KAESO
ENERGY SERVICES

Revolutionizing Well Integrity with CFLEX

Angolan Oil Gas 2024

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Saving your Time, Money and Energy

Introduction to Well Integrity

Key Points:

•Well integrity is critical to preventing uncontrolled fluid movement within the wellbore.

•Breaches in well integrity cause environmental, safety, and financial disasters.

•A study shows that 45% of well integrity failures are attributed to cementing issues.

Well Integrity Failures

Major well failure: $50 MUSD

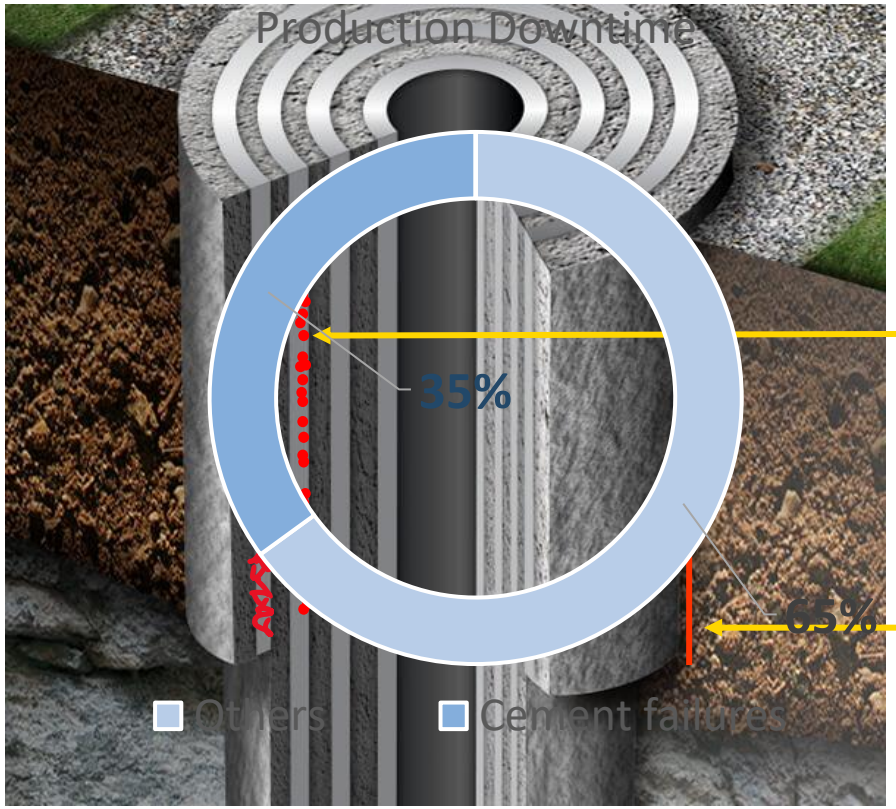
Cement Integrity in Focus

Key Points:

•Cementing ensures zonal isolation and prevents fluid migration.

•Cement failure can occur due to poor bonding, shrinkage, and chemical degradation.

•Failures in cementing can lead to significant downtime and production losses.



