

SPE WELL DECOMMISSIONING – Playing with the past to gain the future



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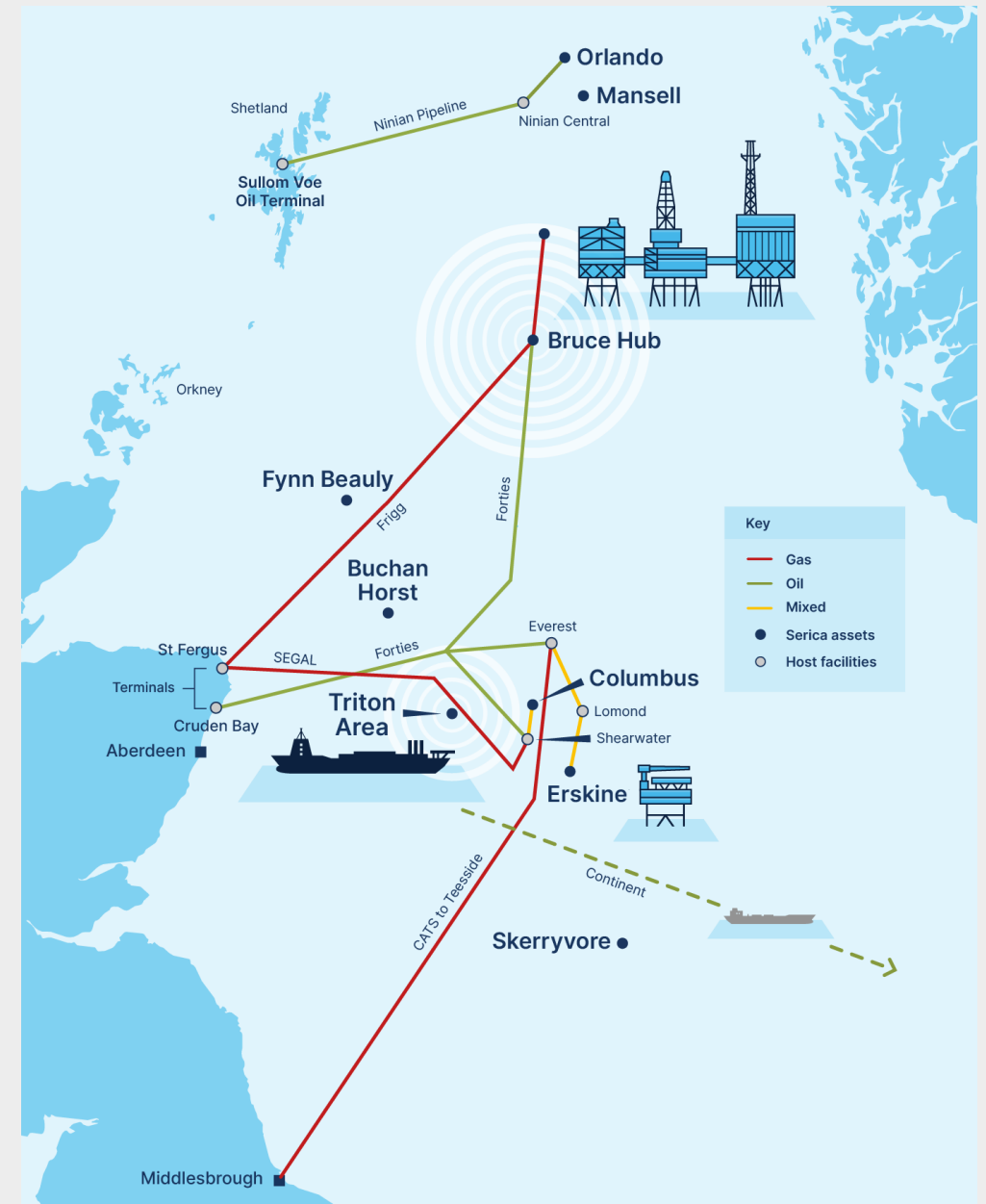
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A LEADING UK OIL & GAS COMPANY

Our Purpose:

“To contribute responsibly towards meeting the world’s energy needs through the safe and efficient production of hydrocarbons”

