



**MINISTRY OF EDUCATION  
CURRICULUM PLANNING AND DEVELOPMENT DIVISION  
OCCUPATIONAL RESEARCH UNIT**

# **OCCUPATIONS IN ENERGY**

**(OIL and GAS)**

**DICTIONARY OF OCCUPATIONS FOR TRINIDAD AND TOBAGO  
(DOTT)  
2010**

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## **FOREWORD**

The energy sector has powered Trinidad and Tobago to success as the Caribbean's largest and strongest economy. By the year 2006 the country had cemented its place as an international leader in energy production, and stood as the fifth largest producer of liquefied natural gas (LNG) in the world.

The country is experienced in exploration, production, refining and other plant process operations. This experience dates back to 1857 when the first oil well was drilled in Trinidad. Since then, oil and, more recently, natural gas have been the major contributors to the gross national product of the country. As of 2008, they accounted for nearly 48% of the country's gross domestic product (GDP), and represented over 80% of the country's export earnings.

Given the maturity of the energy sector in Trinidad and Tobago, its natural resources are supported by a large number of skilled, experienced and well-trained people. Also, there are a significant number of service companies, which provide support to the major producers. These companies provide a wide range of services in fields such as cementing, engineering, instrumentation, automation and inspection.

While it is difficult to predict growth in the energy sector due to fluctuating commodity prices, the sector will continue to be the lifeblood of the economy of Trinidad and Tobago for some time to come.

Given the dynamic nature of the sector and the emerging technologies associated with it, the sector will continue to provide a wide range of opportunities requiring many competencies which jobseekers will find quite attractive.

While the current publication is not an exhaustive compilation, research in the sector contains and additional titles will be incorporated in future publications.

## **ACKNOWLEDGEMENTS**

The publication ‘Occupations in Energy’ was produced by the Occupational Research Unit of the Ministry of Education as part of its mandate to update the Dictionary of Occupations for Trinidad and Tobago (DOTT).

The cooperation of the many establishments and individuals who facilitated the job analysis and verification exercise or offered helpful suggestions is appreciated. Special thanks are due to the Petroleum Company of Trinidad and Tobago Limited (Petrotrin), the National Gas Company of Trinidad and Tobago Limited (NGC) and Phoenix Park Gas Processors Limited.

The assistance of the Ministry of Education’s Corporate Communications Division and the Machine Room are acknowledged.

## UPDATING OF THE DOTT

Occupational changes take place quite frequently in response to technological developments, organizational restructuring, new industrial agreements or other factors.

The Occupational Research Unit in the Ministry of Education would welcome information on the development of new occupations or changes in occupations to facilitate periodic updating of the Dictionary of Occupations for Trinidad and Tobago (DOTT).

We also welcome your comments/questions on format and content.

Information or queries may be directed to:

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# INTRODUCTION

The current compilation forms part of the Dictionary of Occupations for Trinidad and Tobago (DOTT) which was first published in 1992 and which consists of an occupational classification and coding system and descriptions for occupations found in Trinidad and Tobago.

Preparation of the current publication consisted of updating occupations previously published in DOTT 1992 and adding new occupations which came into existence subsequently or which were not previously analysed.

Research was conducted with the assistance of personnel from establishments in the public and private sectors and professional bodies. It consisted of on-site job analysis involving direct observation of workers, interviews with workers, their supervisors and senior managers, and consultation with experts.

The term “occupation” is applied to a group of jobs having common or closely related responsibilities and duties, occurring in representative establishments all over the country. As such, the occupational descriptions in the DOTT present average pictures of what takes place in Trinidad and Tobago and do not correspond precisely with any one establishment, unless that establishment is unique.

Occupational descriptions in the DOTT describe the type of work performed, not the person doing the work. A deliberate attempt is made to eliminate the use of sexually biased terminology, although at times it is not possible to eliminate it altogether.

## STRUCTURE OF THE CLASSIFICATION

The occupational classification is modeled on the International Standard Classification of Occupations (ISCO-08) which places occupations into groups based on the criteria of work performed and skill or ability necessary to carry out the relevant duties, ranging in a progression from the broadest to the most detailed level of aggregation. However, the ISCO has been adapted to reflect the occupational structure of Trinidad and Tobago.

Occupations are classified into MAJOR, SUB-MAJOR, MINOR and UNIT groups based on similarity of work performed.

**Major Groups** are the broadest grouping of occupations. Apart from Major Group 0, the groups are based on the skill levels of workers and on very general areas of economic activity and are a convenient means of grouping all occupations falling within these wide fields of work. The Major Groups are as follows:-

- Major Group 1 Managers
- Major Group 2 Professionals

- Major Group 3 Technicians and Associate Professionals
- Major Group 4 Clerical Support Workers
- Major Group 5 Service and Sales Workers
- Major Group 6 Skilled Agricultural, Forestry and Fishery Workers
- Major Group 7 Craft and Related Trades Workers
- Major Group 8 Plant and Machine Operators and Assemblers
- Major Group 9 Elementary Occupations
- Major Group 0 Defence Force.

**Sub-major Groups** are divisions of the respective Major Groups. These are based on skill specialization relating to the field of knowledge required, the tools and machinery used, materials worked on or with, and the kinds of goods and services produced.

**Minor Groups** are a breakdown of Sub-Major Groups and also a collection of Unit Groups. The groupings at this level are still fairly general.

**Unit Groups** are the most specific grouping of occupations. They are basic groups of occupations in which the main tasks have many similar characteristics. Unit Groups thus have occupational homogeneity and there is a closer relationship between occupations in the same Unit Group in terms of work performed than between occupations from different Unit Groups.

## COMPONENTS OF AN OCCUPATIONAL DESCRIPTION

Each occupational description has the following seven basic components:-

- i. Occupational Code Number;
- ii. Base Title, sometimes followed by Alternate Title(s);
- iii. Occupational Definition;
- iv. Statement of Duties;
- v. Related Job Titles, if any,
- vi. Education/Training and Experience Requirements and
- vii. Occupational Profile

### Occupational Code Number

Six-digit code numbers are provided for all unique occupations in the DOTT. The first digit denotes the Major Group, the first two digits denote the Sub-Major Group, the first three digits denote the Minor Group, and the first four digits denote the Unit Group. The entire six-digit code number, including the two digits right of the decimal point, indicates the occupational category.

In the present energy document, it may sometimes appear that there are gaps in the final two digits. This is because codes have been assigned as part of the entire Dictionary of Occupations and not just the energy sector.

## **Occupational Titles**

Base Titles appear immediately after the six digit code number and are printed in upper-case bold-face letters. These are the titles by which occupations are widely known and understood in the majority of establishments in Trinidad and Tobago.

Alternate Titles are the synonyms for Base Titles. They are the less frequently used titles by which such occupations are known. An occupation may have one or more alternate titles. They are printed immediately after the Base Title, after a 'stroke' (/), in upper/lower case, bold-face type.

Related Titles are variations of the Base Titles, but are not sufficiently different from them to justify classification as separate six-digit occupations. These titles are printed in capital letters at the end of descriptions and are arranged in alphabetical order. The list of Related Titles is illustrative, not exhaustive.

Index Titles do not appear in descriptions but are listed only in the Alphabetical Index. These may be used if the list of Related Titles to an occupation is too lengthy. They carry the Occupational Code Number of the occupation in question.

## **Occupational Definition**

The opening statement following the Base Title and/or Alternate Titles is the definition of an occupation, succinctly describing the nature and purpose of an occupation.

## **Statement of Duties**

The statement of duties is presented in a bulleted format. It elaborates on the definition and provides information on the 'what', 'why' and 'how' of the occupation.

'May' items appear after the statement of duties. These duties are performed by some workers, in some establishments, but are not necessarily performed by all workers.

## **Education/ Training and Experience Requirements**

These statements spell out the recruitment requirements of an occupation.

## **Occupational Profile**

Occupational information contained in these profiles provides essential information for use in educational and vocational guidance, job development and placement, development of apprenticeship and training programmes and other purposes.



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## OCCUPATIONAL DESCRIPTIONS

### 1112.10 SENIOR GOVERNMENT OFFICIAL

Plans, directs and coordinates administrative and technical activities of section or division within government agency and/or assists departmental head with coordination of activities:

- Formulates and approves or submits for approval policies and programmes geared towards achievement of specific divisional aims
- Consults and advises superior on policy matters, programmes and administrative and other matters to ensure conformity with national and departmental priorities
- Collaborates with financial personnel to prepare sectional or divisional budget and draft estimates of expenditure
- Issues guidelines and establishes implementation procedures for section controlled
- Assigns duties to and coordinates activities through subordinate supervisory personnel to ensure programme implementation
- Makes field visits where applicable, meets with subordinates, reviews reports to monitor progress of projects and provides technical advice
- Liaises with relevant personnel in other government ministries or departments and regional and international organisations
- Represents organisation on committees and at national and international conferences
- Participates in staff recruitment interviews
- Trains subordinate staff attached to section and/or advises training personnel on institutional and in-service training programmes
- Prepares research papers, administrative reports and performance appraisals of staff directly supervised.

May direct and control administrative and/or technical activities of entire agency, authorise disbursement of approved funds and recommend award of contracts within specified budgetary limits.

### EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:

University first degree, post-graduate training in a relevant area and considerable experience in public sector administration.

### OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Planning and directing work activities; supervising other workers; handling.
<b>Education and Training</b>	Post-graduate University degree or diploma.
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; performing under stress; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Good communication skills; good numerical skills; ability to perceive pertinent details/differences in verbal/ tabular material.

<b>Interests:</b>	Leading and influencing others.
<b>Physical Demands:</b>	Light work; writing; normal speech; hearing-ordinary; ordinary vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, nights, working around people.

#### **1112.47 DIRECTOR, ENERGY AND ENERGY INDUSTRIES**

Plans, directs and coordinates activities of ministry division responsible for management of oil, natural gas and other mineral resources:

- Performs duties of **SENIOR GOVERNMENT OFFICIAL**
- Advises government on design of appropriate legislation for technical aspects of petroleum, natural gas, refining, petrochemical and mining industries to ensure optimum utilisation of resources
- Provides information and advice to oil and gas companies, quarries and governmental and other bodies on geological matters
- Ensures that mining, quarrying and related operations are carried out in compliance with relevant legislation and contractual obligations
- Meets with oil and gas company personnel to discuss problems and projects to ensure conformance to acceptable safety standards and practices and for general negotiations
- Makes recommendations to government to encourage innovative development in oil, gas and mining industries
- Directs ministry's investigation of industrial accidents in the sector
- Visits newly commissioned installations.

#### **RELATED TITLES**

DIRECTOR, ENERGY PLANNING

DIRECTOR, GEOLOGY AND GEOPHYSICS

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Post-graduate qualifications in an energy-related area such as Petroleum Engineering or Geology and considerable experience including supervisory experience.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling
<b>Education and Training</b>	Post graduate university first degree/diploma.
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive pertinent details in objects or in



<b>Interests:</b>	pictorial/graphic material. Scientific and technical work, leading-influencing
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people.

#### **1112.48 SENIOR ENERGY ANALYST**

Directs research programme to inform public policy on energy-related matters:

- Advises government on policy pertaining to energy-related matters such as taxation, leasing of acreage, exploration, product pricing and development of alternative forms of energy
- Plans and develops research methods and supervises the development of databases
- Participates in discussions and negotiations with companies and agencies in the energy and energy-based industries
- Supervises a group of professional, sub-professional, administrative and clerical personnel
- Monitors and advises government on trends in international energy industries
- Assists in the technical and financial evaluation of projects in energy and energy-based industries
- Assesses technological developments in energy and related industries

#### **EMPLOYMENT REQUIREMENTS:**

BSc. in Economics, Business Administration, Chemical or Petroleum Engineering with at least eight (8) years experience working in an energy-related field including four (4) years in a supervisory capacity.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at items of agreement; handling
<b>Education and Training Development:</b>	Post-graduate university degree/diploma.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work; leading-influencing.
<b>Physical Demands:</b>	Sedentary work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

### **1221.11     MARKETING AND BUSINESS DEVELOPMENT MANAGER**

Formulates and implements organization's corporate marketing strategy:

- Develops and implements marketing strategies and objectives
- Conducts market research, identifies potential business opportunities and formulates new business project/proposals
- Initiates and negotiates product sales agreements, payments and credit terms
- Manages project development and project execution teams and leads contract negotiations
- Manages preparation and evaluation of bid packages and contractors
- Manages product inventories
- Manages vessel scheduling and custody transfer of product sold to customer
- Develops and manages annual budgets for marketing and business development functions including overhead and operating costs budgets
- Supervises marketing and business development support staff
- Represents the marketing and business development functions at the Company's leadership team level and to the Board of Directors

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Masters Degree in Business Administration, experience in major project execution, and at least ten (10) years experience in a marketing managerial position.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	Post-graduate university degree/diploma.
<b>Development:</b>	
<b>Special Vocational</b>	Over 10 years
<b>Preparation:</b>	
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail; leading influencing.
<b>Physical Demands:</b>	Light work; talking – ordinary, other types; hearing - ordinary conversation; vision – ordinary; standing, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people

### **1221.14     MANAGER, COMMERCIAL SERVICES**

Ensures compliance between the company and contracting parties on sale and purchase agreements:

- Provides financial and operational data for consideration by supervisor for development of company's plan
- Prepares draft budget for the relevant departments
- Establishes performance standards for subordinates and monitors these standards
- Devises job succession plan and career development programmes and implements these plans

- Monitors the company's sales and purchase contracts and prepares reports for management
- Participates in pricing negotiations prior to execution of sales/purchase contracts
- Calculates current prices under supply and re-sale contracts
- Prepares short-term gas demand estimates for provision to suppliers
- Coordinates and monitors services and value provided by external consultants.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Business Management with five years' experience three of which must be at supervisory level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail; leading-influencing
<b>Physical Demands:</b>	Sedentary work; writing; talking-ordinary; hearing-ordinary conversation; Vision-ordinary; sitting
<b>Environmental Conditions:</b>	Inside, daytime, working around people

#### **1321.13 REFINERY MANAGER**

Plans, directs and coordinates activities of petroleum refinery to ensure maximum operating efficiency and to meet needs of domestic and export markets:

- Develops overall refinery strategies and objectives in collaboration with members of refinery management team
- Oversees preparation and management of capital and operating budgets for plant including major development projects
- Coordinates implementation of operations and maintenance systems to achieve optimum performance
- Oversees processes such as *hydroprocessing* and heavy oil conversion to remove impurities from petroleum feedstock and produce high quality fuel products
- Maintains integrity of the plant through programme of inspection and preventative and predictive maintenance
- Monitors factors such as catalysts, reactor conditions, feedstock type and composition and other process variables through laboratory test reports and recommends changes or modifications to maintain process integrity and optimize output

- Directs plant shutdowns, start-ups, tests and inspections as required
- Ensures implementation of health, safety and environment policies
- Supervises subordinates and establishes training and development plans
- Liaises with government ministry officials to ensure adherence to statutory requirements.

#### **RELATED TITLES**

GENERAL MANAGER, REFINING

PRODUCTION UNIT MANAGER, REFINING

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc in Chemical/Process/Mechanical Engineering and ten (10) years' experience in refinery operations including five years at a senior supervisory level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; performing under stress; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances and standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; leading and influencing others
<b>Physical Demands:</b>	Light work; writing; talking – ordinary; hearing - ordinary conversation, other sounds; vision – ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise, slippery surfaces, risk of bodily injury/loss, explosives, toxic substances, fumes, gases, glare

#### **1321.14 HEAD, INSPECTION ENGINEERING**

Coordinates inspections of refinery's plant, fixed equipment and piping to maintain and improve their integrity and reliability:

- Develops and ensures implementation of inspection strategies and programmes and corrosion-mitigation actions
- Provides technical advice on inspection engineering and recommends new technologies to improve efficiencies, increase life of equipment and improve facility management
- Ensures documentation of inspection, welding, painting and quality procedures

- Supervises inspection and support personnel, establishes training and development plans and administers performance appraisal system
- Ensures provision of resources to facilitate inspection activities
- Ensures compliance with company, statutory and industry standards
- Represents company at local and international inspection engineering fora and maintains contact with professional bodies and industry groups
- Publishes technical papers on site-specific experiences

## **RELATED TITLES**

SUPERINTENDENT, INSPECTION ENGINEERING

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. degree in Mechanical/Chemical/Metallurgical/Corrosion Engineering, full professional membership in a recognized professional engineering institute and over ten (10) years experience in refinery or plant inspection including five years at a senior supervisory level.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work, industrial work; leading-influencing
<b>Physical Demands:</b>	Light work, writing, talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people, fumes, odours, gases.

## **1321.15 HEAD, RELIABILITY ENGINEERING**

Leads and manages the development of *reliability* improvement initiatives in petroleum refinery:

- Develops strategic goals, objectives and key performance indicators for section and utilizes performance management system to measure, manage, and motivate performance
- Develops departmental budgets and monitors and controls utilization
- Manages the development and implementation of reliability improvement strategies, such as

- strategies for defect elimination and quality assurance/quality control procedures
- Works with management team to educate workforce on reliability improvement and to influence positive behaviour
- Monitors key performance indicators and communicates findings to user groups to promote compliance and commitment to reliability improvement
- Audits reliability improvement processes to determine effectiveness and develops measures to address performance gaps
- Ensures compliance with asset-management systems and procedures and health/safety/ environment standards

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc in Mechanical Engineering or related field, five (5) years of practical engineering experience and a minimum of three (3) years of experience in reliability improvement planning and programme implementation.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	University first degree;
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards, ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work; industrial work; leading-influencing .
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people.

#### **1321.16 PROCESS SUPERINTENDENT, GAS PROCESSING**

Oversees liquid extraction process to ensure maximum economic extraction, plant performance and product quality:

- Plans, sets and monitors plant processing parameters in accordance with plant capacity and product specifications
- Supervises process and related support staff
- Forecasts and manages the process department's operating budget

- Monitors plant process performance in collaboration with the Plant Engineer and ensures compliance with safety, health and environmental standards
- Approves work orders, cost estimates and technical specifications for special process projects
- Coordinates scheduling and loading of vessels with marketing staff
- Overseas laboratory activities to ensure safe and accurate sampling and analyses
- Prepares and presents operational and statistical reports on plant processing activities and prepares and disseminates reports for external parties in accordance with contractual obligations.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in a technical field and ten (10) years experience in the petroleum field, five of which should be at a supervisory level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/ tabular material.
<b>Interests:</b>	Scientific and technical work; industrial work; leading and influencing.
<b>Physical Demands:</b>	Light work; use of hand and fingers, writing, talking-ordinary; hearing- ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, nights; working around people; noise, toxic/noxious substances, fumes.

#### **1322.11 EXPLORATION MANAGER/ Manager, Exploration & Geophysics**

Directs and coordinates exploration activities to identify new petroleum reserves and provides geophysical support for exploration and development:

- Develops strategic goals, objectives and key performance indicators for section and utilizes performance management system to measure, manage, and motivate performance
- Develops departmental budgets and monitors activities to ensure that expenditure is kept within budget allocation
- Identifies new reserves through geological and geophysical evaluations, exploration drilling and new leases or joint ventures
- Participates in negotiations with joint-venture partners

- Identifies new systems, methods and technological developments in oil exploration to improve efficiency and cost-effectiveness
- Oversees seismic data acquisition, processing and interpreting and supervises well and seabed surveys
- Provides geophysical support to exploration and production operations
- Supplies broad range of technical advice on strategic opportunities for exploration.

