

# Routine Job Presentation

**Name** : Ammirol Bin Ahmad Mahmud

**Client** : ROC OIL

**Location** : J4DP-A

**Well** : A05L

**Team Member** : M.Jaidun , Edriea E

**Topic** : Closed/Opened SSD



# Table of Contents

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# Surface Preparation



# PTW ( Permit to work )

## Require Cold and Hot Work Permit

- **Cold Permit** is for RIH (Rig Up/Down Lubricator Using Gantry Crane. To Performed Wireline Activity )
- **Hot Permit** is for Start and Run Power Pack Diesel Engine
- Here is the sample of Hot & Cold Work Permit for this operation.

**PERMIT TO WORK (HOT WORK)**  
NO WORK IS SO URGENT THAT WE CANNOT TAKE TIME TO DO IT SAFELY

Pre-Printed No: 0004561  
Closed

SECTION 1: REQUISITION (APPLICANT/RA)  
APPLICANTS NAME: Arvince Terrence ID NO: 890730-13 DATE: 13 Mar 2024 AREA CLASSIFICATION (Answer Y/N): Zone 0 SPECIAL WORK INSTRUCTIONS:  
DEPARTMENT/COMPANY: DIMENSION BID SITE: D35 Zone 1  
WORK ORDER NO: N/A  
SUB AREA: Main Deck & Helideck Zone 2  
AREA/UNIT: 1ADP-A Non Hazardous Area  
Non Hydrocarbon Area

SECTION 2: HAZARDS/HAZARDOUS ACTIVITIES (APPLICANT BAS)  
Cross (X) where applicable:  
Blasting, Flammable, Hot Tapping, Photo Taking, Spark Producing, Welding, Flame/Power, Grinding, Vehicle Entry, Others

SECTION 3: WORKSITE PREPARATION /PRECAUTIONS (APPLICANT/RA & AS)  
PRECAUTIONS:  
Area barricade, Bypass Required, Clearance of escape route, Contact Area Operator before work start, Contact Area Operator on completion, Equipment/line blind/spade, Equipment/line drained, Valve Spading/Blinding, Fire extinguisher on work site, H2 purged/ventilated, Positive Removal of Energy (EIC), Positive Removal of Energy (EC)

SECTION 4: PERSONAL PROTECTIVE EQUIPMENT (APPLICANT/RA & AS)  
Mandatory Respiratory: Coverall, Helmet, Safety Glasses, Safety Shoes  
Eye & Face Protection: Face Shield, Goggles  
Fall Protection: Full Body Harness, Safety Repetitor, Ear Muff, Ear Plug, SCBA  
Hand Protection: Impact Glove, Leather Gloves, Rubber Gloves, Chemical Suit, Disposable Suit  
Personal monitoring Equipment: H2S Meter, Personal Distress Unit, Meter, Personal O2 Monitor, Seat Belt

SECTION 5: SUPPORTING CERTIFICATES/DOCUMENTS (AS)  
Cross (X) where applicable:  
ROAD OBSTRUCTION/CLOSURE CERT. No., DIVING CERT. No., LIFTING CERT. No., LeAEC. No., JHA. No.: JHA 0004561A, EXCAVATION CERT. No., ELECTRICAL ISOLATION CERT. No., PHYSICAL ISOLATION CERT. No., RADIATION CERT. No., SAFETY SYSTEM BYPASS/OVERRIDE CERT. (NEW), VEHICLE ENTRY CERT. No., PORTABLE ELECTRICAL TEMPORARY INSTALLATION, WORK METHOD STEPS, SUPPORTING DOCUMENT, WORKING AT HEIGHT CERT. No., VENTILATION PLAN, PRESSURISED HABITAT CERTIFICATE

SECTION 6: ACKNOWLEDGEMENT REQUIRED AS IDENTIFIED BY APPROVING AUTHORITY (e.g. CSR)  
Position: Name: Initial/Date

SECTION 7: AUTHORIZATION  
Name: Arvince Terrence Signature: Date: 13 Mar 2024 Time: 7:29 PM  
Name: Kelvin Chong Kai Sing (SKA/Upstream) Signature: Date: 13 Mar 2024 Time: 9:35 PM  
Name: Teo Eng Kim Signature: Date: 13 Mar 2024 Time: 7:42 AM

SECTION 8: JOINT SITE VISIT BEFORE WORK COMMENCES (AAR & RA/WL)  
I have personally checked the area and equipment to be worked on and I am satisfied that the work requested can be carried out safely (YES/NO). If work cannot proceed give reason why:

SECTION 9: DAILY PERMIT RETURN AND SUSPENSION (WL & AAR) - due to e.g. End of Shift, Stop Work, Drift, Emergency etc  
Name: Arvince Terrence Signature: Date: 15 Mar 2024 Time: 7:45 AM  
Name: Fidelis Mobly Rajak (SKA/Upstream) Signature: Date: 15 Mar 2024 Time: 7:45 AM

SECTION 10: DAILY REVALIDATION & ENDORSEMENT (WL, AAR & AA)  
Suspended Reason: AA Signature: Name: Date: 18 Mar 2024 Time: 3:34 PM

SECTION 11: HANDBACK & CLOSE (WL, AAR & AA)  
WORK LEADER: Name: Fidelis Mobly Rajak (SKA/Upstream) Signature: Date: 18 Mar 2024 Time: 5:00 PM  
APPROVING AUTHORITY REPRESENTATIVE: Name: Teo Eng Kim Signature: Date: 18 Mar 2024 Time: 7:24 PM

STOP WORK AND EVACUATE AREA ON HEARING ANY EMERGENCY ALARM

**PERMIT TO WORK (COLD WORK ONLY)**  
NO WORK IS SO URGENT THAT WE CANNOT TAKE TIME TO DO IT SAFELY

Pre-Printed No: 0006223  
Closed

SECTION 1: REQUISITION (APPLICANT/BA)  
APPLICANTS NAME: Arvince Terrence ID NO: 890730-13 DATE: 06 Mar 2024 AREA CLASSIFICATION (Answer Y/N): Zone 0 SPECIAL WORK INSTRUCTIONS:  
DEPARTMENT/COMPANY: DIMENSION BID (M) SITE: D35 Zone 1  
WORK ORDER NO: N/A  
SUB AREA: Main Deck & Helideck Zone 2  
AREA/UNIT: 1ADP-A Non Hazardous Area  
Non Hydrocarbon Area

SECTION 2: HAZARDS/HAZARDOUS ACTIVITIES (APPLICANT BAS)  
Cross (X) where applicable:  
Blasting, Flammable, Hot Tapping, Photo Taking, Spark Producing, Welding, Flame/Power, Grinding, Vehicle Entry, Others

SECTION 3: WORKSITE PREPARATION /PRECAUTIONS (APPLICANT/RA & AS)  
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SECTION 4: PERSONAL PROTECTIVE EQUIPMENT (APPLICANT/RA & AS)  
Mandatory Respiratory: Coverall, Helmet, Safety Glasses, Safety Shoes  
Eye & Face Protection: Face Shield, Goggles  
Fall Protection: Full Body Harness, Safety Repetitor, Ear Muff, Ear Plug, SCBA  
Hand Protection: Impact Glove, Leather Gloves, Rubber Gloves, Chemical Suit, Disposable Suit  
Personal monitoring Equipment: H2S Meter, Personal Distress Unit, Meter, Personal O2 Monitor, Seat Belt

SECTION 5: SUPPORTING CERTIFICATES/DOCUMENTS (AS)  
Cross (X) where applicable:  
ROAD OBSTRUCTION/CLOSURE CERT. No., DIVING CERT. No., LIFTING CERT. No., LeAEC. No., JHA. No.: JHA 0004561A, EXCAVATION CERT. No., ELECTRICAL ISOLATION CERT. No., PHYSICAL ISOLATION CERT. No., RADIATION CERT. No., SAFETY SYSTEM BYPASS/OVERRIDE CERT. (NEW), VEHICLE ENTRY CERT. No., PORTABLE ELECTRICAL TEMPORARY INSTALLATION, WORK METHOD STEPS, SUPPORTING DOCUMENT, WORKING AT HEIGHT CERT. No., VENTILATION PLAN, PRESSURISED HABITAT CERTIFICATE

