



FILE NO: _____ COMPANY: **HUSKY OIL OPERATIONS LIMITED**
 WELL: **LITTLE BEAR N-9**
 API NO: _____ FIELD: **SLATER RIVER**
 PROVINCE: **NORTHWEST TERRITORIES**

Ver. 3.87
 UID: _____ LOCATION: _____
 300ND086500126300 SURF LOC: _____
 LICENSE: _____ LAT 64° 58' 55.2N LONG 128° 31' 20.2"
 483 BH LOC, LSD: _____
 LAT 64° 58' 55.2"N LONG 128° 31' 20.2"

PERMANENT DATUM: G.L. ELEVATION: 253.5 M
 LOG MEASURED FROM: K.B. 5.3 M ABOVE P.D.
 DRILL MEAS. FROM: KELLY BUSHING

OTHER SERVICES:
 ZL-CR-CAL
 HDIL-CR-CAL, CAL
 XMAC-CR, FLEX-DISL
 EI-CRIL-CR, CR

DATE	13-FEB-2012	
RUN	TRIP	3
SERVICE ORDER	CA212310	
DEPTH DRILLER	1868.0 M	
DEPTH LOGGER	DID NOT TAG	
BOTTOM LOGGED INTERVAL	1861.8 M	
TOP LOGGED INTERVAL	1580.0 M	
CASING DRILLER	244.5 M	
CASING LOGGER	638.5 M	
BIT SIZE	222.0 MM	
TYPE OF FLUID IN HOLE	INVERT	
DENSITY	1280.0 G/L	39.0 S
PH	N/A	N/A
SOURCE OF SAMPLE	ND SAMPLE	
RM AT MEAS. TEMP.	NA	
RMF AT MEAS. TEMP.	NA	
RMC AT MEAS. TEMP.	NA	
SOURCE OF RMF	ND SAMPLE	ND SAMPLE
RM AT BHT	NA	
TIME SINCE CIRCULATION	34.5 HOURS	
MAX. RECORDED TEMP.	78.4 DEGC	
EQUIP. NO.	LOCATION	CANADA OPEN
RECORDED BY	J. COLLIER/I. ZALESKI	
WITNESSED BY	H. BARENHOVEN	

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BIT SIZE	FROM	TO
311.0 MM	0.0 M	638.0 M
222.0 MM	638.0 M	1868.0 M

SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	53.6 KG/M	J-55	0.0 M	638.0 M

REMARKS

RUN 1 TRIP 3: TIME STOPPED CIRCULATION: 12-FEB-2012 05:30 PM

WREX RECORDED USING PORO PERM + GAS ACQUISITION WITH SUB 0 TIME OF 12.0 SEC AND TW = 11.097 SEC
 T2 CUTOFFS USED CBW: 3.4 AND BV1 33.0 MSEC
 PERMEABILITY INDEX IS BASED ON TIMUR-COATES RELATIONSHIP WITH DEFAULT SETTINGS OF C=10, W=4, N=2

WREX RECORDED USING PORO PERM+LIGHT OIL ACQUISITION WITH SUB 0 TIME OF 12.0 SEC AND TW = 11.111 SEC
 T2 CUTOFFS USED CBW: 3.4 AND BV1 33.0 MSEC
 PERMEABILITY INDEX IS BASED ON TIMUR-COATES RELATIONSHIP WITH DEFAULT SETTINGS OF C=10, W=4, N=2

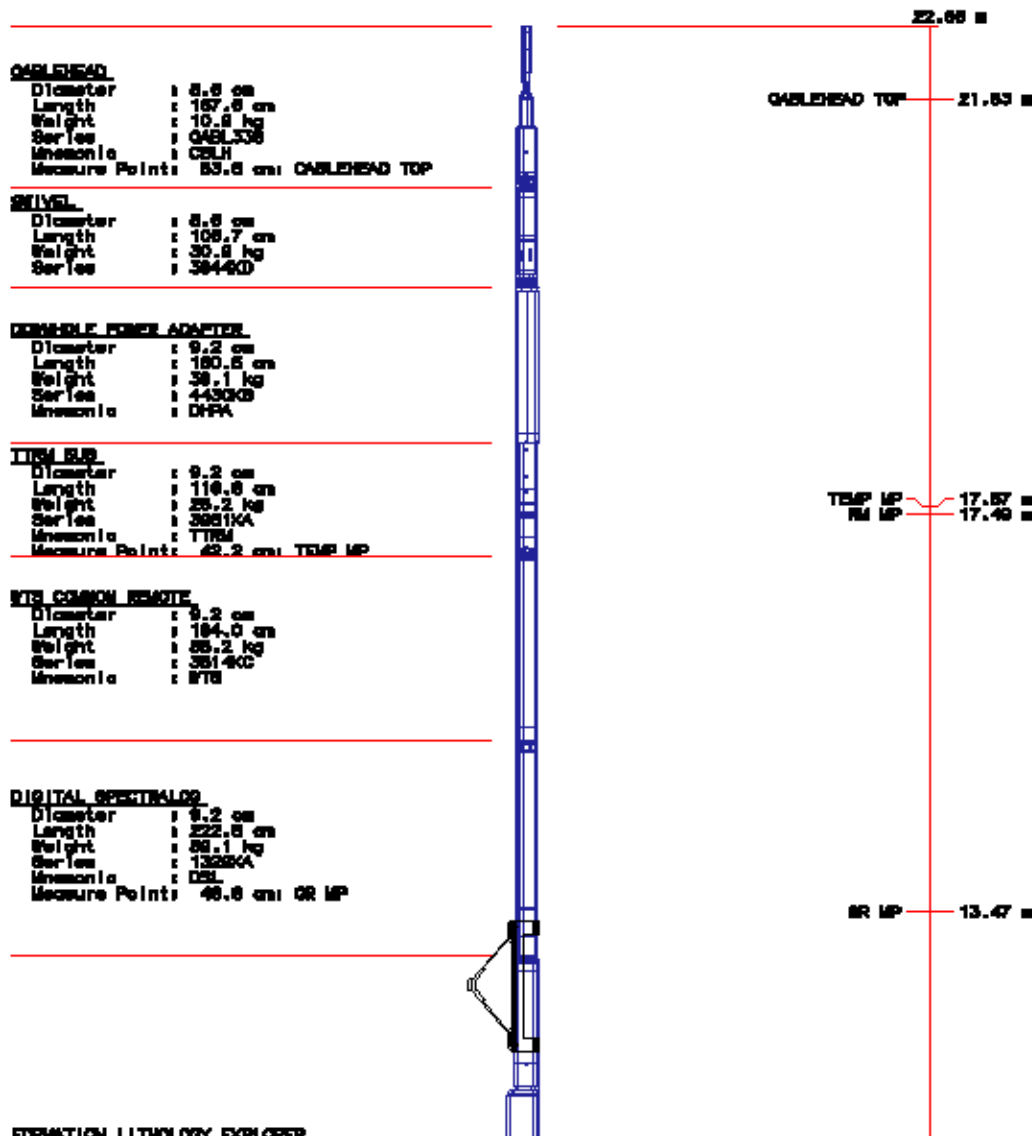
REPEAT AND MAIN PASS 1 RECORDED WITH PP + GAS, MAIN 2 PP + LIGHT OIL

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	3	SWIVEL	3844XD	11908288	FREE
1	3	DHPA	44300B	12111382	FREE
1	3	TRM SUB	3881XB	11780038	FREE
1	3	COMM	3514XC	12079095	FREE
1	3	WTS DGR/SU	13280B	11738874	FREE
1	3	FLEX	13380A	10474275	DECENTRALIZED
1	3	FLEX	1338EA	10436785	DECENTRALIZED
1	3	KNUCKLE JOIN	38230A	7186274	FREE
1	3	WREX CAPAC	32180A	11941352	DECENTRALIZED
1	3	MTMR FLECT	3218EB	403511	DECENTRALIZED
1	3	MTMR MANDRE	3218MB	402475	DECENTRALIZED

INSTRUMENT CONFIGURATION

Source File: /dat1a/husky_CA212510/run3-tdg



Diameter : 12.4 cm
 Length : 474.7 cm
 Weight : 124.1 kg
 Series : 133804
 Mnemonic : FLEX
 Measure Point: 171.1 cm: FLEX MP

FLEX MP 9.84 m

SHOULDER JOINT

Diameter : 8.8 cm
 Length : 79.8 cm
 Weight : 21.8 kg

MREX CAPACITOR CHAMBER SHL

Diameter : 9.2 cm
 Length : 271.1 cm
 Weight : 80.0 kg
 Series : 321804
 Mnemonic : MREX

MREX ELECTRONICS

Diameter : 12.7 cm
 Length : 211.8 cm
 Weight : 80.8 kg
 Series : 321803
 Mnemonic : MREX

MREX MAGNET

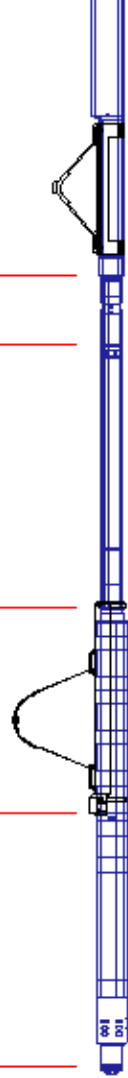
Diameter : 12.7 cm
 Length : 280.8 cm
 Weight : 140.8 kg
 Series : 321803
 Mnemonic : MREX
 Measure Point: 180.4 cm: ANTENNA

ANTENNA 1.58 m

BULL PLUG 3 3/8

TOTAL LENGTH: 32.88 m
 TOTAL WEIGHT: 886.5 kg
 MAX DIAMETER: 12.7 cm

0.00 m



MAIN PASS 2 - LIMESTONE MATRIX

ECLIPS 6.11 Aug 06, 2010
 Updates: 1 Patches: 1

Mon Feb 27 11:36:49 2012

Perplt /main/62 Cplot Pdf_Cpp /main/16 Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/huaky_CA212310/m878gf_XC06.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1540.840 m BOTTOM DEPTH: 1867.633 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
				TOP	BOTTOM
TTRM	FILTER (.td)	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		..	..
TENSION	FILTER ()	medium (1)		..	..
GR	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
MREX - POROSITY	FILTER ()	medium (1)		..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	222.000	mm	TOP	BOTTOM

MREX GENERAL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TGC	ACM NAME	PorofPerm + Gas		TOP	BOTTOM

MREX ACQUISITION PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TGC	SUBSET 0 INTERVAL	12.000	s	TOP	BOTTOM
	NUM FREQ GROUPS	1		''	''
	1ST FREQ	INDEX 12, 971.6 kHz		''	''
	2ND FREQ	INDEX 10, 864.1 kHz		''	''
	3RD FREQ	INDEX 8, 774.2 kHz		''	''
	4TH FREQ	INDEX 6, 693.2 kHz		''	''
	5TH FREQ	INDEX 4, 620.8 kHz		''	''
	6TH FREQ	INDEX 2, 560.4 kHz		''	''
	NOMINAL TIP ANG (B)	135	deg	''	''
	PULSE SHAPE	SOFT		''	''
	TV LONG MODE	NORMAL		''	''
	1ST T2 TE	0.60	ms	''	''
	2ND T2 TE	0.60	ms	''	''
	3RD T2 TE	0.60	ms	''	''
	4TH T2 TE	0.60	ms	''	''
	1ST T2 ECHOES	690		''	''
	2ND T2 ECHOES	690		''	''
	3RD T2 ECHOES	690		''	''
	4TH T2 ECHOES	690		''	''
	1ST T2 TW	8.303	s	''	''
	2ND T2 TW	9.223	s	''	''
	3RD T2 TW	0.983	s	''	''
	4TH T2 TW	11.097	s	''	''
	1ST T2 TRAIN LENGTH	414	ms	''	''
	2ND T2 TRAIN LENGTH	414	ms	''	''
	3RD T2 TRAIN LENGTH	414	ms	''	''
	4TH T2 TRAIN LENGTH	414	ms	''	''
	1ST BV1 TE	0.40	ms	''	''
	2ND BV1 TE	0.40	ms	''	''
	1ST BV1 ECHOES	25		''	''
	2ND BV1 ECHOES	25		''	''
	1ST BV1 TW	0.050		''	''
	2ND BV1 TW	0.100		''	''
	1ST BV1 TRAIN LEN	10	ms	''	''
	2ND BV1 TRAIN LEN	10	ms	''	''
	CBW TE	0.40	ms	''	''
	CBW ECHOES/PACKET	25		''	''
	CBW TRAIN LENGTH	10	ms	''	''
	1ST CBW PACKETS	16		''	''
	2ND CBW PACKETS	16		''	''
	3RD CBW PACKETS	16		''	''
	4TH CBW PACKETS	16		''	''
	CBW TW	0.020	s	''	''

MREX PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
NOISE & CAL PULSE SELECTION	FREQ DISPLAY SELECT	FREQUENCY A		TOP	BOTTOM
POROSITY	MBVI/MBVM BOUNDARY	CLASTIC (33 ms)		''	''
	USER MBVI/MBVM	33	ms	''	''
	CBW CUTOFF	3.4	ms	''	''
PERMEABILITY	Coates M exponent	4.000		''	''
	Coates N exponent	2.000		''	''
	Coates Constant	10.000		''	''
AVERAGING LENGTH (SAMPLES)	ET Averaging Length	8 samples		''	''
INVERSION (FITTING) PARAMETERS	T2 FIRST BIN	4.00	ms	''	''
	T2 LAST BIN	2048.00	ms	''	''
	T2 BINS USED	19		''	''
	BV1 FIRST BIN	4.00	ms	''	''
	BV1 LAST BIN	1024.00	ms	''	''
	BV1 BINS USED	13		''	''
	CBW FIRST BIN	0.33	ms	''	''
	CBW LAST BIN	1024.00	ms	''	''

	CSW BINS USED	16		..	..
	TPDR FIRST BIN	0.35	ms	..	..
	TPDR LAST BIN	2048.00	ms	..	..
	TPDR BINS USED	28		..	..
RESET PHASE ROTATION ANGLE	RESET ACCUM. PHASE			..	..
MREX FORMATION/BOREHOLE TEMP	BOREHOLE TEMP SRC	MEASURED (3961/3960)		..	..

