

EAST WING 1

WELL HYDROCARBON LOG









Company	ESSENTIAL PETROLEUM RESOURCES LTD
Well Name	EAST WING 1
Township	PT CAMPBELL
Country	AUSTRALIA
State	VICTORIA
County or Rig name	ADS RIG 6
Latitude	038 31' 33.760" S DMS
Longitude	142 46' 52.640" E DMS
Permanent Datum	MSL
Elevation of PD	.00 M
Elevation of KB	59.00 M
Elevation Ground Iv	54.74 M
Elevation Log Zero	59.00 M
Log measured from	KB
Drill measured from	KB
Service company	PECTIL ENGINEERING
Well class	EXPLORATION
Basin	OTWAY
Tenement/Concession	PEP 168
Spud Date	26 APRIL 2008
Date plotted	06-05-2008
Time plotted	08:16:29

PETROLOG SOFTWARE Revision 9.50

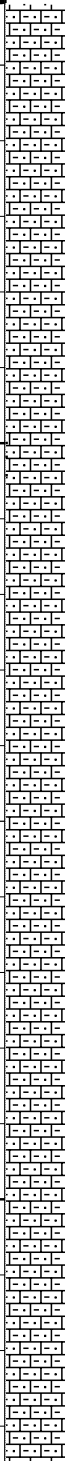
CROCKER

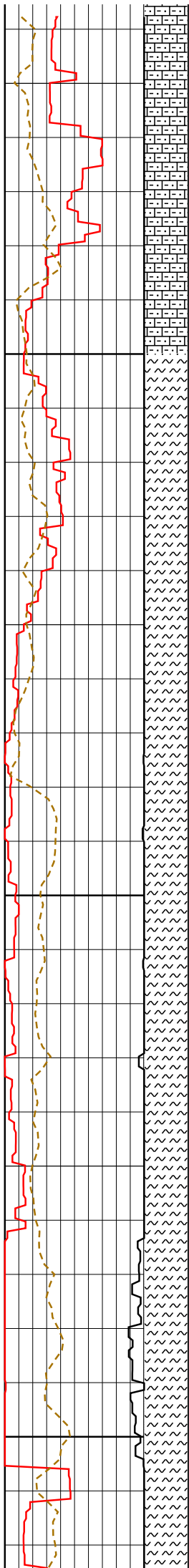
DATA PROCESSING

LITHOLOGIES

 Oil	 Shales	 Silty LS
 Marl	 Claystone	 SandStone
 Silt/Siltstone	 Coal	

SYMBOL LEGEND

Drill Parameters			LITHO	DEPTH	Symbol	Total Gas			Component Gas			HS	REMARKS
ROP	(M/H)	0.0		DEPTH M		Gas	(U)	100.0	C1	(%)	1.0		
50.0	(M/H)	0.0		1:500		0.0	(U)	100.0	0.001	(%)	1.0		
100.0	(M/H)	50.0				100.0	(U)	200.0					
Bit Wt													
0.0	(k.lb)	20.0											
<p>Scud 12 1/4" Hole 26 April 2008</p>													
<p>4 - 21m Precollarred, not logged</p>													
<p>21m 13 3/8" Conductor Bit #1 12 1/4" Stealth</p>													
<p>3x14 + 1x16 jets 561m in 16.3Rhr</p>													
													
<p>50</p>													
<p>21 - 30m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose</p>													
<p>30 - 40m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose, NB: perfect spiral shaped glauconite grain? Shell cavity fill?</p>													
<p>40 - 50m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose, firmly cemented, common echinoid fossil fragments, common aggregates with glauconite and terrigenous grains</p>													
<p>50 - 60m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose, firmly cemented, common echinoid fossil fragments, common aggregates with glauconite and terrigenous grains, common yellow grains</p>													
<p>60 - 70m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose, firmly cemented, common echinoid fossil fragments, common aggregates with glauconite and terrigenous grains, common yellow grains, trace spiral glauc, trace clear well rounded quartz grains. Variably cemented</p>													
<p>70 - 80m CALCARENITE: Yellowish grey, fine to predominantly very fine grained, well sorted, rare coarse fossil fragments, trace glauconite and rare terrigenous grain, clear calcite cement, friable to loose, firmly cemented, common echinoid fossil fragments, common aggregates with glauconite and terrigenous grains, common yellow grains, trace spiral glauc, trace clear well rounded quartz grains. Variably cemented, very fine to rarely medium as above</p>													
<p>80 - 100m CALCARENITE: Light yellowish grey, trace yellow, orange, green grains. Fine to very fine grained, predominately loose, occasional laminae of grey calc mudstone. Variably cemented, aggregates with clear cement and trace micritic and clay matrix and organic flakes and filaments</p>													
<p>100</p>													
<p>100 - 110m CALCARENITE: Light yellowish grey, trace yellow, orange, green grains. fine to very fine grained, predominately loose, occasional laminae of grey calc mudstone. variably cemented, aggregates with clear cement and trace micritic and clay matrix and organic flakes and filaments. Common clear quartz grains with occasional Fe staining</p>													
<p>110 - 120m CALCARENITE: Light grey, light yellowish grey, very fine to fine grained, friable sucrosic aggregates, laminae of finer muddy limestone, firm to friable, variably cemented, trace micritic matrix, trace terrigenous and organic material, trace glauconite</p>													



150

200

250

120 - 130m **CALCARENITE:**
a/a becoming very fine grained. Fossil fragments: bryo, echino, gastro, rare sponge spic, trace glauconite

130 - 140m **CALCARENITE:**
Light grey, occasionally speckled greyish green, silty to very fine grained, occasionally medium, poorly sorted, predominately white calc fragments, trace glauc and terrigenous and quartz grains, soft to hard/splintery, variably cemented, occasional aphanitic

140 - 150m **CALCARENITE:**
Light grey, occasionally speckled greyish green, silty to very fine grained, occasionally medium, poorly sorted, predominately white calc fragments, trace glauc and terrigenous and quartz grains, soft to hard/splintery, variably cemented, occasional aphanitic, grades to calcisiltite

150 - 160m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky to amorphous

160 - 170m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments

170 - 180m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud

180 - 190m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud, trace gastropods.