SECTION 6: ACKNOWLEDGEMENT REQUIRED AS IDENTIFIED BY APPROVING AUTHORITY (e.g. CSR)  
Position: Name: Initial/Date

SECTION 7: AUTHORIZATION  
Name: Arvince Terrence Signature: Date: 06 Mar 2024 Time: 7:24 PM  
Name: Kelvin Chong Kai Sing (SKA/Upstream) Signature: Date: 06 Mar 2024 Time: 9:44 PM  
Name: Saan M Cheang (SKA/Upstream) Signature: Date: 09 Mar 2024 Time: 5:47 AM

SECTION 8: JOINT SITE VISIT BEFORE WORK COMMENCES (AAR & RA/WL)  
I have personally checked the area and equipment to be worked on and I am satisfied that the work requested can be carried out safely (YES/NO). If work cannot proceed give reason why:

SECTION 9: DAILY PERMIT RETURN AND SUSPENSION (WL & AAR) - due to e.g. End of Shift, Stop Work, Drift, Emergency etc  
Name: Arvince Terrence Signature: Date: 09 Mar 2024 Time: 4:44 PM  
Name: Saan M Cheang (SKA/Upstream) Signature: Date: 09 Mar 2024 Time: 4:42 PM

SECTION 10: DAILY REVALIDATION & ENDORSEMENT (WL, AAR & AA)  
Suspended Reason: AA Signature: Name: Date: 15 Mar 2024 Time: 7:03 PM

SECTION 11: HANDBACK & CLOSE (WL, AAR & AA)  
WORK LEADER: Name: Fidelis Mobly Rajak (SKA/Upstream) Signature: Date: 15 Mar 2024 Time: 8:51 PM  
APPROVING AUTHORITY REPRESENTATIVE: Name: Teo Eng Kim Signature: Date: 15 Mar 2024 Time: 9:36 PM

STOP WORK AND EVACUATE AREA ON HEARING ANY EMERGENCY ALARM

# JHA ( JOB HAZARD ANALYSIS )

**A job hazard analysis is a technique that focuses on job task as a way to verify hazard before they occur**

- Before getting approval and submit our PTW, JHA must being attached to our permit for SSE to verified.
- All relevant hazard for our task must being captured and put inside the JHA before submitting.
- Here is the sample of JHA Precautionary Control barrier (JPBC) check for this job before start operation that we need to verified every 2 hours .

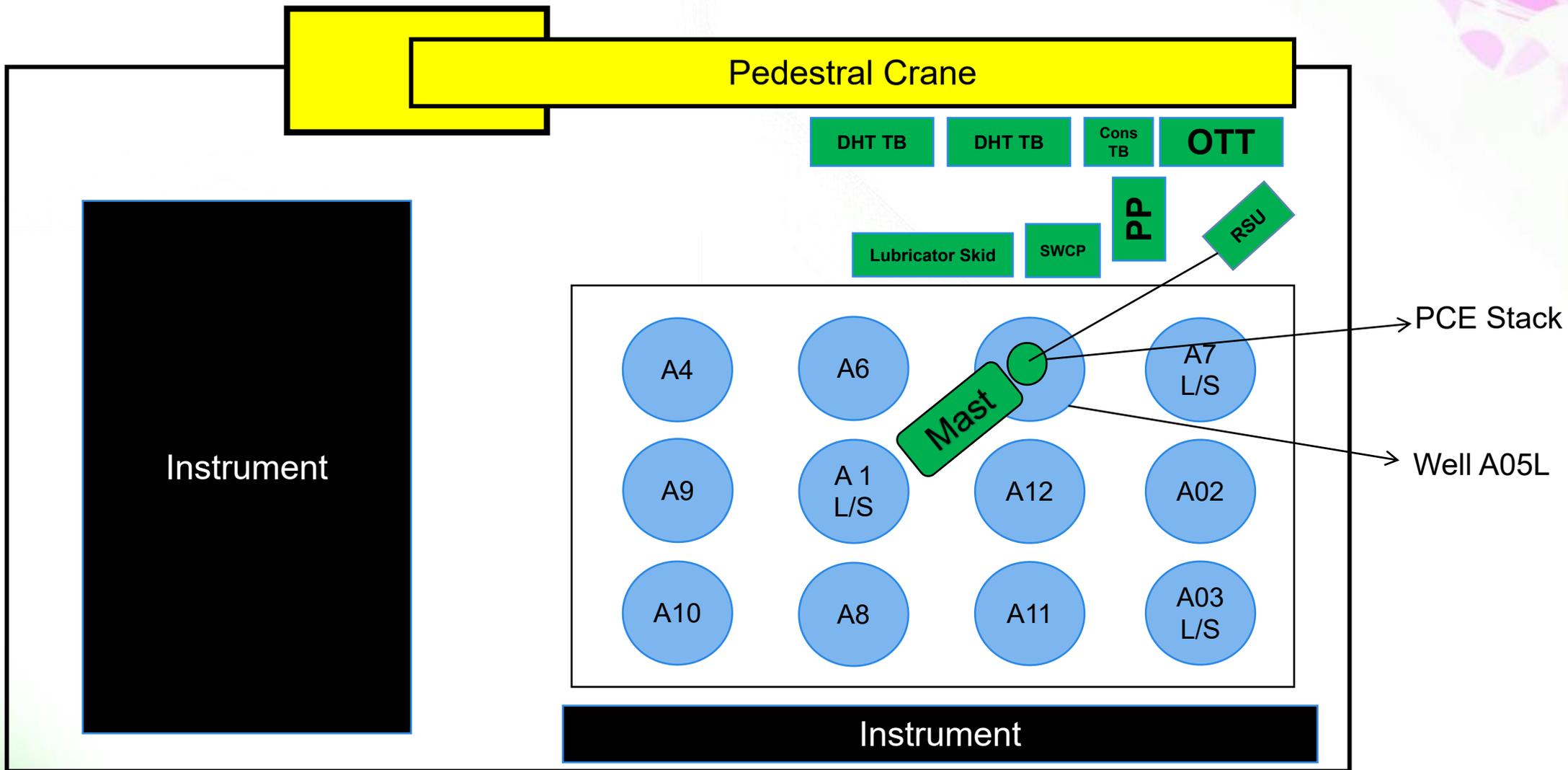
**Hot Work**

**COLD WORK**

No.	JHA Barriers (Date: _____ )	Barrier Verification Frequency (Tick ✓ and timestamp where applicable)					
1	Barricade area of hazard						
2	Keep worksite clear from slippery/tripping hazards/obstructions of escape route						
3	Maintain housekeeping during the working period						
4	Ensure equipment is inspected and in good condition						
5	Ensure guard is provided						
6	Bleed off any trapped pressure						
7	Verify to ensure zero pressure inside						
8	Ensure guard is provided						
9	Keep worksite clear of pinch point/sharp object hazards						
10	To ensure housekeeping performed at the end of the day						

No.	JHA Barriers (Date: _____ )	Barrier Verification Frequency (Tick ✓ and timestamp where applicable)					
1	Barricade area of hazard						
2	Be vigilant on footing/watch the footsteps.						
3	Keep worksite clear from slippery/tripping hazards/obstructions of escape route						
4	Maintain housekeeping during the working period						
5	Correct hand placement/ positioning						
6	Usage of tag line to control the load from safe distance						
7	Correct hand placement/ positioning						
8	Local weather forecast report from onshore						
9	Cover any potential sharp edges with cotton rag						
10	Correct hand placement/ positioning						
11	At least 2 tag line to be attached to the opposite end of the load to assist the control of lifting lowering/ positioning for long or bulky loads						
12	Barricade working area						
13	Others						
14	Barricade working area						
15	Correct hand placement/ positioning						
16	Monitor and analyses LEL and PEL						

# Spot Equipment



# PCE Stack Up

## Stuffing Box

Stuffing Box 16", 5.00"- "O" Pin & Collar, 5K, H2S  
4 ACME (4.0" Seal) Type

## Lubricator 3ea 8FT

Lubricator, 3.00" ID X 8 ft. Long, 5.00"-4 ACME Type "O"  
Box X Pin & Collar, 5K H2S.

