

# Principal Petroleum Production Engineer - Rosebank, Johannesburg

## Company

Sasol Petroleum International (SPI) is the E&P division of Sasol, one of the top 50 global energy companies. SPI has operations in Mozambique and Papua New Guinea and interests in South Africa, West Africa, and Australia.

SPI's strategic focus is exploration and monetisation of stranded gas. Its current equity production is 40,000 boepd and it is in the middle of an expansion project to increase production to 55,000 boepd by 2011. The company strategy is to achieve 150,000 boepd by 2025.

## Department

The Technical Services function of SPI consists of Petroleum Engineering, Geoscience, Projects & Engineering, and Value Assurance and is made up of a team of 35 professionals, split between Johannesburg and London. The department is headed by General Manager of Technical Services, who sits on the Executive Committee of SPI and reports directly to the Managing Director.

The role of Technical Services is to ensure that SPI's strategic, tactical and operational decisions are well founded on sound technical study and analysis in line with good oilfield practice. This is achieved by maintaining a well-resourced function of skilled staff provided with the necessary technology and applying appropriate practices and processes.

## Position Summary

To provide high quality operational reservoir engineering support to the development, operation and reservoir management of the onshore Mozambique assets. To work with Temane CPF staff to optimise production planning, well testing, pressure surveying, wireline interventions and other maintenance and production enhancement activities. To assist with functional initiatives, training and supervision of junior members of the group and managing technical work carried out by specialist consultancies.

## Job Requirements

### Qualifications and Capabilities

- Bachelor degree in a strongly mathematical or physics-oriented subject is required.
- MSc or PhD in petroleum engineering or reservoir engineering would be an advantage.
- Fluency in written and spoken use of the English language is required. Knowledge of Portuguese would be an advantage.
- Current and up to date software capability using office and collaborative applications is required.
- Excellent written and spoken communication skills are required.
- Ability to work alone under own initiative, or in close collaboration with other engineers as part of a team is required.
- Ability to perform analysis, interpretation and problem solving at all levels of complexity with varying volumes of data is required.
- Ability to work in a geographically dispersed virtual team is desirable. This will include the recognition of the need for occasional inter-continental travel.
- Understanding of and willingness to work in a matrix organisation is required

- Understanding of the importance of Sasol Values and other Sasol Group working policies is required

### **Specific Expertise and Experience**

- In-field management experience of well production operations (e.g. well testing, pressure surveying, cased-hole logging and wireline interventions) is required
- Expertise in well test analysis, nodal analysis, material balance analysis and production monitoring techniques is required.
- Expertise in the construction, running, history-matching and prediction running of reservoir simulation models, together with the incorporation of geological models, would be an advantage.
- Experience in running a production allocation system would be an advantage.
- Understanding of the planning and interpretation of PVT analysis would be an advantage
- Understanding of the planning, acquisition and interpretation of modern cased-hole logs is desirable.
- Current capability with nodal analysis, well test analysis and production monitoring software is required. OFM, Saphir and Petroleum Expert IPM suite expertise is desirable.
- Experience of working in the exploration and exploitation of oil and gas assets is required
- Experience in reservoir development studies and field development planning would be an advantage.
- Experience in well and well test design, detailed planning and operational guidance is required.
- Operational experience of gas and gas condensate field appraisal, development and operation is required.
- Operational experience in both sandstone and carbonate environments would be an advantage.
- Experience in CO<sub>2</sub> EOR or carbon sequestration operations would be an advantage.
- Experience of unconventional resources (coal bed methane, shale gas, tight gas sands) operations and studies would be an advantage.
- Experience with resources estimation methodology and knowledge of SPE-PRMS in particular would be an advantage.
- Experience of participating in data room evaluations would be an advantage.
- Experience in partnership/JV operations would be an advantage.

### **Required Outputs: Functional (The core content and deliverables of the position)**

- Provide detailed well production planning schedules to the Temane CPF operations team incorporating anticipated sales nominations, data gathering requirements, well potentials and the field depletion policy.
- Schedule, plan, oversee and interpret well tests, static pressure surveys and FBU tests.
- Operate SPI's well and production allocation system. Super-user of SPI's Integrated Gas Production System (IGPS) and focal point in the Rosebank office.
- Monitor well production performance on a frequent basis to identify opportunities for production enhancement.
- Recommend, schedule, plan and oversee remedial well activities as and when required.
- Construct and maintain a detailed nodal model of the Mozambique onshore production network.
- Provide sound operational reservoir engineering input during the multi-discipline well planning process to ensure a safe, optimal and cost effective data acquisition, drilling and testing programme fulfilling all objectives.