- Founded in 2004, now one of the UK’s top 10 producing oil & gas companies, with 2025 production predicted at 33-37,000 boepd
- 75% of the UK’s energy needs are met from oil & gas. Serica’s Bruce platform contributes 5% of the UK’s gas production, strengthening the stability of UK energy security
- Diversified portfolio; virtually 50/50 oil/gas from two UK North Sea hubs
- Promoting a strong, empowered and respectful culture amongst our 200+ staff
- Supporting a UK-wide supply chain (over £1bn spent since 2015)
- A strong commitment to ESG with emissions below the UK North Sea average

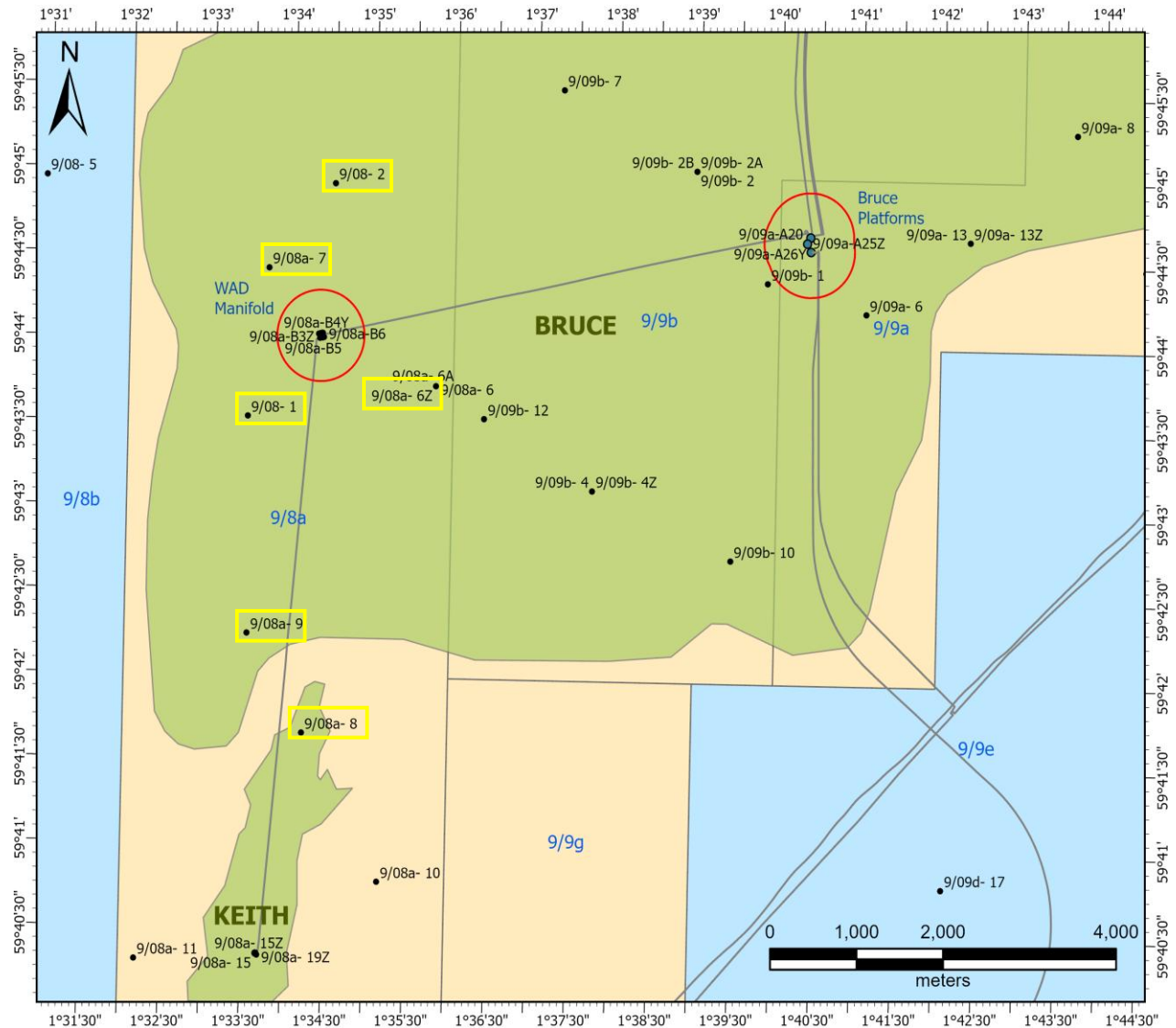
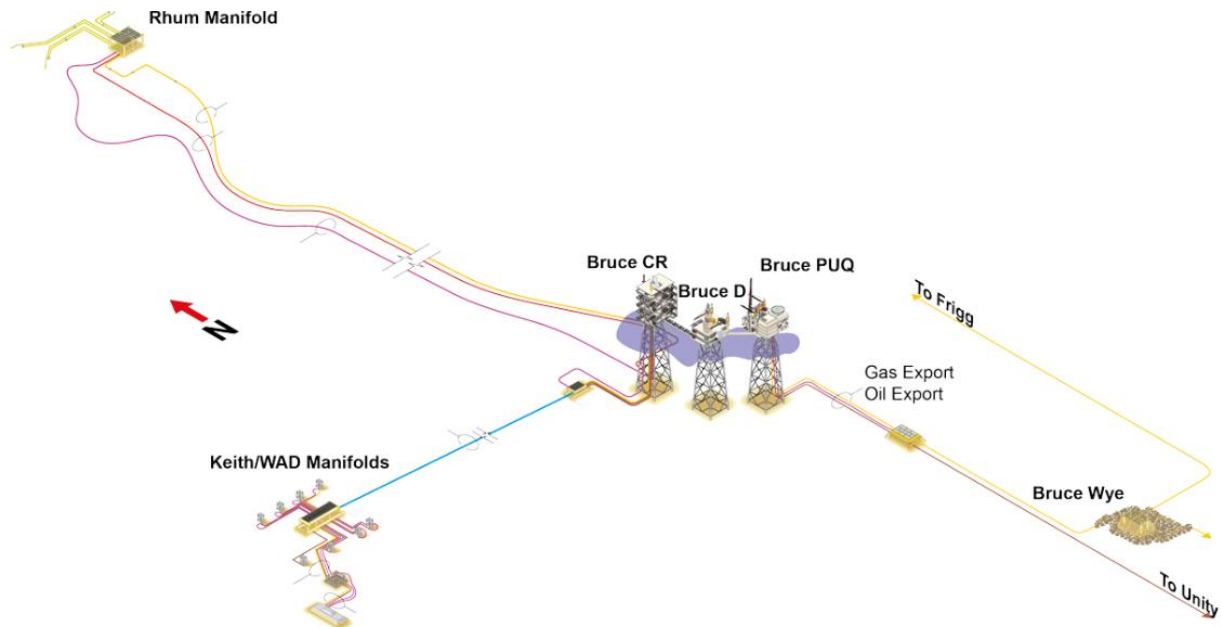