## QTS ( Quick Test Sub )

QuickTest Sub with 1/2" NPT 5K Test Port, 3.0" ID -4  
ACME Type "O" Box X Pin & Collar, 5K H2S.

## Dual Hydraulic BOP

Dual Hyd BOP, 3.0" ID, 5.00"-4 ACME Type "O" Box X Pin  
& Collar, 5K H2S.

## Pup Joint 6FT

Lubricator, 3.00" ID X 4 ft. Long, 5.00"-4 ACME Type "O"  
Box X Pin & Collar, 5K H2S.

## Manual Ball Valve

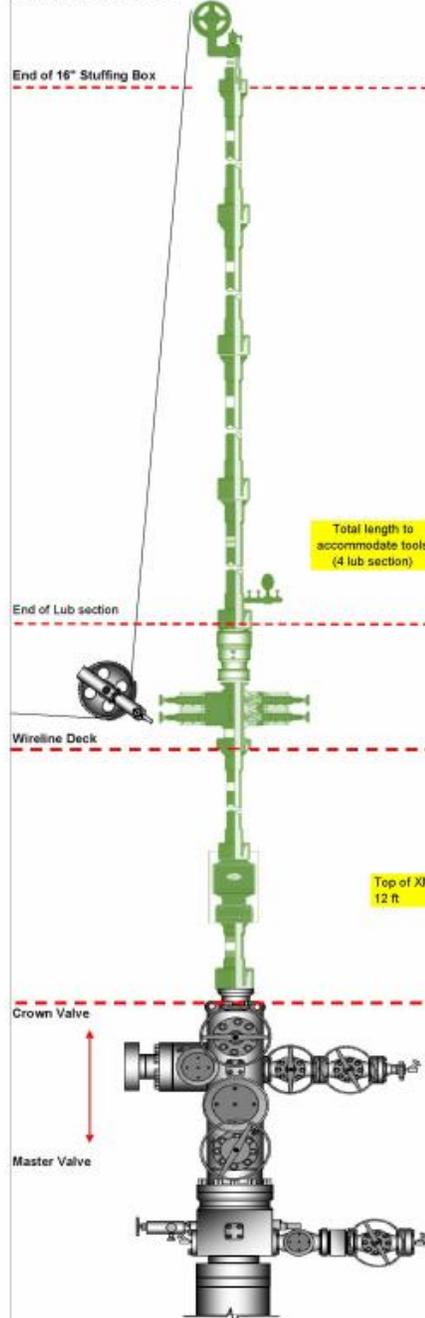
Manual Ball Valve - TIW, 3.00" ID, 5.00"- "O" Box X Pin &  
Collar, 5K H2S.

## Wellhead Adapter .

Wellhead Adapter, 3.00" ID, 5.00"-4 ACME Type "O" Box  
X 4.75"-4 Pin OTIS 3.00" ID, 5K H2S.

### SLICKLINE WPCE RIGGING UP J4-A3

Appendix 1.0: WPCE



Length	Qty	Description
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2 FT	1 PC	Stuffing Box 16", 5.00"-4 ACME (4.0" Seal) Type "O" Pin & Collar, 5K, H2S
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8	1 PC	Lubricator, 3.00" ID X 8 ft. Long, 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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8	1 PC	Lubricator, 3.00" ID X 8 ft. Long, 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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8	1 PC	Lubricator, 3.00" ID X 8 ft. Long, 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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8	1 PC	Lubricator, 3.0" ID, c/w 2 X 1/2" NPT Bleed-Off Port , 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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2	1 PCS	QuickTest Sub with 1/2" NPT 5K Test Port, 3.0" ID 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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3	1 PCS	Dual Hyd BOP, 3.0" ID, 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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8	1 PC	Lubricator, 3.00" ID X 8 ft. Long, 5.00"-4 ACME Type "O" Box X Pin & Collar, 5K H2S.
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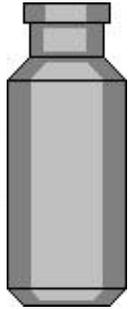
2	1 PC	Manual Ball Valve - TIW, 3.00" ID, 5.00"-4 Type "O" Box X Pin & Collar, 5K H2S.
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2	1 PC	Wellhead Adapter, 3.00" ID, 5.00"-4 ACME Type "O" Box X 4.75"-4 Pin OTIS 3.00" ID, 5K H2S.
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# Detail BHA ( Bottom Hole Assembly )

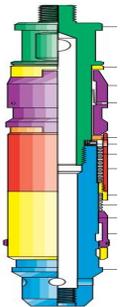


# Toolstring Configuration



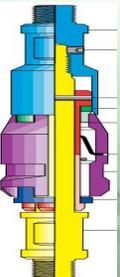
## **Drift 2.735"**

Toolstring configuration: 1.7/8" R/Socket + 1.7/8" Roller Boogie + 1.7/8"x 5ft Tungsten Stem + 1.7/8" Roller Boogie + 1.7/8" K/Joint + 1.3/4" Hyd Jar + 1.7/8" x 20 Stroke Link jar + 1.7/8" QLS Female



## **3" 142BO ( Open SSD )**

Toolstring configuration: 1.7/8" R/Socket + 1.7/8" Roller Boogie + 1.7/8"x 5ft Tungsten Stem + 1.7/8" Roller Boogie + 1.7/8" K/Joint + 1.7/8 3FT Roller Stem + 1.7/8" x 20 Stroke Link jar + 1.7/8" QLS Female



## **3" 42BO ( Closed SSD )**

Toolstring configuration: 1.7/8" R/Socket + 1.7/8" Roller Boogie + 1.7/8"x 5ft Tungsten Stem + 1.7/8" Roller Boogie + 1.7/8" K/Joint + 1.3/4" Hyd Jar + 1.7/8" x 20 Stroke Link jar + 1.7/8" QLS Female

# Toolstring Details

**TCC BHA For 2.735" Drift**

No	Description	Length (ft )	Weight (lbs)
1	1-7/8" Rope Socket	0.5	5.0
2	1-7/8" Roller Boogie	0.5	5.0
3	1-7/8" x 5ft Roller Stem	5	40.0
4	1-7/8" x Roller Boogie	3	18.0
5	1-7/8" Knuckle Joint	1	5.5
6	1-3/4" Hydraulic Jar	4.4	13.5
7	1-7/8" 20" Mechanical Jar	5	15.5
8	2.735" Drift	1	15

**Open SSD BHA for 3" 142BO**

No	Description	Length (ft )	Weight (lbs)
1	1-7/8" Rope Socket	0.5	4.0
2	1-7/8" Roller Boogie	0.5	3.0
3	1-7/8" x 5ft Roller Stem	5	30.0
4	1-7/8" x Roller Boogie	3	30.0
5	1-7/8" Knuckle Joint	1	4.5
6	1-7/8" x 3Ft Roller Stem	4.4	11.5
7	1-7/8" 20" Mechanical Jar	5	12.5
8	3" 142BO	1	12

