

# Commencement of 3D seismic reprocessing at the first of three major prospect areas

## Highlights

- Commencement of seismic reprocessing targeting the extensive Bonito and Volador prospects in the southern portion of the Company’s 4,585km<sup>2</sup> offshore Peru oil and gas block
- The Bonito and Volador prospect area is the first of three prospective areas to be reprocessed – a total of at least 1,000km<sup>2</sup> of 3D seismic is to be reprocessed
- Reprocessing expected to enhance structure mapping, improve lithology and fluid discrimination and allow for the estimation of prospective resources and progress through to drill ready targets

Global Oil and Gas Limited (ASX: GLV) (**Global** or **Company**) is pleased to provide a further update on its 4,585km<sup>2</sup> Tumbes Basin Technical Evaluation Agreement (TEA or block) offshore Peru. The block comprises over 3,800km<sup>2</sup> of existing 3D seismic data and more than 7,000km of 2D seismic.

The Company propose to reprocess a total of approximately 1,000km<sup>2</sup> of 3D seismic data across three discrete highly prospective areas within the offshore block. The first prospective area to be reprocessed is a 250km<sup>2</sup> area in the southern part of the TEA incorporating the Bonito and the Volador prospects.

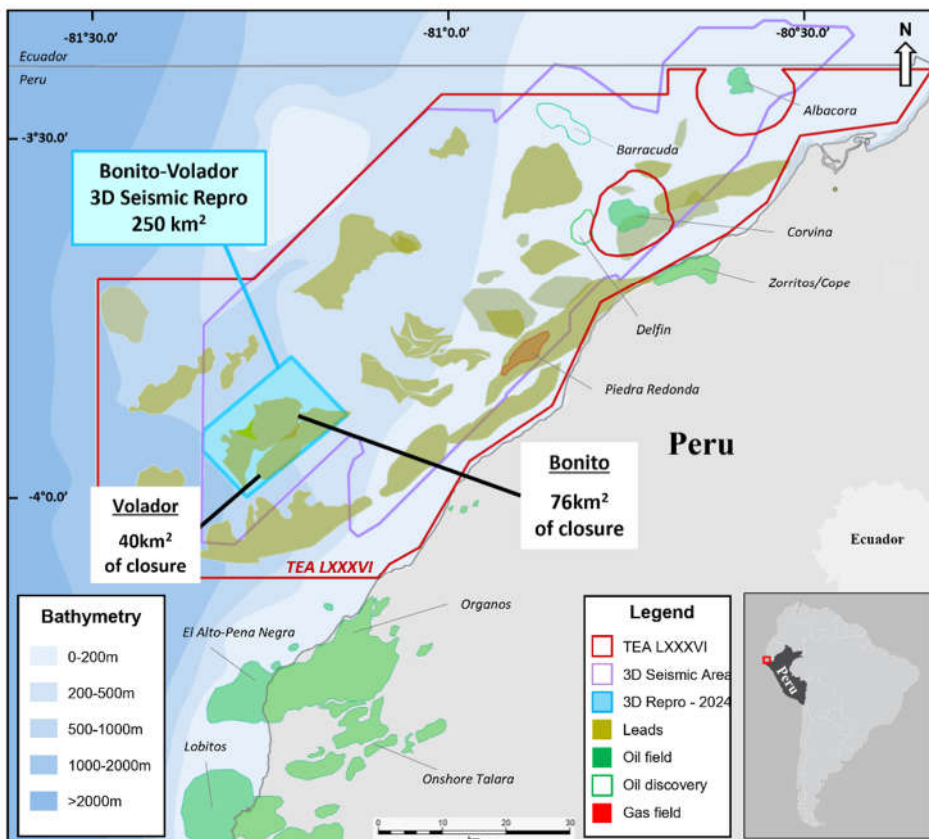


Figure 1 – Bonito/Volador seismic re-processing area

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From the interpretation of the historically processed data it is clear that both these prospects have the potential to hold significant hydrocarbon volumes. The reprocessing of the 3D seismic data will enable Global to estimate Prospective Resources and progress the prospects to drill ready status.

