

CAPABILITY STATEMENT

Petroleum Technical Consultancy & Assurance

Technical evaluation, specialist engineering support and owner-side assurance for complex upstream decisions across MENA.

INDEPENDENT • TECHNICAL • DECISION-FOCUSED

WHERE TECHNICAL DECISIONS BECOME DIFFICULT

Upstream decisions rarely depend on one dataset, one model or one discipline. The difficulty often lies in understanding which assumptions matter, where the evidence is incomplete and how technical uncertainty changes the decision.

A technically complete study may still leave the central question unresolved. Models, forecasts and scenarios can appear internally consistent while depending on assumptions that are not comparable, traceable or sufficiently tested against observed behaviour.

THE DECISION CHAIN

Decisions become difficult when one or more links in the chain are weak, uncertain or untested.



FIVE CONDITIONS THAT COMPLICATE THE DECISION



01

A model may be complete without being decision-ready.

Inputs and outputs may be complete while assumptions, sensitivities or decision implications remain insufficiently explicit.



02

Production decline may reflect interacting reservoir, well and system constraints.

Reservoir response, well condition, operating practice and production-system limits may interact, making isolated interpretation unreliable.



03

Different disciplines may be working from inconsistent assumptions.

Geological, petrophysical, dynamic, well-performance and development assumptions may each appear reasonable while failing to form one coherent technical basis.



04

Development scenarios may exist without a comparable decision basis.

Cases may embed different assumptions, data treatments, constraints and evaluation criteria, making apparent rankings difficult to defend.



05

A third-party technical study may be extensive without resolving the owner's actual question.

A deliverable may contain substantial analysis while leaving material uncertainties, limitations, trade-offs and required decisions insufficiently clear.



Petronaq contributes where evidence, assumptions, model or system behaviour and decision consequences need to be examined together.



WHERE PETRONAQ INTERVENES

Petronaq supports defined technical questions where evidence, assumptions and model or system behavior must be examined in relation to a specific decision.

Work is analytical, review-based and scope-controlled, with technical responsibility, specialist participation and outputs defined for each engagement.



DEFINED TECHNICAL QUESTION

The engagement begins with the specific technical matter and the decision it must support.



BOUNDED SCOPE AND RESPONSIBILITIES

Disciplines, interfaces, assumptions, responsibilities and limitations are defined for the engagement.



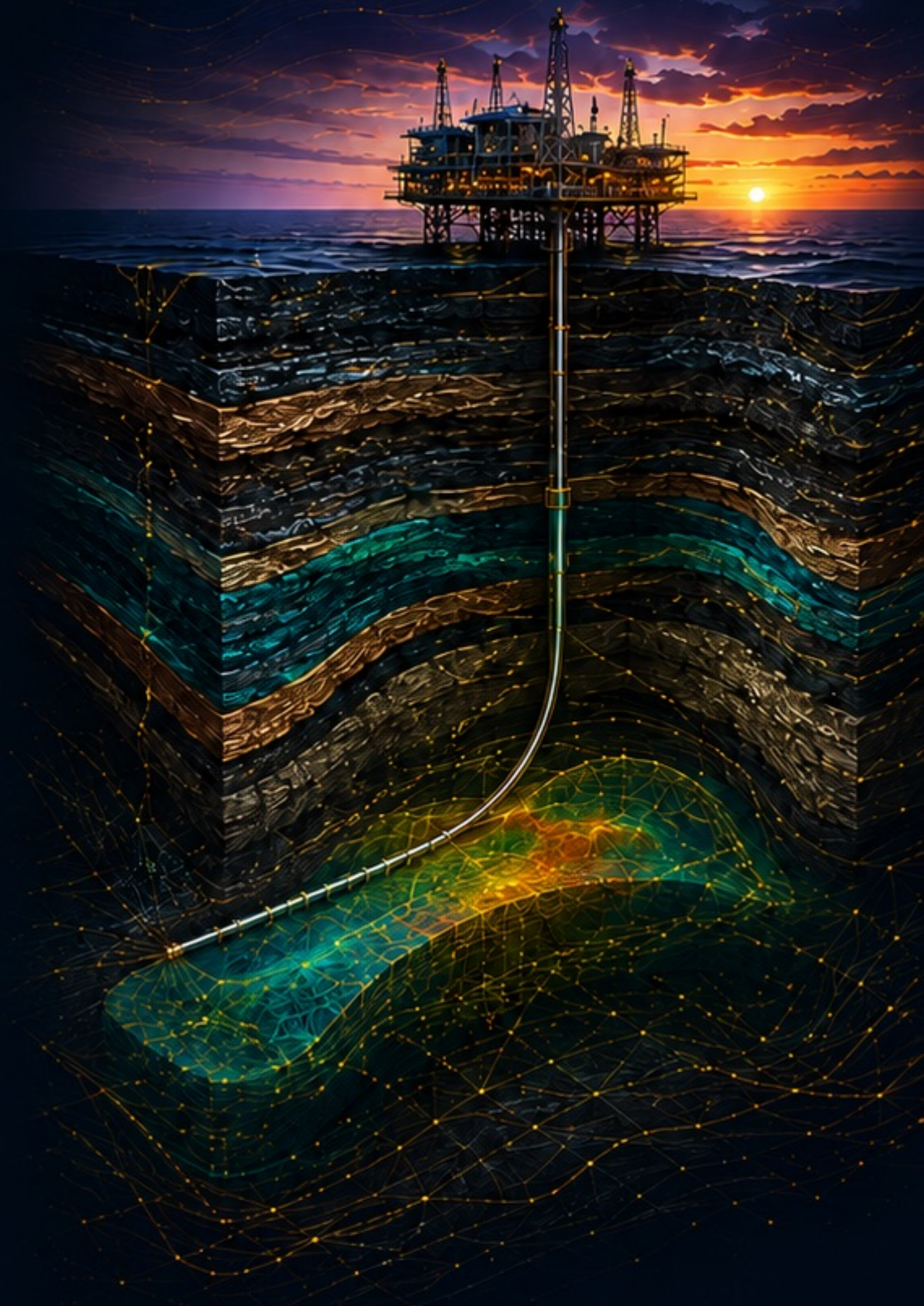
RELEVANT SPECIALIST CONFIGURATION

Technical participation is matched to the requirement rather than presented as a fixed standing team.



DECISION-READY OUTPUTS

Findings, limitations, material uncertainties and next actions are structured for the client's consideration.



FIVE CONNECTED INTERVENTION DOMAINS

**01**

RESERVOIR AND SUBSURFACE EVALUATION

Review subsurface data consistency, model assumptions and uncertainties material to the defined decision.

**02**

RESERVOIR PERFORMANCE AND FORECAST REVIEW

Review dynamic-model behavior, history matching, material-balance consistency, forecast assumptions and scenario comparability.

**03**

PRODUCTION PERFORMANCE AND SYSTEM REVIEW

Assess production performance and examine reservoir, well, operating and production-system constraints within the agreed technical scope.

**04**

FIELD-DEVELOPMENT AND SCENARIO ASSESSMENT

Review scenario framing, technical basis and material assumptions, followed by a like-for-like comparison of uncertainty and decision consequence.

**05**

INDEPENDENT TECHNICAL REVIEW AND OWNER-SIDE SUPPORT

Examine assumptions, methods, limitations, findings and decision implications, with material issues prioritized for clarification or additional work.



The intervention is defined by the technical question, the decision to be supported and the agreed scope—not by a fixed package.



HOW WE EXAMINE A TECHNICAL QUESTION

The review sequence is adapted to the defined technical question, available information and agreed scope.

Its purpose is to establish how evidence, assumptions and material uncertainty affect the technical position—not to impose a fixed methodology or replace the client's decision authority.

REVIEW PARAMETERS



DEFINED QUESTION

The technical question to be resolved and the decision that depends on it.



AVAILABLE INFORMATION

The evidence, inherited inputs and interpretations available for examination.



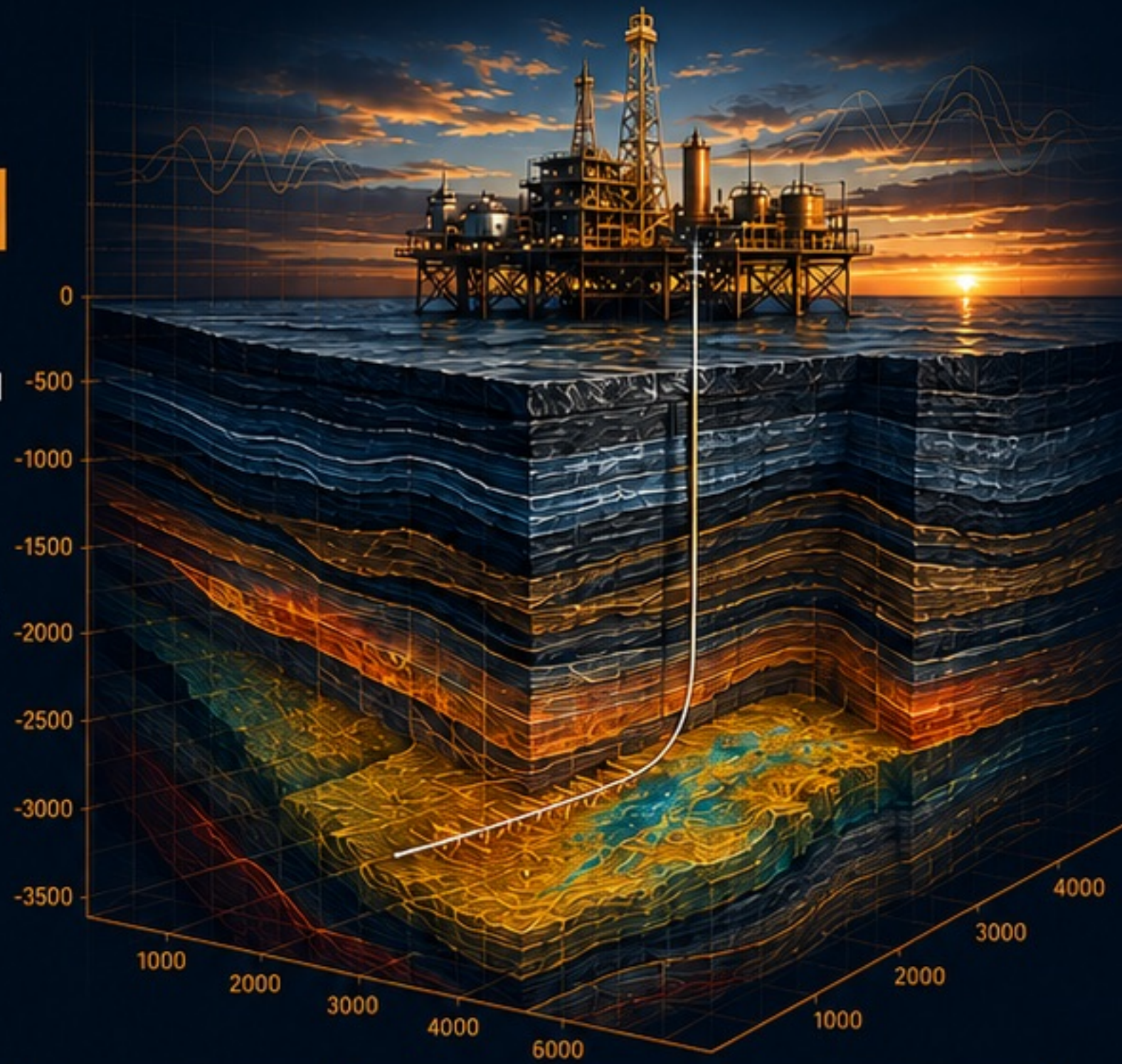
AGREED SCOPE

The responsibilities, interfaces and limits established for the review.



CLIENT DECISION AUTHORITY

The review supports the client's consideration; it does not replace decision authority.



PRESSURE TREND



PRODUCTION PERFORMANCE



WATER CUT TREND



ENGAGEMENT-SPECIFIC REASONING CHAIN



01

FRAME THE DECISION

Clarify the question to be resolved, the decision that depends on it, the consequence of error and the limits of the agreed review.



02

TEST THE EVIDENCE

Examine data quality, completeness, consistency, traceability and relevance. Distinguish direct evidence from interpretation, inherited inputs and unsupported inference.



03

CHALLENGE THE ASSUMPTIONS

Identify the modeling choices, simplifications, boundary conditions and discipline-specific assumptions that shape the result. Test which assumptions are material to the decision.



04

EXAMINE THE TECHNICAL INTERFACES

Where relevant to the agreed scope, examine whether subsurface interpretation, reservoir behavior, well performance, production-system constraints and development logic form a coherent technical basis.



05

DISTINGUISH WHAT IS KNOWN, UNCERTAIN AND CONSEQUENTIAL

Separate supported findings from unresolved uncertainty. Identify which uncertainties could change the decision and which are unlikely to alter the technical position materially.



06

PRESENT A DECISION- READY TECHNICAL POSITION

Present findings, limitations, material uncertainties, decision implications and recommended next actions in a form suitable for the client's consideration. The client retains ownership of the decision.



TRACEABLE TECHNICAL POSITION

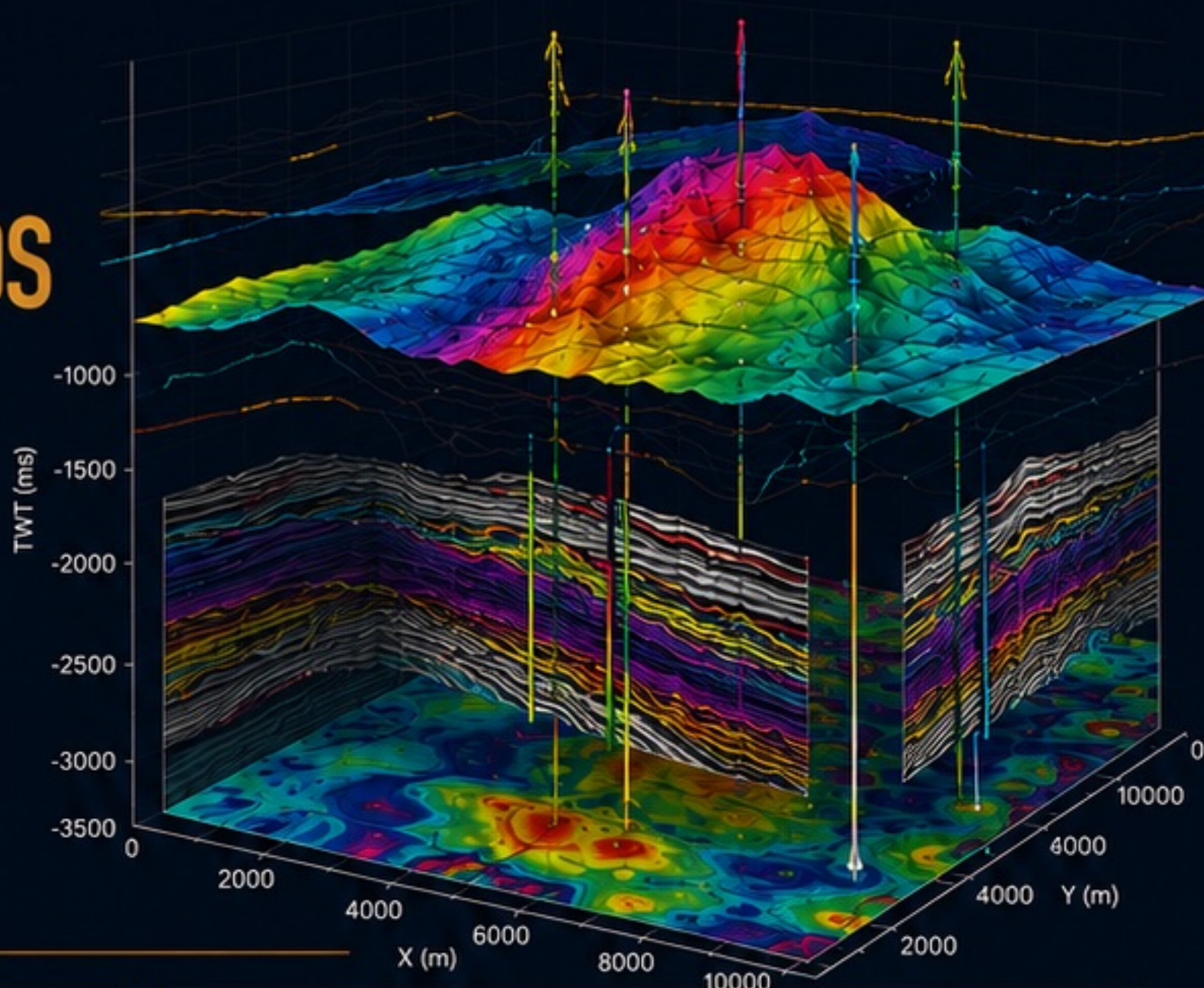
The output is not a claim of certainty or approval authority. It is a traceable technical position showing what is supported, what remains uncertain and what the client should consider in the next decision.



REPRESENTATIVE ENGAGEMENT SCENARIOS

The following scenarios illustrate technical questions Petronaq may support.

They are not presented as named Petronaq corporate projects. Scope, specialist participation, data requirements and outputs are defined separately for each engagement.



FOUR ILLUSTRATIVE TECHNICAL CONTEXTS



SCENARIO 01

THE MODEL EXISTS, BUT THE FORECAST IS NOT YET RELIABLE ENOUGH FOR THE DECISION

SITUATION

A dynamic model is complete and the history match appears acceptable, yet forecast behavior remains sensitive to assumptions that are not sufficiently transparent or comparable.

QUESTIONS EXAMINED

Which mechanisms support the match? Which assumptions dominate forecast outcomes? Are the scenarios technically comparable? What additional surveillance or model work could reduce material uncertainty?

EXPECTED OUTPUT

Forecast-confidence assessment; material assumption sensitivities; scenario-comparability findings; prioritized model or surveillance actions.

DECISION SUPPORTED

Whether and how the forecast can be used in the next decision.



SCENARIO 02

PRODUCTION DECLINE CANNOT BE ATTRIBUTED TO ONE PART OF THE SYSTEM

SITUATION

Asset performance is deteriorating, while reservoir response, well condition, operating practice and production-system constraints may be interacting.

QUESTIONS EXAMINED

What does the available performance history support? Which constraint hypotheses are consistent with observed behavior? What can be screened from existing information, and what further analysis is justified?

EXPECTED OUTPUT

Performance diagnosis; ranked constraint hypotheses; material uncertainty map; prioritized technical investigations.

DECISION SUPPORTED

Where technical and operational attention should be focused next.



SCENARIO 03

A THIRD-PARTY STUDY REQUIRES AN OWNER-SIDE TECHNICAL POSITION

SITUATION

A study or model contains significant analysis, but material assumptions, limitations and decision implications require independent examination.

QUESTIONS EXAMINED

Does the work answer the defined decision question? Are material inputs and assumptions traceable? Are the findings supported by the analysis? What requires clarification, revision or further work?

EXPECTED OUTPUT

Independent findings; prioritized technical issues; clarification requests; recommended next technical actions.

DECISION SUPPORTED

Whether the technical basis is sufficient to proceed and what should be resolved first.



SCENARIO 04

DEVELOPMENT OPTIONS EXIST, BUT THE COMPARISON BASIS IS NOT CONSISTENT

SITUATION

Several development or redevelopment cases have been prepared, but they embed different assumptions, constraints, data treatments or evaluation bases.

QUESTIONS EXAMINED

Which assumptions differ materially? Are the options being compared like for like? Which uncertainties could change the ranking? What information is required before selection?

EXPECTED OUTPUT

Normalized scenario comparison; material differentiators; uncertainty and consequence assessment; identified decision gaps.

DECISION SUPPORTED

Which options should progress and what remains unresolved before selection.



ILLUSTRATIVE TECHNICAL CONTEXTS — NOT CASE STUDIES

These scenarios are illustrative technical contexts, not case studies, client references or evidence of Petronaq corporate project history.



TECHNICAL CAPABILITY AND EXPERIENCE BASIS

Petronaq's public capability is supported by verified specialist records and prior professional experience relevant to the defined technical scope.

Experience may have been gained through previous employers, operators, contractors, consultancies, academic institutions or independent roles. It supports the capability of proposed specialists; it is not presented as Petronaq corporate project history or as evidence that every listed capability is available on demand.

CAPABILITY AREAS



01

RESERVOIR ENGINEERING & PERFORMANCE

Reservoir-engineering studies and technical review; material balance; reservoir surveillance; performance assessment; production forecasting; uncertainty examination.



02

DYNAMIC MODELING & FORECAST REVIEW

Dynamic simulation; history matching; model-behavior and assumption review; forecast and scenario comparison.



03

GEOSCIENCE, PETROPHYSICS & STATIC MODELING

Seismic interpretation; rock physics; petrophysical evaluation; static modeling; subsurface integration.



04

PRODUCTION & WELL-SYSTEM ANALYSIS

Production-performance assessment; nodal analysis; production-system modeling; operating-constraint examination; relevant multiphase-flow considerations.



05

FIELD-DEVELOPMENT & MULTIDISCIPLINARY STUDIES

Field-development planning; development and redevelopment scenario assessment; uncertainty analysis; multidisciplinary technical studies; technical-interface review.



INDEPENDENT TECHNICAL REVIEW & APPLIED CAPABILITY SUPPORT

Review of studies, assumptions, models and contractor deliverables; owner-side technical support within the agreed scope; applied capability support directly connected to the requirement and secondary to consultancy.

EXPERIENCE ATTRIBUTION



VERIFIED SPECIALIST RECORDS

Public capability is based on specialist records reviewed for relevance to the proposed technical scope.



PRIOR PROFESSIONAL EXPERIENCE

Relevant experience may have been gained through employers, operators, contractors, consultancies, institutions or independent professional roles.



ORIGINAL ATTRIBUTION RETAINED

Previous work remains attributable to the organization or professional context through which it was performed.



CORPORATE HISTORY DISTINCTION

Prior specialist experience supports proposed capability but is not presented as Petronaq corporate project history.

ENGAGEMENT-SPECIFIC CONFIRMATION



SPECIALIST PARTICIPATION

Relevant disciplines, technical suitability and availability are confirmed for the defined scope.



TECHNICAL ENVIRONMENT

Software, data access and working-environment requirements are confirmed for the engagement.



OUTPUTS & RESPONSIBILITIES

Expected outputs, technical lead, contributors and review responsibilities are identified for the engagement.



For each opportunity, Petronaq confirms the proposed scope, relevant specialist participation, availability, technical suitability, software and environment requirements, confidentiality conditions and expected outputs.

No public capability statement guarantees a particular specialist, team configuration, software environment or delivery capacity.



INSTITUTIONAL COORDINATION

Petronaq provides institutional coordination through requirement framing, specialist selection, controlled communication, review discipline and integrated documentation.

The proposed technical lead, contributors and review responsibilities are identified for each engagement.



CONTROLLED ENGAGEMENT. BEGIN WITH THE TECHNICAL REQUIREMENT

A preliminary discussion can clarify the decision context, available information, required disciplines and appropriate next step before detailed technical data is exchanged.

Information exchange, technical access and specialist participation are structured to protect confidentiality, maintain independence and support responsible decision-making.



ENGAGEMENT CONTROLS

 INITIAL REQUIREMENT DISCUSSION Begin with a high-level, non-confidential outline of the technical question, the decision to be supported, the available information and expected timing.	 CONFIDENTIALITY AND DATA CONTROLS Where detailed information is required, exchange proceeds under appropriate confidentiality, ownership, access and transfer arrangements.	 CONTROLLED TECHNICAL ENVIRONMENTS Work may use client-provided licensed environments, legally available tools, representative datasets or other client-approved arrangements.	 DEFINED SCOPE AND PARTICIPATION The scope, proposed specialist participation, responsibilities, technical environment and expected outputs are confirmed for the engagement.	 RESPONSIBLE DIGITAL METHODS Digital or AI-assisted methods are used only where controlled, lawful, appropriate to the engagement and client-approved where required.
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ENGAGEMENT FRAMEWORK



BEGIN WITH THE TECHNICAL REQUIREMENT

Begin with a concise, non-confidential description of the technical requirement.

Petronaq can then determine whether a preliminary discussion, specialist review or defined proposal is appropriate.