**Closed SSD BHA for 3" 42BO**

No	Description	Length (ft )	Weight (lbs)
1	1-7/8" Rope Socket	0.5	4.0
2	1-7/8" Roller Boogie	0.5	3.0
3	1-7/8" x 5ft Roller Stem	5	30.0
4	1-7/8" x Roller Boogie	3	30.0
5	1-7/8" Knuckle Joint	1	4.5
6	1-3/4" Hydraulic Jar	4.4	13.5
7	1-7/8" 20" Mechanical Jar	5	12.5
8	3" 42BO	1	12

# Precaution During Operation



# **Precaution During RIH & POOH**

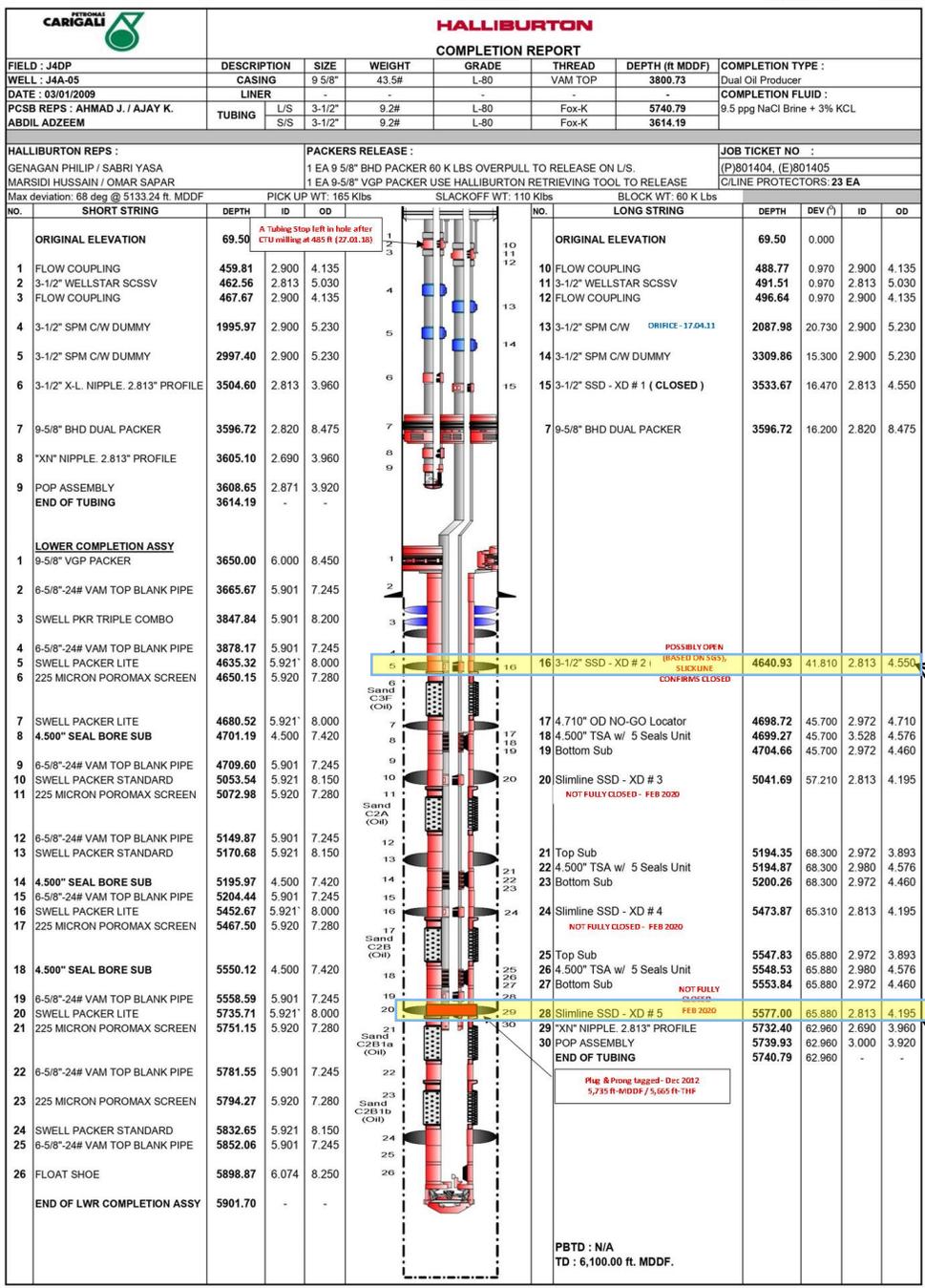
- Make sure using the right size of toolstring configuration corresponding to the tubing size.
- set the toolstring “zero” reference depth on the odometer.
- Pressurize the lubricator slowly to well “CITHP” then open x-mas tree
- RIH in moderate speed. Slow down when passing thru tubing accessories. Noted the F/L.
- If any resistance is encountered on the way down, DO NOT attempt to jar through. Make a few attempts by tapping down only.
- If toolstring is held up and unable to be tapped through, pull out of hole.
- While POOH, take noted of the PW of the toolstring until surface.
- When toolstring at surface, closed the swab valve and depressurize pressure inside lubricator
- Capture or Inform if any abnormality found on Drift or Shifting tools tools inside DOR.

# Parameter On Well A05L



# Well Schematic For A05L

No	Accessories	THF-Depth (ft)	Status
1.	TRSCSSV	419	
2.	SPM #1	2018	Orifice
3.	SPM #2	3240	Dummy
4.	SSD #1	3464	Closed
5.	SSD #2	4571	Closed
6.	SSD #3	4972	Not Fully Closed
7.	SSD #4	5404	Not Fully Closed
8.	SSD #5	5507	Not Fully Closed
9.	XN Nipple	5663	
10.	EOT	5671	



SSD To Opened @ 4571FT-THF

SSD To Closed @ 5507FT-THF

VALID AS PER:  
SEP 2021

REVISION: APR 2021  
 LAST INTERVENTION: Long String - SGS (April 2017).  
 Short String - SGS (29.04.2017).

# Toolstring Parameter

**2.735" Drift**

THF-Depth (ft)	R/W (lbs)	P/W (lbs)	H/W (lbs)
<b>500</b>	120	125	120
<b>1000</b>	120	125	140
<b>1500</b>	125	175	150
<b>2000</b>	125	200	150
<b>2500</b>	110	245	145
<b>3000</b>	110	275	140
<b>3500</b>	100	310	150
<b>4000</b>	100	350	130
<b>4500</b>	80	375	90
<b>5000</b>	50	320	70
<b>5500</b>	40	325	70
<b>5630</b>	40	325	65

**3" 1420BO**

THF-Depth (ft)	R/W (lbs)	P/W (lbs)	H/W (lbs)
<b>500</b>	120	125	120
<b>1000</b>	120	125	140
<b>1500</b>	125	170	150
<b>2000</b>	125	195	145
<b>2500</b>	110	240	140
<b>3000</b>	110	270	135
<b>3500</b>	100	305	145
<b>4000</b>	100	345	125
<b>4571</b>	80	370	85

# Toolstring Parameter

3" 420BO			
THF-Depth (ft)	R/W (lbs)	P/W (lbs)	H/W (lbs)
500	120	125	120
1000	120	125	140
1500	125	175	150
2000	125	200	150
2500	110	245	145
3000	110	275	140
3500	100	310	150
4000	100	350	130
4500	80	375	90
5000	50	320	70
5500	40	325	70
5507	40	325	65

## **Pressure on THP & CHP**

- Before Inject : CITHP : 520 psi
- After Inject : CITHP 560 psi
- CHP : 280 psi
- Injected well to well pressure due to last report resevoir pressure is 560psi on THP

## **During RIH**

- Nothing abnormilites during running in hole
- No Fluid level detected
- Highest deviation is 68 deg @ 5133ft-MDDF

# Type of Shifting Tools



# Closed SSD

## Otis 'B' Shifting Tool @ 42BO

- Otis “B” Shifting tools ( Positioning tools ) was designed to closed or open all of the otis SSD.

