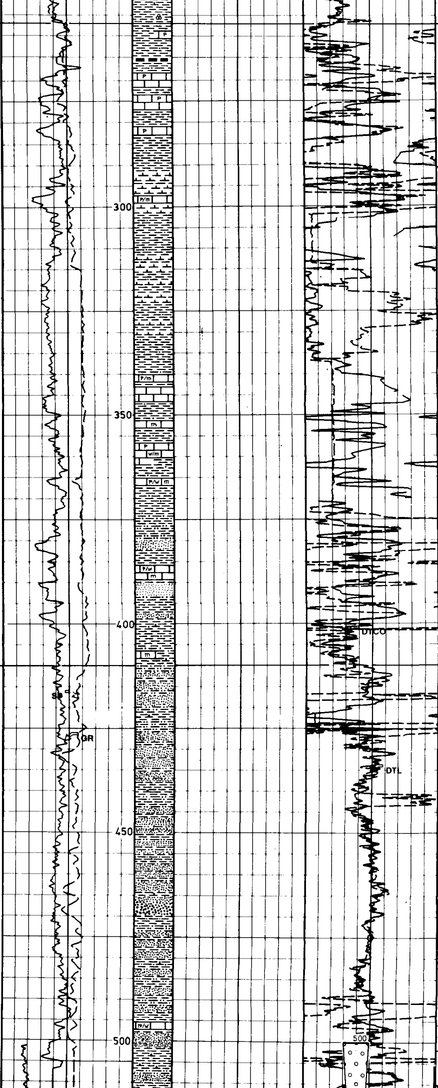
CALCIDISCUS PREMACINTYREI
DICTYOCOCCITES PRODUCTUS
CALCIDISCUS LEPTOPORUS

ORBULINA UNIVERSA
ORBULINA SUTURALIS
GLOBIGERINOIDES TRILOBUS GR.

GLOBIGERINOIDES BISPHAERICUS
HASTIGERINA
GLOBIGERINA SPP.

IRPINIAN

CASTELVETERE FLYSCH



257 mBRT TV; 37 mSS; 0.374 sec TWT

CLAYSTONE: grey to green occasionally brownish grey, firm, locally slightly silty, marly, occasionally soft and washable.

with
LIMESTONE: packstone (siltite-arenite), light grey, moderately hard to hard, marly; grains: mostly carbonate trace quartz, silt to very fine.

CLAYSTONE: grey and brownish red, firm, locally marly, locally slightly silty grading to siltstone.

with minor
LIMESTONE: packstone-wackestone-mudstone (arenite-lutite) trace grainstone (fossiliferous: foraminifera), off white to buff to light grey, hard to moderately hard.

CLAYSTONE: grey and brownish red, firm, locally marly, locally slightly silty grading to siltstone.

with minor
LIMESTONE: packstone-wackestone-mudstone (arenite-lutite) trace grainstone (fossiliferous: formaninifera), off white to buff to light grey, hard to moderately hard.

and
SANDSTONE: grey, poorly consolidated with calcareous cement; grains: predominantly quartz: very fine to silt.

410 mBRT TV; 190 mSS; 0.490 sec TWT

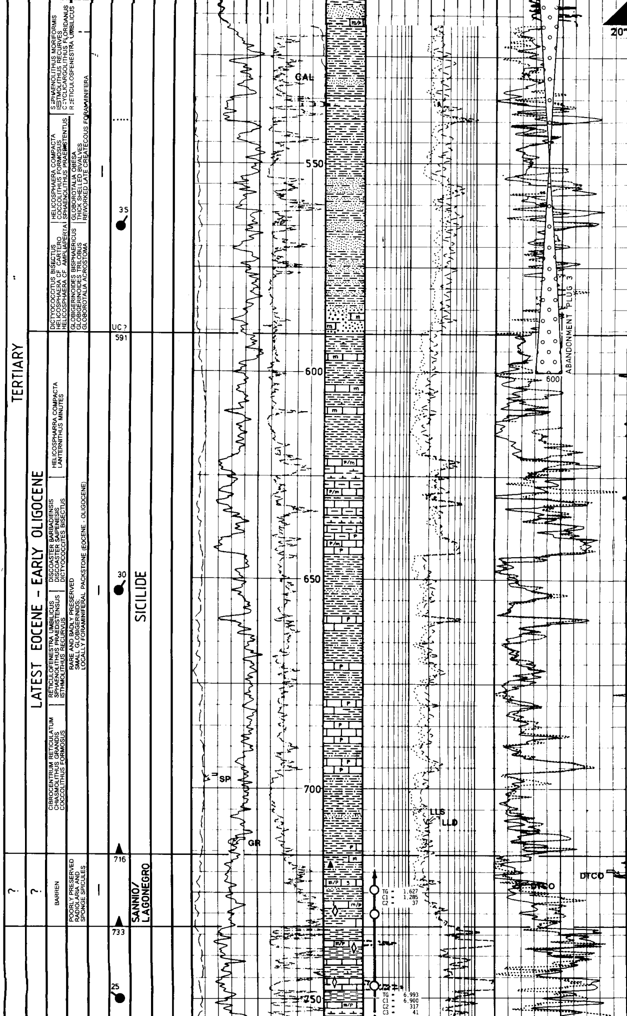
SANDSTONE: light grey to off white, moderately consolidated with calcareous cement, no visible porosity; grains: predominantly quartz minor feldspar?, carbonate and lithic fragments, fine to very fine, moderately sorted, subangular to subrounded.

and
CLAYSTONE: grey to brownish grey, firm, marly, locally washable, locally silty grading to **SILTSTONE:** brownish grey, firm, argillaceous.

SAND/SANDSTONE: loose grains: predominantly quartz trace feldspar, colorless, transparent, coarse to occasionally medium, moderately sorted, subangular, moderate sphericity.

CLAYSTONE grading to **SILTSTONE** and **SANDSTONE** as between 410 and 466 mBRT.

LIMESTONE: mudstone-wackestone, off white to buff, hard, locally fossiliferous (foraminifera).
and
SANDSTONE: as above, but becoming medium to coarse and grading to **MICROBRECCIA** with limestone (mudstone-wackestone) fragments.



CLAYSTONE: dark grey to greenish grey, firm, marly, non silty.

CLAYSTONE: grey to greenish grey minor brownish red, firm, marly, locally silty grading to **SILTSTONE:** brownish grey, firm, argillaceous, locally marly, grading to **SANDSTONE:** light grey to off white, poor to moderately consolidated with calcareous cement, locally argillaceous; grains: predominantly quartz minor feldspar?, carbonate and lithic fragments trace coal, fine to silt, poor to moderately sorted, subangular to subrounded

with locally traces of **LIMESTONE:** mudstone-packstone (lutite-arenite), off white to buff to brownish yellow, hard.

at 535-540 mBRT bed of **CLAYSTONE**: brownish red, firm, slightly marly, locally silty.

