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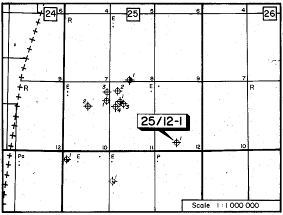
A/S NORSKE SHELL
COMPOSITE WELL LOG
25/12-1

SITUATION MAP



WELL DATA :

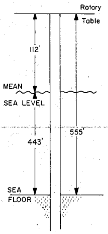
COUNTRY	:	NORWAY
CONCESSION	:	BLOCK 25/12
COORDINATES	:	N 59° 01' 47.0" E 02° 49' 17.1"E
ELEVATION K.B.	:	112' above MSL
WATER DEPTH	:	443'
TOTAL DEPTH	:	9400'
SPUDDED	:	3 OCTOBER 1973
COMPLETED	:	27 DECEMBER 1973
STATUS	:	PLUGGED AND ABANDONED
RIG	:	SEDCO 135 G
CONTRACTOR	:	SOUTH EASTERN DRILLING CO. INC.
FORMATION LOGGING	:	GEOSERVICES
GEOLOGIST	:	M. A. WOOLLANDS
CASING RECORD	:	30" AT 803'; 20" AT 1497'; 13 3/8" AT 4452'; 9 5/8" AT 6491'

▭ Clay	▭ Claystone	▭ Shale	▭ Silt/Siltstone	▨ Sand/Sandstone	▭ Fossil fragments gen. Pelecypod fragments.
▭ Conglomerate	■ Lignite Coal	▭ Limestone	▭ Chalk	▭ Marl	▭ Chert
▭ Dolomite	▭ Anhydrite	▭ Foraminifera	○ Pseudo ooids	▭ Tuff	► Side Wall Sample

VERTICAL SCALE 1:500

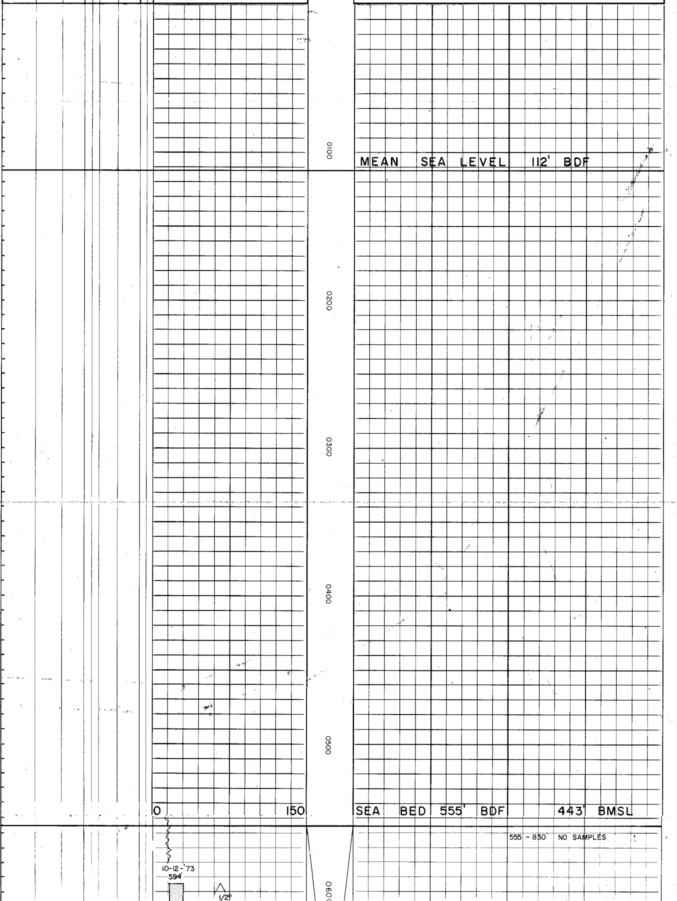
ELEVATION

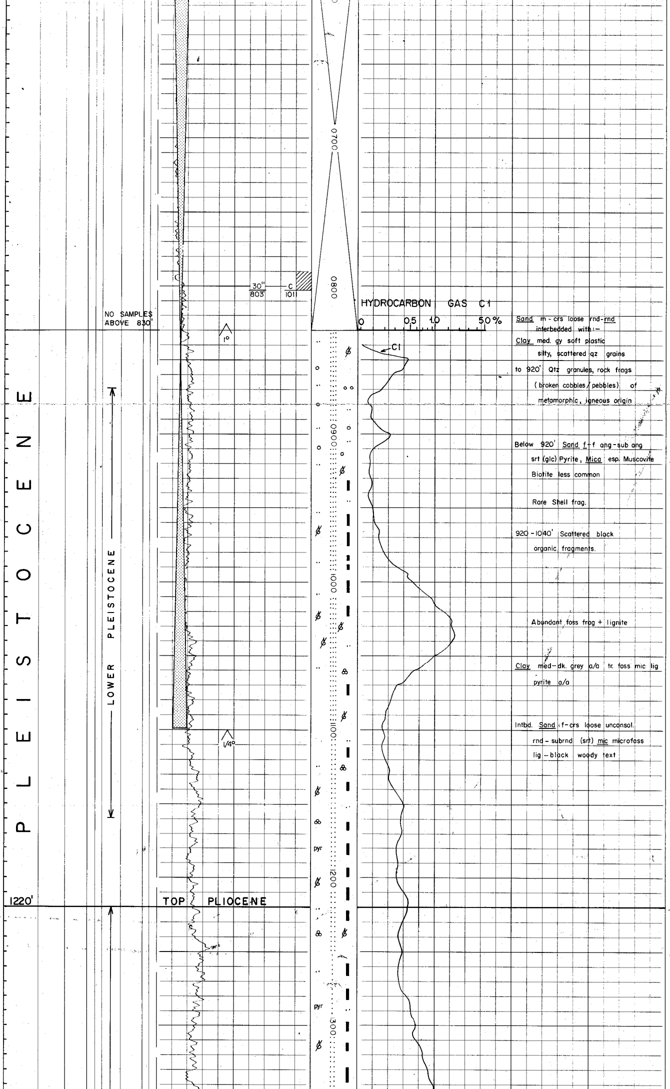
(not to scale)



