

# INVITATION TO SUBMIT EXPRESSIONS OF INTEREST (“EOI”)



## 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 Upper Completion equipment.

## PURPOSE OF THIS EOI

BHP is soliciting the interest of reputable Drilling Contractors (hereinafter referred to as “Contractors”) experienced in the provision of Upper Completion 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 Upper Completion 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:

Trion Upper Completion SOW Summary	
General Data	
<i>Location</i>	Deep Water Mexico, Trion Contract Area
<i>Water Depth</i>	~ 2,500 m / 8,200 ft
<i>Well Depth Range</i>	~ 4,500 - 5,500 m MD/ 14,800 - 18,000 ft MD
<i>BHT Range</i>	55 - 85 °C / 132 - 185 °F (4°C / 40°F Seabed Temp)
<i>Number of wells</i>	11 to 18
<i>Production Wells</i>	Oil, gas, and water (<0.05 PSI partial pressure H <sub>2</sub> S, up to 1.5 mole % CO <sub>2</sub> ) Bottomhole Temperature = 65-73 C (150-165 F) when shut-in or flowing, down to 41 C (106 F) during well treatment
<i>Gas Injection Wells</i>	Produced gas (<0.05 PSI, up to 1.5 mole % CO <sub>2</sub> , 2 lb / MMSCF water) Bottomhole Temperature = 4 C (39 F) minimum when injecting, up to 73 C (165 F) when shut-in
<i>Water Injection Wells</i>	Treated and filtered seawater, < 40 mg/L sulfates, <10 PPB dissolved oxygen Bottomhole Temperature = 7 C (44 F) minimum when injecting, up to 73 C (165 F) when shut-in
<i>Casing @ Setting Depth</i>	9.875" 62.8 ppf P110 (8.500" drift)
<i>Control Line Fluid</i>	Water based fluid, nominally 40% glycol
<i>Rig</i>	TBD
<i>Work Schedule</i>	Work execution estimated between: 2024 – 2027 Surface sections to be batch drilled. Average total well drilling duration (including batch section) is 26 days. Average total well completion duration is 36 days.

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Well Design - Equipment & Tools	
<i>Materials</i>	<p>Unless specified otherwise, Producer and Gas Injector tubular goods shall be S13Cr to 95 KSI MYS. MYS &gt;95 KSI shall use Ni alloy such as A718.</p> <p>Water injectors shall use 1Cr API T95, AISI 4130 or AISI 4140 up to 110 KSI MYS and 25Cr or Ni alloy for &gt;110 KSI MYS. 13Cr shall not be used in water injector service.</p> <p>CRA shall be used for all areas with critical finish or tortuous flow.</p> <p>Producer soft goods are expected to be Viton. Low-temperature injection service may require the use of HNBR.</p>
<i>Control Lines (possible free-issue from Company)</i>	<p>SCSSV: dual 0.25" OD x 0.049" WT A825 seamless and encapsulated</p> <p>Upper Cl: single 0.50" OD A825 or A825-EP, encapsulated</p> <p>Lower Cl: single 0.25" OD or 0.375" OD A825 or A825-EP, encapsulated</p> <p>DHFC: triple 0.25" OD x 0.049" WT A825 seamless and encapsulated</p>
<i>Fittings</i>	All hydraulic line fittings to be an externally testable, anti-vibration design. Ni alloy construction preferred.
<i>Chemical Injection (Producers and Gas Injectors Only)</i>	<p>4-1/2" S13Cr-95 premium connection mandrels w/ gas-tight dual-check chemical injection valve, API 19AC or TR2385 qualification.</p> <p>Back-pressure valve with up to 2000 PSIG at 0.2 GPM may be required for deep-set chemical injection.</p>
<i>Landing Nipples</i>	<p>5-1/2", 4-1/2", 3-1/2" and 2-7/8"</p> <p>No-Go locating with minimal ID loss</p> <p>10K minimum, API 14L V1 qualification for associated lock mandrel</p> <p>Ni alloy construction</p>
<i>Splice Sub</i>	Control line termination assembly complete with inline filters for all multi-zone completions
<i>Production Packer</i>	10K minimum, API 11D1 / ISO 14310 V0 required, with up to five feed-thrus
<i>DHFC Valves (Producers and Gas Injectors only)</i>	<p>On / Off Type</p> <p>4.5" Upper and 3.5" (shrouded) Lower</p> <p>10,000 PSI valve differential / 12,500 PSI control chamber</p> <p>CRA (Ni alloy preferred) body with carbide insert</p> <p>Gas injection valve to be equipped w/blast shield</p> <p>Upper valve w/internal LN profile to accommodate pack-off or plug</p> <p>Lower valve with pressure-containing shroud and LN profile for diverter plug</p> <p>Each valve equipped w/shifting profile for manual valve operation</p> <p>Gas DHFC valve control chamber seals must be proven gas tight with zero leakage under dynamic and static service at minimum injection temperature (possible added scope of work)</p>
<i>Quick Connect</i>	Non-rotating, externally-testable 10K connection
<i>TSOJ Kit</i>	10,000 PSIG, shear to release, up to 120 ft stroke, 4" chevron-type seals preferred

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Trion Upper Completion SOW Summary	
<i>Running Equipment</i>	<p>HPU w/ electronic pressure gauges and data logging capability for downhole line monitoring and testing</p> <p>Control line and HPU fluid cleanliness: SAE AS4059F or NAS 1638 Class 6 or better</p>
<i>Back-up Equipment</i>	100% tool redundancy on rig
Services	
<i>Technical Support and Facilities</i>	<p>All necessary equipment and services required to execute the drilling programs and well designs including:</p> <ul style="list-style-type: none"> <li>Onshore support base</li> <li>Technical engineering support in BHP's office in CDMX.</li> <li>Appropriate facilities for storage and maintenance of equipment.</li> <li>Qualified engineers, technicians, supervisors and operators for equipment maintenance and services.</li> </ul> <p><i>Note: All fluids, equipment and facilities must be fully compliant with local regulations and industry best practices.</i></p>

Logistics	
<i>Trion Field Location</i>	180 km East off the coast of Tamaulipas (Matamoros)
<i>BHP Rig operations Shorebase</i>	<p>Likely to be in Altamira/Tampico</p> <p><i>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.</i></p>
<i>Heliport</i>	Likely to be in Matamoros

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

HSE	
<i>Minimum requirements</i>	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 provide and safely provide and install the Upper Completion equipment that meet or exceed the specification 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.

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## 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).

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

**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.

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## 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)  
[jessica.ruiz@bhp.com](mailto:jessica.ruiz@bhp.com)

**Submissions should be made electronically by no later than close of business 5:00 pm (CST) on 5<sup>th</sup> April 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 [jessica.ruiz@bhp.com](mailto:jessica.ruiz@bhp.com)

Sincerely,

Jessica Ruiz  
Principal Category Management  
BHP Billiton Petroleum

Enclosures:  
Expression of Interest (EOI) Response Form