

# Flex LNG Producer 1 Project

## Bulk CO<sub>2</sub> Removal Study

Customer: Kanfa Aragon

### Services Provided

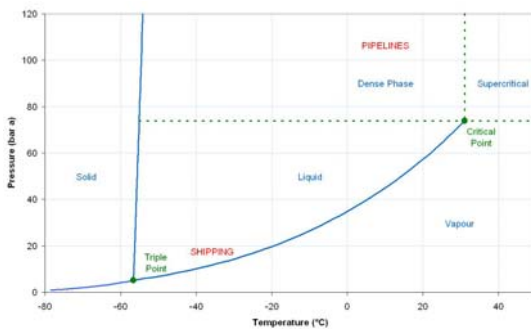
- Conceptual technology screening consultancy
- Process design

### Benefits to Customer

- Continuation of existing close working relationship
- Experience and capability of CO<sub>2</sub> removal and reinjection technologies
- Comprehensive evaluation of key selection criteria, high level risks and HSE considerations



CO<sub>2</sub> Phase Diagram



### Background

This study follows on from work previously performed with Kanfa Aragon on Flex LNG Producer 1 Project, which is designed to produce in excess of 1.7MTPA of LNG.

### Project Description

- This was a field specific study for a feed gas containing a significant amount of CO<sub>2</sub>.
- Technologies such as amine, membranes, physical solvent, molecular sieves, hot potassium carbonate and cryogenic fractionation were reviewed in order to meet 50ppmv LNG liquefaction feed specification.
- Costain introduced vendors offering the latest proprietary technologies.
- Key criteria such as CAPEX, weight, offshore suitability, OPEX, layout, functionality and operability were considered in the selection.
- Modifications to the LNG production vessel's other process and utility systems design were assessed to enable the selected technology to be integrated.
- In addition, a conceptual study for a topside CO<sub>2</sub> reinjection facility was performed.

LNG Producer image courtesy of Flex LNG and Samsung Heavy Industries