a) With 90 deg shoulder on keys facing **DOWN**

Opens: XO & XD

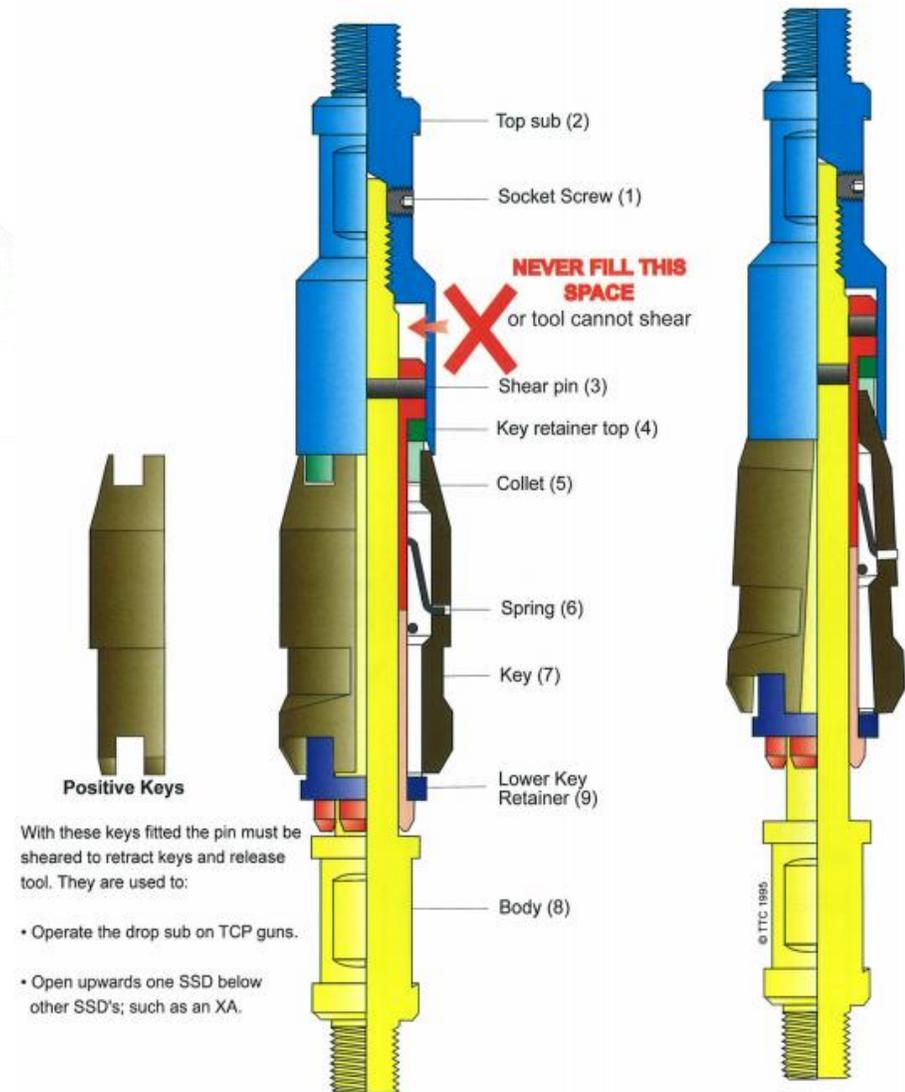
Closes : XA

b) With 90 deg shoulder on keys facing **UP**

Closes: XO & XD

Opens : XA

**Notes :** To Open an XO & XD sleeves which is below another SSD, the selective downshift tool must be used



**Pinned:** Normal operating position.

**Sheared :** Release position

# Opened SSD

## Selective Downshift Tools @ 142BO

This tool is designated to 'selectively' open XO & XD SSD by passing through the upper sleeves. It will **ONLY** shift sleeves **DOWNWARDS** and should never be inverted as it could get stuck below tight sleeve

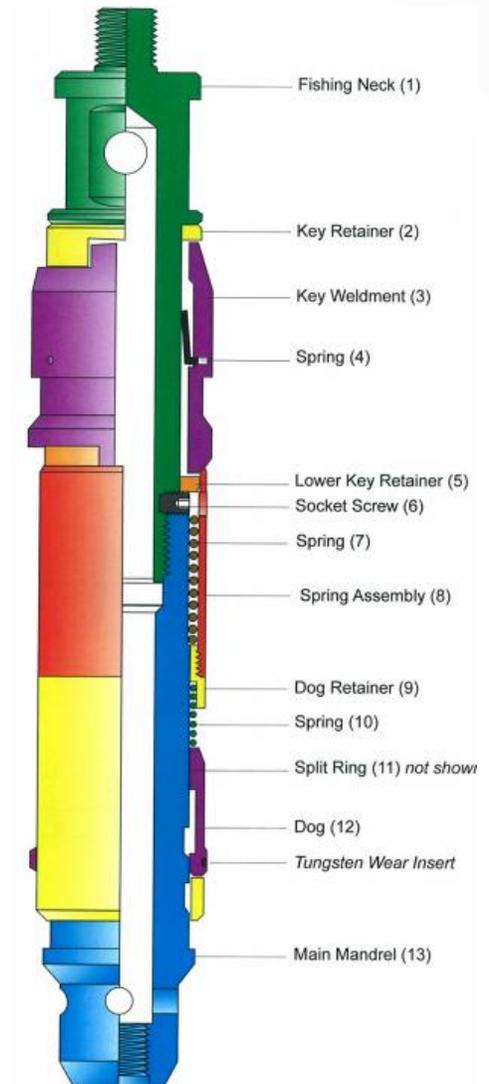
### a) Selective

- Shift keys retracted to pass the upper SSD locator dogs extended to locate the packing bore

