HALLIBURTON

CEMENT BOND LOG

SCALE 1:240

Company OXY USA INC
Well HYLBOM B-2
Field GARDEN CITY
County KEARNY State KANSAS

Company	OXY USA INC
Well	HYLBOM B-2
Field	GARDEN CITY
County	KEARNY State KANSAS

API No.: 15-093-21877 Serv #: 9516198
Location: 950' FNL & 430' FEL

Sec: 25 Twp: 23S Rge: 35W

Other Services

NONE

Permanent Datum	GROUND LEVEL	Elevation 2986	Elevation	
Log Measured From	KB , 11 Ft. above perm. datum		K.B.	2987
Drilling Measured From	KB		D.F.	2987
			G.L.	2986

Date @ Time Logged	15-MAY-12 @ 3:15	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.4
Depth - Driller	5120	Fluid Level	SURFACE
Depth - Logger	4958	Cement Top Est. Logged	3116
Bottom - Logged Interval	4955	Equipment / Location	10971687 / LIBERAL
Top - Log Interval	2616	Recorded by	R. RODRIGUEZ
Max. Recorded Temp.	N/A	Witnessed by	N/A

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented	N/A	N/A	N/A	
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				5.5	17	SURFACE	5117

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHCIH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

LOG CORRELATED TO HALLIBURTON DSN LOG DATED 12-MAR-12

FREE PIPE PASS CORRELATED

TOP OF CEMENT @ 3116
SHORT JOINT @ 4421-4427

THANK YOU FOR USING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY: R. GONZALEZ, J. ROBLES, T. HANSON, R. RODRIGUEZ

Service Ticket No. 9516198 API No. 15-093-21877 PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

CBL		CCL/GR					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	060714	Serial No.	070633	Serial No.		Serial No.	
Model No.	PRB_275	Model No.	PRB_275	Model No.		Model No.	
Diameter	2.75	Diameter	2.75	Diameter		Diameter	

LOGGING DATA

General Data

Pass	Depths		Well Head	Speed	Logging Run Comments
No.	From	To	Pressure	Ft/Min	
10	4969	2616	0	45	MAIN PASS

	GR		TT		AMP		MSG	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ALL PASSES	0	150	172	272	0	100	200	1200
	150	300			0	20		

