

LWD 1

Sensor to Bit Calculations

Calculating and Using Sensor to Bit Distance

WELL: "new" RUN: 0500 RECORD: "PCD Info" - INSITE-MWD Tool Parameters

File View Help

☒ PCD Exists Dist. from Bit: 0.00 ft Survey Type: Short Collar Probe Variant: PCD-R Config No: 1

Serial Numbers

HOC SN:

Probe SN:

Analog Board SN:

Battery Date:

Gx Accel SN:

Gy Accel SN:

Gz Accel SN:

Software Versions

Probe Software: 0.00

PIC Version: 0.00

HC11 Version: 0.00

Well Information

Magnetic Field Strength: 53478 nT

Magnetic Dip Angle: 57.396 deg

Gravity Field Strength: 1.0000 g

Total Correction: 0.000 deg

North Reference: Grid

Magnetic Checksum: 1851182

Toolface

Total Offset: 0 deg

HSG Offset (Flow tube to PCD): 0 deg

RFD (Rig floor offset): 0 deg

PCD Total Offset = (360 - HSG) + RFD

Limits

	Low	High	
Azimuth:	0.00	360.00	deg
Inclination:	0.00	180.00	deg
TF Grav:	0.00	360.00	deg
TF Mag:	0.00	360.00	deg
Dip Calc:	0.00	90.00	deg
Dip Meas:	0.00	90.00	deg
G total:	0.997	1.003	g
Bt Calc:	0.00	100000.00	nT
Bt Meas:	0.00	100000.00	nT

Times

Initialization: 00:00:00 01-Jan-70

Read: 00:00:00 01-Jan-70

SVSS Parameters

☐ PCD - SVSS Exists SW Ver: 0.00

SVSS Log Period: 0

Average Threshold (g)

	X Axis	Z Axis
Moderate	0.00	0.00
High	0.00	0.00
Excessive	0.00	0.00

Peak Threshold (g)

	X Axis	Z Axis
Moderate	0.00	0.00
High	0.00	0.00
Excessive	0.00	0.00

Setup Information

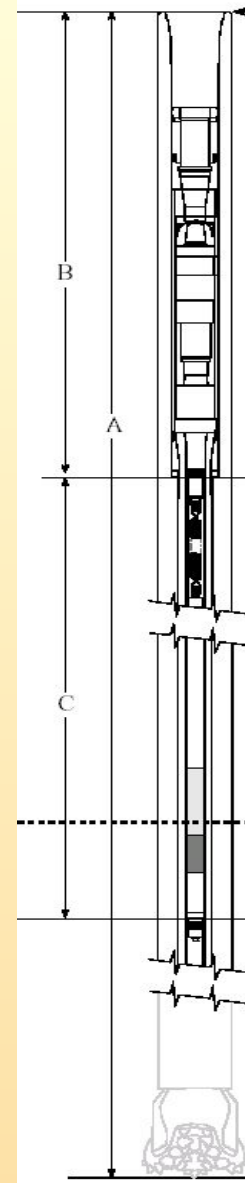
Switch Position: 0 PCD Tool Mode: MEP DR Selection: Auto

