217-22426

Tucker
WIRELINE SERVICES

COMPENSATED NEUTRON
PEL DENSITY LOG

RELEASED
! ~~CONFIDENTIAL~~
cnf·1 10-22-10

File No. : TUL-55344
Company : RUNNING FOXES PETROLEUM, INC.
Well : EMMERSON 12-6C-INJ2
Field : WILDCAT
County : VERNON
State : MISSOURI
Country : U.S.A.

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

Location : PERMIT # 22420
1685' FSL & 695' FWL

Sect : 06 Twp : 36N Rge : 33W

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

Date : JUL 06 2009
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	378.0	FT
Depth--Logger :	378.0	FT
Bottom Log Interval :	356.0	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 :	5.875	IN

Unit No. : TRK 118
Location : TULSA

Elevations :

KB :		FT
DF :		FT
GL :	868.00	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 :	7.000	OHMM at	78	F
RM at BHT :	7.345	OHMM at	74	F
RMF Source :	CALCULATED			
RMF :	5.950	OHMM at	78	F
RMF at BHT :	6.243	OHMM at	74	F

RMC Source : CALCULATED
RMC : 7.700 OHMM at 76 F
RMC at BHT : 8.080 OHMM at 74 F

Max Recorded Temp. : 74 F
Time Circulation Stopped : JUL 06 2009 @ 07:00
Operating Rig Time, Hrs. : 2.0

- Source Serial Numbers -

Gamma	317-49B
Neutron	21166B

- Sonde Serial Numbers -

GRIB	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

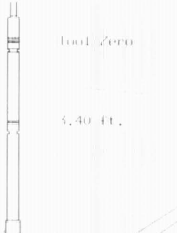
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
PIT: ILD , ILM, SFLAEC, CIRD, SPU.

OPERATORS:
J. COLWILL
L. BARTO

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

Tool String Schematic

Total Tool Length 43.29 ft.
Maximum Outside diameter 4.80 in.
Net Weight in Air 743.00 lbs.

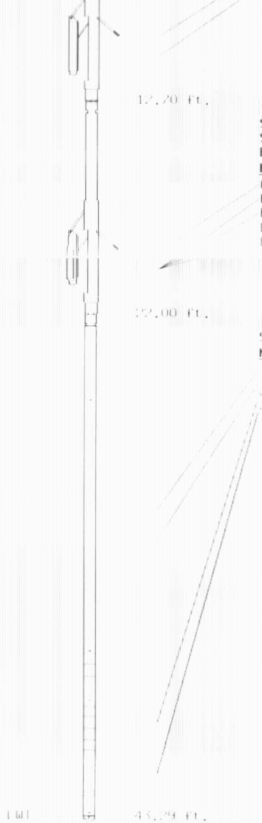


Tool: GRIB Length: 3.40 ft. O.D.: [illegible] in.
Sonde ID : GRT BC 43

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	[illegible]

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

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	[illegible]
PHIN	10.24	6.84	[illegible]



Tool: LDTNG **Length:** 9.30 ft. **O.D.:** 4.50 in.
Sonde ID : LDT NG 002
Source ID : 317 49B
Pad ID : LDT NG 002

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	24.59
PEF	19.70	7.00	23.59
PES	20.10	7.40	23.19
LDBN	19.70	7.00	23.59
LLDR	19.70	7.00	23.59

Tool: PIT **Length:** 21.29 ft. **O.D.:** 3.67 in.
Sonde ID : PIT 6B 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

