Tucker
WIRELINE SERVICES

217- 22416

DUAL INDUCTION
RESISTIVITY LOG

RELEASED
! ~~CONFIDENTIAL~~
until 10-22-10

File No. : TWL-55826
Company : RUNNING FOXES PETROLEUM, INC.
Well : EMMERSON 12-6D-1
Field : WILDCAT
County : VERNON
State : MISSOURI
Country : U.S.A.

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

Location : PERMIT # 22416
1850' FSL & 1200' FWL
SE NW SW

Sect : 06 Twp : 36N Rge : 33W

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

Date : JUL 13 2009
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	440.0	FT
Depth--Logger :	438.0	FT
Bottom Log Interval :	437.0	FT
Top Log Interval :	21.0	FT
Casing Depth--Driller:	21.0	FT
Casing Depth--Logger :	21.0	FT
Casing Diameter :	7.000	IN
Bit Size :	5.875	IN

Unit No. : TRK 118
Location : TULSA

Elevations :

KB :		FT
DF :		FT
GL :	869.00	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 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 :	8.500	OHMM at	83	F
RM at BHT :	9.574	OHMM at	80	F
RMF Source :	CALCULATED			
RMF :	7.225	OHMM at	83	F
RMF at BHT :	8.138	OHMM at	80	F
RMC Source :	CALCULATED			
RMC :	9.350	OHMM at	83	F
RMC at BHT :	10.532	OHMM at	80	F

Max Recorded Temp. : 80 F
Time Circulation Stopped : JUL 13 2009 @ 11:00
Operating Rig Time, Hrs. : 2.0

- Source Serial Numbers -

Gamma	1903-GW
Neutron	21166B

- Sonde Serial Numbers -

GRTB	GRT-BC-43
CNT	CNP-AD-34
LDTNG	LDP NG 01
PIT_B	PIT-AC-25

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	21.00

- 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

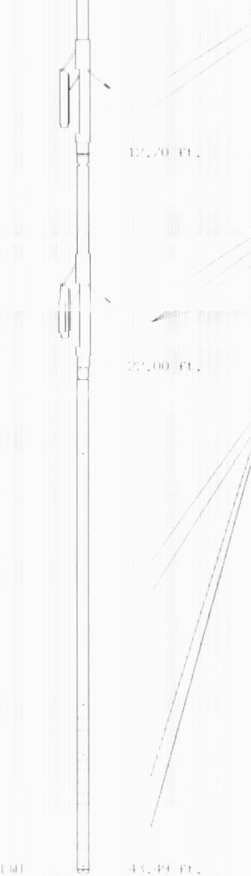
Total Tool Length 43.49 ft.
Maximum Outside diameter 4.80 in.
Net Weight in Air 743.00 lbs.

Tool Zero
3.40 ft.

Tool: GRTB **Length:** 3.40 ft. **O.D.:** 3.50 in.
Sonde ID : GRT-BC-43

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	41.49

Tool: CNT **Length:** 9.30 ft. **O.D.:** 4.50 in.
Sonde ID : CNP-AD-34
Source ID : 21166B
Pad ID : CNP-AD-34



Measure Point	Stack Offset	Tool Offset	Bottom Offset
LLCN	9.40	6.00	34.09
PHIN	10.24	6.84	33.25

Tool: LDTNG **Length:** 9.30 ft. O.D.: 4.50 in.
Sonde ID : LDP NG 01
Source ID : 1903 GW
Pad ID : LDP NG 01

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	24.79
PEL	19.70	7.00	23.79
PES	20.10	7.40	23.39
LDEN	19.70	7.00	23.79
LCOR	19.70	7.00	23.79

Tool: PIT **Length:** 21.49 ft. O.D.: 3.62 in.
Sonde ID : PIT AE 25

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	8.92	12.57
ILM	32.10	10.10	11.39
SFLU	39.49	17.49	4.00
SP	42.60	20.60	0.89