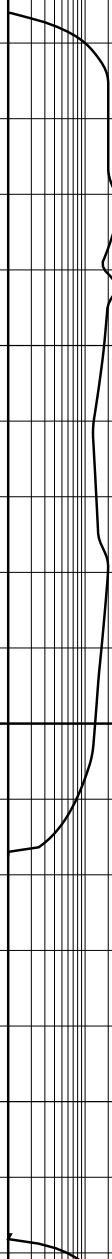
190 - 200m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud, trace gastropods, coarse residue is fossil predominately foram, echinoid spines, and clear very angular to moderately rounded quartz grains, clear to Fe stained, trace pyritized.

200 - 230m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud, trace gastropods, coarse residue is fossil predominately foram, echinoid spines, and clear very angular to moderately rounded quartz grains, clear to Fe stained, trace pyritized, very homogenous.

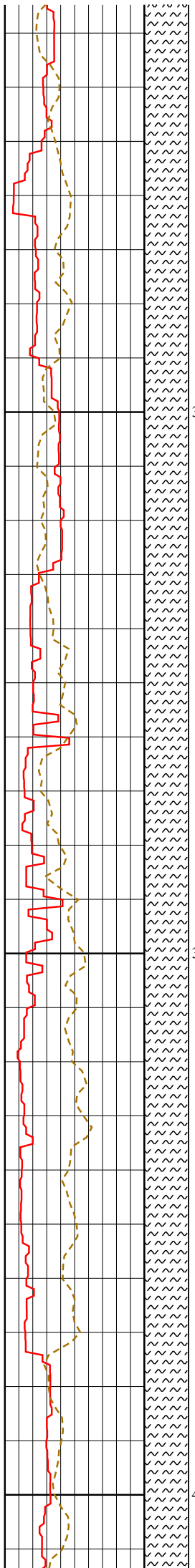
230 - 250m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud, trace gastropods, coarse residue is fossil predominately foram, echinoid spines, and clear very angular to moderately rounded quartz grains, clear to Fe stained, trace pyritized, very homogenous, abundant greyish pink to greyish orange fossil fragments: shelly fossils and forams.

250 - 260m **MARL:**
Light olive grey, blocky, trace coarse fossil material, sticky amorphous silty lime mud with common fine to medium grained fossil fragments, well preserved forams in sticky lime mud, trace gastropods, coarse residue is fossil predominately foram, echinoid spines, and clear very angular to moderately rounded quartz grains, clear to Fe stained, trace pyritized, very homogenous, abundant greyish pink to greyish orange fossil fragments: shelly fossils and forams, very soft, sticky

260 - 280m **MARL:**
Very light to light grey, light to medium olive grey, ? interlaminated lighter and darker lithologies? occasionally embedded with pink and greenish orange



242m
MWt=8.7 #/gal
FLT=25 C
Vis=55 sec-1
PV =6 cps
YP =44lb/100ft^2
WL =a/c cc
pH =8.5
Cl =12 kg/l
KCl=1.5%
PR =420 gpm
PP =NA psi
WOB=1.3 k#
RPM=20-40



300

350

400

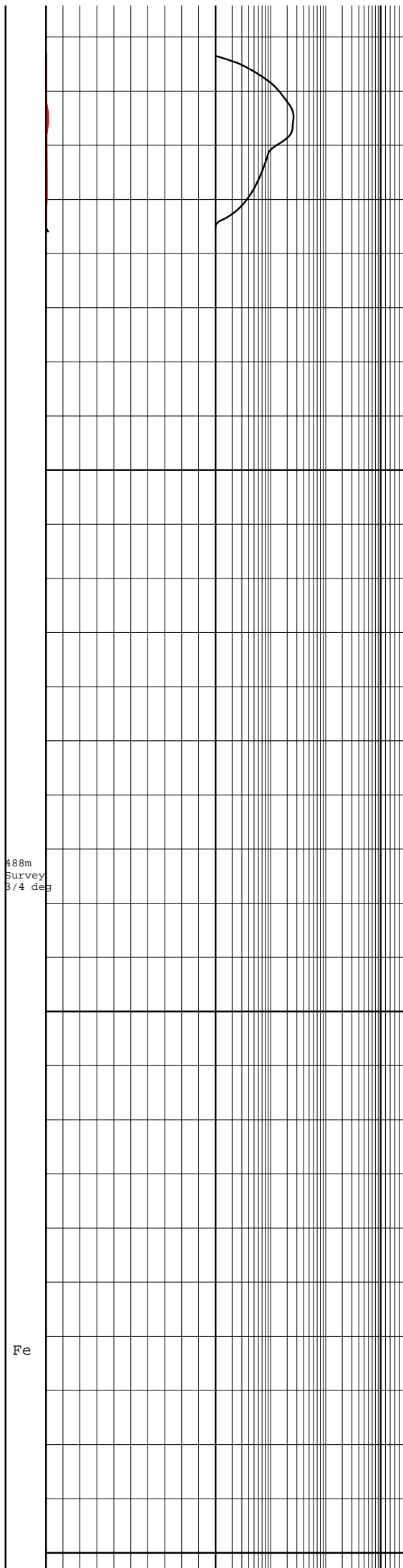
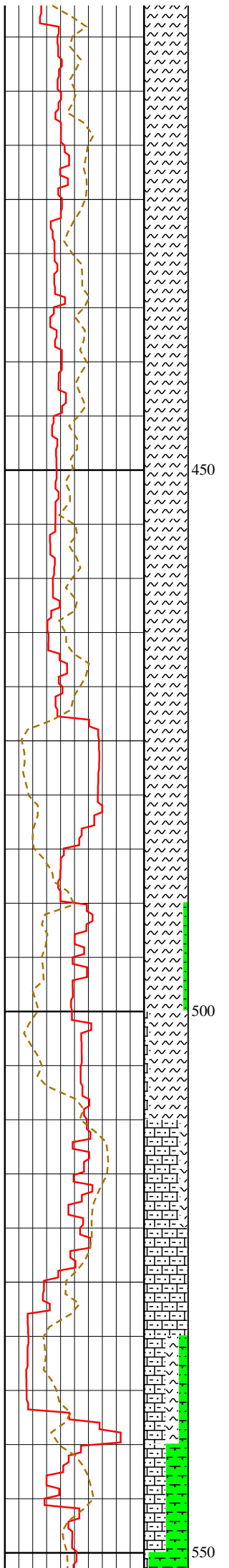
and darker lithologies? occasionally speckled with pink and greyish orange fossil fragments (forams, gastro, bryoz, echinoid, sponge) trace glauc as pellets and as void-filling, soft to firm, blocky, abundant soft sticky washing out at shaker, occ ? laminae or nodules more well cemented, grades to muddy limestone.