**Bonito Prospect**

The Bonito prospect is a large anticlinal feature with 76km<sup>2</sup> of closure (Figures 2 and 3) where the Zorritos Formation, the primary reservoir in the basin, is at a depth of c. 2,050m (~1,500m sub-sea).

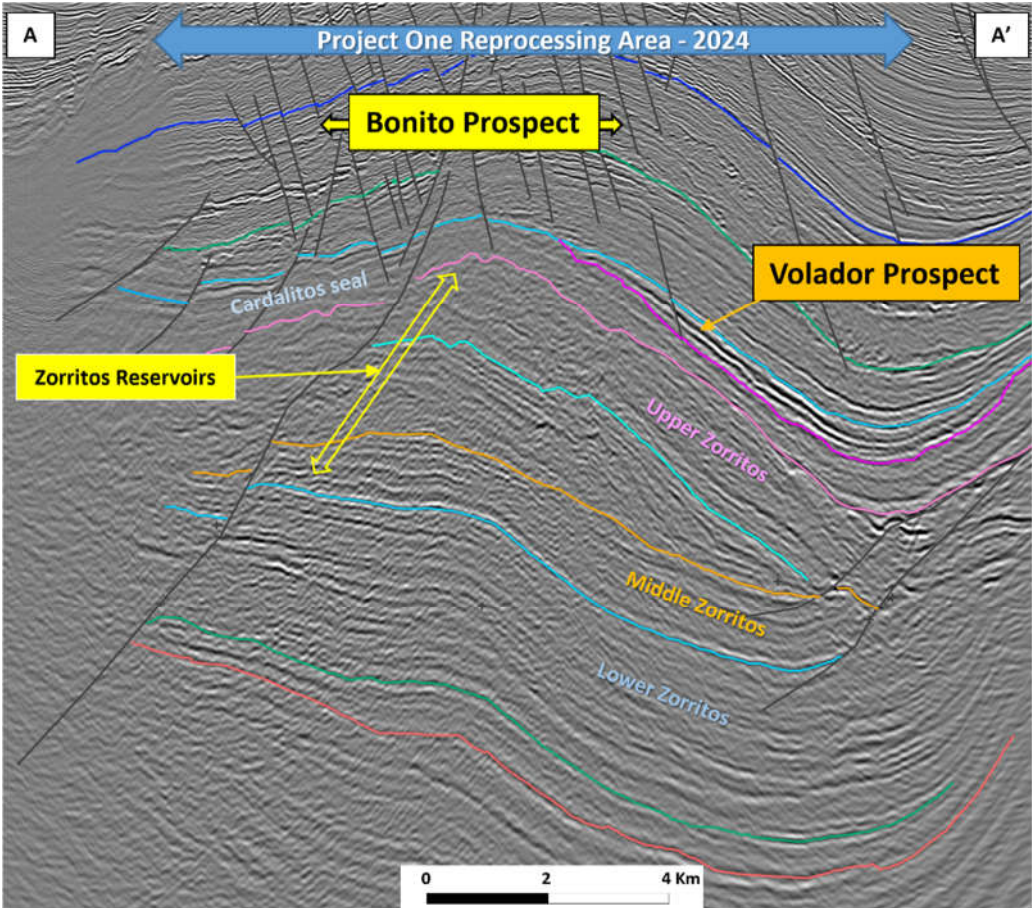


Figure 2 – Bonito/Volador illustrative seismic section. Locations in Figure 3.

The Tumbes Basin has a complex geological history related to the forces created by the Pacific Plate colliding with, and being subducted beneath, the South American Plate. Periods of faulting and rapid subsidence are interspersed with periods of compression and uplift thought to be responsible for forming the Bonito structure.

Seismic reprocessing should result in improvements to the data quality that will improve both the accuracy of depth mapping and the ability to discriminate lithology and fluids which would ultimately result in the Company’s ability to estimate the potential volumes of hydrocarbons to be contained, select potential exploration well locations and mature prospects to drill ready status.