## **RELATED TITLES**

**SUBSURFACE MANAGER**

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Geology/Geophysics or related discipline and over ten (10) years' experience in the oil industry, five of which must be at a senior supervisory level.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things</b>	Integrating analyses of data to discover facts or develop concepts; exchanging information to arrive at terms of agreement; handling
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work, industrial work; business detail, leading and influencing others
<b>Physical Demands:</b>	Light work; use of hands, writing; talking-ordinary; hearing- ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people, shift/ on call.

## **1322.12 MANAGER, PROSPECT GENERATION**

Develops programmes and projects to exploit existing oil and gas reserves and increase production:

- Plans prospect generation strategy, business plan, projects and related initiatives
- Consults research and technical data, identifying viable development prospects
- Oversees prospect generation operations and associated projects to deliver results
- Provides broad range of technical advice to prospect generation teams
- Promotes a culture of health, safety and environmental compliance
- Reviews performance of department and introduces new technologies and procedures to improve operations
- Ensures that budget and other resources are optimally used to meet fiscal targets
- Manages departmental staff to create harmonious and productive work team



## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS**

BSc. in Geology, Geosciences or Engineering and at least ten (10) years' experience including five (5) years with management or supervisory responsibilities.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to visualise objects in three dimensions from drawings/representations; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work; leading-influencing
<b>Physical Demands:</b>	Sedentary work ; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; sitting
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

### **1322.13 MANAGER, JOINT VENTURES**

Manages and optimizes company investments in exploration and production *joint ventures* and monitors work programmes with *farmout* by doing a combination of the following duties:

- Prepares and submits work programmes and budgets of all joint ventures to superiors
- Represents company at joint venture technical, operating and coordinating committee meetings
- Monitors the performance of joint venture partners to ensure that they adhere to approved minimum work requirements, work programmes, budget and local operating conditions including statutory requirements and payments to the state
- Approves appraisal and development plans as proposed by joint venture operators and authorizes variations
- Identifies new areas within company leases for farmouts and prepares financial and technical criteria for bidders
- Prepares contracts of farmouts that are due for renewal and submits for approval

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc in Geoscience or Petroleum Engineering or equivalent and fifteen years' experience in the *upstream* energy sector (five of which must be as a Team Leader of Geoscientists and Engineers)

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling.
<b>Education and Training</b>	University first degree
<b>Development:</b>	

<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work, business detail, leading and influencing.
<b>Physical Demands:</b>	Light work; writing, talking - ordinary, hearing - ordinary conversation, vision - ordinary, standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

### **1322.14 DRILLING AND WORKOVER MANAGER, PETROLEUM INDUSTRY**

Directs, supervises and coordinates oil well drilling and related activities:

- Checks and approves oil well drilling programmes
- Identifies appropriate strategies, techniques and technology to maintain and improve production targets
- Liaises with personnel of other departments and contractors to coordinate and expedite drilling and workover operations
- Monitors operations, gives technical advice to subordinates and ensures adherence to budget, deadlines, specifications, health and safety regulations and environmental requirements
- Approves changes in weight of drilling fluids and types of equipment to be used in wells and determines procedures to be used in fishing for tools and stuck pipe
- Prepares tender documents for service providers, evaluates bids and negotiates terms and conditions with consultants
- Supervises and appraises performance of personnel of contracted firms and makes recommendations for improvements
- Requisitions equipment and supplies to maintain optimum stock levels
- Reviews reports from subordinate staff and prepares reports for submission to superior.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Chemical, Mechanical or Petroleum Engineering and fifteen years' experience in Drilling and Workover including seven years at a senior supervisory level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria

<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work, mechanical work, leading – influencing
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing- ordinary conversation; vision –ordinary, acuity within 0.5 metres; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise; slippery surfaces, risk of bodily injury/loss, mechanical hazards, moving objects, electrical hazards; gases, glare.

### **1322.15 HEAD, INSPECTION AND CORROSION**

Manages inspections of existing and new petroleum exploration and production facilities, vessels and structures and oversees installation and management of systems to arrest corrosion:

- Ensures compliance with statutory requirements and standards with respect to inspections of exploration and production facilities and structures
- Validates and certifies integrity of structures
- Oversees installation and operation of *cathodic protection* systems to arrest corrosion of pipelines, offshore facilities and structures and reduce risk to personnel and the environment
- Ensures establishment of systems to audit, capture data and report on line leaks
- Manages human resources and administers performance management system to achieve departmental objectives.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Degree in Electrical, Mechanical or Chemical or Metallurgical Engineering and eight (8) years experience in the Energy industry in the areas of failure analysis, design and analysis of non-destructive testing systems and design and maintenance of Cathodic Protection Systems. Certification in inspection and corrosion would be an asset.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational</b>	Over 10 years
<b>Preparation:</b>	
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive

<b>Interests:</b>	pertinent details in objects or in pictorial/graphic material. Industrial work, leading-influencing
<b>Physical Demands:</b>	Light work; climbing, balancing; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; slippery surfaces, moving objects

### **1322.16 HEAD, TANK FARM OPERATIONS**

Manages *tank farm* operations to provide crude oil on time and in the required quantities to petroleum refinery:

- Oversees systems of recording and reporting to account for crude oil received , treated and delivered by tank farm
- Supervises treatment and delivery of crude oil to refinery
- Ensures maintenance and upgrade of tank farm infrastructure
- Monitors health and safety issues consistent with risk mitigation
- Oversees preparation and adherence to budget to ensure fiscal targets are met.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in either Mechanical or Petroleum Engineering or equivalent and ten years' relevant experience.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive pertinent details in objects or in pictorial/graphic material
<b>Interests:</b>	Industrial work, business detail
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noxious elements/solvents; fumes, odours, gases.

### **1322.17 MANAGER, NATURAL GAS COMPRESSION OPERATIONS**

Plans, directs and coordinates operations and maintenance of platform gas compressors and ancillary equipment and provision of offshore services:

- Participates in development of corporate plan, develops objectives for gas compression division within framework of plan and establishes individual targets to be achieved in conjunction with supervisors
- Prepares draft budgets and administers division within approved budgets
- Develops and oversees implementation of systems, policies and procedures for safe and efficient operation and maintenance of gas compressors and ancillary equipment on platforms
- Ensures provision of offshore services such as catering and marine and helicopter transportation
- Directs development of specifications for service contracts and monitors approved contracts to ensure compliance with requirements
- Administers human resource, financial, legal and corporate management policies and procedures and monitors compliance by staff
- Directs preparation of operational and statistical reports

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Post-graduate degree in Engineering and ten (10) years experience in the engineering field at a senior level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Post-graduate university degree/diploma
<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/ differences in verbal/tabular material.
<b>Interests:</b>	Industrial work, leading-influencing
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision- ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, daytime, working around people.

### **1322.18 SUPERINTENDENT, NATURAL GAS OFFSHORE OPERATIONS**

Develops, implements and monitors procedures for safe and efficient operations of platform gas compressors and ancillary equipment:

- Plans and develops work programmes for platform operations, liaising with other departmental heads as required;

- Ensures availability of supplies, allocates assignments, supervises work performance and ensures efficient and timely completion of work;
- Prepares work specifications, bills of materials and cost estimates for jobs to be contracted and verifies and approves invoices for service contracts;
- Ensures adherence to specifications for provision of support services such as catering, and marine and helicopter transportation;
- Monitors application of company policies and practices relating to safety, financial, legal and other corporate matters;
- Prepares departmental budgets and reports for submission to superior.

#### **EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in an energy discipline and five – seven years related experience including supervisory experience

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training</b>	University first degree;
<b>Development</b>	
<b>Special Vocational Preparation</b>	Over 5 years, up to and including 10 years
<b>Temperaments</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interest</b>	Industrial work; business detail
<b>Physical Demands</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, Sitting
<b>Environmental Conditions</b>	Inside, outside, daytime, working around people

#### **1324.13 MANAGER, GAS TRANSMISSION AND DISTRIBUTION**

Plans, directs and coordinates operations and maintenance of company's gas transmission and distribution network:

- Participates in development of corporate plan, develops objectives for gas transmission and distribution division and establishes individual targets to be achieved
- Prepares draft budgets and administers division within approved budgets
- Administers human resource, financial, legal and corporate management policies and procedures and monitors compliance by staff
- Develops and ensures implementation of systems, policies and procedures for safe and efficient functioning of division and reviews effectiveness of same
- Directs development of technical contract specifications for distribution of natural gas and monitors approved contracts to ensure compliance with technical conditions by company, gas suppliers and gas/condensate purchasers

- Approves and oversees implementation of maintenance systems and procedures to satisfy operating requirements for pipelines including *Right of Ways* and above-ground installations
- Participates in technical and commercial negotiations of large gas purchase and supply contracts
- Directs preparation of operational and statistical reports.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Postgraduate qualification in Chemical or Mechanical Engineering and ten (10) years' experience in the engineering field at a senior level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling.
<b>Education and Training Development:</b>	Post-graduate university degree/diploma.
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; business detail, leading-influencing;
<b>Physical Demands:</b>	Light work; use of hands, use of fingers, writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people.

#### **1324. 14 LOGISTICS MANAGER**

Plans and coordinates processes to facilitate storage and movement of goods and supplies:

- Monitors cost and efficiency of movement, storage and availability of goods purchased or produced by company
- Analyses factors such as legislation, fuel, transport costs, operating capabilities, delivery schedules and deadlines
- Develops most economically advantageous and efficient means of delivering organization's products;
- Reviews proposals by carriers and agencies for revised rates and regulations to determine impact.

May liaise and negotiate terms with suppliers and customers.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS**

B.Sc. Degree in industrial engineering and 5 years' experience in a manufacturing or other industrial environment. Knowledge of inventory management, warehouse systems, transport management and import/export procedures is desirable.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over five years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; precise attainment of set limits, tolerances or standards; team work.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/ differences in verbal/ tabular material;
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Light work; use of hands; use of fingers; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, standing, sitting, walking
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

**1390.11 EMERGENCY RESPONSE MANAGER**

Plans and delivers emergency response and safety services to support company's health, safety and environment policy:

- Develops and facilitates implementation of company's emergency response and crisis management strategy
- Develops budget for emergency response activities
- Trains and facilitates development of senior emergency staff
- Establishes internal and external peer networks to share best practices and procedures
- Collaborates with local agencies and officials to ensure mutual aid capability
- Ensures that results of investigations, incidents and reports are acted upon in a timely manner.

**EDUCATION/TRAINING AND EXPERIENCE REQUIREMENTS:**

B.Sc. in Management or Social Science; safety, fire or paramedic certification, specialized training in emergency response, knowledge of ISO 18001 and ten years experience in emergency services including supervisory management.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Synthesizing data; teaching or training others; handling;
<b>Education and Training Development:</b>	University first degree;
<b>Special Vocational Preparation:</b>	Over 10 years;



<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perceive pertinent details/ differences in verbal/ tabular material.
<b>Interests:</b>	Protective; business detail; leading-influencing.
<b>Physical Demands:</b>	Light work; use of hands, use of fingers, writing; talking- ordinary; hearing-ordinary conversation; vision-ordinary; standing, sitting, walking.
<b>Environmental Conditions:</b>	Inside, outside, daytime, shifts/on call, working around people.

### **1390.12 HEAD, TURNAROUND PLANNING AND EXECUTING**

Directs and controls *turnaround* planning and execution to achieve strategic objectives and maximize plant availability:

- Develops and implements turnaround strategy, plan of work and related processes
- Manages planning and execution of turnaround maintenance work in accordance with company, statutory, national and industrial standards including health, safety and environment standards
- Promotes strategic initiatives related to turnaround planning and execution
- Interfaces with and provides technical advice and guidance to operations personnel, subordinates and contractors
- Promotes integration of design, project engineering and turnaround departments
- Develops and implements, staff development plan and performance management system
- Ensures compliance with asset management systems and processes
- Develops, monitors and controls utilization of departmental budget
- Initiates and ensures trend analysis and report generation.

### **RELATED TITLES**

SUPERINTENDENT-TURNAROUND EXECUTING

SUPERINTENDENT-TURNAROUND PLANNING

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Degree in Engineering, ten (10) years' experience in an manufacturing environment and three (3) years supervisory experience.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; ability to work as part of a team/group.

<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive pertinent details in objects or in pictorial/graphic material.
<b>Interests:</b>	Industrial work; leading-influencing
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise; fumes, odours and gases

### **1390.15 MAINTENANCE MANAGER/ Manager, Engineering and Maintenance**

Plans, directs and coordinates plant maintenance and repair activities in industrial establishment:

- Performs duties of **MANAGER**
- Establishes procedures and schedules for routine inspection and maintenance of plant, equipment and machinery in collaboration with subordinate supervisory personnel and staff of other departments;
- Ensures availability of materials and parts required for maintenance activities
- Monitors plant operations to ensure efficient functioning of equipment;
- Serves on interviewing panel to select engineering personnel for employment.

May prepare tender documents for maintenance and repair work and monitor and approve payment for work contracted by department.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Mechanical or Electrical Engineering and three years experience in a maintenance environment.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/ differences in verbal/tabular material;
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting.

**Environmental Conditions:** Inside, outside, daytime, working around people; noise.

### **1390.17 ELECTRICAL AND INSTRUMENTATION SUPERINTENDENT**

Develops and maintains preventative and predictive electrical and electronic instrumentation systems to achieve maximum plant and equipment reliability:

- Develops, implements and oversees maintenance of operations management system
- Reviews and prepares operating procedures and work instructions
- Develops procedures to manage environmental emissions
- Assesses and reviews recommended changes in accordance with company policies
- Prepares and controls the electrical and instrumentation items of the maintenance budget
- Implements procedures to improve cost effectiveness of plant and equipment
- Review spare-parts selection, replenishment and holding lists
- Designs and oversees training programs and assessment for trainees
- Prepares summaries and reports

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Electrical Engineering with three to five years experience in plant maintenance and working knowledge of relevant computer applications.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities, directing work-related activities of a group of workers, handling
<b>Education and Training Development:</b>	University first degree;
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately
<b>Interests:</b>	Scientific and technical work; industrial work
<b>Physical Demands:</b>	Light work writing; talking-ordinary; hearing-ordinary conversation; standing; walking; sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people, electrical hazards

### **2113.13 PETROLEUM CHEMIST**

Conducts or directs chemical and physical analysis of petroleum products, hydrocarbons, water, air and soil samples:

- Performs duties of **ANALYTICAL CHEMIST**
- Directs analyses of hydrocarbons, air and water samples, core samples from exploratory wells, well cuttings and other materials

- Monitors testing, interprets test results and recommends changes in methodology
- Evaluates local and imported crudes to determine yield and petrochemical potential
- Conducts sample tests at *fiscalisation points* for taxation purposes
- Directs analyses of crude and *condensate* samples to determine quality for royalty evaluation purposes
- Draws special samples at refineries and other plant areas periodically
- Carries out minor repair and maintenance of monitoring instruments
- Monitors oil companies for regulatory and revenue purposes, if employed in government sector, and sets up procedures to verify companies' testing procedures
- Determines level of pollutants in effluent from refineries, offshore drilling platforms, producing fields and other areas
- Directs analyses and field testing of efficacy of dispersants and other substances, and monitors analyses of product samples.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Chemistry. Post-graduate qualifications in Petroleum Chemistry would be an asset.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; precision working.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions.
<b>Interests:</b>	Scientific and technical work
<b>Physical Demands:</b>	Sedentary/light work; climbing; balancing; stooping; use of hands; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, high places, daytime, nights, shifts/on call; working around people; noise, risk of bodily injury/loss, noxious elements/solvents, burns, odours; dirt, gases.

#### **2114.13 GEOPHYSICIST**

Designs and implements studies of physical aspects of earth and its atmosphere to further knowledge and resolve problems:

- Plans geophysical studies, determining measurements and data processing techniques
- Conducts studies such as examining size and shape of land masses, studying magnetic fields within and around the earth and investigating movement of continents

- Investigates seismic, gravitational, electrical, thermal and magnetic forces affecting earth, using instruments such as *seismographs*, *magnetometers*, *gravimeters* and electrical resistivity apparatus;
- Provides input into exploration and development if employed in energy sector, determining kind and pattern of rock beneath surface and identifying areas with high probability of mineral deposits
- Monitors recording equipment, interprets and evaluates collected data
- Compiles seismic and sub-surface contour maps, charts and reports
- Studies sections to determine possibility of *stratigraphic traps* and presence of hydrocarbons
- Liaises with other professionals on data interpretation, technical recommendations and report preparation

May assist with administration of interpretation software, supervision of field operations and training of subordinate technical personnel.

## **RELATED TITLES**

DEVELOPMENT GEOPHYSICIST

DIVISIONAL GEOPHYSICIST

EXPLORATION GEOPHYSICIST

GEOPHYSICAL SPECIALIST

## **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

BSc. in Geophysics and 3-5 years experience in the field. Knowledge of geophysical computer software is required.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; communicating with people to convey or exchange information; precision working.
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work.
<b>Physical Demands:</b>	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; wet; risk of bodily injury/loss, electrical hazards, explosives; dust, glare.

## **2114.14 PETROLEUM GEOLOGIST**

Explores and charts stratigraphic arrangement, composition and structure of earth to locate accumulations of hydrocarbons onshore and offshore:

- Examines and interprets data from sources such as aerial and satellite photographs and field observations to prepare preliminary material
- Maps, assesses and reviews exploration and development prospectives to add or replace hydrocarbon reserves
- Studies well logs, analyzes cores and cuttings from well drillings, and interprets data obtained by electrical or radioactive well logging and other subsurface surveys to identify earth strata using relevant computer software
- Uses a combination of computerized software and manual input to prepare geologic, contour and *isopach maps*, geological cross-sections of area and other presentations, utilising data obtained from well studies, geophysical displays and other sources
- Identifies and estimates hydrocarbon deposits in prospective fields and consults with professional and technical personnel concerning drilling and production methods
- Prepares reports, presents findings and recommends drilling of oil wells on basis of findings
- Monitors drilling operations, and advises relevant department on need for acquisition, retention or release of property leases
- Supervises well exploration activities for quality control consistent with technical standards
- Ensures that assigned operations are carried out in accordance with governmental regulations.

### **RELATED TITLES**

OPERATIONS GEOLOGIST

WELL-SITE GEOLOGIST

### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

BSc. Geology or Geosciences, Certification in helicopter underwater escape training (HUET), training in seismic and log interpretation and 3 years experience in well-site geology, operations geology and mapping.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; communicating with people to convey or exchange information; setting-up
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work, industrial work.
<b>Physical Demands:</b>	Light work, lifting, carrying; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary,

acuity beyond 6 metres, acuity within 0.5 metres, depth perception, colour vision.

**Environmental Conditions:** Inside and outside, in air, daytime, working around people; noise; risk of bodily injury/loss, explosives; fumes, odours, dirt.

## 2114.15 PETROPHYSICIST

Plans, supervises and analyses wireline and *logging-while-drilling* (LWD) data acquisition to support subsurface exploration:

- Plans data acquisition and core analysis programmes and budgets
- Interacts with contractors to ensure safe and prompt service delivery
- Supervises logging operations at well site
- Interprets and documents logs and core analysis results
- Presents findings to partners and government representatives
- Participates in evaluation of tenders for logging and *coring*
- Advises on petrophysical data collection programmes and choice of tools

### EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:

BSc. in Petroleum Engineering or Geoscience and at least four (4) years' experience in Petrophysics.

### OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move body members with good coordination.
<b>Interests:</b>	Scientific and technical work; industrial work.
<b>Physical Demands:</b>	Light work; climbing, balancing, use of hands, use of fingers, writing, talking-ordinary, other types; hearing-ordinary conversation; vision – ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime; working around people; noise; vibration, slippery surfaces; risk of bodily injury/loss; mechanical hazards, glare.

## **2114.16 GEOLOGIST**

Studies the structure, composition and history of the earth's crust to locate and identify natural resources and determine suitability of land for projects:

- Prepares sketch maps of areas surveyed and traces grid on map to facilitate staking
- Conducts geological surveys, exploring and charting stratigraphic arrangement and structure of land surveyed
- Collects information in the field from seismic, well data and other devices and obtains samples of earth and rock
- Examines results of sample tests and prepares technical reports, identifying types and quantities of natural resources
- Interprets data to determine subsurface geology and economic importance of natural resources, using computer software
- Examines aerial photographs to assist in locating and estimating probable natural gas, oil and mineral ore deposits and underground water
- Develops geological models of the earth's subsurface to understand the geological structure, rock characteristics and likely distribution of oil/gas/mineral-bearing strata
- Collaborates with drilling engineers to determine drilling locations based on the interpretation of the data and models developed
- Plans development wells in terms of location and trajectory and puts well proposals together in conjunction with multidisciplinary team
- Advises construction companies and government agencies on suitability of sites for construction of buildings, dams, highways and other major structures
- Conducts field investigations at quarries to ensure legal and safe operation and makes recommendations on applications for quarry licences

### **RELATED TITLES**

DEVELOPMENT GEOLOGIST

MARINE GEOLOGIST

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Geology, Geophysics or Geoscience with 2 years related training.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; setting up.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational</b>	Over 3 years, up to and including 5 years
<b>Preparation:</b>	
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from; drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.



<b>Interests:</b>	Scientific and technical work.
<b>Physical Demands:</b>	Light work; talking – ordinary; hearing- ordinary conversation; vision-ordinary, acuity within 0.5metres; colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside; daytime; working around people; wet; slippery surface; dirt; glare.

## **2114.18 BIOSTRATIGRAPHER-PALEONTOLOGIST**

Analyses microfossils in wells for integration into geological studies in the exploration of hydrocarbon reservoirs:

- Prepares and processes geological samples and prepares microfossil slides
- Conducts microscopic analysis of microfossils to determine geological formation, age and other factors
- Interprets microfossils in well correlations and geological mapping projects
- Conducts *taxonomic* research into microfossils for regional strategic distribution and correlation and maintains *taxonomic database*
- Conducts field mapping and sampling of geological formations and conducts biostratigraphic analysis at well-site
- Complies with laboratory safety procedures and company's health and safety policy
- Prepares reports on sample analyses from daily drilling activities and biostratigraphic reports on wells.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Geology with two years experience in a related field.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Scientific and technical work
<b>Physical Demands:</b>	Light work; stooping, crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; walking, standing, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; dust, dirt, glare

### **2141.11 PLANT ENGINEER**

Provides technical assistance and advice on engineering and operational aspects of industrial plant to improve efficiency, safety and operability:

- Reviews effectiveness of engineering systems, designs and operations and recommends changes to optimize performance, eliminate safety hazards or improve quality
- Provides technical advice to management and assists in operations and maintenance training
- Initiates, develops and implements capital projects to improve plant efficiency, safety and operability
- Ensures adherence to operational, safety and environmental standards
- Oversees conduct of plant performance and reliability tests and preparation of related reports
- Ensures compliance with company's engineering specifications and standards.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in an Engineering discipline and 3-5 years relevant experience.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; handling; fingering, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing; walking; sitting.
<b>Environmental Conditions:</b>	Inside and outside; daytime; working around people; mechanical hazards, noise.

### **2141.14 TURNAROUND ENGINEER**

Plans, schedules and co-ordinates implementation of *turnaround*- related engineering works and provides technical assistance and advice:

- Develops, checks and co-ordinates engineering work plans for turnarounds and special projects utilizing management information systems
- Performs engineering activities in compliance with company, industrial and statutory standards and in keeping with asset management systems and processes
- Prepares cost estimates for engineering work plans
- Develops turnaround engineering budget for review by senior management and monitors and controls expenditure

- Provides technical advice and guidance to team members and contractors consistent with engineering standards
- Ensures that engineering works executed are in compliance with all necessary permit requirements and health, safety and quality standards
- Manages turnaround closeout activities
- Reviews and recommends engineering strategies to improve future work plans and schedules.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in an engineering discipline and 3-5 years experience in project engineering.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in object or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, shift/on call, working around people; risk of bodily injury/loss, mechanical hazards.

#### **2141.15 QUALITY ENGINEER**

Develops and maintains quality management systems, procedures and documents to improve integrity, safety and performance of industrial facilities:

- Develops quality systems, specifications and procedures for plant and equipment maintenance, inspection, materials management and contract management
- Develops quality control plans for new fabrications, replacement and repairs to plant equipment and structures and ensures compliance by contractors through quality systems audit
- Inspects and follows up all fabrication and repair until completion
- Researches standards, codes and specifications and develops or reviews acceptance criteria for procedures, products and inspection and testing plans
- Performs qualification surveys for suppliers and subcontractors and reviews and evaluates bid documents

- Participates in development of project requirements and develops and tracks indicators for project quality performance
- Reviews qualifications, training and experience of associated personnel, assists in identifying training needs and in developing training programmes
- Participates in quality audits and identifies and recommends opportunities for improvement
- Maintains quality control tracking logs and prepares reports specifying satisfactory delivery of services or quality system violations.

#### **RELATED TITLES**

QA/QC ENGINEER

QUALITY ASSURANCE/ QUALITY CONTROL ENGINEER

QUALITY SPECIALIST

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in an Engineering or Science discipline, at least five years' experience in an engineering or quality field and knowledge of relevant ISO standards.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work, leading and influencing
<b>Physical Demands:</b>	Light work; writing; vision – ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise; fumes.

#### **2141.16 PROCESS ENGINEER**

Applies engineering skills to ensure efficient selection and operation of industrial process systems and equipment:

- Ensures that all (process) engineering designs, standards, material specifications, operations and maintenance procedures are carried out in accordance with sound engineering principles
- Participates in hazard and operational analysis to improve safety in all aspects of process design and operations utilizing knowledge of safety-related codes of practice
- Assesses and reviews processes, recommends changes and implements approved changes
- Analyses engineering problems and produces cost-effective technical solutions
- Examines, improves and monitors control systems to manage environmental emissions to within prescribed standards

- Manages chemical treatment programme to ensure chemical usage is optimized
- Provides technical guidance and support for plant operations
- Conducts process simulations using computer software to enhance performance of processing systems.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. degree in Chemical/Process Engineering and 3-5 years experience in oil and gas refining.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; use of hands; use of fingers; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision- ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, high place, shifts/on call, working around people; noise, risk of bodily injury/loss.

#### **2141.17 INSPECTION ENGINEER**

Assists in developing, executing and analyzing results of inspection programmes to maximize plant and equipment availability, integrity and reliability:

- Assists in developing inspection programmes for industrial plant and equipment
- Consults with maintenance, operations, work shop and other personnel to prepare inspection schedules
- Ensures that inspections of equipment and material are correctly carried out, checks inspection and repair recommendations and provides technical advice
- Analyses problems related to material failure, corrosion and quality concerns
- Recommends material upgrades and repairs or replacement of process equipment, piping and facilities to extend life cycle
- Compiles information and prepares reports.

May supervise work of plant inspection personnel.

**EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

BSc. In Mechanical/Chemical/Metallurgical /Corrosion Engineering and two (2) years' relevant industrial experience.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work; industrial work
<b>Physical Demands:</b>	Light work; climbing, balancing, stooping; crouching, crawling, raising of arms; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; acuity within 0.5 metres; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside; heights; cramped quarters; daytime; working around people; heat, wet, humidity, noise, vibration; slippery surfaces; risk of bodily injury/loss; fumes, odours, dirt, toxic conditions, gases, glare, poor lighting, poor ventilation.

**2144.10 MECHANICAL ENGINEER/Maintenance Engineer**

Plans and directs engineering and allied activities relative to functioning and maintenance of industrial plant and equipment:

- Participates in and supervises planning, design, lay-out, operation and maintenance of engineering facilities, ensuring adherence to engineering codes and standards
- Supervises installation, testing and/or commissioning and modification of plant, instrumentation or equipment
- Schedules and implements preventative maintenance programmes, ensuring adherence to industrial safety, specifications and deadlines
- Keeps abreast of latest technology in area of employment and suggests ideas for updating plant and equipment to optimise operating efficiency
- Inspects plant periodically to monitor functioning of mechanical equipment, and investigate and diagnose technical problems
- Makes recommendations and ensures expeditious repair and testing or replacement of defective equipment
- Prepares reports and assists in preparing estimates of expenditure and monitoring expenses to ensure conformity with budgetary requirements.

May develop engineering standards.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Mechanical Engineering and 3-5 years experience in a relevant field.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; precision working
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; climbing, stooping; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, depth perception; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise; slippery surfaces, risk of bodily injury/loss; fumes, odours, gases.

### **2146. 12 PETROLEUM ENGINEER**

Devises methods to improve oil and gas well production efficiently and safely:

- Monitors performance of producing wells to ensure attainment of specified production targets and identify problems and plans workover programmes to improve production
- Provides technical advice to production team to maintain optimum productivity levels
- Specifies and supervises well modification and *well stimulation* programmes to maximize oil and gas recovery
- Monitors quality, volume and pressure of injected fluids and well activity to ensure cost effectiveness
- Undertakes studies of oil and gas recovery projects to evaluate economic viability of venture
- Utilizes relevant computer software to design well-repair jobs and develop production programmes
- Researches, analyses and recommends new technologies and methodologies for well production
- Calculates size of petroleum reservoirs using information obtained from drilling and logging tests
- Calculates and forecasts levels of hydrocarbon reserves and monitors and advises on levels of depletion
- Designs and implements environmental controls on oil and gas operations.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc.Petroleum/Mechanical/Chemical Engineering or equivalent discipline and at least 3 years experience in drilling and completions practices.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work.
<b>Physical Demands:</b>	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime; shifts/on call, working around people; noise; risk of bodily injury/loss; odours, dust, gases.

**2146.13 DRILLING ENGINEER, OIL WELL**

Designs and implements oil well drilling programmes safely and economically:

- Consults geological and economic surveys and other data in collaboration with professional and technical personnel to determine feasibility and optimum type of rig and associated equipment to be used in drilling operations
- Develops drilling programmes for development and exploration wells and adjusts programmes as required during progress of drilling operations
- Consults with supervisor in planning and selection of materials and services required to deliver well plans in a safe and efficient manner
- Supervises routine well-drilling, ensuring adherence to specifications and time schedules and provides technical advice
- Monitors drilling operations to ensure compliance with health, safety and environmental legislation
- Prepares daily technical data analyses from drilling activities and submits recommendations for improvement
- Designs well casings using computer
- Directs running of casing into well and *perforation* of well at appropriate stages of operations
- Checks well log and compiles logging report on completion of hole
- Assists in preparation of drilling budgets and monitors adherence to budget to ensure profitability of well



- Maintains records of oil well equipment, ensures adequacy of stocks and orders equipment as necessary

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

B.Sc. Mechanical or Petroleum Engineering and five years engineering experience on onshore/offshore oil drilling rigs.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	University first degree.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; climbing; stooping, use of hands; writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; wet, noise; risk of bodily injury/loss; dust, dirt.

#### **2146.14 OILWELL LOGGING ENGINEER**

Measures characteristics of earth formations in oil and gas wells to determine potential for oil and gas production:

- Ensures correct setting up and functioning of *logging* survey equipment
- Supervises rigging of tools on winch cable and lowering of tools into well
- Activates logging tools at appropriate depths in well to measure characteristics such as seismic and radioactivity
- Monitors logging operation system on control panel, records, develops and promotes copies of logs
- Interprets transmitted information in collaboration with other technical personnel and advises on production potential of well
- Directs transportation, preparation and use of explosives for well perforation and detonate explosives and facilitate oil flow
- Master-calibrates logging tools in workshop
- Reports equipment failures and repairs or assists in repair or replacement of equipment.

#### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

BSc. Geology, Geophysics or earth-related science and 5 years well site experience in hydrocarbon data engineering and/or hydrocarbon mud logging on land or offshore oilwells.

## OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Planning and directing work activities; communicating with people to convey or exchange information; setting-up.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Scientific and technical work; industrial work
<b>Physical Demands:</b>	Light work, pushing, controls; stooping, crouching, use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, confined spaces, shifts/on call, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, noxious elements/solvents, mechanical hazards; radiant energy, moving objects, burns, explosives, electrical hazards; fumes, odours, dust, dirt, gases.

### 2146.15 COMPLETIONS ENGINEER/ Completions Specialist

Determines optimal method for *completing* a production well and supervises actual well completions activities:

- Liaises with Reservoir Engineers to design, recommend and implement efficient and cost-effective well completions programmes
- Recommends appropriate designs, material, and/or techniques to carry out a specified sequence of engineering tasks
- Recommends, designs and executes remedial well programmes including coil tubing, wireline and *recompletion operations*
- Designs and develops products and sub-systems
- Designs, tests and qualifies special tooling and fixtures for field and engineering use
- Plans, implements and interprets well tests
- Supervises work of company personnel and contractors engaged in completions work.

May specialize in disciplines such as gravel pack and subsea completions and provide product support, manufacturing support and failure analysis.

**RELATED TITLES:**

COMPLETIONS/PRODUCTION ENGINEER

COMPLETIONS/TESTING ENGINEER

**EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

BSc. degree in Mechanical/Chemical Engineering and 3-5 years relevant work experience in well workover and completion.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; communicating with people to convey or exchange information; precision working
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; use of hands; use of fingers; writing; talking-ordinary, other types; hearing –ordinary conversation, other sounds; ordinary vision; depth perception; ability to adjust focusing; standing; walking; sitting.
<b>Environmental Conditions:</b>	Inside and outside; daytime; working around people; noise; mechanical hazards, moving objects, dirt, glare.

**2146.16 RESERVOIR ENGINEER**

Provides engineering support to assist with achievement of optimum production of oil and gas reservoirs:

- Develops reservoir surveillance plan for oil and gas fields and determines processes to be put in place to improve surveillance and field operating performance
- Designs and manages enhanced oil recovery and field development projects
- Conducts technical petroleum/reservoir engineering studies and reviews to support drilling, oil recovery and optimization strategies
- Identifies, justifies and executes well intervention and alternative development solutions
- Provides technical expertise on project teams
- Ensures compliance with health, safety and environment and quality testing procedures
- Prepares reports related to calculation of reserves.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Bsc in Petroleum/Chemical/Mechanical Engineering or equivalent discipline. Minimum of five years work experience in areas such as field development planning, prospect evaluation, reservoir surveillance, waterflood projects design and monitoring. Knowledge of petrophysics, log analysis, pressure analysis and numerical reservoir simulation would be an asset.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; exchanging information to arrive at terms of agreement; precision working.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; precise attainment of set limits, tolerances or standards ability; to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial, graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Mechanical work; industrial work
<b>Physical Demands:</b>	Light work; use of hands and fingers, writing; normal speech, hearing – ordinary conversation, other types; vision – ordinary, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people.

## **2146.17 CORROSION ENGINEER**

Provides corrosion and material engineering support to increase long-term reliability of plant equipment and piping facilities:

- Develops and implements corrosion control plans
- Troubleshoots and gives technical support in corrosion control and material performance
- Performs equipment integrity management to minimize losses
- Participates in planning and development of turnarounds
- Develops and implements inspection plans in accordance with industry standards
- Analyses materials failure to determine root causes
- Assists with training of inspection staff in matters relating to corrosion control

## **RELATED TITLES**

CORROSION AND MATERIALS ENGINEER

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. in Chemical, Mechanical, Metallurgical or Corrosion Engineering and at least five (5) years' refinery or plant inspection experience in the energy or chemical processing sector.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational</b>	Over 5 years, up to and including 10 years

**Preparation:****Temperaments:**

Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.

**Aptitudes:**

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.

**Interests:**

Mechanical work; industrial work

**Physical Demands:**

Light work; climbing, stooping, raising of arms; reaching, use of hands, writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, acuity within 0.5 metres, colour vision; standing, walking.

**Environmental Conditions:**

Inside and outside, daytime, heights, confined spaces, working around people; slippery surfaces; fumes, gases.

**2146.18 CEMENTING ENGINEER**

Designs and supervises implementation of cementing jobs:

- Plans cementing jobs including instructions to the crew and equipment used
- Directs and coordinates field cementing assignments to ensure compliance with sound engineering principles
- Provides technical support on location utilizing knowledge of product technology, services methods and procedures
- Promotes quality standards consistent with sound operating practices
- Serves as communication link between customers and advisory team
- Ensures compliance with health and safety regulations and guidelines.

**EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

Bsc. in an Engineering discipline, preferably Chemical, with three years relevant industrial experience.

**OCCUPATIONAL PROFILE****Data/People/Things:**

Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision work.

**Education and Training**

University degree\diploma

**Development:****Special Vocational**

Over 5 years, up to and including 10 years

**Preparation:****Temperaments:**

Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective and judgmental criteria; precise attainments of set limits, tolerances and standards.

**Aptitudes:**

Ability to comprehend and effectively use language; ability to perceive details in objects or in graphic material; ability to perform mathematical operations quickly and effectively; ability to perceive pertinent details differences in verbal\ tabular material.

<b>Interests</b>	Scientific and technical work; industrial work.
<b>Physical Demands</b>	Light work; stooping; talking-ordinary; hearing-ordinary; vision-ordinary; field of vision; standing; sitting.
<b>Environmental Conditions</b>	Inside and outside, daytime, working around people; heat; noise, vibration; mechanical hazards; dust; dirt.

#### **2149.11 GAS SUPPLY ADVISOR**

Analyses, coordinates and advises on supply and delivery of natural gas and development of related business projects:

- Participates in development of annual business plan and budget and longer-term objectives for division
- Monitors natural gas sector, including upstream and downstream projects and developments
- Conducts technical and financial studies on medium and long-term issues affecting local and international availability of natural gas
- Prepares briefs and participates in negotiations for new gas supplies
- Reports to and advises management on developments and trends in the gas industry
- Participates in advising government on local and international hydrocarbon issues
- Prepares and delivers studies and position papers on natural gas resource development
- Represents company abroad at technical and commercial fora.

#### **EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

MSc. Degree in Petroleum or Gas Engineering and at least 6 years' work experience in a natural gas or petroleum environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; exchanging information to arrive at terms of agreement; handling.
<b>Education and Training Development:</b>	Post-graduate university degree.
<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interest:</b>	Business detail; leading-influencing.
<b>Physical Demands:</b>	Sedentary work; use of hands, use of fingers; writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

## **2149.12 GAS ENGINEER**

Designs and maintains systems for collection, compression and distribution of gas and administers sales and purchasing contracts:

- Prepares specifications for collection, compression and distribution of gas and maintenance of gas pipeline network
- Oversees gas pipeline network and related control systems to ensure operational efficiency, maximum gas collection and quality of product
- Ensures adherence to health, safety and environmental standards and quality control practices during operations, maintenance and testing of pipelines
- Initiates, negotiates, monitors and reports on gas purchase and sales contracts
- Prepares annual budget, optimizes gas accounting processes and ensures accurate reports
- Assists with procurement of material for maintenance activity
- Supervises and coordinates work of technical staff.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS**

BSc. in Chemical Engineering and five (5) years' experience in process engineering with knowledge of natural gas technology.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work, leading-influencing
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, depth perception; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, daytime, shifts/on call, working around people; explosives; fumes, toxic conditions, gases, glare.