RUN N°	DATE	MEASURED INTERVAL	BIT SIZE	BHT °F	SPACINGS	MUD							MUD FILTRATE		
						Type	Grad psi/1000	API Wtr L	Resistivity in Ohm m/Temp °F				Restivity in Ohm m/Temp °F		
									Schl surt	Schl BHT	Pr Lab	Pr Lab	Schl surt	Pr Lab	Pr Lab
IES - 1	20-10-73	4480 - 1498	17 1/2	110		SW LIG SULPHON	500	12	0.295/78	0.220/110			0.285/62		
BHCGR - 1	"	4477 - 1498	"	"		"	"	"	"	"			"		
IES - 2,3	31-10-73	6496 - 4453	12 1/4	142		"	520	11.4	0.420/75	0.220/142			0.360/72		
BHCGR - 2	"	6500 - 4453	"	"		"	"	"	"	"			"		
CNL/FDC - 1	"	6500 - 4453	"	"		"	"	"	"	"			"		
HDT - 1	"	6500 - 4453	"	"		"	"	"	"	"			"		
IES - 4	30-11-73	7672 - 6491	8 1/2	180		"	565	3.6	0.363/65	0.130/180			0.281/65		
IES - 5	7-12-73	9398 - 7585	"	200		"	555	5.2	0.390/60	0.130/200			0.260/68		
BHCGR-3	"	9399 - 6491	"	"		"	"	"	"	"			"		
CNL/FDC - 2	"	9398 - 6491	"	"		"	"	"	"	"			"		
HDT - 2	"	9398 - 6491	"	"		"	"	"	"	"			"		
CST - 1	"	9350 - 6550	"	"	1 - 30 GUN SWS										
VEL. SURV.	"	9399 - 600	"	"	20 LEVELS										

TIME	STRATIGRAPHY	BIOSTRATIGRAPHIC ZONATION	PALAEONTOLOGICAL	AGE DETERMINATION PALYNOLOGICAL	GAMMA RAY (API Units)	LITHOLOGY	INTERVAL TRANSIT TIME (Microseconds per Foot)
		CUTTINGS CORES, SWS, MCT		CUTTINGS CORES, SWS, MCT	0 150	1:500	140 90 40 240 190 140





Sand m - crs loose rnd-rnd
interbedded with:-
Clay med. gy soft plastic
silty, scattered qz grains
to 920' Qtz granules, rock frags
(broken cobbles/pebbles) of
metamorphic, igneous origin

Below 920' Sand f-f ang-sub ang
srt (glc) Pyrite, Mica esp. Muscovite
Biotite less common

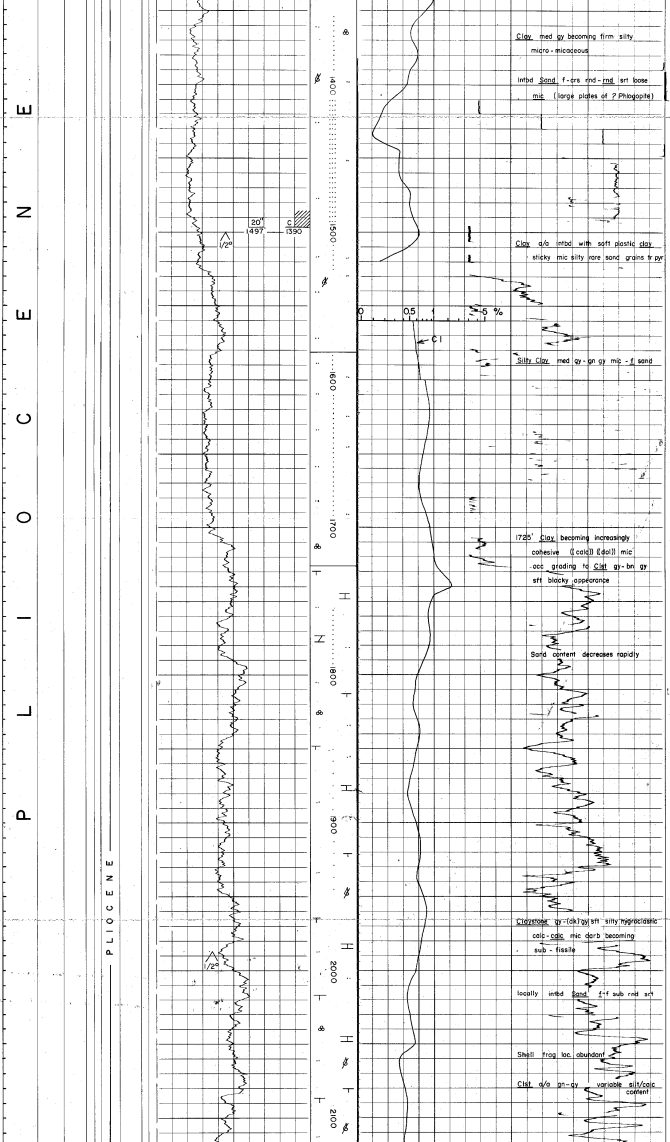
Rare Shell frag.