PARAMETER AND FILTER SUMMARY REPORT

File: /data/huaky_CA212310/m77evh_xc03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 614.553 m BOTTOM DEPTH: 1872.150 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		..	..
TENSION	FILTER ()	medium (1)		..	..
GR	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
CN	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
CALIPER	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
	FILTER (.l)	medium (1)		..	..
ZDL MED RES	FILTER (hrd1°)	medium		..	..
	FILTER (hrd1a°)	medium		..	..
	FILTER (hrd2°)	medium		..	..
	FILTER (hrd2a°)	medium		..	..
ZDL HIGH RES	FILTER (hrd1°)	light		..	..
	FILTER (hrd1a°)	light		..	..
	FILTER (hrd2°)	light		..	..
	FILTER (hrd2a°)	light		..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	0.000	mm	..	..
BIT SIZE	BIT SIZE	222.000	mm	..	..
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		..	..
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		..	..
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	..	..
	FIXED DIAMETER (mbh*)	222.000	mm	..	..
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	OIL BASE MUD		..	..

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	..	..
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		..	..
	BIT SIZE BEHIND CSNG	311.000	mm	..	..

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOmatrix	2.710	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	..	..
	RHOmatrix (line)	2.710	g/cm3	..	..
ZDL	DENK TRACKING	ON		..	..

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RCTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		..	..
	ABC to CALCULATE	STANDOFF		..	..
	STANDOFF	38.10	mm	..	..
	TOOL POSITION	ECCENTERED		..	..
	Rmud MULTIPLIER	1.000		..	..

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 14 07:44:59 2012	BIT SIZE
F2:CAL	Feb 13 04:51:11 2012	CALIPER
F1:CHI	Feb 14 07:44:59 2012	GOODNESS OF FIT OF EACH ECHO DATA PACKET
F2:CNCLS	Feb 13 04:51:11 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GR	Feb 14 07:44:59 2012	GAMMA RAY
F2:M2R1	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F2:M2R3	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F2:M2R9	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:MBVI	Feb 14 07:44:59 2012	MR IRREDUCIBLE FLUIDS
F1:MPHE	Feb 14 07:44:59 2012	MR EFFECTIVE POROSITY
F1:MPHS	Feb 14 07:44:59 2012	MR TOTAL POROSITY
F1:MPRM	Feb 14 07:44:59 2012	MR PERMEABILITY
F2:PZLS	Feb 13 04:51:11 2012	POROSITY FOR LIMESTONE MATRIX
F1:QSHFA	Feb 14 07:44:59 2012	QUALITY OF SHIFTED DATA OF 1ST T2
F1:SPD	Feb 14 07:44:59 2012	SPEED
F1:TEM	Feb 14 07:44:59 2012	DIFFERENTIAL TENSION
F1:TPOR	Feb 14 07:44:59 2012	TOTAL POROSITY (CBW + T2 BIN ARRAY)

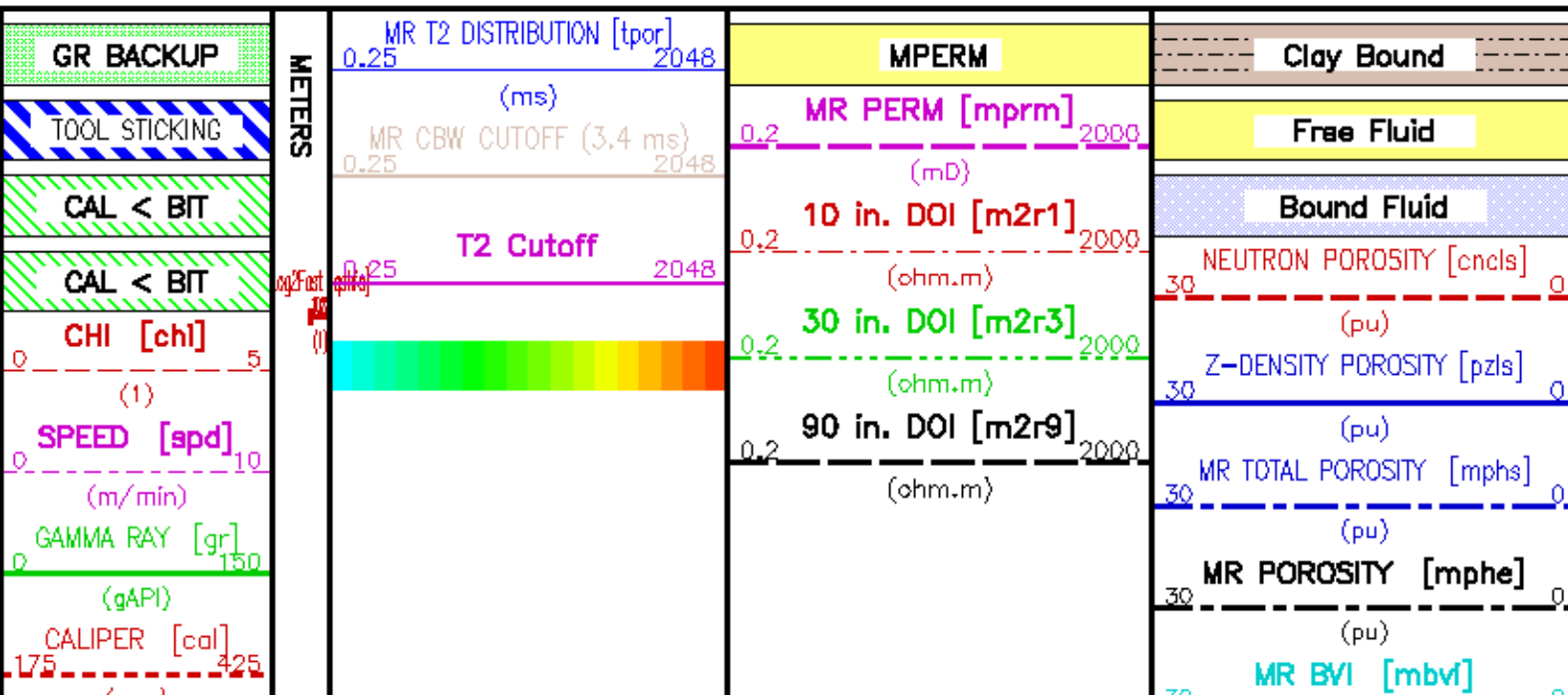
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M2R1	3.86	MPHS	1.52	TEM	0.00
CAL	26.06	M2R3	3.86	MPRM	1.52	TPOR	1.52
CHI	1.52	M2R9	3.86	PZLS	25.95		
CNCLS	29.30	MBVI	1.52	QSHFA	1.52		
GR	13.37	MPHE	1.52	SPD	0.00		

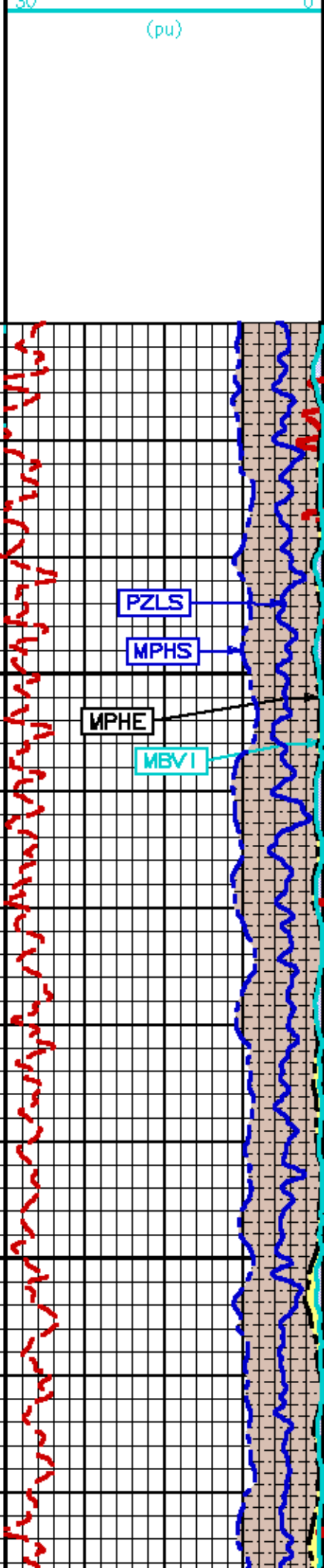
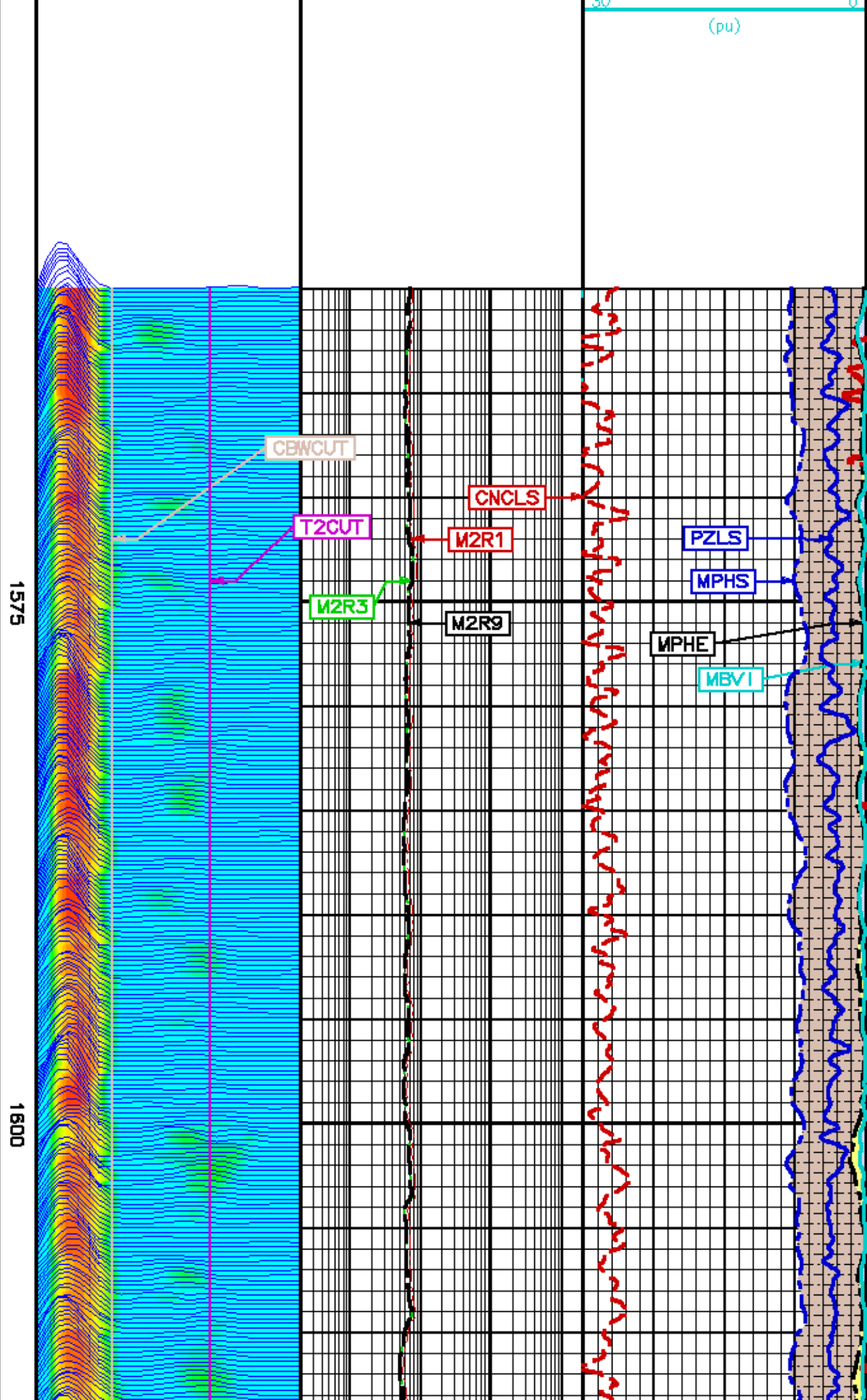
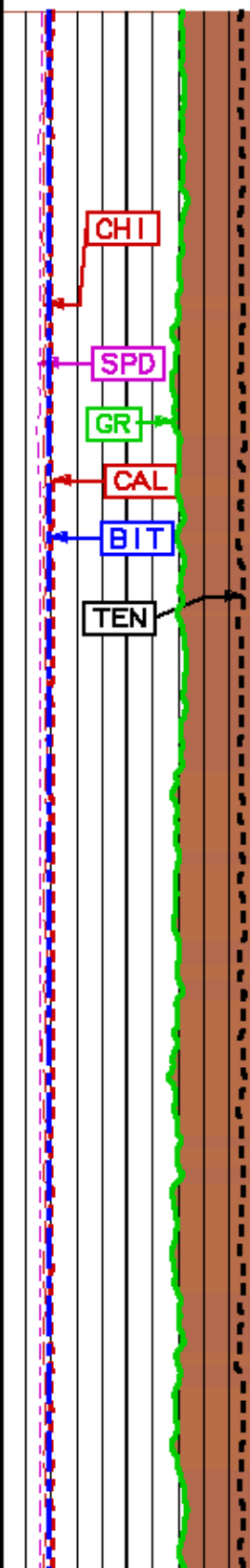
Presentation : epua:/data/husky_CA212310/mrnx_main2.pdf [1:240 Scale]
 Plot Interval : 1560 - 1867.59 Meters

