

DIMENSION BID

Equipment Maintenance Checklist 1

PRE JOB LOCATION

ON JOB LOCATION

POST JOB LOCATION

Dulong River

Equipment type : CTU Batch Mixer
 Location Mob/Demob : 012-4104-15
 Equipment number : CTU B (10/02)

Y	N	Checklist
Appearance and Safety Equipment:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ensure unit appearance good and clean
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Verify that all earth/ground cables are in place, well connected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Skid condition - visually check for any damage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fire extinguisher is present and certified
Cooling System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Coolant level & condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check visible leaks
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Radiator hose & clamp condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Perform visual and physical check on radiator fin
Engine Inspection:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check engine oil level (SAE 15w-40) not be milky or too dark
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check any general leaks on all filter, hoses, and connectors.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check fan, hub, fanbelt condition/ tension
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check Battery cable connectors (if applicable)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check condition of engine hoses
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check for rusted part- repair/repaint if required
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check the crankcase vent system for excessive blow by
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check engine mounting condition - tight any loose bolt
Tools / Instrumentation:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Normal kill tested
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Emergency kill tested
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Oil pressure gauge in good condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tachometer display in good condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Throttle control in good condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Engine stop cable/button in good condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Engine start cable/button in good condition
Exhaust System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pipework - check for any leak or damage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Condition/Operation of exhaust flapper
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Condition of exhaust wrap are in place and in good condition
Transmission, Gearbox:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check level Sight glass/dipstick shows in full (SAE 90) (A/A right dial)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check condition of the gearbox breather filter
Hydraulic System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check Hyd. Hoses/valve/connections undamage and clean
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hyd.tank - drain any water
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check hydraulic oil level (2" from top) (Tellus 46)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check hydraulic gauges
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check condition of fittings & couplings
Fuel System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check for any water contamination in the fuel filter sight bowl
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check fuel tank breather cap condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check for leaks on fuel lines, connections, and hoses
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fuel filter - check condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fill up the diesel tank to 90% (if applicable)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Drain 1 litre fuel from drain valve

Running Hours : 1287.5 HRS
 Date : 5/11/2023

Y	N	Checklist
Air System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check any visible leaks - ensure air up 90-110psi
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gauges in good condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air reservoir /tanks - drain any water
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air hose, connections, piping, valves and actuators condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All pneumatic control valve working properly
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All gauges in good condition
Air Cleaner:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check the element for water or soot and clean as required
Zone II System:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flame traps - check cleanliness
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air intake valve (flapper) - check condition
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Spark arrestor - check condition
Paddles / Aggitator:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check oil level (SAE 90)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grease bearing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check agitators rotation
System Pressure:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fuel pressure @ idle speed psi
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fuel pressure @ 1800 RPM psi
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Oil pressure @ cold start 50 psi
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Oil pressure @ 180deg.F 78 psi
Certifications:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sling condition/ Due on 8/23
<input checked="" type="checkbox"/>	<input type="checkbox"/>	MPI due 5/2025
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Visual Test due 5/2025

Please state the equipment readiness

Ready

Not Ready

- Ready for NEXT JOB!

- Alternator not function Not Recharge Batteries

Maintenance type done. (Please state if any spare used)

Preventive Maintenance

Corrective Maintenance

- Alternator not recharge
 - Aggitator not function - on tank 1

- need replace

NAME : Muhammad Haffid bin / Aminudin
 Doc. Ref. No.: CTS-FORM-13
 Rev. No.: 01 / Mu Hb HAFIK
 Effective Date: 01/02/2022
 (Rev. 06, dated 01/11/16-0850429)

POSITION : EOT / PJT

EXAMINER SIGNATURE : [Signature]

VERIFIED BY : [Signature]

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Title	Equipment Operation Under Supervision					
Target Population	Field Engineers, Field Specialists & Equipment Operators					
This requirement is applicable to:	✓	JFE	✓	FST	✓	EOT
					✓	EO1
					✓	EO2
					✓	EO3

Objective:

The objective of this task is to evaluate and verify the employee's skills and knowledge in operating the following equipment efficiently under supervision:

Description		JFE	FST	EOT	EO1	EO2	EO3
1	Batch Mixer	✓	✓	✓			
2	Fluid Pumping Unit	✓	✓		✓		
3	Nitrogen Converter (pump & tank?)	✓	✓			✓	
4	Coiled Tubing Unit	✓	✓				✓

IMPORTANT NOTE: Please submit one (1) task sheet for each equipment

Tasks:

A mentor or any experienced team member assigned by the mentor will guide the employee to complete this task.

