STEP energy services

MICRO LOG

Company	CASILLAS PETROLEUM CORP
Well	HAMKER #20-3
Field	LETTE
County	HASKELL
State	KANSAS
Country	USA
API No.	15-081-22204-00-00

File No : HAYS-70387
Company : CASILLAS PETROLEUM CORP
Well : HAMKER #20-3
Field : LETTE
County : HASKELL
State : KANSAS
Country : USA
API No : 15-081-22204-00-00

Location :
1420' FSL & 660' FWL
S/2 S/2 NW SW

LSD : **Sect :** 20 **Twp :** 30S **Rge :** 31W

Permanent Datum: GL
Drilling Measured From: KB
Log Measured From: KB
Above Permanent Datum: 0.00 Ft

Elevations:
KB 2858.00 Ft
DF 2857.00 Ft
GL 2846.00 Ft

Services:
CNT CST
LDT PIT
MLT

Date	12-07-2019		
Run Number	1		
Depth--Driller	5721.0 Ft		
Depth--Logger	5716.0 Ft		
First Reading	5705.0 Ft		
Last Reading	4500.0 Ft		
Casing--Driller	1823.0 Ft		
Casing--Logger	1826.0 Ft		
Bit Size	7.875 In		
Casing Size	8.625 In		
Hole Fluid Type	WBM		
Density	9.3		
Fluid Loss	4.6		
PH/Viscosity	11.0 57.0		
Sample Source	MEASURED		
RM@Measured Temp.	2.000 @ 60 F		
RMF@Measured Temp	0.850 @ 60 F		
RMC@Measured Temp.	1.150 @ 60 F		
Source RMF/RMC	CALCULATED CALCULATED		
RM@BHT	1.000 @ 125 F		
Time Circulation Stopped	12-07-2019 03:00		
Max Recorded Temp.	125 F		
Equipment/Base	TRK-137 HAYS		
Recorded By	B.BAILEY		
Witnessed By	DAVID		

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by STEP Energy Services personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by STEP Energy Services for its services. Any user of the log data is warned that said user is not entitled to rely on intepretations, conversions or recommendations as aforesaid.

Bitsize Intervals		**Casing Strings**			
Size (In)	**Bottom (Ft)**	**Size (In)**	**Weight (Lbs)**	**Bottom (Ft)**	**Top (Ft)**
7.875	5721.00	8.625	32.00	1832.00	0.00

Run Number	1		
Date	12-07-2019		
Date/Time On Bottom	12-07-2019 09:45		
Depth to Fluid	0.0 Ft		
Salinity	0.000		
RMF@BHT	0.850 @ 125 F		
RMC@BHT	1.150 @ 125 F		

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST
GRT, CNT, LDT, MLT, CST, AND PIT RUN IN COMBINATION
CALIPERS ORIENTED ON X-Y AXIS
2.71 G/CC USED TO CALCULATE POROSITY
ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING

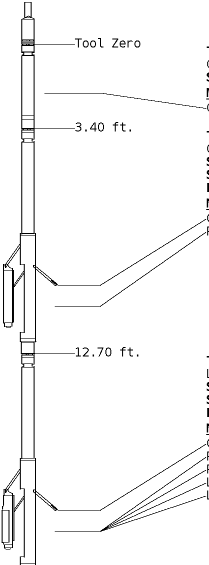
PHIN IS CALIPER CORRECTED

GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

Tool String Schematic

Total Tool Length - 68.31 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BB-013

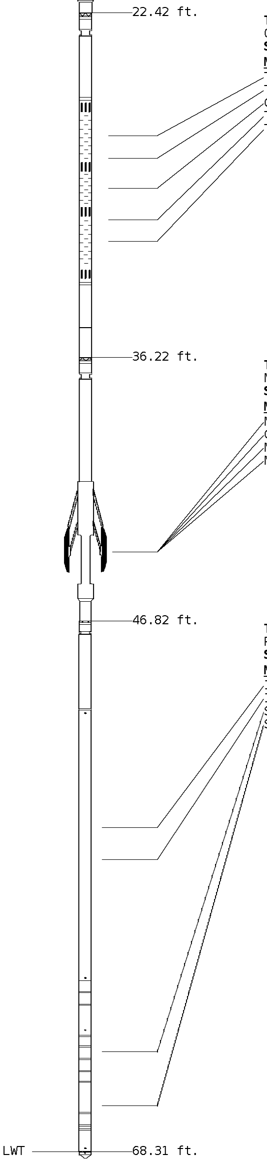
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	66.31

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-AF-411
Source ID :N-1104
Pad ID :CNP-AD-037

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	58.91
PHIN	6.80	10.20	58.11

Tool: LDT-DF **Length:** 9.72 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-F
Sonde ID :NDT-FA-404
Source ID :1637GW
Pad ID :LDP-DA-062