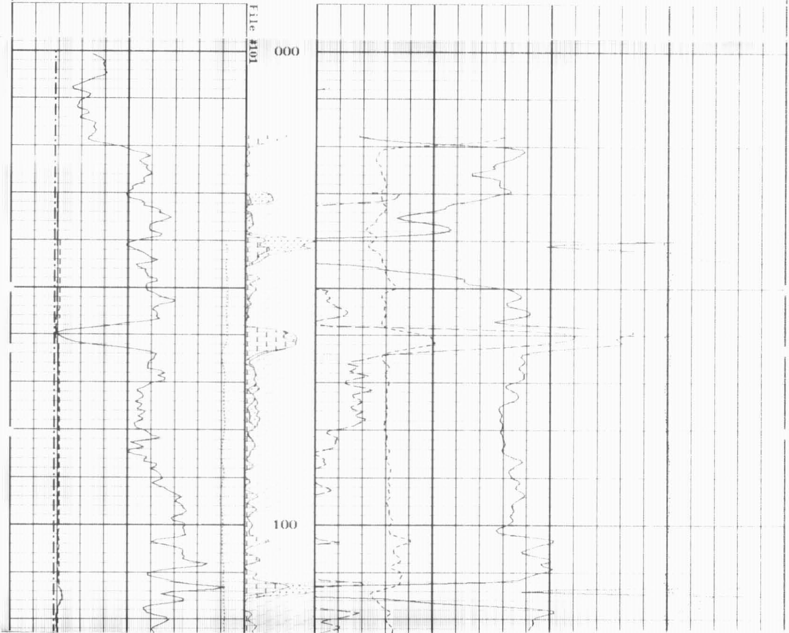
10000 0

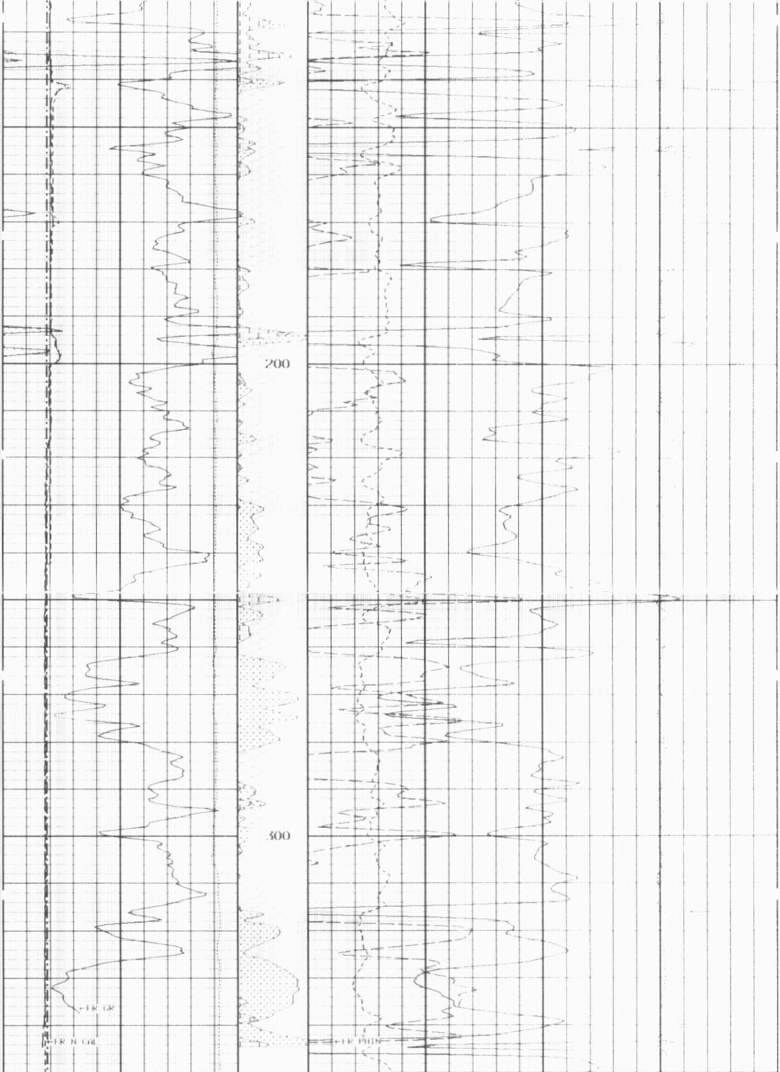
BIT SIZE
INCHES (IN)