Today's Plan

- Past – Quick history of the E&A Keith wells Serica decommissioned 2023/2024
- Present - Noise
- The Future - Technology

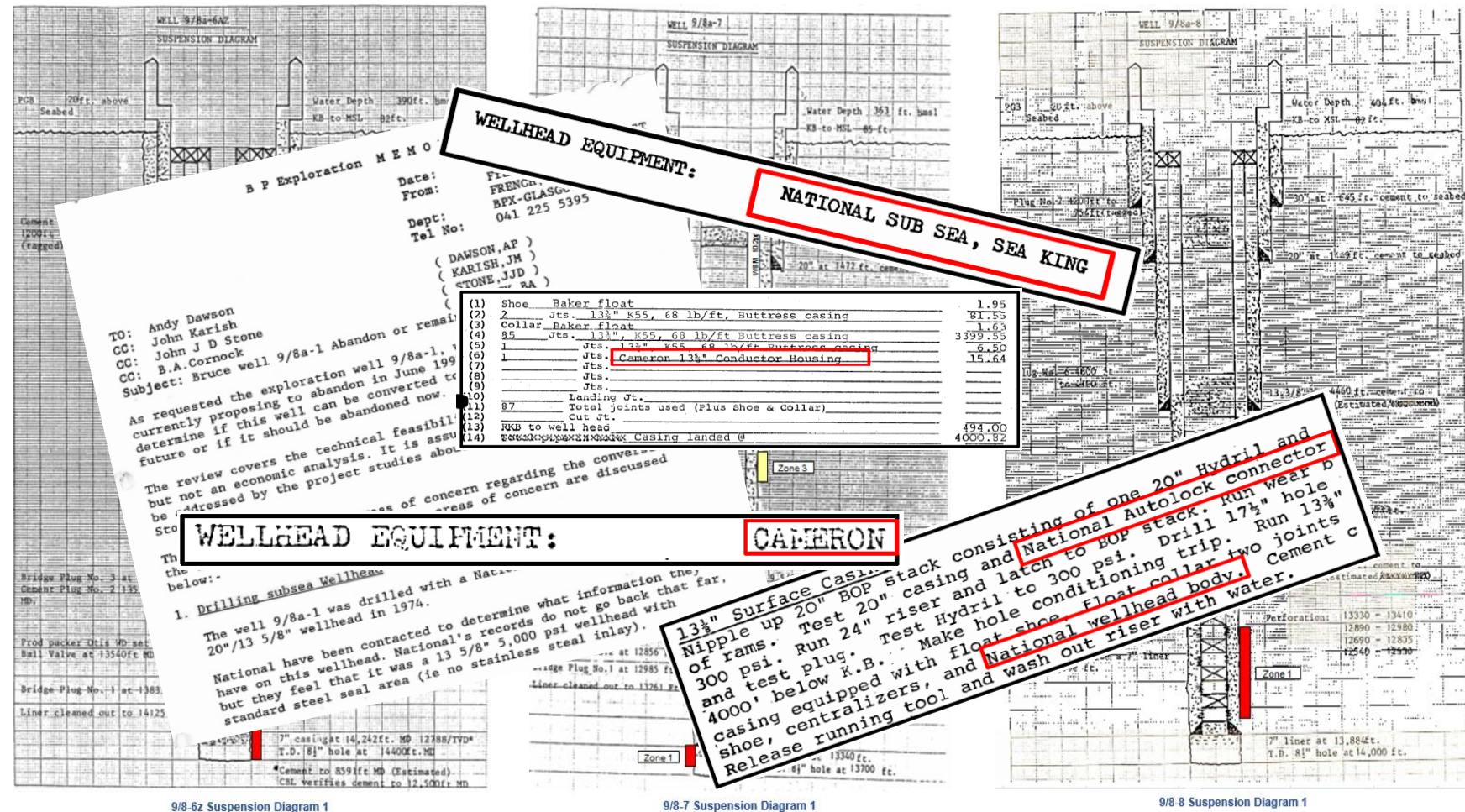
The Past - 'Older' E&A Wells

- Plan to inspect as well as plug and abandon Keith
 - 9/08a-1 (Spudded 1974)
 - 9/08a-2 (Spudded 1974)
 - 9/08a-6z (Spudded 1982)
 - 9/08a-7 (Spudded 1982)
 - 9/08a-8 (Spudded 1983)
 - 9/08a-9 (Spudded 1984)



Challenges

- Lack of information
- How good are the records?
- Inconsistent information
- Age of wells
- Availability of equipment
- Time of Year



Develop a plan, scope & timeline



Acted fast and assembled a team with extensive decommissioning experience



Interrogated our data & developed our strategies, a mixture of vessel & rig abandonments



Developed our decommissioning plan, recognising areas of potential scope growth



Maintained close dialogue with our partners, regulators and internal stakeholders

