

QUALITY MANAGEMENT MANUAL (QMM)

GOLD CIRCLE INVESTMENTS LIMITED – Oil & Gas Field Services (Drilling, Casing, Cementing)

Purpose: Define the Quality Management System (QMS) for GOLD CIRCLE INVESTMENTS LIMITED to consistently deliver safe, compliant and reliable oilfield services, aligned with ISO 9001 requirements and sector standards (e.g., API Q1/Q2, API 5CT, API RP 10B-2), applicable legal and customer requirements.

Scope: Applies to planning and execution of field services across the well lifecycle, including drilling support, tubular running (casing), and cementing operations; supporting functions such as supply chain, laboratories, equipment maintenance, measurement & test equipment (M&TE), data management, and management/leadership activities.

QMS Principles: Customer focus; leadership; engagement of people; process approach and risk-based thinking; improvement; evidence-based decision making; and relationship management.



1. Context of the Organization & Interested Parties

1.1 External & Internal Issues: The company periodically (at least annually) assesses external and internal issues that may impact QMS performance and service quality. Examples: market volatility; regulatory and contractual changes; rig uptime; supply chain reliability; technology obsolescence; climate-related disruptions (e.g., extreme weather affecting logistics); workforce availability; and digital security of job data. The output is captured in a Context & Risk Register (QMS-FRM-01).

1.2 Interested Parties & Requirements: Key interested parties include clients/operators, drilling contractors, regulators, API/ISO bodies, suppliers/subcontractors, employees, communities, and insurers. Their quality requirements (e.g., product conformity certificates, competency, job reports, MOC approvals, and local content regulations) are tracked and reviewed via the Requirements Matrix (QMS-FRM-02).

1.3 Products/Services & Applicable Standards: The QMS addresses field service provision (not product manufacturing). Applicable sector standards include API Q1 (quality management), API 5CT (casing & tubing – procurement/inspection traceability expectations), and API RP 10B-2 (well cement testing) where relevant to our services and supplier controls. ISO 10013 provides guidance for documented information.

1.4 Scope & Boundaries: The QMS covers company locations, rigs and well sites where we operate, third-party yards for tubular handling, cement labs, and mobile assets. Exclusions: design & development may be excluded if not performed; where design is performed (e.g., cement slurry design), those activities are controlled per Clause 8.3.

1.5 Climate Change Consideration: In line with the 2024 amendment to ISO 9001, the company determines whether climate change is a relevant issue to QMS results; if so, relevant risks/opportunities (e.g., weather-related logistics delays, water use for cementing, energy efficiency of pumps) are addressed in planning and management review.



2. Leadership, Roles & Quality Policy

2.1 Leadership Commitment: Top Management ensures QMS effectiveness by (a) integrating quality requirements into business processes and field execution, (b) promoting a quality culture and ethical behaviour, (c) providing resources and competencies, (d) removing barriers to conformity, and (e) championing continual improvement. Management visibly participates in pre-job meetings, after-action reviews, and audits.

2.2 Customer Focus: We capture and validate client requirements through contract review, job programs, and client interface meetings; changes are controlled through the Management of Change (MOC) process (QMS-PRC-MOC). Customer satisfaction is monitored via scorecards, NCR closure performance, and repeat business.

2.3 Roles & Responsibilities: The Managing Director is the accountable owner of the QMS. The Quality Manager maintains documented information and audit programs. Field Supervisors ensure procedural adherence at the wellsite. Engineers/Technicians execute work instructions, record objective evidence (checklists, pressure charts, torque-turn graphs), and report nonconformities. All employees are empowered to stop work when quality is at risk.

2.4 Quality Policy: The company is committed to delivering defect-free, compliant and reliable services that meet contract and regulatory requirements, by operating a process-based QMS, adhering to applicable API/ISO standards, managing risks, developing competent people, engaging suppliers, and continually improving through data-driven decisions. The policy is communicated, posted, reviewed for suitability, and provides a framework for objectives.



3. Planning – Risks, Objectives & Change

3.1 Risks & Opportunities: Using a standardized likelihood-severity matrix (QMS-FRM-03), risks are identified per process (e.g., wrong casing tally; incorrect thread compound; improper cement slurry density; M&TE out of calibration; supplier delay; data loss). Planned actions include error-proofing (checklists, peer-checks), competency requirements, supplier qualification, and equipment redundancy/contingency plans. Opportunities include digital torque monitoring, remote audits, and standardization of job packages.

3.2 Quality Objectives: Objectives are SMART and aligned to policy, e.g., (a) $\geq 98\%$ first-time-right jobs; (b) ≤ 1.0 NCR/100 jobs with 100% containment within 24h; (c) $\geq 95\%$ on-time preventive maintenance; (d) supplier OTIF $\geq 95\%$; (e) 100% lab tests validated before cement jobs; (f) $\geq 95\%$ close-out of corrective actions by due date. KPI owners report monthly; trends are reviewed in management review.

3.3 Management of Change (MOC): Technical, operational or organizational changes (e.g., new cement blend, substitute tubular thread compound, change in pump configuration, field procedure revision) are risk-assessed prior to implementation; approvals, verifications, and communication requirements are documented (QMS-PRC-MOC). Emergency changes are controlled and retrospectively validated.

3.4 Contingency Planning: For critical operations (e.g., casing running, cement placement), contingency scenarios (equipment failure, lost circulation, weather) are defined with actions, spare inventories, and escalation protocols to protect well integrity and service quality.