## **2149.13 TEAM LEADER, MEASUREMENT ANALYSIS**

Supervises the preparation of gas and *condensate* sales reports:

- Ensures that office and field measurement equipment are functioning properly
- Prepares reports on gas purchases and gas volume balances
- Monitors gas charts for discrepancies in readings and recommends corrective action
- Supervises the delivery and measurement of condensate
- Prepares statistical data on condensate sales and volume of liquids removed from transmission system

- Investigates queries from consumers on gas sales volumes and recommends solutions
- Supervises the maintenance of facilities, vehicles and equipment.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Degree in an Engineering discipline with two (2) years experience in petroleum fluids measurements.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; supervising other workers; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Tempéraments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material.
<b>Intérêts:</b>	Industrial work; business detail.
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; heat; cold; humidity; noise, vibration; noxious elements/solvents; fumes, odors dust, gases.

#### **2159.11 ELECTRICAL AND INSTRUMENTATION ENGINEER/Instrumentation and Electrical Engineer**

Provides technical input into creation, maintenance and improvement of company's electrical, instrumentation and control systems:

- Participates in development of new facilities and equipment to ensure proper design, installation and operation
- Conducts process audits for implementation of new equipment or technologies
- Ensures that electrical and instrumentation equipment are in compliance with established standards and regulatory requirements and ready for use
- Plans, schedules and executes preventative maintenance of electrical and instrumentation equipment and control systems for maximum efficiency and safety of operations
- Conducts failure analyses, troubleshoots and diagnoses operational electrical and instrumentation problems
- Researches ways to improve performance of electrical and instrumentation equipment and control systems, recommending new and emerging technologies, systems and standards in electrical and instrumentation to enhance productivity and safety
- Implements change initiatives and gives advice on new projects
- Trains technical staff in the application of new technologies and standards
- Maintains test results and maintenance schedules.



**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Electrical or Electronic Engineering with two to three years relevant industry experience.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; teaching or training others; setting-up.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests</b>	Industrial work; leading and influencing others.
<b>Physical Demands</b>	Light work; lifting, carrying, pushing, pulling; climbing; use of hands; writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary; standing, walking.
<b>Environmental Conditions</b>	Inside and outside, daytime; working around people; electrical hazards.

**2159.12 INSTRUMENTATION AND CONTROLS SPECIALIST**

Advises on the strategic selection and positioning of instruments and equipment for process control, measurement and remote monitoring:

- Undertakes research into new applications for remote monitoring systems
- Expands and upgrades existing remote monitoring systems
- Conducts cost benefit analysis to determine return on investment from implementation and application of new technologies
- Recommends system parameters and equipment to promote standardization and reports non-compliance to the relevant parties
- Audits remote monitoring system for accuracy, reliability and availability and recommends improvements
- Ensures that operations are in compliance with health, safety and environmental requirements
- Conducts training for staff in the use of new and existing applications and promotes awareness of system benefits
- Produces reports on performance of remote monitoring systems.

**RELATED TITLES**

APPLICATIONS ENGINEER, AUTOMATION AND INSTRUMENTATION  
SYSTEMS INTEGRATOR

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

BSc. Electrical/Electronics/Computer Engineering with two years' experience in the electrical/instrumentation field.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Integrating analyses of data to discover facts or develop concepts; communicating with people to convey or exchange information; setting up.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 3 year, up to and including 5 years;
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests</b>	Scientific and technical work
<b>Physical Demands</b>	Light work; reaching, use of hands, writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary; standing, walking.
<b>Environmental Conditions</b>	Inside, daytime, working around people; noise.

**2413.16 COMMERCIAL ANALYST, GAS INDUSTRY**

Analyses and assists with planning to ensure compliance with gas sales/purchase agreements and reporting requirements:

- Assists with development of departmental policies and procedures and systems to ensure efficient management of company's gas entitlement and monitors gas contracts
- Monitors compliance and provides advice relating to agreements
- Develops, implements and maintains shipping schedules to ensure contractual obligations are met
- Maintains and develops communication between company, its partners and customers
- Provides data for computation of gas prices and supplies prices to accounting staff for invoice generation
- Develops and maintains database of gas contracts, formulae and price computations
- Provides information on gas consumption levels
- Conducts investigations with customers and suppliers to resolve queries
- Prepares reports on consumers' and suppliers' performance relevant to gas contracts.

**EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

First Degree in Business Management, Economics, Engineering or Sciences with 2-3 years experience in a commercial environment.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling.
<b>Education and Training</b>	University first degree.

<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years.
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instruction; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interest:</b>	Business detail; leading-Influencing
<b>Physical Demands:</b>	Sedentary work; fingering, writing, talking - ordinary, hearing – ordinary conversation; vision – ordinary, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

#### **2431.18 MARKET ANALYST, GAS INDUSTRY**

Researches, develops and assists in implementation of marketing plans for gas company:

- Conducts research to determine conditions in the gas industry that may affect sale of natural gas
- Participates in technical and financial studies pertaining to gas marketing
- Develops and participates in implementation of marketing plans and strategies
- Evaluates and processes applications for natural gas to determine commercial feasibility
- Evaluates new and emerging technologies to determine suitability for the local gas sector
- Assesses customers' expectations and requirements to provide improved customer services.

#### **EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

B.Sc. Degree in Business Management or equivalent with at least 4 years related experience.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	University first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years.
<b>Temperaments:</b>	Influencing people; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interest:</b>	Business detail; leading-influencing.
<b>Physical Demands:</b>	Sedentary work; use of hands, use of fingers, writing, talking - ordinary, hearing -ordinary conversation, vision –ordinary; sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

#### **2910.24 MATERIALS CONTROL SPECIALIST/Inventory Analyst**

Manages, controls and maintains required levels of inventory to support efficient and effective operations:

- Identifies material requirements and dates when materials will be needed
- Sources and orders goods based on existing and predicted local, regional and international market conditions
- Coordinates operations, procurement, and engineering schedules to maximize material availability and minimize surplus
- Conducts stock reviews, adjustments and classification of spares
- Establishes manual and electronic security and control systems for inventory
- Establishes systems to reduce and control inventory management cost
- Integrates complementary activities relating to inventory function such as warehousing and expediting
- Analyses and presents information relating to company's inventory status

May assist in preparation and maintenance of materials control records.

#### **RELATED TITLES**

PURCHASING AND INVENTORY CONTROLLER

#### **EDUCATION/ TRAINING/ EXPERIENCE REQUIREMENTS:**

Tertiary level certification in the area of general or materials management, or accounting; knowledge of materials-related software and at least five years' experience in a related environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; communicating with people to convey or exchange information; handling
<b>Education and Training</b>	University first degree;
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail; leading-influencing
<b>Physical Demands:</b>	Light work; use of hands; use of fingers; writing; talking-ordinary, hearing- ordinary conversation; vision-ordinary; standing; walking; sitting.
<b>Environmental Conditions:</b>	Inside; daytime; working around people.

### **3111.12 LABORATORY TECHNICIAN, PETROLEUM**

Tests and analyses petroleum and related products to ensure attainment of approved quality standards by performing any combination of the following duties:

- Performs laboratory tests, assesses and submits results to ensure timely availability of accurate data
- Tests samples of crude and blended oils, gases, asphalts and distillates to determine characteristics
- Separates crude oil into constituent oils of different boiling points, noting quality, for royalty evaluation purposes
- Analyses used oil to determine quality and need for change and tests unused oil for pollution
- Determines quality of industrial gases such as hydrogen and liquified petroleum gas
- Participates in the review of results of samplings and readings to ensure attainment of quality standards
- Tests corrosion inhibitors and *pour point* depressants to determine effectiveness, and drilling fluids for composition and qualities such as thickening time, strength and stability
- Analyses detergents and dispersants to determine effectiveness in cleaning oil spills
- Sample and analyses process streams and water, including effluents.
- Inspects laboratory equipment to assess their suitability and makes recommendations for improvement as necessary
- Conducts calibrations on apparatus according to standard procedures
- Participates in the technical training of junior members of staff.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/CXC 'O' Level subjects including Mathematics and English Language and two CAPE or A' Level subjects including Chemistry or a Science Technician's Diploma.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working.
<b>Education and Training</b>	Awards not equivalent to university first degrees, obtained at
<b>Development:</b>	technical institute, training school, similar institution.
<b>Special Vocational</b>	Over 1 year, up to and including 2 years
<b>Preparation:</b>	
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions.
<b>Interests:</b>	Scientific and technical work; industrial work
<b>Physical Demands:</b>	Light work – reaching, use of hands, use of fingers; writing; talking - ordinary; hearing - ordinary conversation; vision- ordinary, acuity within 0.5metres, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside; daytime; noxious elements/solvents; burns; explosives; fumes; gases.

### 3111.15 GEOLOGICAL TECHNICIAN

Performs laboratory analyses of geological samples to determine physical characteristics and presence of hydrocarbons:

- Observes rock samples under microscope and prepares *lithological* reports describing structure and mineral composition of rocks;
- Prepares thin sections of rock for further examination by slicing, grinding and levelling rock, using cutting and grinding machines and mounting specimens on slides;
- Crushes and processes rocks and conducts tests to determine origins of sediments;
- Produces and delivers well-residue logs for drilling programme using analytical data generated from processed geologic rock samples
- Plots figures on log to indicate percentage of sand in sample;
- Carries out grain size analysis of sand and silt;
- Tests samples to determine hydrocarbon and mineral content, using ultraviolet lamp;
- Performs necessary calculations and writes up test results;
- Prepares standard solutions for use in laboratory
- Catalogues geologic rock samples to allow for ease of retrieval
- Assists in the maintenance of geological laboratory equipment
- Performs work in accordance with laboratory safety standards and procedures

May visit oil well drilling rigs to provide urgent information about test results and provide other technical support for biostratigraphic and geological projects

#### EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:

Five CSEC/CXC 'O'Level subjects including Mathematics and English Language and two CAPE or A'Level subjects or a Science Technician's Diploma.

#### OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
<b>Special Vocational Preparation:</b>	Over 1 year, up to and including 2 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions.
<b>Interest:</b>	Scientific and technical work.
<b>Physical Demands:</b>	Light work, lifting, carrying; reaching, use of hands, use of fingers; talking –ordinary; hearing –ordinary conversation; vision – ordinary, acuity within 0.5 metres; standing; walking; sitting
<b>Environmental Conditions</b>	Inside, daytime; noxious elements/solvents; fumes.

### **3114.01 SUPERVISOR, AUTOMATION AND MEASUREMENT**

Supervises the recording of gas sales and purchases and ensures maintenance of equipment used to control the gas pipeline network:

- Participates in establishment of annual work plan and budget
- Coordinates programme for monthly calibration of measurement instruments and maintenance of control-related equipment throughout pipeline system
- Coordinates maintenance and repairs of measurement instruments and related equipment at consumers' premises
- Liaises with suppliers to ensure accurate measurement of purchases
- Ensures that adequate stock levels of materials and parts are maintained
- Collaborates with other departments regarding new Supervisory Control and Data Acquisition (SCADA) sites to be added to the existing system to and minimize occurrence of discrepancies on the SCADA network
- Supervises subordinates engaged in maintenance of measurement and control-related equipment
- Prepares reports on calibration, equipment repairs and other activities.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREME**

BSc. in Instrumentation/Electronic Engineering with five or more years experience in a related field including three years supervisory experience in an industrial environment.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things</b>	Planning and directing work activities; directing work-related activities of a group of workers; precision working.
<b>Education and Training Development</b>	University first degrees
<b>Special Vocational Preparation</b>	Over 5 years, up to and including 10 years
<b>Temperaments</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests</b>	Scientific and technical work; industrial work
<b>Physical Demands</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; walking; sitting.
<b>Environmental Conditions</b>	Inside and outside, daytime, working around people

### **3115.11 PLANT INSPECTOR**

Executes plant inspection programme to ensure integrity and reliability of plant and equipment:

- Reviews and updates isometric drawings, historical records and previous inspection plans to ensure accurate documentation of plant and equipment
- Utilizes plant documentation to identify areas requiring inspection
- Inspects equipment such as structures, pressure vessels, heat exchange equipment, pumps and piping

- Recommends replacements or repairs, advises on methods when necessary and ensures that repairs are carried out in accordance with applicable local and international codes
- Inspects repaired equipment, prepares status reports and communicates findings to relevant personnel
- Recommends changes in designs or materials to reduce or eliminate corrosion problems;
- Tests strength of welded seams, using equipment such as *flow detector*, hammer, ultrasonic tester and gamma ray equipment;
- Grants approvals of pressure tests, accepts field and shop repairs, signs - approves re-calibration of relief valves and documents new settings
- Conducts *destructive tests* utilizing thermographic and radiographic techniques to assist in trouble shooting operations, interprets data and recommends appropriate repairs
- Conducts mechanical tests on materials to ensure compliance with quality standards
- Identifies and categorises materials, using chemical and magnetic testing procedures;
- Keeps abreast of all codes and material specifications and advises relevant departments as necessary.

May supervise contracted workers

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician's Diploma or equivalent in relevant discipline and certification in Petroleum Industry Inspection, Weld Inspection or Coating Inspection and a minimum of four (4) years refinery inspection experience

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution;
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/ /differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres; standing, walking
<b>Environmental Conditions:</b>	Inside and outside, high places, confined space, daytime, working around people; heat; wet, humidity; noise, vibration; slippery surfaces, risk of bodily injury/loss, toxic/noxious substances, radiant energy; fumes, odours, dirt, gases, glare, poor lighting, poor ventilation



### **3115.14 MARINE TECHNICIAN**

Provides support services in the planning, administration and development of marine operations:

- Assists with establishment of annual tasks and targets to be achieved and with budgeting and management of operations
- Collects information supplied by port on tugs and workboats and monitors utilization of vessels on a monthly basis
- Conducts audits of workboats, tugs and construction equipment
- Monitors, inspects and reports on condition of tugs, workboats and cranes to ensure safe operations
- Inspects and verifies that maintenance work carried out on tugs, workboats and harbour is in accordance with specifications and best practices
- Checks statements of income and expenditure for the operation of marine assets and submits financial reports as required
- Verifies tug fees and billings for marine user charges
- Assists with conduct of hydrographic surveys
- Reports all incidents of pollution to supervisor
- Prepares report on marine operations

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Levels including Mathematics and English Language, Mechanical Engineering Technician Diploma or its equivalent with five years marine experience.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material
<b>Interests:</b>	Industrial work; business detail
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing - ordinary conversation vision-ordinary; standing, walking
<b>Environmental Conditions:</b>	Inside and outside, working around people; mechanical hazards; fumes, odours.

### **3117.11 WELL ANALYST**

Coordinates, monitors and controls activities to maintain well production at optimum levels:

- Designs and or customizes lifting/pumping strings and plunger lift systems to improve efficiency of extraction process in wells

- Analyses data and performs well diagnostics from well tests such as *echometer* and *dynamometer* analysis
- Participates in field reviews of production wells,
- Selects and improves artificial lift methods and techniques
- Coordinates *workover* programs and well reactivation to enhance production of oil and gas in compliance with company policy and environmental standards
- Recommends new technologies and implements processes to increase well optimization levels.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC, including English, Mathematics and Physics, a Technician's Diploma in Mechanical or Petroleum Engineering and at least two (2) year experience with artificial lift methods.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; manipulating
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material, ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Light work; use of hands; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing; walking.
<b>Environmental Conditions:</b>	Inside and Outside, daytime; noise; slippery surfaces, mechanical hazards; gases.

#### **3117.12 CORROSION TECHNICIAN**

Monitors and maintains the corrosion control systems on transmission and distribution pipelines and related facilities:

- Takes readings using external and internal corrosion monitoring devices at established points on transmission and distribution lines
- Conducts checks to ensure proper functioning of *ground* bed
- Conducts tests and surveys of conditions inside and outside of pipelines to ensure effectiveness and integrity of corrosion control systems
- Installs, checks and repairs test stations, insulating joints and casing insulators to ensure they are effective and operational
- Assists in installation of cathodic protection systems
- Monitors work of contractors and third parties performing jobs related to or affecting corrosion control systems

- Assists in determination and procurement of materials needed for installation and repairs
- Prepares reports on checks, surveys and repairs conducted on corrosion control systems
- Assists in the preparation of contract documents for the tendering of works.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC or GCE “O” level subjects including English Language, Mathematics, Physics and Chemistry. Electrical/Electronic Technician’s Diploma or its’ equivalent and two (2) years’ experience in a corrosion-related field. Completion of a basic Corrosion and Cathodic Protection Course would be an asset.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; precision working
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers.
<b>Interests:</b>	Scientific and technical work.
<b>Physical Demands</b>	Light Work, stooping, crouching, use of hands, use of fingers, writing; talking – ordinary; hearing – ordinary conversation, other sounds; vision – ordinary, acuity beyond 6 metres, acuity within 0.5 metres; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; risk of bodily injury/loss; fumes, gases.

#### **3117 .13 GAS ENGINEERING TECHNICIAN**

Facilitates delivery of gas of required volume and pressure for production operations:

- Monitors production flow and executes operational activities
- Participates in budget preparation for section
- Procures material for production in a timely manner
- Prepares and assists with bid packages
- Ensures adherence to Health, Safety and Environment policy
- Measures and reports gas production activities

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Gas Technician Diploma with three years’ relevant work experience. Computer literacy is an asset. Must be in possession of a valid driver’s license

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial, graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; use of hands and fingers; writing; normal speech, hearing – ordinary conversation, other types; vision – ordinary, standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; fumes, gases

### **3117.14 CORE ANALYST**

Conducts mineralogical, geochemical and physical analyses of oilwell core samples and performs related laboratory testing services:

- Prepares samples for testing by taking mud scrapings, filtrating, making sample plugs or slicing full-hole samples
- Inspects samples under ultraviolet lamp and microscope to determine mineral composition and grain size
- Prepares lithographic descriptions of samples
- Examines samples in mercury vapour pump and permeameter to obtain gas readings, determine level of gas in formation and determine permeability
- Performs specific gravity test to determine volume of oil and water
- Carries out sieve analysis to check grain-size percentages
- Utilizes appropriate computer software where applicable to aid in analysis
- Prepares distilled water and standard laboratory solutions
- Records data on all tests and prepares reports as require

May collect core, gas or oil samples in oilfields and calibrate temperature and pressure survey bombs

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Technician certificate in Petroleum Engineering with at least one year on-the-job experience.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working
<b>Education and Training</b>	Tertiary qualification not equivalent to university first degree

<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 2 year, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perform mathematical operations and processes quickly and accurately; ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions.
<b>Interests:</b>	Scientific and technical work.
<b>Physical Demands:</b>	Light work, lifting, carrying, pushing, pulling; stooping, raising of arms; reaching, use of hands, use of fingers, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, sitting
<b>Environmental Conditions:</b>	Inside, daytime, working around people; toxic/ noxious substances; fumes

### **3117.18 DRILLING FLUIDS TECHNICIAN/Workover and Completion Fluids Technician/ Mud Plant Operator**

Plans and controls mixing of fluids needed for drilling and completion activities in oilwells:

- Plans mud systems, stipulating composition of mud for different conditions in borehole, based on requirements stated in oilwell programmes
- Supervises mixing of fluids, tests fluid samples periodically and recommends adjustments to maintain correct density, viscosity and other properties
- Supervises crew operating and maintaining mudplant, instructing employees in safe and correct methods of handling chemicals used in preparation of mud
- Ensures that mudplant operations are compliant with health, safety and environmental standards
- Makes recommendations to increase safety, economy and efficiency of operations
- Ensures planned maintenance to pumps, valves and surface system is carried out
- Manages inventory of fluids and chemicals and maintains records concerning use and cost of drilling fluid
- Prepares reports comparing depth and mud weight on each well for use in planning mud programmes

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) 'O'Levels/CSEC (including Maths, Chemistry, English Language) and three years experience in a drilling environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training</b>	Forms 4 & 5, CSEC/GCE 0-Level
<b>Development:</b>	
<b>Special vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; precise

	attainment of set limits tolerances or standards; ability to work as part of a team.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; mechanical work.
<b>Physical Demands:</b>	Light work; writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary; standing, walking.
<b>Environmental Conditions:</b>	Inside and outside; shifts/on call; working around people; noise, vibration; slippery surfaces, risk of bodily injury/loss, toxic/noxious substances, mechanical hazards; odours, dust, dirt.