Degradation

Bonding

$Production losses: 1 MUSD/day

Challenges in Cement Integrity

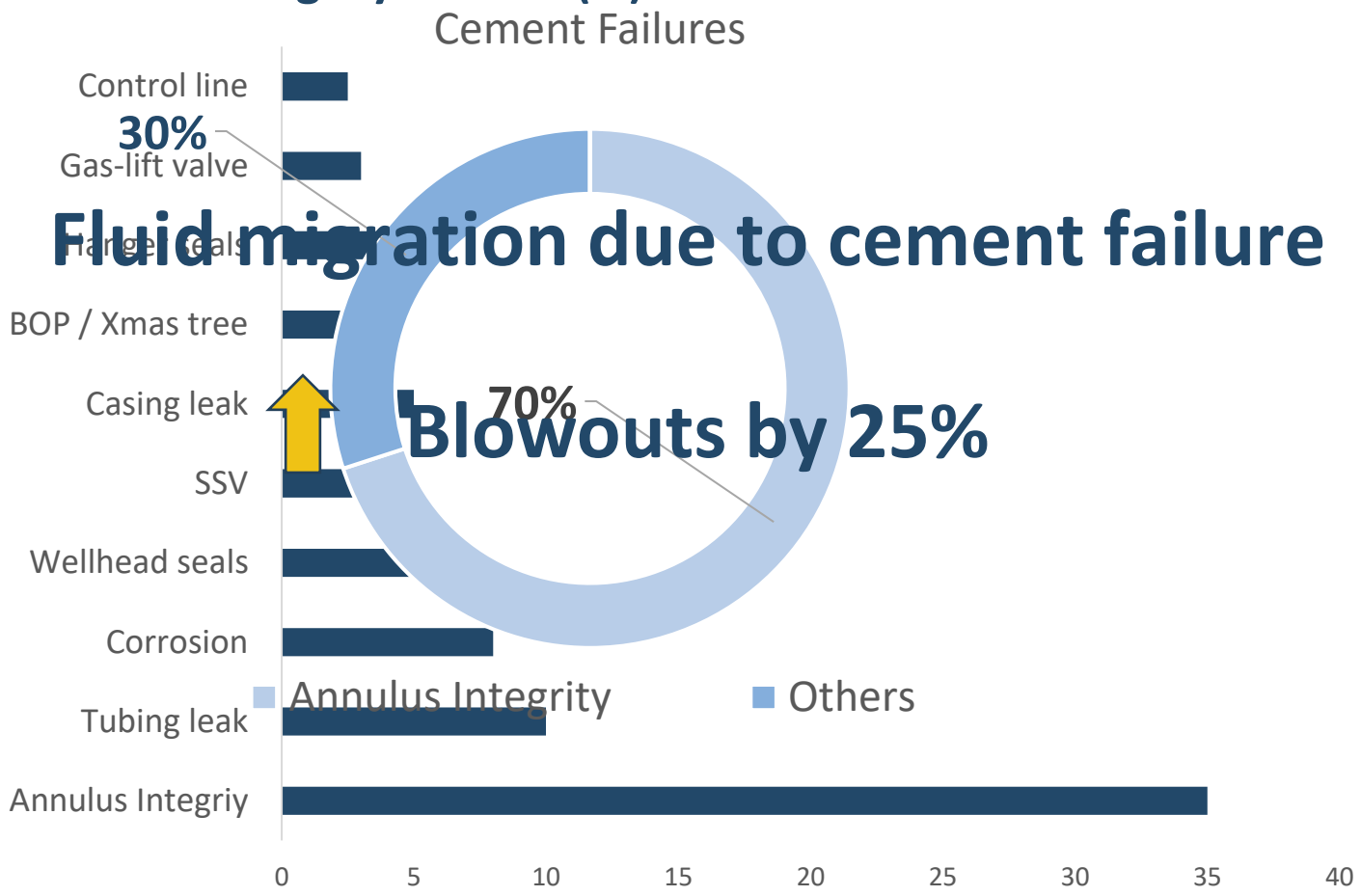
Key Points:

•Cement failures can result from mechanical issues, chemical degradation, and extreme wellbore conditions.

•The most common issues include micro-annuli, fluid migration, and cement debonding.

•Dealing with these challenges requires innovative solutions like CFLEX.

Most common integrity failures (%):