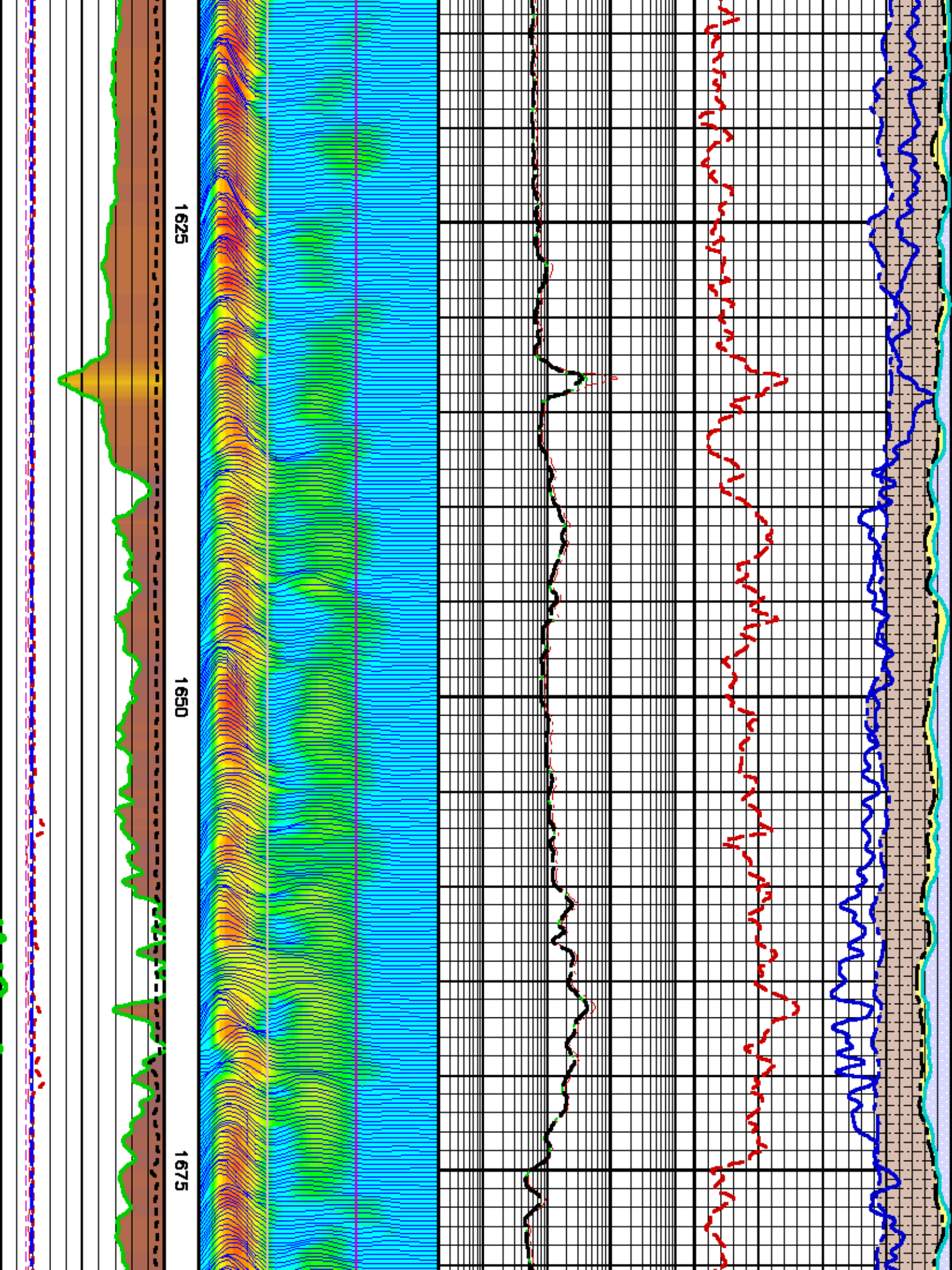
Data File 1 : F1 : epua:/data/husky_CA212310/m876gf_XC06.aiff
 Created On : Feb 14 07:44:59 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-9
 Field : SLATER RIVER
 File Interval : 1523.62 - 1867.59 Meters
 Out : m876gf_X

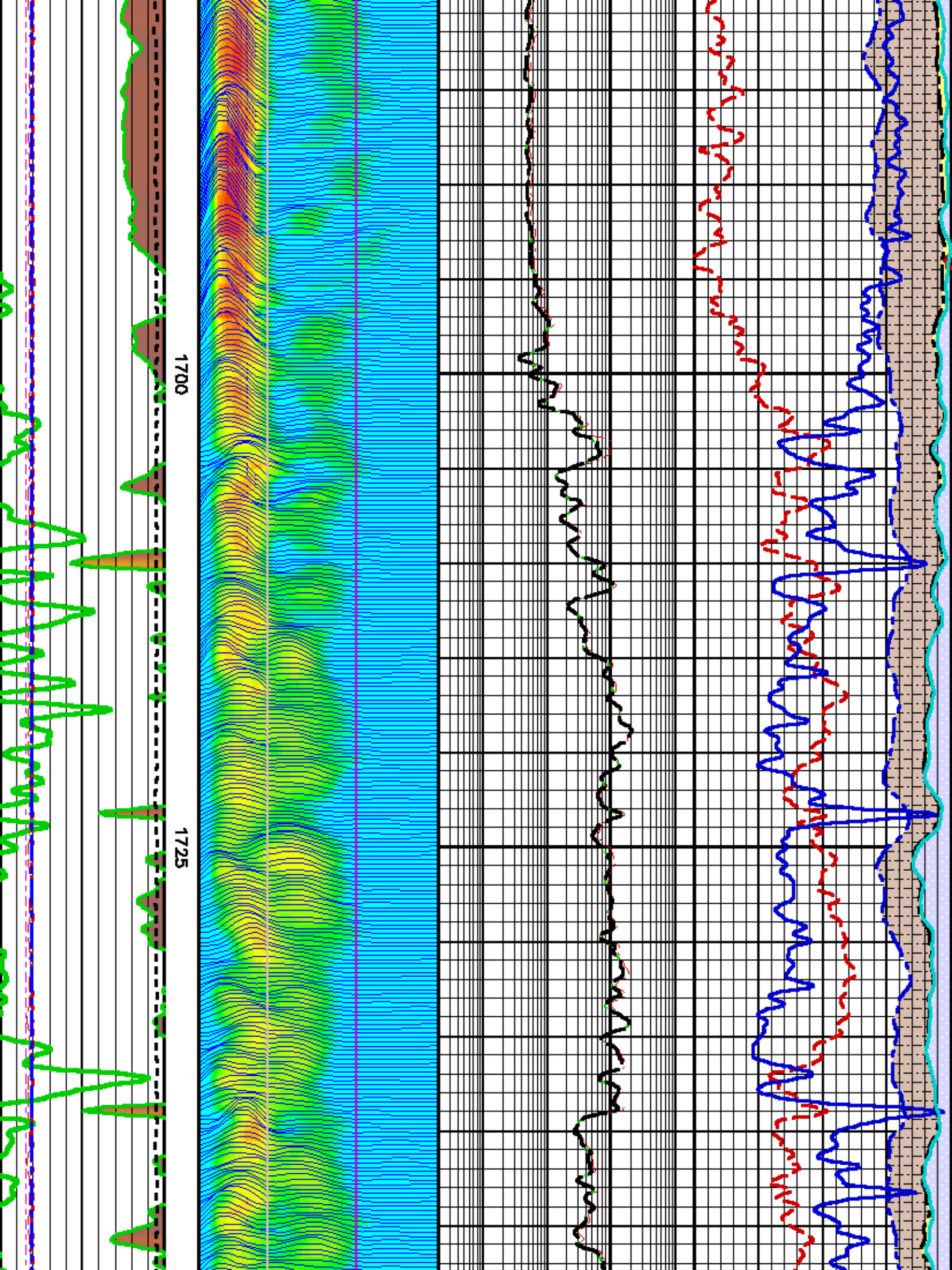
Data File 2 : F2 : epua:/data/husky_CA212310/r101_main.aiff
 Created On : Feb 13 04:51:11 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-9
 Field : SLATER RIVER
 File Interval : 579.198 - 1870.98 Meters
 Out : m77erh_x

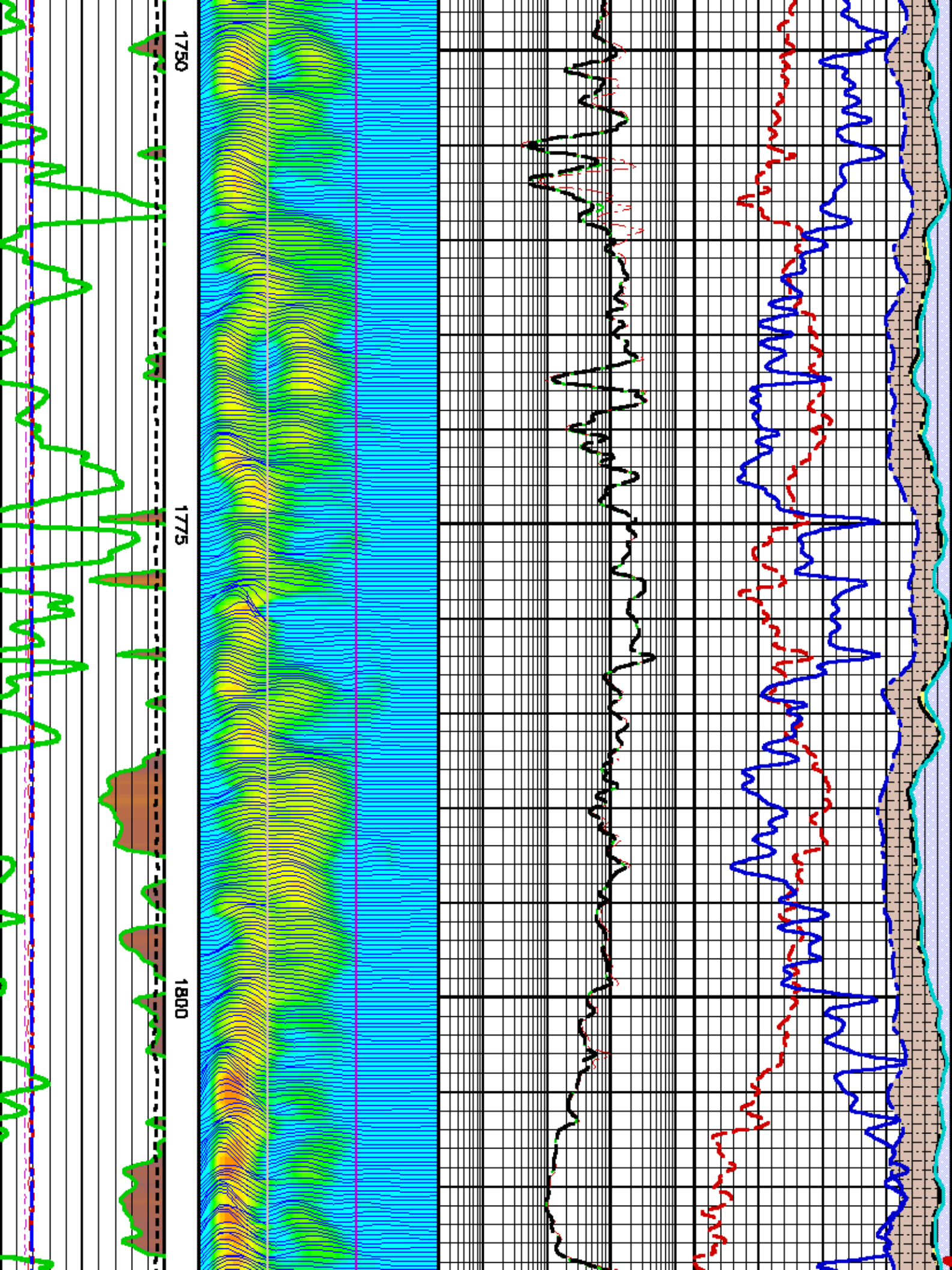


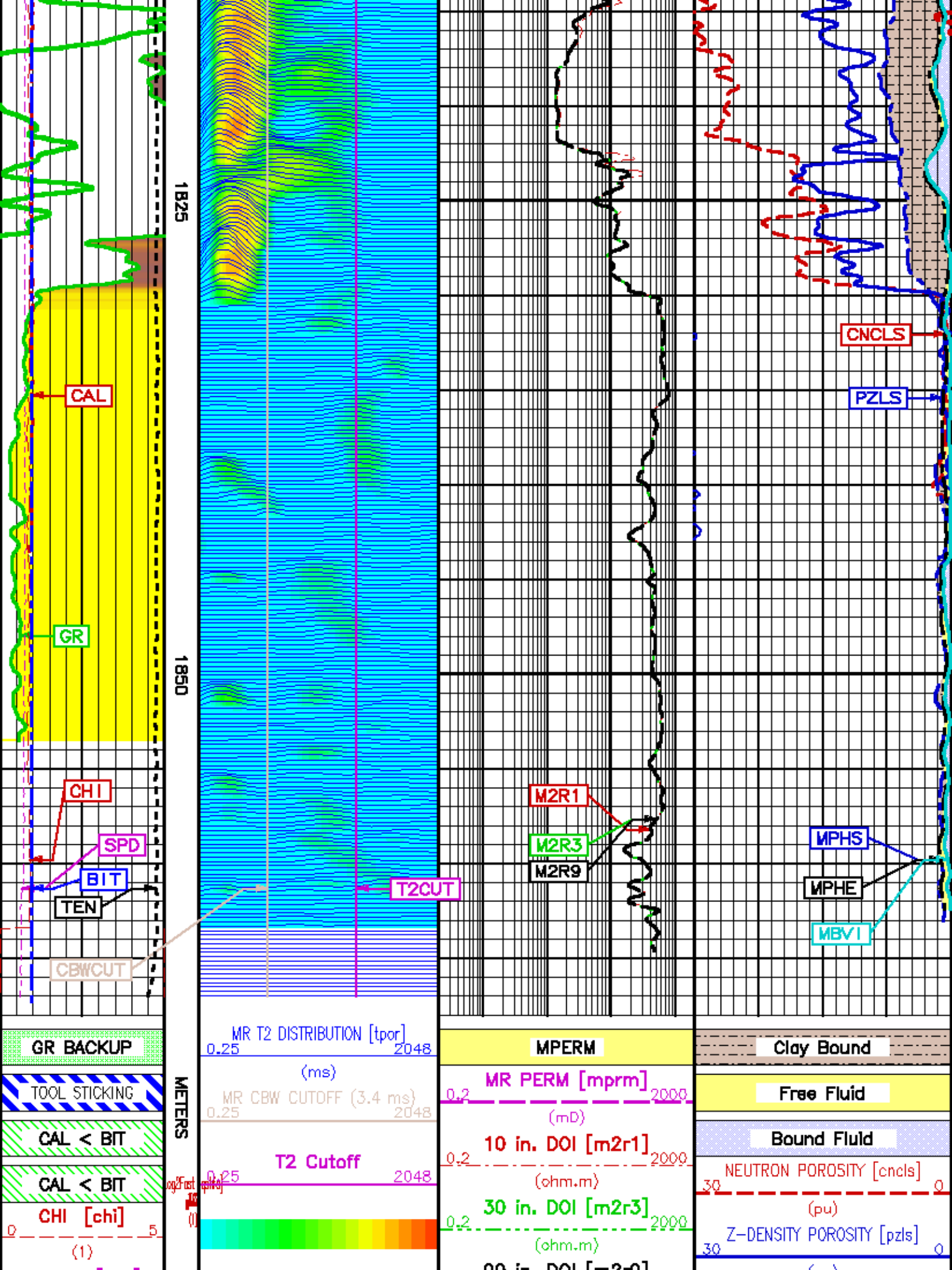
(mm)
BIT SIZE
175 ----- 425
(mm)
DIFF. TENSION [ten]
1900 ----- -100
(kgf)
GR IMAGE [gr] 1











