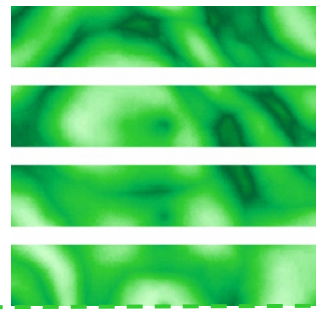




CNR International



Burghley Tie-back FEED

OIL

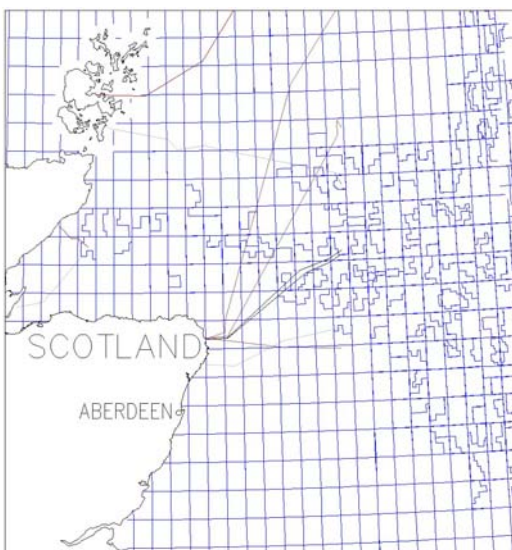
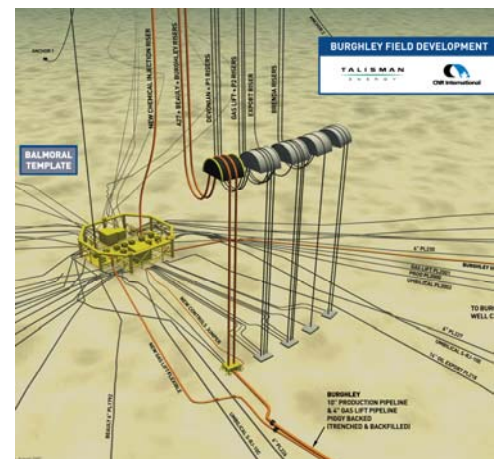
CNR International

The Burghley development lies approximately 8.5 km to the northeast of the Balmoral Floating Production Vessel (FPV). CNR proposed to develop the field by sub-sea tie-back to the existing Balmoral facility, and review of options for the risers at Balmoral was included in the scope of work. The Burghley development consists of:

- 3 daisy-chained subsea trees, each incorporating a subsea control module and integral protection frame;
- 10-inch NB rigid production multiphase pipeline (trenched and buried) to Balmoral FPV;
- 4-inch NB rigid gas lift pipeline (trenched and buried - piggy-backed to production line);
- Electro-hydraulic control / chemical injection umbilical (trenched – separate from pipelines);
- Flexible risers and mid-water arch at Balmoral template.

Andrew Palmer & Associates scope of work:

- Technical review of riser options
- Dynamic analysis of riser and umbilicals
- Specification for dynamic flexible riser
- Specification for controls/ chemical injection riser umbilical
- Specifications for valves
- Riser base functional specification



Location:	North Sea, UK			
Block:	16/22			
Water depth:	145m			
Duration:	6 months			
Contract:	Reimbursable			
Manhours:	<500 <input type="checkbox"/>	500-5000 <input checked="" type="checkbox"/>	5000-10,000 <input type="checkbox"/>	>10,000 <input type="checkbox"/>
Penspen Value:	<\$100k <input type="checkbox"/>	\$100k-500k <input checked="" type="checkbox"/>	\$500k-1,000k <input type="checkbox"/>	>\$1,000k <input type="checkbox"/>

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