

INTRODUCTION

BHP Billiton Petróleo Operaciones de México, S. De R.L. De C.V. ("BHP") is currently progressing appraisal activities in the Trion field in Mexico to assess the viability of its development. If the field is declared commercial, the development will require an in-field drilling and completion program ("Drilling Program") with the use of Through-BOP Intervention Riser System (TBIRS) equipment.

PURPOSE OF THIS EOI

BHP is soliciting the interest of reputable completions equipment Contractors (hereinafter referred to as "Contractors") experienced in the provision of TBIRS equipment, to develop a list of suitable Contractors who may subsequently be invited into the bidding process for the execution of the here-in described Scope of Work. This process may eventually lead to the award of a contract for the provision of TBIRS equipment.

The EOI seeks to provide prospective Contractors with relevant background information regarding the Trion project and to describe the information to be submitted by prospective Contractors in order to assist BHP in compiling a list of suitable Contractors for further assessment.

Key project metrics and specifications are as follows:

Through-BOP Intervention Riser System SOW Summary			
	General Data		
Location	Deep Water Mexico, Trion Contract Area		
Water Depth	~ 2,500 m / 8,200 ft		
Seabed Temp	4 °C (40 °F)		
BHT Range	55 - 85 °C (132 - 185 °F)		
Number of wells	11 to 18		
	Oil, gas, and water (<0.05 psi partial pressure H2S, up to 1.5 mole % CO ₂)		
Production Wells	Bottom-hole Temperature = 65 - 73 °C (150 - 165 °F) when shut-in or flowing		
	Bottom-hole Temperature = Down to 41 °C (106 °F) during well treatment		
01	Produced gas (<0.05 psi partial pressure H2S, up to 1.5 mole % CO ₂ , 2 lb / MMSCF water)		
Gas Injection Wells	Bottom-hole Temperature = 4 °C (39 °F) minimum when injecting		
	Bottom-hole Temperature = Up to 73 °C (165 °F) when shut-in		
	Treated and filtered seawater, <40 mg/L sulfates, <10 ppb dissolved oxygen		
Water Injection Wells	Bottom-hole Temperature = 7 °C (44 °F) minimum when injecting		
	Bottom-hole Temperature = Up to 73 °C (165 °F) when shut-in		
Control Line Fluid	Water based fluid, nominally 40% glycol		
Rig	TBD		
	Work execution estimated between: 2024 – 2027		
Work Schedule	Surface sections to be batch drilled		
WOIN GOILEGUIE	Average total well drilling duration (including batch section) is 26 days		
	Average total well completion duration is 36 days		



Well Design - Equipment & Tools		
	Flowhead Assembly c/w remote panel, swivel and quick connect	
	Umbilical with reeler, HPU, and clamps	
Primary System Components	Lubricator Valves	
Trimary Gystern Components	Subsea Test Tree c/w shear/seal valves, retainer valve, latch, BOP and annular slick joints, and shear joint	
	BOP Spanner Joint with shear joint, BOP and annular slick joints	
TBIRS Validation	API 17G, Third Edition (preferred)	
Back-up Equipment	100% tool redundancy on rig	
Hydraulic Feed-Thrus	13 for THRT and Upper Completion (TBD)	
Electrical Feed-Thrus	None required	
Max Applied Bore Pressure (mudline)	10,000 psia	
Max Applied Thru-Bore Hydraulic Line Pressure (mudline)	12,500 psia	
	10,000 psi,	
	1,000,000 lb tensile	
Swivel	low-torque (<8,000 ft·lb)	
	Above parameters are required when flowhead is under full tension and full pressure in order to enable use of drillship's DP capabilities	
Shear Capability	Slickline, mono- and multi-conductor wireline, 2 in coil tubing	
Running Equipment	HPU with digital pressure gauges and data recording capability	
rtanning Equipment	Control line & HPU fluid cleanliness: SAE AS4059F or NAS 1638 Class 6 or better	
Drift (minimum)	6.125 in (TBD)	
BOP Ported Slick Joint OD	7.625 in	
Min Tensile Strength (mudline)	500,000 lbs	
Min Tensile Strength (surface)	1,000,000 lbs	
Chemical Injection Fluid	Methanol / Glycol	
Control Fluid	HW540 or equivalent	
Completion Fluid Type	CaBr ₂ / CaCl ₂ with MEG and other additives (TBD)	
Completion Fluid Density	9.5 ppg – 11 ppg	
Stimulation Fluid Types	HCI, HF, Acetic acid, Formic Acid, Xylene, Toluene	
Sumulation Fluid Types	All fluids to be blended with inhibitors and other additives (TBD)	



