Tucker
WIRELINE SERVICES

DUAL INDUCTION RESISTIVITY LOG

CONFIDENTIAL
tell 11/22/11

RECEIVED
NOV 22 2010
Mo Oil & Gas Council

File No. : TUL-54770
Company : RUNNING FOXES PETROLEUM, LLC
Well : EMMERSON 12-6A-1
Field :
County : VERNON
State : MISSOURI
Country : USA

Location : PERMIT#: 22589
2510' FSL & 1200' FWL
Sect : 6 Twp : 36N Rge : 33W

Recorded By : B.BAILEY
Witnessed By : C.COUNTS

Date : OCT 11 2010
Run No. : 0

Permanent Datum : GL
Drilling Measured From : GL
Log Measured From: GL
Above Permanent Datum : 0.00 FT

Depth--Driller : [illegible] FT
Depth--Logger : [illegible] FT
Bottom Log Interval : [illegible] FT
Top Log Interval : [illegible] FT

Casing Depth--Driller: [illegible] FT
Casing Depth--Logger : [illegible] FT
Casing Diameter : [illegible] IN

Bit Size [illegible] IN
Unit No. 127
Location TULSA

Elevations :
KB : FT
DF : FT
GL : 875.00 FT

Additional Services
CNT
LDT

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 intepretations, conversions or recommendations as aforesaid.

Run Number 0

Depth To Fluid	0.0	FT		
Fluid Type in hole :	NATIVE			
Density :	0.000	SG		
Viscosity :	0.000	SEC		
pH :	0.000			
Fluid Loss :	0.000			
Salinity :	0.000	KPPM		
RM Source :	MEASURED			
RM :	10.000	OHMM at	72	F
RM at BHT :	10.000	OHMM at	72	F
RMF Source :	CALCULATED			
RMF :	8.500	OHMM at	72	F
RMF at BHT :	8.500	OHMM at	72	F
RMC Source :	CALCULATED			
RMC :	11.500	OHMM at	72	F
RMC at BHT :	11.500	OHMM at	72	F
Max Recorded Temp. :			72	F
Time Circulation Stopped :				
Operating Rig Time, Hrs. :			1.0	

- Source Serial Numbers -

Gamma	CSV-587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-BA-14
CNT	CNP-AA-116
LDTNG	LDP-NG-02
PIT	PIT-AB-14

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
8.625	32.00	21.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, PIT RAN IN COMBINATION
CALIPERS ORIENTED ON THE Y-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 2.875" PRODUCTION CASING.

GRT: GRP.
CNT: PHIN, [illegible].
LDT: PORL, [illegible], PECLN, CLLDIN, LDENN, PORLLS, PECSN.
PIT: ILD, ILM, [illegible], SFLAEC, SPU.

OPERATOR:

M.BURKE

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length 43.79 ft.
Maximum Outside diameter 4.00 in.
Net Weight in Air 245.00 lbs.

Tool: [illegible] Length: 3.40 ft. O.D.: 3.60 in.
Sonde ID : [illegible]

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GR	2.00	2.00	41.79

Tool: CNT Length: [illegible] ft. O.D.: 4.56 in.
Sonde ID : [illegible]
Source ID : [illegible]
Pad ID : [illegible]

Measure Point	Stack Offset	Tool Offset	Bottom Offset
[illegible]	9.40	6.00	34.39
[illegible]	10.24	6.84	33.55

Tool: [illegible] Length: [illegible] ft. O.D.: 4.00 in.
Sonde ID : [illegible]
Source ID : [illegible]
Pad ID : [illegible]

Measure Point	Stack Offset	Tool Offset	Bottom Offset
[illegible]	18.20	6.00	25.59
PE	19.20	7.00	24.59
[illegible]	20.10	7.90	23.69
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	19.20	7.00	24.59

Tool: PIT Length: [illegible] ft. O.D.: [illegible] in.
Sonde ID : [illegible]

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	11.92	12.87
ILM	32.10	13.10	11.29
SFLU	38.49	17.49	5.30
SP	43.10	22.10	0.69