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.42	19.12	49.19
PEL	7.42	20.12	48.19
PES	7.82	20.52	47.79
LDEN	7.62	20.32	47.99
LCOR	7.62	20.32	47.99



Tool: CST-AD **Length:** 13.80 **ft.** **O.D.** 3.60 **in.**
Open Hole Sonic
Sonde ID :CST-AB-24

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	27.22	41.09
TT3	5.80	28.22	40.09
CDT	7.30	29.72	38.59
TT4	8.80	31.22	37.09
TT2	9.80	32.22	36.09

Tool: MLT-AB **Length:** 10.60 **ft.** **O.D.** 6.00 **in.**
Micro Log Tool
Sonde ID :MLT-012

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	8.90	45.12	23.19
CLMR	7.60	43.82	24.49
MSFN	8.90	45.12	23.19
MSFI	8.90	45.12	23.19

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	55.74	12.56
ILM	10.10	56.92	11.39
SFLU	17.49	64.31	4.00
SP	20.60	67.42	0.88

Well File: casillas_hamker_20-3_dec-7-2019_qst	**Scale:** 1:240	**Format:** MST-240	
Segment: V1.D1.S6 mn	**Acquired:** 2019-12/07 11:10 3.4.1-13972		
Reference: 0	**Processed:** 2019-12/07 11:10 3.4.1-13972		

BIT SIZE
INCHES (IN)
6 **16**

CALIPER MICRO
INCHES (IN)
16 **26**
6 **16**

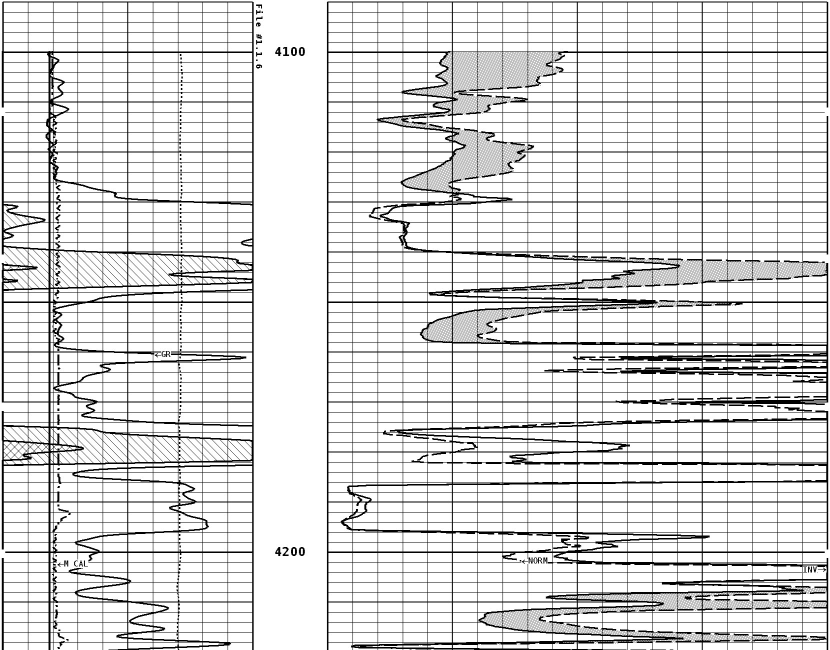
TENSION
LBS
10000 **0**

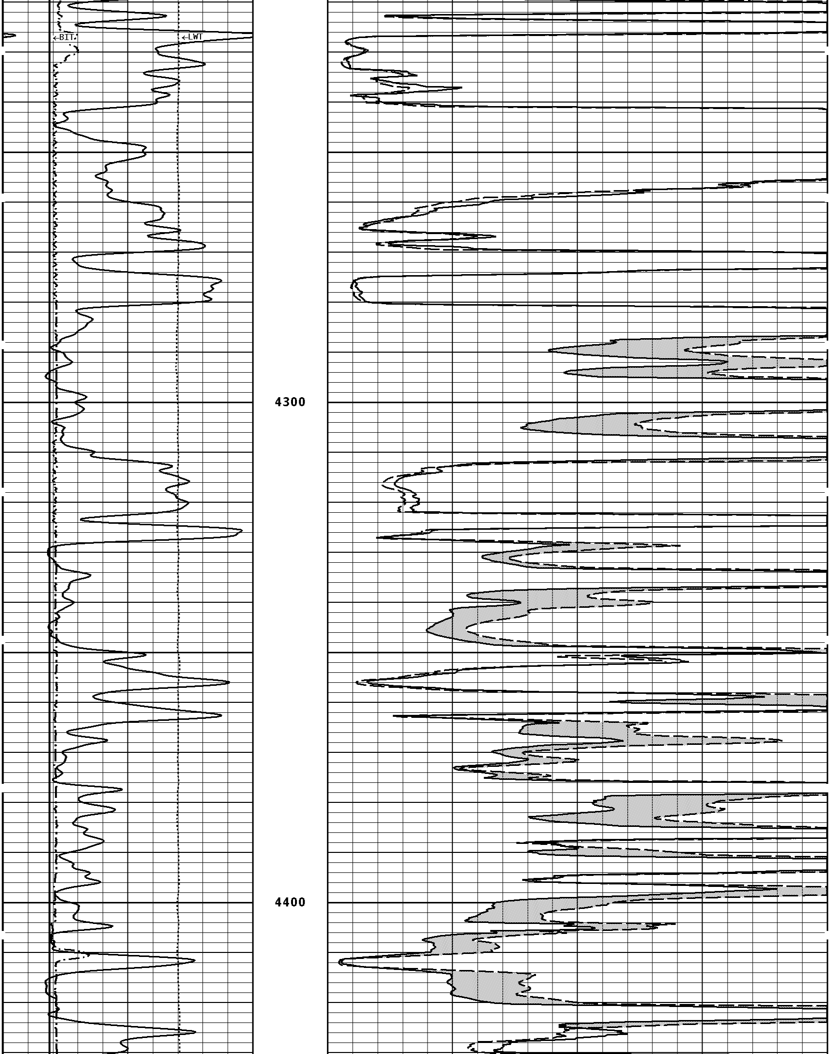
GAMMA RAY
API UNITS
150 ▨ **300**
0 **150**