4. Support – People, Resources & Documented Information

4.1 Resources & Infrastructure: Maintain rigs/units, cement labs, tubular handling tools, torque-turn systems, pressure gauges, densitometers, mixers, and communications. Preventive maintenance plans exist for critical assets with records. M&TE is controlled via a calibration program traceable to national/international standards; out-of-tolerance triggers product impact assessment.

4.2 Competence & Awareness: Roles have competency matrices defining minimum training, certification and supervised experience (e.g., casing running tools, cementing mixing operations, pressure testing). Competence is evaluated initially and periodically; gaps drive training plans. Awareness covers the policy, objectives, procedures, client requirements, and the right to stop work.

4.3 Communication: Internal (toolbox talks, quality alerts, lessons learned) and external (client reports, supplier specs, certificates). Critical communications are recorded.

4.4 Documented Information: Documents (manual, procedures, SOPs, WI, forms) are controlled for approval, versioning, distribution, point-of-use access, retention, and disposition. Records (e.g., casing tallies, torque-turn graphs, slurry lab reports, pressure test charts, calibration certificates, NCR/CAPA) are retained per legal/contract/API requirements. Digital systems include backups and access control.



5. Operation – Planning & Control of Service Provision

5.1 Operational Planning: For every job, a Job Quality Plan (JQP) consolidates contract requirements, standards, acceptance criteria, equipment lists, calibrated M&TE, competency verification, inspection/test plans (ITPs), and reporting templates. Pre-job quality reviews confirm hazards/controls, quality risks, and contingency plans.

5.2 Control of External Providers: Suppliers of critical products/services (e.g., casing/tubing, cement, chemical additives, lab services, logistics) are selected and monitored based on risk and performance. Requirements include conformance certificates, mill test reports (MTRs), heat/lot traceability, handling/storage conditions, and inspection/test evidence. High-risk suppliers may be audited on-site or remotely; poor performers trigger corrective action or disqualification.

5.3 Drilling Support (Quality Controls): Validate drilling program quality inputs, verify fluid properties (where in scope), maintain BHA and equipment inspection records, and ensure data integrity for depth/time, torque/drag, and critical parameters. Interfaces with HSE and well control are respected; deviations are escalated via MOC.

5.4 Casing/Tubular Running (Quality Controls): Prior to mobilization, verify conformance of tubulars to purchase specifications and applicable standards, confirm thread type/condition, drift and tally joints, verify coupling make-up lubricant grade, calibrate torque-turn systems, and control make-up according to specified windows. Record actual torque-turn curves, joint numbers, and any re-make operations. Manage handling damage, protectors, storage, and humidity.



6. Operation – Cementing & Control of Nonconforming Outputs

6.1 Cementing (Slurry Design & Verification): For each job, confirm cement type/class, additives, and properties meet program and well conditions. Conduct lab tests (e.g., density, rheology, thickening time, fluid loss, free water, compressive strength development) under simulated downhole temperature/pressure. Validate field mix water quality. Approve final design with client prior to job.

6.2 Cementing (Execution Controls): Calibrate densitometers and pressure sensors; verify displacement volumes; monitor and record rates, pressures, and densities in real time; maintain mixing energy and slurry homogeneity; ensure proper spacer/flush sequences and centralization requirements. Post-job, verify top of cement via agreed method and report results with charts and deviations.

6.3 Identification & Traceability: Maintain traceability of tubular heats/lots to well and depth; trace cement batch numbers and additive lots to job tickets. Nonconforming materials are identified, segregated, and dispositioned.

6.4 Control of Nonconforming Outputs: When acceptance criteria are not met (e.g., out-of-spec torque, thread damage, slurry density excursion), take immediate containment, inform client, and record NCR (QMS-FRM-NCR). Root cause analysis is performed and corrective action is tracked to closure with effectiveness verification.



7. Performance Evaluation, Management Review & Improvement

7.1 Monitoring, Measurement, Analysis & Evaluation: KPIs for quality (FTY, NCR rate, calibration OTIF, supplier OTIF, audit closure, client satisfaction) are defined with data sources and calculation rules. Dashboards trend monthly data, analyze special causes, and prioritize improvements.

7.2 Internal Audit: A risk-based annual audit program covers processes, sites, and suppliers. Auditors are competent and independent of audited activities. Findings are categorized, communicated, and verified for closure.

7.3 Management Review: At least annually, Top Management reviews QMS performance (context and interested parties status, objectives, KPI trends, audit results, client feedback, supplier performance, resources/competence, risks/opportunities including climate-related issues, MOC outcomes, and improvement priorities). Outputs include decisions and actions for improvement, resource changes, and policy/objective updates.

7.4 Improvement & CAPA: The company fosters continual improvement through corrective actions, lean problem solving, standardization of best practices, and innovation (e.g., digital job data capture, remote monitoring). Lessons learned are institutionalized into procedures, training, and supplier requirements.

Appendix – Example Controlled Documents & Records: QMS-PRC-MOC (Management of Change); QMS-PRC-DOC (Document Control); QMS-PRC-OPS (Operational Planning); QMS-WI-CRT (Casing Running – Torque-Turn); QMS-WI-CEM (Cementing – Mixing & Pumping); QMS-FRM-JQP (Job Quality Plan); QMS-FRM-ITP (Inspection & Test Plan); QMS-FRM-TALLY (Casing Tally Sheet); QMS-FRM-LAB (Cement Lab Report); QMS-FRM-CAL (Calibration Record); QMS-FRM-NCR (Nonconformity & CAPA); QMS-FRM-AUD (Audit Report); QMS-FRM-KPI (KPI Dashboard).



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