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

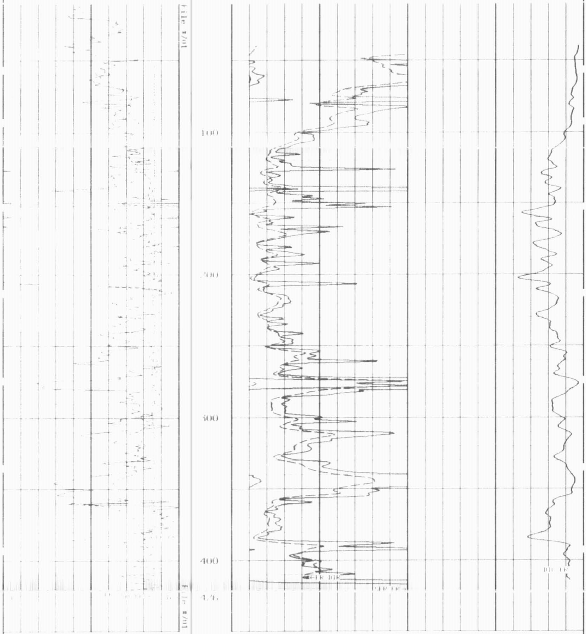
GAMMA RAY
API UNITS
200 400
0 200

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

1:600 SECTION
2 INCH



1:600 SECTION

2 INCH

GAMMA RAY
API UNITS
200 400
0 200

SPONTANEOUS POTENTIAL
mV
→| |← 20

TENSION
LBS
10000 0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

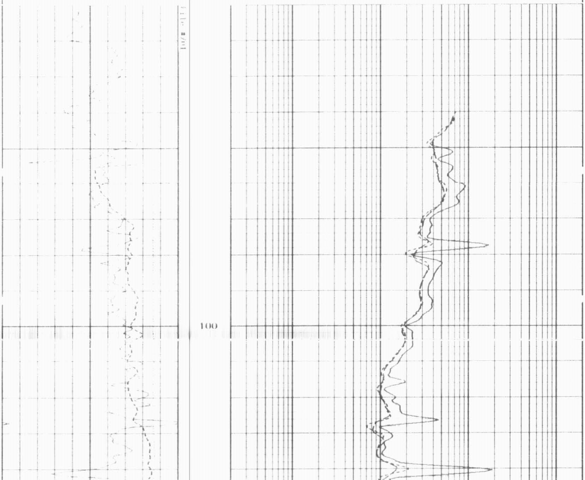
GAMMA RAY
API UNITS
200 400
0 200

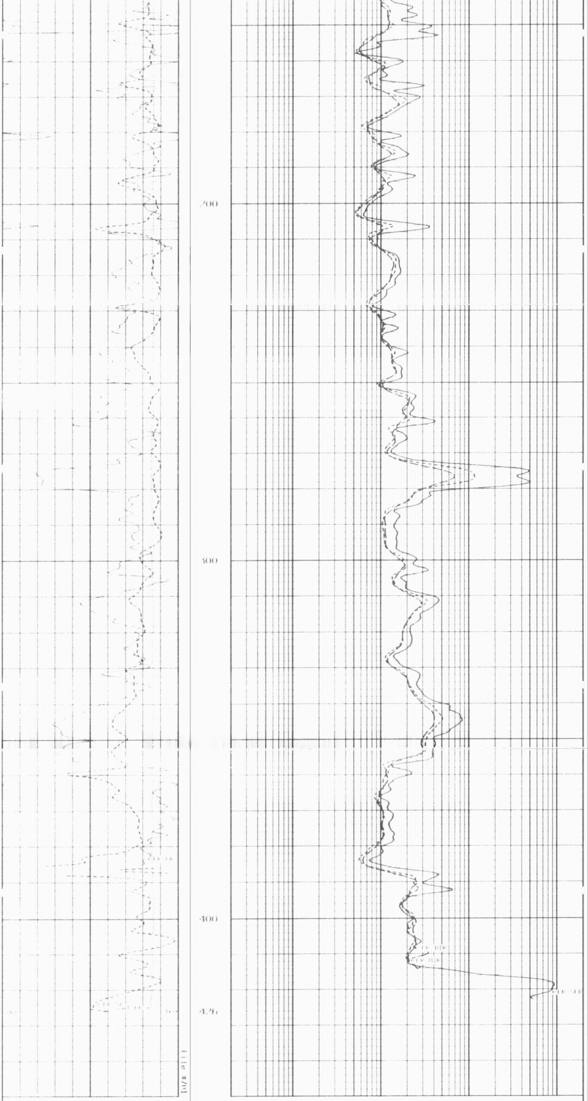
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 MAIN SECTION





1:240 MAIN SECTION

GAMMA RAY API UNITS		DEEP INDUCTION OHMM	
200	400	0.2	2000.0
0	200		

SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM	
→| |← 20	0.2	2000.0

TENSION LBS		SHALLOW FOCUSED RESISTIVITY OHMM	
10000	0	0.2	2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

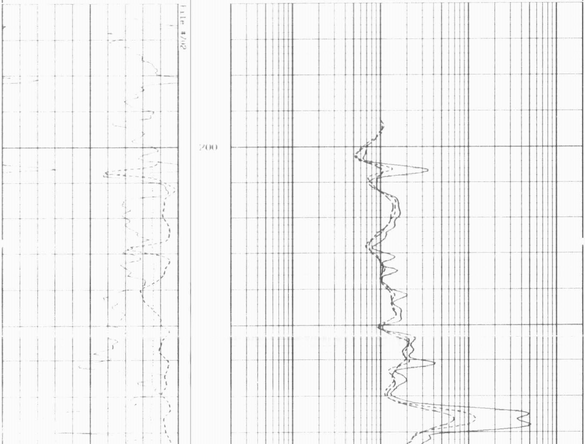
Drill Bit Size	6.125	IN
BHC Depth	[illegible]	F
Borehole Temperature	75.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	10.000	OHMM
Standoff	1.5	
Resistivity Of Mud Temperature	75.00	DEGF