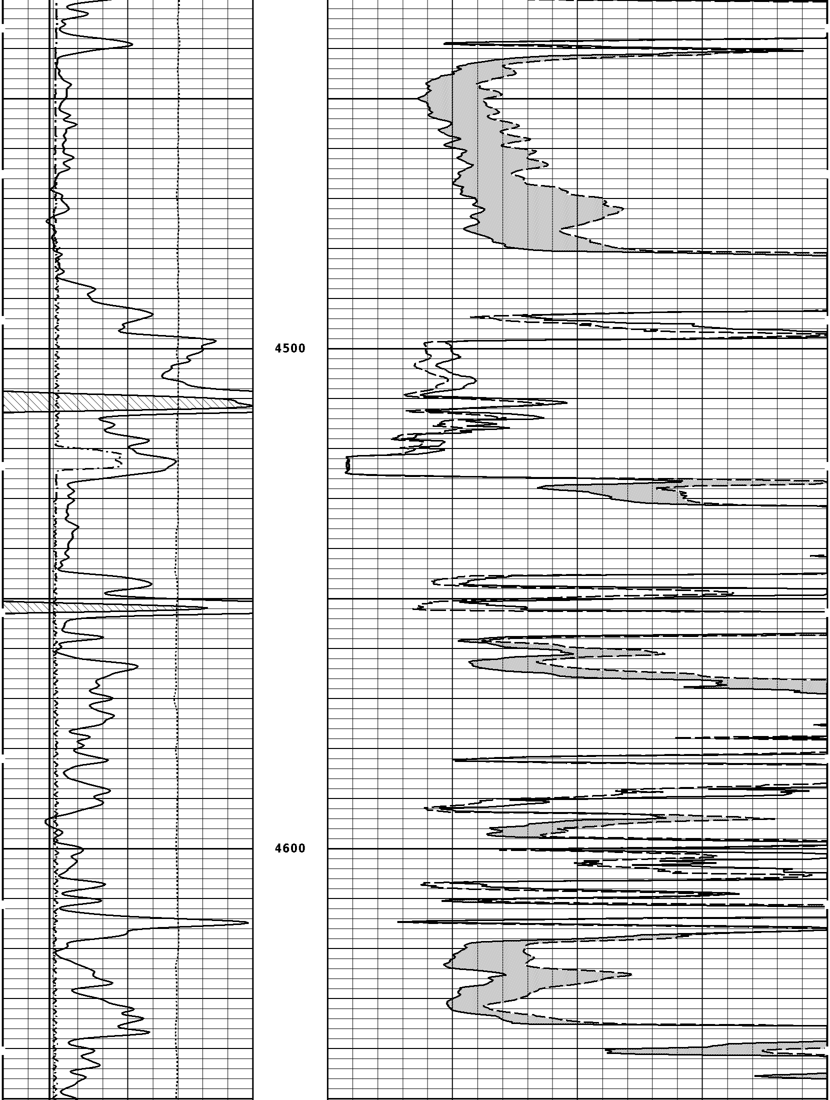
INVERSE
OHMM
0 **40**

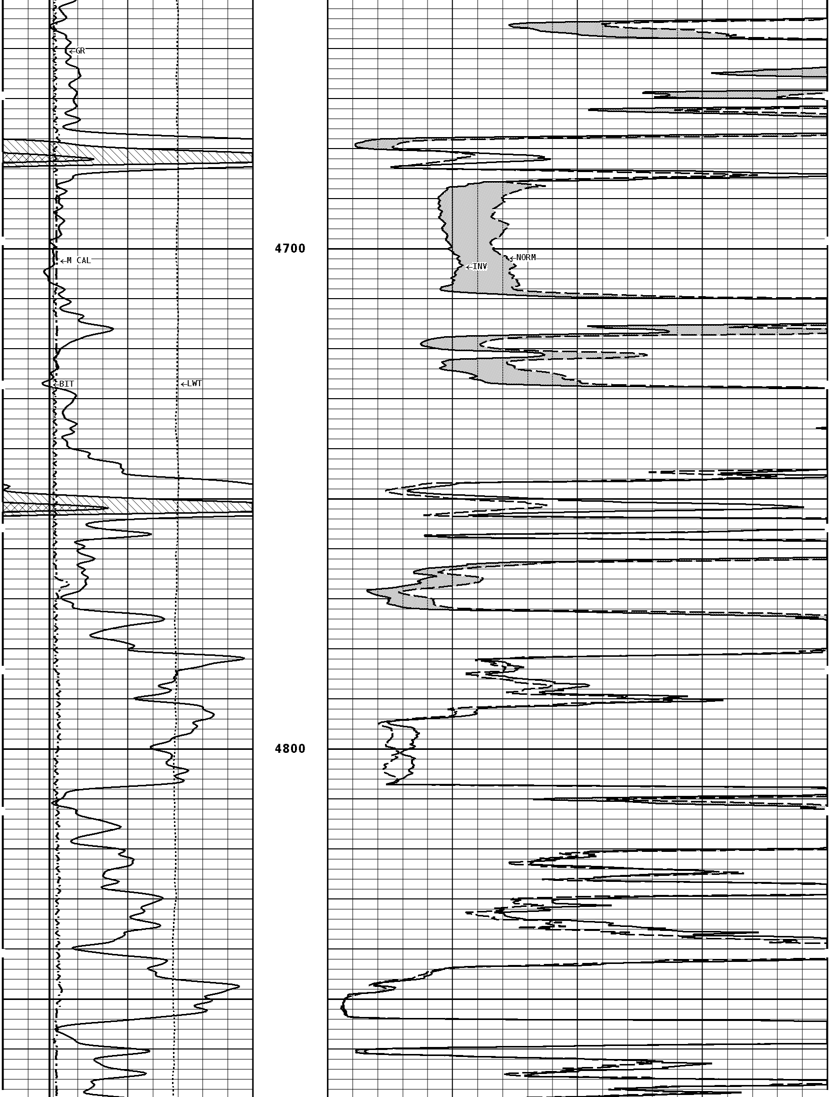
NORMAL
OHMM
0 **40**

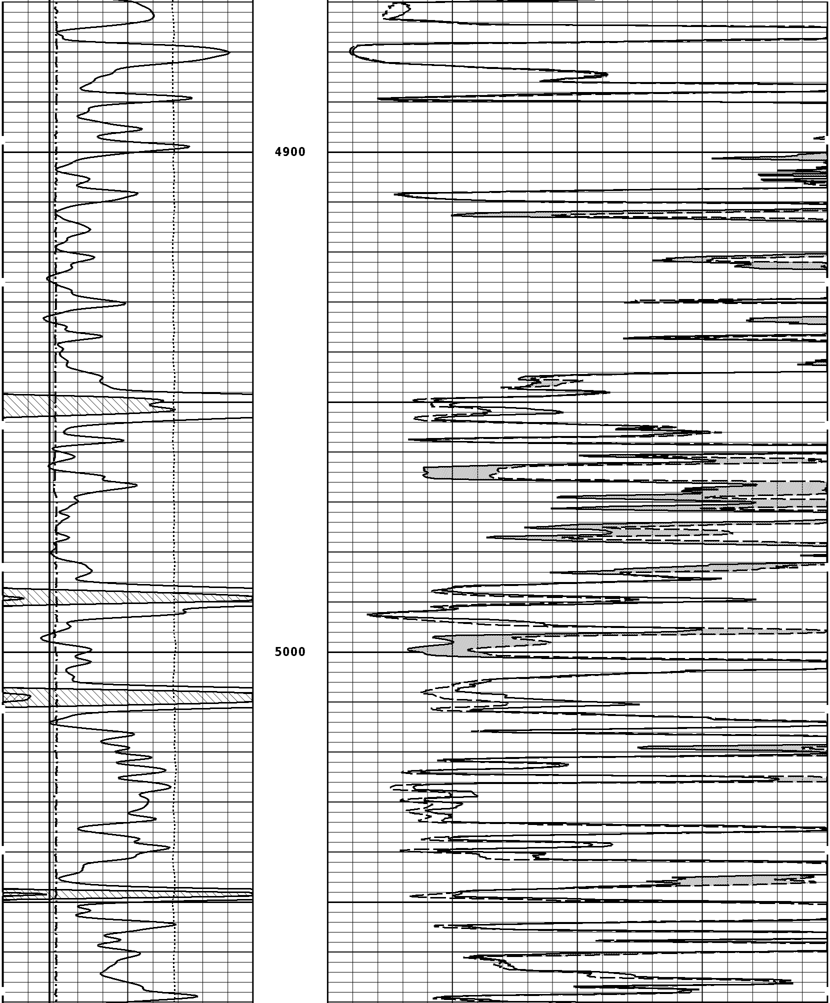
