Cautionary Statement

The following presentation includes forward-looking statements. These statements relate to future events, such as anticipated revenues, earnings, business strategies, competitive position or other aspects of our operations or operating results. Actual outcomes and results may differ materially from what is expressed or forecast in such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict such as oil and gas prices; refining and marketing margins; operational hazards and drilling risks; potential failure to achieve, and potential delays in achieving expected reserves or production levels from existing and future oil and gas development projects; unsuccessful exploratory activities; unexpected cost increases or technical difficulties in constructing, maintaining or modifying company facilities; international monetary conditions and exchange controls; potential liability for remedial actions under existing or future environmental regulations or from pending or future litigation; limited access to capital or significantly higher cost of capital related to illiquidity or uncertainty in the domestic or international financial markets; general domestic and international economic and political conditions, as well as changes in tax, environmental and other laws applicable to ConocoPhillips’ business and other economic, business, competitive and/or regulatory factors affecting ConocoPhillips’ business generally as set forth in ConocoPhillips’ filings with the Securities and Exchange Commission (SEC).

Use of non-GAAP financial information - This presentation includes non-GAAP financial measures, which are included to help facilitate comparison of company operating performance across periods and with peer companies. A reconciliation of these non-GAAP measures to the nearest corresponding GAAP measure is included in the appendix.

Cautionary Note to U.S. Investors – The SEC permits oil and gas companies, in their filings with the SEC, to disclose only proved, probable and possible reserves. We use the term “resource” in this presentation that the SEC’s guidelines prohibit us from including in filings with the SEC. U.S. investors are urged to consider closely the oil and gas disclosures in our Form 10-K and other reports and filings with the SEC. Copies are available from the SEC and from the ConocoPhillips website.
Presentation Aim

‘Introduce you to Human Factors in order to gain understanding of the areas of risk associated with the human being in the operational environment’
Human factors presentation contents

- Why manage human factors?
- What are and how to manage human factors?
Mindset matters

‘Your beliefs become your thoughts,
Your thoughts become your words,
Your words become your actions,
Your actions become your habits,
Your habits become your values,
Your values become your destiny.’

Gandhi
Human factors

Why manage human factors?
Are you fully in control?

Try the following:

- Cross your right leg over your left
- Rotate your right foot clockwise
- Now draw the figure 6 with your right hand
**Human Reliability Estimate***

<table>
<thead>
<tr>
<th>Task</th>
<th>Probability of Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task of a similar nature to process isolation with some independent checking</td>
<td>3 in 1000</td>
</tr>
<tr>
<td>Above without independent checking</td>
<td>9 in 1000</td>
</tr>
<tr>
<td>Above plus time shortage for error detection and correction</td>
<td>81 in 1000</td>
</tr>
</tbody>
</table>

*older people are less reliable on perceptual tasks*
TRR/Serious Incident/Catastrophe Rate

1930s 1960s Today

Engineering improvements

Management systems

Human factors management
Industry incidents and failure modes

- Human Failure: 80%
- Technical Failure: 20%
Descriptions of human and technical failure

Human Failure
- .....on doing so he caught his foot and stumbled out of the container onto the deck injuring his left ankle.....
- .....the IP got a hit by a small sledgehammer on the outmost part of left thumb.....
- ..... Unauthorised modification to hose fitting in order to achieve seal .....  
- .... A routine inspection by QA/QC Inspectors discovered blasting operations had been carried out on a methanol line for which no blast certificates could be identified for the task........

Technical Failure
- .....DHSV control line leak on subsea slot 6 resulted in loss of Transaqua HT2 to well annulus.....
- .....on Slot 21 the hydraulic hose failed....
- ...lagging materials on the exhaust of a process services mobile pump trailer unit caught fire whilst under operation......
- ......tripped due to a high liquid level in the amine absorber. While trying to restore production acid froze at the suction to the product pumps.....
Piper Alpha – 6 July 1988

- Procedures – adequacy of permit to work (PTW) procedures, and those related to emergency response
- Safety critical communications – failures in shift handover (PTW)
- Training & competence – specific inadequacies in safety training and emergency response
- Organisational Culture – management attitude to safety, not addressing findings of safety audits, and focus on production rather than safety
Others

- Titanic 1912
- Herald of Free Enterprise 1987
- Challenger 1996
- Columbia 2003
- Costa Concordia 2012
Human factors

What are and how to manage human factors?
HSE human factors definition

“Human factors refer to environmental, organisational and job factors and human and individual characteristics, which influence behaviour at work in a way which can affect health and safety”

Extracted from HSE UK webpage
Who else is involved?

PETROLEUM SAFETY AUTHORITY NORWAY

Health & Safety Executive

The Nautical Institute

energy INSTITUTE

DEPARTMENT OF ENERGY & CLIMATE CHANGE

STEP CHANGE IN SAFETY

OGP
What HSE expects

- A proportionately rigorous and structured approach to managing human performance, in the same way that you already routinely tackle engineering and technical issues
ConocoPhillips human factors vision

‘To improve overall performance and reliability, by optimising personnel performance, health, and safety through effectively integrating human factors principles into our risk management processes and all future engineering projects.’
ConocoPhillips human factors vision

‘to improve human performance’

‘reduce the likelihood of human failure’
HUMAN FACTORS MANAGEMENT FRAMEWORK
Workplace Aspect

- Emergency Response
- Staffing Levels
- Critical Communications
- Maintenance Error
- Ergonomics
- Root Cause Analysis
Human factor - engineering
Human factor - engineering

Do the arrows describe the buttons beside them?
In our industry
In our industry (continued)
Human factor - engineering
How is your perception?

There are no black dots
HUMAN FACTORS
HUMAN FAILURE
HUMAN
PERSON
Basic HF assumptions about people

- Individual differences
- Limits to human performance (physical capacity, memory, attention, perception, learning)
- Prone to errors under certain conditions
- Behaviour can be shaped and influenced
- How work is managed and organised is a key influence
How observant are you?
Human factors

Conclusion
‘Rather than being the main instigators of an accident, operators tend to be the inheritors of system defects created by poor design, incorrect installation, faulty maintenance and bad management decisions.

Their part is usually that of adding the final garnish to a lethal brew whose ingredients have already been long in the cooking’

Reason 1990
Human Factors