Data Rate 1: 0.00 hz Wait Period: 0 sec Runin Period: 0 sec

Data Rate 2: 0.00 hz Alarm Period: 0 min TF Crossover: 0 deg

Data Rate 3: 0.00 hz

For Help, press F1 LOCAL



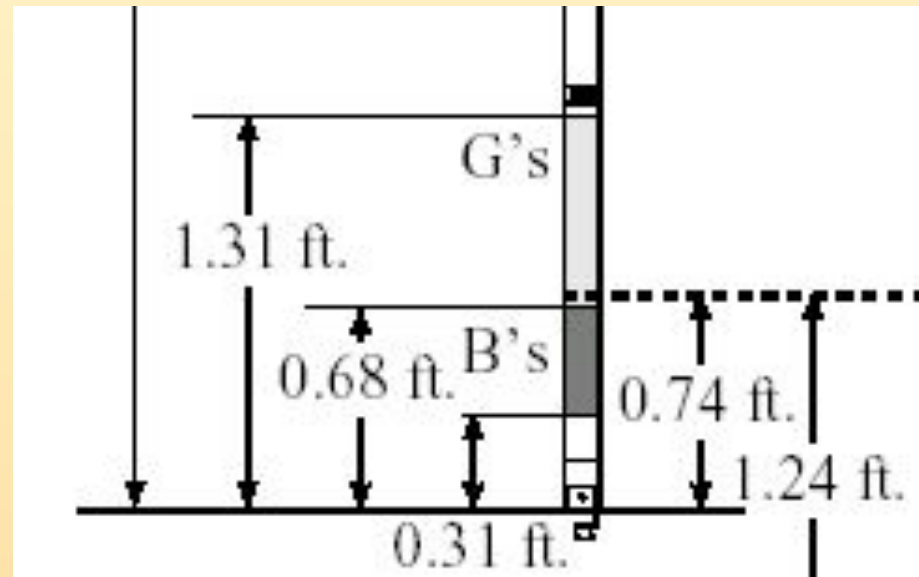
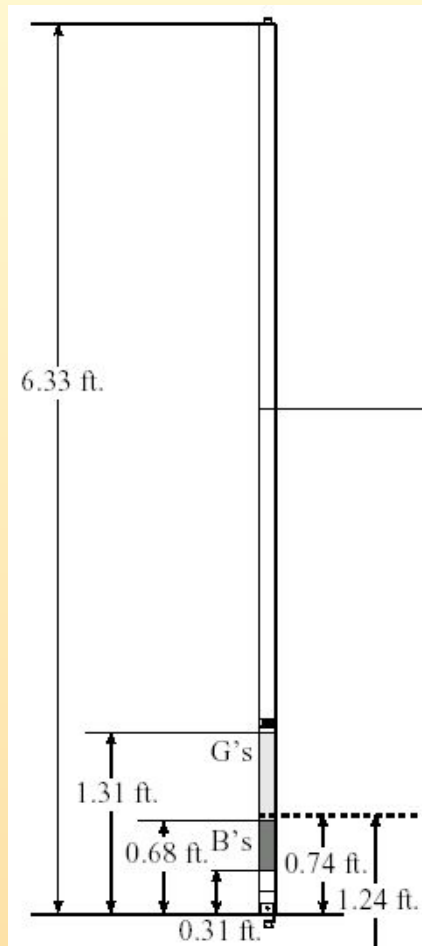
Sensor Measure Point

- **Used to calculate sensor to bit distance**
- **Surveys referenced to where measurements made, not to bit**
- **Gamma referenced to where measurements made, not to bit**