DIRECTIONAL INFORMATION

Maximum Deviation		deg. @		KOP	

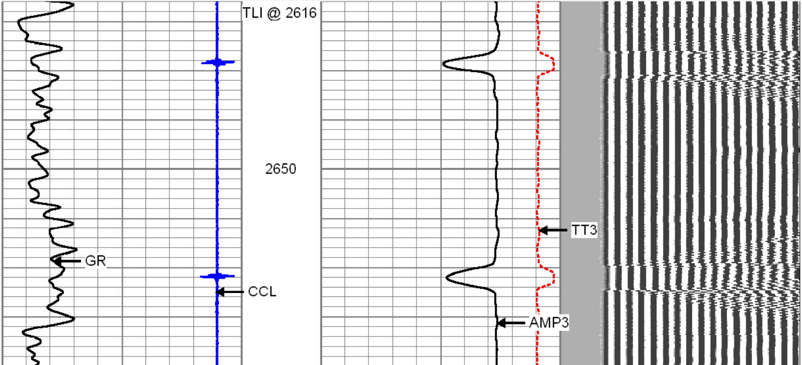
HALLIBURTON

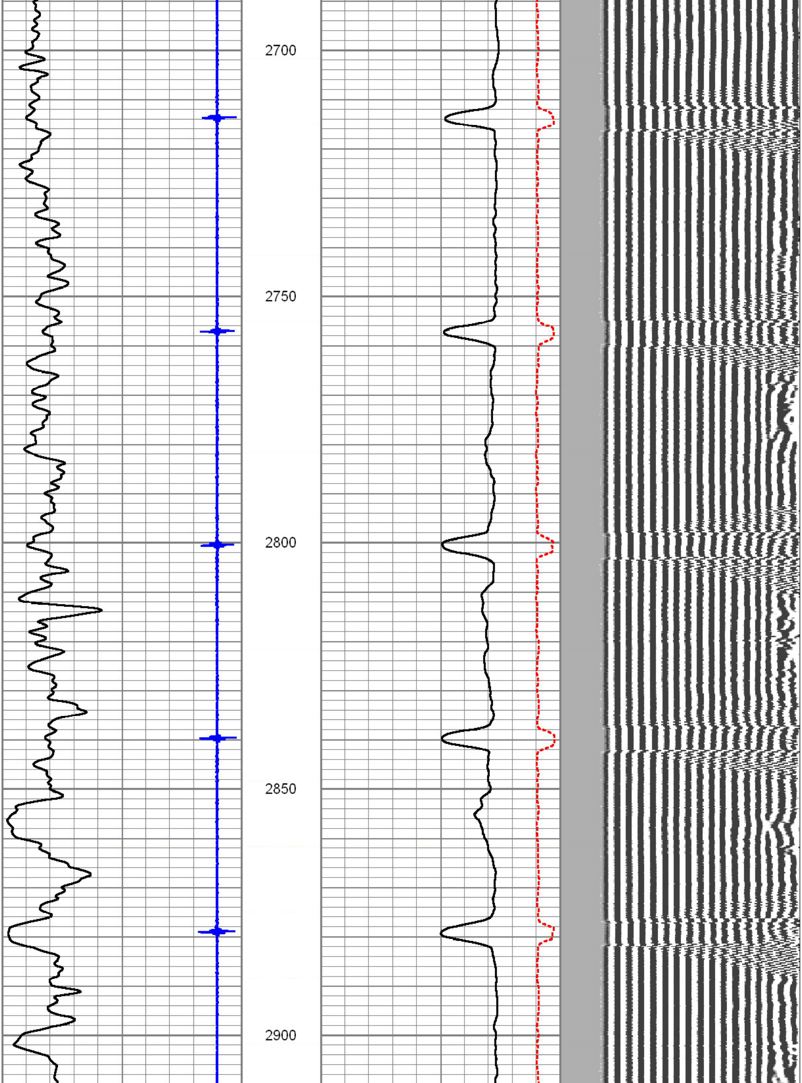
MAIN PASS

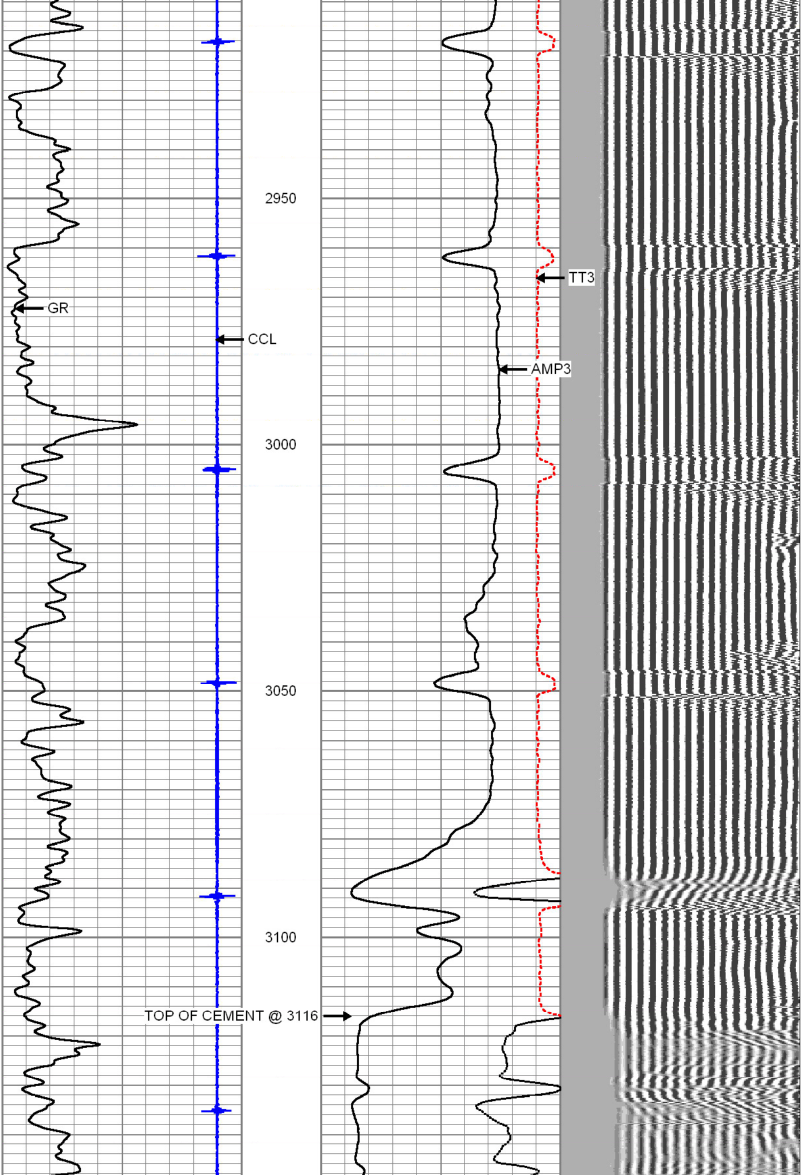
SCALE 1:240

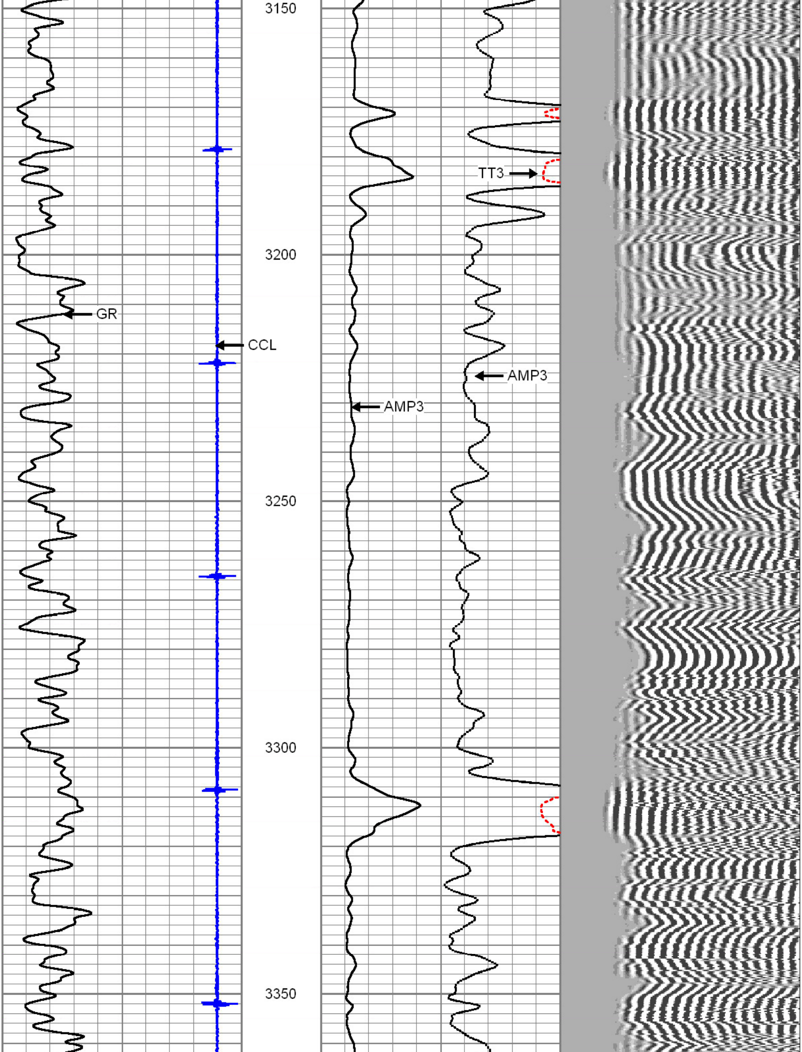
Database File:	oxy_hylbom b-2 cbl.db
Dataset Pathname:	pass10
Presentation Format:	cbl_rr
Dataset Creation:	Tue May 15 15:06:55 2012 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