### **3117.19 SURFACE AND SUBSURFACE SAFETY SYSTEMS TECHNICIAN**

Assists and advises operations personnel regarding safe and most efficient use and maintenance of equipment on rig site:

- Assists operations personnel with any equipment problems encountered
- Ensures that equipment is operated under appropriate conditions
- Ensures that proper procedures are followed in the maintenance of equipment
- Advises operations personnel on equipment specifications and provides information on equipment limitations

May assist engineering with equipment qualification testing in establishing operating and maintenance procedures.

### **EDUCATION/ TRAINING /EXPERIENCE/REQUIREMENTS:**

3 CSEC/GCE “O” level passes with over three years field operations experience in a rig site environment.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision work.
<b>Education and Training Development:</b>	CSEC/GCE ‘O’ Levels
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations quickly and effectively; ability to perceive details in objects or in graphic material; ability to perceive pertinent details/ differences in verbal/ tabular material; ability to make precise movements by coordinating eyes, hands/ fingers; ability to move fingers and manipulate small objects rapidly/ accurately; ability to move and work with hands easily and skillfully; ability to move body members with good coordination.
<b>Interests</b>	Industrial work.
<b>Physical Demands</b>	Light work; climbing; balancing; stooping; crouching; use of hands;

	use of fingers; talking-ordinary; hearing ordinary conversation; other sounds; ordinary vision; close acuity within 0.5 meters; ability to adjust focusing; standing; walking
<b>Environmental Conditions</b>	Inside and outside, high places, shift/on call, working around people; noise, vibration; mechanical hazards; fumes, odors, gases, glare.

### **3118.01 CARTOGRAPHIC SUPERVISOR**

Develops systems for quality assurance and quality control of geological, spatial and archival data in support of exploration decision-making and mapping services:

- Verifies technical and graphics datasets for accuracy and integrity
- Ensures that maps, reports, diagrams and scanned images are of the highest quality by validating data for accuracy, completeness and application of international and company standards
- Assesses plans and provides guidelines on workflows related to job requests
- Improves workflows by developing standard formats, templates and database queries
- Writes and executes queries on databases to obtain specialized maps and other data
- Maintains established protocols for record retention, movement, transfers, protection and security backup procedures
- Manages the plotting of data
- Maintains plotting and scanning equipment and orders computer consumables
- Coaches, monitors and guides subordinates for maintenance of a harmonious and productive work-team.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC passes including English Language and Mathematics (Geography, Technical Drawing and Art are assets), GIS, GAPTECH or General Draughtsman Certification and at least seven (7) years experience in the fields of Cartography, Records Management and Project Management. Knowledge of geographical and computer-aided Draughting is required.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; precision working.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests</b>	Scientific and technical work
<b>Physical Demands</b>	Light work; use of hands, use of fingers, writing; talking – ordinary;

hearing - ordinary conversation; vision – ordinary, colour vision; standing, walking, sitting.  
**Environmental Conditions** Inside, daytime, working around people.

### **3118.11 GEOLOGICAL DRAUGHTER/Cartographer**

Develops plans and produces maps and graphic presentations to support oilwell drilling and related projects:

- Acquires, updates, edits, maintains and digitizes geological/geophysical/engineering surface and subsurface data for use by professional personnel
- Produces *thematic maps*, sections, *montages* and graphic presentations using international and company standards
- Edits and manipulates graphics to meet specific requirements and performs file conversions
- Maintains established workflows and data standards
- Maintains an electronic map rack

### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

Five (5) CSEC/GCE “O” level passes including Mathematics and English, (Geography, Technical Drawing and Art are assets) and GIS, GAPTECH or General Draughtsman Certification.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working.
<b>Education and Training</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Development:</b>	
<b>Specific Vocational Preparation</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers.
<b>Interests</b>	Scientific and technical work.
<b>Physical Demands</b>	Sedentary work; use of hands, use of fingers, writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting.
<b>Environmental Conditions</b>	Inside, daytime, working around people.

### **3119.01 SUPERVISOR OF INSPECTORS**

Coordinates and provides timely support to refinery and facility needs in the fields of inspection, fixed equipment reliability and corrosion control:

- Guides field inspection teams in performing timely, accurate, and documented execution of programs



- involving corrosion data acquisition, plant inspection and corrosion mitigation programs
- Determines manpower requirements, services and equipment readiness for major scale turnarounds and fabrication projects
- Ensures that all inspection recommendations are periodically tracked for implementation status and informs supervisor of possible risks associated with non-compliance with recommended actions
- Develops, implements, tracks and revises risk-based equipment inspection
- Supervises inspection of equipment and piping and reviews reports and recommendations
- Issues quality control plans for relevant repair/fabrication works and follows up to ensure compliance
- Develops and periodically updates inspection recommendation tracking log and provides progress status reports on refinery-wide special inspection programs
- Initiates and implements best practices and efficiency enhancement
- Keeps abreast of technological advancements from global technical fora
- Evaluates bids for service and manpower contracts and approves payment for work completed.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician Diploma in a relevant discipline, an approved inspection certification and ten years experience in refinery inspection, three of which should be at a supervisory level.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of people; handling.
<b>Education and Training</b>	University first degree
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawing/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tubular material.
<b>Interests:</b>	Scientific and technical work; industrial work
<b>Physical Demands:</b>	Light work; stooping, raising of arms; handling, writing; talking – ordinary, other types; hearing – ordinary conversation; vision – ordinary, within 0.5 metres; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, shift/on call, working around people; risk of bodily injury/loss, toxic/noxious substances

#### **3119.02 ELECTRICAL AND INSTRUMENTATION SUPERVISOR**

Develops and implements programme of preventive electrical and instrument maintenance to support company's operations:

- Prepares scope of works and variations for assigned work
- Schedules work to achieve operational targets such as reliable electricity supply

- Participates in budget planning and ensures that resources are available to complete jobs in timely, safe and cost-effective manner
- Supervises electrical and instrumentation maintenance workers and contractors
- Provides technical advice and suggests solutions to recurrent problems
- Ensures projects are executed within approved budget allocation
- Recommends replacement obsolete or high maintenance equipment
- Oversees commissioning of equipment and ensures that equipment reliability is maintained in conformity with design and operating requirements and company procedures
- Ensures compliance with health, safety and environmental standards
- Ensures accuracy of work and equipment reports.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Instrumentation or Electrical/Electronic Engineering Technician's Diploma (EEET) and over five years experience. Knowledge of a computerized maintenance management system or control system software maintenance may be required.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests</b>	Industrial work
<b>Physical Demands</b>	Light work; use of hands, use of fingers, writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting.
<b>Environmental Conditions</b>	Inside and outside; daytime; shift/on call; working around people; noise; risk of bodily injury/loss; electrical hazards.

#### **3119.03 SUPERVISOR, SURVEILLANCE AND INSPECTION**

Supervises and monitors the provision of maintenance services to gas pipelines and related facilities on rights of way:

- Inspects rights of way pipelines and related facilities to ensure conformance with prescribed standards and codes using mobile, foot and aerial surveys
- Recommends corrective action where necessary and supervises preparation of documentation and justification for repair/maintenance work to be carried out

- Evaluates quotations and makes recommendations for the award of contracts for maintenance services
- Conducts site visits, line walks and surveys and monitors contractors to ensure satisfactory compliance with contractual obligations
- Negotiates with third party contractors and landowners concerning pipeline rights of way, crop compensation and other property-related claims
- Advises, guides and monitors on-the-job training of subordinates
- Participates in developing annual budget and objectives to be achieved
- Administers and ensures compliance with human resource, finance, legal and other policies and procedures

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' Level subjects including Mathematics, English Language and a Science, a National Technician's Certificate in Civil or Mechanical Engineering, Certification in Non Destructive Testing (NDT) Welding and Coating Inspection and Diploma in Supervisory Management. Minimum of 8 years experience in a similar or related function, including 3 years supervisory experience in an industrial environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work related activities; handling.
<b>Education and Training</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Development:</b>	Over 5 years, up to and including 10 years
<b>Special Vocational Preparation:</b>	
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work, business detail, leading-influencing
<b>Physical Demands:</b>	Light work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, field of vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, in air, daytime, working around people; risk of bodily injury/loss; glare.

#### **3119.04 SUPERVISOR, PIPELINE SERVICES**

Supervises the maintenance and repair of pipeline systems and related facilities:

- Inspects pipeline installations and related facilities to determine maintenance requirements and resources needed to complete work in a timely, safe and cost-effective manner

- Plans work programmes for pipeline maintenance in accordance with department budget and initiates action for procurement and delivery of materials for job completion
- Plans and conducts *pigging* operations on transmission and distribution pipelines
- Assigns crews to maintenance jobs and monitors performance of said crews to ensure achievement of work targets and compliance with established policies, procedures and practices
- Provides technical advice within area of responsibility
- Conducts root cause analysis of recurrent problems and provides solutions to problems
- Inspects completed works to ensure compliance with specifications
- Secures, maintains and allocates company equipment assigned to field service units
- Assists in preparation of annual budget and administers management policies and procedures
- Prepares operational/technical reports and maintains record of department-related activities and equipment

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC /GCE 'O' Level subjects including English Language, Mathematics, Chemistry or Physics, with a National Technician's Diploma in Mechanical Engineering Technology or Diploma in National Gas Operations and Supervisory training. At least 8 years experience in a related field is required.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at a technical institute, training school, similar institution
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; stooping, raising of arms; reaching, use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; acuity within 0.5 metres; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; risk of bodily injury/loss; fumes, gases, glare

#### **3119.15 TURNAROUND PLANNER**

Prepares work plans and schedules for construction and maintenance activities of *turnarounds* to improve workforce productivity and maximize plant availability:

- Consults historical data on turnarounds to inform work plans and schedules
- Develops integrated work plans and schedules compliant with company, statutory, national and industrial standards

- Interfaces with technical, operations and maintenance personnel to establish turnaround activities
- Provides accurate cost and manpower estimates in work plan preparation
- Prepares contracts and follows up for approval
- Identifies and expedites materials, equipment and resources for timely work plan execution
- Participates in discussions with third parties including contractors
- Monitors health and safety standards.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician Diploma in a relevant area and a minimum of six (6) years' construction and maintenance experience in the energy sector.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; business detail.
<b>Physical Demands:</b>	Light work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; walking, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

#### **3119.16 TURNAROUND PLANNING ASSISTANT**

Provides documented and field information required for planning, scheduling and execution of construction and maintenance projects:

- Collates information for use in development of integrated work plans and schedules for turnarounds and special projects
- Interprets drawings and *bills of materials* and prepares material requirements and requisitions
- Prepares work orders for turnarounds and special projects
- Prepares cost estimates and collates cost information for use in the preparation of budgets
- Compiles bid packages and participates in manpower planning activities
- Maintains and updates filing systems and databases for turnaround documents and equipment drawings
- Documents, prepares and distributes status reports to personnel responsible for the efficient implementation of turnaround activities

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician Diploma in a relevant area with at least three years' experience in a maintenance or contract department in the energy sector.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/ tabular material.
<b>Interests:</b>	Industrial work; business detail
<b>Physical Demands:</b>	Light work; writing, talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

**3119.17 ELECTRICAL AND INSTRUMENTATION TECHNICIAN**

Installs, maintains and repairs electrical, instrumentation and control systems to ensure safe and reliable operations:

- Installs, and calibrates tests electrical equipment and instrumentation in accordance with manufacturers' specifications and company standards
- Carries out preventative maintenance of and repairs to control systems hardware
- Troubleshoots instrumentation and electrical power systems and recommends corrective measures to supervisor
- Conducts statutory inspection and testing of protection relays of electrical systems
- Conducts electrical and/or instrumentation maintenance and engineering change activities safely, efficiently
- Monitors equipment and instrumentation and makes modifications as required
- Submits reports on maintenance and repairs undertaken.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Instrumentation or Electrical/Electronic Engineering Technician's Diploma (EEET) and three to five years experience. Knowledge of a computerized maintenance management system or control system software maintenance may be required.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working.
<b>Education and Training</b>	Awards not equivalent to university first degrees, obtained at technical

<b>Development:</b>	institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests</b>	Industrial work
<b>Physical Demands</b>	Light work; lifting, carrying, pushing, pulling; climbing; use of hands, use of fingers, strong grip, writing; talking – ordinary; hearing - ordinary conversation; vision – ordinary, acuity within 0.5 metres, colour vision; standing, walking.
<b>Environmental Conditions</b>	Inside and outside; high place; confined spaces; daytime; shift/on call; working around people; noise; risk of bodily injury/loss; electrical hazards.

### **3119.18    TECHNICIAN, PIPELINE INTEGRITY**

Provides support for the maintenance of pipelines and related facilities and monitors contract work:

- Assists in inspection of right of ways, pipelines and related facilities to ensure conformance with prescribed standards and reports on situations that could result in third party incidents
- Conducts site visits and assists in the preparation of specifications, sketches and cost estimates
- Monitors contractors for compliance with contractual obligations, scope of work and adherence to specifications, codes, standards and operating procedure
- Assists in preliminary investigation with third party contractors and land owners on matters concerning pipeline right of ways and property-related claims
- Assists in acquisition, procurement, handling and monitoring of company-supplied materials for maintenance and repair work

#### **RELATED TITLES**

TECHNICIAN, ROW MAINTENANCE

TECHNICIAN, SURVEILLANCE AND INSPECTION

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

5 CSEC\GCE 'O' Level subjects including Mathematics, English Language and a Science Subject, a National Technician Diploma in a related engineering field and a minimum of 2 years experience in a related field.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling
<b>Education and Training</b>	Awards not equivalent to university first degrees, obtained at technical
<b>Development:</b>	institute, training school, similar institution.
<b>Special Vocational</b>	Over 3 years, up too and including 5 years

**Preparation:****Temperaments:**

Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.

**Aptitudes:**

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.

**Interests:**

Industrial work

**Physical Demands:**

Light work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.

**Environmental Conditions:**

Inside and outside, daytime, working around people; risk of bodily injury/loss; glare.

### **3119.19 NON-DESTRUCTIVE TESTING (NDT) TECHNICIAN/Non-Destructive Examination (NDE) Technician**

Conducts *non-destructive* testing and examination to assess integrity and reliability of materials and equipment:

- Inspects and tests equipment and piping using non-destructive procedures such as magnetic particle and liquid penetrant inspections, ultrasonic and radiographic testing and radiographic film interpretation
- Conducts physical tests on materials and welds
- Verifies materials using alloy analyzers and reviews material test certificates
- Carries out thermographic inspection of hot equipment
- Inspects painting *substrates* and surface profiles and measures paint thickness
- Reviews test results and conducts alternative proving inspections to verify results
- Prepares sketches of new and modified piping and compiles piping information packages with access and de-insulation information
- Ensures inspection tools and equipment are properly calibrated and in working order
- Prepares reports on all inspections and tests and updates records
- Ensures execution of inspection and testing according to quality control plan and signs off on quality control forms.

**RELATED TITLES:**

NON-DESTRUCTIVE TESTING (NDT) INSPECTOR

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Level passes (including Mathematics, English and Physics or Chemistry), Technician Diploma in Welding, Mechanical Engineering or equivalent and at least three (3) years related experience.

**OCCUPATIONAL PROFILE****Data/People/Things:**

Examining, and evaluating data; communicating with people to convey



<b>Education and Training Development:</b>	or exchange information; precision working. Awards not equivalent to University first degrees, obtained at technical institute, training school or similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; climbing, balancing; stooping, crouching, raising of arms; use of hands; writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, acuity within 0.5 metres, depth perception; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, heights, confined space; daytime, working around people; noise; slippery surfaces; fumes, odours.

### **3119.20 DRILL-PIPE INSPECTOR**

Operates optical and electronic magnetic equipment to detect and record defects in used drill pipes, steel tubing and other tubular oil well equipment:

- Positions pipe on stand using jacks
- Positions scanner around pipe and connects wire to automatic graph recorder
- Presses switch to activate self-propelled scanner and allow it to travel along length of pipe and record detected defects on inspection console
- Inspects interior of pipe for surface imperfections using optical instrument
- Grades pipes according to remaining wall thickness
- Inspects connections such as threaded area joints for wear
- Inspects sealing areas and end-areas for defects to determine presence of cracks which may cause leaks, using magnetic particle inspection
- Recommends discharging of worn pipe or re-use according to customer specifications.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Technical Diploma in Mechanical or Electrical/Electronic Engineering and at least one (1) year experience in the field.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; carrying out assigned work; precision working.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years

<b>Temperaments:</b>	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; team work.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Mechanical work
<b>Physical Demands:</b>	Medium work, lifting, controls; stooping; use of hands, writing talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; walking, standing
<b>Environmental Conditions:</b>	Outside, daytime, working around people; noise; slippery surfaces, risk of body injury/loss, moving objects; odours, dust, gases, glare.

### **3121.11 PRODUCTION SUPERINTENDENT, JOINT VENTURE**

Ensures accurate measurement of hydrocarbon sales and operation of contracted companies in accordance with company standards:

- Analyses and reconciles production reports to ensure accuracy of hydrocarbon sales
- Ensures that lease and *farmout* operators adhere to gauging and testing procedures
- Establishes systems to ensure accurate collection and reporting of production data
- Issues relevant work permits and assesses completion of service by contractors before payment
- Approves new plant installations in accordance with government regulations
- Verifies, compiles and reports on all process data for effective reconciliation of hydrocarbon transactions
- Monitors shipping/pumping of crude oil to ensure compliance with required specifications to optimize *ullage*
- Supervises staff and recommends training and development
- Utilizes budgeted funds to efficiently and effectively attain fiscal targets

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/CXC 'O'Levels including Mathematics and English, a Technician's Diploma in Petroleum /Mechanical Engineering and ten (10) years experience in a production environment

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 10 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent

<b>Interests:</b>	details/differences in verbal/tabular material.
<b>Physical Demands:</b>	Industrial work, business detail
	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; fumes, odours, gases.

### **3121.12 FACILITIES SUPERVISOR, NATURAL GAS OFFSHORE FACILITIES**

Plans, coordinates and supervises operation of platform machinery and equipment to ensure safe, and cost-effective compression of natural gas:

- Establishes objectives and targets in conjunction with managerial staff and provides input for development of annual budget
- Plans and supervises compression activities ensuring compliance with company policies and procedures
- Evaluates performance of machinery, equipment and personnel to ensure provision of safe and reliable supply of compressed gas
- Takes action to provide adequate supply of goods, service and other consumables required for efficient and effective operations
- Prepares and issues maintenance requests and monitors work to ensure timely completion
- Ensures that fire drills and safety meetings are carried out at stipulated times;
- Prepares and issues safe-work permits;
- Coordinates support services required by offshore facilities including air transport, shipping and catering
- Communicates information to subordinate staff on plans, policies, procedures and organisational change
- Provides technical advice to subordinate staff and assists with training programmes
- Prepares reports on major mechanical failures and repairs to plant, equipment and machinery.