1:240 MAIN SECTION

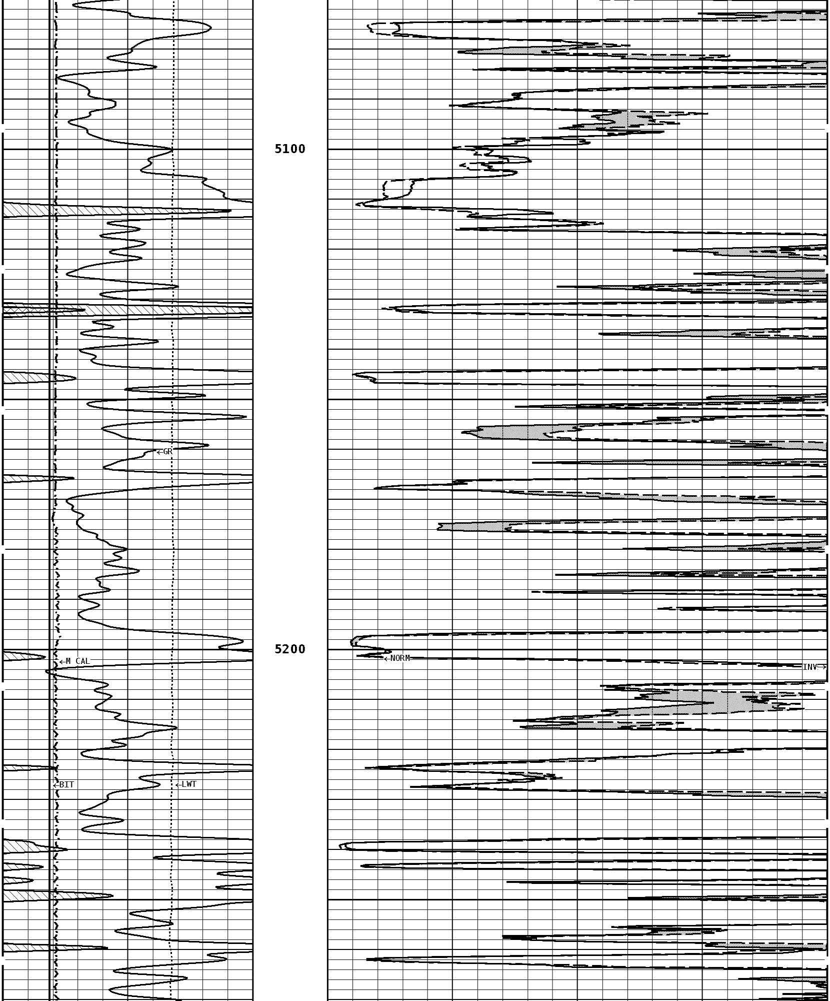


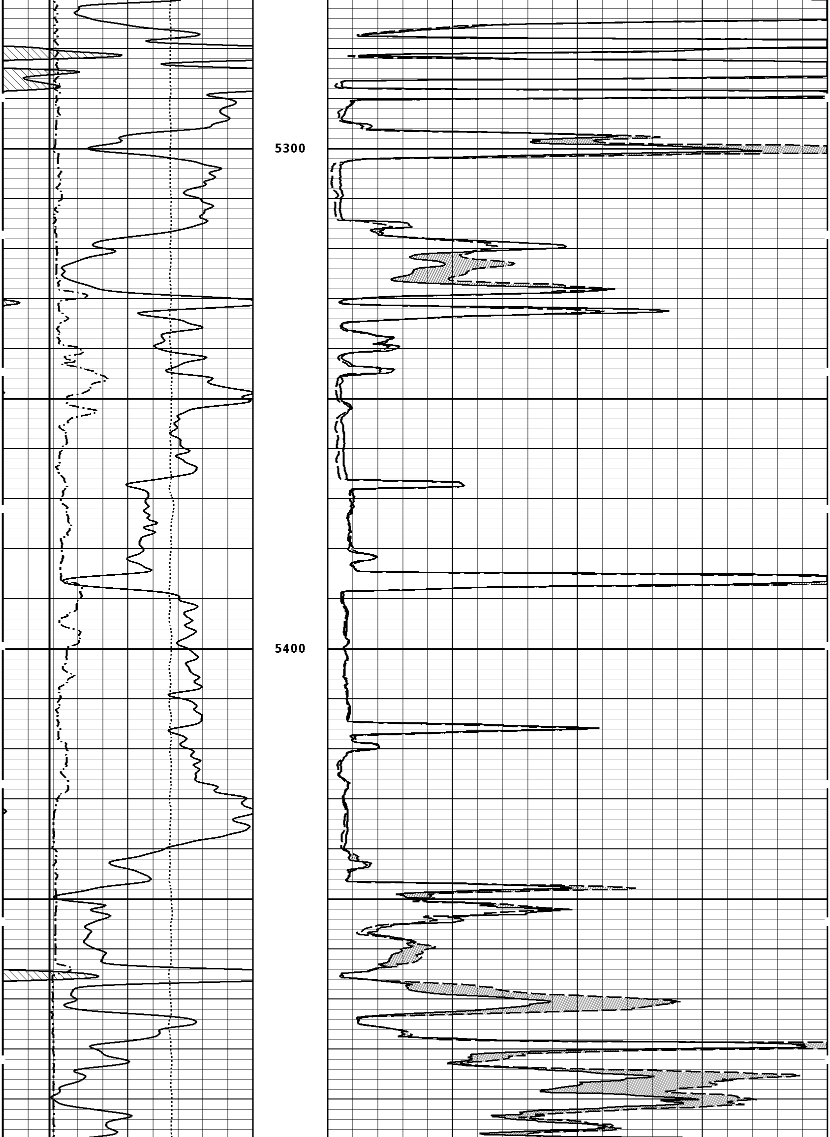


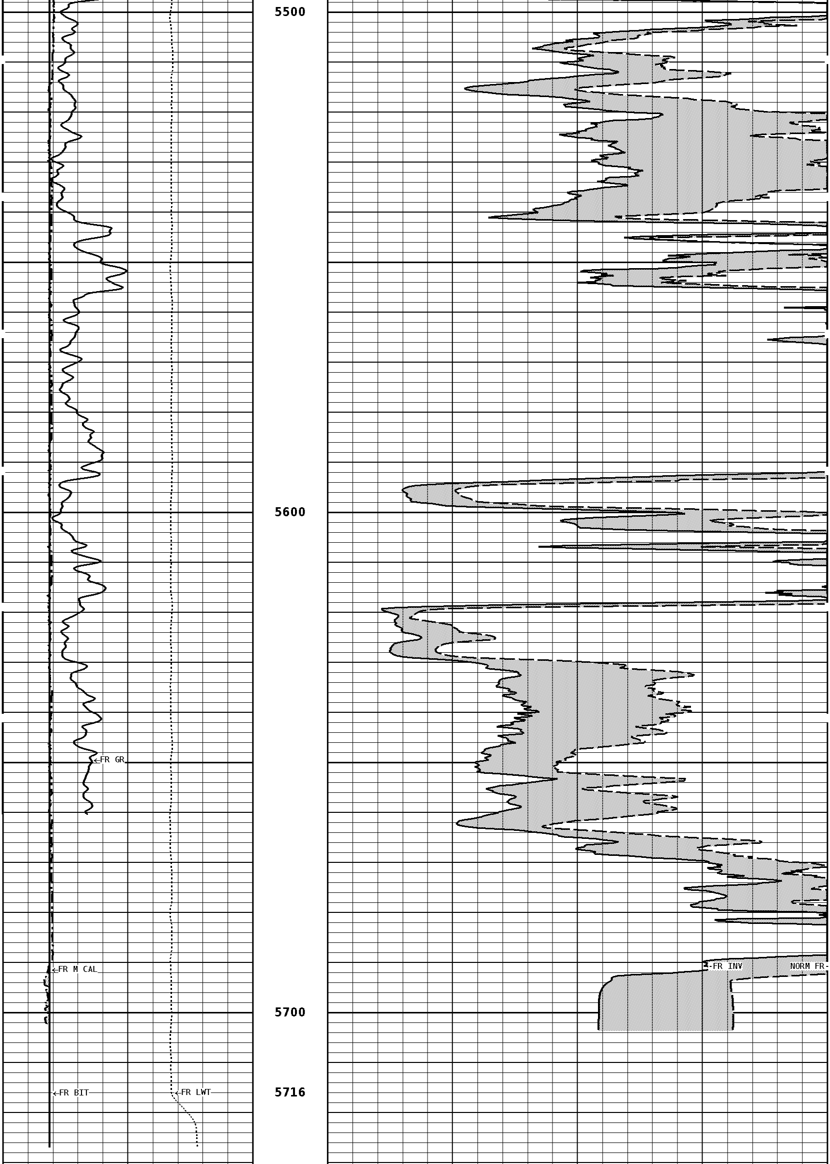












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1:240 MAIN SECTION

GAMMA RAY
API UNITS
150 ▨ **300**
0 **150**

NORMAL
OHMM
0 **40**

TENSION
LBS
10000 **0**

INVERSE
OHMM
0 **40**

CALIPER MICRO
INCHES (IN)
16 **26**
6 **16**

BIT SIZE
INCHES (IN)
6 **16**

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size____________________ 7.875 in