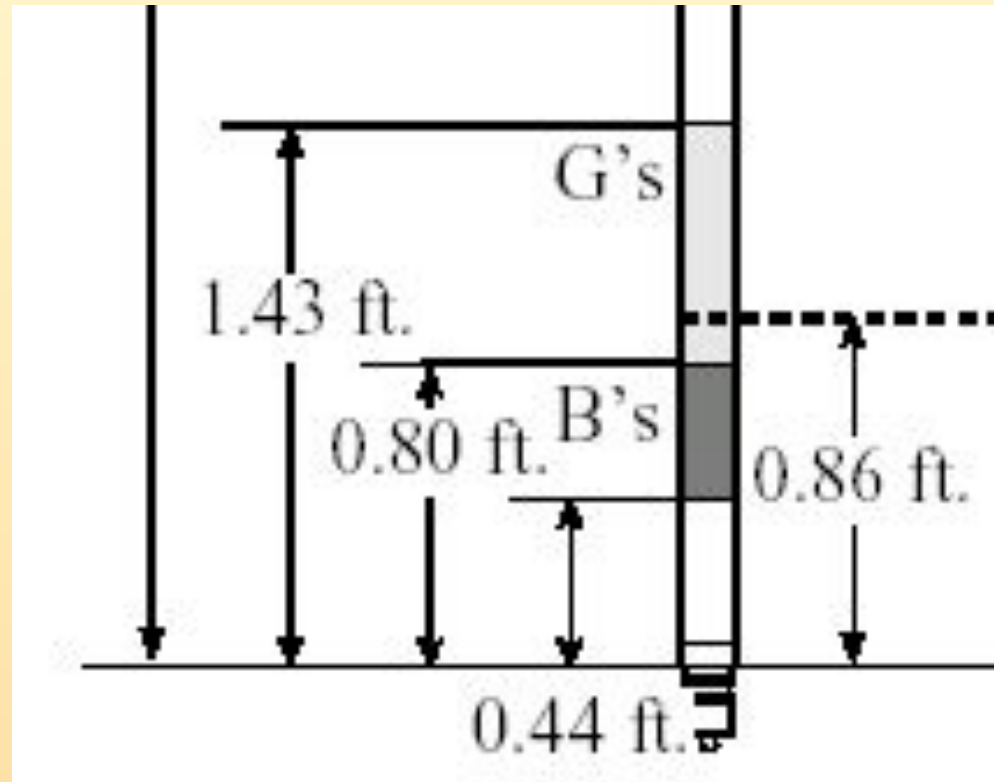
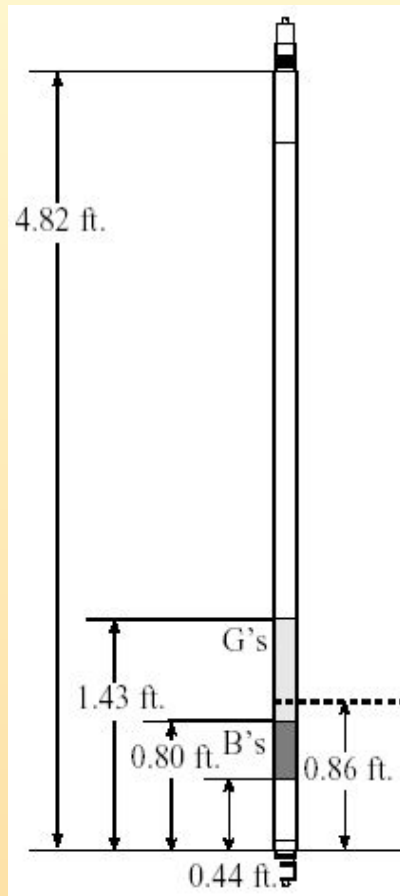
Identify Sensor and Probe Type