Fluid migration due to cement failure

Blowouts by 25%

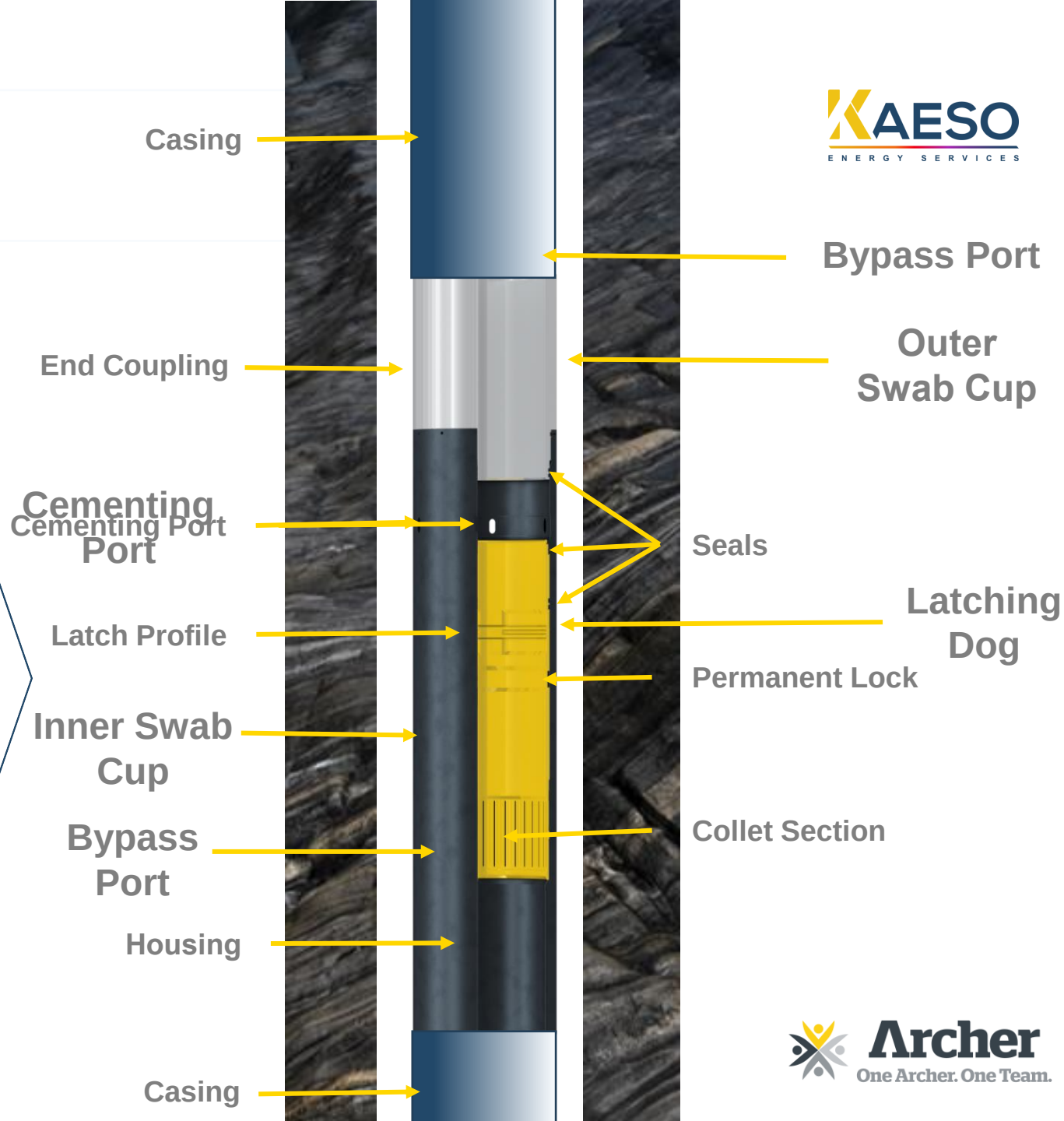
CFLEX Technology

Key Points:

•CFLEX is designed to enhance cement bonding and flexibility, reducing the likelihood of cement failure.

•The system's flexible annular cement base ensures better bonding in high-stress environments.

•CFLEX has shown to reduce the occurrence of micro-annuli by **80%** in field trials.