### b) Non-Selective

- Shift key extended to locate the SSD

**Notes :** This tool does not have shear pin



# Type of SSD Profile

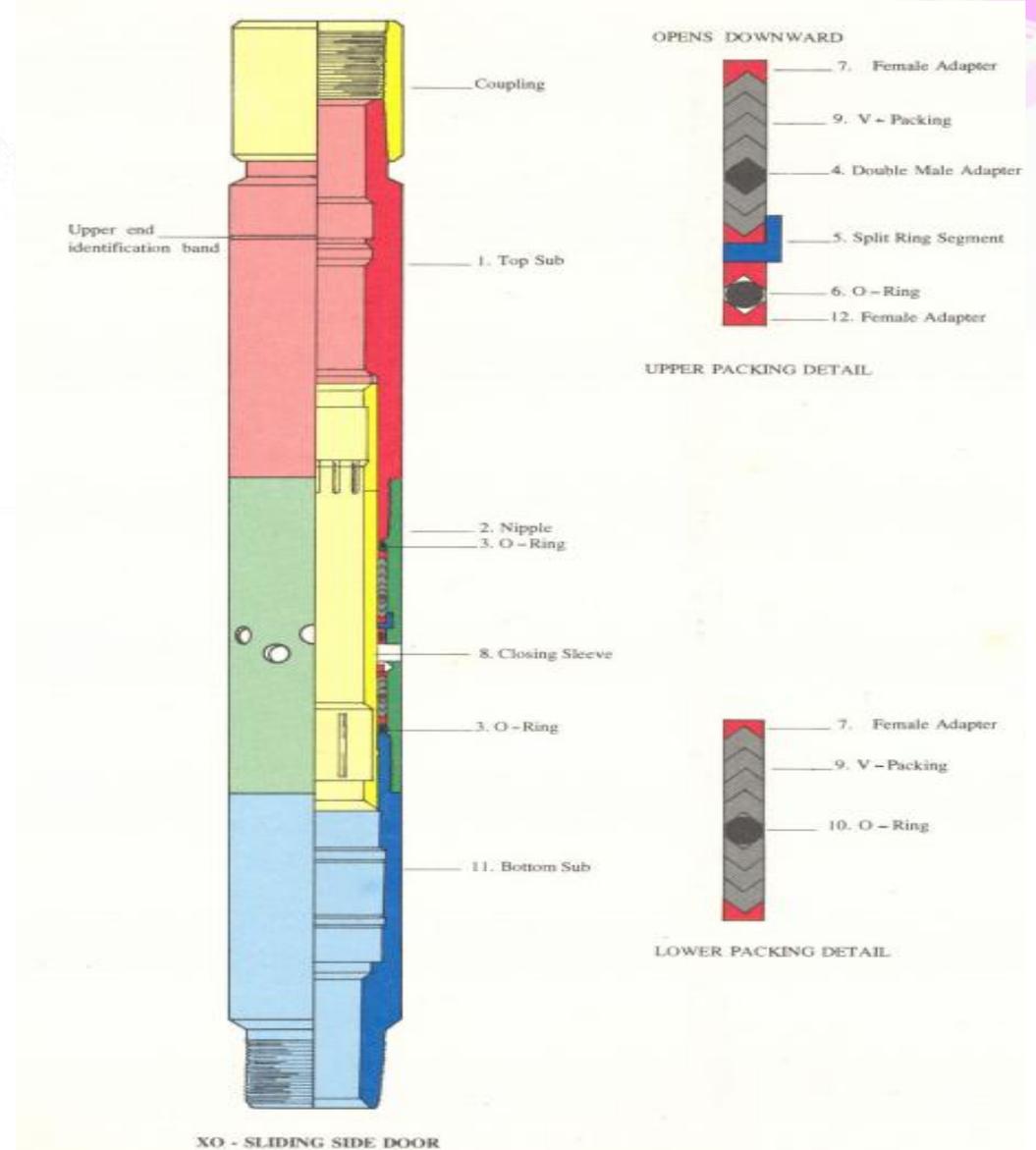
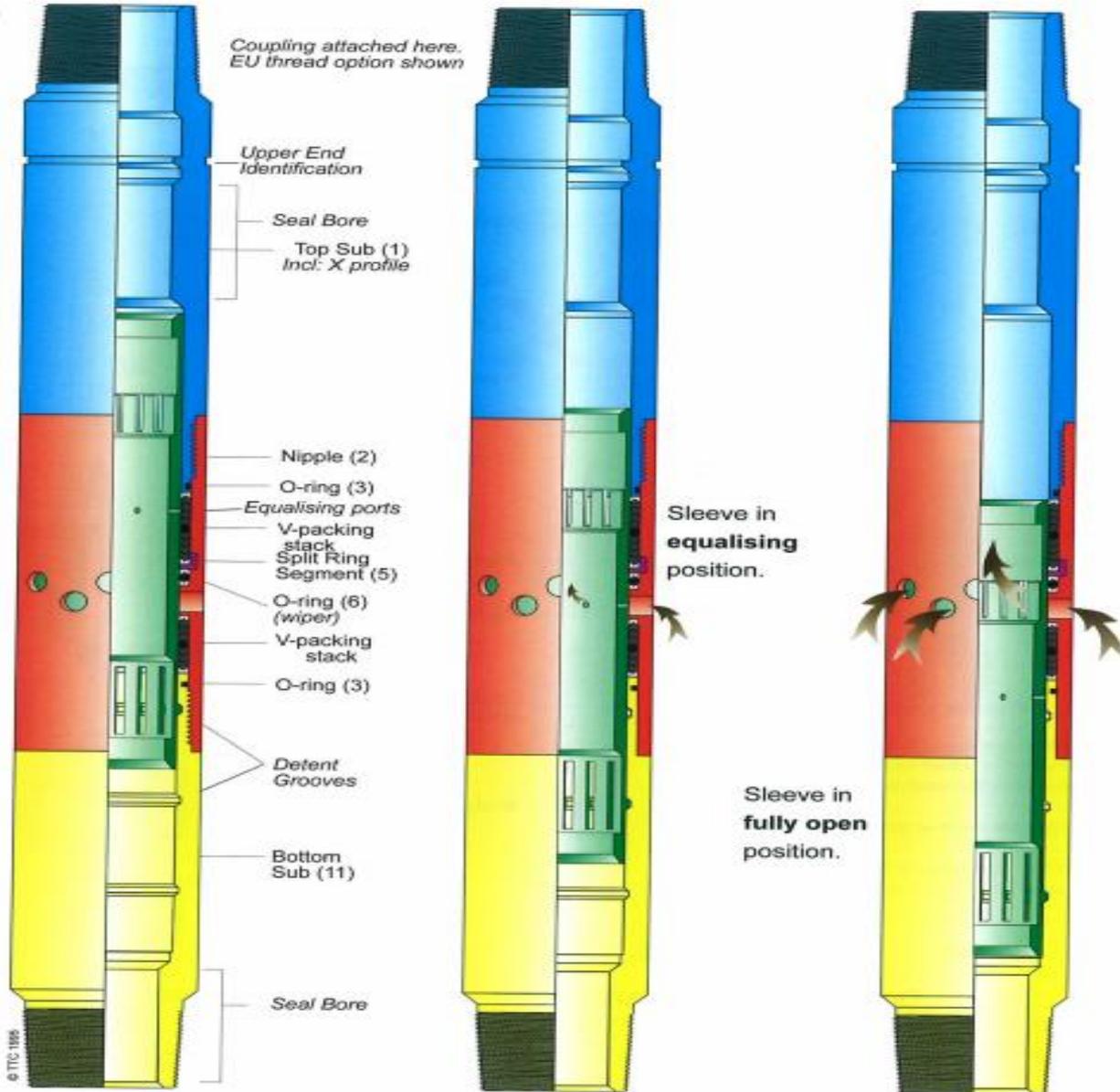


# XO Sliding Side Door

- This type of XO Sliding door may be located anywhere in the tubing string where it is required
- The type XO Sliding side door is opened by downwards jarring down & Closed by upwards jarring up
- For Well A05L, XO Type Sliding door is being used hence to closed SSD is by jarring up & Opened by Jarring down using the right shifting tools

Assembly # Size (inches) Material Thread			121XO1 2 3/8 9CR-1MO EU	121XO3 2 7/8 9CR-1MO EU	121XO54 3 1/2* 9CR-1MO EU	121XO80 4 1/2 9CR-1MO EU
Ref.	Part Name	Qty				
1	Top sub	1	121X1	121X8	121X58	121X475
2	Nipple	1	121X39	121A645	121X57	121A508
3	O-ring	2	91Q1229	91Q1234-H	91Q1237-H	91Q1246-H
4	Double male adapter	1	121A18	121A21	121X51	91V4219
5	Split ring segment	4	121A43	121A48	121X53	121A511
6	O-ring	1	91Q1331-H	91Q131-H	91Q1198-H	91Q1246-H
7	Female adapter	4	121A17	121A644	121X54	121A509
8	Closing sleeve	1	121A41	121A1435	121X56	121A510
9	V-packing	( )	91V83(10)	91V84(12)	91V3329(8)	91V4768
10	O-ring	1	91Q1331-H	91Q131-H	91Q198-H	91Q164-H
11	Bottom sub	1	121A2	121A9	121X55	121A476
12	Female Adapter	2	121A17	121A644	121X54	121A509
13	Bottom V-packings	( )	-	-	91V5042(4)	91V5038(4)
<b>Length (inches)</b>			33.940	37.930	44.880	49.670
<b>OD (inches)</b>			3.090	3.75	4.280	5.500
<b>ID Nipple (inches)</b>			1.875	2.313	2.750	3.813
<b>Flow Area (square inches)</b>			1.459	2.446	4.459	5.560
<b>Shifting Tool (standard)</b>			42-BO 116	42-BO 118	42-BO 147	42-BO 111
<b>Selective Shifting Tool</b>			142-BO 4	142-BO 3	142-BO 1	142-BO 7