Services	
	All necessary equipment and services required to execute the drilling programs and well designs including:
Technical Support and Facilities	Onshore support base
	 Technical engineering support in BHP's office in CDMX.
	 Appropriate facilities for storage and maintenance of equipment.
	 Qualified engineers, technicians, supervisors and operators for equipment maintenance and services.
	Note: All fluids, equipment and facilities must be fully compliant with local regulations and industry best practices.

Logistics	
Trion Field Location	180 km East off the coast of Tamaulipas (Matamoros)
BHP Rig operations Shorebase	Likely to be in Altamira/Tampico Note: If required contractor to provide transportation of the Contractor's Equipment and Contractor's Goods and Consumables between Contractor's Operations Base and BHP's Supply Base or Shorebase.
Heliport	Likely to be in Matamoros

Minimum Personnel Requirements	
Contract Coordinator / Engineer	Yes, at supplier's Mexico office
Field Engineer / Technician	Yes, offshore (4)

HSE	
Minimum requirements	Must comply with BHP's HSE requirements and local regulations, including COVID-19 protocols (if applicable).

Any entity responding to this EOI must have the capacity and capability to safely provide and install the Through-BOP Intervention Riser System equipment, which meets or exceeds the specifications noted above without co-venturing for supply.

Note: The scopes and specifications presented in this document are the most accurate estimates at this time and are subject to change. Any information included in this EOI is not to be associated with any other EOI or tender from BHP.



INFORMATION REQUIRED FROM PROSPECTIVE CONTRACTORS

Interested Contractors must provide the information requested below in order to be considered for further assessment (this information is also listed in the attached Expression of Interest (EOI) Response Form).

Company Name:	
Legal Entity Name (if different from Company Name):	
Company Type (Please check one):	☐ Local ☐ Foreign ☐ Joint Venture (JV) If JV, please list involved Companies:
Mailing Address:	
Country:	
Designated Contact (name and title):	
Email Address:	
Telephone:	
Year Company founded:	
Website URL:	
Please list your top three (2-3) competitors:	
Please list your top five (5) clients:	
Number of years' experience operating in Mexico:	
Deepwater Operating Experience:	
Anticipated lead time (per well if possible) required to support the proposed scope:	
Anticipated Mexican content (local Content) in your operation:	

Confirmation of Interest – prospective Contractor is requested to confirm their company interest and compliance with requirements outlined in this EOI Letter by completing and signing the EOI Response Form.



EOI RESPONSE SUBMISSION REQUIREMENTS

Prospective Contractors interested in participating in the identification/assessment process must download, complete and sign the EOI Response Form attached. This Form should be signed by a legal representative of the Contractor. The representative's name should also be printed where requested. The electronic version of the Form is located at https://www.bhp.com/our-businesses/petroleum/trion/, and submit to the following inbox:

BHP Petroleum (BHP)

jorge.je.hermosilla@bhp.com

Submissions should be made electronically by no later than close of business 5:00 pm (CST) on 7 May 2021. BHP reserves the right not to accept submissions after this time. Submissions must be kept short and concise. Please endeavor to keep the submission under 5 MB, if possible.

Please note that this invitation to submit expression of interest does not constitute a formal request for quotation or proposal, nor is it intended to create any expectations regarding future business dealings between BHP and recipient.

All EOI documents will become and remain BHP's property. BHP shall not be liable in any respect for any costs, damages, charges or expenses incurred by the contractor in relation to preparing or submitting this EOI response. BHP reserves the right to accept or reject any or all EOI submissions that may be received related to the services requested. BHP reserves the right to change the requirements of this EOI, terminate further participation in the EOI process and change or terminate the contracting process at any time.

Thank you in advance for your willingness to respond to this EOI. We look forward to hearing from you. Should you have any questions or issues regarding the process outlined above, please contact the undersigned at iorge.ie.hermosilla@bhp.com

Sincerely,

Jorge Hermosilla

Principal Value Chain, Drilling & Completions

BHP Billiton Petroleum

Enclosures:

Expression of Interest (EOI) Response Form