1825

1850

METERS

CAL

GR

CHI

SPD

BIT

TEN

CBWCUT

T2CUT

M2R1

M2R3

M2R9

CNCLS

PZLS

MPHS

MPHE

MBVI

GR BACKUP

TOOL STICKING

CAL < BIT

CAL < BIT

CHI [chi]

(1)

MR T2 DISTRIBUTION [tpor]

0.25 2048

(ms)

MR CBW CUTOFF (3.4 ms)

0.25 2048

T2 Cutoff

0.25 2048

MPERM

MR PERM [mprm]

0.2 2000

(mD)

10 in. DOI [m2r1]

0.2 2000

(ohm.m)

30 in. DOI [m2r3]

0.2 2000

(ohm.m)

90 in. DOI [m2r9]

Clay Bound

Free Fluid

Bound Fluid

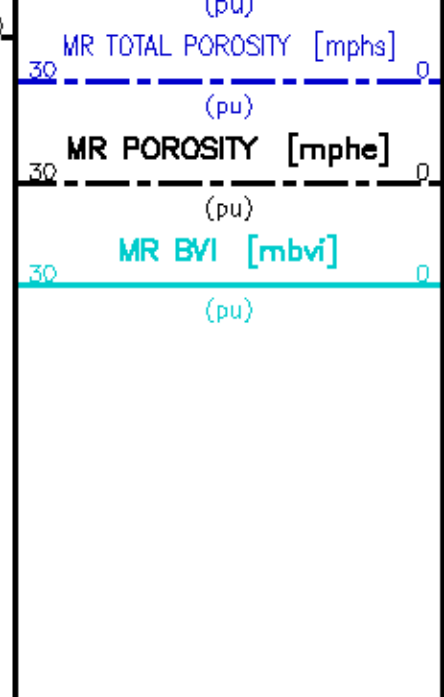
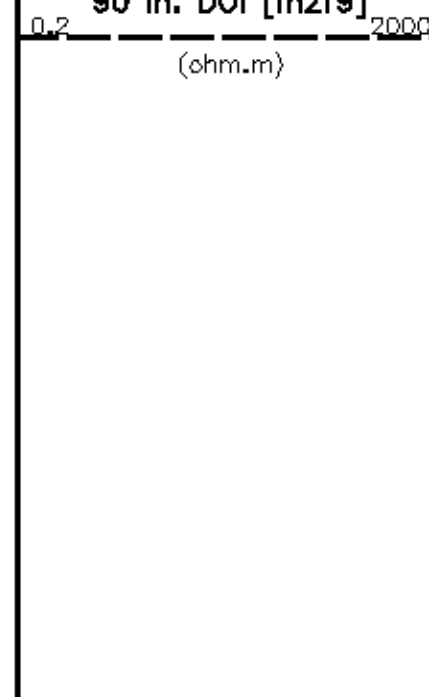
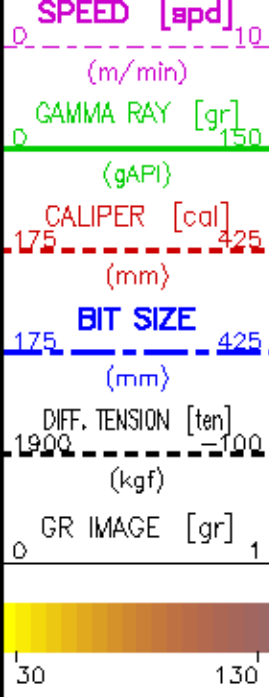
NEUTRON POROSITY [cncls]

30 0

(pu)

Z-DENSITY POROSITY [pzls]

30 0



MAIN PASS 1 - LIMESTONE MATRIX

ECLIPS 6.11 Aug 06, 2010
 Updates: 1 Patches: 1

Mon Feb 27 11:54:40 2012

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/husky_CA212310/m878gf_KC03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1547.622 m BOTTOM DEPTH: 1898.445 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
TTRM	FILTER (.td)	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		..	..
TENSION	FILTER ()	medium (1)		..	..
GR	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
MREX - POROSITY	FILTER ()	medium (1)		..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	222.000	mm	TOP	BOTTOM

MREX GENERAL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TCC	ACM NAME	PorosPerm + Light Oil		TOP	BOTTOM

MREX ACQUISITION PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TCC	SUBSET 0 INTERVAL	12.000	m	TOP	BOTTOM
	NUM FREQ GROUPS	1		..	..

1ST FREQ	INDEX 12, 971.6 kHz		
2ND FREQ	INDEX 10, 864.1 kHz		
3RD FREQ	INDEX 8, 774.2 kHz		
4TH FREQ	INDEX 6, 683.2 kHz		
5TH FREQ	INDEX 4, 620.8 kHz		
6TH FREQ	INDEX 2, 560.4 kHz		
NOMINAL TIP ANG (B)	135	deg	
PULSE SHAPE	SOFT		
1ST T2 TE	0.40	ms	
2ND T2 TE	2.70	ms	
3RD T2 TE	2.70	ms	
1ST T2 ECHOS	1000		
2ND T2 ECHOS	148		
3RD T2 ECHOS	148		
1ST T2 TW	9.224	s	
2ND T2 TW	8.292	s	
3RD T2 TW	1.011	s	
1ST T2 TRAIN LENGTH	400	ms	
2ND T2 TRAIN LENGTH	388	ms	
3RD T2 TRAIN LENGTH	388	ms	
CBW TE	0.40	ms	
CBW ECHOS/PACKET	25		
CBW TRAIN LENGTH	10	ms	
1ST CBW PACKETS	16		
CBW TW	0.020	s	

MREX PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
NOISE & GAL PULSE SELECTION	FREQ DISPLAY SELECT	FREQUENCY A		TOP	BOTTOM
POROSITY	NEVI/NEVM BOUNDARY	CLASTIC (33 ms)		''	''
	USER NEVI/NEVM	33	ms	''	''
	CBW CUTOFF	3.4	ms	''	''
PERMEABILITY	Coates M exponent	4.000		''	''
	Coates N exponent	2.000		''	''
	Coates Constant	10.000		''	''
AVERAGING LENGTH (SAMPLES)	ET Averaging Length	5 samples		''	''
INVERSION (FITTING) PARAMETERS	T2 FIRST BIN	4.00	ms	''	''
	T2 LAST BIN	2048.00	ms	''	''
	T2 BINS USED	19		''	''
	BV1 FIRST BIN	4.00	ms	''	''
	BV1 LAST BIN	1024.00	ms	''	''
	BV1 BINS USED	13		''	''
	CBW FIRST BIN	0.35	ms	''	''
	CBW LAST BIN	1024.00	ms	''	''
	CBW BINS USED	16		''	''
	TPDR FIRST BIN	0.35	ms	''	''
	TPDR LAST BIN	2048.00	ms	''	''
	TPDR BINS USED	28		''	''
RESET PHASE ROTATION ANGLE	RESET ACCUM. PHASE			''	''
MREX FORMATION/BOREHOLE TEMP	BOREHOLE TEMP SRC	MEASURED (3881/3880)		''	''

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212510/m77evh_xc05.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 814.553 m BOTTOM DEPTH: 1872.139 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		''	''
TENSION	FILTER ()	medium (1)		''	''
GR	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
CN	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
CALIPER	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
ZDL MED RES	FILTER (hrd1*)	medium		''	''
	FILTER (hrd1e*)	medium		''	''
	FILTER (hrd2*)	medium		''	''
	FILTER (hrd2e*)	medium		''	''

ZDL HIGH RES	FILTER (hrd1*)	light	..	..
	FILTER (hrd1a*)	light	..	..
	FILTER (hrd2*)	light	..	..
	FILTER (hrd2a*)	light	..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	0.000	mm	..	..
BIT SIZE	BIT SIZE	222.000	mm	..	..
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		..	..
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		..	..
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	..	..
	FIXED DIAMETER (mbh*)	222.000	mm	..	..
BH MUD RESISTIVITY SOURCE	RMD SOURCE (HDIL)	OIL BASE MUD		..	..

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	..	..
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		..	..
	BIT SIZE BEHIND CSNG	311.000	mm	..	..

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHDmatrix	2.710	g/cm3	TOP	BOTTOM
	RHDfluid	1.000	g/cm3	..	..
	RHDmatrix (line)	2.710	g/cm3	..	..
ZDL	DENK TRACKING	ON		..	..

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		..	..
	ABC to CALCULATE	STANDOFF		..	..
	STANDOFF	38.10	mm	..	..
	TOOL POSITION	ECCENTERED		..	..
	Rmud MULTIPLIER	1.000		..	..

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 14 03:44:35 2012	BIT SIZE
F2:CAL	Feb 13 04:51:11 2012	CALIPER
F1:CHI	Feb 14 03:44:35 2012	GOODNESS OF FIT OF EACH ECHO DATA PACKET
F2:CNCLS	Feb 13 04:51:11 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GR	Feb 14 03:44:35 2012	GAMMA RAY
F2:M2R1	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F2:M2R3	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F2:M2R8	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 80-INCH DOI
F1:MBV1	Feb 14 03:44:35 2012	MR IRREDUCIBLE FLUIDS
F1:MPHE	Feb 14 03:44:35 2012	MR EFFECTIVE POROSITY
F1:MPHS	Feb 14 03:44:35 2012	MR TOTAL POROSITY
F1:MPRM	Feb 14 03:44:35 2012	MR PERMEABILITY
F2:PZLS	Feb 13 04:51:11 2012	POROSITY FOR LIMESTONE MATRIX
F1:QSHFA	Feb 14 03:44:35 2012	QUALITY OF SHIFTED DATA OF 1ST T2
F1:SPD	Feb 14 03:44:35 2012	SPEED
F1:TEM	Feb 14 03:44:35 2012	DIFFERENTIAL TENSION
F1:TPOR	Feb 14 03:44:35 2012	TOTAL POROSITY (CEW + T2 BIN ARRAY)