### **EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician's Diploma in Process Plant Operations, Mechanical Engineering or Instrument and Electrical Engineering; certification or experience in Health , Safety and Environmental Management and ten (10) years' experience in process plant operations /gas compressor maintenance including five years at a supervisory level.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to

	perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interest:</b>	Industrial work
<b>Physical Demands:</b>	Light work; climbing, stooping, writing, talking - ordinary, hearing – ordinary conversation, other sounds, vision – ordinary, field of vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, shifts/on call, working around people; heat; noise; slippery surfaces, toxic/noxious substances, moving objects, explosives, fumes, odours, gases, mist, glare.

### **3121.13 SUPERVISOR, PETROLEUM EXPLORATION AND PRODUCTION**

Supervises and coordinates activities of workers engaged in oil exploration and production to optimize production within approved company and industry guidelines and standards:

- Develops operational and maintenance schedules, scope of works and budget to achieve production targets and ensures that projects are completed accordingly
- Ensures that resources are available to complete jobs in timely safe and cost effective manner
- Supervises conduct of well surveys and provides data on performance and potential performance of wells
- Oversees drilling, completion and *workover* activities on assigned wells according to approved programme, schedule, costs and safety practices
- Supervises contracted and company personnel working on rigs, ensuring compliance with company policies and practices
- Provides technical advice and finds solutions to recurrent problems
- Conducts quality assurance and quality control audits on rigs, monitors rig performance and takes action to resolve issues
- Monitors rig conditions, drainage and pollution control to ensure compliance with health, safety and environment standards
- Oversees tank farm facilities, monitoring stock of pipeline quality crude oil, processing, transfer of crude to refinery and accuracy of product measurement
- Seeks to minimize losses due to leakage during storage or shipment and ensures effluent kept within acceptable and specified tolerance levels
- Collects and analyses production data and prepares production reports, recommending new technologies or process and infrastructure upgrades

#### **RELATED TITLES**

OPERATIONS SUPERVISOR, DRILLING AND WORKOVER  
 PRODUCTION SUPERINTENDENT, EXPLORATION AND PRODUCTION  
 PRODUCTION SUPERVISOR, TANK FARM  
 PRODUCTION SUPERVISOR, TECHNICAL WELL SURVEY  
 SENIOR DRILLING TOOLPUSHER  
 WORKOVER TOOLPUSHER

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

National Technician's Diploma in Mechanical/Petroleum Engineering and eight (8) years' relevant experience. Computer literacy and a valid driver's licence may be required

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; climbing; stooping, crouching; writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, nights, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, mechanical hazards, moving objects; fumes, odours, dirt.

### **3122.12 REFINERY SHIFT TEAM LEADER**

Directs and controls activities at refinery plant to meet set targets consistent with established standards, regulations and guidelines:

- Ensures the safe start-up, operation and shutdown of plant and/or equipment in accordance with prescribed operating guidelines
- Ensures that adequate human resources are available for assigned shift
- Supervises operation of plant and facilities as guided by operating instructions and reports deviations
- Leads product quality assurance team and directs corrective action for non-conformance
- Identifies threats to health, safety, the environment and production and initiates corrective action
- Coordinates isolation and re-commissioning of equipment after servicing
- Updates and releases work request notifications and ensures that information to be communicated is accurate, timely and effective

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Level subjects including Mathematics, English Language and Chemistry/Physics, a Technician's Diploma in Mechanical/Electrical Engineering or Process Plant Operation and seven (7) years experience in refinery operations.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution;

<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; field of vision; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, shift/on call, working around people; noise; toxic/noxious substances; fumes, odours.

### **3122.13 PRODUCTION SUPERINTENDENT, PETROLEUM-BASED PRODUCTS**

Controls and coordinates production activities of oil-blending plants to ensure high quality finished goods to meet demands:

- Prepares and reviews weekly production targets and plans to ensure that customer demands for products are met
- Oversees operations at production plants for efficiency and compliance with established quality control and safety procedures
- Ensures supply of daily manpower and material requirements to meet production targets
- Provides a working environment consistent with established health and safety standards that contributes to employee motivation and good industrial relations practice
- Monitors and records movement of stock and recommends most efficient method of clearing slow-moving stock
- Conducts monthly checks of physical stock and assists in reconciling/investigating discrepancies
- Prepares and submits time cards and summaries to finance department to facilitate timely processing of wages of subordinates
- Identifies training needs and conducts training and development programmes to enhance the career of subordinates
- Submits regularity reports of subordinates to human resource department for updating of personnel records.

#### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Level subjects including English Language and Mathematics or Principles of Accounts or Principles of Business; two (2) CAPE Advanced Level subjects including Chemistry, training/ experience in basic supervision and a minimum of 5 years experience in lubricating oil blending and grease production including 2 years as a foreman.

#### **OCCUPATIONAL PROFILE**

**Data/People/Things:** Planning and directing work activities; directing work-related activities of a group of workers; handling

<b>Education and Training Development:</b>	CAPE/GCE A-Level, Form 6
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material
<b>Interests:</b>	Industrial work, business detail
<b>Physical Demands:</b>	Light work; stooping, crouching, raising of arms; use of hands, use of fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people; noise; risk of occupational diseases; odours.

### **3122.14 PLANT FOREMAN, PETROLEUM-BASED PRODUCTS**

Coordinates and supervises production at oil-blending plants to assist in attainment of production targets:

- Plans, coordinates, implements and monitors daily operations at oil blending plants
- Reviews production documents, assigns duties to staff, prepares orders and takes delivery of raw materials
- Identifies, analyses and resolves operational problems on production lines and blending systems and reports equipment malfunctions
- Checks, verifies and validates production figures in consultation with laboratory personnel
- Supervises the safe discharge of base oil from marine vessels and road tank wagons to bulk storage tanks and verifies quality of product
- Coordinates and supervises transfer of base oils from secondary storage to working tanks to ensure availability of adequate reserves for blending
- Checks to ensure that all plant machinery is shut down at the end of daily operations
- Conducts in-house orientation and induction training for new employees
- Prepares and maintains files of historical data on products and plant operations
- Prepares written reports on blending activities and process upon request.

#### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

Five (5) CSEC/GCE “O” level subjects including English Language and Mathematics, two (2) CAPE/GCE A’ Level subjects with Chemistry as an asset, training in basic supervision and a minimum of three years experience in Lube Oil Blending and Grease Production.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	CAPE/GCE ‘A’ Level, Form 6
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years

**Preparation:**

**Temperaments:** Dealing with people beyond giving and receiving instructions; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.

**Aptitudes:** Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.

**Interests:** Industrial work; business detail

**Physical Demands:** Light work; use of hands, writing; talking-ordinary; hearing-ordinary; conversation; vision-ordinary, field of visions; standing, walking sitting.

**Environmental Conditions:** Inside and outside, daytime, working around people; noise; risk of bodily injury/loss, mechanical hazards, moving objects; fumes, odours.

**3134.11 FACILITIES TECHNICIAN, NATURAL GAS OFFSHORE FACILITIES**

Provides technical and support services to facilitate efficient, reliable functioning of platform equipment:

- Monitors and records temperatures, flows, pressures and levels of gas compressors and related platform equipment to ensure efficient and reliable operation
- Reports any deviations and/or abnormalities in machine readings or observations to supervisor
- Diagnoses equipment malfunctions and services, repairs or replaces defective components
- Performs planned and unplanned maintenance repairs and servicing to electrical, electronic and mechanical equipment and piping on offshore facilities to ensure continuous operations
- Performs basic operational functions of isolation, start-up and shutdown of plant and machinery on platform
- Performs functional and other checks on fire, safety and other equipment to ensure proper functioning and location
- Performs housekeeping tasks on platform and machinery to ensure a safe and clean environment
- Prepares daily facility logs and reports.

**EDUCATION/ TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE O'Level passes in Mathematics, English and a science subject, National certificate in Plant Process Operations, Mechanical, Electrical or Instrumentation Engineering and two (2) years' experience in a related field.

**OCCUPATIONAL PROFILE**

**Data/People/Things:** Gathering, collating or classifying information; communication with people to convey or exchange information; operating-controlling.

**Education and Training Development:** Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.

**Special Vocational Preparation:** Over 3 years, up to and including 5 years.

**Temperaments:** Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.

**Aptitudes:** Ability to move and work with hands easily and skillfully; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular



<b>Interest:</b>	material. Industrial work
<b>Physical Demands:</b>	Medium work; lifting, carrying, pushing, pulling, use of hand/arm and/or foot/leg to operate and control machinery or equipment; climbing, stooping, crouching, raising of arms; reaching, use of hands, use of fingers, strong grip, writing, talking - ordinary, hearing – ordinary conversation, other sounds, vision – ordinary, colour vision; standing, walking, sitting; good bodily coordination.
<b>Environmental Conditions:</b>	Inside and outside, high places; heat, wet, noise, slippery surfaces, risk of bodily injury/loss, toxic/noxious, mechanical hazards, electrical hazards, moving objects, burns; fumes, odours, gases, glare.

### **3134.12 PRODUCTION OPERATOR, TANK FARM**

Operates petroleum tank farm equipment to produce pipeline-quality crude oil and facilitate timely shipment:

- Operates tank farm equipment such as pumps, direct fire heater unit, heat treater unit, and oil and water separator units
- Measures and records inventory levels of crude oil
- Monitors and ensures effluent levels are kept within specified tolerance levels
- Ensures pipeline-quality crude is available and shipped as specified
- Complies with health and safety standards

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O'Level passes, Certificate in Plant Process Operations or National Technician Diploma (Mechanical, Instrumentation or equivalent) and at least 2 years experience in process operations.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; operating-controlling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, use of hand/arm and/or foot/leg to operate and control machinery or equipment; climbing; raising of arms; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise, vibration, mechanical hazards, electrical hazards; fumes.

### **3134.13        GAS OPERATOR**

Operates and maintains gas pipelines and associated equipment to deliver targeted volumes of gas at required pressures:

- Operates equipment such as gas/liquid separators, in line samplers and production manifolds
- Maintains physical gas distribution infrastructure
- Monitors production flow and provides accurate measurement of natural gas collected and distributed
- Ensures delivery of targeted volumes of gas at required pressures
- Minimizes gas losses and pollution
- Maintains health, safety and environmental standards
- Compiles operational reports

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Diploma in Gas Technology and five (5) years' experience in gas operations.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; operating/controlling.
<b>Education and Training Development:</b>	Awards not equivalent to University first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards
<b>Aptitudes:</b>	Ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; reaching, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking.
<b>Environmental Conditions:</b>	Outside, daytime, working around people; toxic/noxious substances; fumes, gases.

### **3134.14        REFINERY OPERATOR**

Operates refinery plant, equipment and systems in accordance with company policies, procedures and operating standards:

- Performs start-up and shutdown of plant and equipment as directed
- Operates control panel, identifying and correcting deviations to maintain critical control parameters
- Records and reports deviations and action taken
- Conducts field operations to facilitate optimum performance of plant equipment and facilities
- Performs tests on plant for quality assurance purposes
- Carries out line routing and/or isolation as directed
- Operates furnaces and boilers in compliance with specified operating instructions
- Prepares equipment for maintenance work and participates in preparation of site for maintenance and plant turnaround
- Performs work activities in compliance with health/safety and environmental standards

- Validates information received at shift handover and relays necessary information to personnel on following shift.

**RELATED TITLES:**

REFINERY OPERATOR, ENTRY LEVEL

REFINERY OPERATOR, HIGH LEVEL

SENIOR REFINERY OPERATOR

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' level passes in Mathematics, English and Physics or Chemistry, a Technician's Diploma in Mechanical/ Electrical Engineering or Process Plant Operations and successful completion of final examination at end of Refinery Operator training with three (3) years industrial experience.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; operating-controlling.
<b>Education and Training development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Mechanical work, industrial work
<b>Physical demands:</b>	Light work, use of hands, use of fingers, writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, colour vision, standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, shift/on call, working around people; noise; toxic/noxious substances; fumes, odours, gases.

**3139.05 UTILITIES SUPERVISOR**

Coordinates activities pertinent to operation and maintenance of steam generators and water production facilities:

- Establishes schedule to achieve operational targets of steam and water produced
- Prepares budget proposals and executes projects on approved allocated budget
- Allocates resources needed to complete job in a timely, safe and cost-effective manner
- Ensures compliance on issues of health, safety and environment.
- Provides technical advice on activities within area of responsibility including Permits to Work
- Recommends the introduction of new technologies and the replacement of obsolete equipment
- Reports on scope of work and performance of contractors to facilitate payment
- Ensures accuracy of work and equipment reports.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Technician Diploma in a relevant field. Certificate in Management and at least five (5) years' related work experience. A valid driver's permit is required.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at Technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; business detail.
<b>Physical Demands:</b>	Light work, writing, talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; fumes; gases.

**3139.15 UTILITIES OPERATOR**

Operates and maintains equipment to produce and distribute steam and water:

- Operates and regulates output of equipment such as steam generators, chemical pumps and valves
- Checks pressure, amperage, voltage and production of water wells, steam generators, pumping and distribution systems
- Tests boilers, chemical plants and water for chlorine, sulphite, iron and steam quality and tests submersible equipment for water wells
- Diagnoses and resolves problems in operating equipment and plants
- Complies with safety and housekeeping requirements and ensures readiness for government inspection and safety tests
- Records plant parameters on daily basis.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Three CSEC/GCE 'O' Level subjects including Mathematics, English and a Science Subject, training in Process Plant Operations and/or five years experience in a process-type environment:

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; operating-controlling
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE O-level
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years

<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, controls; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking.
<b>Environmental Conditions:</b>	Inside and outside, daytime, shift/on call, working around people; heat; wet; noise; slippery surfaces, noxious substances, mechanical hazards electrical hazards; fumes.

### **3159.11 MARINE FLEET SUPERVISOR**

Supervises operations of marine vessels to support movement of personnel, equipment and other resources to offshore operations:

- Ensures that marine vessels and services are available for offshore operations
- Supervises crew members and ensures incumbents are trained and ready to perform
- Directs implementation of repair work to ensure reliability of vessels and monitors work to ensure maintenance of standards
- Monitors storage, care and handling of emergency equipment on vessels and compliance with approved specifications and standards
- Checks licenses, contracts, requisitions forms and other documents related to operation of vessels to ensure adherence to policy and procedure
- Develops and implements safety, accident prevention and environmental control programmes
- Checks reports, records and daily logs for accuracy and submits these to superior officers if requested

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' Level passes including Mathematics and English Language; Boat Master Grade I Certificate - Small Commercial Vessels or Boat Engineer Grade 1 Certificate with a minimum of two years experience at supervisory level.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at Technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective and judgmental criteria
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material

<b>Interests:</b>	Industrial work; business detail
<b>Physical Demands:</b>	Light work; climbing; writing, talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss; glare

### **3331.11 SHIPPING COORDINATOR**

Coordinates loading and dispatching of company products via marine facilities and prepares shipping documentation:

- Coordinates vessel arrival and berthing between company's marketing and operations departments and external agencies
- Facilitates safe, accurate and cost-effective loading of company products
- Ensures compliance with deadlines and pre-arranged shipping schedules to minimize incurrence of charges and other penalties associated with delays
- Monitors marine activities of the company and third parties to ensure adherence to shipping laws and other maritime requirements
- Prepares and distributes Shipping Bills, Bills of Lading, Certificates of Origin and other documents required for exportation/importation
- Provides shipping and loading advice to departmental manager
- Compiles data and prepares reports related to vessel loading and berthing

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' Level passes, a Custom and Excise Brokers Grade II License, an Institute of Chartered Shipbrokers Diploma or equivalent and three years' experience in a shipping/ marine agency.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Tertiary qualification not equivalent to university first degree
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instruction; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/ group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Light work; writing, talking- ordinary, other types; hearing -ordinary conversation, vision -ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; slippery surfaces; gases.

### 3359.12 PETROLEUM INSPECTOR

Inspects petroleum installations on behalf of government ministry to ensure adequate payment of royalty and adherence to safety standards, pollution control and conservation practices:

- Checks quantity and quality of crude oil and petroleum products produced and shipped by oil companies for royalty evaluation purposes
- Measures quantities of oil in storage tanks and at gathering stations and tests samples of stored oil from well-head and tanks
- Inspects storage tanks, pipelines and gathering stations to ensure adherence to industrial safety standards, fire and pollution prevention practices, and verify that correct production procedures are in force
- Investigates and reports on oilfield accidents, oil leaks and overflows
- Makes recommendations for stoppage of leaks or overflows, rehabilitation of affected environment and payment of compensation
- Examines and inspects new installations and witnesses calibration of royalty meters
- Assists **Petroleum Engineer** in inspection of drilling and production work-over rigs, requesting and witnessing testing of well as necessary
- Inspects gas stations and other installations storing petroleum and other flammable solvents to check safety practices
- Maintains records of tests carried out in assigned companies, for comparative purposes
- Maintains inventory of oil-well facilities

May prepare charts and graphs to illustrate trends in the industry.

### EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS

CAPE or GCE 'A' Level passes in Physics and Chemistry and some oil production/oil refinery experience or training/certification in Health, Safety and the Environment.

### OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; precision working
<b>Education and Training Development:</b>	Cape/GCE 'A' level, Form 6;
<b>Special Vocational Preparation:</b>	Over 1 year, up to and including 2 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Scientific and technical work; business detail
<b>Physical Demands:</b>	Light/medium work, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; standing, sitting, walking
<b>Environmental Conditions:</b>	Inside, outside, heights, shift/on call, working around people; wet; noise; slippery surfaces; fumes, odours, dirt, toxic conditions, gases.

### **3360.11 BUNKERING OFFICER**

Coordinates acquisition, storage and distribution of fuel, water and lubricants to support offshore operations:

- Records and reconciles accounting matters with contractors and other service providers
- Allocates costs to contractors based on their utilization of water, fuel and lubricants during operations
- Manages the acquisition, storage and distribution of fuel, water and lubricants
- Ensures that nozzles, hoses, lines, valves, meters and storage tanks are in operational order
- Schedules and coordinates activities of workers involved in bunkering
- Ensures that health, safety and environment standards on activities at bunkering sites are adhered to.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Certificate/Diploma in Business Administration or equivalent and five (5) years experience in a marine oil and gas environment

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial, graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Light work; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation, other types; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people, wet, fumes

### **3360.13 MATERIALS COORDINATOR, PETROLEUM EXPLORATION AND PRODUCTION**

Provides logistics support between drilling rigs and shore base:

- Liaises with service providers and other **Materials Coordinators**
- Coordinates safe, timely and efficient shipment of goods to and from shore base and rig
- Receives drilling equipment and supplies on rig
- Manages, controls and monitors inventory on rig
- Collects data relating to drilling costs and prepares cost records and material reports

#### **RELATED TITLES**

MATERIALS COORDINATOR, OFFSHORE

MATERIALS COORDINATOR, ONSHORE



## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS**

CAPE or GCE A-Level passes, knowledge of computer applications and at least three years' experience in oilfield logistics, materials or inventory control. Offshore survival training certification may be required.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	CAPE/GCE A-level, Form 6;
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years.
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work; business detail
<b>Physical Demands:</b>	Light work; climbing; stooping; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, depth perception; standing, walking; good bodily coordination.
<b>Environmental Conditions:</b>	Inside and outside; daytime, shift/on call; noise, vibration; slippery surfaces, risk of bodily injury/loss, mechanical hazards.