SANDSTONE: becoming poorly sorted, and medium to very coarse.
with
LIMESTONE: predominantly mudstone (lutite), off white to buff, hard.

591 mBRT TV; 371 mSS; 0.611 sec TWT

CLAYSTONE: grey to greenish grey minor brownish red, firm, marly, partly soft washable, locally silty grading to SILTSTONE.
with minor
LIMESTONE: predominantly mudstone (lutite), off white to buff, hard.

CLAYSTONE: medium to dark greenish grey, firm, partly soft and washable.

LIMESTONE: mudstone (lutite), light grey, hard to moderately hard, marly.
with
LIMESTONE: packstone-mudstone (siltite-lutite occasionally arenite), buff to light brown, hard.
and minor
CLAYSTONE: as above.

CLAYSTONE: medium to dark grey to greenish grey, firm, partly soft and washable, trace silty grading to siltstone.
with traces of
SANDSTONE: light grey to off white, poor to moderately consolidated with calcareous cement, locally argillaceous, grains: predominantly quartz, minor lithic fragments trace coal, very fine to fine, moderately sorted, subangular.

CLAYSTONE: medium to dark grey to greenish grey, firm, partly soft and washable, trace silty grading to siltstone.

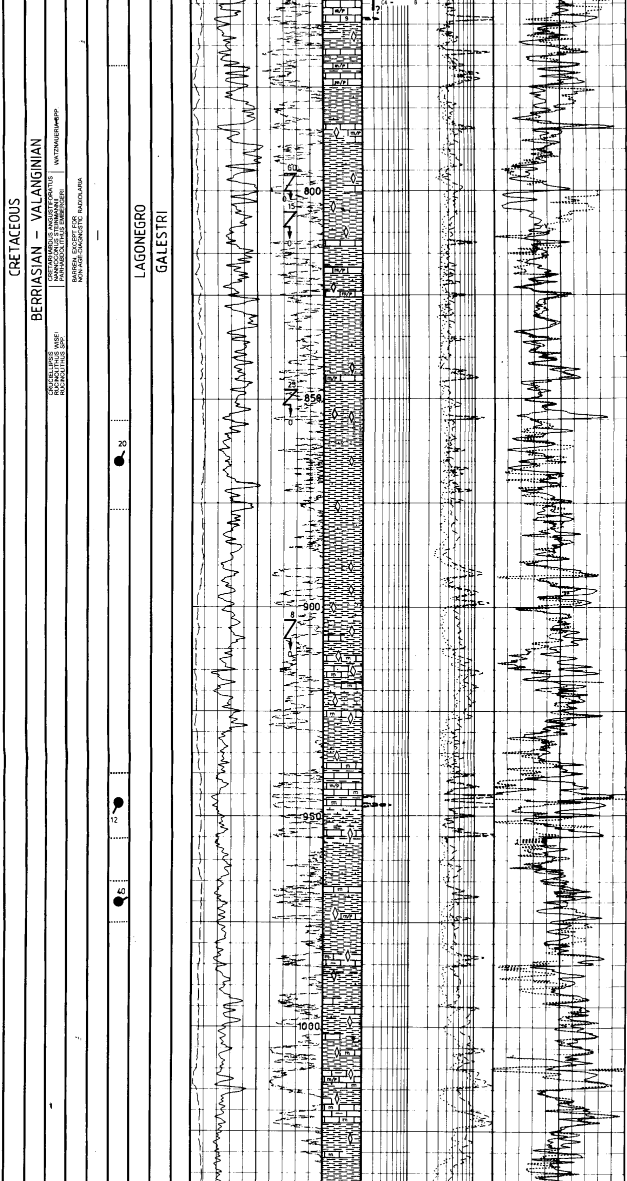
with
LIMESTONE: packstone-occasionally mudstone (arenite-lutite), off white to buff to light brown, hard, fine to very fine to silt to occasionally mud

and traces to 15%
SANDSTONE: as above.

716 mBRT TV; 496 mSS; 0.704 sec TWT

CLAYSTONE: green to grey and reddish brown to greyish brown, firm, locally silty grading to siltstone
with
LIMESTONE: mudstone-packstone occasionally grainstone (lutite-arenite-microbreccia), off white to buff, hard, mud to very coarse.
and traces of **SANDSTONE:** very fine to fine; **CALCITE** and **CHERT**: light brown.

733 mBRT TV; 513 mSS; 0.716 sec TWT



CLAYSTONE: greyish brown minor to trace greyish green, firm to moderately hard, locally pyritic, locally marly grading to marl.

with minor
LIMESTONE: mudstone-packstone and grainstone (lutite-siltite-trace arenite), light greyish brown to light grey to greenish grey, hard, locally slightly dolomitic, locally fossiliferous (radiolaria in mudstone), locally marly grading to marl.

and traces to 10% of
CALCITE: white transparent to translucent, hard/brittle, coarse crystalline/rhombohedric.

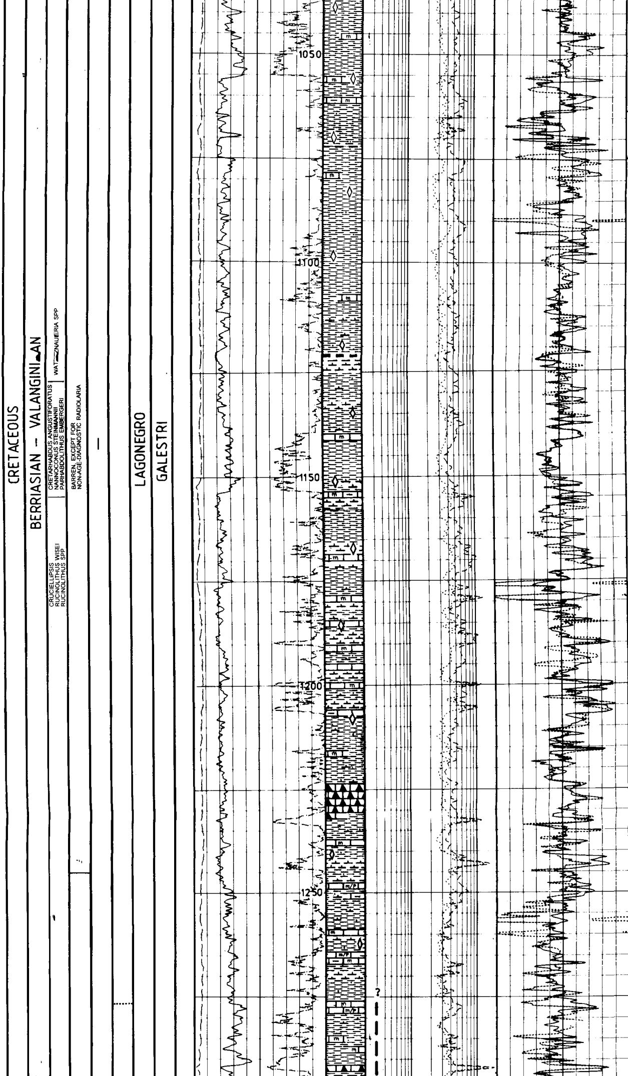
CLAYSTONE greyish brown, firm to soft, partly washable, subfissile, locally slightly silty, locally, pyritic, locally marly.

with traces to 5% of
CALCITE: white tranparent to translucent, hard/brittle, coarse crystailine/rhomboderic.

