

Operation and Integrity of Well Operation Testing

Course Outline:

Day One

- Introduction for O&G industry.
- **Well Design and Construction:**
 - ✓ The appropriate casing and cementing procedures to ensure zonal isolation.
 - ✓ Appropriate wellhead equipment to prevent leaks.
 - ✓ Proper wellbore planning to minimize risks during drilling and completion.
 - ✓ Use of appropriate drilling fluids to minimize formation damage.
- **Construction of a Well from Casings to Well Head:**
 - ✓ Well head main functions.
 - ✓ Well head classifications.
 - ✓ Basic components of a well head.
 - ✓ Casing head / casing head function.
 - ✓ Casing spool / casing spool function.
 - ✓ Typical Xmas tree components.

Day Two

- **Xmas Tree Installation:**
 - ✓ Well head repairs.
 - ✓ Hydraulic and pneumatic actuators.
 - ✓ Casing hangers and well pressure control.
 - ✓ Common pack offs and secondary seals.
 - ✓ Tubing hangers (cross sections).
 - ✓ Basic requirements of a well completion.
 - ✓ Casing string types.

EXPERT

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- **Monitoring and Maintenance Techniques for Production Wells:**

- ✓ Regular inspections of wellhead equipment and downhole tools.
- ✓ Regular monitoring of production and injection rates, pressure, and temperature.
- ✓ Maintenance of equipment and infrastructure to prevent failures and leaks.
- ✓ prevent costly downtime, production losses, and safety incidents.

Day Three

- **Wells Operations Safety Precautions & Risk Assessment**

- ✓ Risk assessment and its criticality for a WIMP.
- ✓ identify ongoing potential risks to well integrity.
- ✓ The assessment criteria for all aspects of the well assembly and operation, (well design, drilling and completion operations, production operations, and abandonment).

- **Certification, Maintenance, and Traceability**

- ✓ Ensure manufacture, maintenance modification, and documents validated.

- **Compliance Audits**

- ✓ Confirm compliance audits are up to date and documented.

- **Reporting**

- ✓ Investigate all incidents and share lessons learned.

Day Four

- **Corrosion Monitoring Tools**

- ✓ Corrosion logs.
- ✓ Corrosion-tubing leaks.
- ✓ Consequences of well integrity degradation.
- ✓ Corrosion mitigation and prevention.
- ✓ Surface casing repairs.
- ✓ Temporary well abandonment.
- ✓ Casing perforation best practices.

EXPERT

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- **Emergency Response and Contingency Planning**

- ✓ Procedures for responding to well control incidents and other emergencies.
- ✓ Contingency plans for dealing with potential risks and threats.
- ✓ Regular testing and evaluation of emergency response and contingency plans.

Day Five

- **Cement Jobs**

- ✓ Liner cementing
- ✓ Squeeze cementing
- ✓ Cement head and wiper plugs

- **Case Studies & Summery**

Location	Fairmont Nile City
Start Date	04 February 2024
End Date	08 February 2024
Fees	3500 \$