RELEASED

217-22419

~~CONFIDENTIAL~~ until 10-22-10

Tucker
WIRELINE SERVICES

COMPENSATED NEUTRON
PEL DENSITY LOG

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

File No. :	TUL-55345
Company :	RUNNING FOXES PETROLEUM, INC.
Well :	EMMERSON 12-6D-INJ
Field :	WILDCAT
County :	VERNON
State :	MISSOURI
Country :	U.S.A.

Location : PERMIT # 22419
1685' FSL & 1025' FWL

Sect : 06 Twp : 36N Rge : 33W

Recorded By : C. GREEVER
Witnessed By : G. BRATTON

Date : JUL 07 2009
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	375.0	FT
Depth--Logger :	375.0	FT
Bottom Log Interval :	352.0	FT
Top Log Interval :	20.0	FT
Casing Depth--Driller:	20.0	FT
Casing Depth--Logger :	20.0	FT
Casing Diameter :	7.000	IN
Bit Size :	5.625	IN
Unit No. :	TRK 118	
Location :	TULSA	

Elevations :

KB :		FT
DF :		FT
GL :	871.00	FT

Additional Services

PIT

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. S. 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 T. W. S. 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 T. W. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Run Number 1

Depth To Fluid	0.0	FT		
Fluid Type In Hole :	NATIVE			
Density :	0.000	LBS/GAL		
Viscosity :	0.000	SEC/QT		
pH :	0.000			
Fluid Loss :	0.000	CC		
Salinity :	0.000	KPPM		
RM Source :	MEASURED			
RM :	9.500	OHMM at	65	F
RM at BHT :	8.341	OHMM at	75	F
RMF Source :	CALCULATED			
RMF :	8.075	OHMM at	65	F
RMF at BHT :	7.090	OHMM at	75	F
RMC Source :	CALCULATED			
RMC :	10.450	OHMM at	65	F
RMC at BHT :	9.175	OHMM at	75	F

Max Recorded Temp. :	75 F
Time Circulation Stopped :	JUL 07 2009 @ 07:00
Operating Rig Time, Hrs. :	2.0

- Source Serial Numbers -

Gamma	317-49B
Neutron	21166B

- Sonde Serial Numbers -

GRTB	GRT-BC-43
CNT	CNP-AD-34
LDTNG	LDT-NG-002
PIT	PIT-AB-11

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	20.00

- Comments -

ALL PRESENTATIONS AS PER CLIENTS REQUEST>

GRT, CNT, LDT AND PIT RUN IN COMBINATION.
CALIPERS ORIENTED IN X-Y AXIS
2.71 G/CC USED TO CALCULATE PORSITY
PHIN IS CALIPER CORRECTED
ANNULAR HOLE VOLUME CALCULATED USING 4.5'' PRODUCTION CASING

GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
PIT: ILD , ILM, SFLAEC, CIRD, SPU.

OPERATORS:
J. COLWILL
L. BARTO

THANK YOU FOR USING TUCKER WIRELINE SERVICES!!!!!!!!!!!!!!!!!

Tool String Schematic

Total Tool Length	43.29 ft.
Maximum Outside diameter	4.00 in.
Net Weight in Air	243.00 lbs.

Tool Zero
3.40 ft.

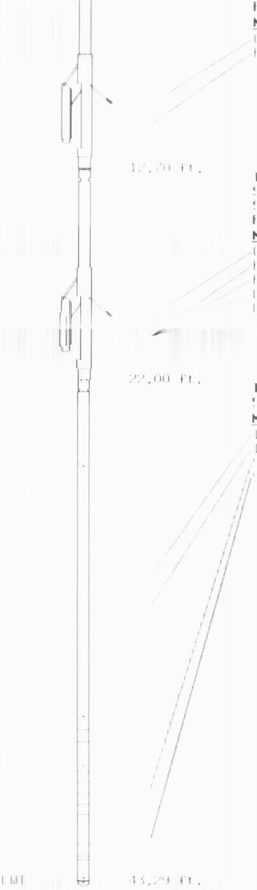
Tool: GRTB Length: 3.40 ft. O.D.: [illegible] in.
Sonde ID : GRT BC 43

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	41.29

Tool: CNT Length: 9.30 ft. O.D.: [illegible] in.
Sonde ID : CNP AD 34
Source ID : 21166B

Pad ID : CNP AB 54

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	33.89
PHIN	10.24	6.84	33.05



