



FORMATION EVALUATION LOG



WELL : TREFOIL-2

FROM (m): 2510

TO (m): 2990

SCALE: 1/ 500

Country : AUSTRALIA
 Region : TASMANIA
 Field : TREFOIL
 Permit : T/18P
 Well Type : APPRAISAL
 Rig Name : KAN TAN 4

POSITION
 Latitude : 39 53' 07.93" S
 Longitude : 145 22' 14.62" E
 X (m) : 360690.389
 Y (m) : 5583676.588
 RT-Sealevel (m MSL) : 26
 RT-Seabed (m) : 95

CASING SHOE SIZE / DEPTH
 762mm (30") at (m MDRT) : 153.00
 340mm (13 3/8") at (m MDRT) : 930.00
 245mm (9 5/8") at (m MDRT) : 2520.00

Spud Date : 06-10-2009
 Total Depth Date :
 Total Depth (m MDRT) :
 Total Depth (m TVSS) :
 Status :

ABBREVIATIONS

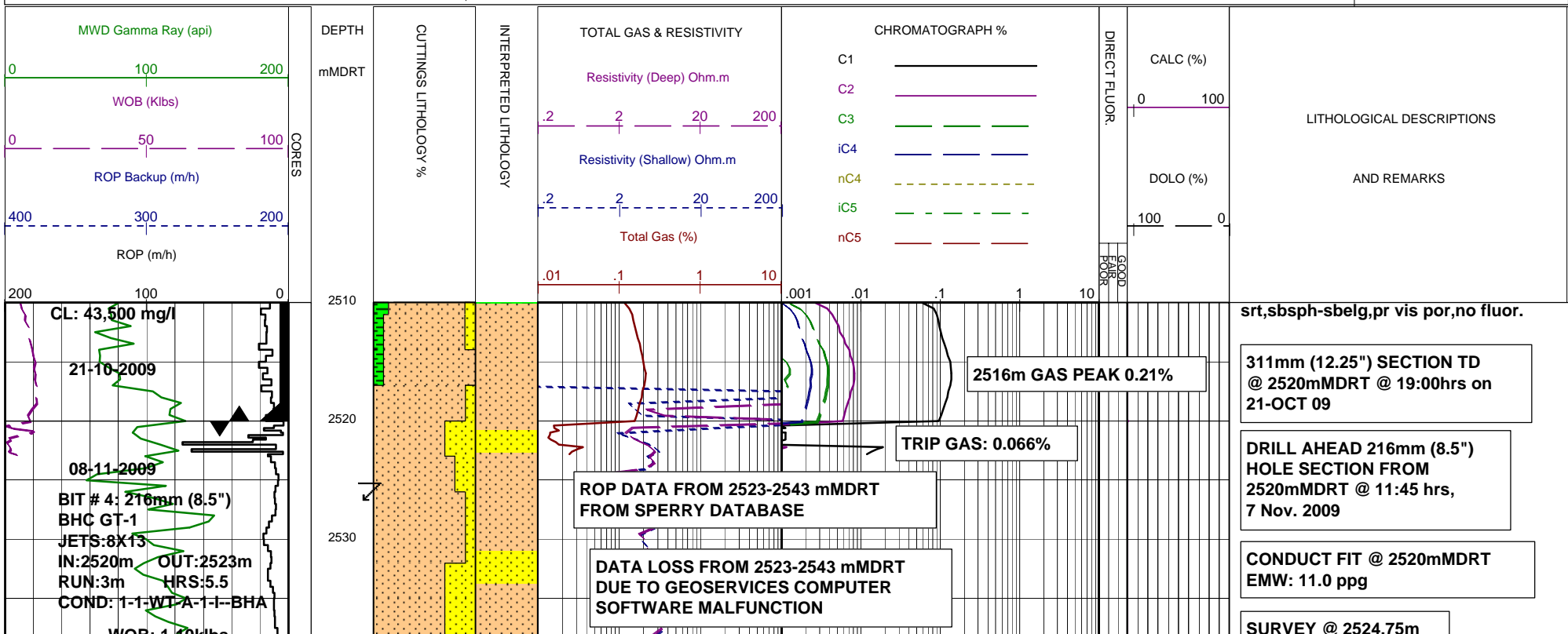
MW MUD WEIGHT	NB NEW BIT
FV FUNNEL VISCOSITY	RR RERUN BIT
PV PLASTIC VISCOSITY	CB CORE BIT
YP YIELD POINT	WOB WEIGHT ON BIT
FC FILTER CAKE	RPM REVS PER MINUTE
SOL SOLIDS	FLC FLOW CHECK
CR CIRCULATE RETURNS	WL FILTRATE
SD SAND - %	PR POOR RETURNS
S SALINITY - PPM	NR NO RETURNS
RM MUD RESISTIVITY	BG BACKGROUND GAS
RMF MUD FILTRATE	TG TRIP GAS
C CARBIDE TEST	STG SHORT TRIP GAS
LAT LOGGED AFTER TRIP	CG CONNECTION GAS
DS DEVIATION SURVEY	SG SWAB GAS
	SVG SURVEY GAS