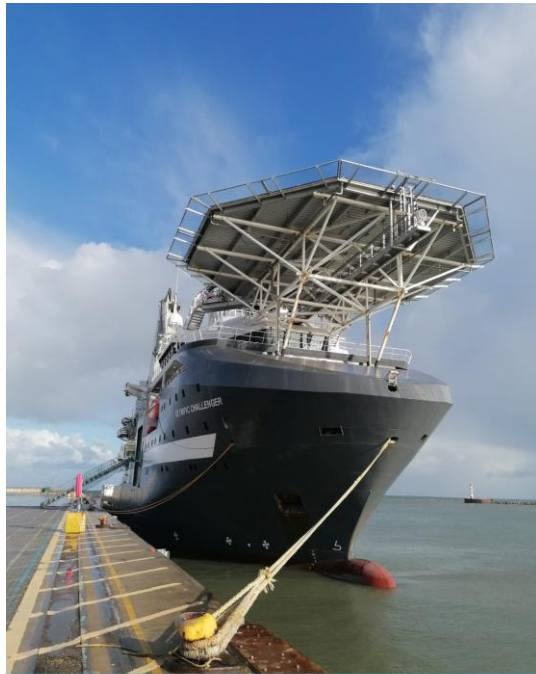


Received approval of our E&A Wells Decommissioning plan in May 2022



Seizing Opportunities in the Supply Chain...use it or lose it

- Targeted approach: multi-operator campaigns, doing things in order, gathering data to ensure certainty
- Negotiated contract terms to complete operations during winter months
- Working with the supply chain and applying new technology to strive for efficiency



2022



2023



2024

Getting it done in the field...



Wellhead surveillance/Subsea laser scanning (Savante)



Vessel based P&A and wellhead recovery



World first – 5 casing strings/single cut (Claxton)