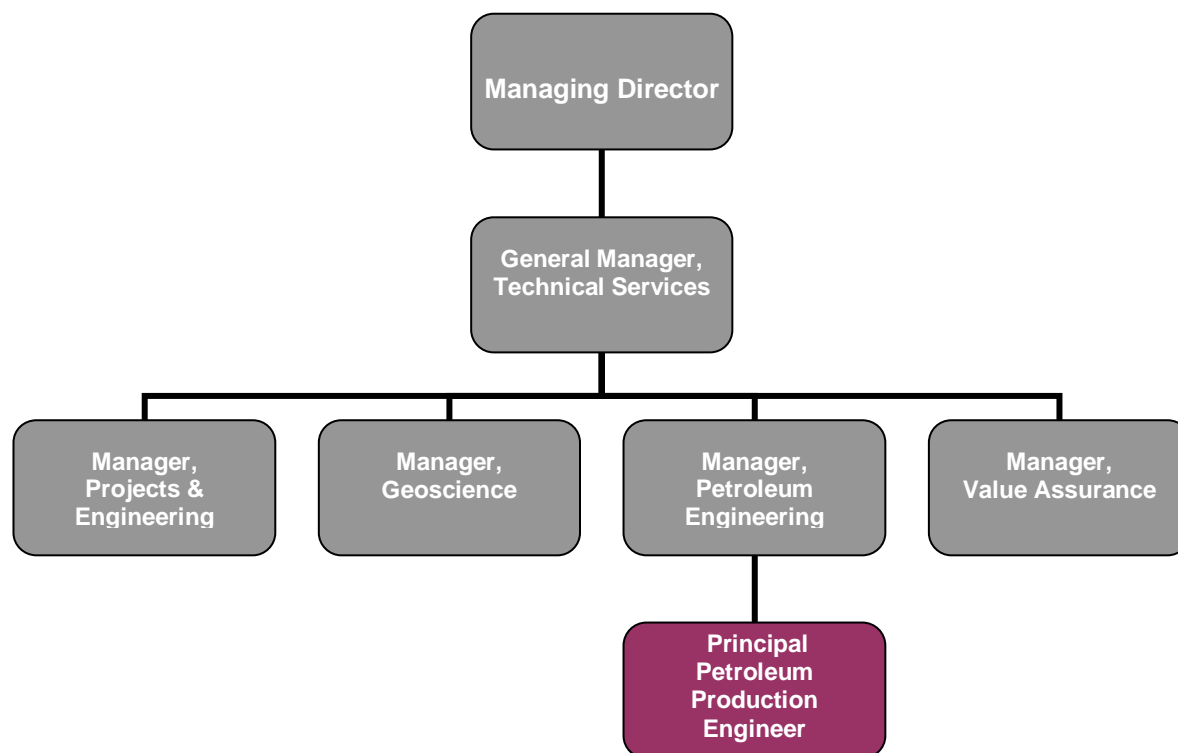
### **Required Outputs: General (Overall objectives/Key Areas of Performance)**

- Provide highest standards of collaborative support to the Mozambique Asset Manager.
- Represent SPI interests in external dealing with contractors, consultants and industry forums
- Support SPI interests on joint projects – influence the operator in non-operated situations
- Report to Manager, Petroleum Engineering on functional production engineering matters

**Person Attributes: Competencies (Skills, Knowledge and Characteristics – Critical / Desirable)**

Competency	Must	Wish	Weight 1-10
Expert technical and analytical (production engineering) skills	X		10
High technical and personal work standards	X		10
Technical report writing and presentation skills		X	6
Team working (virtual), collaboration and interpersonal skills	X		8
Ability to work on own initiative	X		8
Setting goals and achieving them	X		8
Meeting deadlines and targets	X		8
Ability to work with varying volumes of data		X	5
Ability to work at all levels of complexity		X	5
Embracing new ideas/strategies/technologies		X	7
Flexibility to adapt to changes	X		8
Innovation and creativity		X	7
Communication and influencing skills	X		8
Management, Leadership & Development of others		X	6
Motivating others to achieve targets	X		8
Project Management Skills	X		8
High awareness of SHE matters	X		8
Managing diverse groups		X	6
Willingness to travel (to field operations)	X		8

**Organisational Structure/Position**



For further information and a confidential discussion please contact Liz Gardner at Simpson Crowden LLP on +44(0)7801 711372.

To apply please visit our website: [www.simpsoncrowden.com/sasol](http://www.simpsoncrowden.com/sasol) and follow the links, or email your CV and covering letter to [sasol@simpsoncrowden.com](mailto:sasol@simpsoncrowden.com) quoting reference **R177**.