280 - 290m MARL:
Very light to light grey, light to medium olive grey, ? interlaminated lighter and darker lithologies? occasionally speckled with pink and greyish orange fossil fragments (forams, gastro, bryoz, echinoid, sponge) trace glauc as pellets and as void-filling, soft to firm, blocky, abundant soft sticky washing out at shaker, occ ? laminae or nodules more well cemented, grades to muddy limestone.

290 - 350m MARL:
a/a becoming more homogenous, firm, blocky, grades to sticky, soft, abundant fine fossil materia, trace quartz grains

350 - 370m MARL:
very light to light grey, light to s, medium olive grey, ? interlaminated lighter and darker lithologies? occasionally speckled with pink and greyish orange fossil fragments (forams, gastro, bryoz, echinoid, sponge) trace glauc as pellets and as void-fil

370 - 410m MARL:
predominantly medium grey, occ v slightly greenish grey, sticky to firm, blocky, abundant coarse and medium grain fossil detritus washing out, occ firm waxy to soapy, very fine micrite and clay, no silt or sand. Loose grains contain rare coarse quartz grains, abundant fossil material and trace glauconite.



410 - 510m MARL & CLAYSTONE:
 MARL: multicoloured grey, abundant pink to white to pale orange fossil fragments, common very fine to coarse non-grain supported fossil material. Grades to calcareous claystone, trace yellowish v fine siltstone aggregates, white, pulpy in part.

CLAYSTONE: greyish yellow, sandy, soft, sticky.

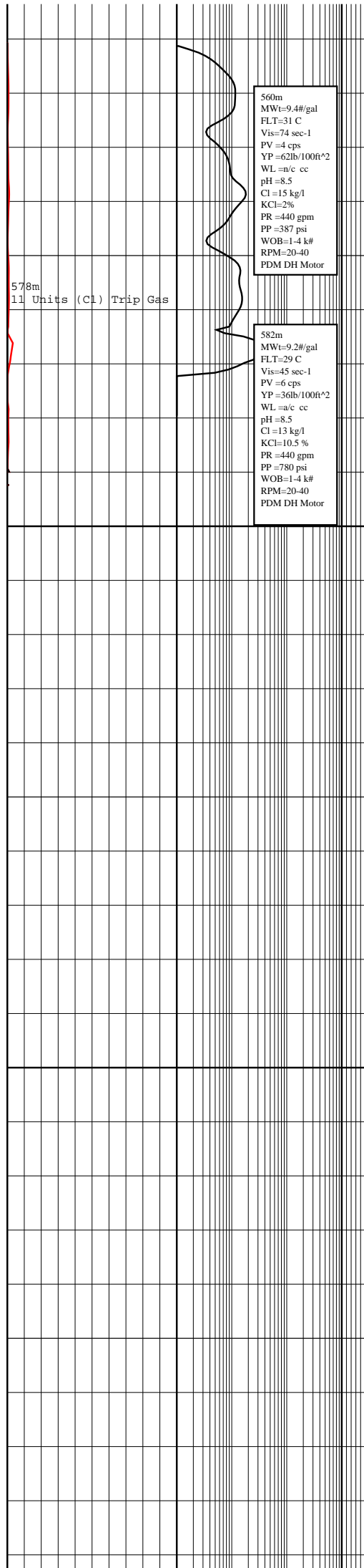
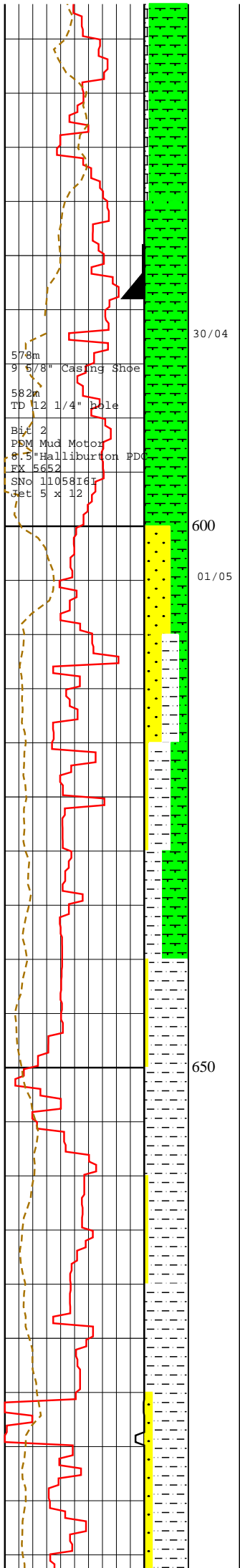
510 - 520m MARL & CALCARENITE:
 MARL: a/a abundant fine to coarse fossil material as loose grains, ? Laminiae of coraes calcarenite?