## **3411.01 RIGHT OF WAY (ROW) SUPERVISOR, GAS INDUSTRY**

Coordinates acquisition of property for construction of new gas distribution pipelines and related facilities and regularization of existing facilities:

- Plans and implements *Right of Way (ROW)* acquisition work plans
- Supervises maintenance of land management information system and its interface with geographic information system
- Organises crop valuations, conducts preliminary assessment of structural damage and participates in negotiation and settlement process with property owners
- Organizes and undertakes analysis of title searches and prepares preliminary title opinions
- Oversees final ROW transfers and execution of accompanying lease documents and follows through on land acquisition transactions
- Provides advice on right of way/land management issues
- Assists with establishment of annual tasks and targets to be achieved and development of annual budget
- Administers established human resource, financial, legal and other policies and procedures to ensure compliance
- Advises, guides and provides on-the-job-training for subordinate personnel
- Prepares periodic reports on work of section.

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

A certificate in Paralegal studies or Management Studies, and five years' related experience.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling.
<b>Education and Training Development:</b>	Tertiary qualifications not equivalent to university and first degree.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years.
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people;
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail; leading-influencing.
<b>Physical Demands:</b>	Light work; writing; talking- ordinary; hearing –ordinary conversation; vision – ordinary; walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people.

### **3411.11 LANDS OFFICER/Landman**

Provides support services relative to acquisition of rights of way and compensation for land owners:

- Identifies proposed right-of-way routes or parcels of land within area of interest
- Conducts searches of public property records to verify status of titles, taxes or outstanding charges against properties
- Drafts correspondence, leases, letters of consent and agreements and other documents relative to acquisition and compensation
- Conducts field visits to ensure that field operations comply with rights of way requirements and *set back limits* and to follow up reports of oil spills, clearing, pollution and violation of agreements
- Investigates, assesses and settles claims and reports from land owners
- Requests assessment of damage claims by **Valuators** and reviews and certifies assessments
- Arranges for stamping of forest produce before clearing of land and witnessing of process
- Conducts crop counts to assess required compensation
- Represents company at pollution tribunals and court matters
- Prepares reports on land ownership investigations
- Updates land management database or submits information to database personnel

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Certificate or Diploma in paralegal studies, Estate Management, Civil Engineering or Surveying and at least three (3) years related experience or 5 'O' Levels and five (5) years related experience.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at Technical institute, training school or similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to

<b>Aptitudes:</b>	another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria. Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Light work; stooping, raising of arms; use of hands, use of fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people

### **3700.11 OPERATIONS CONTROLLER, OFFSHORE SUPPORT SERVICES**

Plans and directs flight operations to support timely and efficient movement of personnel and materials to and from offshore facilities:

- Prepares bookings for personnel to ensure timely request for helicopter services
- Establishes weekly flight schedules in consultation with supervisor and helicopter service personnel to ensure optimal use of flights
- Prepares flight manifests indicating passengers, destinations and cargo
- Inspects, tags, loads and unloads material onto helicopter and coordinates dispatching of personnel in accordance with safety standards
- Conducts safety briefings as necessary and ensures passengers are equipped with the necessary safety gear
- Liaises with pilots and helicopter dispatchers to ensure arrival/departure times and destination are maintained

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O'Level passes including Mathematics and English, Air Traffic Control certification and three-five (3-5) years experience in an offshore industrial environment. Valid Driver's Permit (Class 3) is required with three years driving experience.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution;
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to visualise objects in three dimensions from drawings/ representations;

	ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive pertinent details in objects or in pictorial/graphic material.
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling ; use of hands, writing; talking – ordinary ; hearing – ordinary conversation, vision – ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside, outside; noise; mechanical hazards, moving objects; fumes, odours, gases.

### **3700.17 BERTHING OFFICER/Dock Supervisor**

Supervises operations relating to vessel turnaround to ensure safe, timely and cost-effective delivery of cargo:

- Holds discussions with port and marine personnel on berth allocation, pilotage, towage services, disposition of cargo and programme of loading/discharging
- Supervises port and marine personnel involved in berthing and unberthing of vessels, and preparation, hosehandling, line and valve setting for loading and discharging of vessels
- Ensures tasks are correctly performed and compliant with health, safety and environmental standards
- Maintains contact with vessel personnel and with senior port/marine personnel during operations to inform them of progress and obtain technical advice
- Completes shore safety check lists for all vessels calling at port, in accordance with international safety regulations and policies of port
- Inspects facilities, equipment and fittings to ensure integrity and monitors operating performance and condition takes corrective action and reports need for maintenance and repair
- Checks adequacy of lighting and security in harbour area
- Responds to port and marine incidents/emergencies reports to superior and initiates investigations
- Maintains log relating to berthing of vessels, hose connection time and amount of cargo discharged.

### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

Five CSEC/GCE 'O'Level subjects including Mathematics and English Language and a minimum of five (5) years' experience as a Jetty Operator.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of workers; handling.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE O-level;
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Mechanical work; business detail

<b>Physical Demands:</b>	Light work; climbing, balancing; writing; talking-ordinary, other; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, shift/on call, working around people; risk of bodily injury/loss; fumes, odours, glare.

### **3900.11 OPERATIONS COORDINATOR, GAS PROCESSING**

Coordinates and supervises safe and effective operations of gas-processing plant and dock facilitates to attain maximum economic liquid extraction:

- Supervises plant and dock operations on a shift basis
- Monitors plant processing conditions and dock facilities to ensure compliance with set processing parameters
- Provides technical assistance and training for operations and laboratory personnel
- Analyses and corrects plant performance problems during shift
- Coordinates and monitors safe ship-loading operations
- Certifies product testing and product analysis
- Oversees general safety and operability of plant during night shift, assessing and initiating emergency response actions as required
- Prepares and submits daily shift reports

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

A National Technicians Diploma in Instrumentation, Electrical or Process Technology and seven years experience in the Petroleum/Petrochemical industry with two years in a senior position.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; handling
<b>Education and Training Development:</b>	Award not equivalent to university first degrees, obtained at technical institute, training school or similar institution.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material
<b>Interests:</b>	Industrial work, business detail
<b>Physical Demands:</b>	Light work; talking- ordinary, other types; hearing – ordinary conversation; vision – ordinary, field of vision; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime, nights, shifts/on call, working around people; toxic/noxious substances; fumes, odours, toxic conditions, gases

### **4312.11 PETROLEUM ENGINEERING ASSISTANT**

Compiles and presents statistical data relating to the petroleum industry:

- Compiles statistics from data submitted by oil companies relative to quantity and quality of gas, water and oil produced and marketed, production history of individual oil or gas wells, oilfields and oil companies, and location of new or proposed wells
- Provides information relating to the exploration, exploitation, production and development of the nation's petroleum resources
- Presents statistics in graphic and tabular forms
- Prepares information for input into computerized data storage system
- Performs supervisory duties, identifies new or proposed oilwells on maps and prepares reports on drilling production and workover if employed at senior levels.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' level passes including English Language, Mathematics, Physics and/or Chemistry and some experience in work of a statistical nature.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data, communicating with people to convey or exchange information, handling
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 0-level
<b>Special Vocational Preparation:</b>	Over 1 year, up to and including 2 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately.
<b>Interests:</b>	Business detail
<b>Physical Demands:</b>	Sedentary work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, sitting.
<b>Environmental Conditions:</b>	Inside, daytime, working around people.

### **4321.11 RIG CLERK/ Inventory Officer**

Maintains records to monitor receipt, movement and condition of tools and equipment for drilling and oil well servicing:

- Requisitions tools, equipment and replacement placement spaces for department
- Receives incoming tools and equipment and posts to inventory control system
- Tracks movement of tools and equipment on rigs, in well servicing sheds and to end user or supplier and monitors condition
- Utilizes computerized system to record location, condition and movement and length of usage, reconcile physical stock and their location
- Maintains register to track rental equipment and expedite return to supplier

- Provides daily/weekly reports on inventory

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O' Levels, knowledge of computer inventory software, drilling tools and valid drivers license and ten years related work experience.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 0-Level.
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years.
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material
<b>Interests:</b>	Industrial work; business detail.
<b>Physical Demands:</b>	Light work, lifting; use of hands, use of fingers, writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, daytime: working around people; noise

#### **4321.12 CUSTODY TRANSFER AGENT**

Measures and maintains records of purchase and transfer of crude oil from the field to refinery:

- Schedules purchases of crude oil from Lease Operators, *Farmouts* and other suppliers
- Witnesses and validates financial transactions at all *Tank Farm* locations
- Monitors storage of crude oil purchased and *fiscalised* while awaiting transfer to refinery
- Measures quantity of crude oil produced/purchased and net volume transferred
- Submits compiled reports on production/purchase of crude oil to Accounting department
- Conducts operations in compliance with occupational health and safety requirements

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Level subjects, with a Technician Diploma in a related field, or five years experience in Petroleum Production or Petroleum Measurement.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 'O' Level
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to

	perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work; business detail
<b>Physical Demands:</b>	Light work, use of hands; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking
<b>Environmental Conditions:</b>	Inside and outside, daytime, shift/on call; working around people; dust.

### **4323.11 QUAY WALL OFFICER**

Provides services at quay wall for safe, efficient and prompt movement of materials, equipment, supplies and personnel between land and offshore operations:

- Prepares work schedules for sailors and crane operators and ensures safe conduct of activities
- Ensures that marine craft and barges are safely loaded and off loaded and vessels are fully outfitted before departure
- Verifies that company's standards are maintained with respect to refueling and integrity of *lifting tackles*
- Records critical incidents including down time of cranes and forklifts at quay wall
- Maintains transaction log for materials and equipment at the quay wall

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O'levels inclusive of Mathematics and English Language, five years experience in a marine/oilfield environment and knowledge of quay wall operations. Possession of a valid Heavy T License is required.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; supervising other workers; handling
<b>Education and Training</b>	Forms 4 & 5, CSEC/GCE 'O'Levels.
<b>Development:</b>	
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Use of hands and fingers; writing ; talking-ordinary, hearing – ordinary conversation, other types; vision – ordinary; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; slippery surfaces, moving objects



## **7215.05 RIGGING SUPERVISOR**

Supervises loading, off-loading and lifting of heavy loads and equipment requiring use of slings and cranes:

- Assesses job and determines the types of equipment and machinery to be used+
- Allocates work to Riggers based on daily work plan and supervises performance of work
- Ensures adherence to safety rules, regulations and practices advises on safety issues and takes corrective action where necessary
- Develops strategic goals, objectives and key performance indicators for riggers consistent with performance management systems
- Assists in the development and implementation of staffing strategy and employee career path
- Assists in the development of departmental budget and monitors and controls utilization of same.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five CSEC/GCE 'O'Level subjects including English Language and Mathematics, Mechanical Engineering Technician Diploma, Certificate in Management Studies and a minimum of eight (8) years experience in a transport or logistics environment.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of people; handling.
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tubular material.
<b>Interests:</b>	Mechanical work.
<b>Physical Demands:</b>	Light work; stooping, raising of arms; use of hands, writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, field of vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, high places, daytime, working around people; noise; risk of bodily injury/loss, mechanical hazards, moving objects; dust, glare.

## **7215.11 RIGGER**

Assembles and installs rigging and conducts lifting and movement of personnel, heavy machinery, equipment and materials using slings and cranes:

- Examines load to be moved, estimates weight and selects slings, pulleys, cables and lifting tackle according to weight and size of load

- Works in team with other riggers to conduct heavy lifts with the aid of cranes
- Climbs to work site where applicable and assembles appropriate rigging components by aligning and bolting parts into place with spanners and other hand tools
- Installs beam clamps, *gallows frames* and other supporting gadgets and uses jacks, pulley blocks, guide lines and rollers to lift and control movement of load through narrow openings and confined spaces
- Attaches rigging equipment to load and signals designated personnel on work site to move load
- Adheres to safety principles and practices in the conduct of each job
- Carries out repairs and maintenance work on rigging equipment

#### **RELATED TITLES**

CONSTRUCTION RIGGER

LINER HANGER TECHNICIAN

MARINE RIGGER

SHIPYARD RIGGER

WIRE ROPE RIGGER

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Mechanical Craftsman Diploma and a minimum of three (3) years' experience in a rigging or plant fitting environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Performing arithmetic operations and reporting or acting on same; communicating with people to convey or exchange information; manipulating.
<b>Education and Training Development:</b>	Secondary education
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work, mechanical work.
<b>Physical Demands:</b>	Heavy work; lifting, carrying, pushing, pulling, throwing; climbing, balancing; stooping, crouching, raising of arms, reaching, use of hands, use of fingers, strong grip; talking-ordinary, other types; hearing- ordinary conversation, vision- ordinary, standing, walking; good bodily coordination.
<b>Environmental Conditions:</b>	Inside and outside, heights, confined spaces, daytime, working around people, risk of bodily injury/loss, mechanical hazards, moving objects, dust, dirt, and glare.

### **7233.15 MACHINERY MECHANIC/Maintenance Technician**

Installs, maintains and repairs machinery and equipment in industrial plant:

- Assembles machines, sets and levels them in correct position and fastens them to foundation by bolting, welding or riveting
- Aligns and tests machines and equipment and makes necessary adjustments to ensure efficient functioning
- Implements preventative maintenance programmes and/or responds to requests for machine adjustment and repair
- Diagnoses equipment malfunctions, using testing instruments and equipment and makes adjustments
- Dismantles machinery as necessary to gain access to internal parts
- Requests reconditioning of parts or performs duties of **MACHINERY FITTER** to make and recondition parts
- Replaces worn or damaged components
- Cleans, lubricates, tests, services and reassembles equipment according to manufacturer's specifications
- Oils and greases machinery and equipment as part of routine maintenance
- Completes maintenance or repair reports.

May check functioning of production lines at start and end of day's work, provide technical advice on use and care of machinery, recommend changes and improvements in equipment and maintain inventory of spare parts.

#### **RELATED TITLES**

COMPRESSOR MECHANIC

INDUSTRIAL MECHANIC

MILLWRIGHT

OILFIELD EQUIPMENT MECHANIC

#### **EDUCATION/TRAINING/ EXPERIENCE REQUIREMENTS:**

Mechanical Engineering Craftsman Diploma or CVQ Level 2 in Mechanical Maintenance and one to two years experience in machinery maintenance.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; taking instructions/ carrying out assigned work; precision working.
<b>Education and Training Development:</b>	Forms 6/CVQ Level.2.
<b>Special Vocational Preparation:</b>	Over 2 years, up too and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to visualise objects in three dimensions from drawings/ representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/ differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.

<b>Interests:</b>	Mechanical work, industrial work
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, kneeling, crouching, crawling, raising of arms; reaching, use of hands, use of fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, heights, confined spaces, daytime, shift/on call working around people; heat; noise, vibration; slippery surfaces, risk of bodily injury/loss, risk of noxious substances, mechanical hazards, electrical hazards, moving objects; odours, dust, dirt.

#### **7421.11 PRECISION-INSTRUMENT INSTALLER-REPAIRER**

Installs, repairs and services recording and controlling instruments and related systems:

- Installs instruments such as control valves, transmitters, level controllers and pressure and flow recorders and connects instruments to control panel
- Commissions system in conjunction with other technical/engineering personnel, ensuring proper functioning of instruments
- Inspects system periodically, tests instruments and adjusts calibrations at required intervals to ensure functioning within specifications
- Isolates and repairs defective instruments in cases of malfunction or shuts off system to effect repairs
- Performs zero checks to test accuracy of pen-recording instruments and refills pen reservoirs as necessary
- Tests temperature-measuring instruments by monitoring accuracy of readings at specified temperatures
- Repairs and maintains remote-sensing and other analytical computerised devices.

#### **RELATED TITLES**

PRECISION-INSTRUMENT FITTER

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Craftsman Diploma in Electrical/Electronics Engineering and at least one (1) year experience in a related environment.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; taking instructions/ carrying out assigned work; precision working
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 2 years, up too and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise

	movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Mechanical work, industrial work.
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside, outside, daytime, working around people.

#### **7549.20 GAUGER, PETROLEUM INDUSTRY**

Measures amount of crude oil or petrochemical products and collects samples for testing at oil wells or storage tanks and ensures that equipment is functioning effectively:

- Reads reports on operations at tank farm or producing wells in field, consults with co-worker of previous shift, and performs physical check on tank and well equipment to ensure that recorded quantities of base oil, additives or crude oil are correct;
- Reports discrepancy to superior;
- Obtains specifications and other instructions for blending and forwards information to blending personnel;
- Liaises with personnel in oil- stock department, lubricating oil blending plant and other units to obtain information;
- Climbs tanks and takes quantity and temperature measurements, using dipstick, measuring tape and thermometer or reads automatic gauge and logs information;
- Checks lines settings and hose connections on storage tank lines and wellhead valves in gathering stations to ensure that correct base oils, compounded oils, additives and crude oil are transferred uncontaminated to tanks, and that lines are free of obstructions or leaks;
- Collects oil samples from wellhead or storage tanks and labels for forwarding to laboratory;
- Records readings from storage tank, temperature gauges and water dip-stick, according to prescribed schedule;
- Checks records of flow pressure of producing wells to obtain information on functioning of well.

#### **RELATED TITLES**

TERMINAL ATTENDANT

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Levels including Mathematics and English Language and one Science subject or Level I certificate in Process Plant Operations.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Gathering, collating or classifying information; taking instructions/carrying out assigned work; manipulating
<b>Education and Training</b>	Forms 4 & 5, CSEC/GCE 0-level;
<b>Development:</b>	
<b>Special Vocational</b>	Over 30 days, up to and including 3 months

<b>Preparation:</b>	
<b>Temperaments:</b>	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, pushing, pulling; climbing, balancing; stooping, raising of arms; reaching, use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception; standing, walking
<b>Environmental Conditions:</b>	Inside , outside, heights, shift/on call; noise; slippery surfaces, risk of bodily injury/loss; toxic/noxious substances; fumes, odours, dirt, gases, glare.

### **8113.01 HEADMAN, DRILLING AND WORKOVER**

Coordinates operations on oil rigs to maintain and increase production levels and maintain a safe, efficient and effective work environment:

- Ensures that relevant equipment, materials and personnel are available for use
- Supervises drilling, workover and contracted crew in performance of duties
- Provides and monitors schedule of work activities to ensure that all activities are carried out in sequence and are prioritized
- Ensures well servicing activities are in compliance with industry standards and company field operating instructions
- Checks tools and running equipment to maximize operating life and minimize downtime
- Prepares detailed daily progress reports for submission to superior.

May drive and operate well-servicing winch truck to assist in servicing wells.

### **RELATED TITLES**

HEADMAN, OILWELL SERVICING

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Three CSEC/GCE 'O'Level subjects including English Language and Mathematics, formal training in Well Servicing and four (4) years related experience OR eight (8) years related experience.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Planning and directing work activities; directing work-related activities of a group of people; handling.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 'O'Level
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances standards.

<b>Aptitudes:</b>	Ability to comprehend and effectively use language; ability to perceive pertinent details/differences in verbal/tubular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception; standing, walking, sitting.
<b>Environmental Conditions:</b>	Outside, daytime, shift/on call; working around people; noise, vibration; risk of bodily injury/loss, toxic substances; mechanical hazards, moving objects; explosives.