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

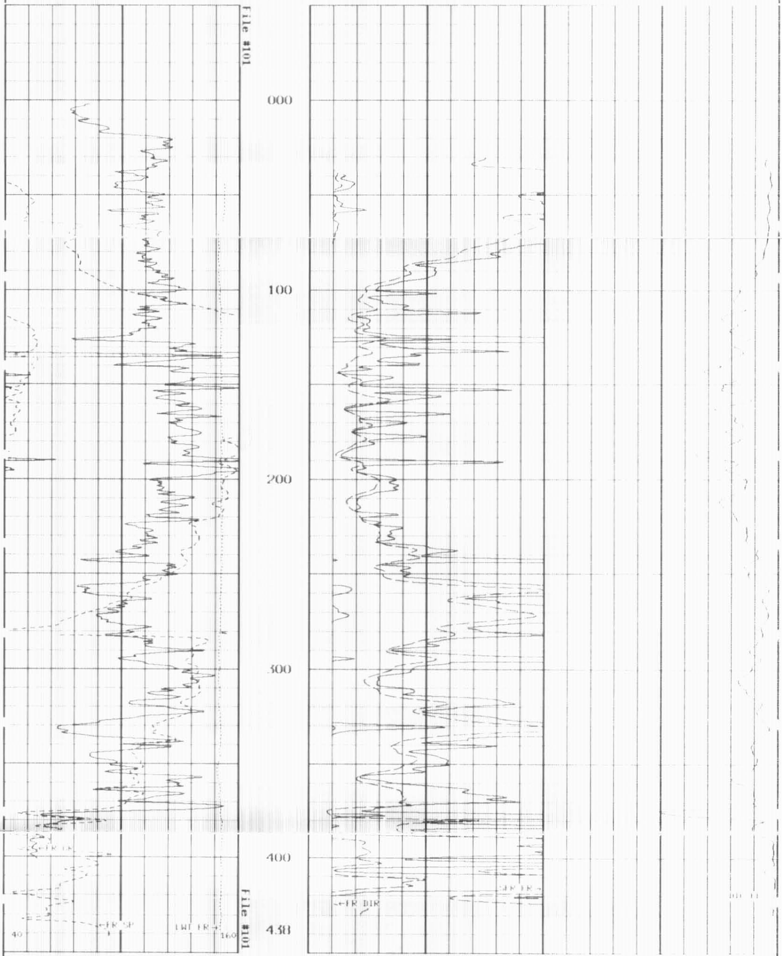
GAMMA RAY
API UNITS
200 400
0 200

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



1:600 SECTION

GAMMA RAY
API UNITS
200 400
0 200

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

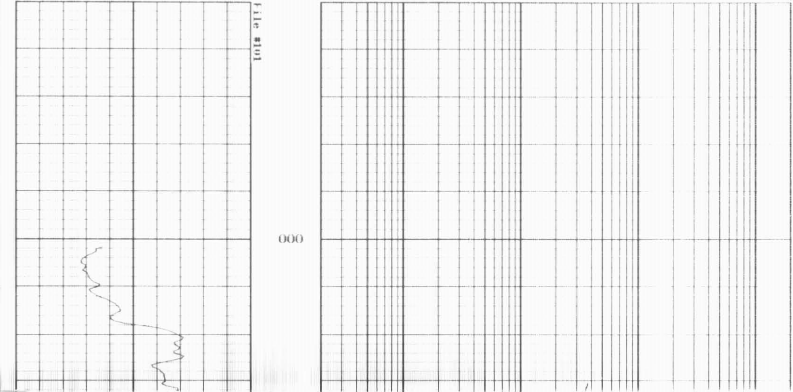
SPONTANEOUS POTENTIAL
mV
→| |← 20

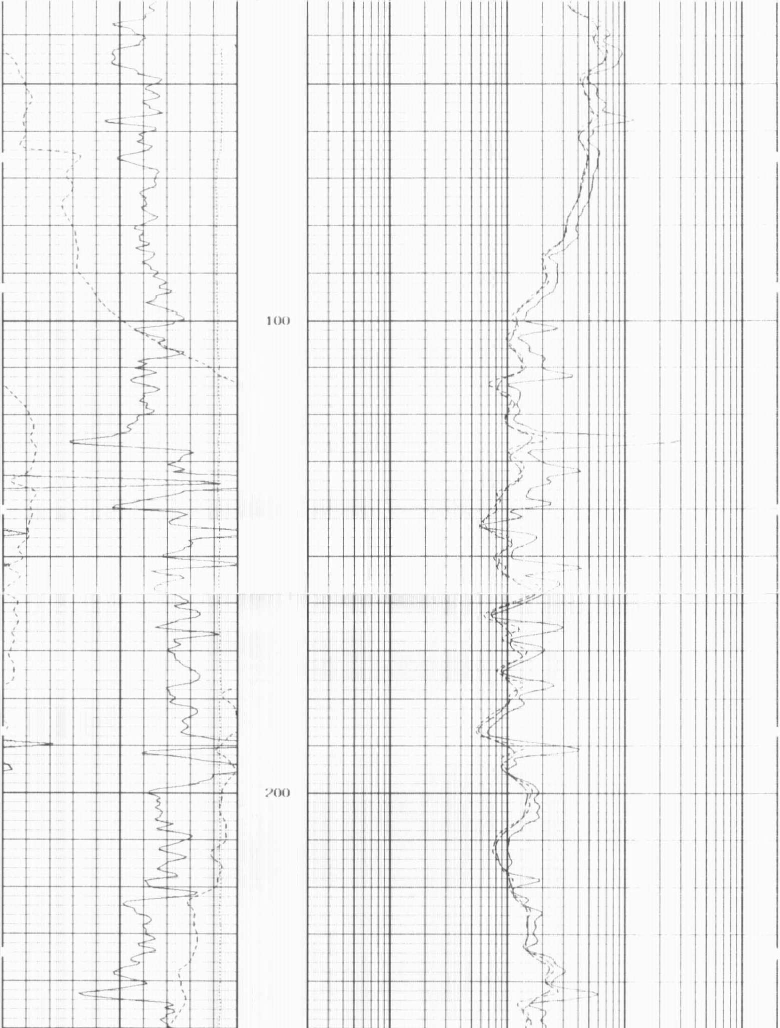
MEDIUM INDUCTION
OHMM
0.2 2000.0

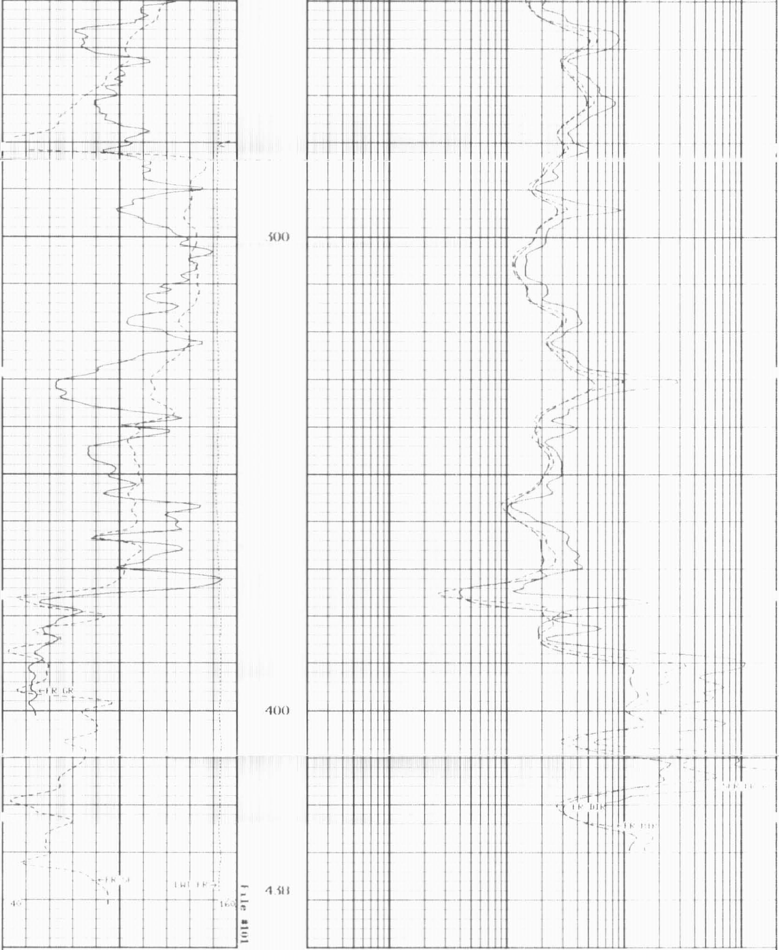
GAMMA RAY
