

MINISTRY OF

ENERGY INDUSTRIES

ENERGY AND

C I R C U L A R

T O

**ALL PETROLEUM COMPANIES OPERATING IN THE
REPUBLIC OF TRINIDAD AND TOBAGO**

S U B J E C T

**INFORMATION REQUIREMENTS OF THE MINISTRY OF ENERGY
AND ENERGY INDUSTRIES**

1. Data required prior to the drilling of **EXPLORATORY WELLS**. This data is to be sent directly to the **DIRECTOR, GEOLOGY AND GEOPHYSICS, GEOLOGICAL SECTION IN PORT OF SPAIN**.
 - 1.1 Detailed written geological justification must accompany the DRL-2 form on submission. This report should indicate primary and secondary (if any) objectives, the expected stratigraphic section, descriptions of the major structural features and all relevant maps and cross-sections (including seismic sections)
 - 1.2 An Operations Plan which includes the following must accompany the DRL 2: Casing Programme including alternative strategies anticipated in the event of plug-backs, stuck pipe etc. Pore pressure plot, showing formations to be penetrated including sub-normally and abnormally pressured zones
 - 1.3 Detailed Mud Programme
 - 1.4 Comprehensive Well Evaluation Programme including electric logs, mud logs, coring and well testing programmes
 - 1.5 Cementing Programme
 - 1.6 Bit Programme

- 1.7 Hole Deviation Programme including map showing plan view and cross-sectional view, equipment to be used and special precautions/procedures
 - 1.8 BOP Equipment and special precautions programmed to minimize risk of blow-out
 - 1.9 General discussion of drilling problems anticipated and techniques to be adopted to solve these problems
 - 1.10 Detailed discussion of special equipment or technology to be used
 - 1.11 Anticipated cost details
 - 1.12 Drilling Time graph
 - 1.13 Rig specifications
 - 1.14 Reserves expected to be proved up or developed
 - 1.15 In the event of the usage of specialized geological and petroleum consultancy services for geochemical paleo, palynology, and other specialized geological and reservoir engineering analyses, the Ministry of Energy and Energy Industries must be informed of the consultants, their capabilities and the nature of the services to be provided for the company. The consultancy services would include the contractors (or in-house capability) who provide services such as mud logging and drill stem testing for the continuous monitoring of the drilling operations
2. The Geological Section of the Ministry must be advised on a daily, or as soon as available basis, the following information:
- 2.1 Well site geological reports
 - 2.2 Mud logs
 - 2.3 Preliminary palaeontological reports
 - 2.4 Actual drilled depth of marker horizons
 - 2.5 In the case of deviated holes, the computed results of the directional surveys
 - 2.6 Preliminary results of sidewall and full bore core analyses
 - 2.7 Copies of all logs electric, radioactive, sonic, dipmeter etc, within one (1) working day after the completion of survey

2.8 Preliminary results of all formation test, DST'S production test.

3. **SAMPLES**

The following samples must be submitted to the Director, Geology and Geophysics at regular intervals during the drilling operations.

3.1 Washed and dried samples of ditch cuttings

3.2 Samples of all cores taken.

THE FOLLOWING INFORMATION SHOULD BE SUBMITTED TO THE DIRECTOR, OPERATIONS SECTION, SAN FERNANDO:

4. **DRILLING PROGRAMMES (Development Wells)**

In addition to information required on the DRL2, the following must be appended:

4.1 Pore pressure plot

4.2 Reserves expected to be proved up or developed

4.3 Hole deviation programme including plan view, cross-sectional view, equipment to be used such as mud-motor and any special precautions to be taken

4.4 Details of BOP equipment and any special precautions programmed to minimize risk of blow out

4.5 Expected cost of well

4.6 Drilling time graph

4.7 General discussion of drilling problems anticipated and steps to be taken to mitigate those problems

4.8 Details of any special equipment or technology to be utilized

4.9 If shallow, fresh-water sands are to be penetrated, state any precautions that will be adopted to prevent contamination of fresh-water sands

4.10 If the proposed well is part of an Enhanced recovery project, include a surface location

map showing nearby wells and pattern, as well as a cross-section map.

5. **AMENDMENT TO DRILLING PROGRAMME**

If any major changes to the originally approved drilling programme are planned, an amended programme or a written request must be submitted to the Ministry of Energy for approval.

6. Information to be submitted after approval of ALL drilling programmes to the Operations Section, San Fernando.

6.1 DRL 3 (spud report)

6.2 Daily Drilling Report, including details of mud properties, bits used, bottom-hole assembly, BOP tests and fire-drills, time allocation and well cost data (daily and cumulative)

These reports must reach the Director, Operations Section by noon of the day on which the Daily Drilling Report is prepared. If these reports are faxed in, photocopies must still be submitted subsequently for the Ministry of Energy files. For convenience, these can be batch-submitted weekly or at the completion of the well

6.3 All wireline logs, MWD logs, mud logs and computer-generated logs must reach the Director, Operations within one working day after their being run or generated

6.4 DRL 4 (monthly summary).

7. **INITIAL COMPLETIONS**

7.1 A completion programme must be submitted for approval prior to the completion of any well. The completion programme may be faxed to the Operations Section. **Fax No. 652-3129**). This includes zones to be plugged or wells to be abandoned on initial completion.