CLAYSTONE greyish brown, firm, subfissile, locally slightly silty, locally slightly pyritic, partly soft and washable, locally slightly siliceous, locally marly grading to
MARL: light brown, firm to hard, locally siliceous, grading to limestone.

locally with
LIMESTONE: predominantly mudstone occasionally packstone (lutite occasionally siltite), off white to buff to light brown, hard, locally siliceous, locally fossiliferous (radiolaria), locally marly grading to marl.

and traces to 10% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.



CLAYSTONE: greyish green to grey and greyish brown, soft to firm, partly washable, sticky, occasionally subfissile, locally slightly silty, locally slightly pyritic.

CLAYSTONE: greyish brown trace greenish grey to grey firm to soft, partly washable, subfissile locally slightly silty, locally slightly pyritic locally slightly siliceous, locallly marly grading to
MARL: light brown, firm to hard, occasionally silty, locally siliceous.

locally with
LIMESTONE: predominantly mudstone (lutite), buff to light brown, hard, locally marly, locally siliceous, locally fossiliferous (radiolaria).

traces to 5% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

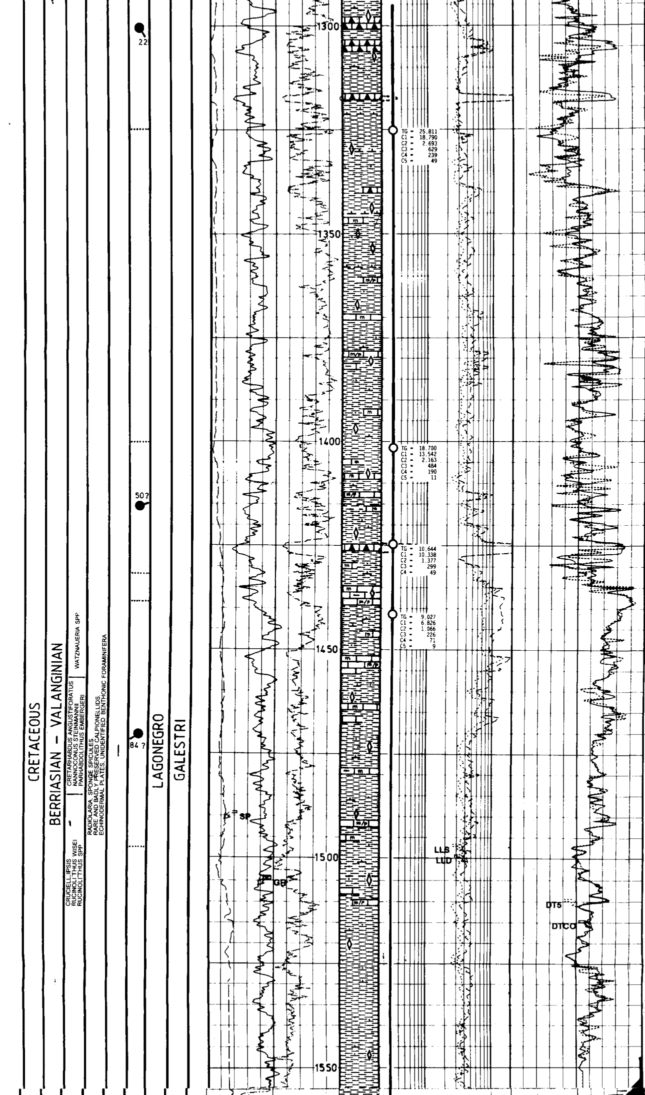
CHERT / ? LIMESTONE ?: mudstone-wackestone (lutite-siltite / microcrystalline), off white to light greyish brown, hard to very hard, slightly dolomitic, occasionally fossiliferous (radiolaria).

CLAYSTONE: greyish brown trace greenish grey, firm to soft, partly washable, subfissile, locally slightly silty, locally slightly pyritic, locally slightly siliceous, locally marly grading to
MARL: light brown and greyish green, firm to hard, occasionally silty, locally siliceous.

occasionally with
LIMESTONE: mudstone occasionally packstone (lutite to arenite), light brownish grey to buff to off white, hard, locally marly, locally fossiliferous (radiolaria).

with traces to 5% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

CLAYSTONE: greyish brown, firm to soft, partly washable, subfissile, locally slightly silty, locally slightly pyritic, locally slightly siliceous, locally marly trace grading to marl.



and
CHERT / ? LIMESTONE ?: mudstone-wackestone (lutite-siltite / microcrystalline), off white to light greyish brown, hard to very hard, slightly dolomitic, occasionally fossiliferous (radiolaria).

with traces of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

CLAYSTONE: greyish brown trace grey to greenish grey, firm to soft, subfissile, locally slightly silty, locally slightly pyritic, partly washable, locally marly trace grading to marl

with traces to 10% of
LIMESTONE: mudstone occasionally packstone (lutite-arenite), buff to light grey occasionally dark brownish grey, hard, locally marly.

and 5 to 10% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

and traces to 10% of
CHERT / ? LIMESTONE ?: mudstone-wackestone (lutite-siltite / microcrystalline), off white to light greyish brown, hard to very hard, slightly dolomitic, occasionally fossiliferous (radiolaria).

CLAYSTONE: greyish brown trace grey to greenish grey, moderately hard to firm occasionally soft, partly washable, subfissile, locally slightly silty, locally pyritic, locally slightly siliceous, locally marly.

with minor
LIMESTONE: predominantly mudstone occasionally wackestone-packstone (lutite-arenite-locally microbreccia), buff to light grey occasionally dark brownish grey, hard, locally marly, locally siliceous, occasionally slightly dolomitic, locally slightly pyritic.