CALCARENITE: heterogeneous, pink to pale yellow, occ reddish brown, composed of fossil fragments and pyritised and ferruginised chamosite nodules and irregular nodules, and trace coarse quartz grains, heavily Fe stained, common branching bryozan limbs with pyrite replacement in individual cells

520 - 580m CLAYSTONE & CALCARENITE
 CALCARENITE: abundant fine well rounded pyrite grains, large rounded nodules? Water worn, chamosite and glauconite pellets, some pyritised and limonitised, abundant partially fe-stained fine to coarse fossil material. Trace glauconitic ironstone; becoming glauconitic, up to 15% fine well rounded glauconite pellets some pyritised, ? Bryozan filling of pores with glauc/pyrite. Calcareous claystone, medium olive grey, very soft, fossiliferous, very finely sandy.

CALCAREOUS SILTY CLAYSTONE: medium greyish to olive grey and olive brown, firm, friable, smooth to very finely sandy in part, finely fossiliferous part pale greenish and bluish grey, dispersed glauconite. Persistent trace of calcarenite, becoming less pyritic, part firm to friable, trace very coarse pyrite nodules. Up to 20% OF CLAYSTONE IS PALE BLUISH GREY, APHANTIC, glauconitic or tuffaceous. Trace coarse glauconite grains in claystone matrix.

Fe



560m
 MW=9.4#/gal
 FLT=31 C
 Vis=74 sec-1
 PV =4 cps
 YP =62lb/100ft²
 WL =n/c cc
 pH =8.5
 Cl =15 kg/l
 KCl=2%
 PR =440 gpm
 PP =387 psi
 WOB=1-4 k#
 RPM=20-40
 PDM DH Motor

582m
 MW=9.2#/gal
 FLT=29 C
 Vis=45 sec-1
 PV =6 cps
 YP =36lb/100ft²
 WL =a/c cc
 pH =8.5
 Cl =13 kg/l
 KCl=10.5 %
 PR =440 gpm
 PP =780 psi
 WOB=1-4 k#
 RPM=20-40
 PDM DH Motor

578m
 11 Units (Cl) Trip Gas

578m
 9 5/8" Casing Shoe
 582m
 TD 12 1/4" Hole
 Bit 2
 PDM Mud Motor
 8.5" Halliburton PDC
 FX 5652
 SNo 11058161
 Jet 5 x 12

580 - 600m
 CALCAREOUS SILTY CLAYSTONE:olive grey, in part (10%) aple bluish grey, aphanitic, hard, ? Tuffaceous? very finely sandy in part, trace glauconite, v fine carbaoneaceous material, friable, soft.

600 - 650m
 SANDSTONE:clear to yellowish brown, very fine to very coarse grained, poorly sorted, subangular, common composite quartz grains, predominantly loose with yellow to reddish brown clay matrix adhering, slightly calcareous, vis porosty poor to fair.

CALCAREOUS SILTY CLAYSTONE: as above.
 SILTSTONE: medium to dark grey, to greyish brown, blocky, soft, common very fine carbonaceous material, speckled dark green in part, finely sandy, glauconitic, grades to silty sandy claystone and to minor sandstone as above

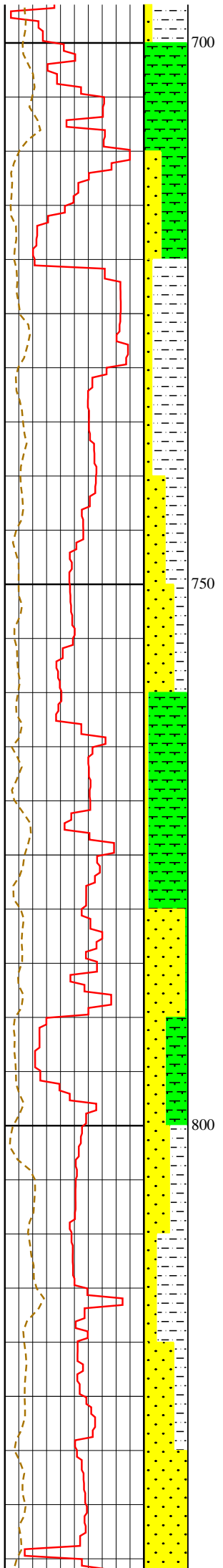
650 - 680m
 CALCAREOUS SILTSTONE:brownish grey, soft when wet, firm and blocky when dry, with dark greenish grey glauconitic pelloids, occ fossil frags (branched bryozoans) grading to-

SANDSTONE: greenish grey, yellowish grey, yellowish orange, f-m quartz grains translucent with yellowish orange limonite? stain, sa, also rounded claystone intraclasts, or pelloids?, poorly sorted, in abundant white calcite matrix, soft to very firm, trace white calcite, soft, possible vein material; trace very dull yellow mineral fluorescence from vein calcite sr-r quartz grains more common; fossil fragments include bryozoans, whole gastropod, trace mineral fluorescence

CALCAREOUS SILTSTONE: a/a With sand sized fossil fragments more common.