7.2 DRL 5 (completion report).

8. **WORKOVERS**

The following supportive information must be submitted with each W.O.1.

8.1 Well-bore schematic showing work programmed

8.2 Cost estimate of workover

8.3 Economic justification in the case of recompletions and abandonments

- 8.4 Date of last Bottom Hole Pressure survey and results of analysis, including IPR curves if available
 - 8.5 Production curve showing production trends before workover and future trends (a) if no workover is done and (b) assuming a successful workover.
 - 8.6 If the well is part of an EOR project, a discussion of the well's significance to the scheme must be presented including a description of the relevant pattern, a surface location map showing nearby wells and a cross-section illustrating its position relative to nearby wells. Also required is a discussion of the impact of high temperatures and pressures on the precautions that will be taken to minimize risk of blowouts.
9. Regarding workovers not requiring the Ministry of Energy approval, a monthly summary of those workovers must be submitted with relevant information including:
- 9.1 Well number and type of workover performed
 - 9.2 Date workover was started/completed
 - 9.3 Number of winch hours/rig hours spent
 - 9.4 Cost of workover
 - 9.5 Cumulative number of workovers done for the month as well as total cost for the month.
10. **SAFETY**
- 10.1 Technical information and specifications of the drilling rig and associated safety and fire fighting equipment
 - 10.2 A summary report of the safety performance of the rig during the last year of active operations. Additionally, the company will be required to comply with the "Code of Practice for Drilling and Production Rigs Operating in Trinidad and Tobago 1990"
 - 10.3 The rig shall be made available for a safety inspection prior to the commencement of drilling operations
 - 10.4 Details of the Company's Safety Policy, Practices and Procedures
 - 10.5 A hazard survey report which should provide information that will identify geo-hazards thereby enabling drilling operations to be conducted safely

10.6 All accidents must be reported to the Operations Section of the Ministry.

11. **ENVIRONMENT**

11.1 The Company's Environmental Policy and its Oil Spill Contingency Plan. (Each company will be required to be a member of the National Oil Spill Contingency Plan)

11.2 All physical losses of oil must be reported to the Ministry immediately upon discovery

11.3 Pollution resulting from such losses must be satisfactorily remedied and the area restored to a condition that meets the approval of the Ministry. Reasonable compensation must also be paid to any affected third party.

12. **DESIGN**

12.1 Design data for production facilities shall be submitted for approval. Additionally all production facilities are subject to periodic inspection by the Ministry.

13. **FINAL REPORTS (Exploration Wells)**

In addition to the submission of the DRL-5 form, the following information must be submitted as soon as available:-

13.1 For deviated holes - deviation plot and co-ordinates of well bore at markers and the objective horizons

13.2 Final reports of core and sample data analyses

13.5 Final reports from all the consultants/specialists employed e.g., geochemical, paleontological etc.

13.6 Composite logs

13.7 Septa of 1:5000 logs for correlation purposes e.g., an electric/porosity log.

1.4 Production reports must be submitted to the Director, Operations. These reports are PROD 1, PROD 1a, PROD 2, PROD 3 and PROD 4

1.5 The following is a list of the submission dates of forms to the Director, Operations Section, Ministry of Energy and Energy Industries, San Fernando:

DRL 2 21 days before commencement of drilling

DRL 3 Within 2 days following commencement of drilling

DRL. 4 Fifth working day following end of calendar

DRL 5
Section 1 15 days following completion of well

DRL 5
Section 11 Within 21 days after completion

WO 1 21 days before commencement of workover

WO 2 Within 15 days following end of work

WO 3 Seventh working day following end of calendar month

PROD.1 Tenth working day following end of calendar month

PROD.1A Tenth working day following end of calendar month

PROD. 2 Tenth working day following end of calendar month

- PROD. 3 Tenth working day following end of calendar month
- PROD. 4 Last working day of the month following month for which data is reported
- STK..1 Tenth working day following end of calendar month
- STK.1A. Tenth working day following end of calendar month
- STK..11 Tenth working day following end of calendar month
- STK 8 Within four working days following discovery of physical loss
- FAC. 1 On completion of new gathering stations
- FAC. 2 30th April and 31st December each year
- FAC. 3 On completion of new fiscalization facilities
- FAC 4 30th April and 31st October each year
- Misc. 1 Within 72 hours of the accident. All serious accidents must be reported verbally immediately after they occur
- Misc. 2 December 31st following cut-off date
- Misc. 3 Fifteen working days following end calendar month

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