LITHOLOGY LEGEND

	Dolomite		Claystone		Argil Siltstone		Calcareous
	Calcurudite		Siltstone		Sandy Siltstone		Dolomitic
	Calcarenite		Sandstone		Calcareous Siltstone		Fossils
	Calcsiltite		Coal		Argil Sandstone		Foraminiferae
	Calclutite		Intrusive Volcanics		Calcareous Sandstone		Carbonaceous
	Sandy Claystone		Volcaniclastics		Dolomitic Sandstone		Chert
	Silty Claystone		Tuff		Silty Sandstone		Pyrite
	Calcareous Claystone		Cement				Glauconite
	Argil Calclutite						Mica

ENGINEERING

	Test
	FIT or LOT
	Mud loss
	Mud gain
	Deviation survey
	Core
	Shoe
	Calcimetry



WOB: 120klbs
RPM: 70-72
GPM: 714-729
SPP: 1523-1617psi

MW: 9.35 FV: 47
PV/YP: 12/30
FC: 1/2

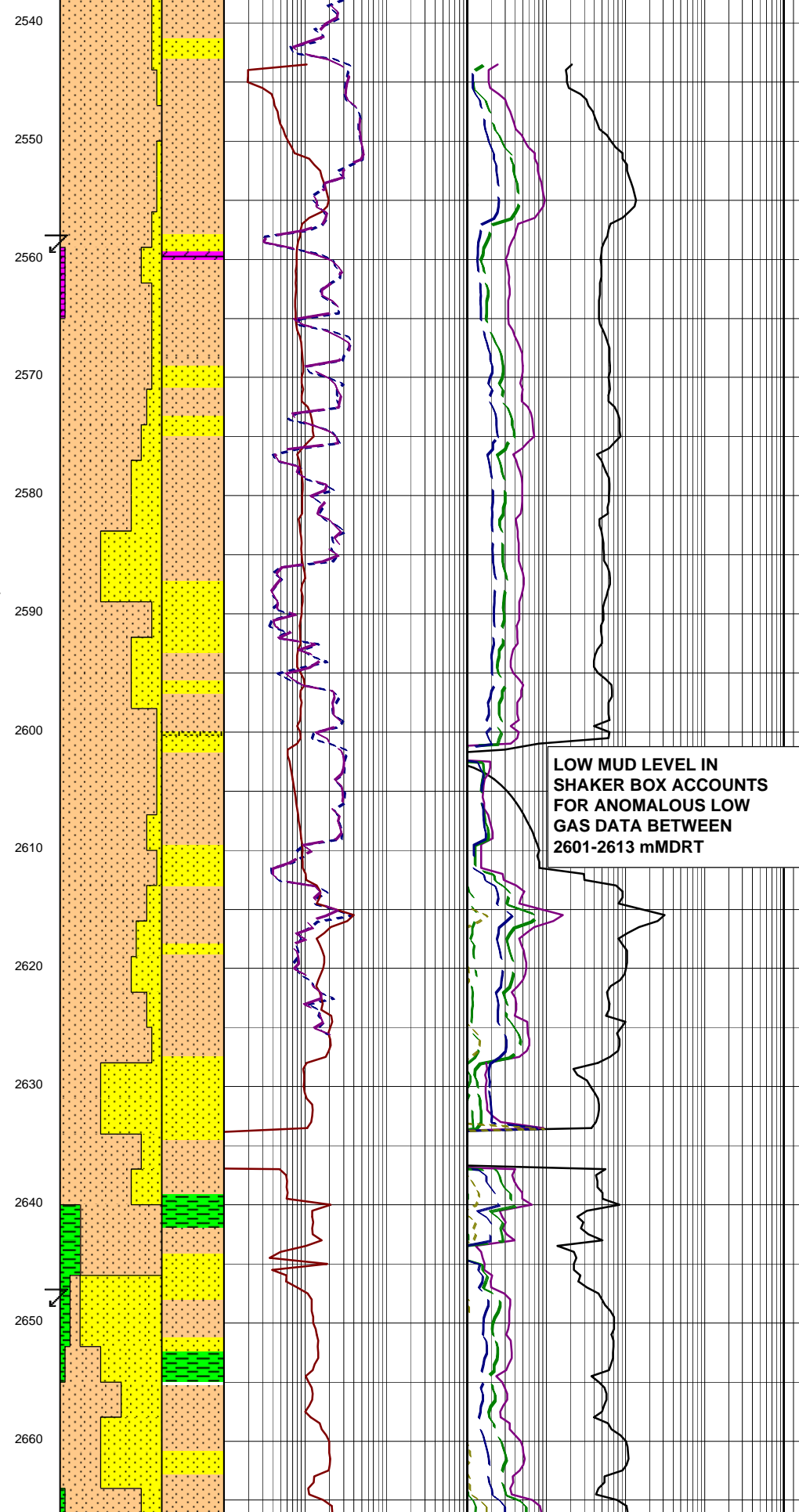
SOL: 3.2 SAND: 0.25
CL: 43,000 mg/l

BIT # 5: 216mm (8.5")
SMITH PDC M1616VBPX
JETS: 6X14
IN: 2523m OUT: 2633m
RUN: 110m HRS: 5.5
COND: 0.1 WT-G-X-I-N5 DTF