The assigned mentor is expected to train the employee and to conduct an evaluation to ensure that the employee achieves the required competency level for his position.

The employee should complete the following tasks:

NO	TASK	STATUS/DATE	MENTOR NAME/SIGN
1	Under the guidance of your assigned mentor, learn about equipment at the location and the important devices installed The employee must understand the design and the functions of the equipment as well as its components	* Done	Syuki J.F.
2	Understand the basic operation as well as safety related issues	* Done	J.F.
3	Learn how to run the equipment safely and efficiently from the assigned mentor	* Done	J.F.
4	Perform pre and post job EMC 1 effectively for the unit	* Done	J.F.

5	Participate in the maintenance activity for the unit	* Done	<i>[Signature]</i>
6	Operate the equipment under supervision in actual jobs	* Done	<i>[Signature]</i>
7	Review and agree performance of each task with your Mentor in order to validate its completion	* Done	<i>[Signature]</i>

REQUIRED EVIDENCE:

- 1 CTS-FORM-90 Coiled Tubing Performance Assessment Feedback
- 2 EMC 1 for the specified equipment



MENTOR / ASSESSOR'S FEEDBACK:

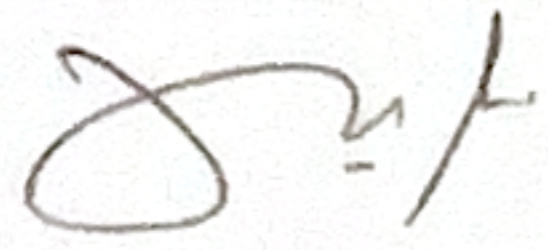
NO	TASK	FEEDBACK
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1	The employee demonstrates good knowledge of the design and the functions of the equipment and its components	* Done
2	The employee understands the basic operation as well as the safety related issues	* Done
3	The employee demonstrates required skills and knowledge to perform pre and post job EMC 1 effectively for the unit	* Done
4	The employee is ABLE to operate the Batch Mixer / Fluid Pumping Unit / Nitrogen Converter / Coiled Tubing Unit UNDER SUPERVISION in actual jobs [please circle the relevant equipment] Note: Please specify the job supported by CTS-FORM-90 Coiled Tubing Performance Assessment Feedback	* Done

OVERALL SCORE	STRONG			ADEQUATE			IMPROVEMENT NEEDED		
	10	9	8	7	6	5	4	3	2


MENTOR / ASSESSOR's Comments & Recommendation:

- * Understand surface preparation for pumping job / in proses of learning to carry surface preparation for CTU job
- * can stay alone operate BMX unit & rig up

Signature		Assessment Date	26 - June - 24
Name	MOHD SHUHRI B AWANG	Position	FS 2

FSM / OM Comments & Recommendation:

- Able to operate BMX standalone.

Signature		Assessment Date	26/6/24
Name	ROHWAN AZIZAN	Position	FSM

COILED TUBING PERFORMANCE ASSESSMENT FEEDBACK

(PART 1: To be completed by Assessor)

Name	MUHAMAD HINUDIN BIN KAMAL	COB Date	13/6/2023
Position	EQUIPMENT OPERATOR TRAINER	RTB Date	10/7/2023
Client	PCSB	Location	DULANG
Platform	DULANG DELTA	Well	D-28
Assessed By	Name: MOHD SYUKRI AWANG	Position:	FIELD SPECIALIST

Assessment Criteria	Rating (Please ✓ where appropriate)
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Safety Awareness

- | | | | | | |
|---|---|---|-------------------------------|---------------------------------------|-------------------------------|
| a. Usage of Personal Protective Equipment | <input checked="" type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| b. Participation UAUC | <input checked="" type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| c. Understanding of PTW System | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| d. Worksite House Keeping | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |

Work Competency

- | | | | | | |
|--|------------------------------------|---|--|--|-------------------------------|
| a. Pre-job Preparation | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| b. Surface Equipment Rig-up Process | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| c. Tools/Equipment Preparation | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| d. Equipment Problem Trouble Shooting Capability | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input checked="" type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| e. Downhole Tools Servicing/Redressing/Maintenance | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input checked="" type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| f. Initiative and Creativity | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| g. Decision Making Capability | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| h. Understanding of Job Scope | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| i. Tools Inventory Preparation & Reporting | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| j. Work Quality | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| k. Reporting | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |

Others

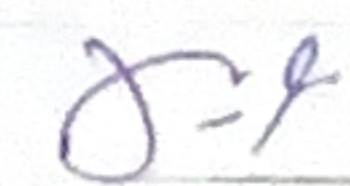

- | | | | | | |
|---|------------------------------------|---|--|---------------------------------------|-------------------------------|
| a. Punctuality and Time Keeping | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| b. Teamwork | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| c. Communication | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| d. Leadership Skills | <input type="checkbox"/> Excellent | <input type="checkbox"/> Very Good | <input checked="" type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| e. Adaptability to Work Environment/Surrounding | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| f. Attitude | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
| g. Discipline | <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |

OVERALL PERFORMANCE

- | | | | | |
|------------------------------------|---|-------------------------------|---------------------------------------|-------------------------------|
| <input type="checkbox"/> Excellent | <input checked="" type="checkbox"/> Very Good | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory | <input type="checkbox"/> Poor |
|------------------------------------|---|-------------------------------|---------------------------------------|-------------------------------|

REMARKS/COMMENTS/FEEDBACK ON PERFORMANCE OR AREAS OF IMPROVEMENT:

* overall good
 * Need to learn more about coil operations

Assessed By:  Name: MOHD SYUKRI AWANG Date: 23-06-2023	Agreed By:  Name: FIDHMAN AZIZAN Date: 20/8/23
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COILED TUBING PERFORMANCE ASSESSMENT FEEDBACK
(PART 2: To be completed by Employee and Assessor)

Type of Task	Tasks Performed	Assessor Comment
1. Pre-Job Preparation	- PREPARE EPTW - JOIN TOOLBOX MEETING	* Done
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
2. Surface Equipment Rig-up	- RIGDOWN ON WELL - RIGDOWN SURFACE LINE - RIGDOWN WIIDEN PUMP	* Done
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
3. Tools / Equipment Preparation	- HOUSEKEEPING TOOL CONTAINER	* Done
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
4. Equipment	4.1 Batch Mixer - ASSIST MIXING CHEMICAL - TOP UP DIESEL	* Done * Need to improve ^{leaving} about Bmx unit.
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.2 Pump Unit - RIGDOWN	* Done
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	

COILED TUBING PERFORMANCE ASSESSMENT FEEDBACK

(PART 2: To be completed by Employee and Assessor)

Type of Task	Tasks Performed	Assessor Comment
	4.3 Nitrogen Pump unit & Nitrogen Tank - RIG DOWN NITROGEN HOSE - TOP UP DIESEL	* Done
Assessor's Evaluation	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.4 Power Pack - WASHDOWN UNIT - TOP UP WATER DIESEL	* Done
Assessor's Evaluation	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.5 Control Cabin - HOUSEKEEPING	* Done
Assessor's Evaluation	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.6 CT Reel - SPOOLING - WASHDOWN DIFE	* Done
Assessor's Evaluation	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.7 Injector Head - WASH DOWN GRIPPER BLOCK	* Done
Assessor's Evaluation	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	

COILED TUBING PERFORMANCE ASSESSMENT FEEDBACK

(PART 2: To be completed by Employee and Assessor)

Type of Task	Tasks Performed	Assessor Comment
	4.8 Pressure Control Equipment - Assist connect hydraulic hose from control cabin to BOP	+ Done + Understanding when given instructions
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	
	4.9 Basic BHA Components - CLEANING BHA	+ Done
Assessor's Evaluation:	Level of Skill & Knowledge <input type="checkbox"/> Awareness <input type="checkbox"/> Basic <input type="checkbox"/> Broad <input type="checkbox"/> Detail	

DATE	Assignment/Summary Job/Duration
	<p>- mobilized from PDJT to durang. when arrived at location proceed to start rig up ctu equipment and surface line on maindeck. split crew after completed rig up. i assigned as helper on night shift.</p> <p>→ On well D-28, we are performing well cleanout inside tubing from stickline latest HUD. During this job. I was actively assist coil tubing crew to make the job run smoothly. I assisted Batch Mixer operator to mix gel and assisted pump operator to open butterfly valve. During this job I learn more about operate Batch mixer. I learn how to troubleshoot Batch mixer c-pump.</p>