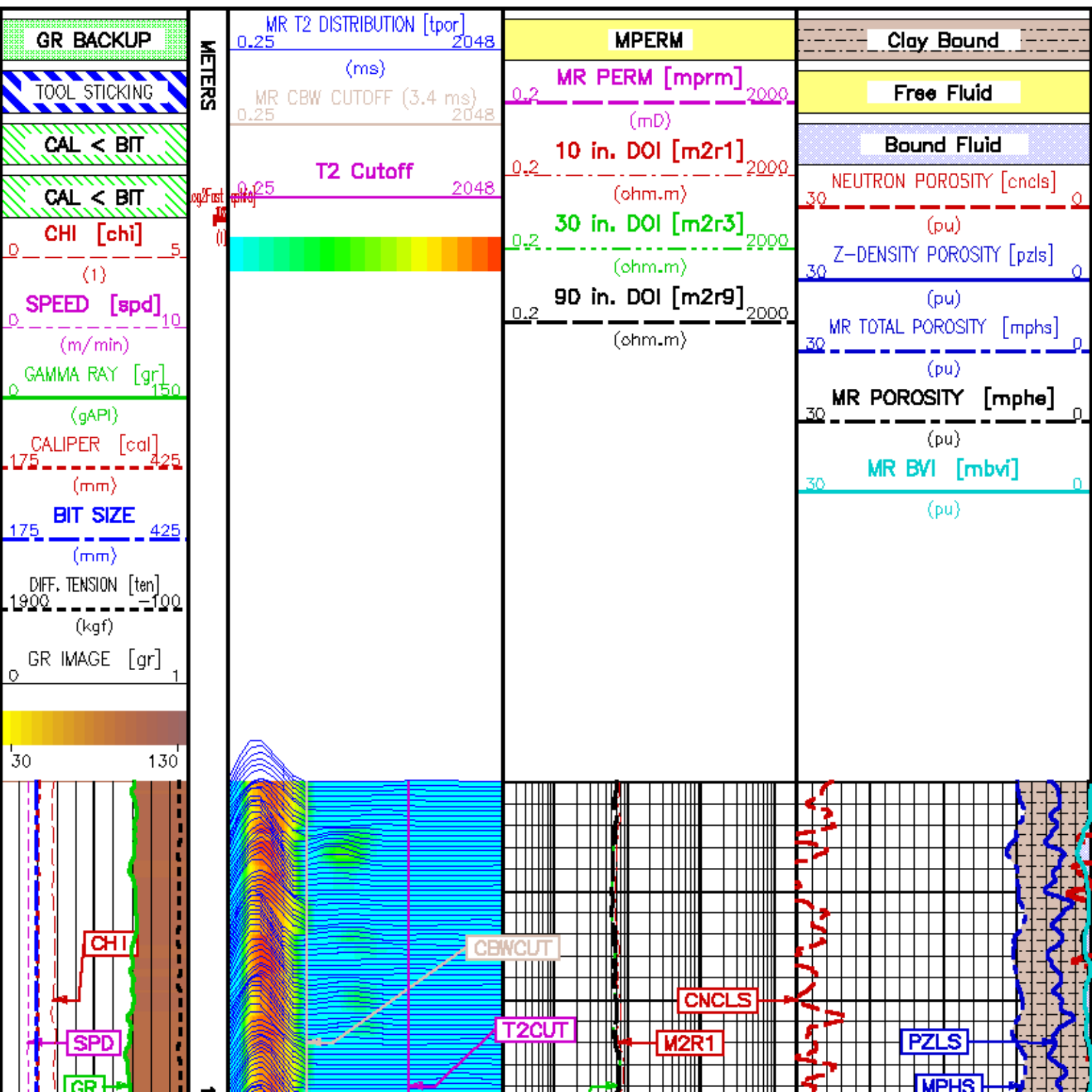
CURVE MEASURE POINT OFFSET

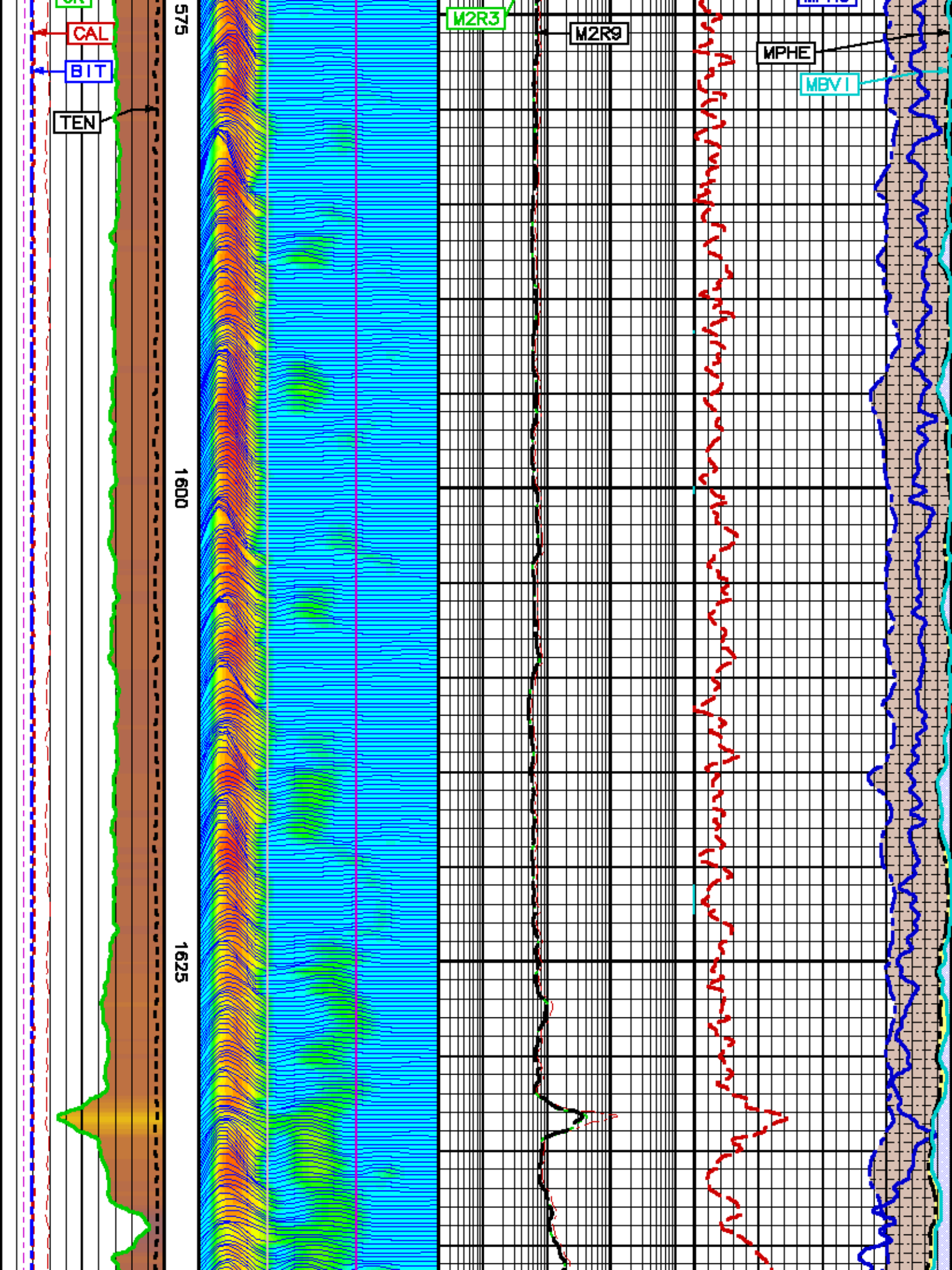
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M2R1	3.88	MPHS	1.52	TEM	0.00
CAL	26.08	M2R3	3.88	MPRM	1.52	TPOR	1.52
CHI	1.52	M2R8	3.88	PZLS	25.85		
CNCLS	29.30	MBV1	1.52	QSHFA	1.52		
GR	13.37	MPHE	1.52	SPD	0.00		

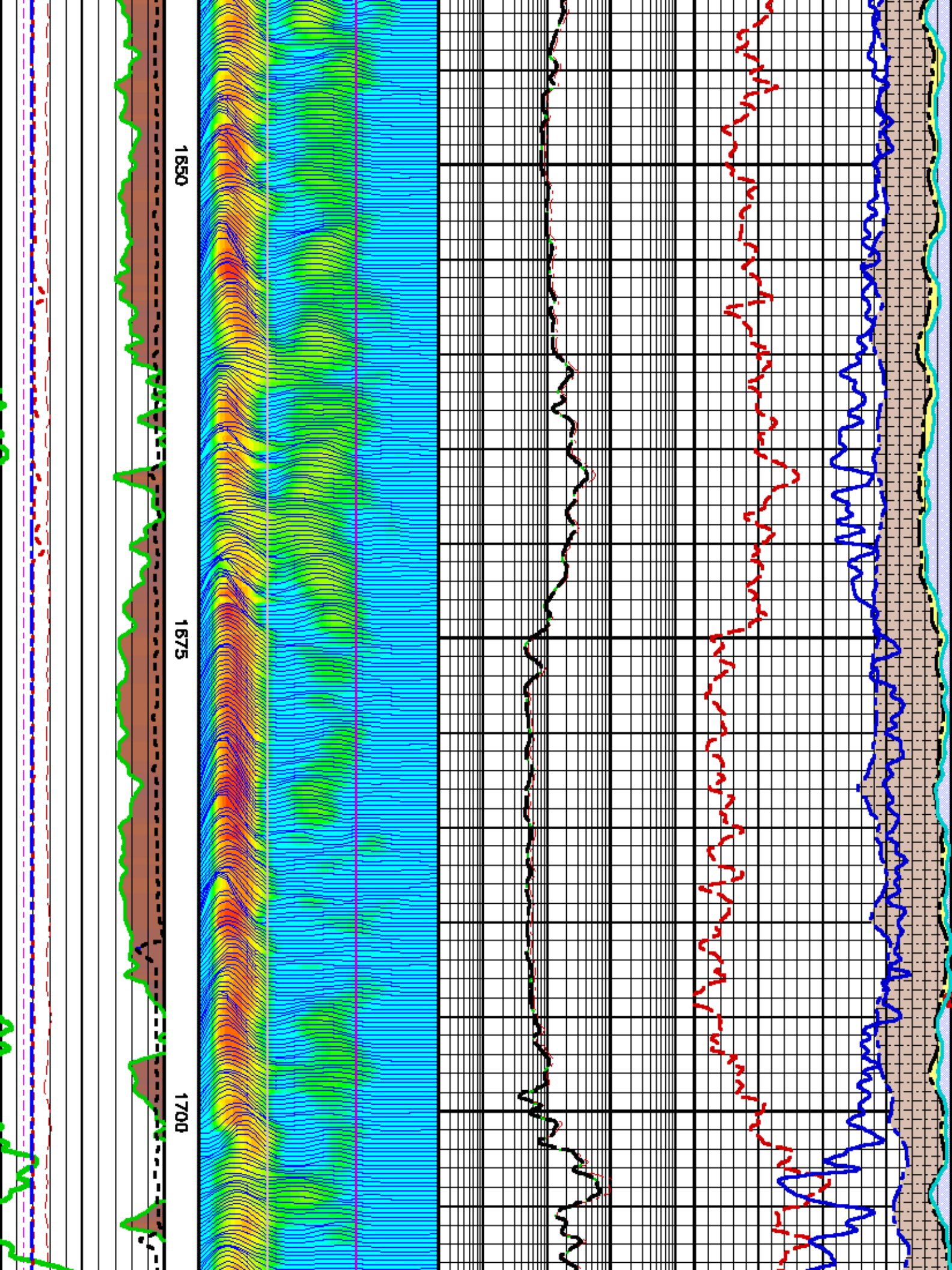
Presentation : epuz/dat1a/husky_CA212310/mrx_main1.pdf [1:240 Scale]
Plot Interval : 1580 - 1868.42 Meters

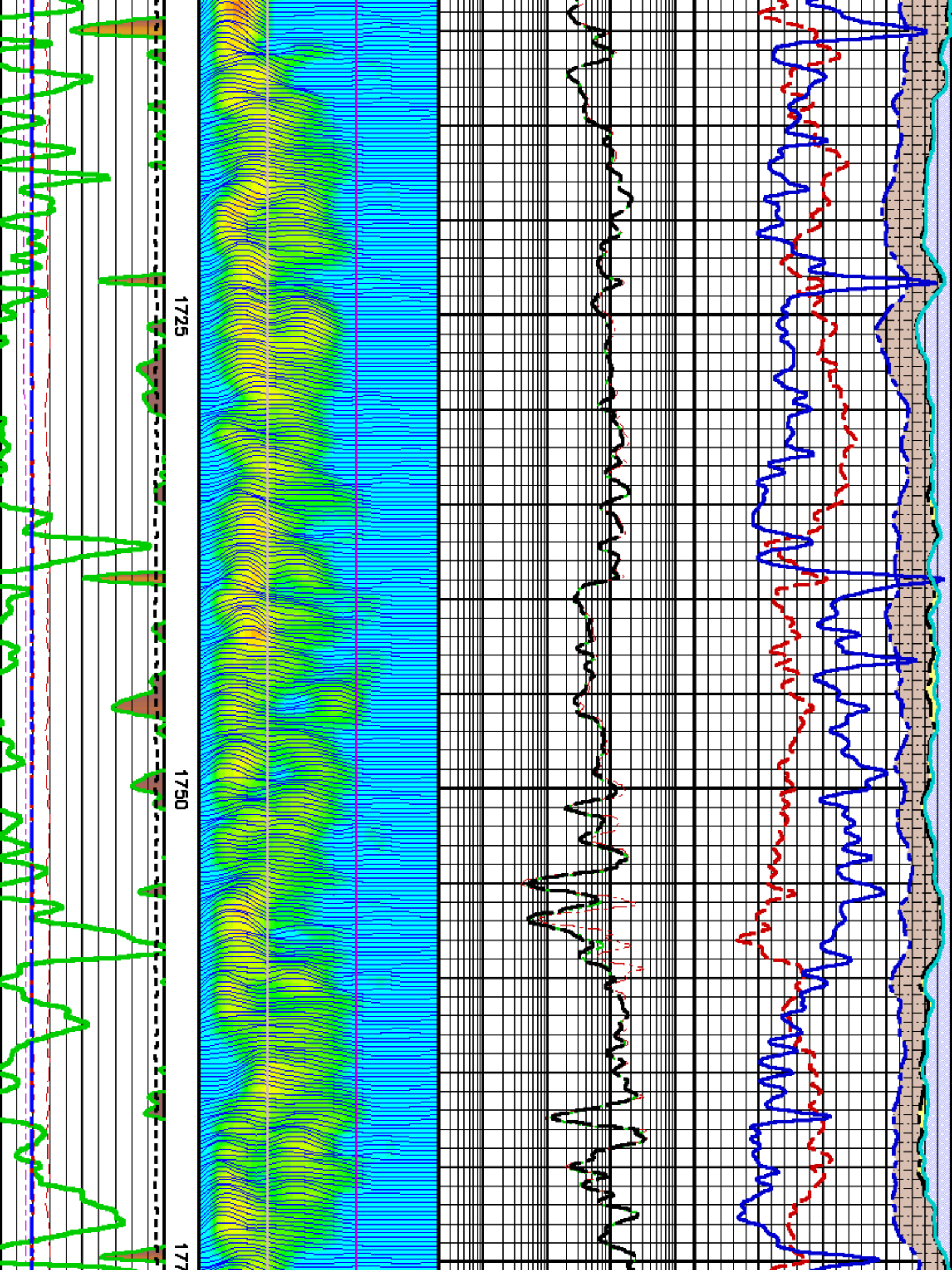
Data File 1 : F1 : epuz/dat1a/husky_CA212310/m876gf_X003.aiff
Created On : Feb 14 03:44:35 2012
Company : HUSKY OIL OPERATIONS LIMITED
Well : LITTLE BEAR N-8
Field : SLATER RIVER
File Interval : 1530.4 - 1868.42 Meters
Oct : m876gf_X