Cflex®

Saving your
Time, Money
and Energy

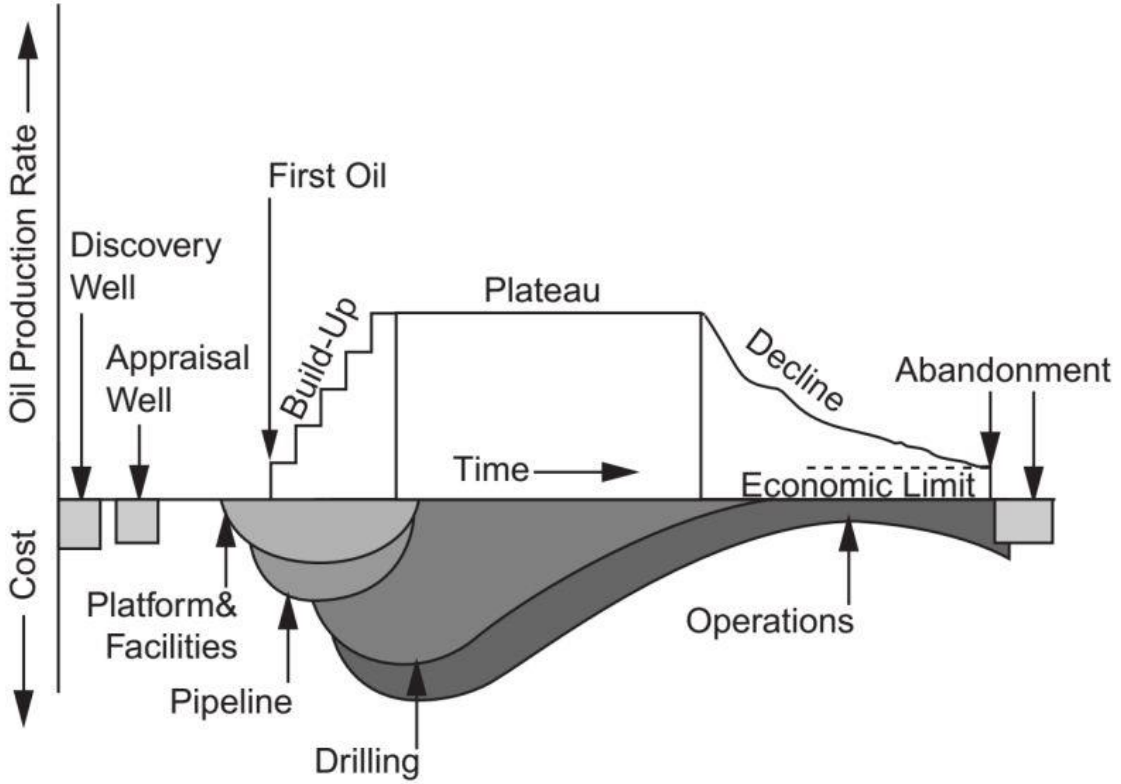
Implementation and Limitations of CFLEX

Key Points:

•CFLEX requires precise execution and real-time monitoring for optimal results.

•While highly effective, it has limitations in extremely high-temperature or corrosive environments.

•However, the overall ROI is strong, with long-term well integrity savings outweighing initial costs.



15 % increase upfront costs

30 % saving in maintenance

50 % less interventions

Track record: CFLEX in Action

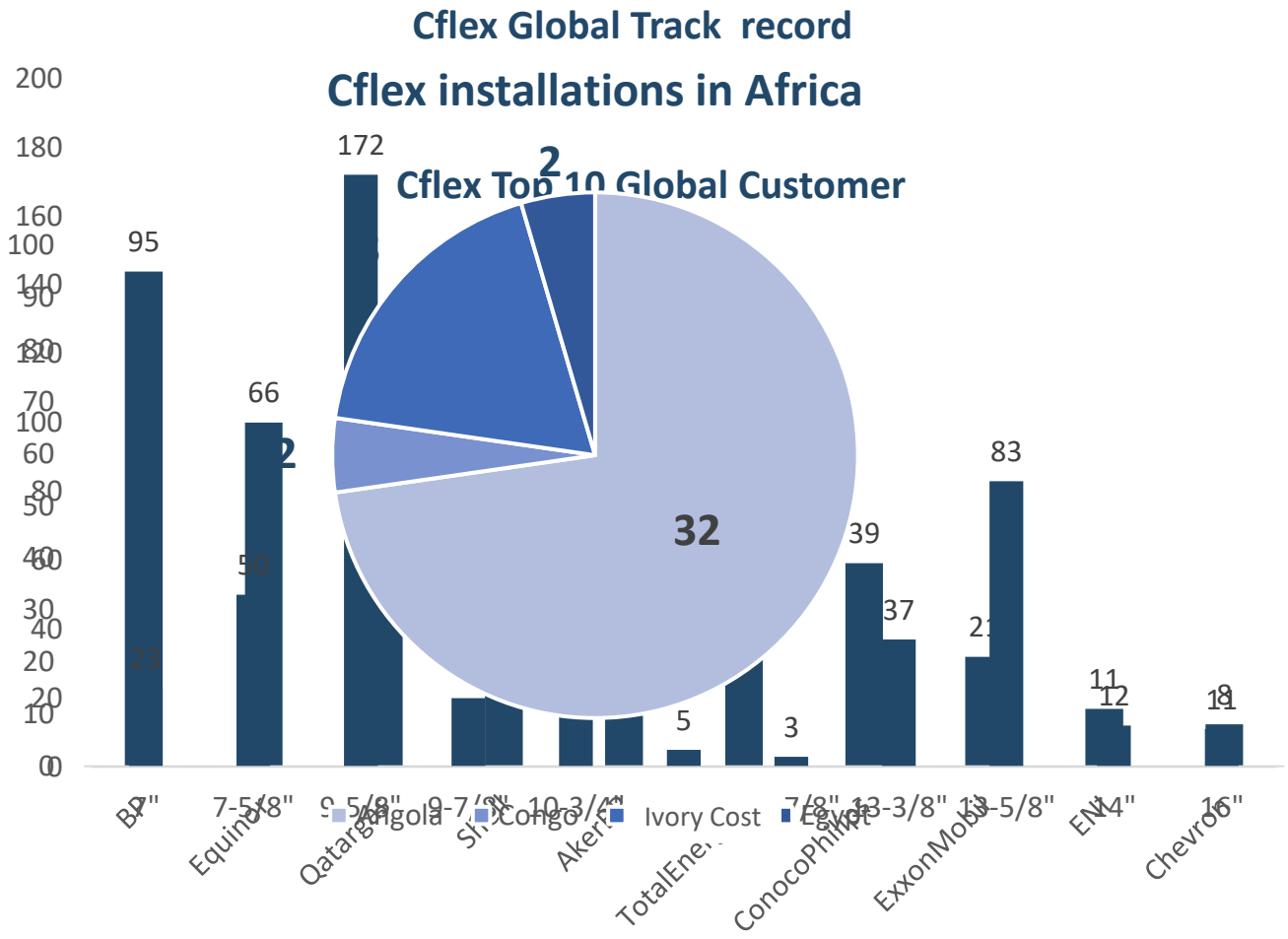
Key Points:

