

## HALLIBURTON

## BOREHOLE VOLUME PLOT

COMPANY		EL PASO PRODUCTION			
WELL		VPR C 204 WDW			
FIELD		VERMEJO PARK RANCH			
COUNTY		LAS ANIMAS			
STATE		CO			
Permanent Datum		GL			Elev. 7359.0 ft
Log measured from		KB			12.0 ft above perm. Datum
Drilling measured from		KB			G.L. 7359.0 ft
Date		06-Feb-11			
Run No.		ONE			
Depth - Driller		6610.00 ft			
Depth - Logger		6609.0 ft			
Bottom - Logged Interval		6689 ft			
Top - Logged Interval		3384 ft			
Casing - Driller		9.625 in @ 3384.0 ft			
Casing - Logger		33844.0 ft			
Bit Size		8.750 in			
Type Fluid in Hole		WBM			
Density	Viscosity	9.1 ppq	43.00 s/qt		
PH	Fluid Loss	9.50 pH	2.0 cpm		
Source of Sample		MUD CELL			
Rm @ Meas. Temperature		0.210 ohmm	@ 75.00 degF	@	
Rmf @ Meas. Temperature		0.16 ohmm	@ 75.00 degF	@	
Rmc @ Meas. Temperature		0.228 ohmm	@ 75.00 degF	@	
Source Rmf	Rmc	CHART	CHART		
Rm @ BHT		0.09 ohmm	@ 195.0 degF	@	
Time Since Circulation		10.0 hr			
Time on Bottom		06-Feb-11 09:21			
Max. Rec. Temperature		@			
Equipment	Location	10800785	BRIGHTON		
Recorded By		F. LODER			
Witnessed By		JACK			

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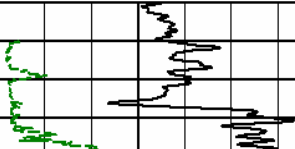


Service Ticket No.: N/A		API Serial No.: 05071098380000		PGM Version: WL INSITE R3.0.7 (Build 3)				
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES				
Date	Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole	
Depth-Driller								
Type Fluid in Hole								
Density	Viscosity							
Ph	Fluid Loss							
Source of Sample				RESISTIVITY EQUIPMENT DATA				
Rm @ Meas. Temp	@	@		Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Rmf @ Meas. Temp.	@	@		ONE	ACRt 336-042	N/A	1.5" S.O.	N/A
Rmc @ Meas. Temp.	@	@						
Source Rmf	Rmc							
Rm @ BHT	@	@						
Rmf @ BHT	@	@						
Rmc @ BHT	@	@						
EQUIPMENT DATA								
GAMMA		ACOUSTIC		DENSITY		NEUTRON		
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE	
Serial No.	11215095	Serial No.		Serial No.	I332M335	Serial No.	11219332	
Model No.	GTET	Model No.		Model No.	SDLT	Model No.	DSNT	
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"	
Detector Model No.	2G8 BICORN	Spacing		Log Type	GAM-GAM	Log Type	NEU-NEU	
Type	SCINT			Source Type	Cs137	Source Type	Am241Be	
Lenath	8"	LSA IY/NI		Serial No.	5256 GW	Serial No.	DSN430	

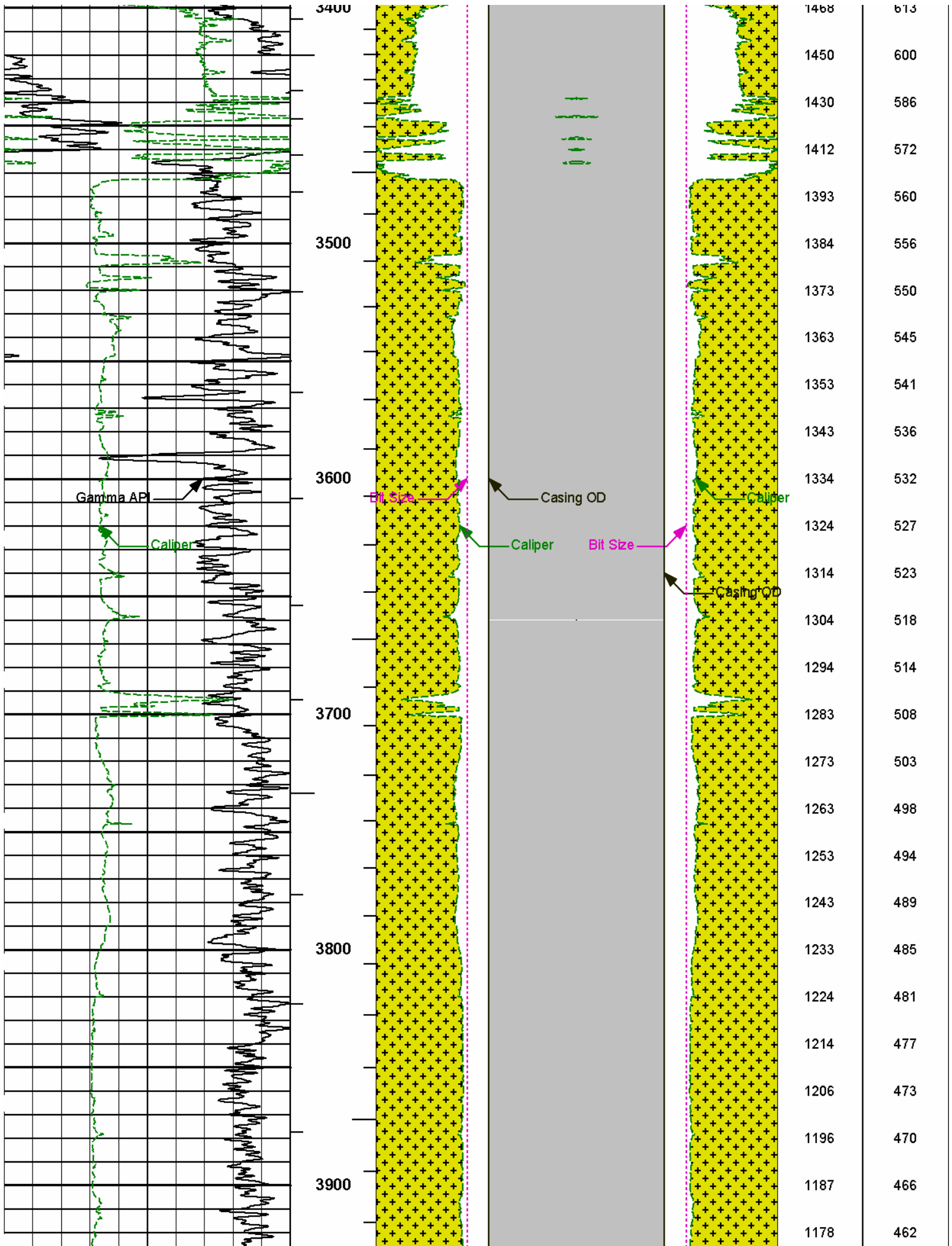
Distance to Source	10'		FWDA [Y/N ]			Strength		1.5 Ci		Strength		15 Ci		
LOGGING DATA														
GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R			L	
ONE	6610'	3384	REC	0 API	150 API				30%	-10 %	2.68 g/cc	30 %	-10 %	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation						@	KOP							@
Remarks: RWCH-GTET-DSNT-SDLT-ACRT RAN IN COMBINATION														
ANNULAR HOLE VOLUME CALCULATED USING 7 INCH PRODUCTION CASING														
TENSION PULLS AND BOREHOLE RUGOSITY AFFECT LOG RESPONSE														
CHLORIDES REPORTED AT 33000 mg/L														
CREW: J. WALKER, N. GOULD, R. PERSHALL RIG: AZTEC 222														
THANK YOU FOR USING HALLIBURTON ENERGY SERVICES -- BRIGHTON, CO -- 303.825.4346														
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 WHICH 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.														
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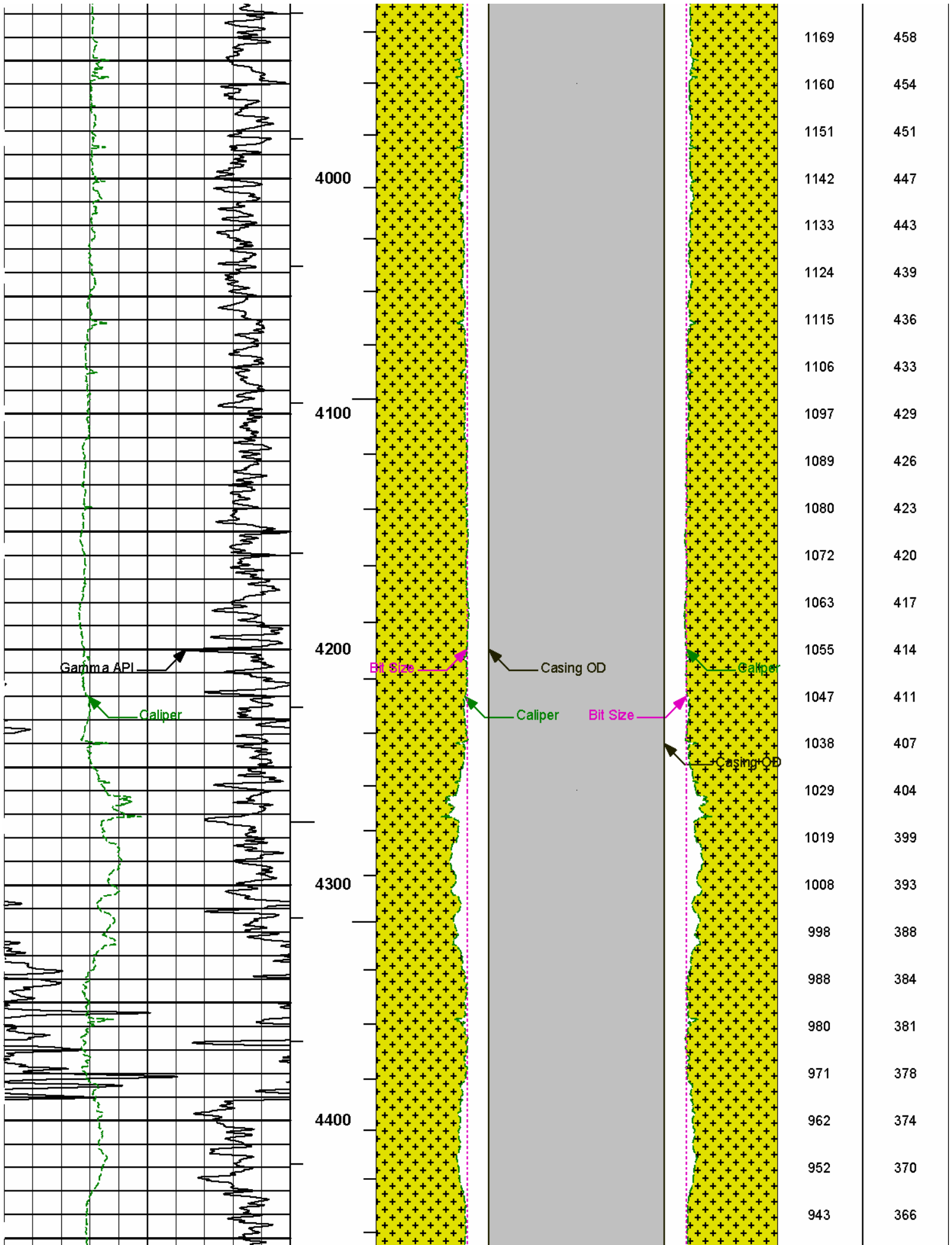
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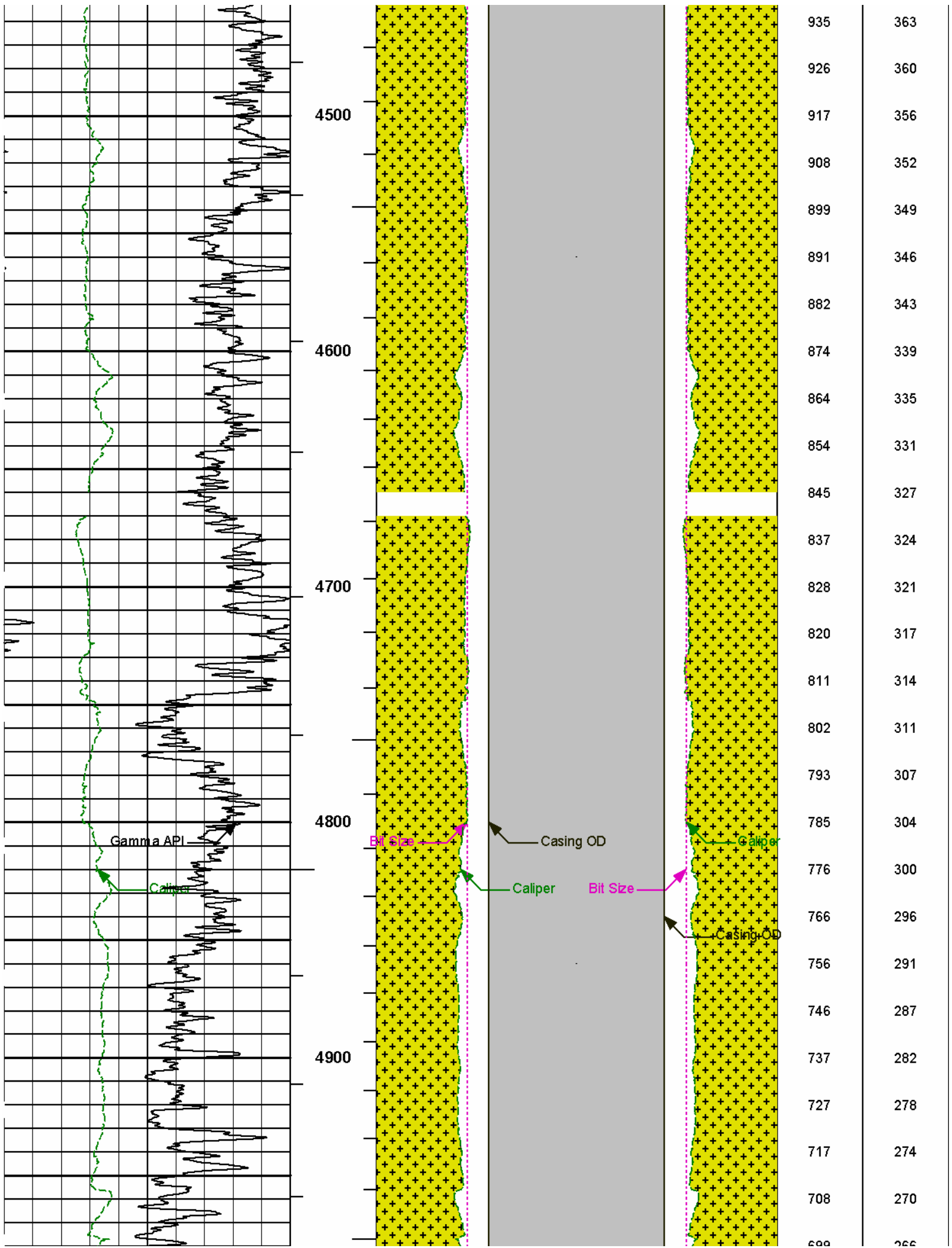
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Plot Range: 3360 ft to 6615.83 ft  
Data: {ActiveWell}\Well Based\MAIN\*  
Plot File: \\(not saved)\IQ\_BHV\_SDL\_RM

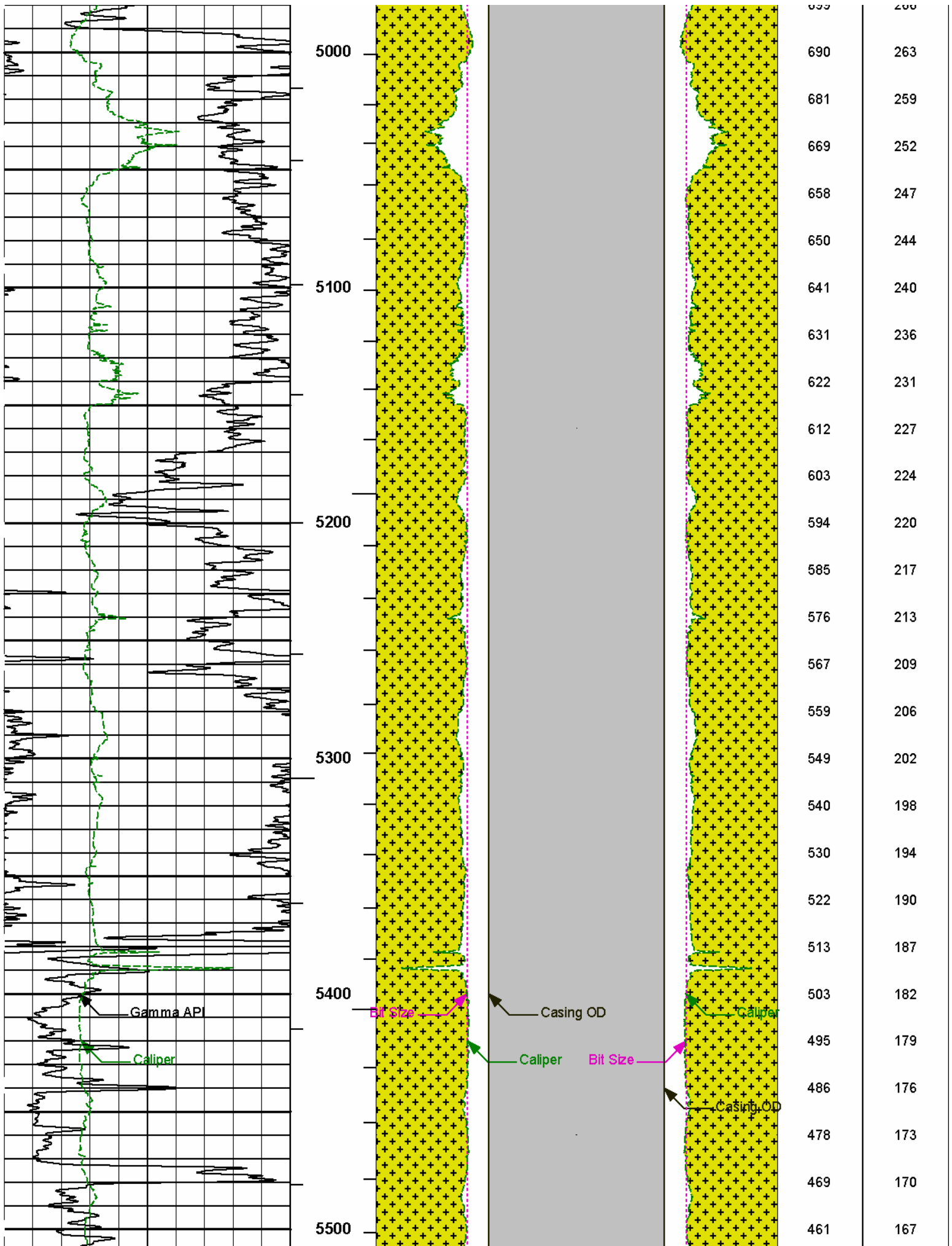
AHV USES 4.5" CASING

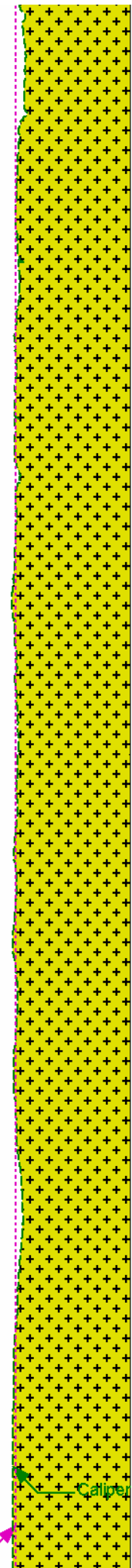
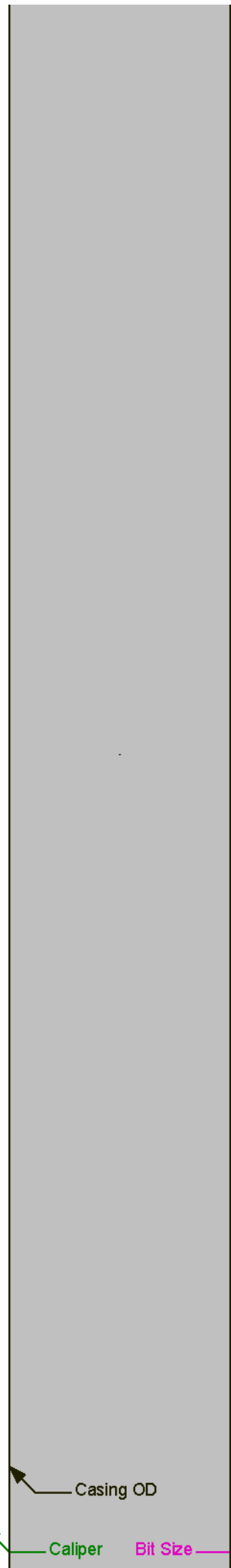
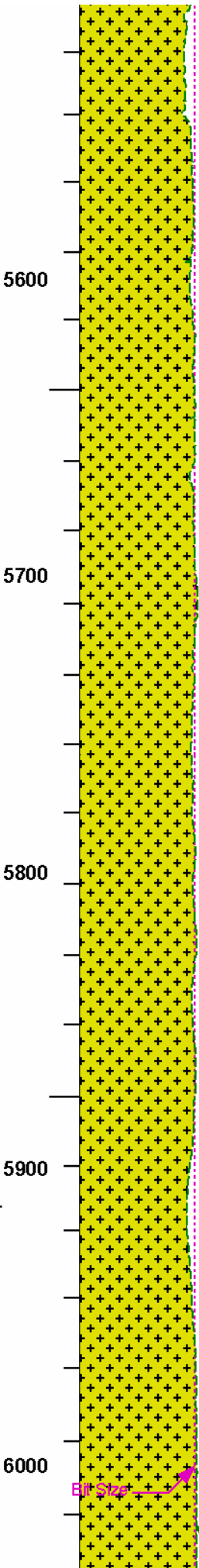
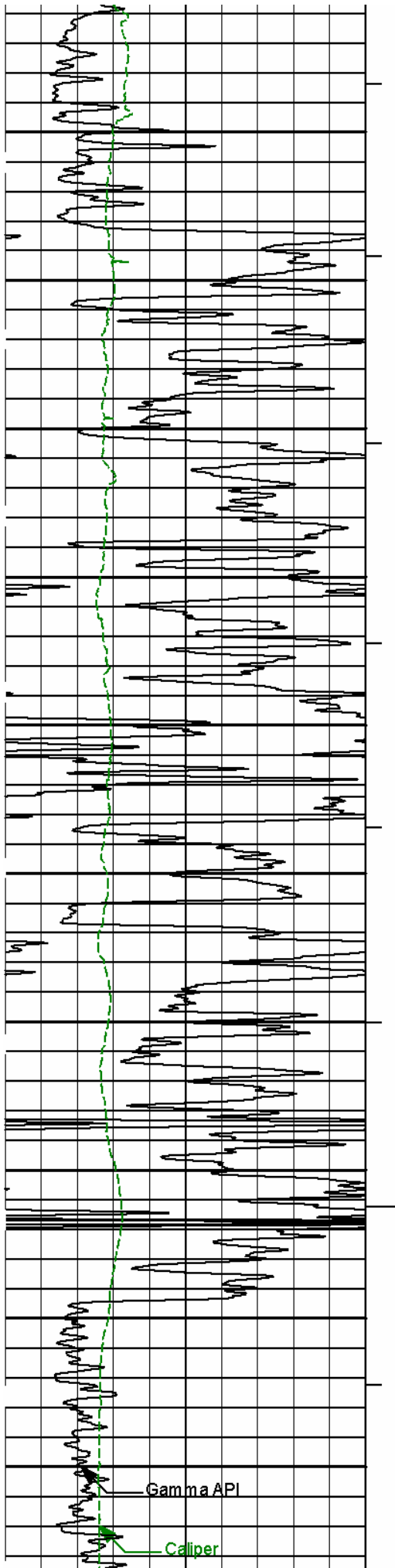
Track 5	Depth Track	Track 6	Track 4	Track 7	Track 8
	AHVT	16 Bit Size 0 0 Bit Size 16 inches			
6 Caliper 16 inches	BHVT	Casing OD	Casing OD		
0 Gamma API 150 api	1 : 600	16 Caliper 0 0 Caliper 16 inches		BHVT	AHVT
				1476	616



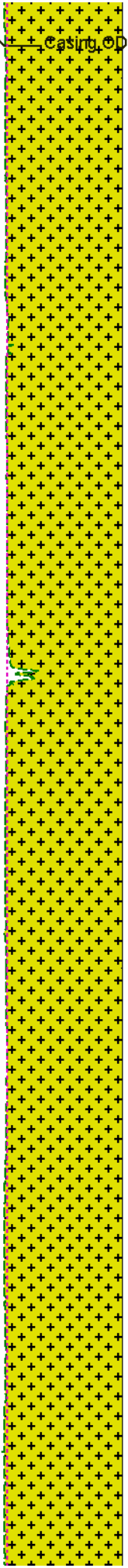
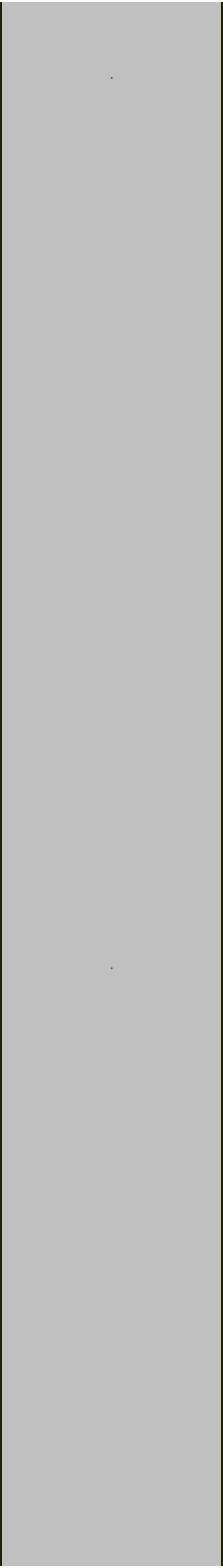
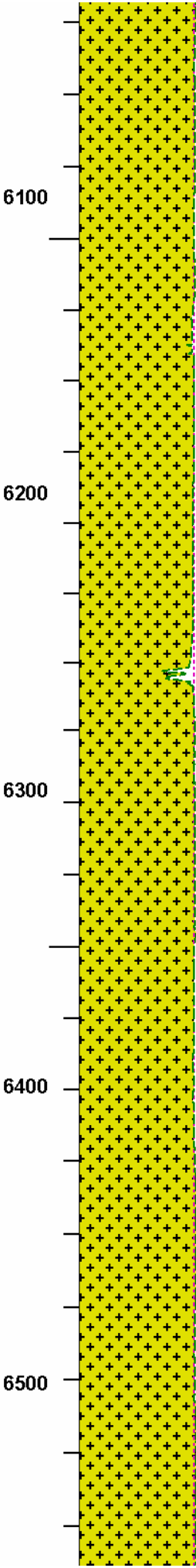
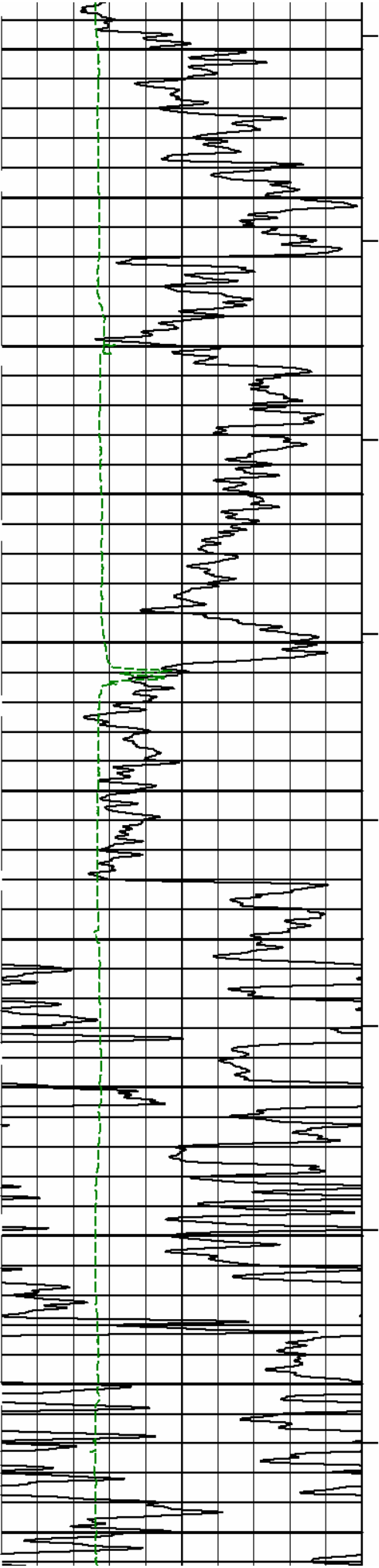






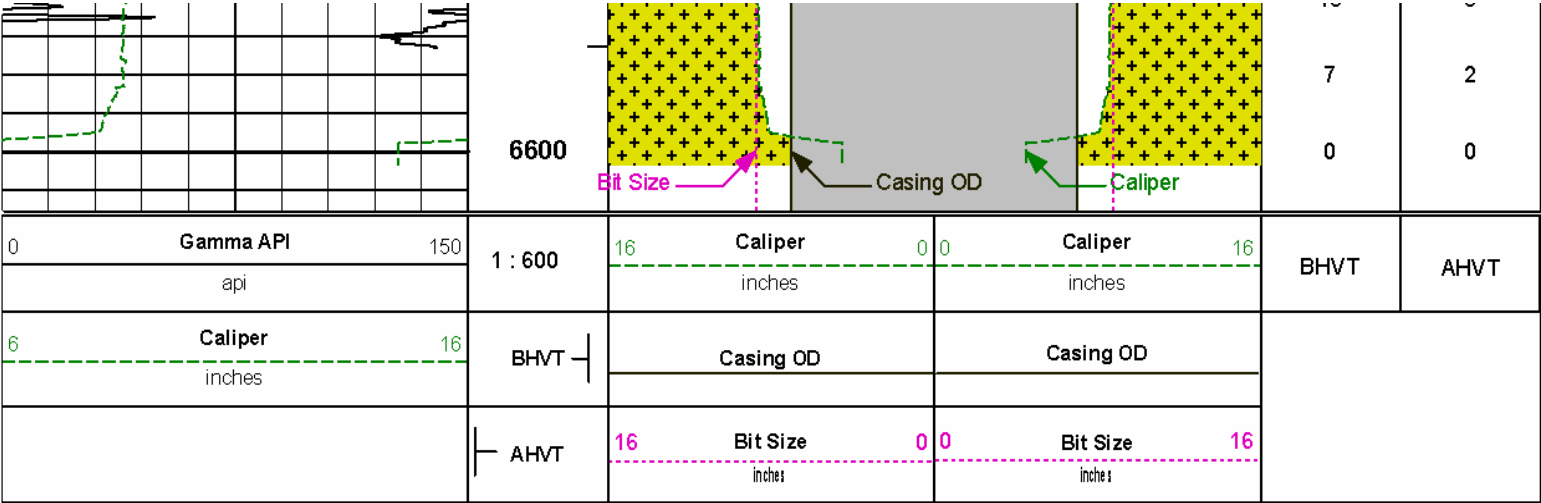


452	163
442	159
433	155
425	152
416	149
407	145
399	142
391	139
382	136
374	133
366	130
357	127
349	124
340	121
332	118
323	115
315	112
306	109
298	106
290	102
280	99
271	95
263	92
255	89
247	86
239	84



230	81
222	78
214	75
206	72
198	69
189	66
181	63
173	60
164	57
156	54
147	51
139	48
130	44
122	41
113	39
105	36
97	33
89	30
80	27
72	24
64	21
56	18
48	16
40	13
31	10
23	7
15	5





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AHV USES 4.5" CASING

COMPANY	EL PASO PRODUCTION		
WELL	VPR C 204 WDW		
FIELD	VERMEJO PARK RANCH		
COUNTY	LAS ANIMAS	STATE	CO

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