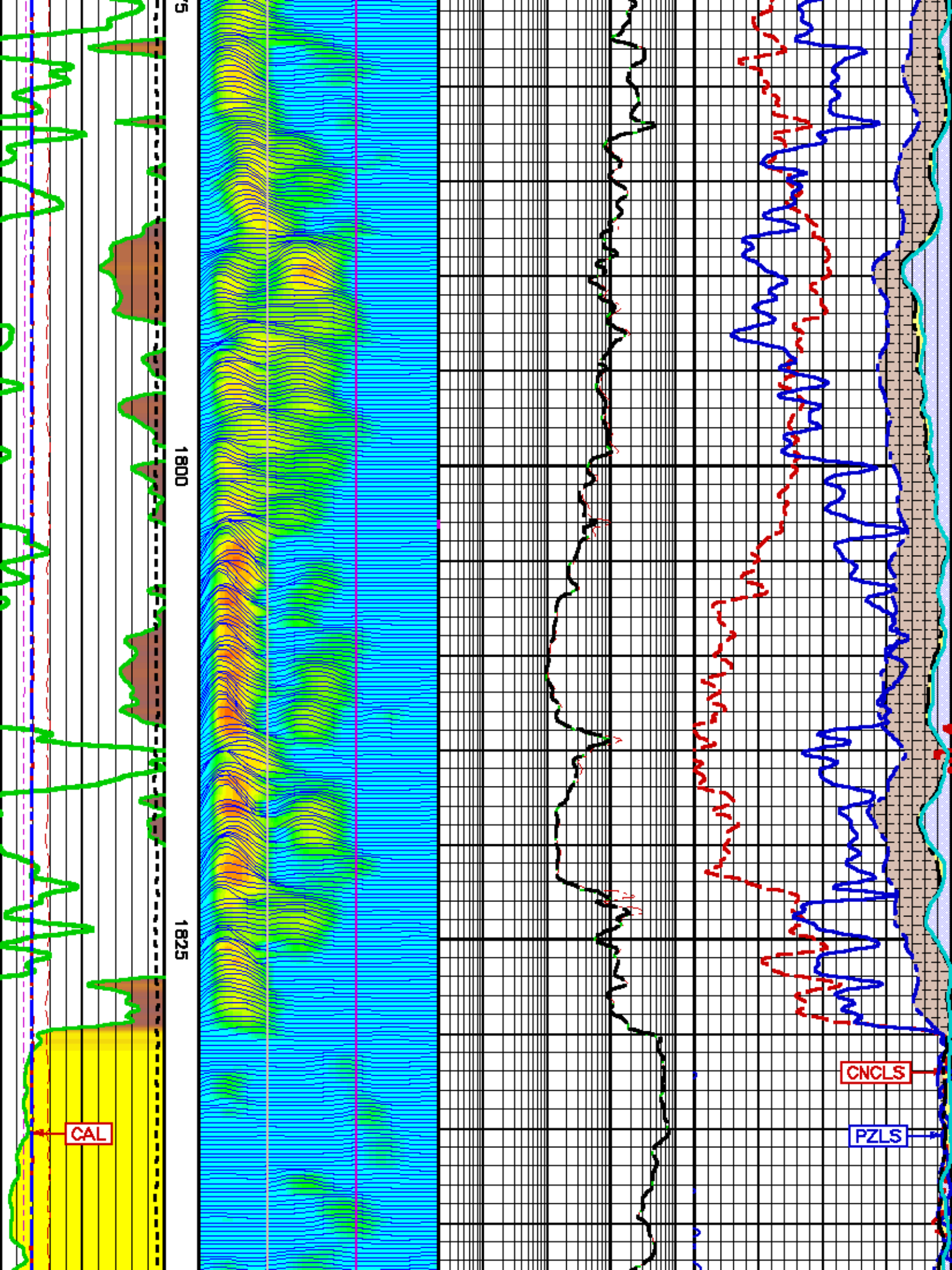
Data File 2 : F2 : epuz/dat1a/husky_CA212310/r1f1_main.aiff
Created On : Feb 13 04:51:11 2012
Company : HUSKY OIL OPERATIONS LIMITED
Well : LITTLE BEAR N-8
Field : SLATER RIVER
File Interval : 578.188 - 1870.88 Meters
Oct : m77wh_x

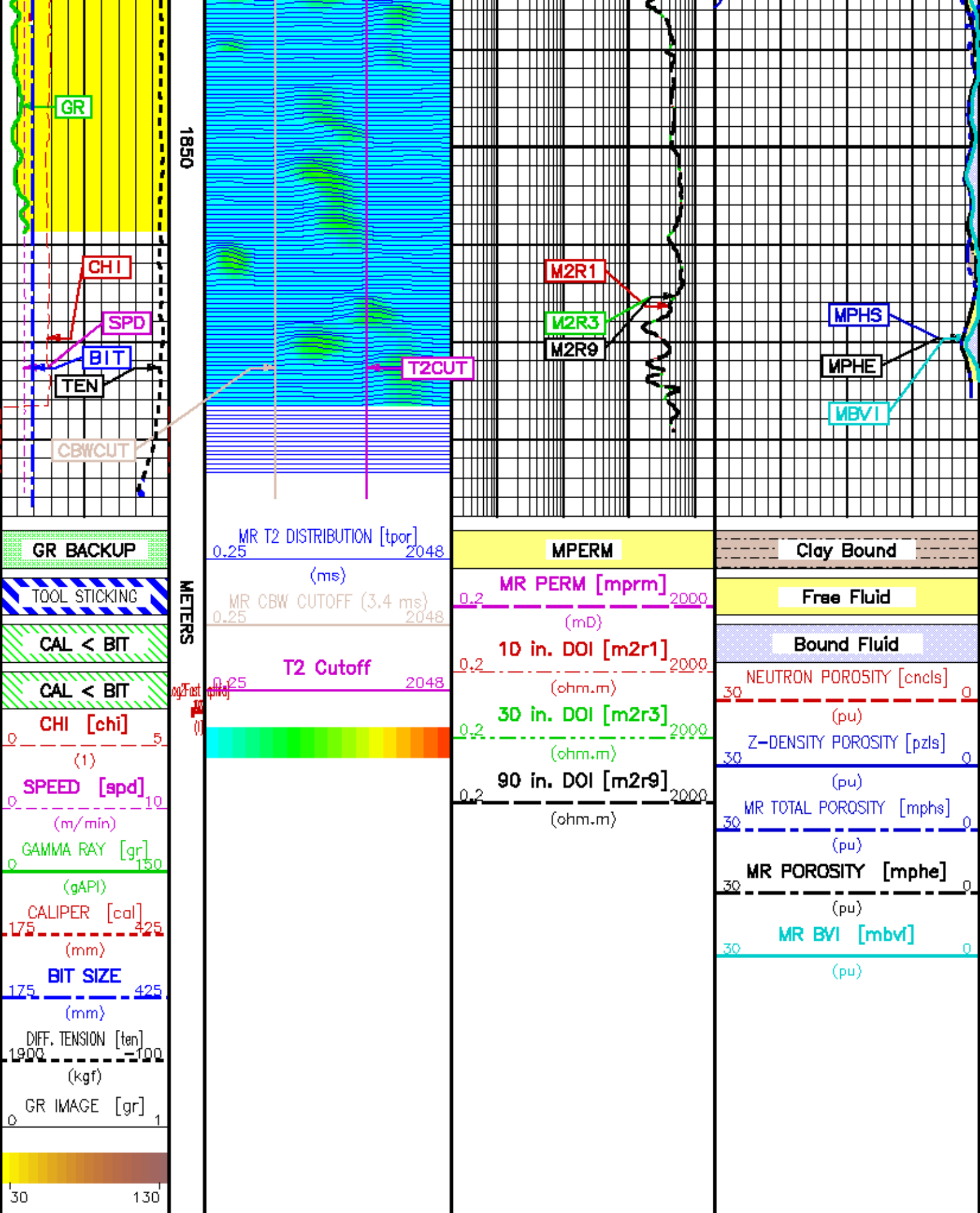












REPEAT PASS - LIMESTONE MATRIX

ECLIPS 6.11 Aug 06, 2010
 Updates: 1 Patches: 1

Mon Feb 27 11:38:51 2012

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/husky_CA212310/m878gf_XC02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1754.794 m BOTTOM DEPTH: 1858.252 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
TTRM	FILTER (.td)	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		..	..
TENSION	FILTER ()	medium (1)		..	..
GR	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
MREX - POROSITY	FILTER ()	medium (1)		..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	222.000	mm	TOP	BOTTOM

MREX GENERAL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TOC	ACM NAME	PoroPerm + Light Oil		TOP	BOTTOM

MREX ACQUISITION PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MREX TOC	SUBSET 0 INTERVAL	12.000	s	TOP	BOTTOM
	NUM FREQ GROUPS	1		..	..
	1ST FREQ	INDEX 12, 971.6 kHz		..	..
	2ND FREQ	INDEX 10, 864.1 kHz		..	..
	3RD FREQ	INDEX 8, 774.2 kHz		..	..
	4TH FREQ	INDEX 6, 693.2 kHz		..	..
	5TH FREQ	INDEX 4, 620.8 kHz		..	..
	6TH FREQ	INDEX 2, 560.4 kHz		..	..
	NOMINAL TIP ANG (B)	135	deg	..	..
	PULSE SHAPE	SOFT		..	..
	1ST T2 TE	0.40	ms	..	..
	2ND T2 TE	2.70	ms	..	..
	3RD T2 TE	2.70	ms	..	..
	1ST T2 ECHOES	1000		..	..
	2ND T2 ECHOES	148		..	..
	3RD T2 ECHOES	148		..	..
	1ST T2 TW	9.224	ms	..	..
	2ND T2 TW	8.292	ms	..	..
	3RD T2 TW	1.011	ms	..	..
	1ST T2 TRAIN LENGTH	400	ms	..	..
	2ND T2 TRAIN LENGTH	399	ms	..	..
	3RD T2 TRAIN LENGTH	399	ms	..	..
	CBW TE	0.40	ms	..	..
	CBW ECHOES/PACKET	25		..	..
	CBW TRAIN LENGTH	10	ms	..	..
	1ST CBW PACKETS	16		..	..
	CBW TW	0.020	ms	..	..

MREX PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
NOISE & CAL PULSE SELECTION	FREQ DISPLAY SELECT	FREQUENCY A		TOP	BOTTOM
POROSITY	MBV1/MBVM BOUNDARY	CLASTIC (35 ms)		..	..
	MBV1/MBVM AVAL	35	ms	..	..

	USDR MBV/MBVM	33	no	''	''
	CBW CUTOFF	3.4	no	''	''
PERMEABILITY	Coates M exponent	4.000		''	''
	Coates N exponent	2.000		''	''
	Coates Constant	10.000		''	''
AVERAGING LENGTH (SAMPLES)	ET Averaging Length	5 samples		''	''
INVERSION (FITTING) PARAMETERS	T2 FIRST BIN	4.00	no	''	''
	T2 LAST BIN	2048.00	no	''	''
	T2 BINS USED	19		''	''
	BN1 FIRST BIN	4.00	no	''	''
	BN1 LAST BIN	1024.00	no	''	''
	BN1 BINS USED	13		''	''
	CBW FIRST BIN	0.35	no	''	''
	CBW LAST BIN	1024.00	no	''	''
	CBW BINS USED	16		''	''
	TPDR FIRST BIN	0.35	no	''	''
TPDR LAST BIN	2048.00	no	''	''	
TPDR BINS USED	28		''	''	
RESET PHASE ROTATION ANGLE	RESET ACCUM. PHASE			''	''
MREX FORMATION/BOREHOLE TEMP	BOREHOLE TEMP SRC	MEASURED (3981/3980)		''	''

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212310/m77evh_xc03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 814.553 m BOTTOM DEPTH: 1872.139 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
SPEED	FILTER ()	medium (1)		''	''
TENSION	FILTER ()	medium (1)		''	''
GR	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
CN	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
CALIPER	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
ZDL MED RES	FILTER (hrd1*)	medium		''	''
	FILTER (hrd1a*)	medium		''	''
	FILTER (hrd2*)	medium		''	''
	FILTER (hrd2a*)	medium		''	''
ZDL HIGH RES	FILTER (hrd1*)	light		''	''
	FILTER (hrd1a*)	light		''	''
	FILTER (hrd2*)	light		''	''
	FILTER (hrd2a*)	light		''	''

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	0.000	mm	''	''
BIT SIZE	BIT SIZE	222.000	mm	''	''
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (onbh*)	USE CALIPER		''	''
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		''	''
BOREHOLE CORR DIAMETER	FIXED DIAMETER (onbh*)	222.000	mm	''	''
	FIXED DIAMETER (mbh*)	222.000	mm	''	''
BH MUD RESISTIVITY SOURCE	RMD SOURCE (HDIL)	OIL BASE MUD		''	''

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	''	''
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		''	''
	BIT SIZE BEHIND CSNG	311.000	mm	''	''

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOmatrix	2.710	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	''	''

ZDL	RHOmatrix (line)	2.710	g/cm3	..	..
	DENK TRACKING	ON		..	..

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		..	..
	ABC to CALCULATE	STANDOFF		..	..
	STANDOFF	38.10	mm	..	..
	TOOL POSITION	ECCENTERED		..	..
	Round MULTIPLIER	1.000		..	..