- **Directional Only**
 - DEP, DEP2, PCD
- **Gamma**
 - PCG

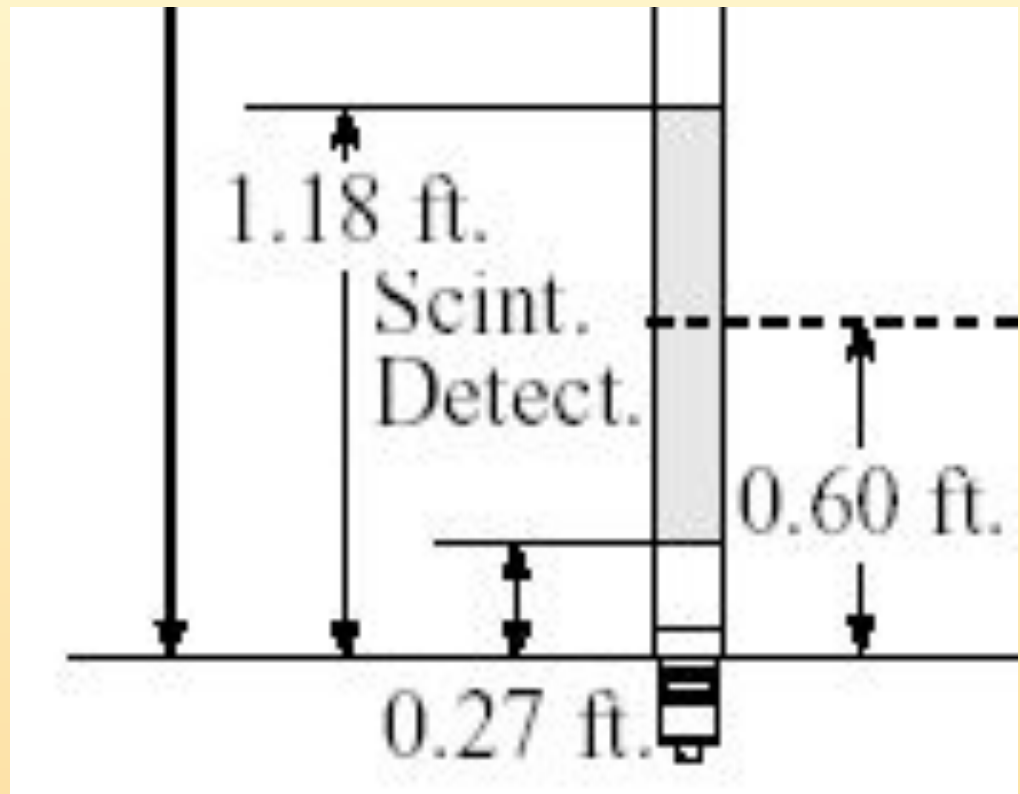
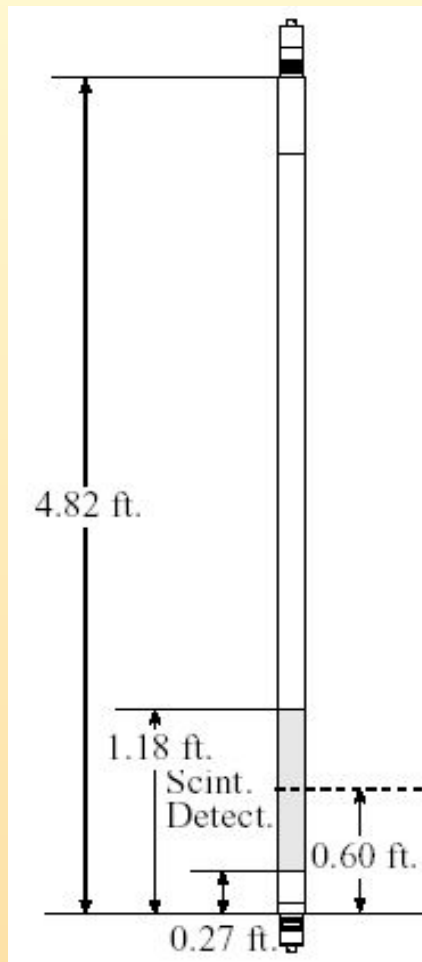
Sensor Measure Point – DEP2