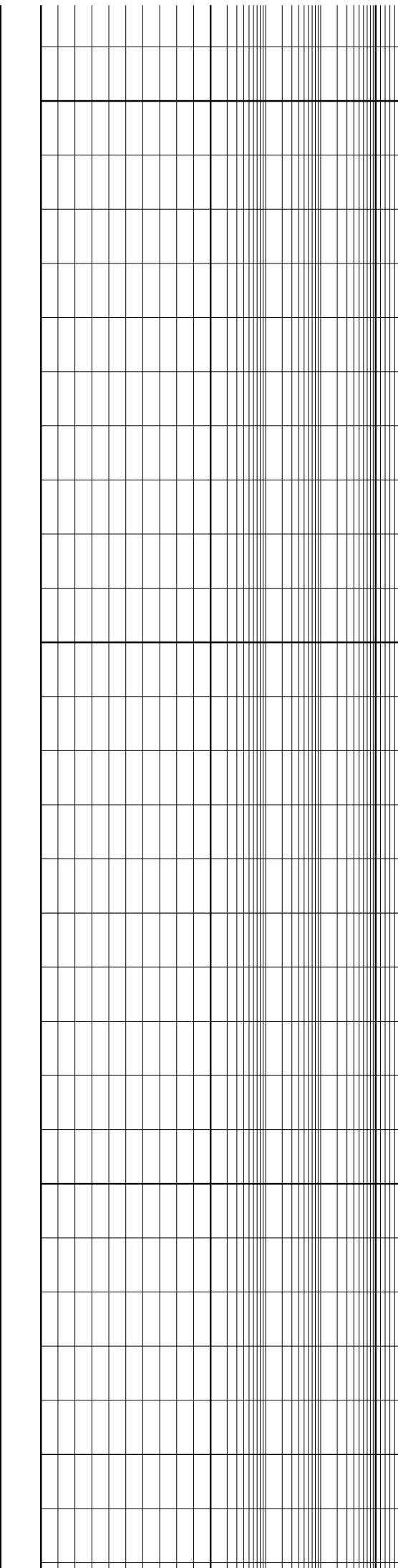
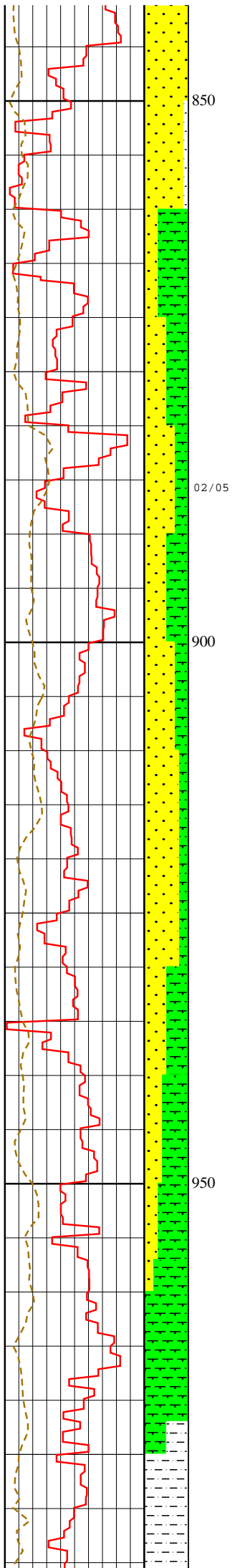
680 - 690m
 CALCAREOUS SILTSTONE: brownish grey, dark brownish grey, rarely greenish grey, with greyish green glauconite pelloids, soft to firm, blocky, with sand sized fossil fragments gt CALC CLYSTN.

SANDSTONE: predom 1 loose, c-vc quartz grains, translucent with orange brown limonite stain, sr-r. Minor 2. greenish grey, yellowish grey, yellowish orange, f-m, quartz grains translucent with yellowish orange limonite? stain, sa, also rounded claystone intraclasts, or pelloids?, poorly sorted, in abundant white calcite matrix, soft to very firm. Fossil frags predom bryozoans, rarely pyritised, with greyish green glauconitic clay adhering ip.



700 - 780m
 SILTSTONE: 1. brn gy, dk brn gy, soft to firm, sandy ip, calc with fine fossil frags, rare glauc pelloids and 2. Gn gy, firm, blocky, non-calc, sandy (vfn) ip.
 CLAYSTONE: Pred 1. Brn gy, lt brn gy, predom soft, disp, silty, calc. Minor 2. Lt gy, lt gn gy, generally non-calc and 3. white, orange brn, soft, disp, sandy (vf).
 SANDSTONE : disag quartz sand, clear, transl, to white and opaque, orange brown limonite stain ip, m-vc, generally sr-r. Trace fossil frags and coalified wood.