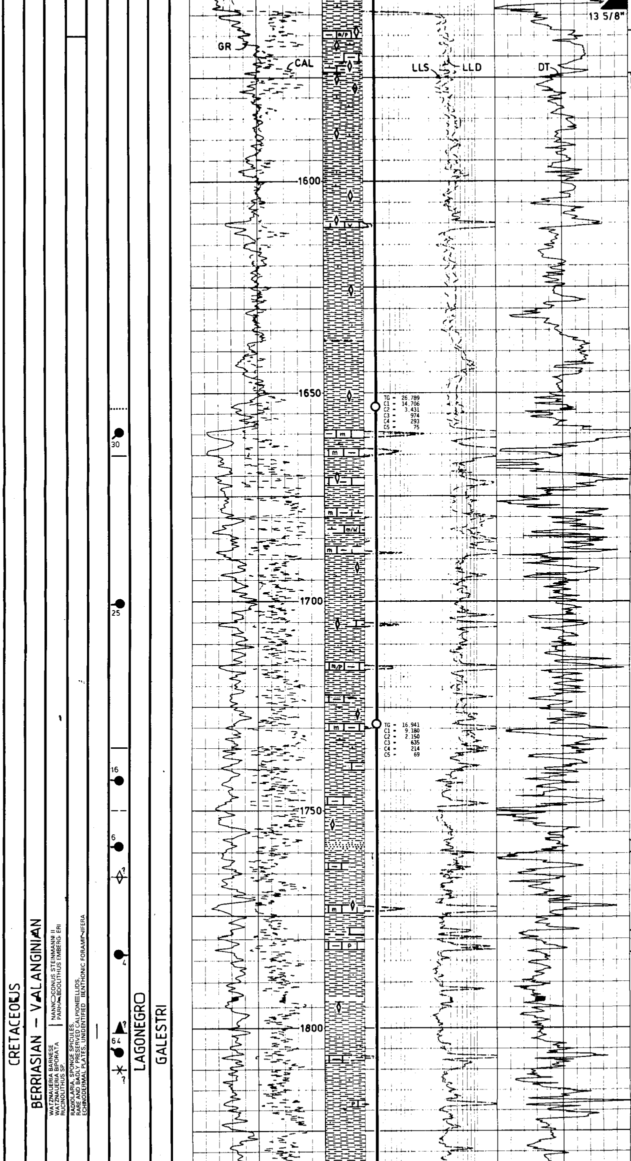
and traces to 10%
CHERT / ? LIMESTONE ?: mudstone-wackestone (lutite-siltite / microcrystalline), off white to light greyish brown, hard to very hard, occasionally fossiliferous (radiolaria).

and traces to 5% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

CLAYSTONE: greyish brown trace grey to greenish grey, moderately hard to firm occasionally soft, partly washable, subfissile, locally slightly silty, locally pyritic, locally slightly siliceous, locally marly.

with traces to 15% of
LIMESTONE: predominantly mudstone occasionally wackestone-packstone (lutite-arenite-locally microbreccia), buff to light grey occasionally dark brownish grey, hard, locally marly, locally siliceous, occasionally slightly dolomitic, locally slightly pyritic.

and traces to 5% of
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.



CLAYSTONE: as above.
with
LIMESTONE: mudstone-packstone (lutite-siltite), greyish brown, hard, marly.
and up to 15%
CALCITE: as above.

CLAYSTONE: greyish brown trace grey to greenish grey, firm to moderately hard, subfissile to fissile, occasionally slightly silty, occasionally pyritic.

locally with up to 5%
LIMESTONE: wackestone, greyish brown, hard, marly, fossiliferous (radiolaria).

and traces to 5%
CALCITE: white, hard/brittle, coarse crystalline/ rhombohedric.

CLAYSTONE: greyish brown trace grey to greenish grey, firm to moderately hard, subfissile to fissile, occasionally slightly silty, occasionally pyritic.
with
LIMESTONE: mudstone-occasionally wackestone (lutite), buff to light greyish brown, firm to hard, locally siliceous, fossiliferous (radiolaria), marly grading to marl.
and traces of
CALCITE: white, hard/brittle, coarse crystalline/ rhombohedric.

CLAYSTONE: greyish brown trace grey to green, firm to moderately hard, subfissile to fissile, occasionally slightly silty, occasionally pyritic.

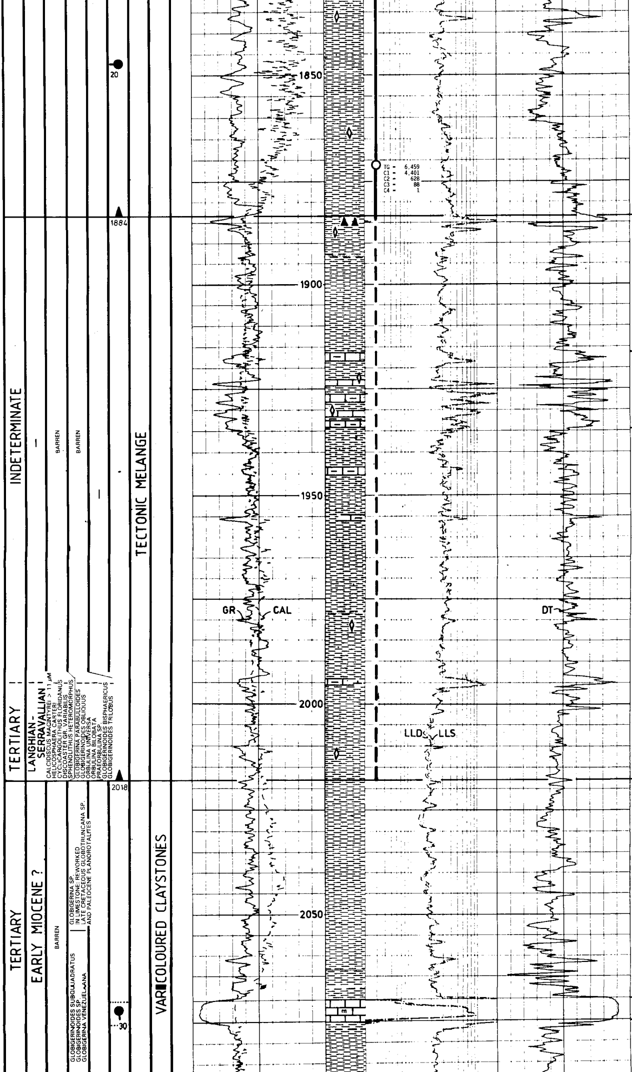
locally with
LIMESTONE: mudstone occasionally packstone (lutite occasionally siltite), light brown, firm to hard, marly, locally fossiliferous (radiolaria).

and traces to 5%
CALCITE: white, hard/brittle, coarse crystalline/rhombohedric.

SILTSTONE / SANDSTONE: light brownish grey, hard, well consolidated with calcareous cement, slightly argillaceous; grains: quartz mica & ? feldspars ?, silt to very fine, well sorted.
CLAYSTONE: as above.
locally with
LIMESTONE: as above.
and traces to 5%
CALCITE: as above.

LIMESTONE: packstone partly recrystallized (arenite), buff to light brown, hard, locally slightly marly.
with
CLAYSTONE: as above.