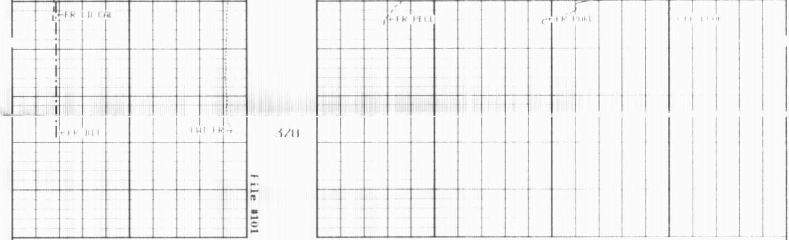
4 14

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

NEUTRON (Y) CALIPER INCHES (IN)	Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)
14 — 24 4 — 14	▦	30 — 10

DENSITY (X) CALIPER INCHES (IN)	Volume Quartz	PE CROSS SECTION BARNS/ELECTRON	DENSITY CORRECTION 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/C3
Fluid Density	1.00 G/C3
Formation Matrix	Limestone
Drill Bit Size	5.875 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

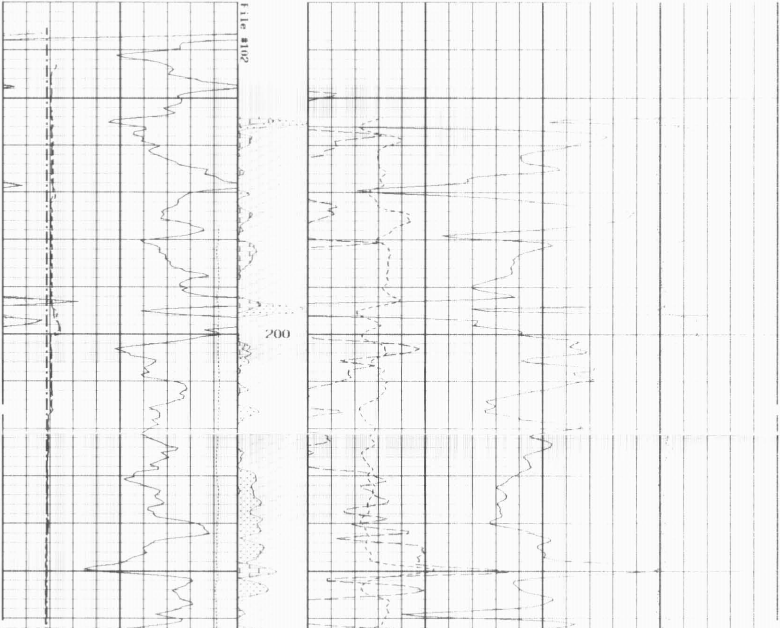
NEUTRON POROSITY
PERCENT (LIMESTONE MATRIX)
30 10

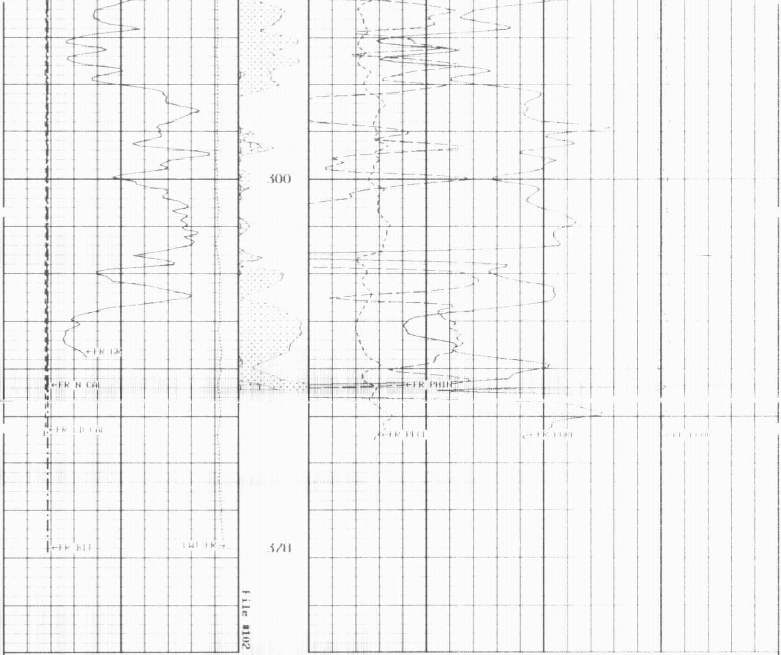
GAMMA RAY
API UNITS
200 400
0 200

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 [illegible]