780 - 860m
 SANDSTONE: predom 1. disag quartz grains, clear and translucent to opaque, m-vc, sr-r. Minor 2. aggregates, f-m quartz sand with abundant brownish grey clay matrix and siliceous cement, poorly sorted, firm to hard.
 SILTSTONE: brownish grey, generally soft, amorphous when wet, dispersive ip, sandy (vf - c quartz grains) ip, calcareous ip, glauconitic pelloids ip



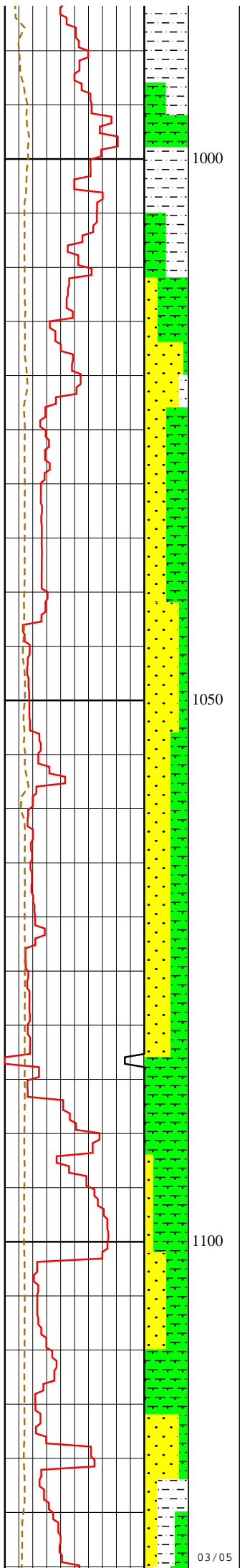
860 - 886m
 CLAYSTONE: brownish grey, amorphous, very dispersive, silty to sandy (vfn) ip.

SANDSTONE: disagg quartz grains, clear translucent to opaque, rare orange and grey chert frags, c-vc, sr-rd Rare fossil frag.

886 - 950m
 SANDSTONE: as loose grains: clear to pale bluish green, fine to coarse grained, moderately sorted, subangular to subrounded, common polycrystalline grains with pale green to greenish blue mineral inclusions, occasional aggregates with dense green to grey arg matrix and silica cement, occ.

SILTY CLAYSTONE: brownish grey, dispersive, occasional laminae very glauconitic. sandy, mottled, micaceous in part, occ w/ greenish matrix.

950 - 1017m
 SILTY CLAYSTONE: light to dark greyish brown, soft, dispersive, homogenous, occasional laminae very finely sandy and glauconitic, trace fine pyrite nodules, marine fossils.



1017 - 1083m

SANDSTONE: loose quartz grains, clear, translucent to opaque, stained pale yell orange, sa-sr, m-c grained. Trace dense pyrite cement. Rare glauconite peloids.

SILTY CLAYSTONE: sandy ip, light to medium greyish brown, med grey, rarely greenish grey, soft to friable, pyritic ip, glauconitic ip, trace marine fossil frags (bivalves, gastropods, bryozoans), rare coalified wood fragments

1083 - 1103m

SILTY CLAYSTONE: dark brownish grey, olive black, dark grey with carbonaceous flecks, occasionally greyish red speckled white, trace dark yell orange, soft to firm with common fossil frags (forams, bryozoans) with occ lenses of f-m quartz sand.

SANDSTONE: loose quartz grains, m-c, sa-r with dark yellowish orange and brown clay matrix adhering to grains. Rare greyish green schist fragments.

1103 - 1129m

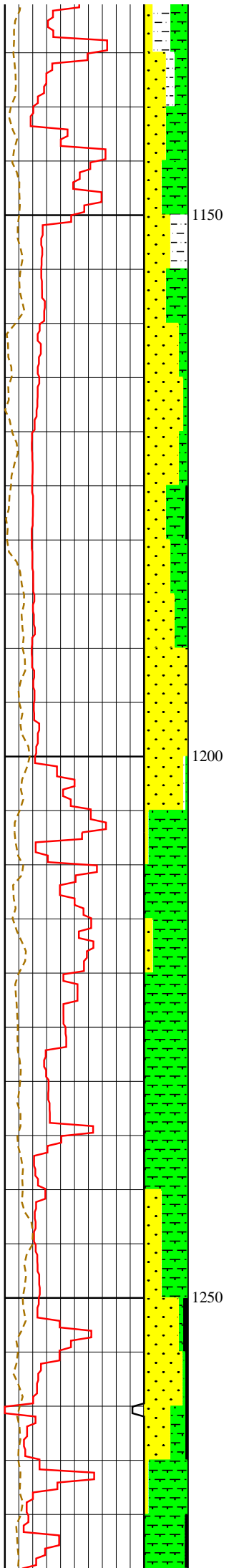
SANDSTONE: as loose quartz grains, clear and translucent to opaque, white, yellowish orange, coarse to granular, sr, occ well rd, commonly broken, also well rounded lithic grains (yellowish grey), dark green clay matrix adhering to grains ip.

SILTY CLAYSTONE: light brownish grey, dispersive, med grey, dark brownish grey, rarely glauconitic, trace marine fossil frags.

1129 - 1205m

SANDSTONE: dissaop quartz grains, clear, translucent, light grey, grey well

03/05



SANDSTONE: disag quartz grains, clear, translucent, light grey, grey yell to yell brown, v fn to vc, sa-occ well rd. Trace lithics: green, black and brick red, rare dense pyrite cement.

SILTSTONE: light brownish grey, brownish grey, greyish red, dark greenish grey, occ dark grey green glauconitic pelloids, sandy (vfn) ip.

