

COILED TUBING EQUIPMENT

EXERCISE COILED TUBING EQUIPMENT 1

1. Which factors affect the structural integrity of Coiled Tubing? (THREE ANSWERS)
 - a) The numbers of times the coiled tubing is run
 - b) The bending cycles of coiled tubing
 - c) The gooseneck radius
 - d) The bottom hole pressure
 - e) The chain tension at the injector head

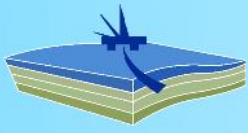
2. Statement is made that Slip Rams are designed to contain well bore pressure?
 - a) True
 - b) False

3. How is coiled tubing run in and out of the well?
 - a) Spooled on or off a reel using hydraulic power
 - b) Raised and lowered with an arrangement of sheaves supported by a telescoping gin pole
 - c) The coil is moved up and down the hole by means of Injector Head traction
 - d) Skates are fitted onto the reel to provide gripping friction

4. What is the main purpose of installing a Shear Seal BOP (Safety Head) on CT rig up?
 - a) To replace a Quad or Combi BOP if there are none available
 - b) To provide additional shear and seal capacity
 - c) To shear the CT but not seal the well
 - d) To seal the well effectively if closed around the CT

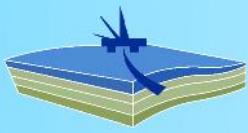
5. Which type of Stripper raises a major concern on buckling of CT?
 - a) Side Door Stripper
 - b) Conventional Stripper
 - c) Radial Stripper



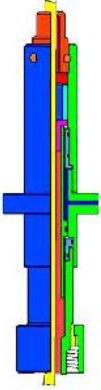
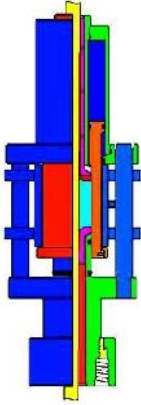


6. In typical Coiled Tubing operations, when and where do the highest bending stresses occur?
- a) Between the reel and the goose neck when RIH
 - b) At the mechanical footage counter, regardless of operation
 - c) Below the Injector Head when POOH
 - d) At the goose neck when POOH
7. On a coiled tubing unit, what is a Stripper often referred to?
- a) The 'Annular'
 - b) The 'Pack-Off Tool'
 - c) The 'Stuffing Box'
 - d) None of the above
8. The statement is made that all types of CT Strippers are well bore pressure assisted.
- a) True
 - b) False
9. The Quad BOP is commonly used in coiled tubing jobs. What is the recommended arrangement in this type of BOP, from top to bottom?
- a) Blind, Shear, Slip, Pipe
 - b) Pipe, Slip, Shear, Blind
 - c) Blind, Flow Tee, Shear, Slip
 - d) Slip, Pipe, Shear, Blind
10. Two advantages of using CT for remedial work are (a) the ability to work on live wells and (b) the ability to circulate while running in and pulling out of the hole. Which is the one main disadvantage associated with the above advantages?
- a) The pressure limits as a result of BOP rated working pressure of BOP
 - b) The high volume/low pressure pumps used on these CT units
 - c) The Injector Head may not be able to overcome the highest well pressure
 - d) Relatively low pumping rates due to the high friction created when pumping through a small diameter tubing





11. From the drawings below, describe the process of how the Stripper is energized?

	
Stripper Type: How to energize:	Stripper Type: How to energize:

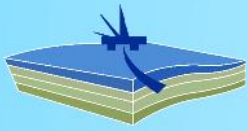
12. Why should the Chain Tensioner be adjusted during running coiled tubing?

- a) To maintain a secure gripping force on the CT while minimizing tubing damage and preventing slippage
- b) To ensure the CT will be centralized when required to close the pipe ram
- c) To avoid the chain from buckling when snubbing CT through the Injector Head
- d) To ensure the CT is able to lubricate with ease through the Stripper

13. If coiled tubing size is to be changed from 2-7/8" to 2" OD. What changes in the BOP stack have to be carried out? [TWO ANSWERS]

- a) All Rams have to be changed
- b) Pipe Rams have to be changed
- c) Slip Rams have to be changed
- d) Blind Rams have to be changed





WORKBOOK COILED TUBING EQUIPMENT – ANSWER KEYS

EXERCISE COILED TUBING EQUIPMENT-1	
1.	a, b, c
2.	b
3.	c
4.	b
5.	b
6.	d
7.	c
8.	b
9.	a
10.	d
11.	Stripper Type: Conventional Stripper How to energize: Hydraulic pressure and also well pressure (if increased) are applied to the lower bushing, compressing the Energizer <u>upwards</u>
	Stripper Type: Side Door Stripper How to energize: Hydraulic pressure is applied to the upper bushing, compressing the Energizer <u>downwards</u>
12.	c
13.	b, c

EXERCISE COILED TUBING EQUIPMENT-2	
1.1	CT Connector
1.2	Back Pressure Valve 1
1.3	Back Pressure Valve 2
1.4	Release Joint or Safety Valve
1.5	Circulating Sub enabling By-Pass Flow
1.6	Motor, Stabilizer, Bit
2.	Flange has 7-1/16" thru-bore and 10,000 psi working pressure rating
3.	On the upstream side, i.e. the first valve from the well
4.	INLET: 1 and OUTLET: 2
5.	22,500 psi
6.	Primary Barrier: <u>External</u> : Stripper & Annular + <u>Internal</u> : Dual Check Valves
	Secondary Barrier: <u>External</u> : BOPs [Safety Ram] + <u>Internal</u> : Cutter Ram [Shear Ram]
	Tertiary Barrier: <u>External</u> : Shear/Seal + <u>Internal</u> : Shear/Seal
7.	c
8.	c, d
9.	c