Tool: EDTNG Length: 9.30 ft. O.D.: 4.50 in.
Sonde ID : EDT NG 002
Source ID : 317 49B
Pad ID : EDT NG 002

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CILD	18.70	6.00	24.59
PEL	19.70	7.00	23.59
PES	20.10	7.40	23.19
LDEN	19.70	7.00	23.59
LCOR	19.70	7.00	23.59

Tool: PIT Length: 21.29 ft. O.D.: 3.63 in.
Sonde ID : PIT AB 11

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	8.92	12.37
ILM	32.10	10.10	11.19
SFLU	39.49	17.49	3.80
SP	42.60	20.60	0.69

TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
4 14

DENSITY (X) CALIPER
INCHES (IN)
14 24
4 14

Volume
Quartz

PE CROSS SECTION
BARNS/ELECTRON
0 10

DENSITY CORRECTION
G/CC
0.25 0.25

NEUTRON (Y) CALIPER
INCHES (IN)
14 24
4 14

Volume
Calcite

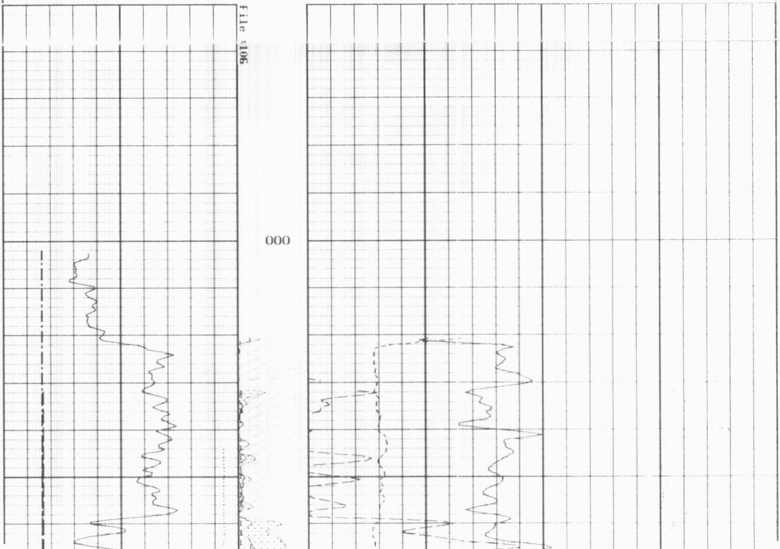
NEUTRON POROSITY
PERCENT (LIMESTONE MATRIX)
30 10