•The track record highlight the effectiveness of CFLEX in challenging wells.

•One operator reported a **40%** reduction in wellbore failures after switching to CFLEX.

•Another case showed that CFLEX increased production uptime by **20%** due to fewer integrity-related interventions.

> 600 Cflexes installed



Who Benefits from CFLEX?

Key Points:

•Drilling Managers: Reduced non-productive time (NPT) and lower well intervention costs.

•Completion Managers: Better cement job control and fewer integrity issues.

•Reservoir Managers: Reduced risk of fluid migration and protection of reserves.

•Well Architecture Teams: Greater flexibility in cement placement and enhanced job design.

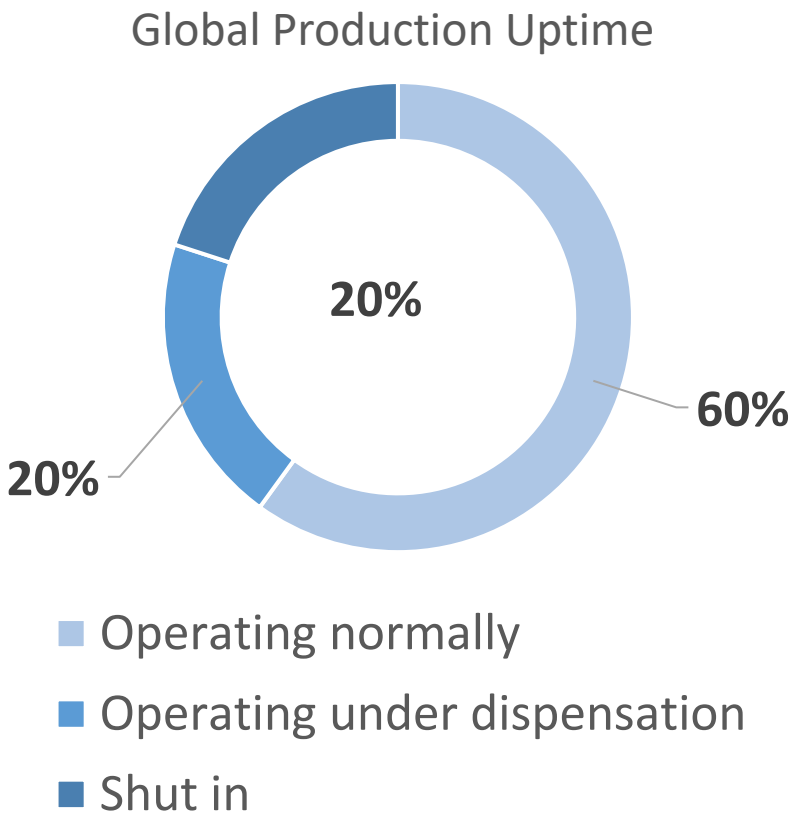
Conclusion and Call to Action

Key Points:

•CFLEX provides a robust solution to one of the most persistent challenges in the oil and gas industry—cement integrity.

•The technology significantly reduces the risk of well integrity failures and improves the lifespan of wells.

•Contact KAESO Energy to learn more about how CFLEX can benefit your operations.



80% efficiency

$1 BUSD/day lost

Thank YOU

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