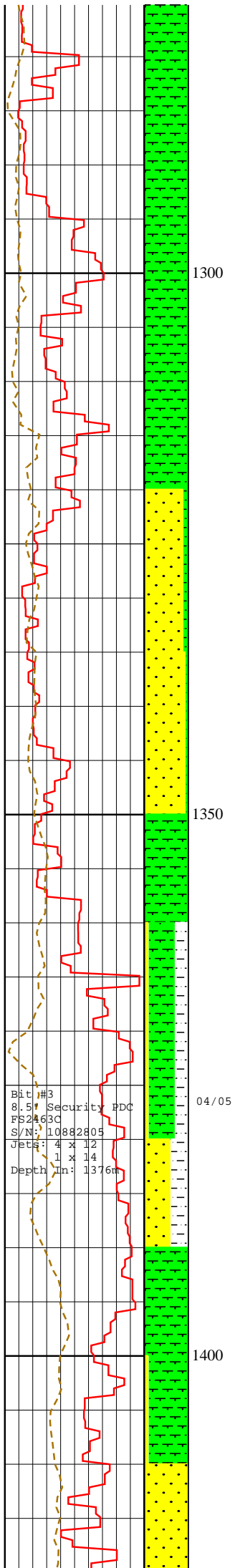
SILTY CLAYSTONE: v light grey to dark grey, greyish brown, carbonaceous ip, glauc ip, v fn sand ip. Trace marine fossils.

1205 - 1376m

SANDSTONE: disag quartz grains, clear to white, rare grey lithics, rare schist frags, f-vc, ang-sr, white clay matrix adhering to grains ip.
SILTSTONE (0-30%): brown grey, green grey (glauc), soft to firm, blocky, sandy ip.

CLAYSTONE: brown grey, pink grey, occ green grey and glauconitic, soft, amorphous, dispersive ip, v finely sandy ip.

COAL: traces



1300

1350

04/05

1400

Bit #3
 8.5" Security PDC
 FS2463C
 S/N: 10882805
 Jets: 4 x 12
 1 x 14
 Depth In: 1376m

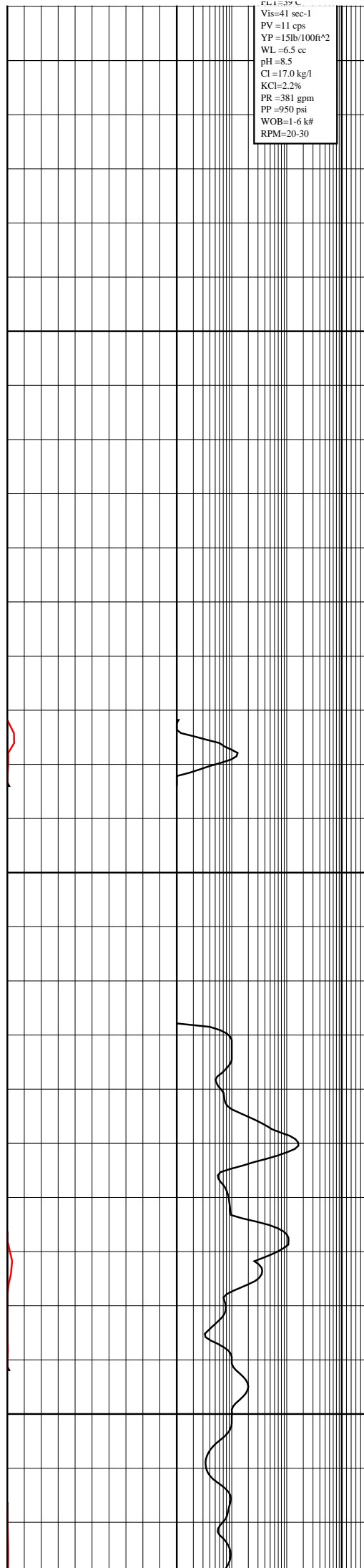
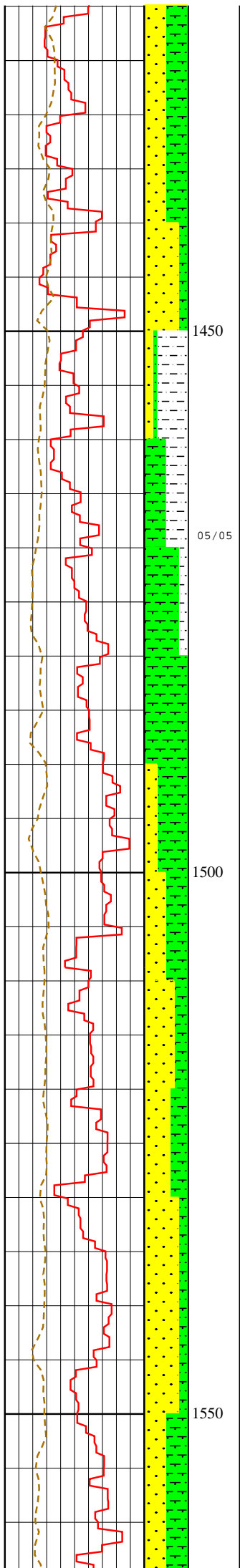
582 - 1376m
 Only trace Cl hydrocarbon gas
 detected in the interval

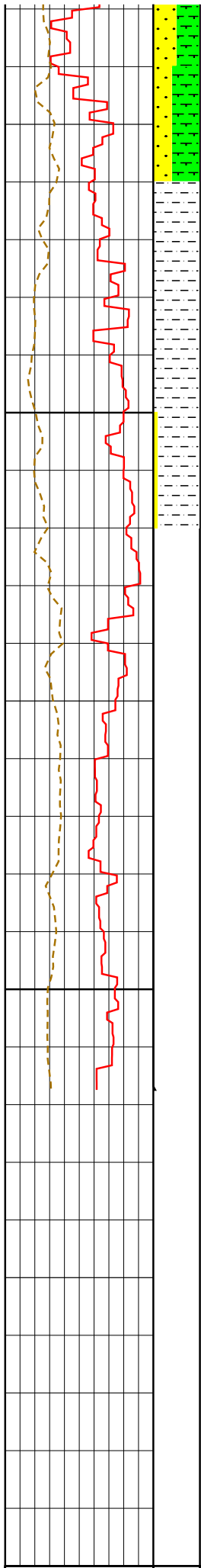
1370m
 MWt=9.0#/gal
 Fig=90 C
 Vis=40 sec-1
 PV=11 cps
 YP=15lb/100ft²
 WL=6.5 cc
 pH=8.5
 Cl=14.0 kg/l
 KCl=2.1%
 PR=404 gpm
 PP=820 psi
 WOB=1.5 k#
 RPM=20-30
 DH PDM Mud Motor