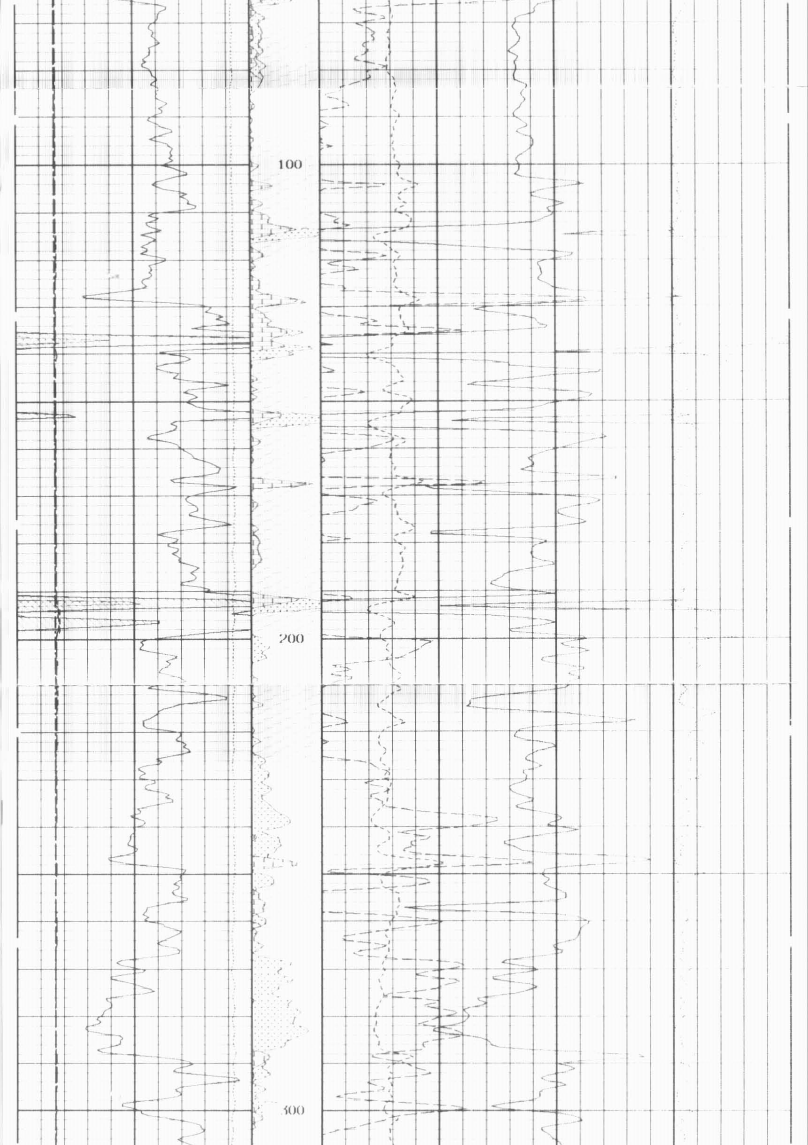
GAMMA RAY
API UNITS
200 400
0 200

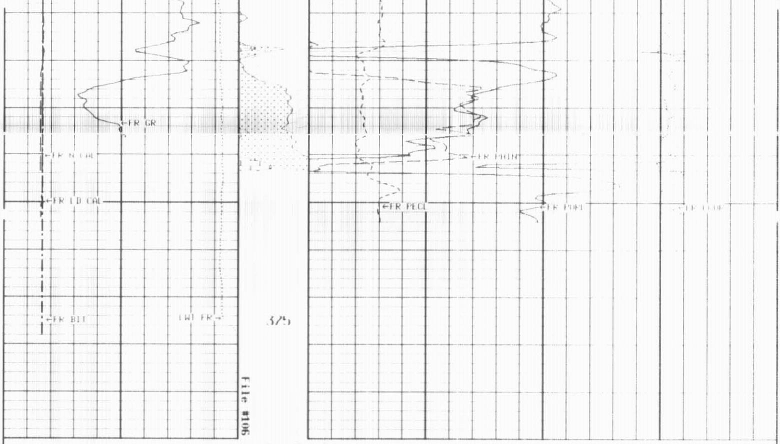
Volume
Dolo/Shale

DENSITY POROSITY
PERCENT (2.71 g/cc)
70 30
30 10

1:240 MAIN SECTION







1:240 MAIN SECTION

GAMMA RAY **API UNITS** 200 — 400 0 — 200	Volume Dolo/Shale	**DENSITY POROSITY** **PERCENT (2.71 g/cc)** 70 — 30 30 — 10
NEUTRON (Y) CALIPER **INCHES (IN)** 14 — 24 4 — 14	Volume Calcite	**NEUTRON POROSITY** **PERCENT (LIMESTONE MATRIX)** 30 — 10
DENSITY (X) CALIPER **INCHES (IN)** 14 — 24 4 — 14	Volume Quartz	**PE CROSS SECTION** **BARNS/ELECTRON** 0 — 10 **DENSITY CORRECTION** **G/CC** 0.25 — 0.25
BIT SIZE **INCHES (IN)** 4 — 14		
TENSION **LBS** 10000 — 0		

* Borehole Zone Factors *

Zone 1   99999.0   to   0.0 ft

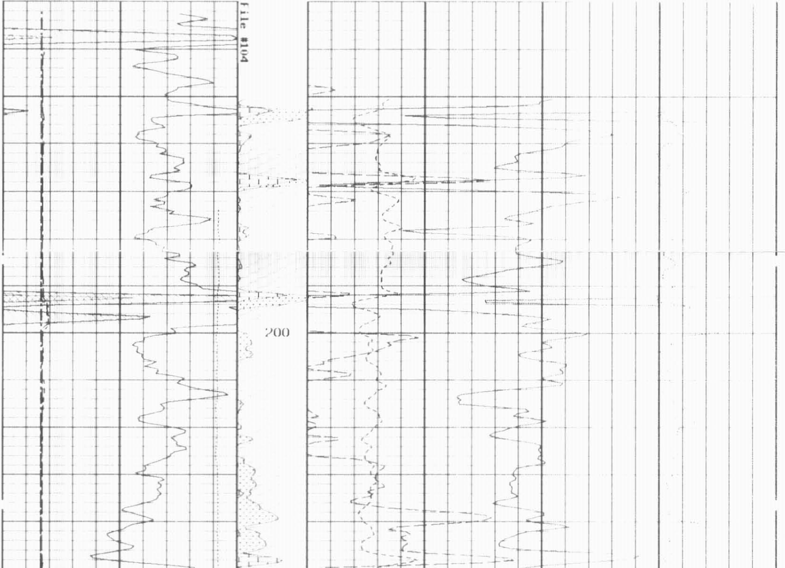
Matrix Density	2.71 G/CC
Fluid Density	1.00 G/CC
Formation Matrix	Limestone
Drill Bit Size	5.625 IN
Casing Correction (PHI N)	Disable