API UNITS
200 400
0 200

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 MAIN SECTION







1:240 MAIN SECTION

GAMMA RAY
API UNITS
200 400
0 200

SPONTANEOUS POTENTIAL
mV
→| |← 20

TENSION
LBS
10000 0

DEEP INDUCTION
OHMM
0.2 2000.0

MEDIUM INDUCTION
OHMM
0.2 2000.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	5.875	IN
BHT Depth	430.000	F
Borehole Temperature	80.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	0.50	OHMM
Resistivity Of Mud Temperature	83.00	DEGF

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

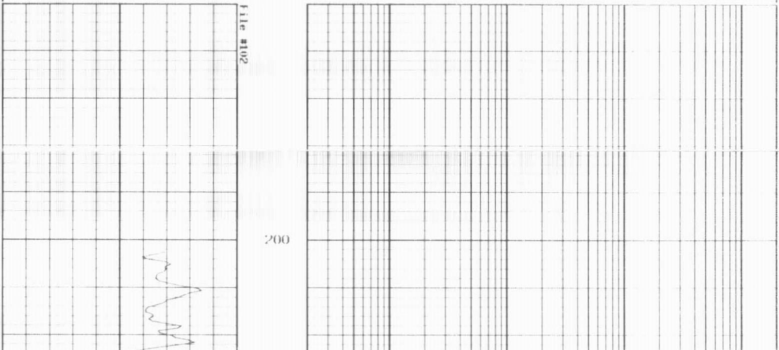
GAMMA RAY
API UNITS
200 400
0 200

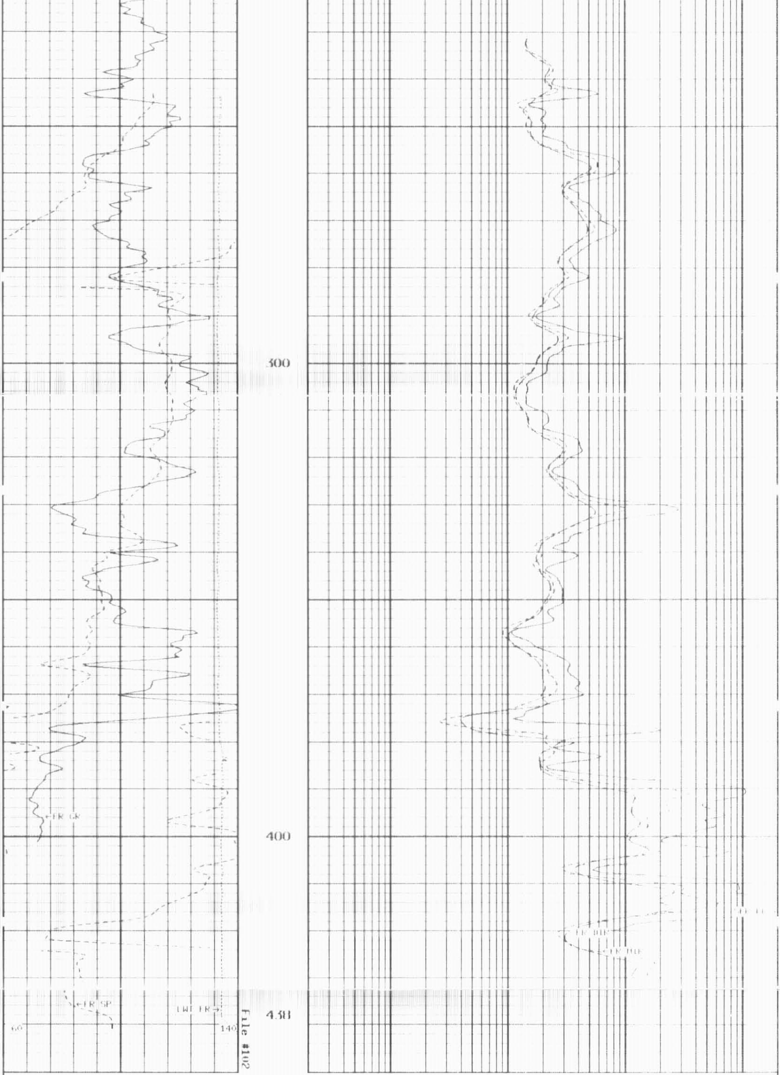
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY API UNITS		DEEP INDUCTION OHMM	
200	400		
0	200	0.2	2000.0
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	5.875	IN
BHT Depth	438.000	F
Borehole Temperature	80.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	8.50	OHMM
Resistivity Of Mud Temperature	83.00	DEGF