CLAYSTONE: greyish brown trace grey to green, firm to moderately hard, subfissile to fissile, occasionally slightly silty, occasionally pyritic.



with traces of
CALCITE: white, hard/brittle, coarse crystalline/ rhombohedric.

and locally traces of
LIMESTONE: packstone partly recrystallized (arenite), buff to light brown, hard, locally slightly marly.

1883 mBRT TV; 1663 mSS; 1.353 sec TWT

@ 1884-1885: 10% **CHERT:** off white, very hard, microcrystalline.

CLAYSTONE: as above.
with
CLAY/CLAYSTONE: grey to greenish grey, soft, sticky, washable.
and traces to 5%
LIMESTONE: as above.
and traces of
CALCITE: as above.

LIMESTONE: mudstone-packstone (lutite-siltite-arenite occasionally microbreccia partly recrystallized), off white to buff to light brown, hard, locally slightly marly, partly altered by bit chalk.
with **CLAY/CLAYSTONE:** as above.
and traces of **CALCITE:** as above.

CLAY/CLAYSTONE: grey to greenish grey, soft, sticky, washable.

and
CLAYSTONE: greyish brown and grey to green, firm to moderately hard, subfissile to fissile, occasionally slightly silty, occasionally pyritic.

with locally traces to 10% of
LIMESTONE: mudstone-packstone (lutite-siltite-arenite partly recrystallized), off white to buff to light brown, hard, locally slightly marly, partly altered by bit chalk.

and traces of
CALCITE: white, hard/brittle, coarse crystalline/ rhombohedric.

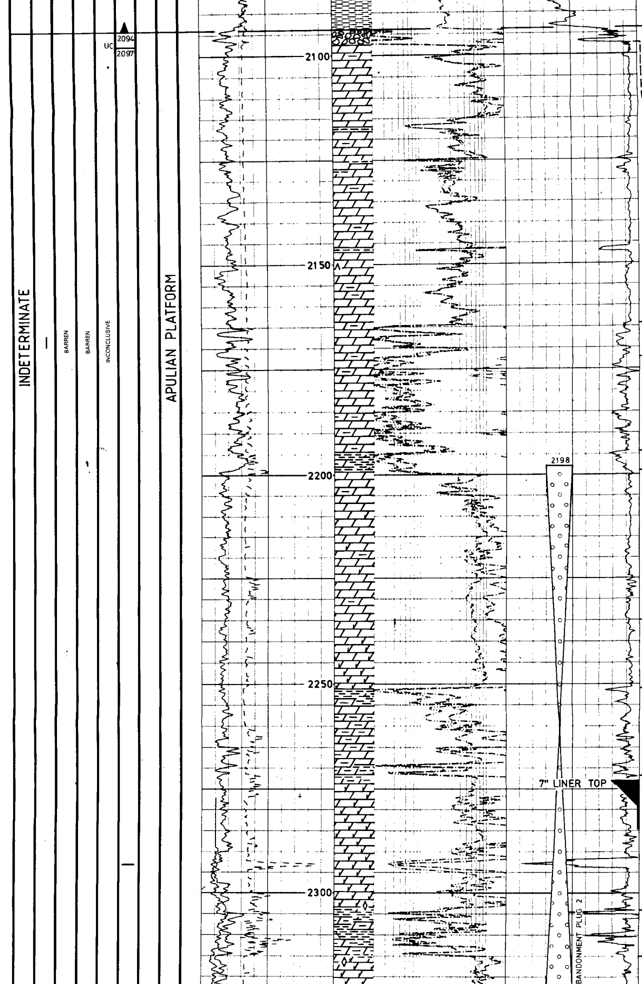
2017 mBRT TV; 1797 mSS; 1.425 sec TWT

CLAYSTONE: light green to grey (40-70%) greyish brown (10-60%) and **brownish red** (traces-20%), firm to moderately hard, subfissile to fissile, locally partly soft and washable.

LIMESTONE: predominantly brecciated mudstone (lutite), white to off white, hard to moderately hard, partly altered by bit to chalk.

CLAYSTONE: light green to grey (40-60%) greyish brown (30-60%) and brownish red (traces-20%), firm to moderately hard, subfissile to fissile, locally partly soft and washable.

2093 mBRT TV; 1873 mSS; 1.464 sec TWT



DOLOMITE BRECCIA: fine to very coarse to pebble sized monomict breccia of angular dolomite fragments (dark brown, hard, sucrosic texture, very fine to fine crystalline), in fine grained calcareous locally slightly marly matrix (off white to light grey to light brownish red, hard).

DOLOMITE: dark brown becoming light to medium brown, hard, sucrosic texture / very fine to fine crystalline, locally slightly argillaceous.

with locally traces
CLAYSTONE: brownish red, soft to firm, partly washable.

at 2152 poor traces of
ANHYDRITE: white, soft. (positive sulfate test).

DOLOMITE: predominantly white to yellow, hard, micro to very fine crystalline, locally pyritic.

DOLOMITE: predominantly medium to light brown, hard, sucrosic texture / very fine to fine crystalline, locally slightly argillaceous.

CLAYSTONE: brownish red, moderately hard to soft, partly washable, very dolomitic grading to
DOLOMITE: brownish red to yellow and brown, hard, argillaceous to very argillaceous grading to dolomitic claystone.

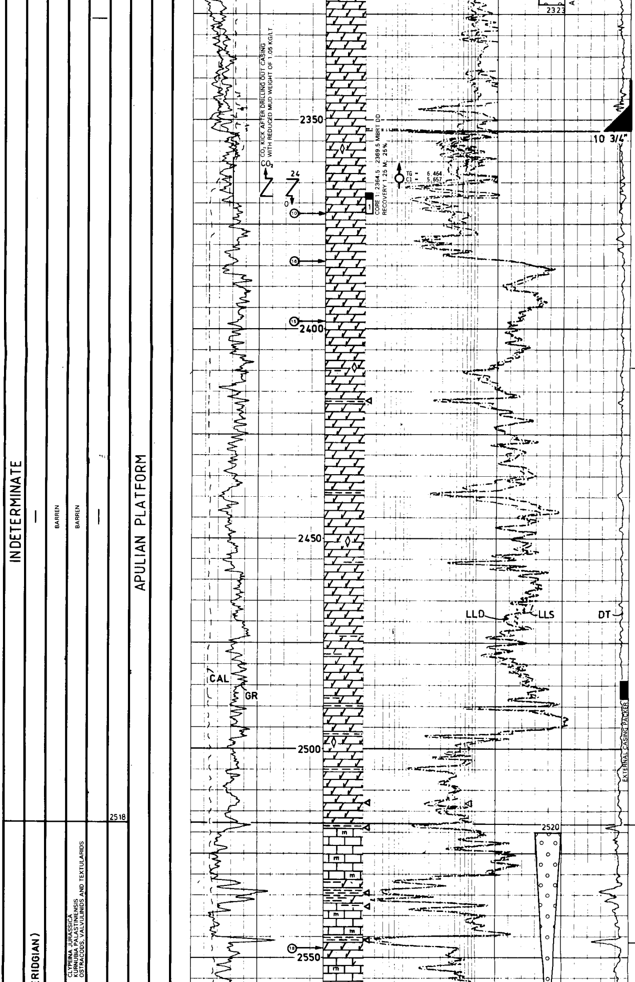
DOLOMITE: predominantly medium to light brown, hard, sucrosic texture / very fine to fine crystalline, locally slightly argillaceous.