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
Casing Correction (PHI N)	Disable

TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
4 14

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

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

GAMMA RAY
API UNITS
200 400
0 200

-BHV AHV-
CU.FT

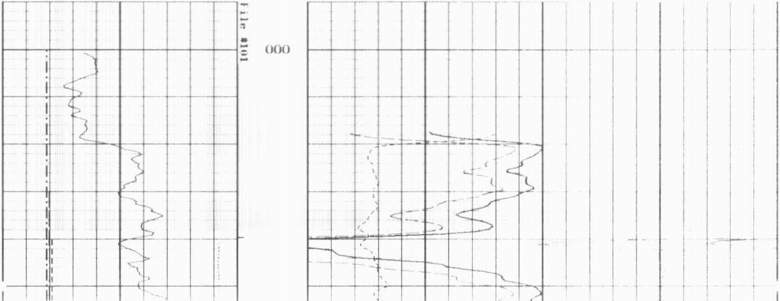
PE CROSS SECTION
BARNS/ELECTRON
0 10

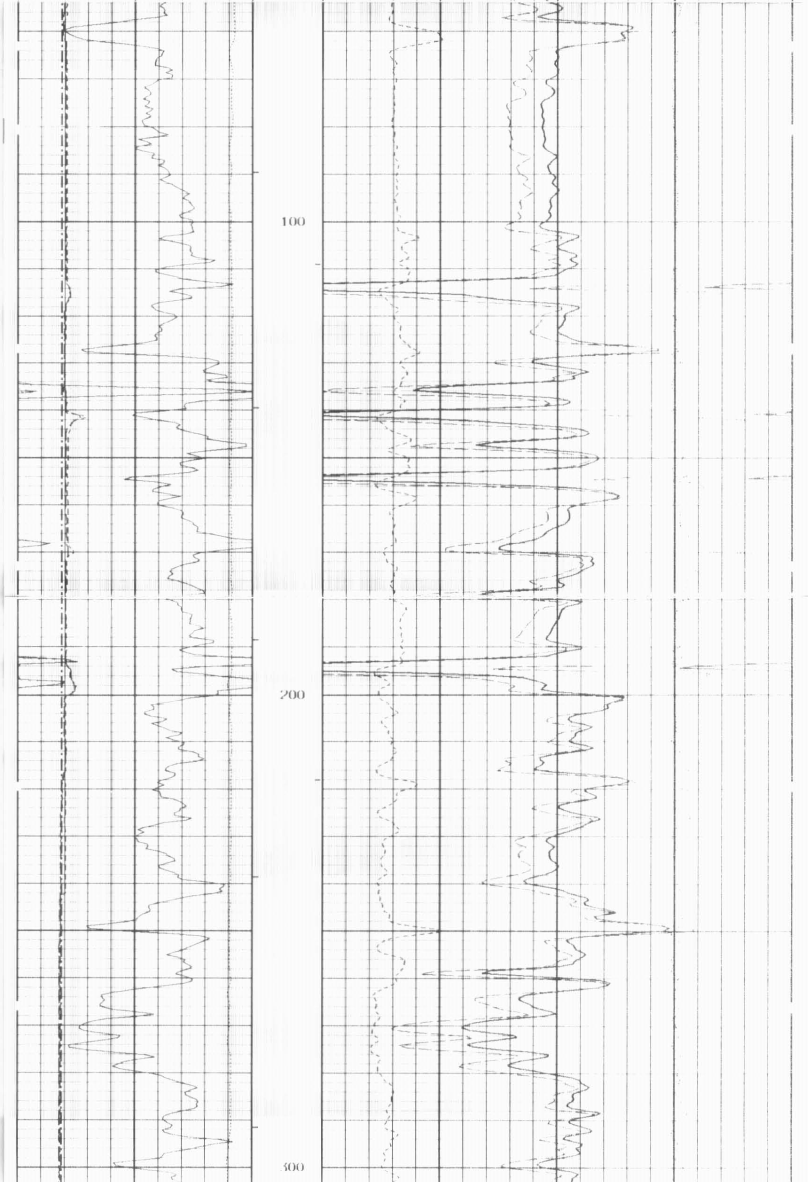
DENSITY CORRECTION
G/CC
0.25 0.25

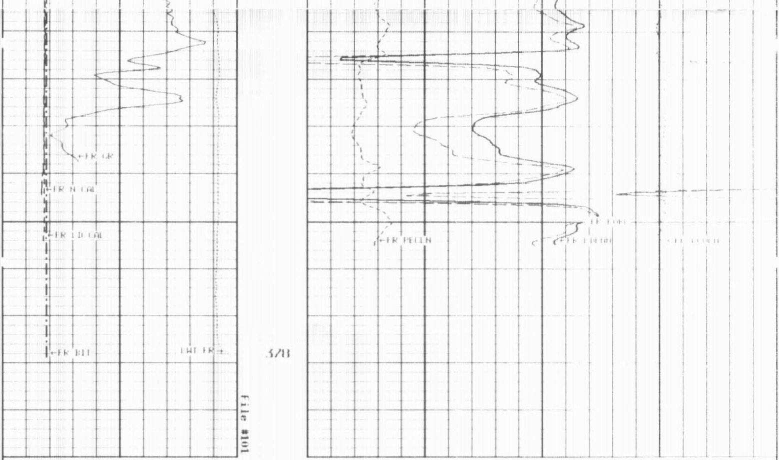
DENSITY POROSITY
PERCENT (2.71 g/cc)
70 30
30 10

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

1:240 MAIN SECTION
BULK DENSITY







1:240 MAIN SECTION
BULK DENSITY

GAMMA RAY
API UNITS
200 400
0 200

-BHV AHV-
CU.FT

COMPENSATED BULK DENSITY
G/CC
3.0 4.0
2.0 3.0
1.0 2.0

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

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

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

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	5.875 IN
Production Casing Diameter	4.500 IN
Casing Correction (PHI N)	Disable

```
                         * Calibration Summary *

                           Shop Calibration
                                 GRTB
       Performed : 24 Apr 2008                 Time : 10:19
    Sensor Suite : GR-GR5                        ID : GRT-BB-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 : 211668

                         Tank                Verification        Unit
               Measured     Calibrated            Jig
NRAT            3.6856       3.6889              3.7006
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
                                LDING
       Performed : 28 JAN 2008                 Time : 08:33
    Sensor Suite : CALIPH                        ID : LDT-NG-002

                    Jig    Measured           Jig    Calibrated    Unit