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 14 02:28:42 2012	BIT SIZE
F2:CAL	Feb 13 04:51:11 2012	CALIPER
F1:CHI	Feb 14 02:28:42 2012	GOODNESS OF FIT OF EACH ECHO DATA PACKET
F2:CNCLS	Feb 13 04:51:11 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GR	Feb 14 02:28:42 2012	GAMMA RAY
F2:M2R1	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F2:M2R3	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F2:M2R9	Feb 13 04:51:11 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:MBV1	Feb 14 02:28:42 2012	MR IRREDUCIBLE FLUIDS
F1:MPHE	Feb 14 02:28:42 2012	MR EFFECTIVE POROSITY
F1:MPHS	Feb 14 02:28:42 2012	MR TOTAL POROSITY
F1:MPRM	Feb 14 02:28:42 2012	MR PERMEABILITY
F2:FZLS	Feb 13 04:51:11 2012	POROSITY FOR LIMESTONE MATRIX
F1:QSHFA	Feb 14 02:28:42 2012	QUALITY OF SHIFTED DATA OF 1ST T2
F1:SPD	Feb 14 02:28:42 2012	SPEED
F1:TEN	Feb 14 02:28:42 2012	DIFFERENTIAL TENSION
F1:TPOR	Feb 14 02:28:42 2012	TOTAL POROSITY (CBW + T2 BIN ARRAY)

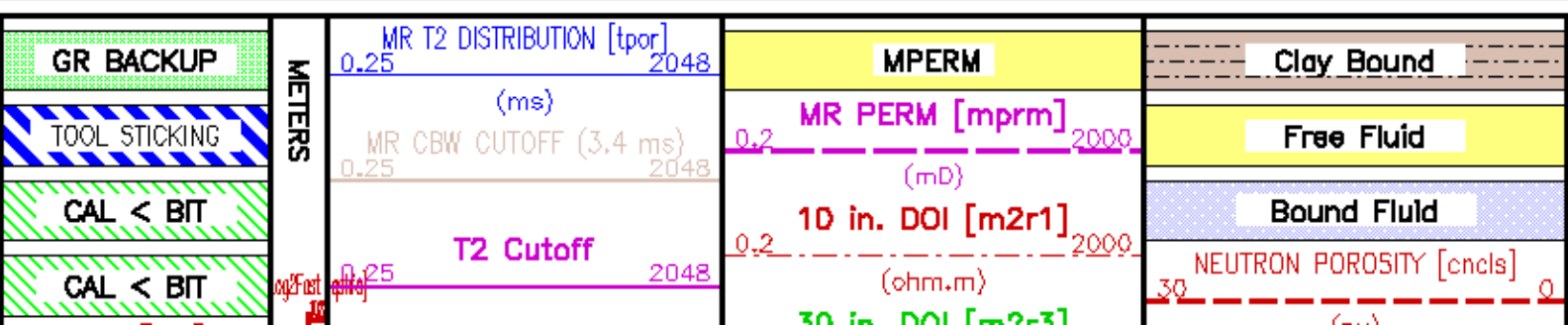
CURVE MEASURE POINT OFFSET

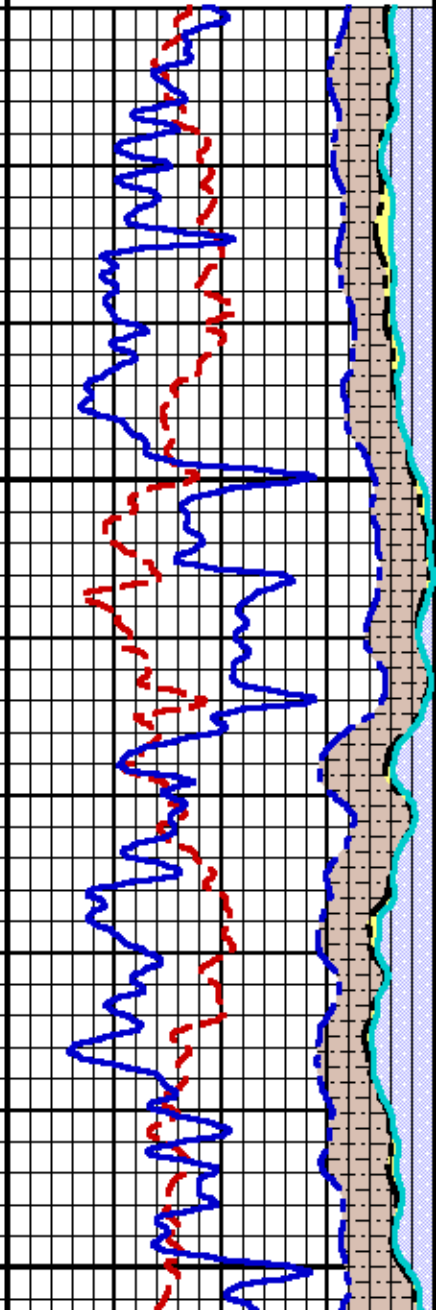
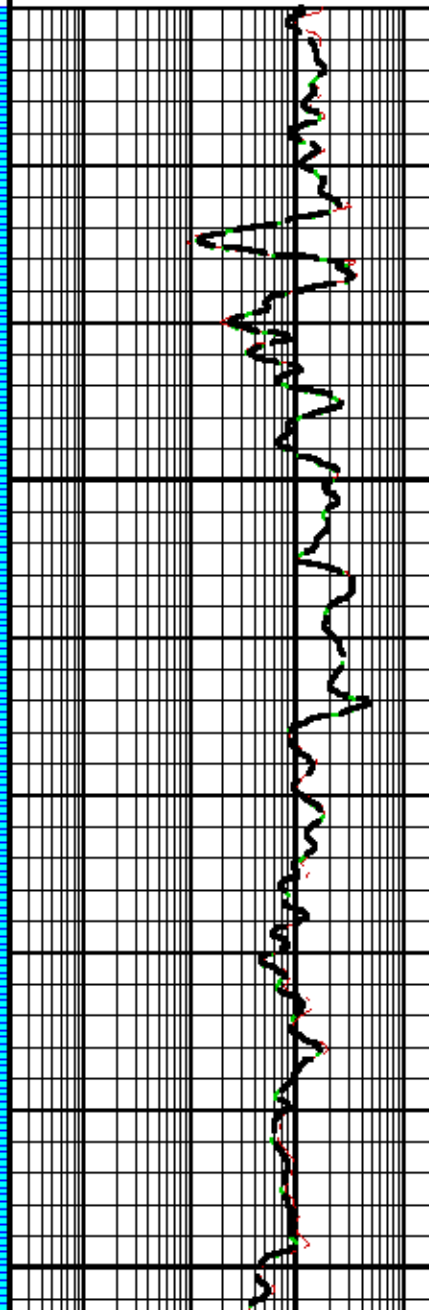
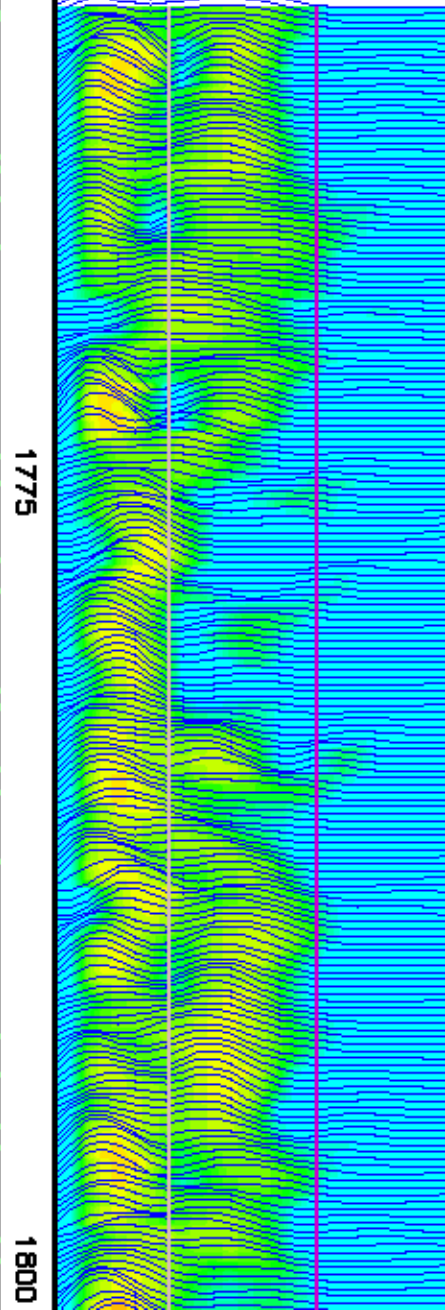
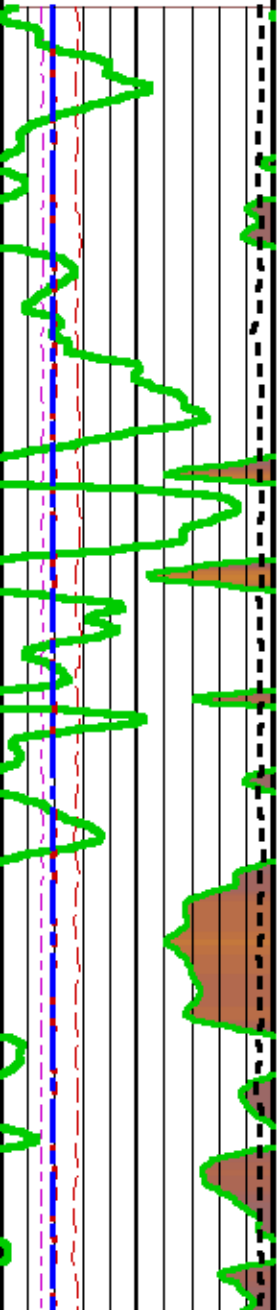
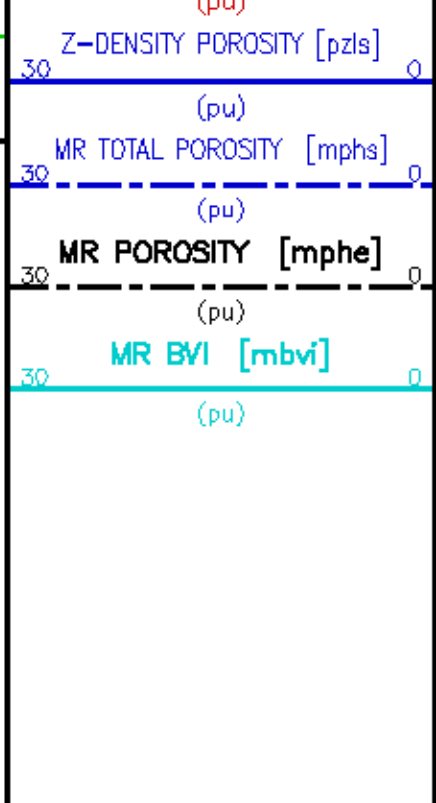
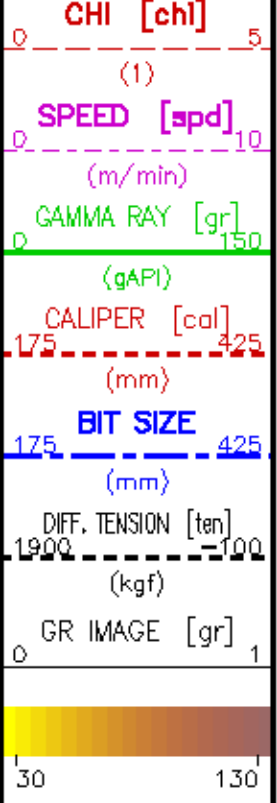
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M2R1	3.88	MPHS	1.52	TEN	0.00
CAL	26.06	M2R3	3.88	MPRM	1.52	TPOR	1.52
CHI	1.52	M2R9	3.88	FZLS	25.95		
CNCLS	29.30	MBV1	1.52	QSHFA	1.52		
GR	13.37	MPHE	1.52	SPD	0.00		

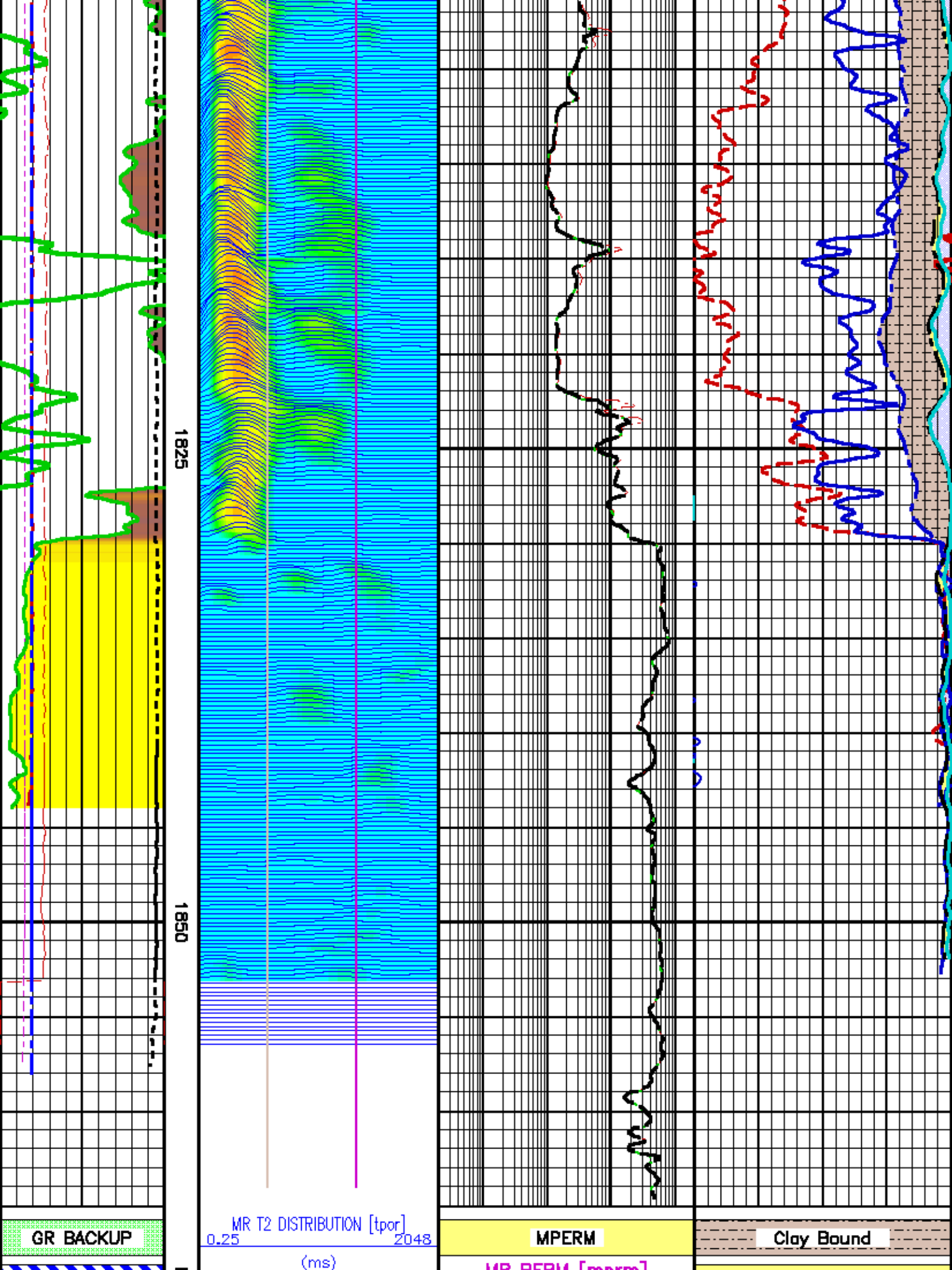
Presentation : epua:/data/husky_CA212310/mnrc_repeat.pdf [1:240 Scale]
 Plot Interval : 1780 - 1884.81 Meters