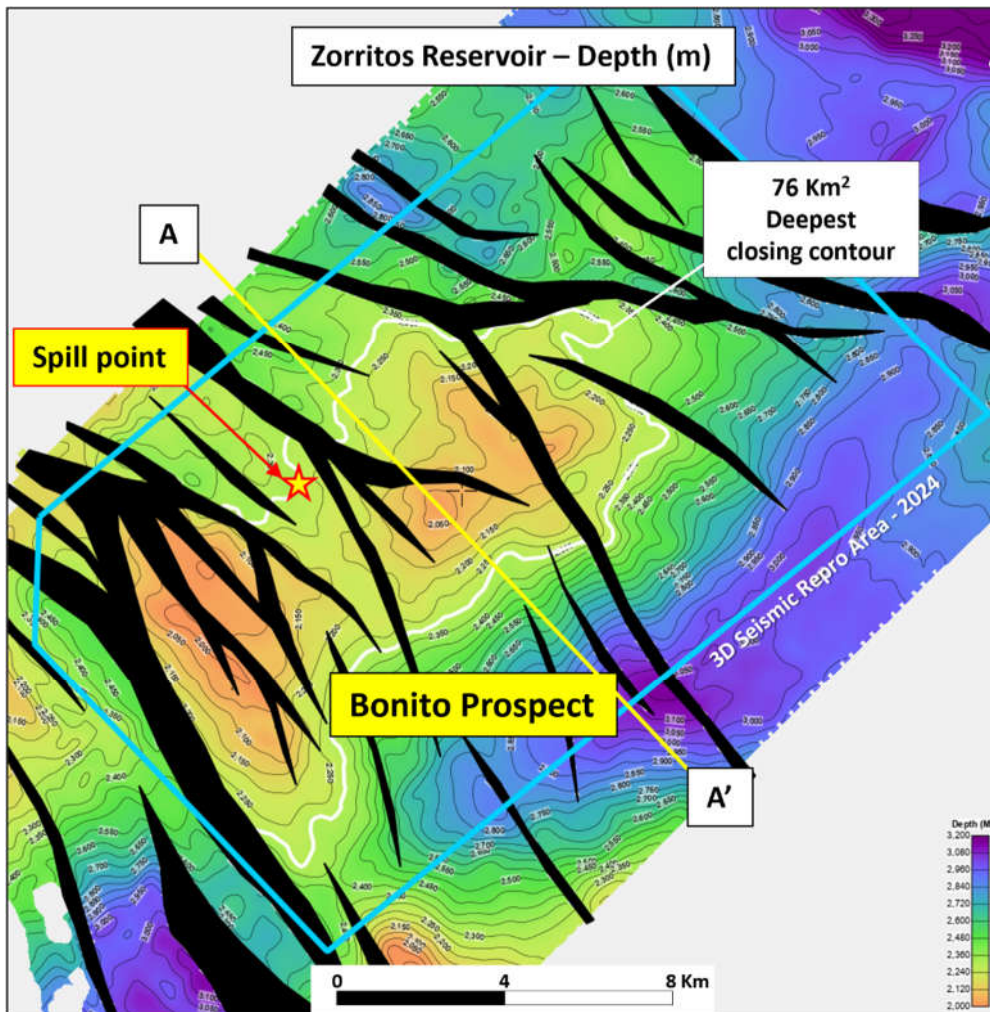


Figure 3 – Bonito Prospect: Depth contour map at the Zorritos level

### **Volador Prospect**

The 40km<sup>2</sup> Volador prospect is identified by anomalously bright amplitudes (Figure 4) within the Cardalitos Formation, which unconformably overlies the Zorritos Formation.

The Cardalitos is generally regarded as a potential source rock in the Tumbes Basin comprised of non-reservoir shales however there were deep incised canyons and channels through which pulses of turbiditic sands were deposited. These turbiditic sequences are generally recognised based on their seismic character.

Once the seismic data is reprocessed, various lithology discrimination techniques will be applied to determine Prospective Resources and potentially progress to a drilling target.