920 - 1040' Scattered black
organic fragments.

Abundant foss frag + lignite

Clay med-dk. grey a/a tr. foss mic lig
pyrite a/a

Intbd. Sand f-crs loose unconsol.
rnd - subrnd (srt) mic microfoss
lig - black woody text



Clay med gy becoming firm silty micro - micaceous

Intbd Sand f - crs rnd - rnd srt loose mic (large plates of ? Phlogopite)

Clay a/a intbd with soft plastic clay sticky mic silty rare sand grains tr pyr

Silty Clay med gy - gn gy mic - f sand

1725' Clay becoming increasingly cohesive ((calc)) ((dol)) mic occ grading to Clst gy - bn gy sft blocky appearance

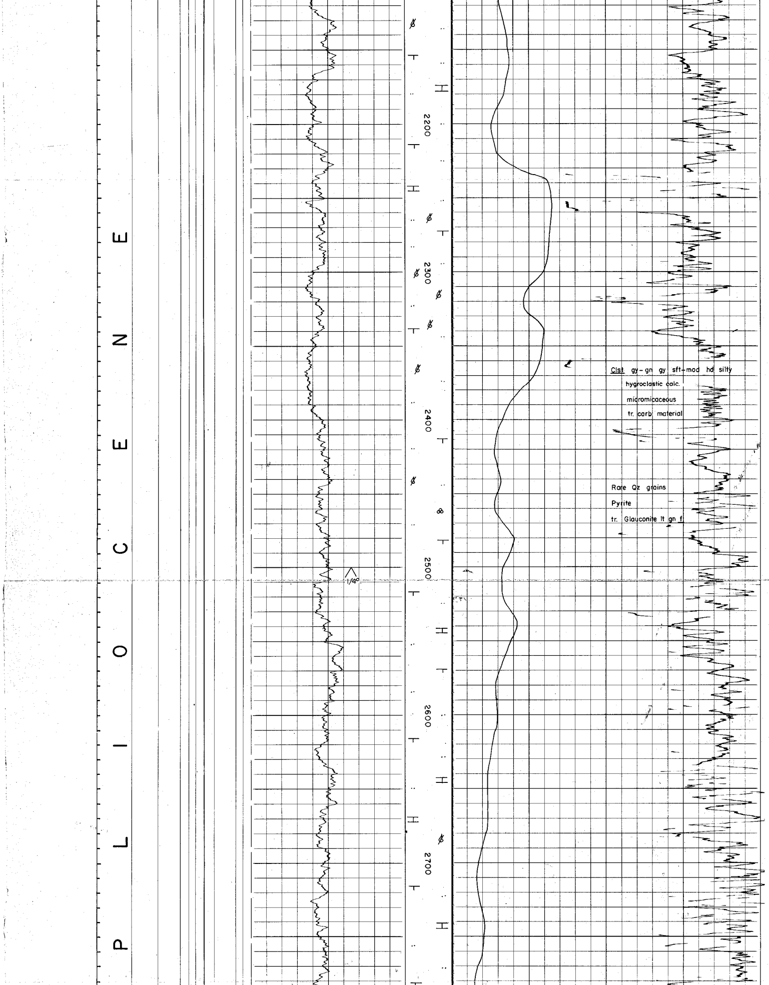
Sand content decreases rapidly

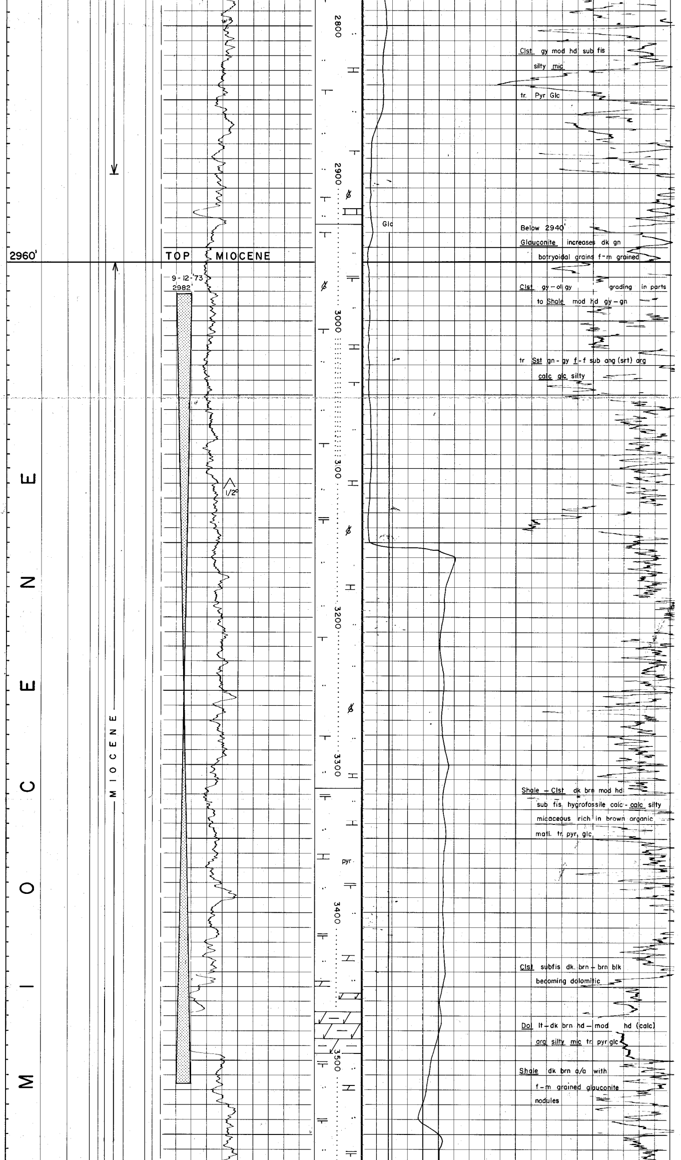
Claystone gy - (dk) gy sft silty hygroclastic calc - calc mic carb becoming sub - fissile