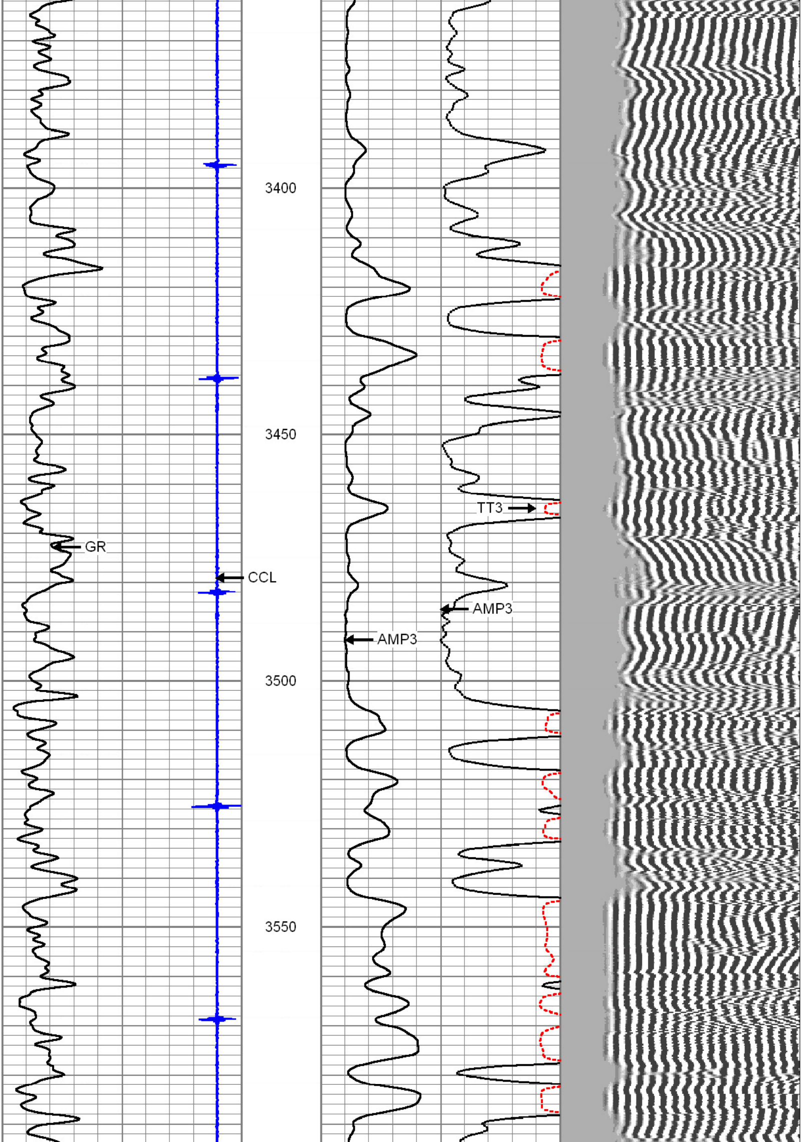
9	Collar Locator	-1	Line Tension	0	Amplitude (mV)	100	200	MSG	1200
0	GR (GAPI)	150		0	Amplified Amplitude (mV)	20			
150	gr (GAPI)	300		172	Travel Time (usec)	272			