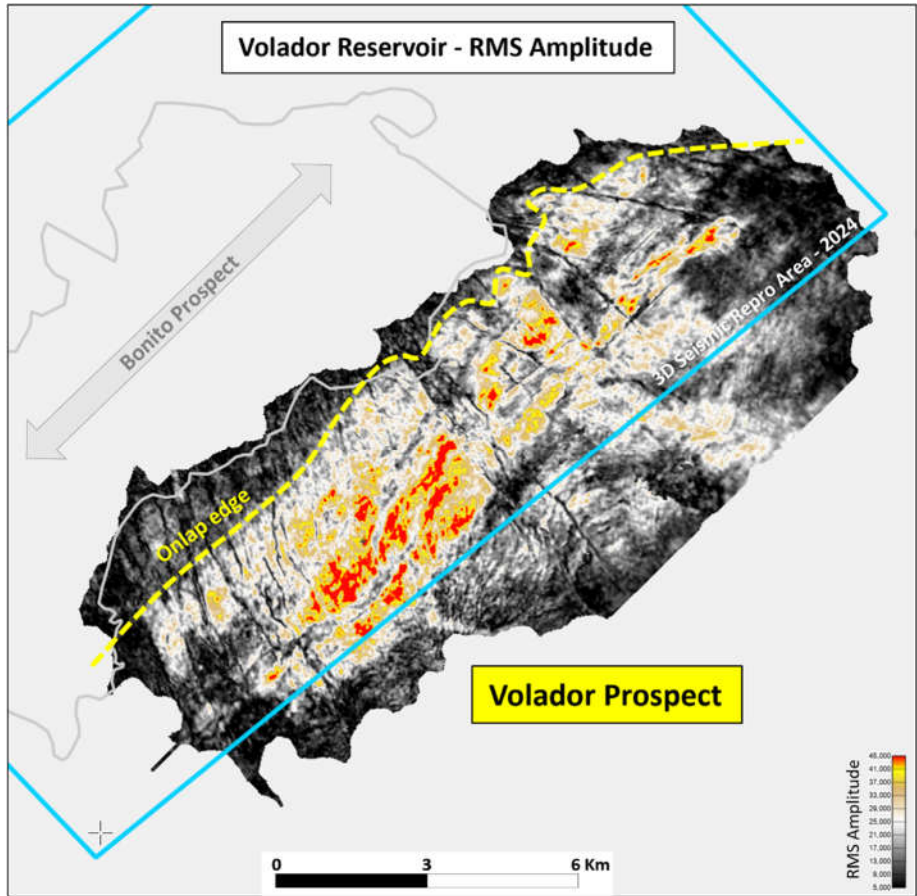


Figure 4 – Volador Prospect: Seismic amplitude map

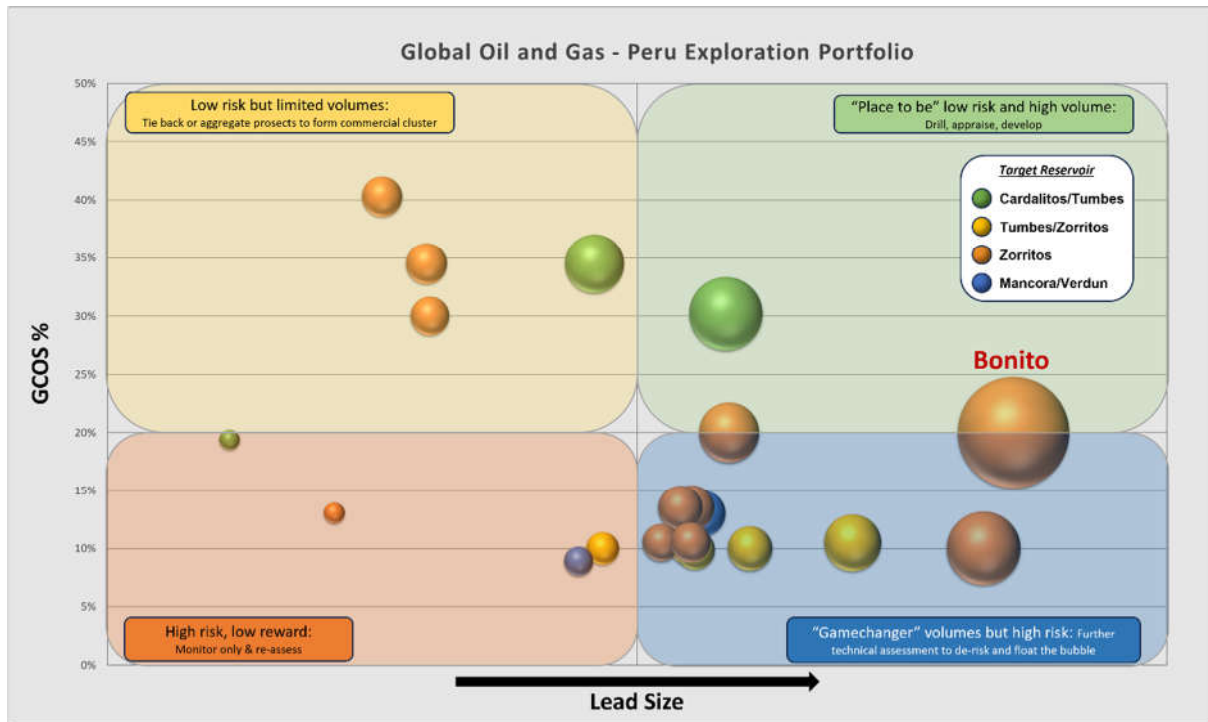
As part of the collation and review of historical data produced by previous operators and PeruPetro (State company responsible for the administration and promotion of oil and gas exploration in Peru), more than twenty prospects and leads have been identified.

A portfolio plot (Figure 5) is used by the Company to compare the estimated un-risked mean resource size against the geological chance of success (GCOS) with the size of the bubble representing the risked resource volume (mean resource volume multiplied by the percentage GCOS). The current plot is an overall representation of the portfolio and at this stage is not a representation of the work done by the Company.

Bonito is currently the largest prospect in the portfolio. The reprocessed seismic will be used to improve the fidelity of structural mapping and to apply various Quantitative Interpretation and Artificial Intelligence methodologies to further improve imaging of the reservoir and to attempt to discriminate lithology and fluid content.

It is expected that both the size and relative risking of Bonito will change with the aim of migrating it to the top right quadrant of the portfolio plot as a large prospect with a high chance of success and maturing it to drill ready status.

The seismic reprocessing is being undertaken by Advanced Geophysical Technologies (“AGT”) in Houston, Texas. AGT were selected through a competitive tender process based on their track record of delivering high quality products using innovative technology including various patented processes applicable to the imaging challenges presented by the Tumbes Basin.