* Calibration Summary *

Shop Calibration
GRTB

Performed : 24 Apr 2008 Time : 10:19
Sensor Suite : GR GRS ID : GRT BE 43

	Measured Background	Jig	Units	Calibrated Jig	Unit
GR	41	514	CPS	175	GAPI

Shop Calibration
PIT B

Performed : 29 Jun 2009 Time : 10:09
Sensor Suite : P IND I ID : PIT AE 25

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Unit
Air	130408	130029	0.9	0.3	MMHO
Zero	131064	131073	0.0	0.0	MMHO
Reference	245430	245633	5000.0	5000.0	MMHO
Loop	149904	152711	2680.4	925.1	MMHO
Sonde Error			2.0	1.1	MMHO
Cond			5000.0	5000.0	MMHO

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Unit
Air	126975	133067	0.2	0.1	MMHO
Zero	131020	131075	0.0	0.0	MMHO
Reference	225514	222229	2000.0	2000.0	MMHO
Loop	145897	174431	1261.7	459.8	MMHO
Sonde Error			2.8	8.3	MMHO
Cond			2000.0	2000.0	MMHO

Temperature

Measured Low	Measured High	Calibrated Low	Calibrated High	Unit
12880.0	56620.0	70.0	300.0	DEGF

Performed : 29 Jun 2009 Time : 09:58
Sensor Suite : SH ID : PIT AE 25

```
                              Internal
                Measured                        Calibrated
              Zero     Reference           Zero     Reference      Unit
Im          52764.1    50181,5              0,0       2031,0       mA
Ib          52722,0    49948,5              0,0       1580,0       mA
MOM1        52721,9    57605,0              0,0        175,0       mV
Equivalent SH                                           43,57      OHMM

   Performed : 29 Jun 2009                Time : 09:54
Sensor Suite : P SP                        ID : P11 A0 25

                              Internal
         Measured                               Calibrated
       Zero     Reference                  Zero     Reference      Unit
     52789,3     58812,8                    0,0       1000,0       mV

   Performed : 29 Jun 2009                Time : 09:55
Sensor Suite : P RMUD                      ID : P11 A0 25

                              Internal
                Measured                        Calibrated
              Zero     Reference           Zero     Reference      Unit
Rmi            0,0     48637,1              0,0        290,6       mA
Rmv            7,0     48834,0              0,0        290,6       mV
Equivalent Rm                                          0,5652      OHMM
```

TENSION
LBF
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

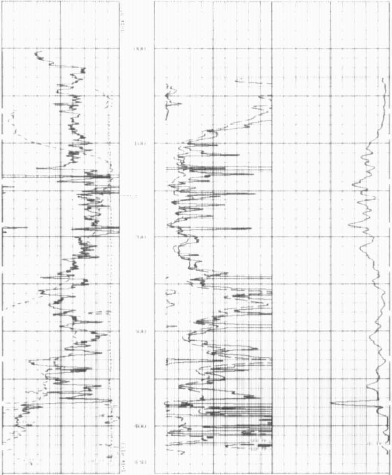
SPONTANEOUS POTENTIAL
mV

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

GAMMA RAY
API UNITS
200 400
0 200

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

1:1200 SECTION



1:1200 SECTION

GAMMA RAY
API UNITS
200 400
0 200

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

SPONTANEOUS POTENTIAL
mV

DEEP INDUCTION
OHMM
0.0 500.0