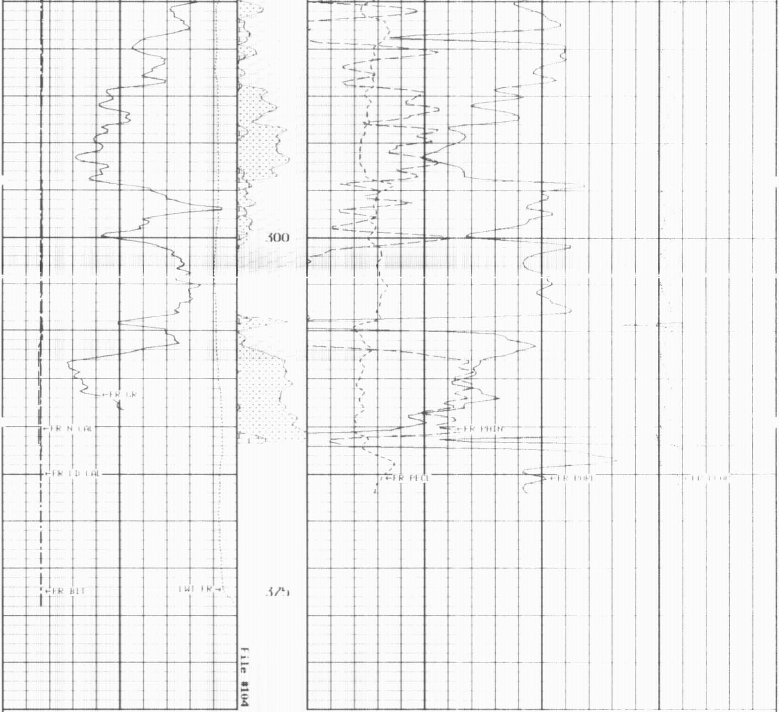
TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
4 14

DENSITY (X) CALIPER INCHES (IN) 14 24 4 14	Volume Quartz	PE CROSS SECTION BARNS/ELECTRON 0 10	DENSITY CORRECTION G/CC 0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14	Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 10	
GAMMA RAY API UNITS 200 400 0 200	Volume Dolo/Shale	DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 30 10	

1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY API UNITS 200 400 0 200	Volume Dolo/Shale	DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 30 10	
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14	Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 10	
DENSITY (X) CALIPER INCHES (IN) 14 24 4 14	Volume Quartz	PE CROSS SECTION BARNS/ELECTRON 0 10	DENSITY CORRECTION G/CC 0.25 0.25

BIT SIZE
INCHES (IN)
4 14

TENSION
LBS
10000 0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F	
Matrix Density	2.71 G/C3
Fluid Density	1.00 G/C3
Formation Matrix	Limestone
Drill Bit Size	5.625 IN
Casing Correction (PHI N)	Disable

TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
4 14

DENSITY (X) CALIPER
INCHES (IN)
14 24
4 14

PE CROSS SECTION
BARNS/ELECTRON
0 10

DENSITY CORRECTION
G/CC
0.25 0.25

NEUTRON (Y) CALIPER
INCHES (IN)
14 24
4 14

DENSITY POROSITY
PERCENT (2.71 g/cc)
70 30
30 10

GAMMA RAY
API UNITS
200 400
0 200

-BHV AHV-
CU.FT

COMPENSATED BULK DENSITY
G/CC
3.0 1.0
2.0 3.0
1.0 2.0

1:240 MAIN SECTION
BULK DENSITY

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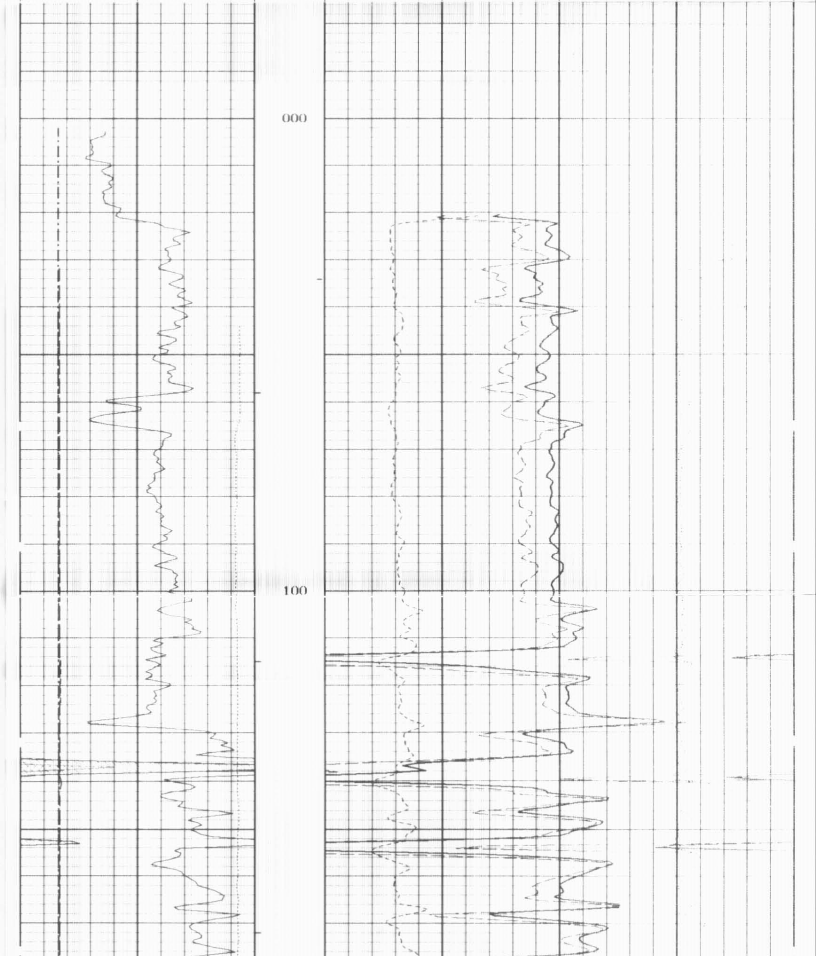