BIT # 5RR: 216mm (8.5")
SMITH
JETS:
IN: 2633m OUT: 2982m
RUN: 349m HRS: 22.17
COND:

WOB: 1-16klbs
RPM: 46-156
GPM: 684-712
SPP: 2328-2554psi

MW: 9.4 FV: 68



Incl 1.00° AZI: 97.22°
TVD: 2524.47m

SANDSTONE: yelsh gry, v lt gry, olv gry, 20% vf, 50% f, 30% med grs, tr crs grs, clr qtz grs, pr-mod srt, sbang-sbrnd, sbsph-sbelg, 10% sil cmt, 10% wh cly mtx, tr lithic frags, tr carb mat, pr inf vis por, no fluor.

SURVEY @ 2557.55m
Incl 1.13° AZI: 91.00°
TVD: 2557.30m

DOLOMITE: brnsh gry, frm-mod hd, sbbiky w/- conch frac i/p.

SILTSTONE: pred brnsh blk, tr olv gry & brnsh gry, sft-frm, blk-sbbiky, tr carb spks & lam, tr micmic & lam mica flks.

SANDSTONE: v lt gry, olv gry, tr yelsh gry, tr lt olv gry, 20% vf, 50% f, 30% med grs, clr qtz grs, lse-frm, pr-mod srt, sbrnd-ang, sbsph-sbelg, 10% wh cly mat, tr lithic frags, tr carb mat, tr pyr, pr inf vis por, no fluor.

SURVEY @ 2588.22m
Incl 1.30° AZI: 90.35°
TVD: 2587.90m

LOW MUD LEVEL IN SHAKER BOX ACCOUNTS FOR ANOMALOUS LOW GAS DATA BETWEEN 2601-2613 mMDRT

SANDSTONE: v lt gry-lt gry-clr-opq, olv gry, 5% vf, 30% f, 40% med, 20% crs, 5% v crs grs, lse-frm, pr-mod srt, sbrnd-ang, sbsph-sbelg, tr sil cmt, tr pyr cmt, tr calcite cmt, incr in lse, clr v crs qtz grs, tr lithic frags, tr carb mat, tr glauc, tr nod pyr, gd inf por, no fluor.

SILTSTONE: brnsh gry, brnsh blk, olv blk, olv gry, sft-frm, blk-sbfiss, tr carb mat, tr lithic frags, tr coal, micr.

CARBIDE LAG CHECK @ 2630m
THEOR STKS: 4148
ACTUAL STKS: 4299
INGAUGE HOLE.

SANDSTONE: v lt gry-lt gry-clr-opq, tr yelsh gry, 5% vf, 35% f, 30% med, 30% crs grs, lse-frm, pr-mod srt, sbrnd-sbang, sbsph-sph, tr sil cmt, tr calcite cmt, tr lithic frags, tr carb mat, tr nod pyr, tr glauc, pr inf vis por, no fluor.

POOH @ 2633 mMDRT DUE TO LWD 'PULSER' FAILURE. P/U COMPLETE LWD TOOL STRING

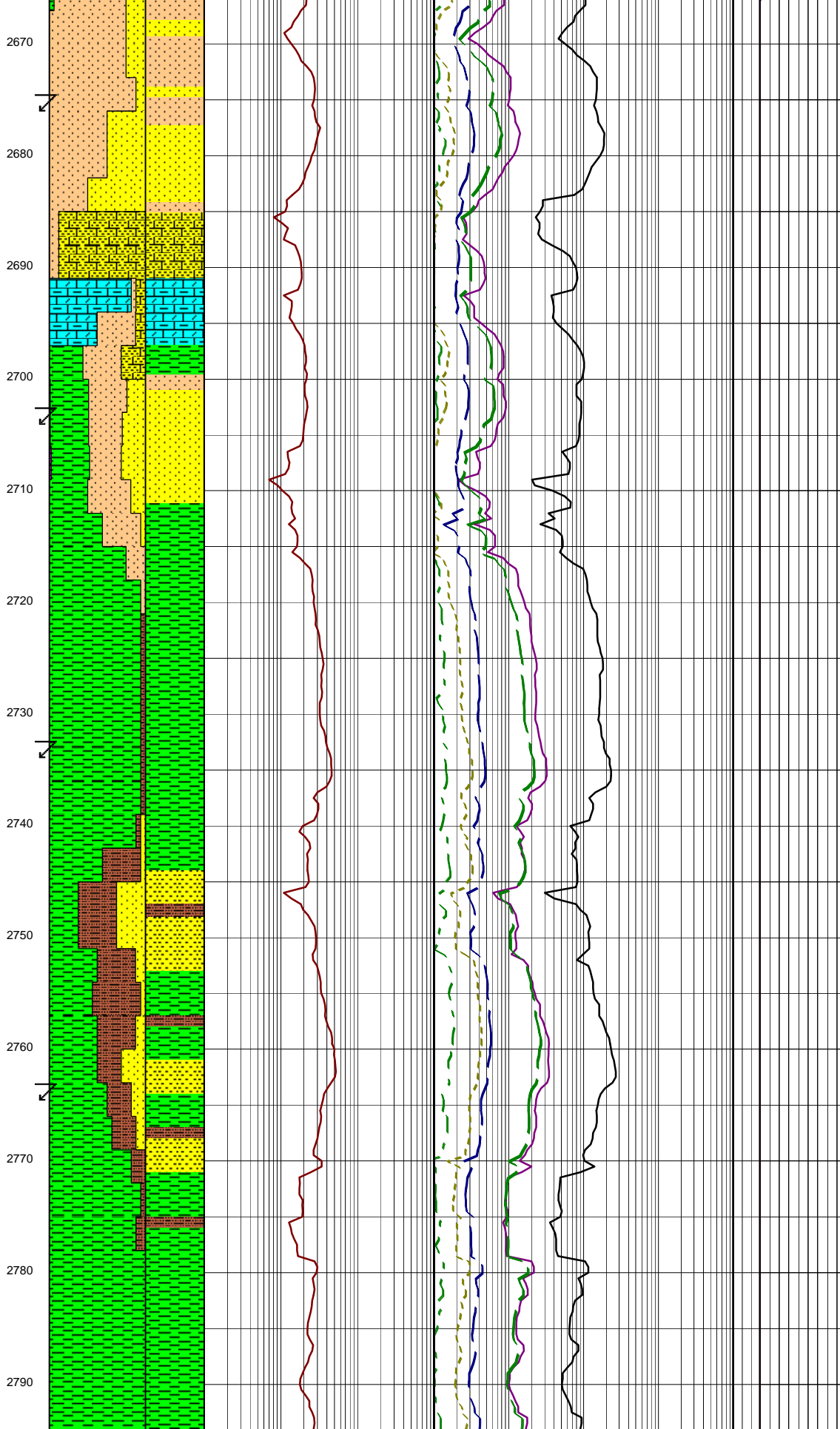
SURVEY @ 2646.63m
Incl 1.43° AZI: 86.39°
TVD: 2646.32m