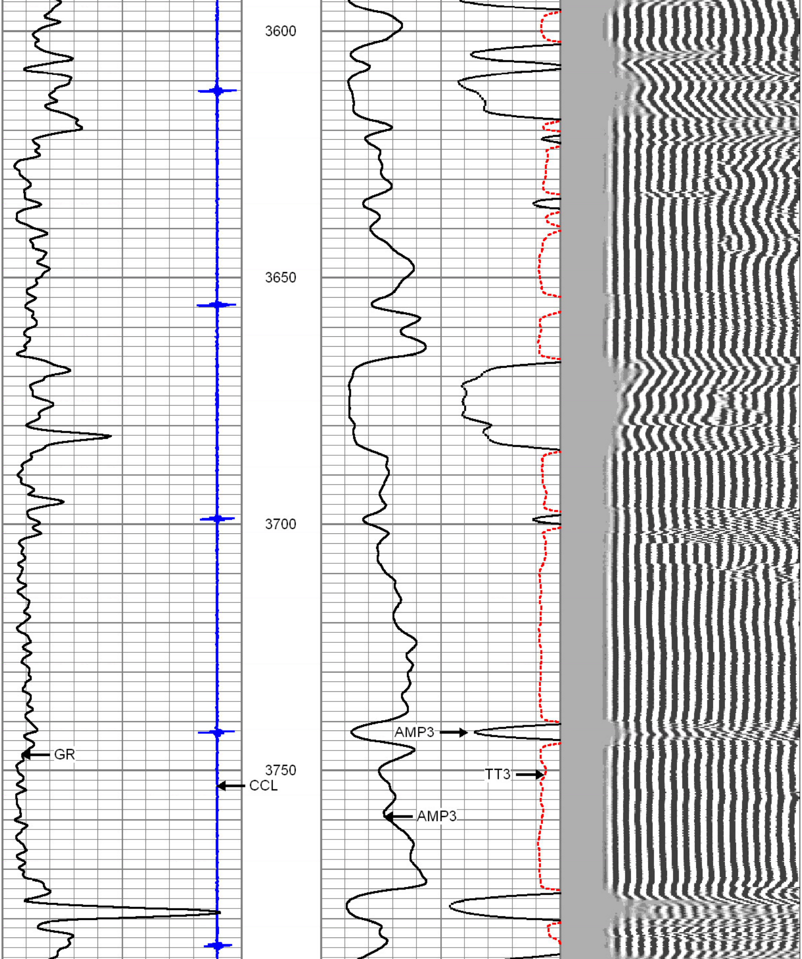


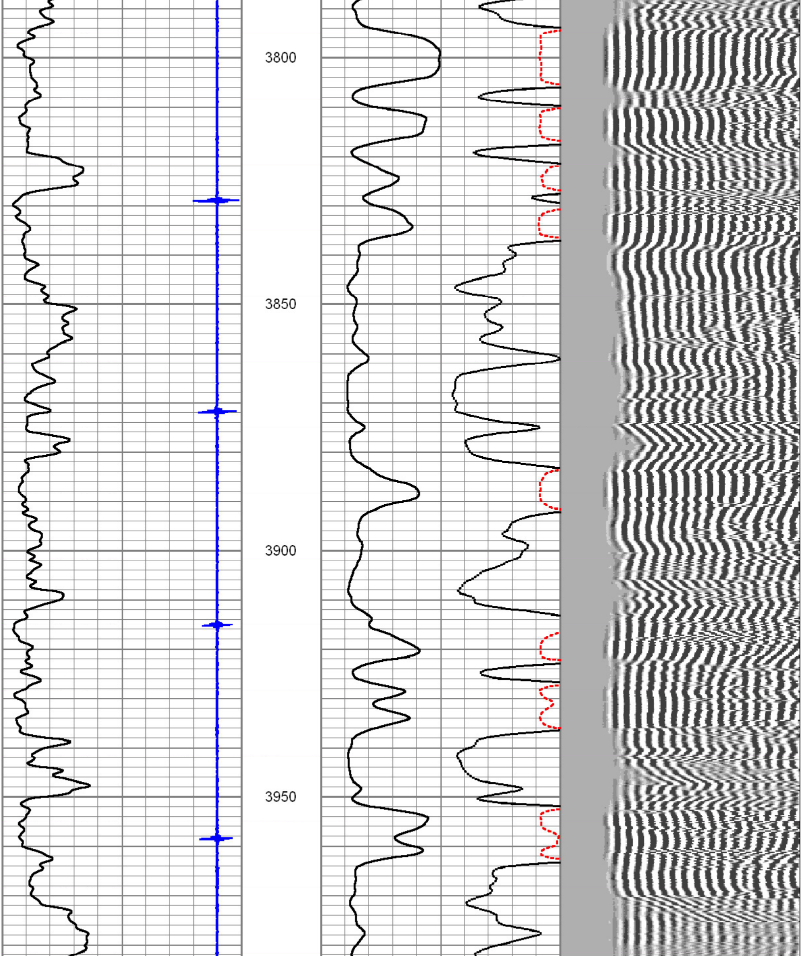


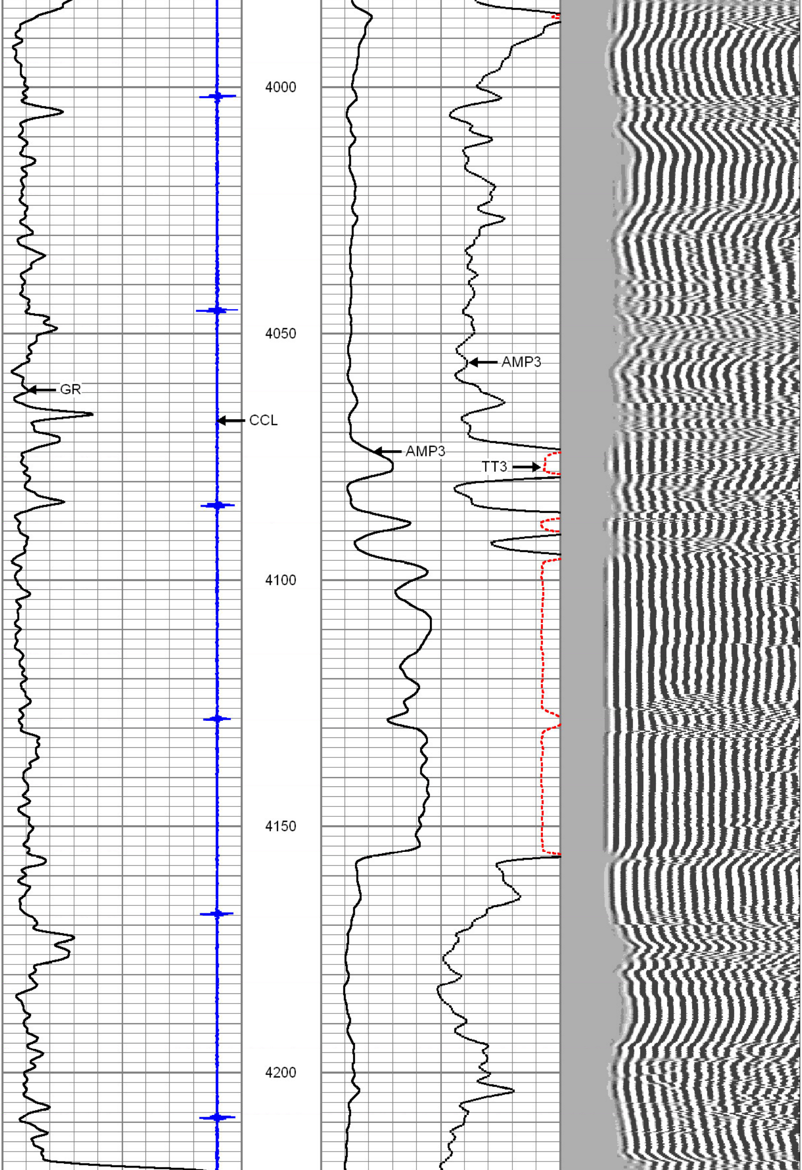


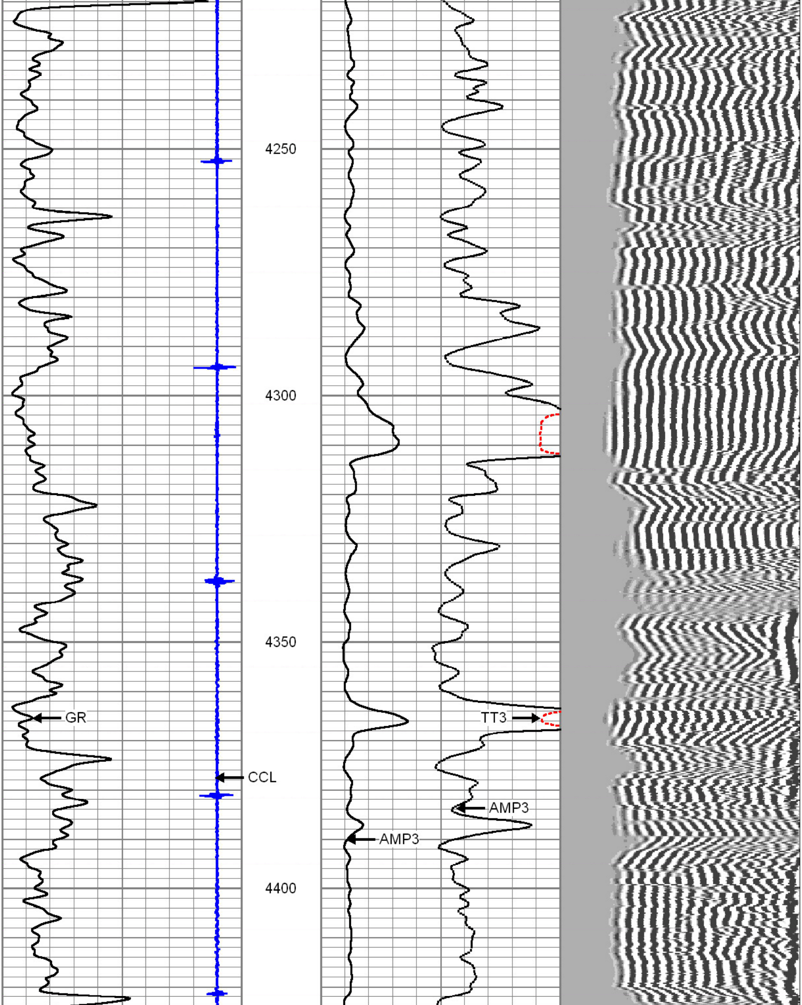


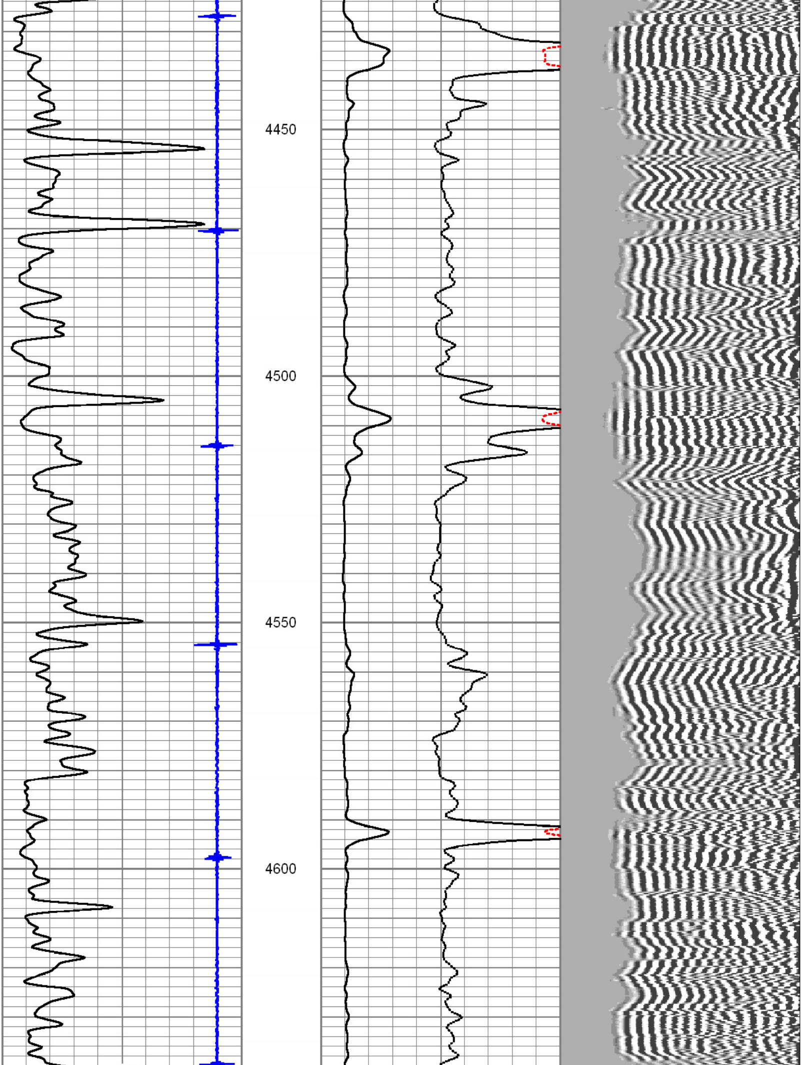