**Figure 5** – Tumbes TEA leads (with Bonito labelled) based on public domain data, information from previous Operators and PeruPetro. The schematic plot compares the potential size of the leads with the geological chance of success (GCOS%). The size of the bubble represents the potential risked volume (mean volume multiplied by the confidence of success)

The Company is currently finalising the location of the remaining two seismic reprocessing targets and will report on progress once the selection process is complete.

**Director Scott Macmillan commented:**

*“The Tumbes TEA evaluation is firmly on-track. We are looking forward to seeing the results of our first seismic reprocessing project and the application of the latest geophysical technologies across our whole 3D dataset. Bonito has the potential to be a world class drilling target however we are spoilt for choice across our portfolio and the real challenge may be picking our first drill target from a host of standout prospects.”*

Authorised by the Board of Global Oil & Gas Limited.

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**Competent Persons Statement**

The information in this report is based on information compiled or reviewed by Mr Scott Macmillan, Non-Executive Director of Global Oil and Gas Limited. Mr Macmillan is a Reservoir Engineer with more than 15 years’ experience in oil and gas exploration, field development planning, reserves and resources assessment, reservoir simulation, commercial valuations and business development. Mr Macmillan has a Bachelor degree of Chemical Engineering and an MSc in Petroleum Engineering from Curtin University and is a member of the Society of Petroleum Engineers (SPE).