CALCAREOUS DOLOMITE: predominantly medium to light brown, hard, sucrosic texture/ very fine to fine crystalline.

DOLOMITE: brownish red to yellow and brown, hard, micro to medium crystalline, argillaceous to locally very argillaceous grading to
CLAYSTONE: brownish red, moderately hard to soft, partly washable, very dolomitic grading to dolomite.

CALCAREOUS DOLOMITE: predominantly medium to light brown, hard, sucrosic texture/ very fine to fine crystalline.

DOLOMITE: brownish red and yellow to brown, hard, fine to medium crystalline argillaceous grading to
CLAYSTONE: brownish red to dark brown, hard, dolomitic to very dolomitic grading to dolomite.



CALCAREOUS DOLOMITE: light to dark brown, hard, sucrosic texture / very fine to fine crystalline.

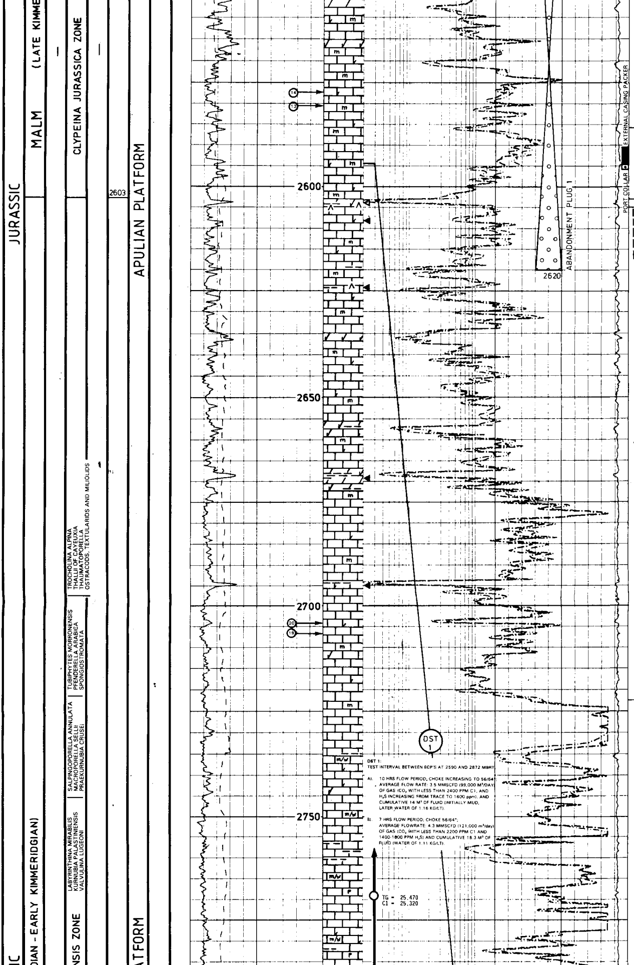
CALCAREOUS DOLOMITE: light to dark brown, hard, sucrosic texture / very fine to medium crystalline, rare pyritic.

with traces
CALCITE: white, hard/brittle, fine to coarse crystalline.

and locally traces of
CLAYSTONE: brownish red occasionally light greenish grey to white, hard, locally pyritic, dolomitic to very dolomitic grading to dolomite.

2516 mBRT TV; 2296 mSS; 1.586 sec TWT

LIMESTONE: mudstone locally brecciated, light to dark greyish brown, hard, trace stylolites, locally pyritic and ferruginous.
with
CLAYSTONE: brownish red occasionally purple to pinkish white and light greenish grey to white, hard, locally pyritic, locally ferruginous.
and traces of
CALCITE: white, hard/brittle, fine to coarse crystalline.



DST 1:
TEST INTERVAL BETWEEN ECP'S AT 2590 AND 2872 MBRT

A). 10 HRS FLOW PERIOD; CHOKE INCREASING TO 56/64"; AVERAGE FLOW RATE: 3.5 MMSCFD (99,000 M³/DAY) OF GAS (CO_2 WITH LESS THAN 2400 PPM C1, AND H_2S INCREASING FROM TRACE TO 1600 ppm). AND CUMULATIVE 14 M³ OF FLUID (INITIALLY MUD, LATER WATER OF 1.16 KG/LT).

B). 7 HRS FLOW PERIOD; CHOKE 56/64"; AVERAGE FLOWRATE: 4.3 MMSCFD (121,000 m³/day) OF GAS (CO_2 WITH LESS THAN 2200 PPM C1 AND 1400-1800 PPM H_2S) AND CUMULATIVE 18.3 M³ OF FLUID (WATER OF 1.11 KG/LT).

LIMESTONE: mudstone, light to medium greyish brown, hard, slightly dolomitic.

locally with
CALCAREOUS DOLOMITE: light to dark greyish brown, hard, sucrosic texture / fine to medium crystalline, locally pyritic.

LIMESTONE: as above, but mostly altered to PDC platelets and bit chalk.

CALCAREOUS DOLOMITE: greyish brown, hard, sucrosic texture / microcrystalline.
with traces of
ANHYDRITE: white, soft, amorphous.
and traces of
CLAYSTONE: brownish red, firm to hard.

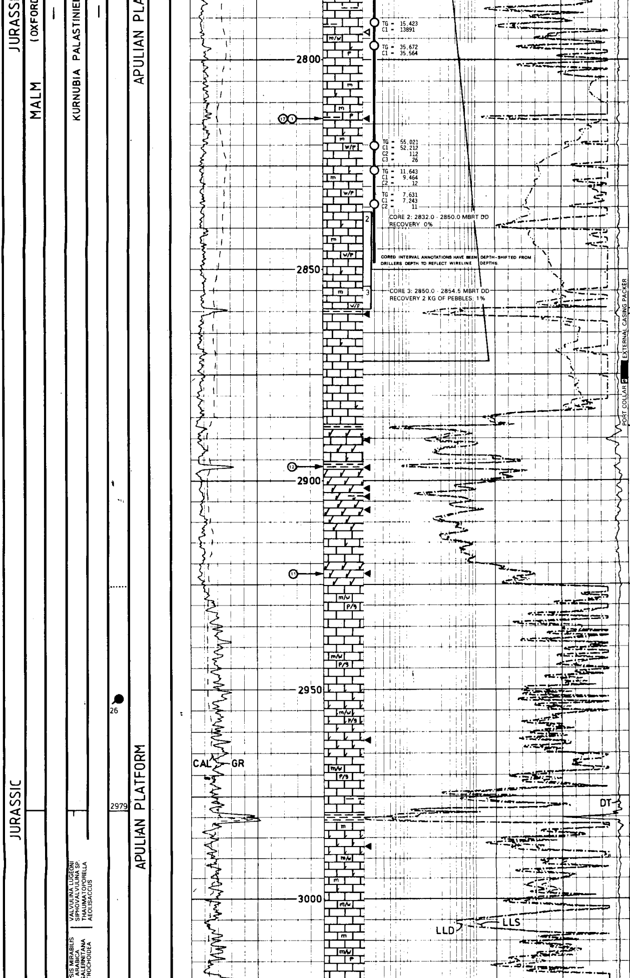
LIMESTONE: mudstone, medium greyish brown, hard, occasionally slightly dolomitic, mostly altered to PDC platelets and occasionally bit chalk.