Temporary Guidebase and gravity base assemblies recovered

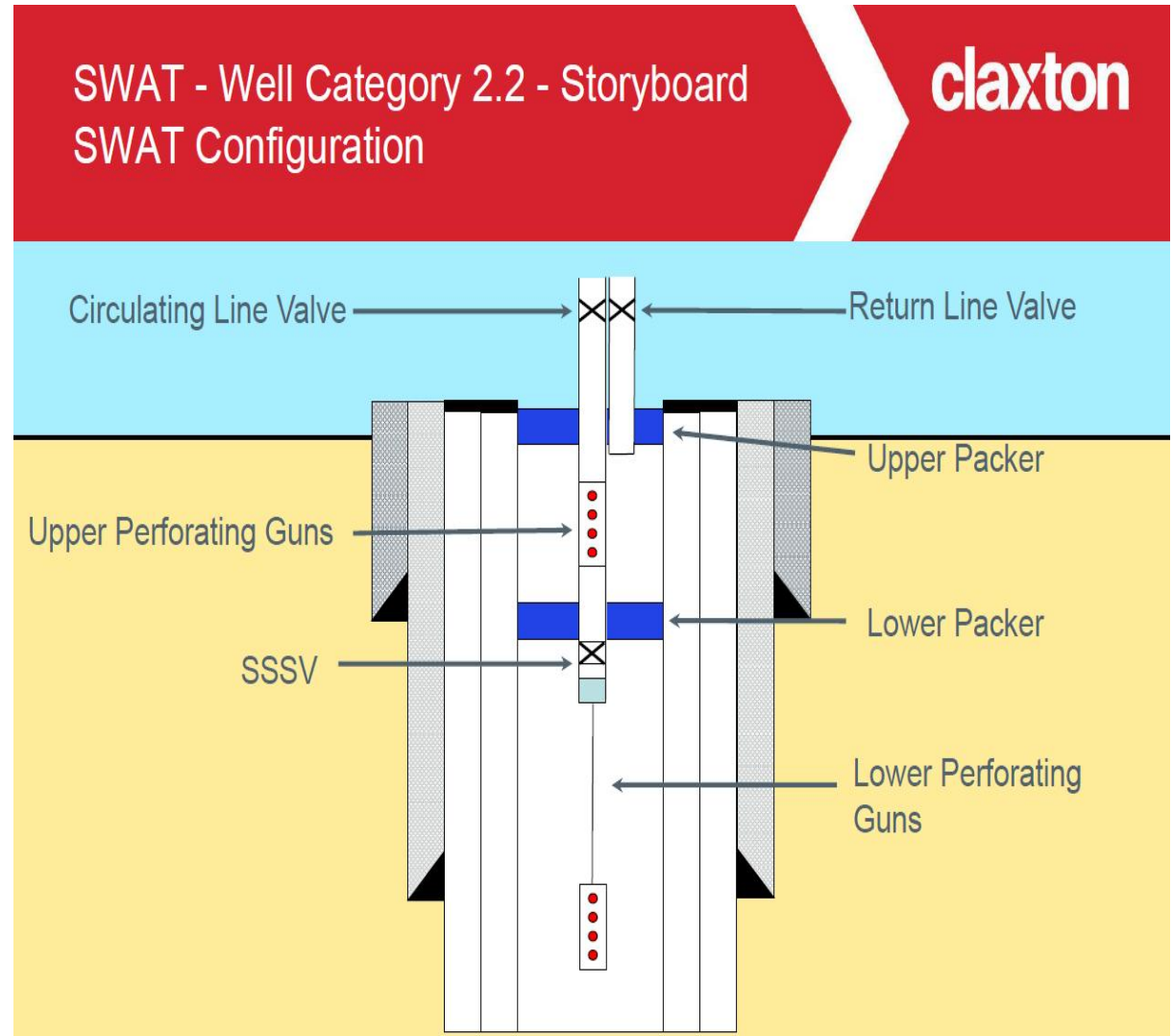


Using technology...when its right

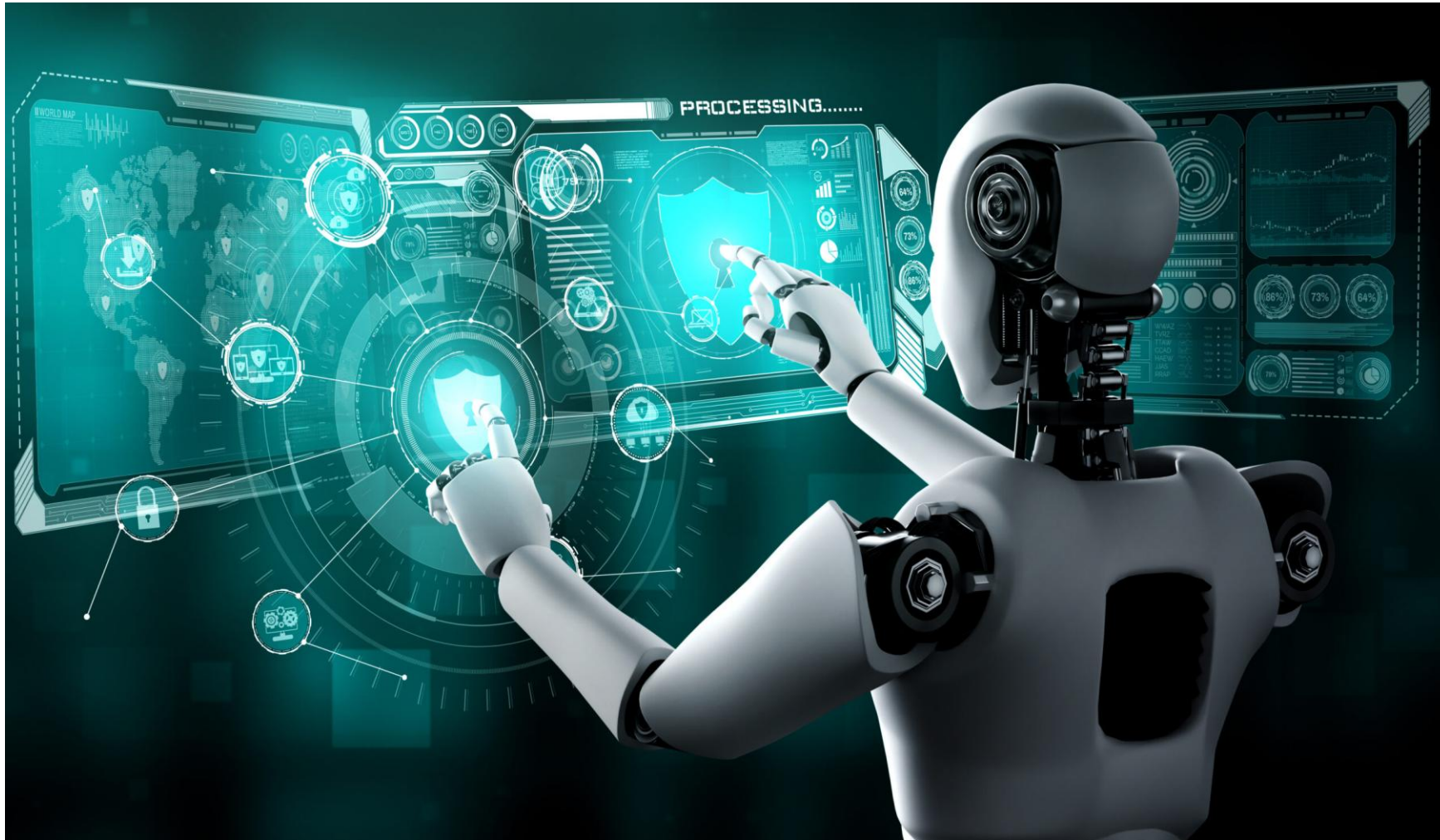


The Present - Noise

- Marine Mammal Observers
- Passive Acoustic Monitoring
- Sea state
- Time of year
- Storms
- Short days
- Light levels
- Visibility
- Defined Mitigation Zone
- 10 dB – Breathing
- 20 dB – Leaves rustling
- 30 dB – Whisper (light snoring)
- 40 dB – Rain (Refrigerator)



The Future - AI



Well selection

S

S Serica UK

42

Rig

Well

Wellbore

Activities

Field

Organisation

Pipelines

Well

Dashboard • Well

+ New entity

Search...

<input type="checkbox"/>	Well ID	Name
<input type="checkbox"/>	0001	9_08-1
<input type="checkbox"/>	0002	9_08-2
<input type="checkbox"/>	0007	9_08-7
<input type="checkbox"/>	0006	9_08a-6Z
<input type="checkbox"/>	0008	9_08a-8
<input type="checkbox"/>	0009	9_08a-9

Rows per page: 25 1-6 of 6

Drilling down

S

S Serica UK

16

Rig

Well

Wellbore

Activities

Field

Organisation

Pipelines

Well

Name

Value

Review

Well ID

Name

9_08a-8

Facility

Well Registration No

9

Well Origin

9

Well Alias

10

Slot Number

10

Parent Well

7

Operator Information

History

No history recorded for this attribute

Data Audit

S

S Serica UK

16

Rig

Well

Wellbore

Activities

Field

Organisation

Pipelines

Well

Original Operator

Well Status

Name	Value	Review
Origin Status		7
Well Operation Status		7
Abandonment Category		7

Fluid Types

Name	Value	Review
Fluid Types		7

License & Regulatory

History