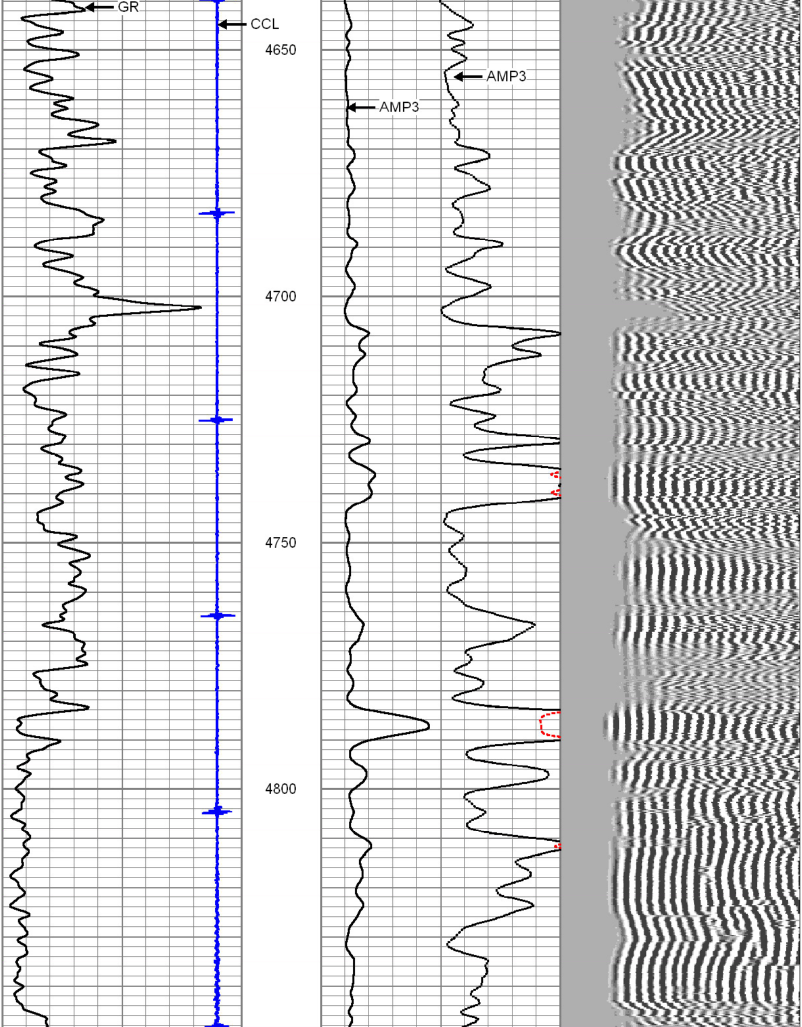


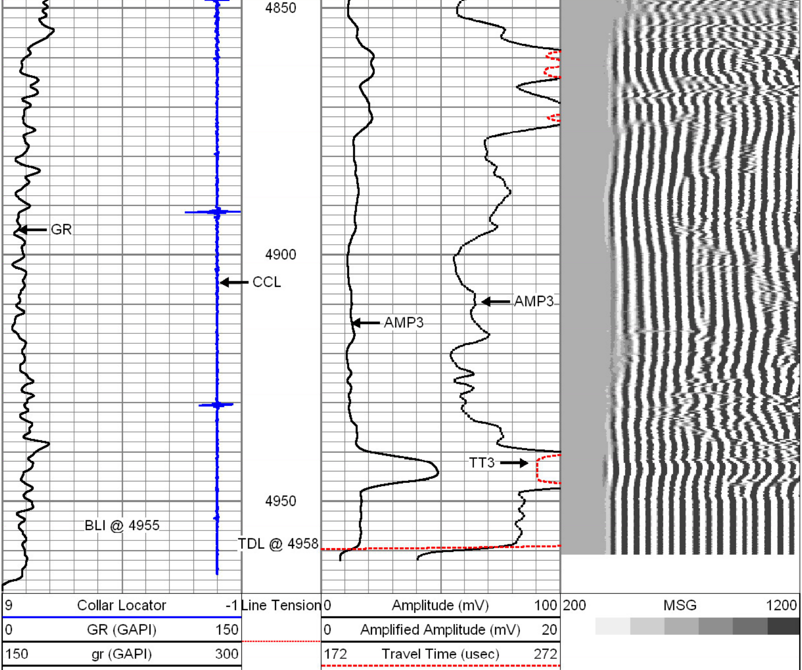












HALLIBURTON

MAIN PASS

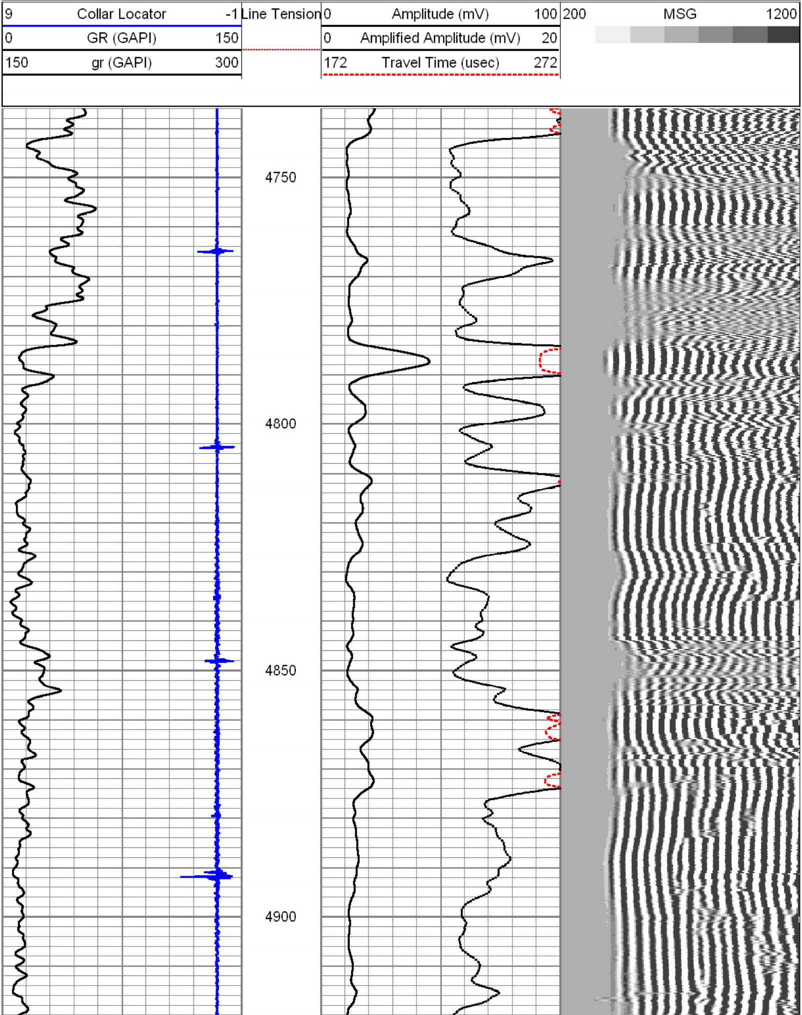
SCALE 1:240

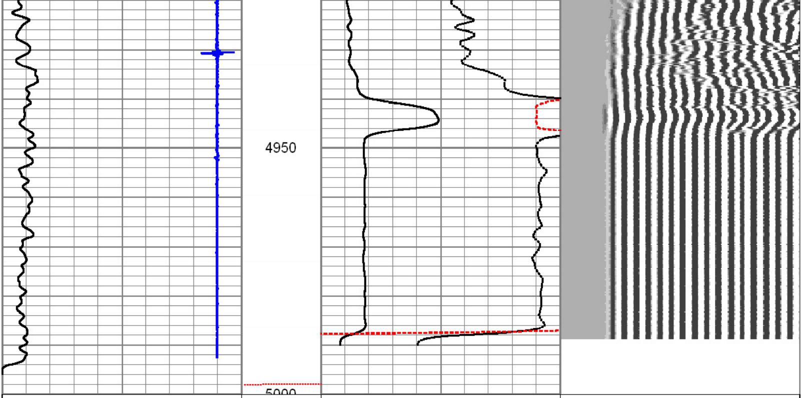
HALLIBURTON

REPEAT PASS

SCALE 1:240

Database File:	oxy_hylbom b-2 cbl.db
Dataset Pathname:	pass9
Presentation Format:	cbl_rr
Dataset Creation:	Tue May 15 14:54:28 2012 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240





9 Collar Locator -1	Line Tension	0 Amplitude (mV) 100	200 MSG 1200		
0 GR (GAPI) 150		0 Amplified Amplitude (mV) 20			
150 gr (GAPI) 300		172 Travel Time (usec) 272			