with locally traces to 10%
CLAYSTONE: brownish red, firm to hard.

and locally traces of
CALCAREOUS DOLOMITE: light to dark greyish brown, hard, sucrosic texture / fine to medium crystalline.

LIMESTONE: predominantly mudstone to wackestone occasionally packstone trace grainstone, medium greyish brown, hard, occasionally slightly dolomitic, mostly altered to PDC platelets and occasionally bit chalk.

with locally traces to 10%
CLAYSTONE: brownish red, firm to hard.



LIMESTONE: mudstone occasionally packstone to wackestone trace grainstone, medium to dark greyish brown, hard, locally fossiliferous (foraminifera), occasionally stylolites, occasionally slightly dolomitic, partly altered to bit chalk.

locally with traces
CLAYSTONE: brownish red, firm to hard.

CLAYSTONE: brownish red, firm to hard.

LIMESTONE: as above, but altered for 95% to bit chalk occasionally as PDC-platelets.

CALCAREOUS DOLOMITE: medium to dark greyish brown, hard, sucrosic texture / fine to coarse crystalline.

with
LIMESTONE: as above, 80-95% bit chalk.

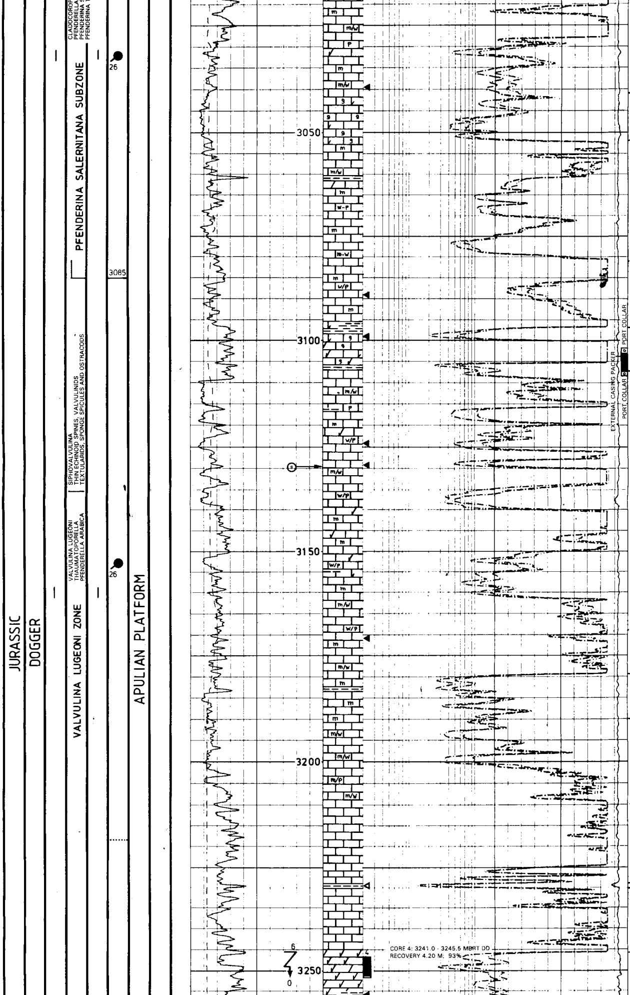
and traces to 20%
CLAYSTONE: brownish red, soft to firm, slightly marly/dolomitic.

LIMESTONE: mudstone to wackestone to packstone/grainstone, from 2955 becoming predominantly mudstone to wackestone, medium to dark greyish brown, hard, locally fossiliferous (foraminifera), 50-90% altered to bit chalk.

2977 mBRT TV: 2757 mSS: 1.727 sec TWT

CLAYSTONE: brownish red, hard to moderately hard.

LIMESTONE: mudstone to occasionally wackestone to packstone, medium to dark greyish brown, hard, locally fossiliferous (foraminifera), 30-70% altered to bit chalk.



LIMESTONE: grainstone, medium to dark greyish brown, hard, fossiliferous (foraminifera), pellets, slightly dolomitic, 30-50% altered to bit chalk.

LIMESTONE: mudstone to oocasionally wackestone to packstone trace grainstone, medium to dark greyish brown, hard, locally fossiliferous (foraminifera), 30-70% altered to bit chalk.

LIMESTONE: predominantly grainstone, medium to dark greyish brown, hard, fossiliferous (abundant foraminifera), pellets, slightly dolomitic, 20% altered to bit chalk.
and
CLAYSTONE: brownish red trace brownish yellow, hard, locally slightly dolomitic/marly, trace slickensites.

LIMESTONE: mudstone to wackestone to packstone trace grainstone, light to dark greyish brown, hard, locally fossiliferous (foraminifera), locally dolomitic, 10-30% altered to bit chalk.

with locally traces of
CLAYSTONE: brownish red, hard.

LIMESTONE: predominantly mudstone, buff to light brownish grey, hard, dolomitic.
with locally good traces of
CLAYSTONE: brownish red, hard.