The provided text mentions the well 9/8a-8 was temporarily abandoned (suspended). The letter from the Department of Energy confirms this, referencing "suspension (temporary abandonment)" and specifying that consent is needed before re-entry or permanent abandonment ⓘ. No numerical category is assigned.

Created at 12/05/2025 14:25:01 by rahd-ai

The provided text mentions the well 9/8a-8 was temporarily abandoned (suspended). The correspondence with the Department of Energy confirms this, referencing "suspension (temporary abandonment)" and specifying that consent is needed before re-entry or permanent abandonment ⓘ. No numerical category is assigned.

Created at 12/05/2025 13:19:03 by rahd-ai

The provided text mentions the well 9/8a-8 was temporarily abandoned (suspended). The correspondence with the Department of Energy confirms this, referencing "suspension

Audit trail

The screenshot shows a document viewer window titled "Reference" with a close button (X) in the top right corner. The document content is as follows:

in accordance with the programme of work submitted in that letter.

For the purposes of the working obligations specified in Schedule 3 to the above mentioned licence, this well is not classified as an exploration well.

You are requested to advise this Department by Telex immediately the well is spudded.

You are advised that a limitation of one year is placed on all temporary abandonments where any apparatus or structure related to wells drilled under this consent is left suspended above the sea bed.

ESTIMATED DAILY WELL COST.

At the bottom right of the viewer is a green button labeled "Document Previewer". At the bottom of the window, there is a footer with the text "License & Regulatory" on the left and "Department of Energy confirms this referencing 'suspension'" on the right.