Sensor Measure Point - PCD



Sensor Measure Point - PCG



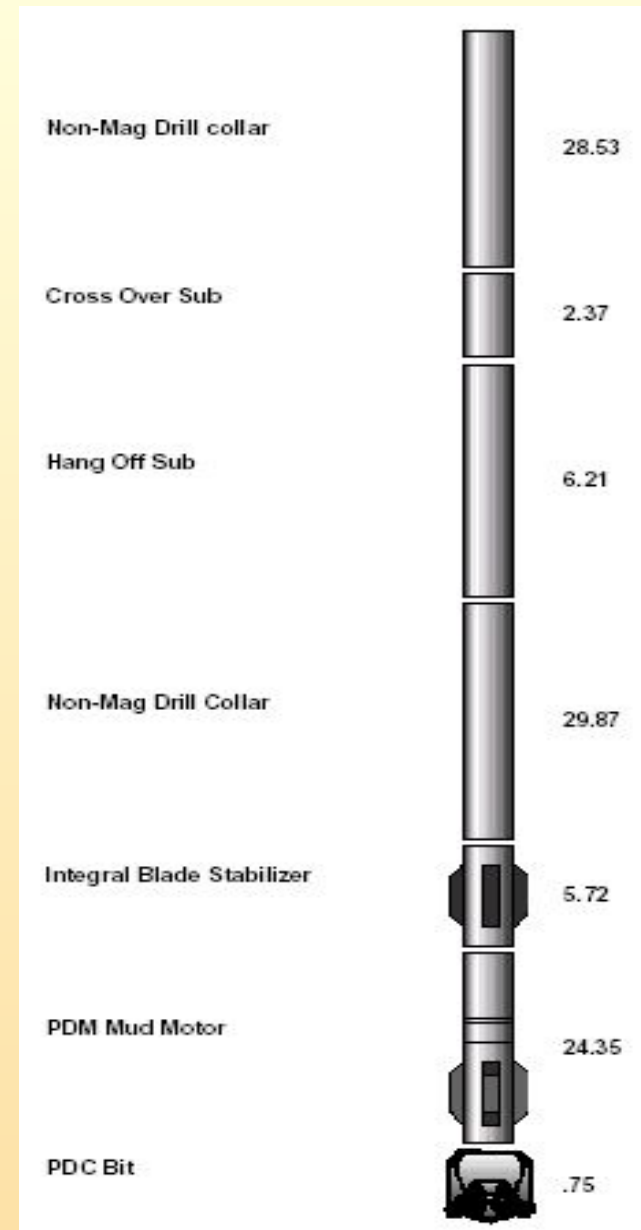
Bottom Ring to Probe Bottom Distance

- **Measure the distance from the Bottom Ring Assembly to the bottom of the probe.**

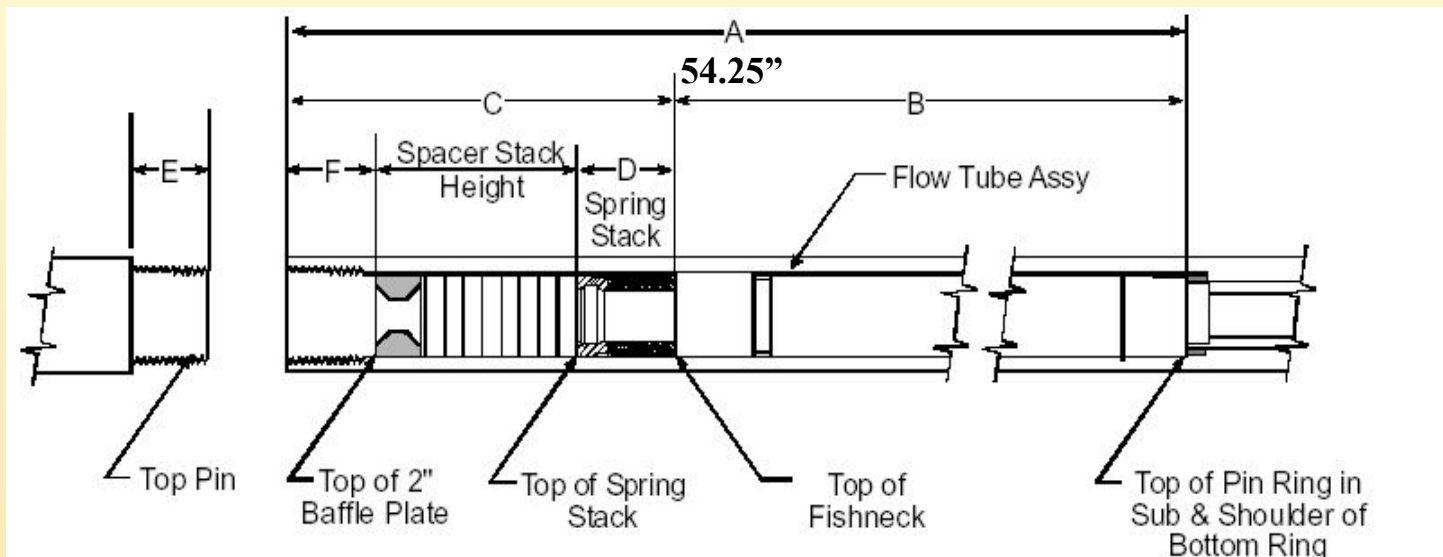
(6.3')