HALLIBURTON

REPEAT PASS

SCALE 1:240

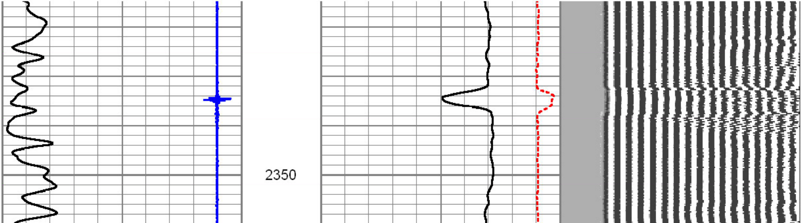
HALLIBURTON

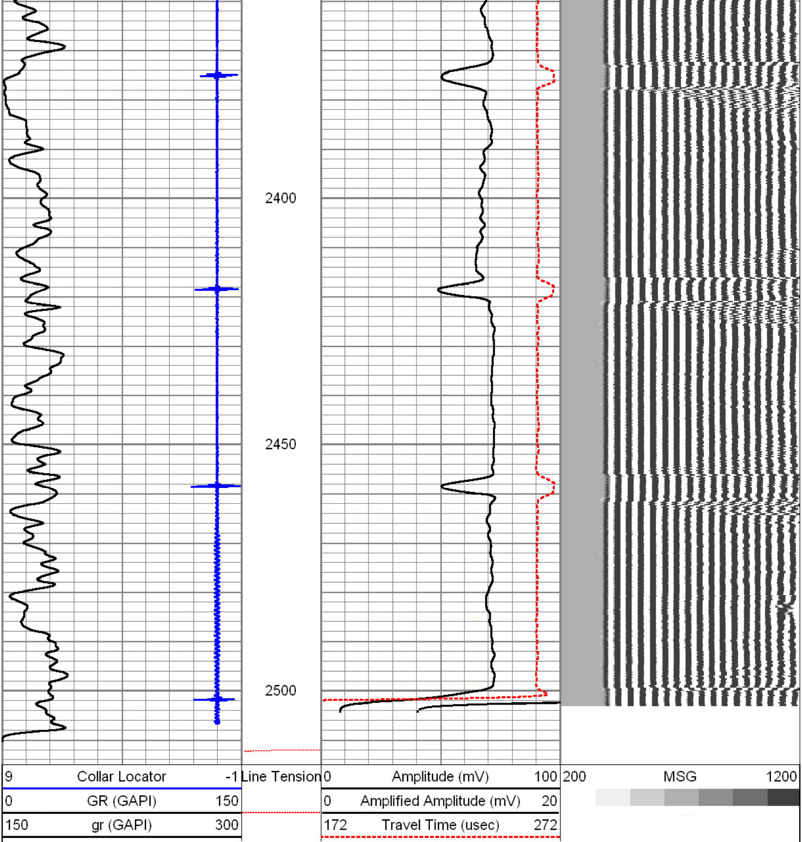
FREE PIPE PASS

SCALE 1:240

Database File:	oxy_hylbom b-2 cbl.db
Dataset Pathname:	pass6
Presentation Format:	cbl_rr
Dataset Creation:	Tue May 15 14:28:05 2012 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

9 Collar Locator -1	Line Tension	0 Amplitude (mV) 100	200 MSG 1200
0 GR (GAPI) 150		0 Amplified Amplitude (mV) 20	
150 gr (GAPI) 300		172 Travel Time (usec) 272	





HALLIBURTON

FREE PIPE PASS

SCALE 1:240

Calibration Report

Database File: oxy_hylbom b-2 cbl.db
Dataset Pathname: pass9
Dataset Creation: Tue May 15 14:54:28 2012 by Log Halliburton Casedho

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 070633

SHOP CALIBRATION

Thu Feb 24 09:57:55 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	44.0				cps
Calibrator	244.4				cps
		1.0876			GAPI/cps

PRIMARY VERIFICATION

Thu Feb 24 10:00:22 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	49.4				cps
Calibrator	268.0				cps
Difference				218.6	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 060714
Tool Model: Probe275Digital
Performed: Tue May 15 14:26:56 2012

Depth: 2427.87 ft
Casing Diameter: 5.5 in

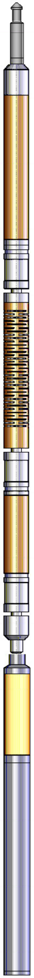
	3' Spacing	5' Spacing	
Signal Zero:	0.5	0.5	mV
Calibrated Amplitude:	71.921	71.921	mV
Reading at Signal Zero:	-0.0507568	-0.040332	V
Reading in Free Pipe:	0.425684	0.453296	V
Gain:	149.905	144.686	
Offset:	8.10872	6.33548	

Log Variables

Database:C:\Warrior\Data\oxy_hylbom b-2 cbl.db
Dataset: field/well/run1/pass10

Top - Bottom

PPT	MAXAMPL	MINAMPL	MINATTN	CASEOD	PERFS	TDEPTH
usec	mV	mV	db/ft	in		ft
0	72	0	0.8	5.5	0	5070
BOTTEMP	BITSIZE					
degF	in					
122.7	7.875					

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			**STND_CH** 1.4375 IN CABLE HEAD	0.92	1.44	1.00
WVF3	9.00		**CBL-Probe275Digital (060714)** Digital 3' 5' CBL Move voltage to +/- 150 for cal mode	8.75	2.75	92.00
WVF5	8.00					
CCL	3.92					
GR	2.54		**GR-Probe275dig (070633)** Probe Digital Gamma CCL	4.75	2.75	57.00
LLMTEN	0.00					

Dataset:	oxy_hylbom b-2 cbl.db: field/well/run1/pass10
Total Length:	14.41 ft
Total Weight:	150.00 lb
O.D.	2.75 in

Company	OXY USA INC
Well	HYLBOM B-2
Field	GARDEN CITY
County	KEARNY
State	KANSAS

HALLIBURTON

CEMENT BOND LOG

SCALE 1:240