### **8113.11 DRILLER**

Executes drilling programmes to drill oil wells in an efficient, effective and safe manner:

- Reviews drilling targets, consults with company personnel on plan of approach and prepares drill program
- Carries out sub-surface survey recordings of well boreholes to facilitate drilling of deviated oil wells
- Operates rig machinery from drilling console to execute drilling operations.
- Monitors well conditions and interprets information provided by field operators and down hole gauge readings, adjusts drilling parameters and takes necessary actions to optimize drilling process and safeguard integrity of well
- Drills deviated and straight hole sections and assists in solving problems encountered while drilling
- Assists in wireline logging and well testing
- Supervises Floormen, Derrickmen and other rig crew completing or servicing oil and gas explorations wells
- Secures well during emergency or well control situations
- Supervises lubrication and maintenance of drilling-associated equipment and reports on equipment functionality
- Completes drilling documentation consistent with company or client instructions.

#### **RELATED TITLES**

DIRECTIONAL DRILLER

ROTARY DRILLER

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

3 CSEC/GCE 'O' Level subjects including Mathematics and English Language and ten (10) years experience in drilling operations.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; directing work-related activities of a group of workers; operating-controlling
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE O-level;
<b>Special Vocational Preparation:</b>	Over 5 years, up to and including 10 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic

	material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, lifting, carrying, pushing, pulling; climbing; stooping; reaching, use of hands, use of fingers, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; standing, walking, sitting
<b>Environmental Conditions:</b>	Inside and outside, shift/on call, working around people; noise, vibrations; slippery surfaces, risk of bodily injury/loss; mechanical hazards, moving objects, burns; dirt, glare.

### **8113.12 SERVICE OPERATOR, OIL WELL**

Operates pumping units to pump foam, gravel, sand and water or specialty cement into oil wells to clean well or improve oil production:

- Ascertains job specifications and ensures essential tools and equipment are sent to job locations
- Supervises the rigging up/assembly of pumping equipment and return lines for performing job
- Operates equipment to fluids, *surfactants*, acids, gravel, air etc. as specified on job programme
- Monitors meters and pressure gauges of operating equipment to regulate quantity and consistency of materials and control pump pressure
- Monitors flow-line connections for leakage by pressure testing and takes corrective action
- Coordinates with customer representative and rig/winch personnel
- Directs or performs basic and emergency repairs on tools and equipment
- Completes written job report and delivery note for invoicing.

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Mechanical/Electrical Technician Certification, CSEC/GCE 'O' Levels including Mathematics and English Language and a minimum of three (3) years experience in oil well completion services including drilling and workover rig operations.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Transcribing, entering or posting data; communicating with people to convey or exchange information; operating-controlling
<b>Education and Training Development:</b>	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution.
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work



<b>Physical Demands:</b>	Light work, lifting, carrying, pushing, pulling; raising of arms; reaching use of hands, use of fingers, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, field of vision; standing, walking
<b>Environmental Conditions:</b>	Outside, confined spaces, shift/on call, working around people; noise, vibration; risk of bodily injury/loss, noxious elements/solvents, mechanical hazards, explosives, odours, gases, glare.

### 8113.13 OIL-WELL WIRELINE ATTENDANT

Operates wireline winch unit to lower and remove equipment and measurement devices to service and check performance of oil and gas wells:

- Attaches necessary tools and equipment to tool-string and carries out necessary preparation prior to servicing of oil-well
- Operates wire-line winch to run survey bombs and other survey instruments to obtain performance indicators at different depths in well, shift sliding sleeves and set *downhole chokes* and gas-lift valves in well
- Facilitates commencement of oil flow in new wells by lowering perforator and jar into wells and placing and igniting charge in perforator
- Operates winch to dewax wells if required
- Runs fishing tools into well as necessary to remove light equipment
- Carries out well-baling operations

### EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:

Five (5) CSEC/GCE 'O' Level subjects, including Mathematics and three (3) to five (5) years experience in well servicing.

### OCCUPATIONAL PROFILE

<b>Data/People/Things:</b>	Observing for similarities and/or differences; taking instructions/ carrying out assigned work; operating-controlling
<b>Education and Training Development:</b>	Forms 4 & 5 CSEC/GCE O' level
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria.
<b>Aptitudes:</b>	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling, controls; climbing; stooping; raising of arms; reaching, use of hands, use of fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking.
<b>Environmental Conditions:</b>	Outside, daytime, shift/on call, working around people; wet; noise;

slippery surfaces; risk of bodily injury/loss, mechanical hazards, explosives; dirt, gases, glare.

### **8113.14 DERRICKMAN, PETROLEUM INDUSTRY**

Assists in drilling or servicing of well and workover operations from derrick platform:

- Climbs oil-well derricks to assist rig crew in pulling pipe out of well or running pipe into wells during drilling, well servicing or workover operations
- Assembles, removes and replaces equipment for *down hole* activities
- Keeps **Driller** informed with respect to consistency of mud and general condition of the pump and mud room
- Checks and connects pumps used to pump drilling or workover fluids into well and maintains mud pumping reports
- Bleeds hydraulic valves on mobile oil-well servicing rig before elevation and dismantling of rig, removes safety latches and stacks guylines to render rig safe for transportation
- Climbs rig to install safety latches to support upper section of rig
- Carries out routine servicing and repairs to basic drilling equipment
- Reports safety hazards to supervisor

### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Three CSEC/GCE 'O' Level subjects including Mathematics and English Language and five (5) years experience in drilling operations.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Observing for similarities and/or differences; carrying out assigned work; manipulating.
<b>Education and Training Development:</b>	Forms 4 and 5, CSEC/GCE 'O' Level
<b>Special Vocational Preparation:</b>	Over 3 years, up to and including 5 years
<b>Temperaments:</b>	Performing under stress; evaluation of information using subjective or judgmental criteria, ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, raising of arms; reaching, use of hands, use of fingers, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, field of vision, night vision; standing, walking; good bodily coordination.
<b>Environmental Conditions:</b>	Outside, heights, shift/on call, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, mechanical hazards, moving objects, explosives; dirt, gases, glare.

### **8113.15 FLOORMAN, PETROLEUM INDUSTRY**

Assists in oil-well drilling and servicing operations by performing any combination of the following duties:

- Sets up, disassembles and transports rig tools, equipment
- Lifts and moves pipes into and out of well
- Rigs up baler and operates it to bale sand out of well
- Cleans rig floor during and after operations
- Prepares well for servicing and provides assistance during well servicing
- Maintains and repairs rig tools and equipment and replaces defective equipment
- Loads and unloads cargo on rig
- Ensures rig safety procedures and practices are followed
- Responds to well control situations promptly as directed by supervisor.

May add *barytes* and chemicals to drilling fluid systems when necessary.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

3 CSEC/GCE 'O' Level subjects including Mathematics and English Language and three (3) years drilling operations.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Observing for similarities and/or differences; carrying out assigned work; manipulating.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 0-level;
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Doing things only under specific instructions; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Heavy work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking; good bodily coordination.
<b>Environmental Conditions:</b>	Outside, shift/on call, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, mechanical hazards, moving objects; dirt, gases, glare.

### **8113.16 POWER-TONG OPERATOR, OIL WELL**

Operates *power tongs* to prepare casing used to stabilize well holes:

- Monitors assembly of power pack unit on site
- Inspects threads on casing pipe to determine amount of torque required for joining casing

- Supervises **Floormen, Petroleum Industry** in positioning of power tong and attachment of relevant connections in preparation for casing;
- Starts motor to activate hydraulic power pack
- Operates power tong to join casing pipe according to specifications, observing gauges to determine when required torque is achieved
- Repeats operations until process is completed.

#### **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC, GCE O' levels with at least six (6) months experience in operation of power tongs.

#### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE O-level
<b>Special Vocational Preparation:</b>	Over 6 months, up to and including 1 year
<b>Temperaments:</b>	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Medium work, lifting, pushing, pulling; stooping; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking.
<b>Environmental Conditions:</b>	Outside, daytime, nights, shift/on call, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, moving objects; fumes, dirt, glare.

#### **8113.17 COIL-TUBING OPERATOR**

Operates coil tubing unit to clean oil wells and performs well interventions:

- Connects coil tubing injector to wellhead, with assistance of rig crew, and opens master valve on wellhead to facilitate entry of coil tubing into well;
- Operates hydraulic controls on unit to run coil tubing into well and activates water pump to pump water/ chemicals into descending coil to displace foreign matter in well and perform chemical washes of downhole components
- Monitors displacement of matter from well and repeats operation until well is clean;
- Guides coiled-tubing to specific locations of well for the dispersing of fluids for particular interventions for example cementing perforations and chemical washes of downhole equipment
- Operates hydraulic controls to pull coil tubing out of hole;
- Ensures that safety practices are observed during operations;
- Performs general maintenance and repair of coil tubing unit and auxiliary equipment;
- Signs receipts and delivery notes for supplies used during operations.
- Prepares report on operations.

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

CSEC/GCE 'O' Level including Mathematics and Physics with at least six (6) months training as a coil tubing operator.

**OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Observing for similarities and/or differences; communicating with people to convey or exchange information; operating/controlling
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE O-Level;
<b>Special Vocational Preparation:</b>	Over 3 months, up to and including 6 months
<b>Temperaments:</b>	Repetitive or short-cycle work; performing under stress; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group
<b>Aptitudes:</b>	Ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Medium work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting
<b>Environmental Conditions:</b>	Outside, confined spaces, shift/on call, working around people; heat; wet; noise, vibration; slippery surfaces, mechanical hazards; dirt, glare

**8131.20 BLENDER, PETROLEUM-BASED PRODUCTS**

Carries out blending operations to produce petroleum-based products:

- Ensures that blending tanks are cleared and clean before starting blends by checking all tanks and equipment in accordance with established procedures
- Reviews blending schedules and specifications and coordinates requests and supply of crude oil and feedstock to blending area on a timely basis
- Sets meters on base oil storage tanks to pump required amount of base oils into the blending tanks
- Activates plant and pumps to convey additives from decanting tank to blending tank and blend products
- Ensures that blending process is uninterrupted and the blend produced adheres to specifications by adding correct type and quantity of additives and base oils and regulating temperature during blending
- Draws samples of blends for laboratory analysis and transfers approved blends into holding tanks
- Obtains samples of base oils from road tank wagons and tankers and submits for laboratory testing to ensure required product specifications are met before discharging into storage tanks
- Ensures maintenance of blending equipment in accordance with established safety standards and reports malfunctions to superior
- Records production data and submits written reports on blending activities as requested

**EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

Five (5) CSEC/GCE 'O' Level subjects including Chemistry, Mathematics and English Language and three (3) years experience as an Assistant Blender.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; tending.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 0-Level;
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, within 0.5 metres; standing, walking, sitting.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise; risk of bodily injury or loss, risk of occupational diseases, toxic/noxious substances, burns; fumes, odours.

## **8189.15 PUMPMAN, PETROLEUM INDUSTRY**

Pumps crude oil, blended oils and refined petrochemical products from ships to storage tanks on shore and vice versa:

- Reads log to obtain information concerning pump-house operations during previous shift
- Observes flow-meters, pressure gauges and fluid levels to ensure that pumps and equipment are in good working condition and informs relevant department of any discrepancies
- Rectifies situation according to instructions received from supervisory personnel
- Starts pumps to load or unload vessels or transfer products during process operations
- Ensures blank caps installed in appropriate positions on lines to stop flow of undesired liquids and prevent contamination of products
- Reads ampere meter to ensure that pump is working and motor is not overloaded
- Oils and greases pump and associated equipment to maintain in good working condition
- Records information on daily loading and discharge operations at pump-house, indicating quantity and quality of fuel pumped, time pumped and vessel or storage facilities involved.

## **EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:**

CSEC/GCE 'O' Level passes and two-three years related experience in the petroleum industry.

## **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Transcribing, entering or posting data; taking instructions/carrying out assigned work; tending.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 0-level
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years

<b>Temperaments:</b>	Repetitive or short-cycle work.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work; stooping; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking.
<b>Environmental Conditions:</b>	Inside, shift/on call; noise; slippery surfaces, toxic/noxious substances; fumes, odours, gases.

### **8350.15 QUAY WALL SAILOR**

Provides quay wall support for the provision or movement of all material to and from vessels:

- Berths and unberths vessels at *quay* wall
- Ensures marine craft and land carriers are safely loaded and unloaded
- Maintains lifting equipment and ensures that equipment is ready for use
- Assembles and disassembles crane rigging
- Ensures safe lifting operations

### **EDUCATION/TRAINING/EXPERIENCE/REQUIREMENTS:**

Five CSEC/GCE 'O' levels including English Language, formal training and knowledge of rigging and three years experience in a marine/oilfield environment including one year as a terminal sailor.

### **OCCUPATIONAL PROFILE**

<b>Data/People/Things:</b>	Examining and evaluating data; communicating with people to convey or exchange information; manipulating.
<b>Education and Training Development:</b>	Forms 4 & 5, CSEC/GCE 'O' Levels.
<b>Special Vocational Preparation:</b>	Over 2 years, up to and including 3 years
<b>Temperaments:</b>	Evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group.
<b>Aptitudes:</b>	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skilfully; ability to move body members with good coordination.
<b>Interests:</b>	Industrial work
<b>Physical Demands:</b>	Light work, lifting, pulling; stooping; use of hands and fingers; talking-ordinary, hearing – ordinary conversation; vision – ordinary, depth perception, field of vision; standing, walking.
<b>Environmental Conditions:</b>	Inside and outside, daytime, working around people; noise, risk of bodily injury/loss, toxic substances, mechanical hazards, moving objects; fumes.

# ENERGY GLOSSARY

**Baryte:** A non-magnetic mineral used as a weighting agent in well-drilling mud.

**Bills of Materials:** List of the raw materials, sub assemblies, components, parts and quantities needed to create an end product.

**Cathodic Protection:** A method of preventing corrosion in metal structures that involves using electric voltage to slow or prevent corrosion.

**Christmas Tree:** An array of pipes and valves fitted to a production wellhead to control the flow of oil or gas and prevent a possible blowout.

**Completing:** Making a well ready for production.

**Condensate:** Liquid fuel obtained by burning gas or vapor produced from oil and gas wells.

**Coring:** The use of a core barrel (hollow length of tubing) to take samples from underground formations during drilling operations.

**Destructive Tests:** Generic term for all material tests, which result in destruction of the component.

**Directional Drilling:** Directional drilling (or slant drilling) is the practice of drilling non-vertical wells.

**Downhole:** Relating to wellbore or drill hole.

**Downhole Choke:** Device used to control and manipulate flow pressure within the well bore restrict rate of flow during testing of an exploratory discovery.

**Dynamometer:** An apparatus that measures mechanical force, speed or power.

**Echometer:** A graduated scale for measuring the duration of sounds and determining their difference and the relation of their intervals.

**Farmout:** Assignment or partial assignment of an oil and gas lease from one lessee to another lessee.

**Fiscalisation Point:** The point at which crude is sampled and measured in storage tanks for fiscal purposes.

**Flow Detector:** Apparatus used for monitoring fluid flow in a pipe or at an exit of the pipe and detecting a fault.

**Gallows Frames:** Structural frames over which cables from hoisting equipment connect to skips and cages.

**Gravimeter:** An instrument used to measure variations in a gravitational field.



**Groundbed:** An array of electrodes, known as ground rods, installed in the ground to provide a low resistance electrical path to ground or earth.

**Hydroprocessing:** An upgrading process for reducing heavy hydrocarbons into lighter fractions.

**Inline Sampler:** A device installed on a production line to enable drawing of samples directly from the process stream.

**Isopach Map:** An arial map showing extent and thickness variation of a stratigraphic unit and used in geological exploration for oil and for underground structural analysis.

**Job Safety Analysis (JSA):** A procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation.

**Joint Venture (JV):** A legal entity formed between two or more parties to undertake an economic activity together e.g. oil exploration and sharing the risk in formation.

**Lifting Tackle:** Equipment for lifting and lowering objects.

**Lithological:** Relating to the science of the nature and composition of stones and rocks

**Logging:** The technique of analyzing and recording the character of a formation penetrated by a drill hole in petroleum exploration and exploitation work.

**Magnetometer:** A scientific device that is able to measure small changes in the earth's magnetic field at the surface, which indicates what kind of rock formations might be present underground.

**Montage:** The art or process of composing pictures by the superimposition of miscellaneous elements, such as other pictures or photographs.

**Mud:** Liquid drilling fluid used to aid the drilling of boreholes into the earth; often a suspension of clay in water with additives.

**Non-destructive Testing (NDT):** Process for testing properties, quality or soundness of materials or components, which can be applied without causing damage which would render the subject of the test unserviceable.

**Perforation:** Creation of holes in well casing or liner to enable oil or gas to flow into the wellbore.

**Pigging:** The procedure whereby a piece of equipment is inserted into a pipeline to clean or monitor the internal condition of the pipeline or mark an interface between two different products.

**Pour Point:** The temperature at which the oil no longer flows when tilted in a test jar.

**Power tongs:** Power-operated tools that serve to turn and connect pipes.

**Quay:** A structure attached to land to which a vessel is moored.

**Recompletion Operation:** Re-drilling an oil well to a new producing zone (new depth) when the current zone is depleted.

**Reliability:** An engineering field that deals with the study of the ability of a system or component to perform its required functions under stated conditions for a specified period of time.

**Right of Way:** The passage consisting of a path or strip of land over which someone has the legal right to pass.

**Seismograph:** A scientific instrument that detects and records vibrations from the earth or which records shock waves set off by explosions.

**Setback:** A setback restriction requires that no building or structure be located within a specified number of feet from a front, side, or rear lot line.

**Slop Tank:** Tank into which residues are pumped and left to settle onboard oil tankers.

**Stratigraphic Trap:** A type of reservoir capable of trapping oil or gas due to changes in porosity and permeability or to the termination of the reservoir bed.

**Substrate:** Any surface to which paint, stain or sealant is applied.

**Supervisory Control and Data Acquisition (SCADA):** Computerized networks that can monitor and control industrial and infrastructural processes.

**Surfactant:** Chemical agent used to break down and disperse hydrocarbons e.g. crude oil.

**Tank Farm:** A number of petroleum tanks that are operated together as a depot in oil storage and distribution activities.

**Taxonomic:** Relating to classification.

**Taxonomic database:** A database created to store information related to biological animal or plant groups having natural relations.

**Thematic Map:** A type of map or chart especially designed to show a particular theme, for example vegetation or geology, connected with a specific geographic area.

**Turnaround:** A period of brisk activity at a refinery or plant when processing units, or portions of them, are shut down for scheduled maintenance or the installation of new equipment and systems and then put back into operation.

**Ullage:** Loss of stored product by evaporation or leakage.

**Upstream:** Exploration and production operations.

**Well cuttings:** Any material removed from a borehole while drilling petroleum wells.

**Well Stimulation:** A well intervention performed on an oil or gas well to increase production by improving the flow of hydrocarbons from the drainage area into the well bore.

**Workover:** To perform one or more of a variety of remedial operations on a producing oil well to try to increase production.

# ALPHABETICAL INDEX

The Alphabetical Index has been designed to reflect various types of titles. The same kind and size of type is used as that used to differentiate titles in the actual occupational description. Base titles are in **BOLD-FACE, UPPER-CASE LETTERS**; alternate titles are in **Bold-Face, Upper/Lower Case Letters**; related titles are in UPPER-CASE LETTERS. Some titles listed in the Alphabetical Index do not appear on occupational descriptions. Their six-digit code numbers refer to the descriptions to which they are affiliated.

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