Toolface

There are two types of toolface in drilling:

—Magnetic Toolface

—Gravity Toolface

Also known as "High Side Gravity".

Magnetic Toolface - What is it?

Magnetic Toolface uses the magnetometers to determine which way the bit is pointing in reference to magnetic north.

—0 does not indicate “up”.

Gravity Toolface - What is it?

Gravity Toolface uses the accelerometers to determine the “high side of the hole”.

—0 is “up”

—90 is right

—180 is down

—270 is left

Toolface Offset

For the PCD, toolface offset is calculated from rig floor offset (RFO) and high side gravity offset (HSG).

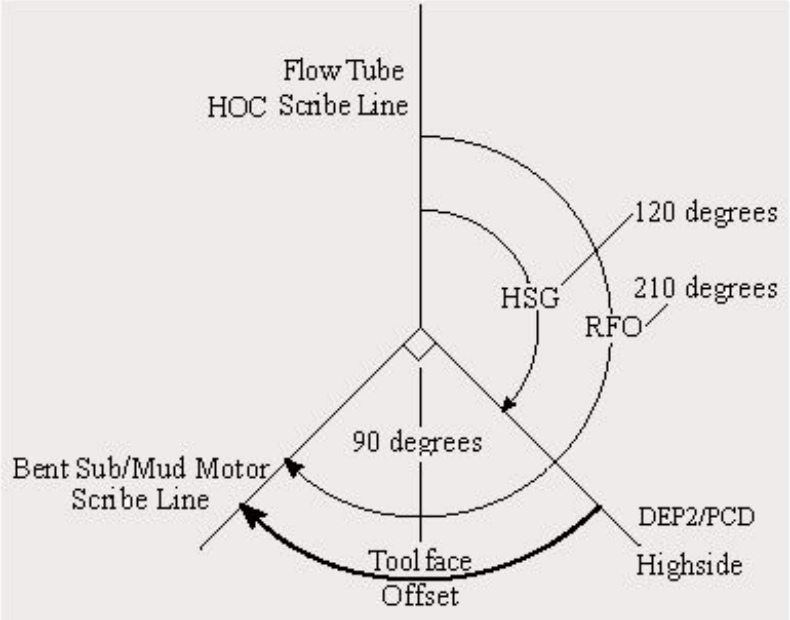
Rig Floor Offset (RFO)

Rig Floor Offset is the measurement, in degrees, clockwise from the PCD tool scribe line/HOC to the bent sub/mud motor scribe line looking down.

High Side Gravity Offset (HSG)

High Side Gravity Offset is the measurement, in degrees, clockwise from the flow tube/HOC scribe line to the highside of the PCD.

Toolface Offset Example



Offset = (360-HSG) + RFO.

Subtract 360 if the result is greater than 360.

360

-120

240

+210

450

-360

90

Offset is 90.