Audit trail

S

S Serica UK

Rig

Well

Wellbore

Activities

Field

Organisation

Pipelines

Well

Original Operator

Well Status

Name	Value
------	-------

Origin Status

Well Operation Status

Abandonment Category

Fluid Types

Name	Value
------	-------

Fluid Types

License & Regulatory

Document Previewer

Dear Sir

PETROLEUM AND SUBMARINE PIPELINES ACT 1975

Production Licence No P. 209

With reference to the telex dated 28 July 1983, I can inform you that the Secretary of State gives his consent under the provisions of Model Clause 17(2) of Schedule 2, Part II to the above Act, to the suspension (temporary abandonment) of well No 9/8A-8 at the location:

59°41'39.4"N 02°34'12.7"E

in accordance with the programme of work submitted in that telex.

Please advise this Department by Telex immediately the work has been carried out giving the date when all subsea work is completed.

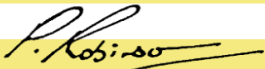
You should submit a schematic of the suspended well, drawing attention to any deviations to the programme for which consent is given.

I remind you that the Secretary of State's consent will be necessary before this well is re-entered or permanently abandoned.

A time limitation for suspension above the mud line was attached to the consent to drill this well. Your intentions with respect to this suspended well should be submitted to this Department for consideration during May 1984 as previously advised.

The expiry date will be one year from the date of completion of the suspension programme.

Yours faithfully



PETER ROBINSON
SENIOR PETROLEUM INSPECTOR

AI – Human validation

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S Serica UK

16

Rig

Well

Wellbore

Activities

Field

Organisation

Pipelines

Well

Original Operator

Well Status

Name	Value
Origin Status	
Well Operation Status	
Abandonment Category	

Fluid Types

Name	Value	Review
Fluid Types		7

License & Regulatory

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Department of Energy confirms this, referencing "suspension

Edit Cell

Abandonment Category

Abandon/Suspended

Save Changes

Cancel

Data Interrogation

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Well

Wellbore

Activities

Field

Organisation

Pipelines

Reference
×

Name

Well ID

Name

Facility

Well Registration No

Well Origin

Well Alias

Slot Number

Parent Well

Operator Information

9_Uda-o

9

9

10

10

7

Chat with AI

Extract the well barriers and their details, include depth/elevation in ft

Extract the well barriers and their details, include depth/elevations in ft

The provided documents contain fragmented information about well barriers. A complete picture requires a dedicated well completion report, which is absent here. However, we can piece together what's available:

7" liner: Set from 10,060 ft to 13,884 ft (Document 2). This is a significant barrier, likely cemented in place. The weight of the liner is mentioned (47 lbs/ft from 10037 ft, and 32 lbs/ft from 10037 ft), suggesting a change in liner specifications at that depth ⓘ. However, the provided text is unclear about the exact meaning of this.

4" CSG (casing): From 12,810 ft to 12,980 ft

Type a message

[illegible]

AI – why?

Adjacent benefits

- Ability to have a digital dataset which can be accessed and searched by all – moving away from ‘tribal knowledge’ or data tied up in hard copy/archives
 - Opportunity to have a single field- or basin-wide searchable view across the wellstock
 - Better, earlier understanding in the decom lifecycle of well complexity, risk and likely cost....rather than ‘rough order of magnitude’ budgeting
 - Audit trail to accurately refer to sources of data, and rationale for P&A decisions being made
 - Reduction in uncertainty, estimation & effort/price contingency between Operators and Supply Chain when issuing and tendering for decom contracts
 - Move towards proactive system-generated recommendations; which wells have similar characteristics and are suitable for lower-cost P&A
 - Move towards standardised data collection and sharing between stakeholders in the decom lifecycle
 - Reduction in scarce engineer time spent on low-value (and unsatisfying) document & data review
 - Lower-cost approach to accelerating decom campaign planning when availability of skilled resource and Budget \$ for non-revenue generating activities is tight
-

Conclusion

- The Past, Present & Future:

Failures of the past are what our knowledge of today is built on. Everything we know about success is based on mistakes we have made, but only if we learn from them!