locally intbd Sand f - f sub rnd srt

Shell frag loc. abundant

Clst a/a gn - gy variable silt/calc content





Clst gy mod hd sub fis silty mic

tr. Pyr Glc

Below 2940'
Glauconite increases dk gn botryoidal grains f-m grained

Clst gy-ol gy grading in parts to Shale mod hd gy-gn

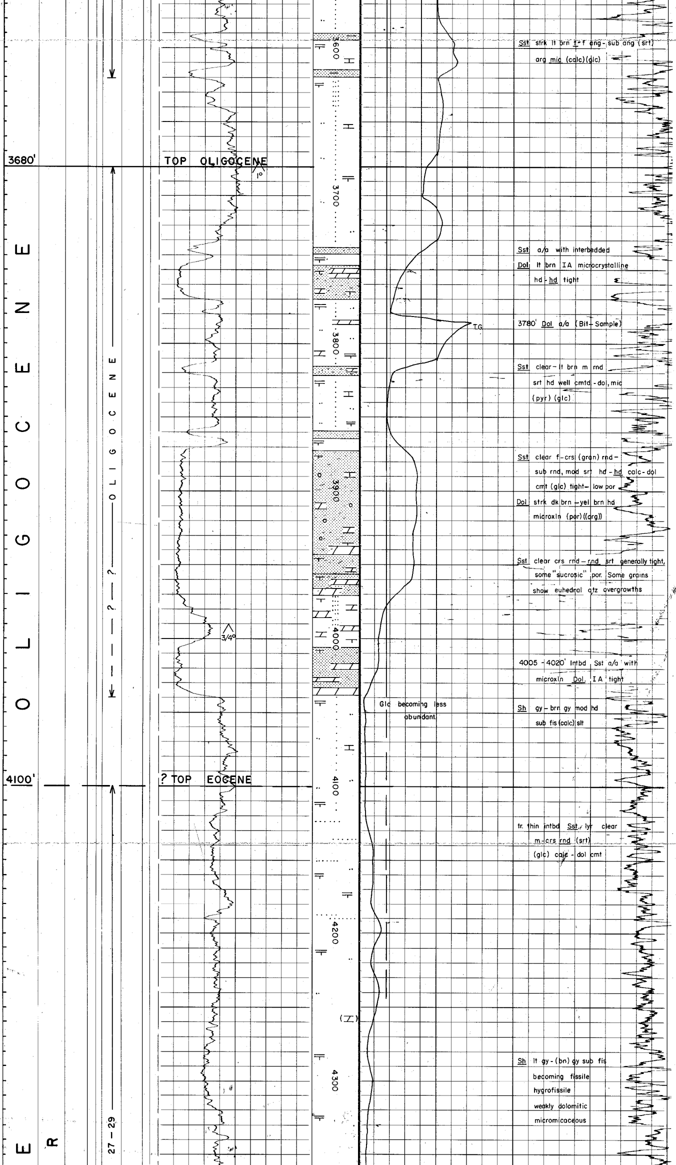
tr Sst gn-gy f-f sub ang (srt) arg calc glc silty

Shale - Clst dk brn mod hd sub fis hygrofossile calc-calc silty micaceous rich in brown organic matl. tr pyr, glc

Clst subfis dk. brn - brn blk becoming dolomitic

Dol lt - dk brn hd - mod hd (calc) arg silty mic tr. pyr glc

Shale dk brn a/a with f-m grained glauconite nodules



Sst strk lt brn f-f ang-sub ang (srt) arg mic (calc)(glc)

Sst a/a with interbedded
Dol lt brn IA microcrystalline hd-hd tight

3780' Dol a/a (Bit-Sample)

Sst clear-lt brn m rnd srt hd well cmtd-dol, mic (pyr) (glc)

Sst clear f-crs (gran) rnd-sub rnd, mod srt hd-hd calc-dol cmt (glc) tight-low por
Dol strk dk brn-yel brn hd microxln (por) ((arg))