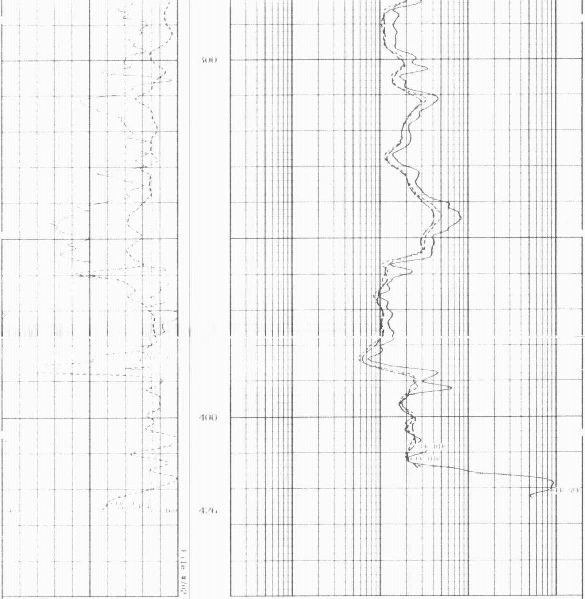
TENSION LBS		SHALLOW FOCUSED RESISTIVITY OHMM	
10000	0	0.2	2000.0

SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM	
→| |← 20	0.2	2000.0

GAMMA RAY API UNITS		DEEP INDUCTION OHMM	
200	400	0.2	2000.0
0	200		

1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY
API UNITS
200 400
0 200

DEEP INDUCTION
OHMM
0.2 2000.0

SPONTANEOUS POTENTIAL
mV
→| |← 20

MEDIUM INDUCTION
OHMM
0.2 2000.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	6.125	IN
BHT Depth	452.000	F
Borehole Temperature	25.0	DEGC
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	10.00	OHMM
Standoff	1.5	
Resistivity Of Mud Temperature	25.00	DEGC

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                     * Calibration Summary *

                        Shop Calibration
                              GRTB
     Performed : 21 Aug 2009               Time : 15:26
 Sensor Serial : 10 1485                     ID : GRT Ba 14

                    Measured      Units        Calibrated      Units
        Background        Jig                         Jig
GR                 38     547      CPS                175       GAPI

                        Shop Calibration
                              PTI
     Performed : [illegible] 2010          Time : 14:55
 Sensor Serial : [illegible]                 ID : PTI aB 14

                             Medium
                  Measured                    Calibrated
                  R         X                 R           X       Units
Air               131256    130213            0,6         1,7     MMHOS
Zero              131067    131070            0,0         0,0     MMHOS
Reference         [illegible]                 5000,0      5000,0  MMHOS
Loop              [illegible] 133086          2600,9  [illegible] MMHOS
Sonde Error                                   2,5         2,4     MMHOS
Total                                         5000,0      5000,0  MMHOS

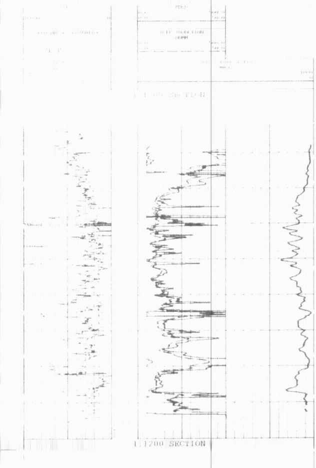
                              Deep
                  Measured                    Calibrated
                  R         X                 R           X       Units
Air               129963    131236            0,2         0,0     MMHOS
Zero              131070    131070            0,0         0,0     MMHOS
Reference         [illegible] [illegible]     2000,0      2000,0  MMHOS
Loop              [illegible] 134725          1322,5      464,8   MMHOS
Sonde Error                                   -4,7        0,1     MMHOS
Total                                         2000,0      2000,0  MMHOS

                           Temperature
                  Measured                    Calibrated
                  Low       High              Low         High    Units
             12000,0 56020,0                  20,0        500,0   DEGF

     Performed : 30 Jan 2010               Time : 14:00
 Sensor Serial : 50                          ID : PTI aB 14

                            Internal
                    Measured                  Calibrated
                  Zero     Reference          Zero     Reference  Units
Im                52743,3    48525,4          0,0       3551,9    mA
Ic                52762,9    49506,0          0,0       1760,0    mA
[illegible]       52755,1    56267,9          0,0        175,0    mV
Equivalent SRI                                            43,97   OHMM

     Performed : 30 Jan 2010               Time : 13:54
 Sensor Serial : [illegible]                 ID : PTI aB 14

                            Internal
             Measured                         Calibrated
           Zero     Reference                 Zero     Reference  Units
         52535,0     58911,9                  0,0       1000,0    mV
```