Well File: casillas_hamker_20-3_dec-7-2019_qst		**Scale:** 1:240	**Format:** MST-240
Segment: V1.D1.S5 Reprocess REPEAT		**Acquired:** 2019-12/07 10:48 3.4.1-13972	
Reference: 0		**Processed:** 2019-12/07 11:08 3.4.1-13972	

BIT SIZE
INCHES (IN)
6 **16**

CALIPER MICRO
INCHES (IN)
16 **26**
6 **16**

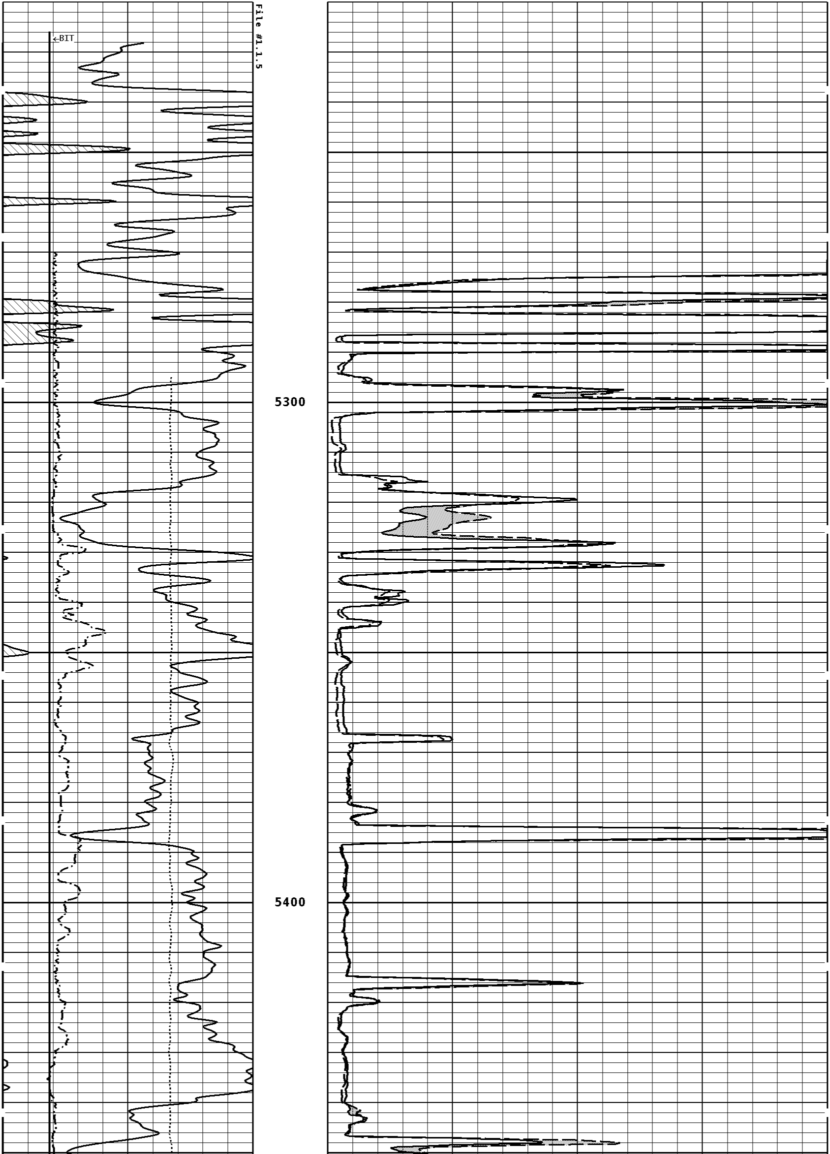
TENSION
LBS
10000 **0**

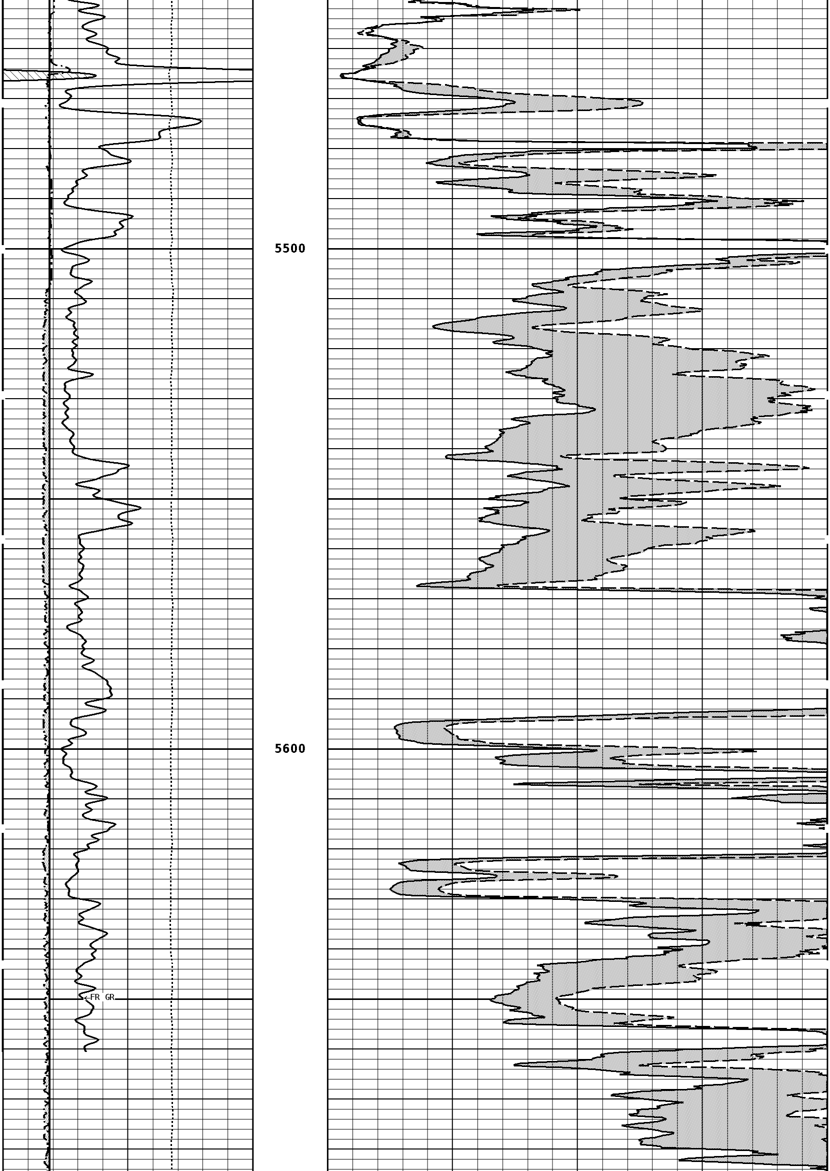
INVERSE
OHMM
0 **40**

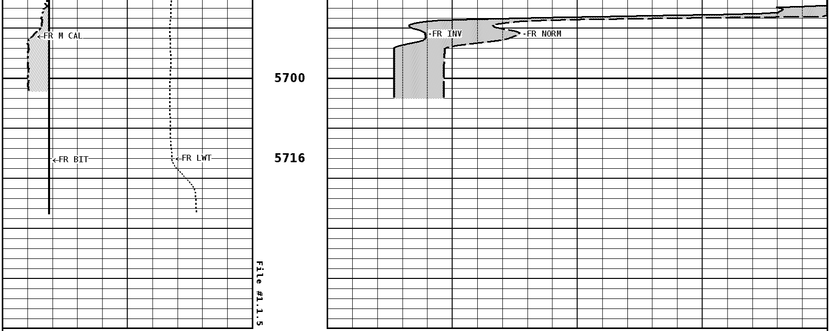
GAMMA RAY
API UNITS
150 ▨ **300**
0 **150**

NORMAL
OHMM
0 **40**

1:240 REPEAT SECTION







1:240 REPEAT SECTION

GAMMA RAY
API UNITS
150 ▨ 300
0 150

TENSION
LBS
10000 0

CALIPER MICRO
INCHES (IN)
16 26
6 16

BIT SIZE
INCHES (IN)
6 16

NORMAL
OHMM
0 40

INVERSE
OHMM
0 40

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size______________________ 7.875 in

* Calibration Summary *