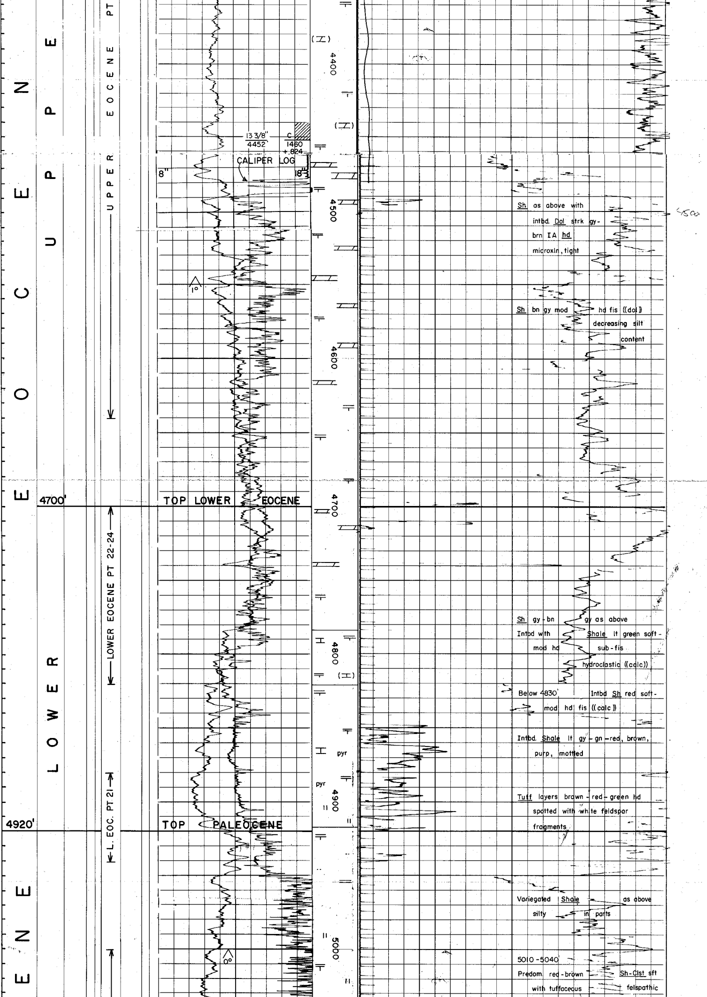
Sst clear crs rnd-rnd srt generally tight, some "sucrosic" por. Some grains show euhedral qtz overgrowths

4005-4020' Intbd Sst a/a with microxln Dol. IA tight

Sh gy-brn gy mod hd sub fis (calc) slt

tr. thin intbd Sst, lyr clear m-crs rnd (srt) (glc) calc-dol cmt

Sh lt gy-(bn) gy sub fis
becoming fissile
hygrofissile
weakly dolomitic
micromicaceous



Sh as above with intbd. **Dol** strk gy-brn IA **hd** microxln, tight

Sh bn gy mod hd fis ((dol)) decreasing silt content

Sh gy-bn gy as above
Intbd with **Shale** lt green soft-mod hd sub-fis hydroclastic ((calc))

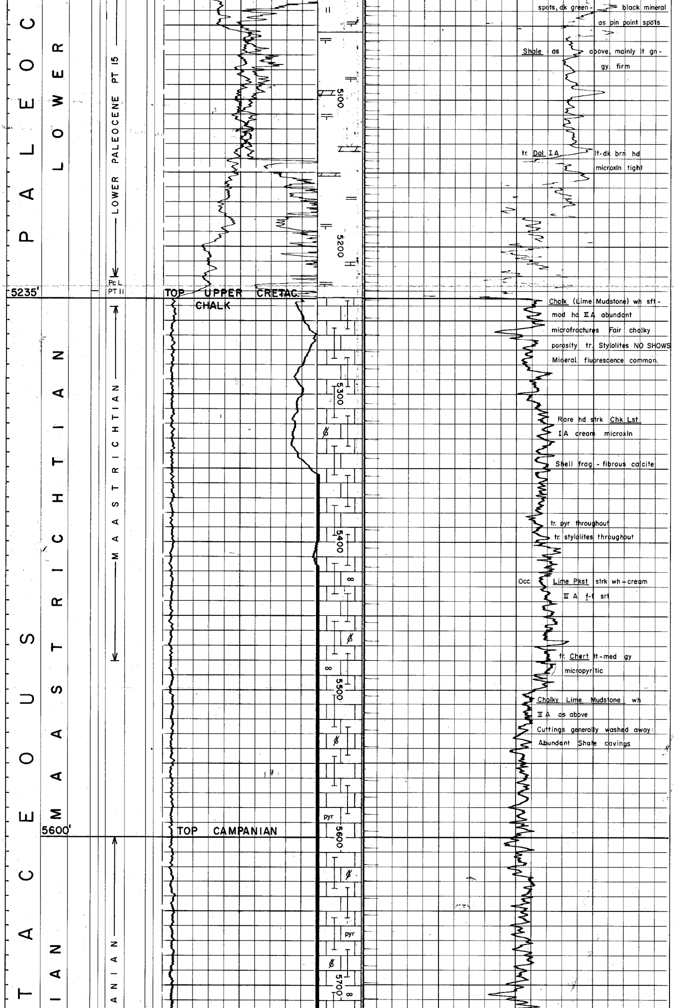
Below 4830' Intbd **Sh** red soft-mod hd fis ((calc))

Intbd. **Shale** lt gy-gn-red, brown, purp, mottled

Tuff layers brown-red-green hd spotted with white feldspar fragments

Variegated **Shale** as above silty in parts

5010-5040'
Predom. red-brown **Sh-Clst** sft with tuffaceous felspathic



spots, dk green - black mineral as pin point spots

Shale as above, mainly lt gn-gy. firm

tr. Dol I A lt-dk brn hd microxln tight

Chalk (Lime Mudstone) wh sft-mod hd II A abundant microfractures Fair chalky porosity tr. Stylolites NO SHOWS Mineral flurescence common.