GLAUCONITE: v lt gry, olv gry, 5% vf, 35% f, 30% med, 30% crs grs, lse-frm, pr-mod srt, sbrnd-sbang, sbsph-sph, tr sil cmt, tr calcite cmt, tr lithic frags, tr carb mat, tr nod pyr, tr glauc, pr inf vis por, no fluor.

MW: 9.4 FV: 66
PV/YP: 11/26
FC: 1/2
SOL: 3.3% SAND: 0.25%
CL: 41,500 mg/l

MW: 9.4 FV: 46
PV/YP: 10/28
FC: 1/2
SOL: 3.5% SAND: 0.25%
CL: 40,000 mg/l

WOB: 5-15kibs
RPM: 115-120
GPM: 699-704
SPP: 2400-2550psi



SURVEY @ 2674.00m
Incl 1.43° AZI:86.39°
TVD:2673.70m

SANDSTONE:lt gry,clr & opq,
pred lse-fri,qtz,f grs,10% vf
grs,40% med,sbang-sbrnd,sbsph-
sbelg,pr sil cmt when aggs,tr
pyr cmt,5% cl mtx,tr brn mica
flks,fr vis por infr,no fluor.

CALCILUTITE:lt gry-med lt gry,
tr yelsh gry,v sft frm,sbblky-blky,
grd to CLYST i/p,tr carb mat.

SURVEY @ 2702.98m
Incl 1.62° AZI:88.34°
TVD:2702.65m

ARGILLACEOUS SILTSTONE:
brnsh blk,olv blk,olv gry,sft-
frm,sbblky-blky,tr carb mat,tr
lithic frags.

CLAYSTONE:med gry-med dk gry,
sft frm,sbblky-blky,tr carb mat,
tr micmic.

SURVEY @ 2732.91m
Incl 1.69° AZI:88.47°
TVD:2732.57m

SANDSTONE:wh-v lt gry,clr-opq,
tr yelsh gry,10% vf,70% f,20% med,
lse-mod hd,mod wl-wl srt,sbrnd
-rnd,sbsph-sph,tr sil cmt,gd inf
vis por,no fluor.

CLAYSTONE:med gry-med dk gry,
olv gry-lt olv gry,sft frm,sbblky-
blky,tr carb mat,tr micmic.

SURVEY @ 2762.56m
Incl 1.85° AZI:89.89°
TVD:2762.20m

ARGILLACEOUS SILTSTONE:
brnsh blk,olv blk,olv gry-brnsh
gry,sft frm,sbblky-blky,tr carb
mat,tr lithic frags,tr pyr.

CLAYSTONE:med gry-med dk gry,
olv gry-lt olv gry,v sft frm,
sbblky-blky,tr carb mat,tr micmic.