# XO Type SSD



# Running Sequence



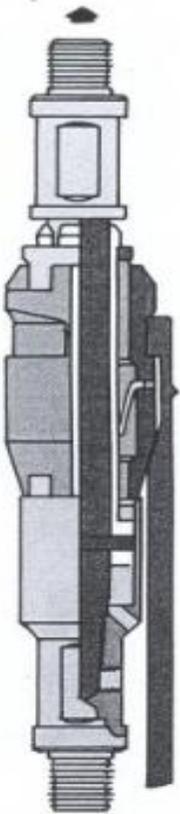
# Closed SSD

## Operation

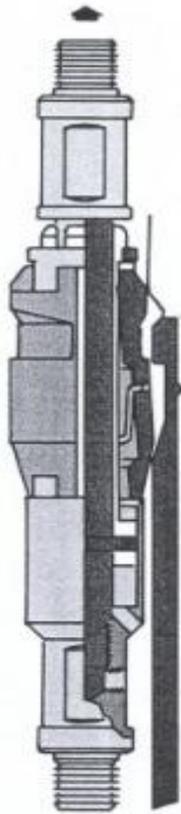
- Select the direction in which the tool will shift the sleeve and install on the toolstring with 90deg shoulder facing the the direction of the movement. For this well the 90 deg shoulder should facing UP to closed the SSD
- Run into SSD and locate
- Jar against the the sleeve in the desired direction. For this well, Jarring up movement is require to closed the SSD
- Continued jarring up until the shifting tool passed completely the SSD.
- Check the SSD is fully closed 3x times. If no obstruction and SSD is fully closed POOH.
- Visually check the pin has not sheared. if the pin is not sheared, the SSD is confirm closed. if it sheared, Re-RIH the same step as above.

# Closed SSD

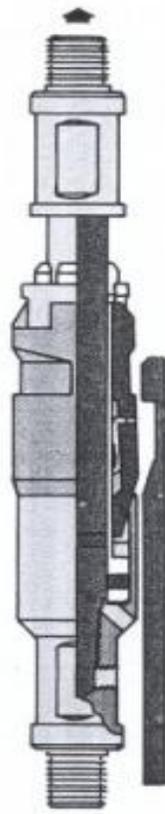
## How To Closed SSD



Latched in position

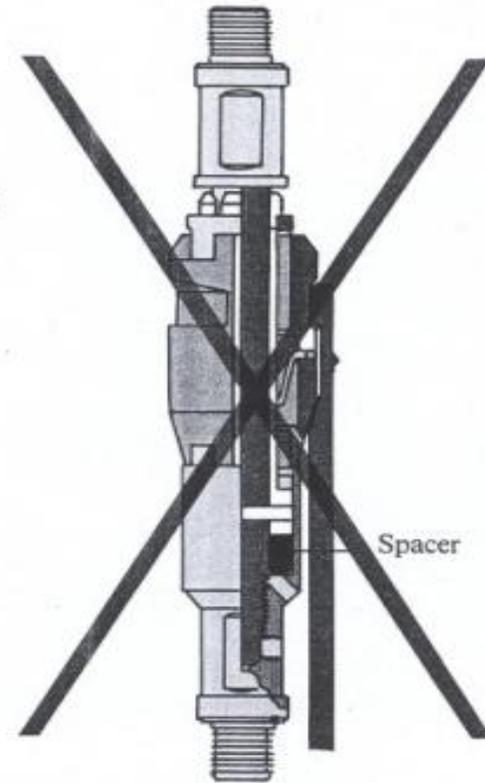


Releasing when  
SSD has moved  
fully.



Keys retracted when  
pin sheared if SSD  
is too tight.

NEVER  
DO  
THIS



Use of spacer ring in UPSHIFT  
position is not permitted  
Tool can be permanently jammed  
in SSD if sleeve will not move.

# Opened SSD

## To set the tool in selective

- 1) Grip the bottom of the main mandrel in vice
- 2) Insert the Screwdriver in the slot through the hole in the upper end of the spring housing and lever the housing downwards compressing the main spring
- 3) At the same time as above, squeeze the upper end of the locator dogs inwards and release the screwdriver
- 4) The tools should move partially to the selective position
- 5) Using the handle of the screwdriver , strike the lower ends of each shifting keys inwards
- 6) The tools should snap into selective, if not repeat as above

# Opened SSD

## Operation

- The tool is run in selective position to below of the SSD to be shifted
- Pull upwards through the SSD to trip to NON-SELECTIVE
- Sit down in the SSD and Jar down. Monitor the pressure gauge for any increase/decrease in the pressure.
- If observed pressure increase/decrease stop jar down and wait until the pressure is equalize.
- If pressure is equalize, jar down until the tool pass the SSD
- Check by passing the SSD 3x Times to confirm it fully opened

# Redress Shifting tools



# 142BO Shifting Tools

## **Disassembly Procedure**

1. Place the assembly in vise gripping on the ported section of the main mandrel.

**NOTE:**        *If necessary, manually force the spring housing down and lock the dogs into the groove on the main mandrel before the set screw (securing the main mandrel to the fish neck) and holes in the spring housing are aligned. Remove the setscrew.*

2. Using the flats provided, remove the fish neck, upper key retainer, keys, keys springs and lower key retainer.

3. Release the dogs by forcing the spring housing down and applying pressure to the heel of the dogs.

4. Slide the spring housing, large spring, dog retainer, small spring, split ring and dogs off the main mandrel.

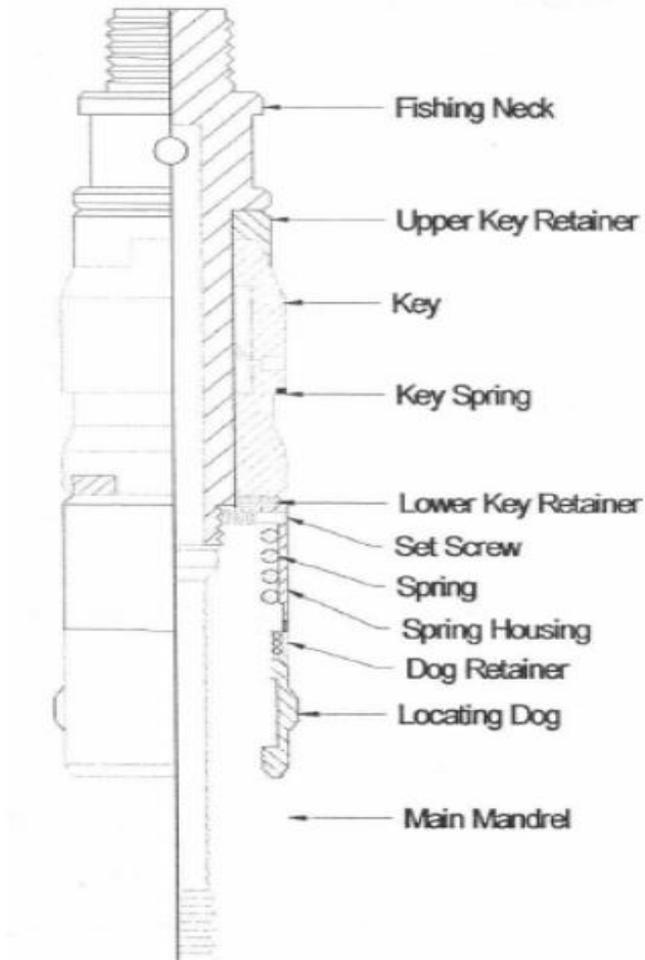
5. Clean and inspect all parts thoroughly for wear and tear

# 142BO Shifting Tools

## **Assembly Procedure**

1. Select an assembly pipe with an OD close to the inside diameter of the dog retainer and place horizontally in a vise.
2. Slide the threaded end of the dog retainer over the assembly pipe so that the pipe is visible through approximately one third of the windows in the dog retainer.
3. Insert the split rings through the bore of the dog retainer and around the assembly pipe.
4. Insert the dogs through the bore of the dog retainer and hook the ears of the dogs into the slots in the split rings.
5. Install the small spring. Start the end of the first coil through one of the windows in the dog retainer and wind the spring into place between the shoulder in the dog retainer and the heel of the dogs.
6. Remove this assembly from the vise.
7. Place the main mandrel in an upright position in a vise.
8. Place the end of the assembly pipe against the end of the main mandrel and slide the dog retainer assembly off the pipe and onto the main mandrel.
9. Install the large spring and spring housing.
10. Exert enough force against the upper end of the spring housing to place this portion of the assembly in the cocked position.
11. Place the upper key retainer on the fish neck.
12. Place the key spring in the keys and install them on the fish neck.
13. Install the lower key retainer and make up the fish neck into the main mandrel.
14. Install a setscrew if required.
15. Unlock the tool after assembly.