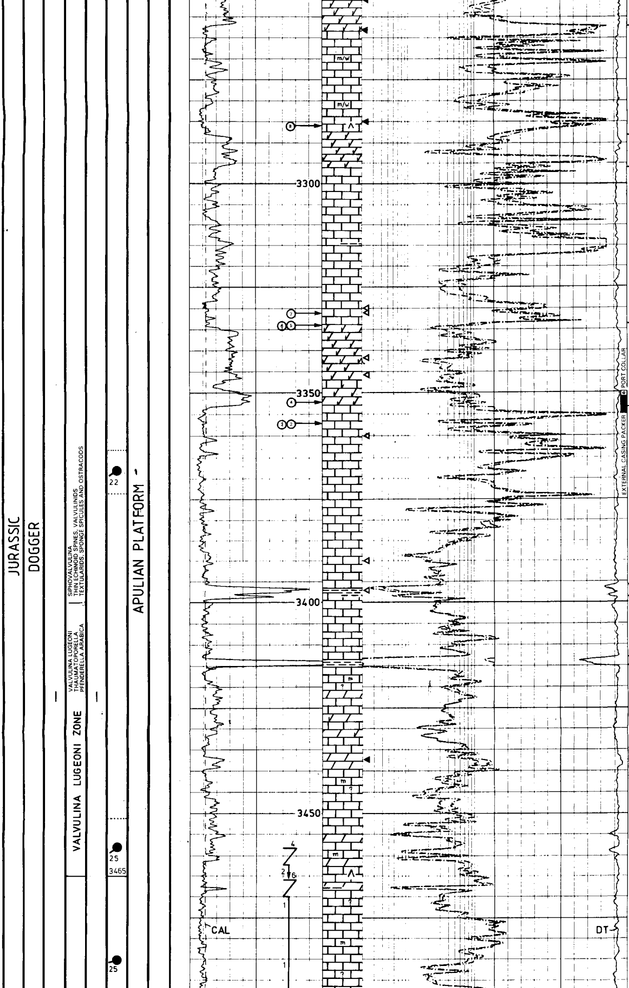
LIMESTONE: mudstone to wackestone occasionally packstone, buff to dark brownish grey, hard.

LIMESTONE: 100% altered to bit chalk trace PDC platelets.

CLAYSTONE: brownish red, 100% altered to soft washable bit clay.

LIMESTONE: 80-100% altered to bit chalk.

CALCAREOUS DOLOMITE: light to dark brownish grey, hard, fine crystalline / sucrosic texture.



with locally traces of
CLAYSTONE: brownish red, hard.

LIMESTONE: mudstone to wackestone to packstone/grainstone, buff to light brown, hard, 80-100% altered by bit to chalk, trace PDC-platelets.

with locally poor traces of
ANHYDRITE: white, soft.

CALCAREOUS DOLOMITE: light to dark brownish grey, hard, fine crystalline / sucrosic texture.

LIMESTONE: 95-100% altered to bit chalk, trace PDC-platelets.

CALCAREOUS DOLOMITE: light to dark brownish grey, hard, fine crystalline / sucrosic texture.

LIMESTONE: 100% altered to bit chalk, trace PDC-platelets.

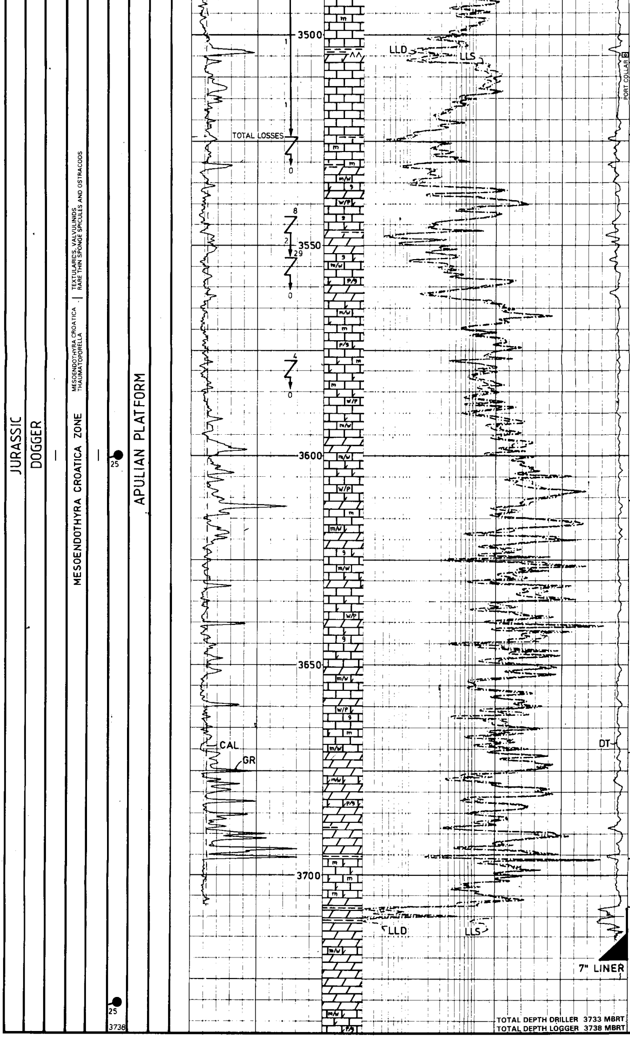
CLAYSTONE: brownish red, hard.

LIMESTONE: 100% altered to bit chalk, trace PDC-platelets.

CLAYSTONE: brownish red, hard.

LIMESTONE: mudstone and suspected other textures, buff to light brownish grey, hard, 95-100% altered by bit to chalk, trace PDC-platelets.

with
(CALCAREOUS?) DOLOMITE: 100% altered to bit chalk.



CLAYSTONE: brownish red, moderately hard.
with
(CALCAREOUS?) DOLOMITE: 100% altered to bit chalk.
and traces to 5% of
ANHYDRITE: white, soft.

LIMESTONE: 100% altered to bit chalk.

LIMESTONE: predominantly mudstone occasionally wackestone to packstone and grainstone (oolites and occasionally pellets), buff to light brownish grey, hard, locally dolomitic to very dolomitic.

with
DOLOMITE: off white to light greyish brown, fine to coarse crystalline, locally pyritic.

with locally traces of
CLAYSTONE: brownish red, moderately hard, dolomitic, pyritic.

and locally traces of
ANHYDRITE: white, soft.

LIMESTONE: predominantly mudstone occasionally wackestone to packstone and grainstone (oolites and pellets), buff to light brownish grey, hard, locally dolomitic to very dolomitic.

with
DOLOMITE: medium to dark greyish brown, mostly fine to medium crystalline, locally pyritic.

with locally poor traces of
CLAYSTONE: light green, moderately hard to hard, locally pyritic.

DOLOMITE: light to dark greyish brown, mostly fine to medium crystalline/sucrosic texture.
with
LIMESTONE: mudstone to packstone and grainstone (oolites and pellets), buff to light brownish grey occasionally medium brownish grey, hard, locally dolomitic to very dolomitic.
with locally traces of
CLAYSTONE: light green, hard to moderately hard, locally pyritic.

LIMESTONE: predominantly mudstone occasionally wackestone to packstone and grainstone (oolites and pellets), buff to light brownish grey occasionally medium brownish grey, hard, locally dolomitic to very dolomitic.

DOLOMITE: light to dark greyish brown, mostly fine to medium crystalline/sucrosic texture.

with
LIMESTONE: as above.

with locally traces of
CLAYSTONE: light green, hard to moderately hard, locally pyritic.

3735 mBRT TV; 3516 mSS; 1.963 sec TWT