1376 - 1468m
 ARGILLACEOUS SANDSTONE: white, brownish grey, vf, quartzose, soft, dispersive, pulpy, with abundant white and light brown clay matrix
 SANDSTONE: loose, predominantly clear to translucent quartz, rare grey cherty lithics, vc - probably granule and pebble conglomerate, grains predominantly broken
 SILTSTONE: light brownish grey, brownish grey, with abundant sand sized fossil frags including forams ip, also medium sand sized glauconite pelloids ip
 SILTY CLAYSTONE: brownish grey, occ very pale orange, soft to firm, sand component is vf, trace glauconite pelloids, trace carbonaceous flecks and laminae, slightly glauconitic ip. Trace marine fossil frags. Trace coalified wood frags

1417m
 MWt=9.05#/gal
 FLT=39 C

FLI=39 C
Vis=41 sec-1
PV=11 cps
YP=15lb/100ft²
WL=6.5 cc
pH=8.5
Cl=17.0 kg/l
KCl=2.2%
PR=381 gpm
PP=950 psi
WOB=1.6 k#
RPM=20-30



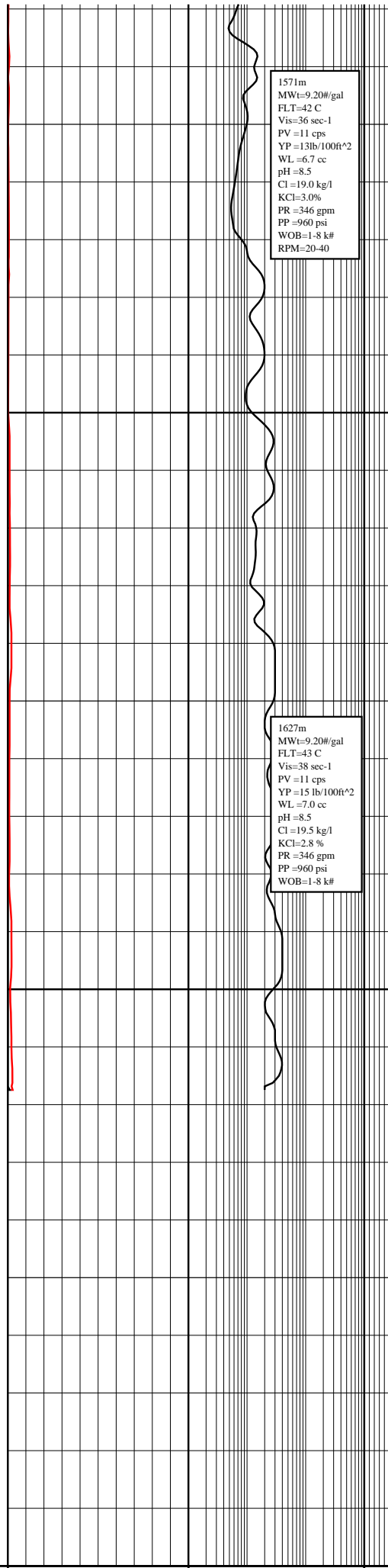


1571m
 MWt=9.20#/gal
 FLT=42 C
 Vis=36 sec-1
 PV =11 cps
 YP =13lb/100ft^2
 WL =6.7 cc
 pH =8.5
 Cl =19.0 kg/l
 KCl=3.0%
 PR =346 gpm
 PP =960 psi
 WOB=1-8 k#
 RPM=20-40

1580 - 1638m
SANDY SILTSTONE: brownish grey, soft when wet, firm when dry, sand component very fine grained, quartzose, clayey ip, common carbonaceous flecks and laminae, rare m-c grained glauconite peloids, rare marine fossil fragments
SANDSTONE: aggregates, white, quartzose, fine grained, well sorted, hard, siliceous cement; trace amber fragments, fluorescing bright yellowish white; trace coalified wood fragments; trace m-vc grained broken quartz grains

1600

Drill Parameters	LITHO	DEPTH	Symbol
ROP (M/H)			



1627m
 MWt=9.20#/gal
 FLT=43 C
 Vis=38 sec-1
 PV =11 cps
 YP =15 lb/100ft^2
 WL =7.0 cc
 pH =8.5
 Cl =19.5 kg/l
 KCl=2.8 %
 PR =346 gpm
 PP =960 psi
 WOB=1-8 k#

1650

06/05

Total Gas	Component Gas	HS
Gas (U)	C1 (%)	HS

REMARKS

06/05/2010

50.0	(M/H)	0.0			0.0	(U)	100.0	0.001	(%)	1.0	
ROP			Gas								
100.0	(M/H)	50.0			100.0	(U)	200.0				
Bit Wt											
0.0	(k.lb)	20.0									

LOG DESCRIPTION

- ROP Rate of Penetration (metres/hour)
- ROP Rate of Penetration (metres/hour)
- Bit Wt Weight on Bit (K.LBS)
- Gas Total Gas (50 Units equivalent 1% Methane in Air)
- CI Methane
- Gas Total Gas (50 Units equivalent 1% Methane in Air)
- HS % Hydrocarbon Fluorescence