# 142B0 Shifting Tools



*Fig 7.2-4, "BO" Selective Downshift Tool*

# 42BO Shifting Tools

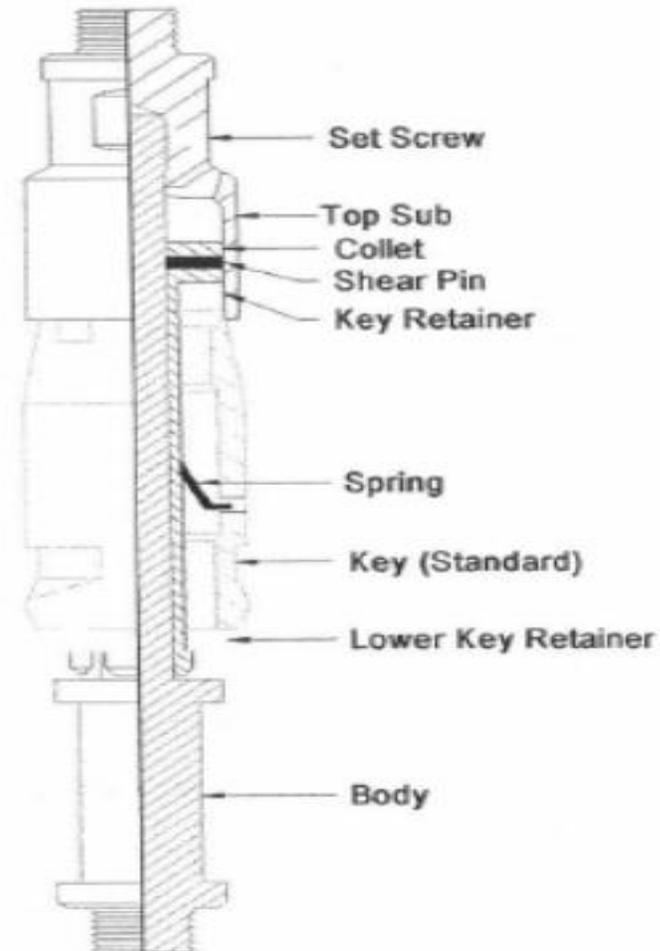
## **Disassembly Procedure**

1. Place the mandrel in a vise.
2. Loosen the setscrew.
3. Unscrew the key retainer.
4. Remove the keys, dogs and springs. The dogs will slide out of the keys.
5. Alternate the slip ring weldment to one of the positions in the J-slot arrangement where the slip ring can be removed.

## **Assembly Procedure**

1. Clamp the mandrel in a vise.
2. Install the upper key retainer on the mandrel.
3. Insert the springs into the keys.
4. Insert the dogs into the slots in the keys.
5. Install the slip ring on the mandrel.
6. Install one key (with its spring and dog) on the bottom of the mandrel and rotate it to the upper side.
7. Install the other key on the bottom side of the mandrel.
8. Move the dogs back and forth over the slip ring so that the raised diameter of the slip ring falls into the grooves cut in the underside of the dogs.
9. Screw the key retainer onto the mandrel and tighten.
10. Install the setscrew and tighten.

# 42BO Shifting Tools



*Fig. 7.2-1, "B" Positioning Tool*

# Contingency Plan



# Operation Contingency

Event	Contingency Plan
During RIH Drift, Held-up before reaching the SSD	<ul style="list-style-type: none"> <li>- RIH wire scratcher or gauge ring</li> <li>- RIH LIB to tag held-up depth</li> <li>- Add more weight or add roller stem on the toolstring.</li> </ul>
Unable to Closed the SSD after prolong jarring up	<ul style="list-style-type: none"> <li>- Change shear pin to Steel pin ( Liase with CSR on this )</li> <li>- Increase tension to 60% safety margin wire breaking point after wire tested.</li> <li>- Change to heavy duty jar. ( Limar Jar &amp; EAJ )</li> <li>- Use J-Slot shifting Tool ( Liase with CSR on this )</li> </ul>
Unable to Open SSD after prolong jarring down	<ul style="list-style-type: none"> <li>- Add more weight or add roller stem on the toolstring</li> <li>- Run Wire Scratcher and reciprocated on SSD</li> </ul>
Toolstring stuck during POOH	<ul style="list-style-type: none"> <li>- Informed CSR on depth of toolstring stuck</li> <li>- Increase Tension to 60% safety margin wire breaking point after last test wire recorded.</li> <li>- Closed upper/lower BOP.</li> <li>- Drop Cutter after getting informed by CSR &amp; Town</li> </ul>

# Pre and Post Operation



# Pre & Post Operational

## **Pre-job Operation Before Closed SSD**

- Ensure the appropriate size of 42XO and/or 42BO positioning tools are available.
- Confirm the positioning tool keys are in good condition, i.e. shifting shoulders not worn out or rounded and the key springs are strong.
- Confirm the tripping dogs in the 42XO positioning tool are in good condition, and are able to slide up and down freely along the slots in the keys.
- Check to confirm the 42BO positioning tool is pinned with the correct type of shear pin. Ensure that there is no spacer inserted above the shear ring in the top sub this spacer will prevent the positioning tool from releasing should the SSD fail to be closed fully
- Confirm all connections in the positioning tools are tight, and the top connecting threads and fishing neck are in good condition
- Ensure the appropriate size of bottom cap is made up to the bottom pin end of the positioning tool.
- Record the well's FTHP (if applicable), CITHP and CHP.

## **Post Operation After Closed SSD**

- Check for any changes in CITHP after closed CITHP
- Reciprocated at SSD 3x time to confirm SSD is fully closed.
- Record CITHP and informed CSR for any changes in pressure after closed SSD
- Record & Monitor P/W during POOH
- Once 42BO at surface, inspect the condition of the tools and ensure the pin is not shear. If pin shear, SSD is not fully closed.

# Pre & Post Operational

## **Pre-job Operation Before Opened SSD**

- Check parameter well CITHP / CHP
- Check with the respective field planning & programming engineer on reservoir pressure of the zone where the SSD is to be opened and also the fluid gradient
- Equalize pressure if previous pressure on reservoir is higher than current CITHP
- Make sure pressure gauge being used is suitable and easy to monitor during pressure equalize
- Check 142BO key is in correct position before RIH
- Check and confirm all other SSDs in the string are closed
- Positive string inflow-test prior to opening another SSD, or Zone change
- Status of accessories in the string and Depth of SSD to be shifted
- Expected CITHP of new zone to be opened up

## **Post Operation After Open SSD**

- Take the reading of CITHP & CHP after SSD fully opened.
- Monitor the P/W During POOH
- Reciprocated at SSD 3x time to confirm SSD is fully opened.
- Check for any changes in CITHP after SSD fully open
- Record CITHP and informed CSR for any changes in pressure after Opened SSD
- Once 1420BO at surface, inspect the condition of the tools.

Thank you  
ありがとうございます