SURVEY @ 2791.49m
Incl 1.82° AZI:85.29°
TVD:2791.12m

TVD:2791.12m

CLAYSTONE:med gry-med dk gry,
olv gry-lt olv gry,sft frm,sbblky-
blky,tr carb mat,tr micmic

CLAYSTONE:med gry-med dk gry,
olv gry-lt olv gry,sft-mod hd,
sbblky-blky,tr carb mat.

ARGILLACEOUS SILTSTONE:
brnsh blk,olv blk,olv gry-brnsh
gry,sft frm,sbblky-blky,tr carb
mat,tr lith frags,

SURVEY @ 2819.89m
Incl 1.94° AZI:85.21°
TVD:2819.50m

SANDSTONE:wh-v lt gry,clr-opq,
10% f,30% med,50% crs,10% v crs,
lse-mod hd,pr-mod wl srt,rnd-ang,
sbsph-sph,tr sil cmt,gd inf vis
por,no fluor.

SURVEY @ 2847.72m
Incl 2.06° AZI:83.71°
TVD:2847.31m

SILTSTONE:brnsh blk,olv blk,
olv gry-brnsh gry,sft frm,sbblky-
blky,tr carb mat,tr lithic
frags,tr grd to ARG SLTST.

COAL:brn blk-blk,olv gry,
sft frm,sbblky-blky,dull-
sbvit.

CLAYSTONE:med gry-med
dkgry,olv gry-lt olv gry,
sft-mod hd,sbblky-blky,
com carb mat.

SURVEY @ 2876.19m
Incl 2.24° AZI:81.90°
TVD:2875.76m

SANDSTONE:wh-v lt gry,40%
v f,60% f,frm,mod-wl srt,sbrnd-
sbang,sbsph,tr sil cmt,tr carb
mat,fr inf vis por,no fluor.

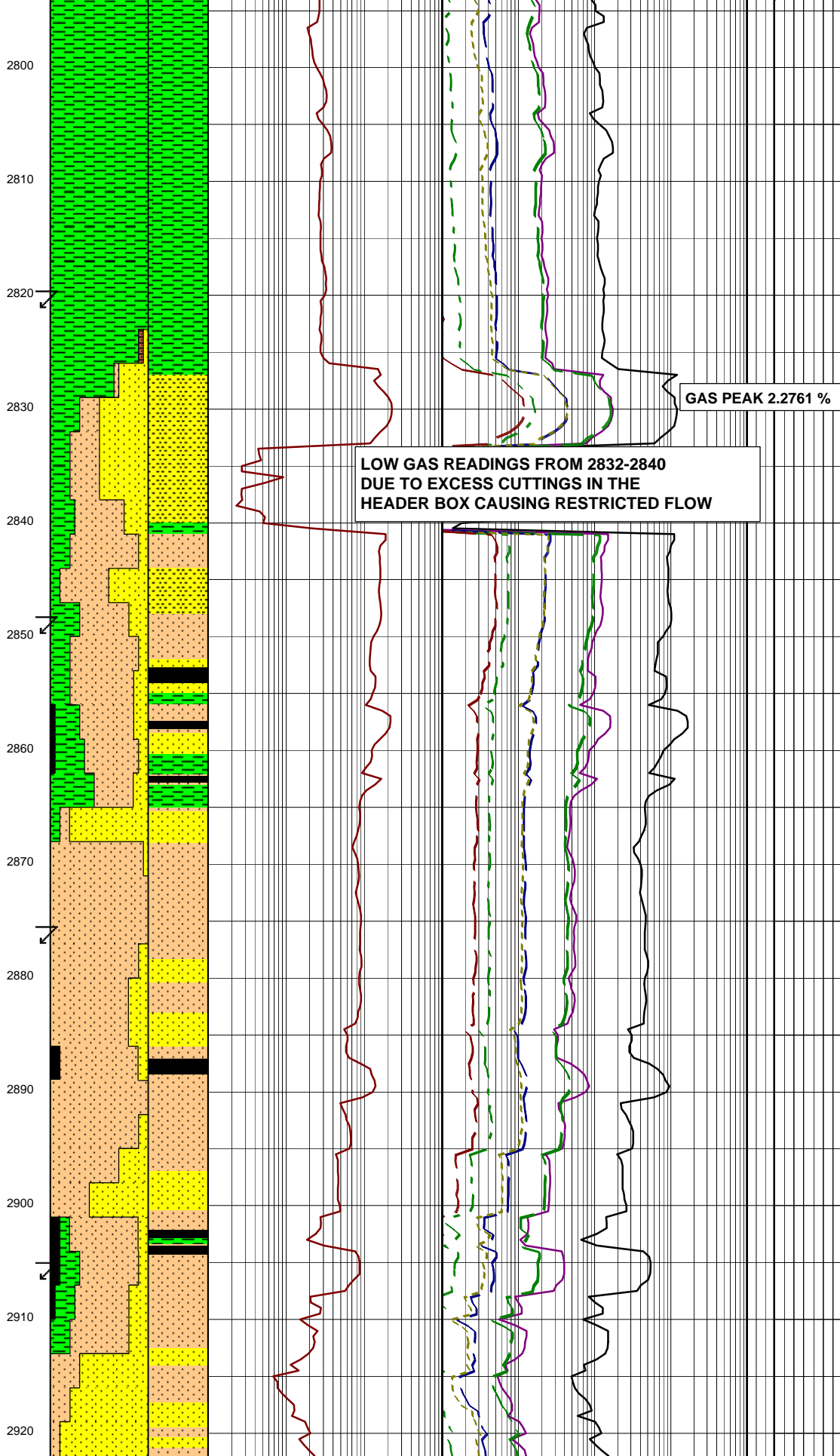
COAL:brn blk-blk,olv gry,
sft frm,sbblky-blky,dull-
sbvit.