Data File 1 : F1 : epua:/data/husky_CA212310/m876gf_XC02.cdf
 Created On : Feb 14 02:28:42 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-9
 Field : SLATER RIVER
 File Interval : 1737.59 - 1857.98 Meters
 Oct : m876gf_X

Data File 2 : F2 : epua:/data/husky_CA212310/r111_meth.cdf
 Created On : Feb 13 04:51:11 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-9
 Field : SLATER RIVER
 File Interval : 579.198 - 1870.98 Meters
 Oct : m77wrh_x







1825

1850

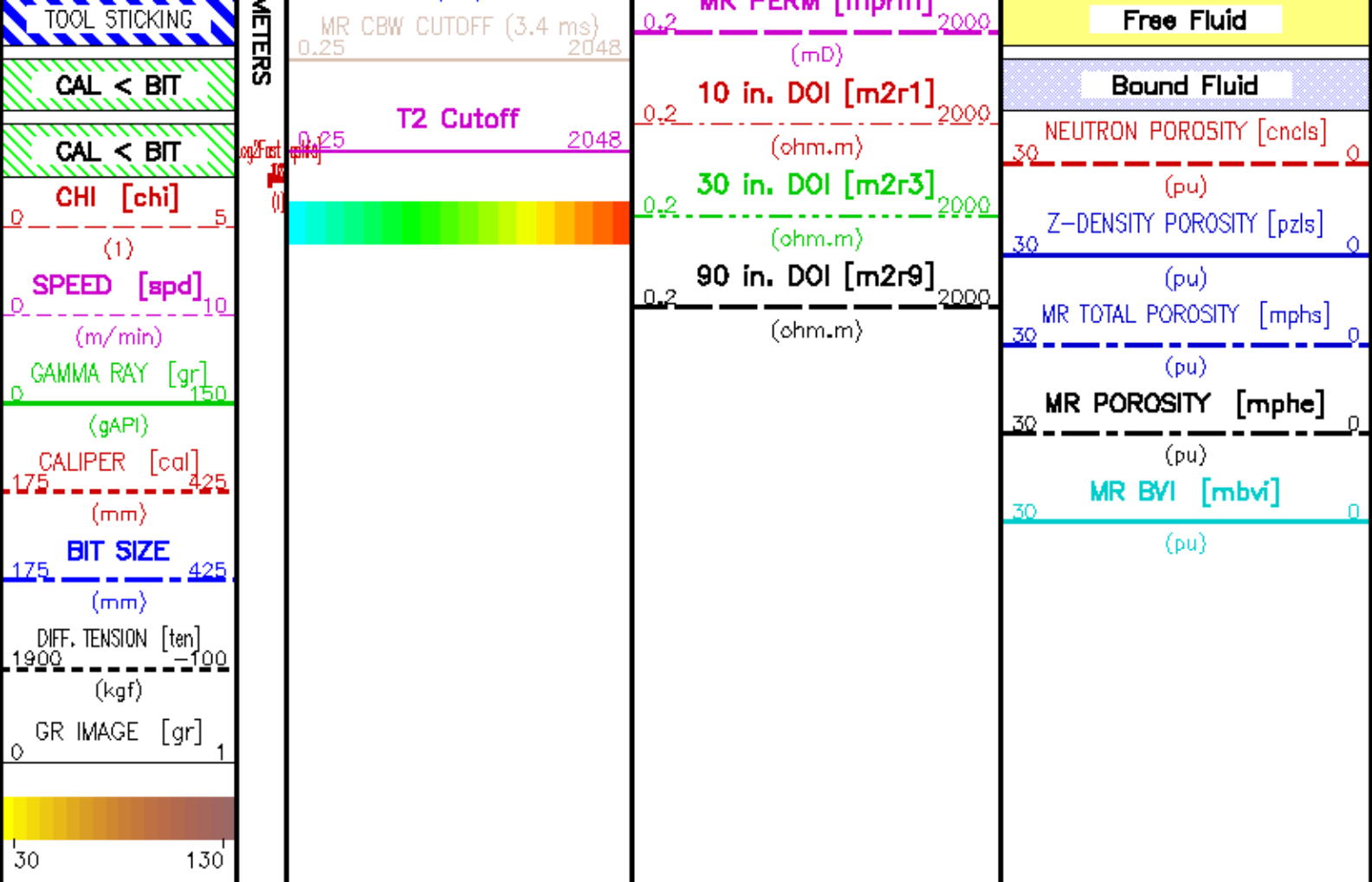
MR T2 DISTRIBUTION [tpor]
0.25 (ms) 2048

MPERM

Clay Bound

GR BACKUP

MP PERM [mperm]



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/husky_CA21251Q/m878gf_XC.tpl

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Sat Feb 11 15:40:57 2012

UNIT #: 3854SA 008672

CALB JIG #: 4702NK DA-554

	BACKGROUND CALBRTR ON (cts/s)	CALBRTR (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	CALBRTR (gAPI)	CALBRTR (gAPI)
GR	34.36	938.07	903.7 830.0 880.0	0.166	5.70	155.70	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Sat Feb 11 15:55:48 2012

UNIT #: 3854SA 008672

CALB JIG #: 4702NK DA-554

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	33.04	928.56	0.166	5.48	154.12	148.64
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:23:14 2012 DAYS SINCE CAL: 0

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	36.04	928.44	0.166	5.98	154.11	148.12
						138.64 158.64

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 13 12:23:20 2012 DAYS SINCE CAL: 1

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	181.31	1042.73	0.166	30.09	173.08	142.98
						138.12 158.12

SL II PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:07:57 2012

UNIT #: 3854SA 008672 CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	31.88	930.89	0.166	5.31	155.31	150

	Std Rate (cts/s)	Meas Rate (cts/s)	Tool Norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	549.0	1.009			
			0.800 1.100			

K 0.01602 0.01617 8.900

U 0.03851 0.03886 21.300

TH 0.10135 0.10227 56.100

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	70.980	1.124	0.969	0.993	3042	8.55
			0.000 1.000	0.980 1.020	2850 3050	10.00

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.32	44.52	81.49	126.96	156.75
	22.80 28.80	40.20 48.20	76.00 86.00	121.40 133.40	152.00 166.00
Fit Pk	26.11	44.35	80.62	126.40	157.56

SL_I PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Sat Feb 11 16:13:30 2012

UNIT #: 38545A 008672

CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	32.83	930.43	0.168	5.49	155.34	150
						136 165

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	552.2	1.009			

K	0.01602	0.01617	8.927
			8.010 8.790
U	0.03851	0.03886	21.460
			18.170 23.430
TH	0.01602	0.10227	56.479
			50.480 61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.411	1.016	0.848	0.998	3042	9.13
			0.000 1.000	0.980 1.020		

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.30	44.79	82.01	127.11	157.91
	22.80 28.80	40.20 48.20	76.00 86.00	121.40 133.40	152.00 166.00
Fit Pk	26.15	44.51	81.00	127.06	158.41

SL_I BEFORE LOG VERIFICATION SUMMARY

UNIT #: 38545A 008672 CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	33.23	928.28	0.168	5.55	155.07	150
						136 165

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	551.1	1.009			

K	0.01602	0.01617	8.909	8.010	8.790
U	0.03851	0.03886	21.417	19.170	23.430
TH	0.01602	0.10227	56.364	50.490	61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.472	0.896	0.826	0.997	3039	9.01
			0.000 1.000	0.980 1.020		

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.32	44.55	82.09	126.85	158.08
	22.80 28.80	40.20 48.20	76.00 86.00	121.40 133.40	152.00 166.00
Fit Pk	26.05	44.42	80.94	127.04	158.42

SL II AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 13 12:28:11 2012 DAYS SINCE CAL: 1

UNIT #: 38545A 008672 CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	179.12	1028.92	0.168	29.94	172.07	142
						136 165

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	529.2	1.009			

K	0.01602	0.01617	8.555	8.010	8.790
U	0.03851	0.03886	20.564	19.170	23.430
TH	0.01602	0.10227	54.121	50.490	61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	72.017	0.736	0.906	1.004	3015	10.77
			0.000 1.000	0.980 1.020		

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.22	44.88	82.34	128.12	158.82
	22.80 28.80	40.20 48.20	76.00 86.00	121.40 133.40	152.00 166.00
Fit Pk	26.09	44.59	81.39	127.85	159.46

MREX_1FSWP PRIMARY CALIBRATION SUMMARY

TOOL #: 3218WB 35112475

DATE/TIME PERFORMED: Thu Jan 26 08:57:42 2012

UNIT #: 5753XB 10108816

FREQ No.	1	2	3	4	5	6	7	8	9	10	11	12
PRIMARY kHz	502	561	589	622	653	694	733	775	824	865	920	973
	481 505	550 566	576 593	609 628	640 658	683 701	721 738	760 781	805 828	852 874	904 928	955 980
Q ANT.	47.1	53.1	54.1	57.2	57.3	57.8	58.0	58.7	61.6	64.8	64.2	61.3
	31.0 61.0	34.0 64.0	36.0 66.0	38.0 68.0	40.0 70.0	42.0 72.0	44.0 74.0	46.0 76.0	47.0 78.0	48.0 80.0	50.0 82.0	51.0 84.0
NOISE mV	3.9	3.9	4.4	3.9	4.6	4.5	5.0	4.8	5.5	5.3	6.4	5.1
	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0	0.0 10.0
CAL mV	345	417	449	482	513	548	585	621	693	768	846	826
	200 540	240 640	260 680	290 740	310 800	340 870	370 940	400 1010	440 1080	480 1170	460 1250	420 1340

MREX_1FSWP BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3218MB 35112475

DATE/TIME PERFORMED: Tue Feb 14 02:15:10 2012

DAYS SINCE CAL: 18

UNIT #: 38545A 008672

FREQ No.	1	2	3	4	5	6	7	8	9	10	11	12
BEFORE kHz	501	560	588	621	652	693	732	774	823	864	919	972
	486 505	544 566	570 593	599 628	633 658	676 701	714 738	752 781	796 826	843 874	895 928	946 980
Q	44.0	46.7	49.2	47.9	47.4	48.0	46.4	48.1	51.3	52.9	52.4	49.8
	8.0 61.0	8.0 64.0	8.0 66.0	8.0 68.0	8.0 70.0	8.0 72.0	8.0 74.0	8.0 76.0	8.0 78.0	8.0 80.0	8.0 82.0	8.0 84.0
NOISE mV	3.9	5.0	4.1	5.0	4.9	5.4	5.7	6.4	6.9	7.1	8.4	7.2
	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0	0.0 15.0
CAL mV	315	375	395	416	434	468	498	526	597	649	720	718

MREX_1FSWP AFTER LOG VERIFICATION SUMMARY

MREX_3RGN PRIMARY VERIFICATION SUMMARY

TOOL #: 3218WB 35112475

DATE/TIME PERFORMED: Thu Jan 26 09:14:12 2012

UNIT #: 5753XB 10108816

CAL TEMP

(degC)

22.9

FREQ No.	1	2	3	4	5	6	7	8	9	10	11	12
TE	ms 0.40											
POROSITY	pu											
	99.8	100.4	99.4	100.4	100.6	99.8	100.2	99.8	99.9	100.2	100.1	99.5
	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0	97.0 103.0
NOISE	pu											
	4.83	4.06	3.68	3.51	3.29	3.22	3.14	2.77	2.55	2.44	2.39	2.32
	0.00 8.40	0.00 7.00	0.00 6.50	0.00 6.40	0.00 6.20	0.00 5.80	0.00 5.60	0.00 5.10	0.00 4.80	0.00 4.50	0.00 4.50	0.00 4.30
RINGING	pu											
	5.7	2.1	2.7	2.4	2.1	2.1	1.9	1.2	1.4	1.0	1.1	2.4
	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0	0.0 30.0
TE	ms 0.30											
POR2	pu											
	154.1	147.2	146.1	147.5	142.7	124.5	137.4	150.3	149.4	148.6	149.8	149.2
NOISE	pu											
	8.68	6.32	5.76	5.31	4.63	4.03	4.27	4.28	3.73	3.68	3.60	3.46
RINGING	pu											
	28.8	11.4	6.2	5.7	2.2	3.1	2.7	2.2	1.5	2.1	1.5	6.9



COMPANY HUSKY OIL OPERATIONS LIMITED
WELL LITTLE BEAR N-9
FIELD SLATER RIVER
PROVINCE NORTHWEST TERRITORIES

FILE NO: _____
API NO: _____

LOCATION:
SURF LOC:
LAT 64° 58' 55.2"N LONG 128° 31' 20.2"
BH LOC. LSD:
LAT 64° 58' 55.2"N LONG 128° 31' 20.2"

ELEVATIONS:
KB 258.8 M
DF
GL 253.5 M
DATE 13-FEB-2012

UID:
300N096500126300
LICENSE:
463