Rare hd strk Chk Lst I A cream microxln

Shell frag - fibrous calcite

tr. pyr throughout

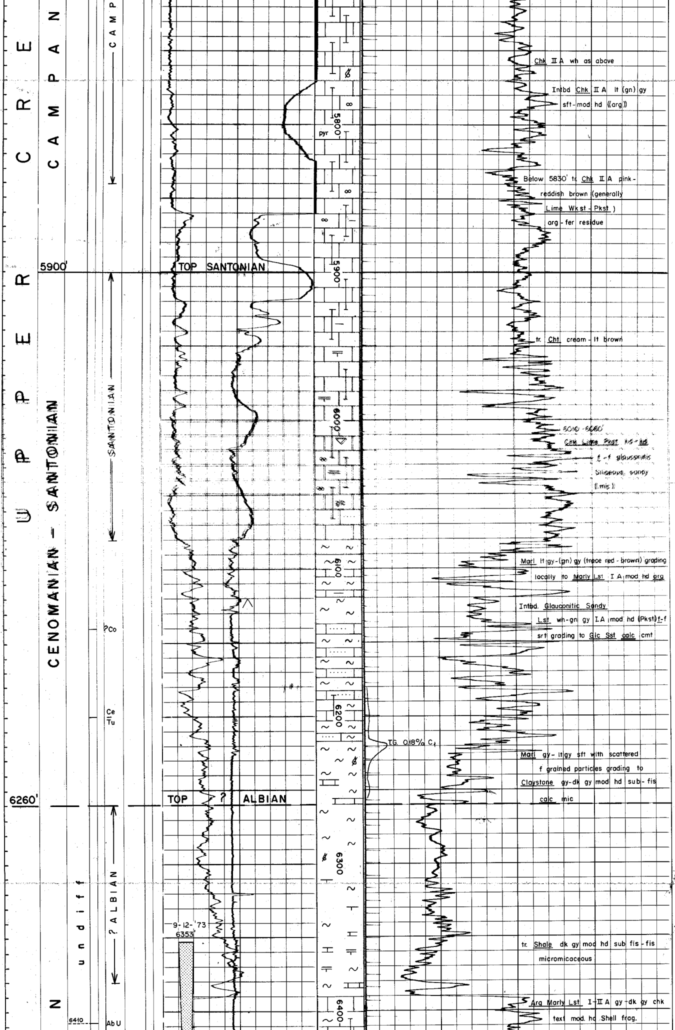
tr. stylolites throughout

Occ. Lime Pkst strk wh-cream II A f-f srt

tr. Chert lt-med gy micropyritic

Chalky Lime Mudstone wh II A as above

Cuttings generally washed away: Abundant Shale cavings



Chk II A wh as above

Intbd Chk II A lt (gn) gy sft-mod hd ((arg))

Below 5830' to Chk II A pink-reddish brown (generally Lime Wkst - Pkst) arg-fer residue

tr. Cht. cream - lt brown

6010-6060'
Chk Lime Pkst hd-hd
f-f glauconitic
Siliceous, sandy
((mic))

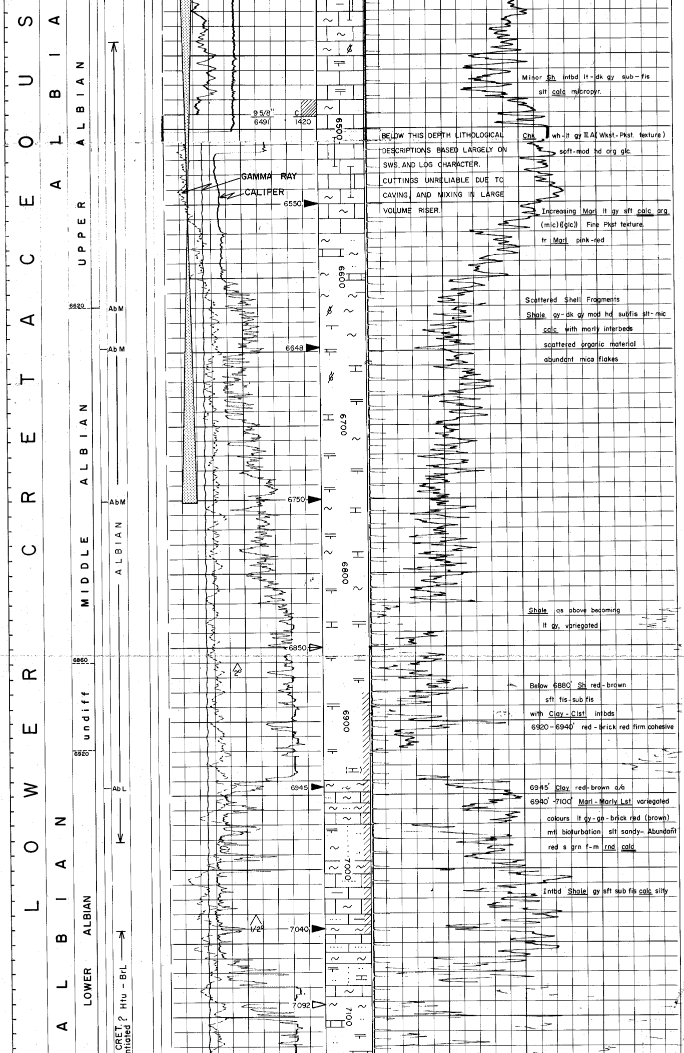
Marl lt gy-(gn) gy (trace red-brown) grading locally to Marly Lst I A mod hd arg

Intbd. Glauconitic Sandy Lst wh-gn gy I A mod hd (Pkst) f-f srt grading to Glc Sst calc cmt

Marl gy-lt gy sft with scattered f grained particles grading to Claystone gy-dk gy mod hd sub-fis calc mic

tr. Shale dk gy mod hd sub fis-fis micromicaceous

Arg Marly Lst I-II A gy-dk gy chk text mod. hd Shell frag.