Shop Calibration
GRT-B

Performed : 04-Jun-2019 Time : 09:53
Sensor Suite : GR-GR5 ID : GRT-BB-013

	Background	Measured Jig	Units	Calibrated Jig	Units
GR	44	314	CPS	160	GRAPI

Shop Calibration
MLT-AB

Performed : 03-JUN-2019 Time : 15:59
Sensor Suite : CAL-MSFL ID : MLT-012

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	12.4	15.4	6.0	12.0	IN.

Performed : 03-Jun-2019 Time : 16:08
Sensor Suite : MS-NI ID : MLT-012

	Jig#1	Jig#2	Verifier	Units
VN-0	522.41	3592.20	3592.82	
VN-90	322.29	4426.00	4426.45	
MPNR Measured	3.07	28.50	28.51	
MPNR Calibrated	2.00	20.00	20.00	OHMM
VI-0	379.00	5381.38	5381.98	
VI-90	608.31	4363.26	4364.08	
MPIR Measured	3.58	34.64	34.64	
MPIR Calibrated	2.00	20.00	20.00	OHMM

STEP
energy services

Company: CASILLAS PETROLEUM CORP
Well: HAMKER #20-3
Location: 1420' FSL & 660' FWL
Logged: 12-07-2019
K.B. Elev: 2858.0 Ft