SURVEY @ 2905.64m
Incl 2.46° AZI:85.79°
TVD:2905.19m

SANDSTONE,wh-v lt gry,40%
vf,60% f,frm,sbrnd-sbang,mod
-wl srt,sbsph,tr sil cmt,tr
carb mat,tr disp coal pieces,
fr infr vis por,no fluor.

CLAYSTONE:olv gry,olv blk,
sft frm,sbblky-blky,increase
in carb mat.

SILTSTONE:olv gry,brn blk,



GAS PEAK 2.2761 %

LOW GAS READINGS FROM 2832-2840
DUE TO EXCESS CUTTINGS IN THE
HEADER BOX CAUSING RESTRICTED FLOW

WOB: 10-15
RPM: 120-130
GPM: 700-715
SPP 2550-2620

sft-frm,sbblky-blky,tr carb mat as thn lam spks,tr lithic frags,tr micmic,tr blk,bright coal pieces.

SANDSTONE:olv gry,mott,fri, lithofelds,vf grs,30% f grs, mod srt,sbsph,10% cly mtx, 2% carb mat,1% alt felds,tr lithic frags,fr vis por,no fluor.

CLAYSTONE:olv blk,sft-frm, blkly-sbblky,tr dk mica flks.

SURVEY @ 2935.67m
Incl 2.58° AZI:82.74°
TVD:2935.19m

COAL:blk,rgysh blk,sft,sp.

CLAYSTONE:brnsh gry-brnsh blk, olv blk,sft-frm,sbblky,tr carb strks.

SURVEY @ 2963.22m
Incl 2.93° AZI:85.15°
TVD:2962.71m

SANDSTONE:wh-v lt gry,olv gry, mott,lt gry,clr,opq,tr yelsh,gry, 5% vf,5% f,20 med,40% crs,30% v crs,tr gran grs,lse-mod hd,pr-mod srt,sbrnd-sbang,sbsph-sph,tr carb mat,tr mic flks,gd inf vis por,no fluor.

WOB: 10-15
RPM: 120-130
GPM: 715-730
SPP: 2800-2850

2930

2940

2950

2960

2970

2980

2990