Minor Sh intbd lt-dk gy sub-fis slt calc micropyr.

BELOW THIS DEPTH LITHOLOGICAL DESCRIPTIONS BASED LARGELY ON SWS. AND LOG CHARACTER. CUTTINGS UNRELIABLE DUE TO CAVING, AND MIXING IN LARGE VOLUME RISER.

Chk wh-lt gy II A (Wkst.-Pkst. texture) soft-mod hd arg glc.

Increasing Marl lt gy sft calc arg (mic)((glc)) Fine Pkst texture.

tr Marl pink-red

Scattered Shell Fragments

Shale gy-dk gy mod hd subfis slt-mic calc with marly interbeds scattered organic material abundant mica flakes

Shale as above becoming lt gy, variegated

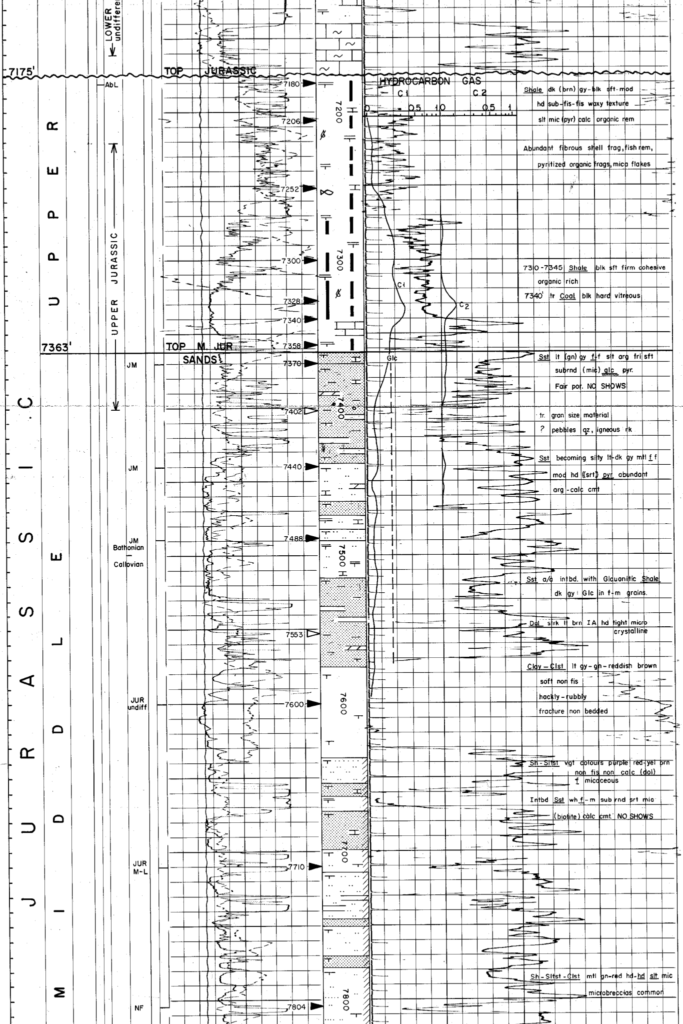
Below 6880' Sh red-brown sft fis-sub fis with Clay-Clst intbds

6920-6940' red-brick red firm cohesive

6945' Clay red-brown a/a

6940'-7100' Marl-Marly Lst variegated colours lt gy-gn-brick red (brown) mtl bioturbation slt sandy- Abundant red s grn f-m rnd calc

Intbd Shale gy sft sub fis calc silty



Shale dk (brn) gy-blk sft-mod hd sub-fis-fis waxy texture slt mic (pyr) calc organic rem

Abundant fibrous shell frag, fish rem, pyritized organic frags, mica flakes

7310-7345 Shale blk sft firm cohesive organic rich

7340' tr Coal blk hard vitreous

Sst lt (gn) gy f-f slt arg fri sft subrnd (mic) glc pyr. Fair por. NO SHOWS

tr. gran size material ? pebbles qz, igneous rk

Sst becoming silty lt-dk gy mtl f f mod hd ((srt)) pyr abundant arg-calc cmt

Sst a/a intbd. with Glauonitic Shale dk gy: Glc in f-m grains.

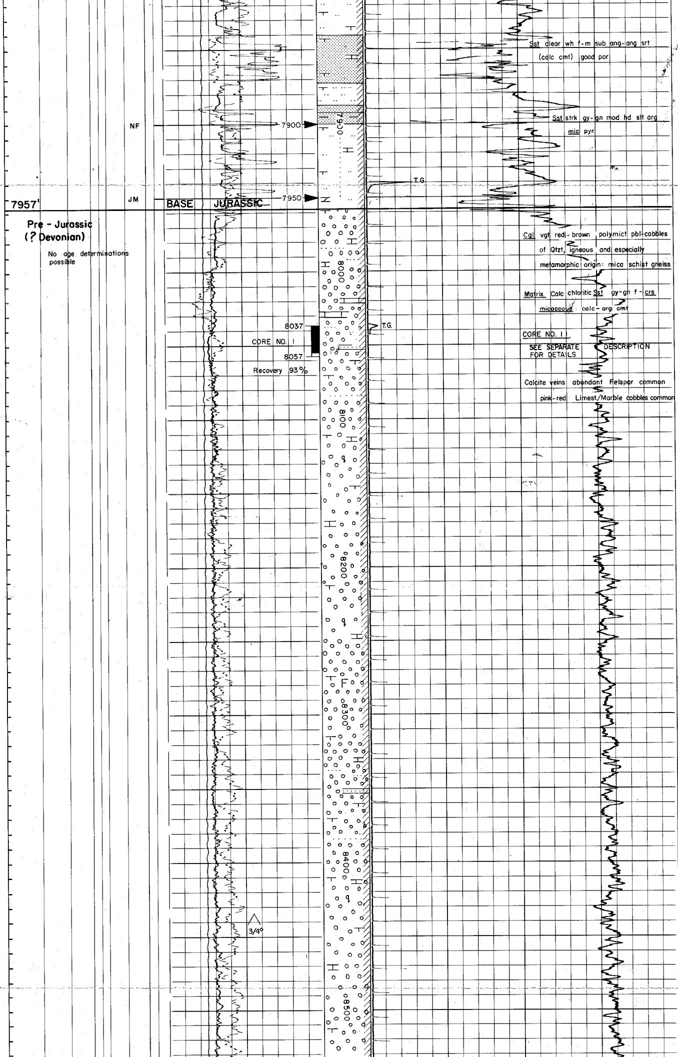
Dol strk lt brn IA hd tight micro crystalline