                 Ring#1   Ring#2           Ring#1   Ring#2
CL # 1              5.8     11.8              6.0     12.0          IN

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

                             Short Space
              BKGD          Al            Mg          AlMg        Unit
SSW1            21        1382         22002          1294         CPS
SSW2            76        1716         22412          1305         CPS
SSW3           294        4085         65446          3439         CPS
SSW4           325        3653         52887          3988         CPS
SSW5            35          72            86           124         CPS
SSW6            99         103           100           102         CPS
SSW7            63          68            67            66         CPS
SSW8             2           7             9             6         CPS
QS           0.222       0.205         0.198         0.200
PFS                                    2.570         6.880
SSHV                     2.600         1.680                      VOLT

                             Long Space
              BKGD          Al            Mg          AlMg        Unit
LLW1           112        1620          6584          1001         CPS
LLW2           125        3023         11360          2142         CPS
LLW3           469        5542         20584          4742         CPS
LLW4           612        2568          8511          2506         CPS
LLW5            65          83           181           110         CPS
LLW6           200         194           181           152         CPS
LLW7           120         120           112           132         CPS
LLW8             4           9            28             8         CPS
QL           0.250       0.236         0.235         0.223
PEL                                    2.570         6.180
LSHV                     2.400         1.680                      VOLT
```