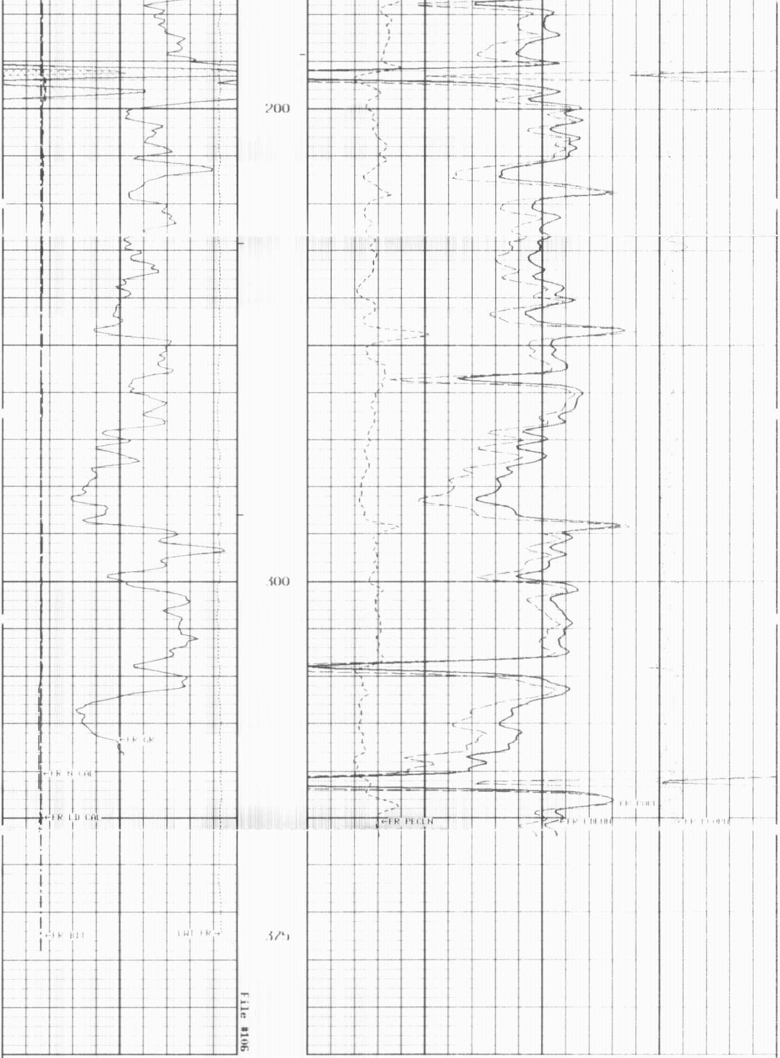

1:240 MAIN SECTION
BULK DENSITY

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        GAMMA RAY            -BHV AHV-              COMPENSATED BULK DENSITY
        API UNITS              CU.FT                          G/CC
200                    400              3.0                                          4.0
  0                    200              2.0                                          3.0
                                        1.0                                          2.0

   NEUTRON (Y) CALIPER                                   DENSITY POROSITY
      INCHES (IN)                                   PERCENT (2.71 g/cc)
14                      24              70                                            30
 4                      14              30                                            10

   DENSITY (X) CALIPER                  PE CROSS SECTION         DENSITY CORRECTION
      INCHES (IN)                       BARNS/ELECTRON                  G/CC
14                      24
 4                      14              0                   10  0.25                 0.25

        BIT SIZE
      INCHES (IN)

4                       14

        TENSION
          LBS

10000                    0
```

```
                    * Borehole Zone Factors *

              Zone 1   99999.0  to    0.0  F

   Matrix Density                                    2.71   G/CC
   Fluid Density                                     1.00   G/CC
   Formation Matrix                             Limestone
   Drill Bit Size                                    5.875  IN
   Production Casing Diameter                        4.500  IN
   Casing Correction (PHI N)                     Disable
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                    * Calibration Summary *

                       Shop Calibration
                             GRTB
     Performed : 24 Apr 2008                Time : 10:19
  Sensor Suite : GR GR5                       ID : GRT-BL-43

                       Measured        Units        Calibrated       Unit
          Background      Jig                           Jig
GR                41      314       CPS                 175          GAPI

                       Shop Calibration
                             CNT
     Performed : 26 May 2009                Time : 09:48
  Sensor Suite : BHC NEUT                     ID : CNP-AB-34
     Source ID : 21166B

                      Tank                    Verification           Unit
              Measured    Calibrated              Jig
N/F            3.6856      3.6889               3.2006
Porosity        20.4        20.5                 20.2

     Performed : 03-OCT-2007                Time : 10:26
  Sensor Suite : CALI-BCN                     ID : CNP-AB-34

                  Jig    Measured             Jig    Calibrated     Unit
                Ring#1   Ring#2              Ring#1   Ring#2
CL # 1            9.8     15.8                6.0      12.0         IN

                       Shop Calibration
                             LDTNG
     Performed : 28 JAN-2008                Time : 08:33
  Sensor Suite : CALIPER                      ID : LDT-NG-002
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         Jig   Measured          Jig   Calibrated   Unit
         Ring#1  Ring#2          Ring#1  Ring#2
LL # 1      5.8    11.8             6.0    12.0       IN.

    Performed : 26 May 2009          Time : 11:09
 Sensor Suite : BHCPELNG               ID : LDT BG 002
    Source ID : 317 49B

                          Short Space
            BKGD          Al            Mg         Calib       Unit
LSW1          71        1387          2207          884        CPS
LSW2          76        1716          2712         1503        CPS
LSW3         294        4085          6546         3439        CPS
LSW4         375        3653          5287         3398        CPS
LSW5          35          22            86           69        CPS
LSW6          99         103           100          102        CPS
LSW7          63          68            67           68        CPS
LSW8           2           7             9            6        CPS
QS         0.222       0.205         0.198        0.200
PES                                  2.520        6.180
SSDN                   2.600         1.680                     G/CC

                          Long Space
            BKGD          Al            Mg         Calib       Unit
LLW1         112        1670          6684         1081        CPS
LLW2         125        3023         11360         2172        CPS
LLW3         469        5542         20384         4242        CPS
LLW4         612        2558          8311         2306        CPS
LLW5          65          83           181           80        CPS
LLW6         200         194           181          192        CPS
LLW7         120         120           112          122        CPS
LLW8           4           9            28            8        CPS
QL         0.250       0.236         0.235        0.223
PEL                                  2.520        6.180
LSDN                   2.600         1.680                     G/CC
```