Clay-Clst lt gy-gn-reddish brown soft non fis hackly-rubbly fracture non bedded

Sh-Sltst vgt colours purple red-yel brn non fis non calc (dol) f micaceous

Intbd Sst wh f-m sub rnd srt mic (biotite) calc cmt. NO SHOWS

Sh-Sltst-Clst mtl gn-red hd-hd slt mic microbreccias common



Pre - Jurassic
(? Devonian)

No age determinations possible

Sst clear wh f-m sub ang-ang srt (calc cmt) good por

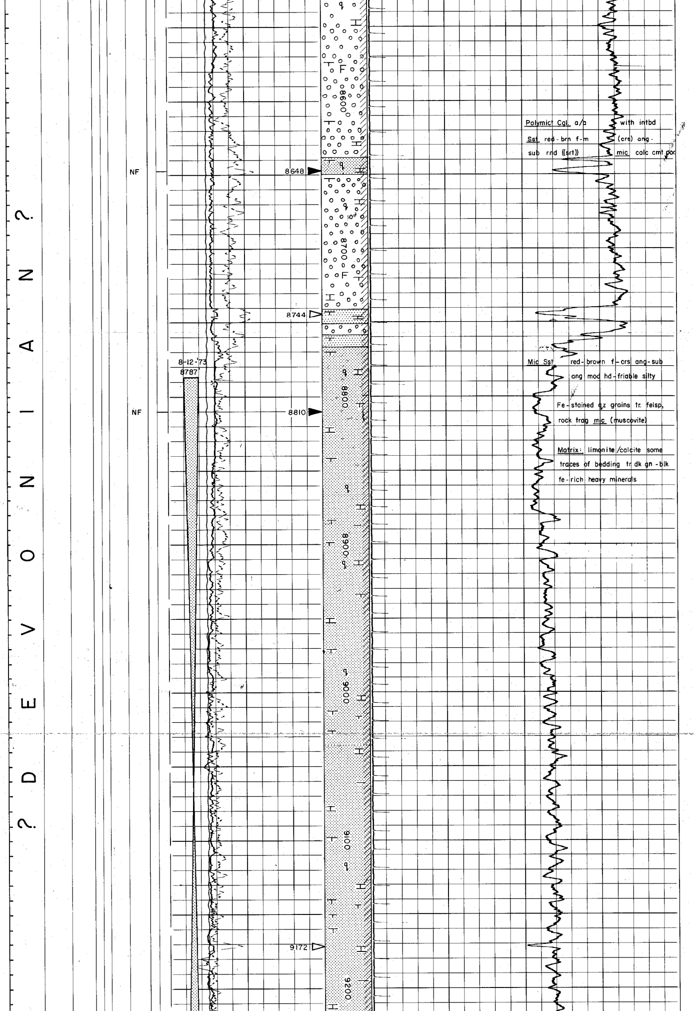
Sst strk gy-gn mod hd slt arg mic pyr.

Cgl vgt red-brown polymict pbl-cobbles of Qtzt, igneous and especially metamorphic origin: mica schist gneiss

Matrix Calc chloritic Sst gy-gn f-crs micaceous · calc-arg cmt

CORE NO. 1:
SEE SEPARATE DESCRIPTION
FOR DETAILS

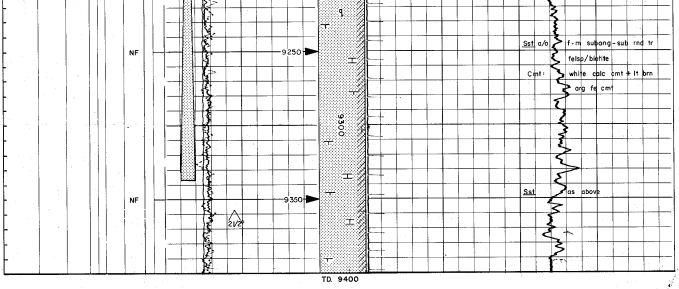
Calcite veins abundant Felspar common pink-red Limest/Marble cobbles common



Polymict Cgl a/a with intbd
Sst red-brn f-m (crs) ang-
sub rnd ((srt)) **mic** calc cmt por

Mic Sst red-brown f-crs ang-sub
ang mod hd-friable silty

Fe-stained qz grains tr. felsp,
rock frag **mic** (muscovite)

Matrix: limonite/calcite some
traces of bedding tr dk gn-blk
fe-rich heavy minerals