

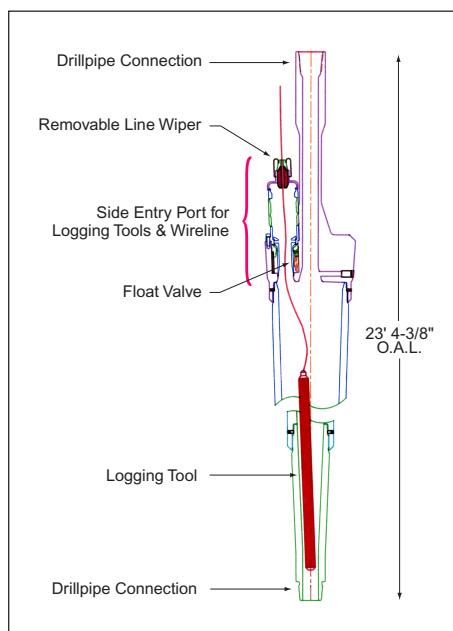
# Conical Side Entry Sub

## Description

The Conical Side Entry Sub (CSES) is designed to allow logging tools and the associated logging line to enter the drill string through a port in the side of the tool. This allows pipe to be added to, or removed from, the drill string above the CSES during logging operations. When logging through the CSES, the drill string can be raised or lowered independent of the logging tools. Therefore, in unstable holes, the drill string can be raised or lowered as needed to protect the logging tools and keep the borehole open, independent of the actual logging operation.

## Design Features

- ◆ Stronger than the drill string and thus does not present a weak point when in the drill string.
- ◆ Allows for normal circulation through the drill string whether logging tools are in the drill string or not.
- ◆ Both right and left hand torque may be applied to the CSES while attempting to free stuck pipe. (Logging tools must be removed from the drill string before applying torque or rotating the drill string.)



Schematic diagram of the CSES.

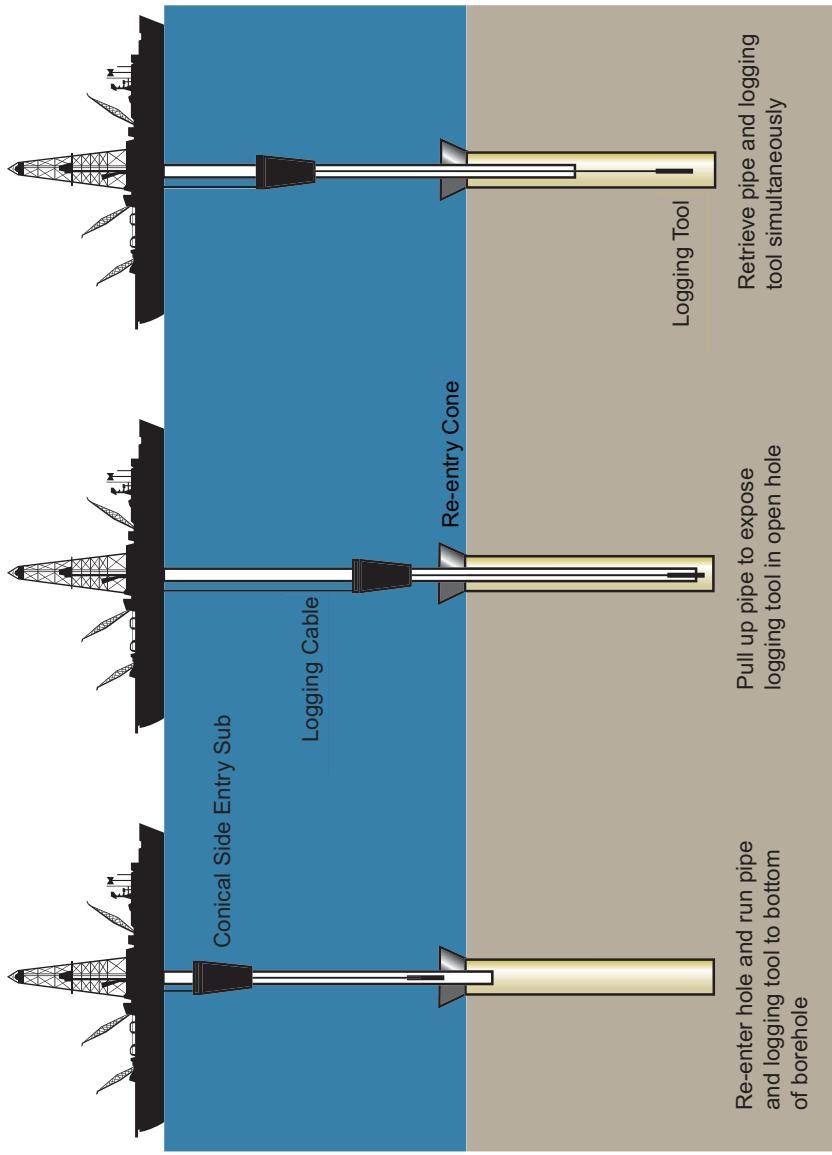


The Conical Side Entry Sub (CSES).

## Specifications

Total length:	23.37 ft (7.12 m)
Max. outside diameter:	23.81 in.
Weight:	6,000 lbs. (2721.6 kg)
Torque limit:	50,000 ft-lbs. (left hand)
Bottom connection:	5.5" I.F. pin down
Top connection:	5.5" I.F. box up
Tong area:	7.34" diameter (both connections)
Elevator neck:	5.75" outside diameter x 25" long, 18° taper
Minimum yield:	1,500,000 lbs. (at elevator neck)
Stinger options:	2" and 3.25" bore models
Stinger release:	400 lbs. over pull
Lifting eyes:	3 (9000 lbs. capacity each)

## Conical Side Entry Sub Deployment



### Advantages

During logging operations in unstable holes, the CSES allows the drill string to be raised or lowered as required to protect the logging tools and to keep the borehole open.

Logging tools are loaded into the drill string through the CSES from the rig floor in much the same way as they are loaded through open ended pipe.

Should the drill pipe become stuck, the logging tools can be retrieved without having to break the drill string.

### Disadvantages

Approximately 6 hours of rig time are required to rig up and rig down the CSES.

The drill string cannot be rotated while logging tools are inside, having been loaded through the CSES side port. This severely limits the ability to break through bridges and free stuck pipe.

If the drill string becomes stuck while logging through the CSES, the logging tools must be retrieved through the open water column.

If the wireline becomes stuck while logging through the CSES, the Kinley cutter crimper can only be deployed if the CSES is accessible from the moonpool or rig floor.

### Special Considerations

Greater rigging time required vs. shorter running time.

Personnel are exposed to work conducted over the open moonpool.

The drill string may be at risk during bad weather conditions if the upper guide horn is not in use during CSES logging operations.