

EP SPIRIT Award Proposal

METERING TUBE LOCAL FABRICATION COST REDUCTION

Starting Date: 1 Dec 2015

Completion Date: 30 Aug 2016

Number of Team Members: [1]

FG Committee Endorsement:

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EVP Approval:

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Team Members

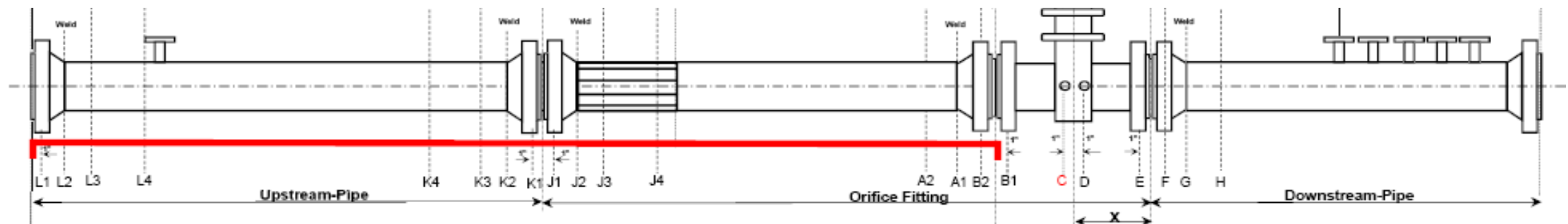


No.	ID	Name-Surname	Contribution (Core Team, Major Support, Or On-call Support)	FG	Dept.	Company Name	Amount (Baht)
1	56014	DANAI CHAISALEE	Core Team	POS	PMI/M	PTTEP	
2	55118	Wattanapong Wipoosanawan	Major support	POS	PMI/M	PTTEP	

Project Summary

➤ Situation

- On Great Bongkot North, The orifice metering tube have to inspected every 5 year in accordance with DMF regulation. Inspection procedure and guideline refer to AGA report no.3 part 2, third edition, February 1991. On 7-17 November 2015 the 5Y metering tube inspection for FE-3810D/E have been executed and found the hard scale problem at the both of the upstream pipe for FE-3810D. The both of upstream pipe have been rejected by PTT and DMF.



Project Summary

➤ Situation

- The both of Up stream Metering Tube have to replace by the new metering Tube but the very high cost impact for Fabrication and machining as per AGA std. is the problem as table below .

BRAND	LEAD TIME	COST
DANIEL	> 1 Year	20 MB/2 upstream metering Tube

Project Summary

➤ Target

- To reduce the cost of the new metering tube at least 80%, by Local fabrication and machining .
- To complete all required maintenance jobs within timeframe as per the commitment with PTT and DMF , by maintaining zero safety incident.
- To develop the EPSPiRiT thinking for Local fabrication and machining without ordering from manufacturer (very high cost impact).



Project Summary

➤ Action

- Procurement the material for fabrication as detail below
 - API 5L GR. L245 16" SCH 160 pipe spools
 - ASTM 105 16" 900# RTJ SCH160 flanges
- Piping and Flange fabrication for 2 piece of new upstream metering tube.
- Metering Tube honing and machining as per AGA report no.3 part 2, third edition, February 1991 (refer to the publish internal roundness from the old metering tube)
- Metering Tube Hydro static test and painting .
- Metering Tube Inspection as per AGA report no.3 part 2, third edition, February 1991



Project Summary



- Result

- All jobs were completed as planned and commitment with PTT and DMF, with no safety incident.
- The both of upstream metering tube have been installed at site and run normally since SD August 2016.
- The total cost for Local fabrication and machining compare with the price of DANIEL brand as table below could be reduced by 88% (17.76 MB).

BRAND	LEAD TIME	COST
LOCAL MADE	August-16	2.24 MB/2 Upstream Metering Tube
DANIEL	> 1 Year	20 MB /2 Upstream Metering Tube

Saving = 17.76 MB !!

Contents

- Which **EP SPIRIT** behavior(s) lead to your achievement?
 - **Explorer** – Be courageous in initiating “Save to be Safe” project to help company reduce purchasing cost under this competitive circumstance of oil & gas business.
 - **Passion** – Strive for the best practice through several months of technical study, vendor qualification, and materials sourcing. Proactively prepare working procedure and inspection check sheets to control job quality of local fabrication and machining of metering tube.
 - **Synergy** – Work seamlessly with relevant taskforces, e.g., offshore team and contractors, in order to achieve the target within timeframe and commitment with PTT and DMF.
 - **Performance Excellence** – Set up challenging target to reduce purchasing cost by more than 80% while good performance and quality of the job.
 - **Innovation** – Find new practical methods for the Metering Tube self fabrication and machining (no need to order from manufacturer) to get better results in the viewpoint of cost and time.

End of Presentation

Appendix