Obtain BHA Tally

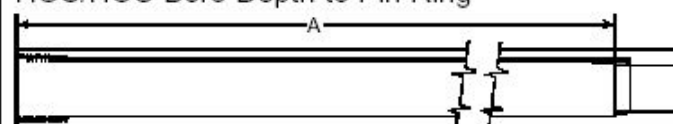
Bit	8 1/2"	0.75'
Motor	6 3/4"	24.35'
Stabilizer	6 3/4"	5.72'
NMDC	6 3/4"	29.87'
HOS	6 3/4"	6.21'
X-over sub	6 3/4"	2.37'
NMCD	6 3/4"	28.53'



Obtain Bore Depth from Spacer Stack Calculations

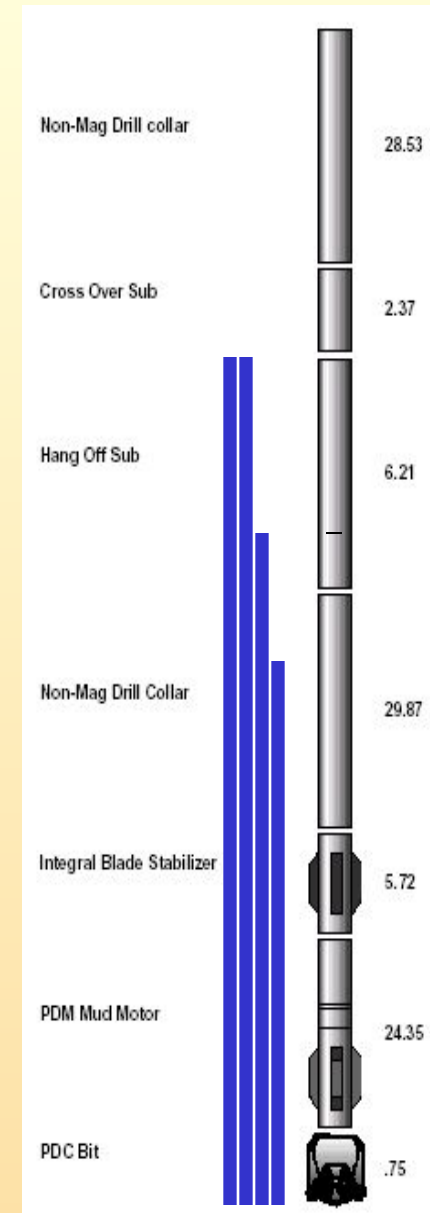


Note: Measure the spring stack length while taking up slack in disk springs by hand. All measurements in inches.

		Slimhole	650 System	1200 System
MWD Run No.				
HOS/HOC Serial No.				
HOS/HOC Bore Depth to Pin Ring				
	A		54.25"	

Calculations

- Add lengths from bit to top of MWD mounting sub or collar
66.9'
- Subtract HOS Bore Depth
62.38'
- Subtract distance from bottom ring to bottom of probe
56.08'
- Add sensor measure point (PCD)
56.94'



Enter Distance in Tool Parameters

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-LOCAL-

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Probe SN: