

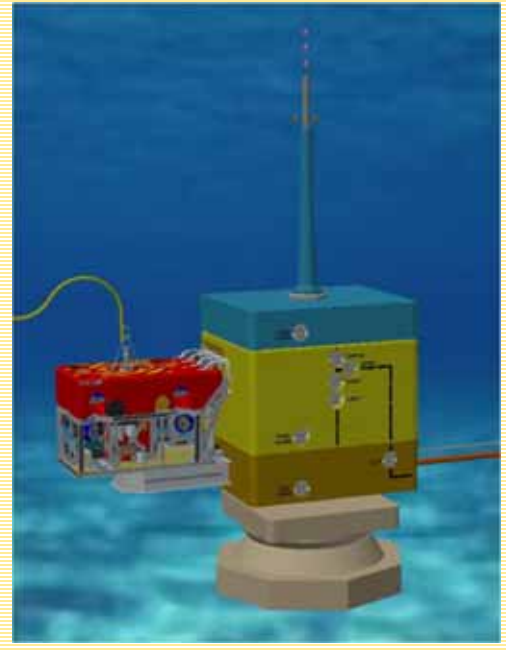
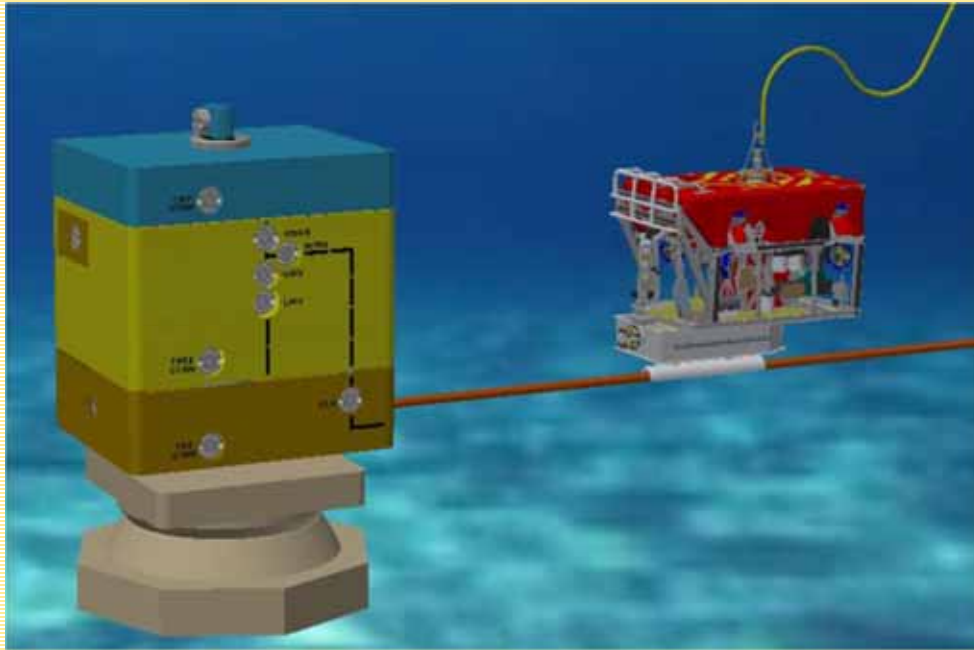


# SUBSEA SYSTEMS

DIV. BAUGH CONSULTING ENGINEERS, INC.

# SSTOM

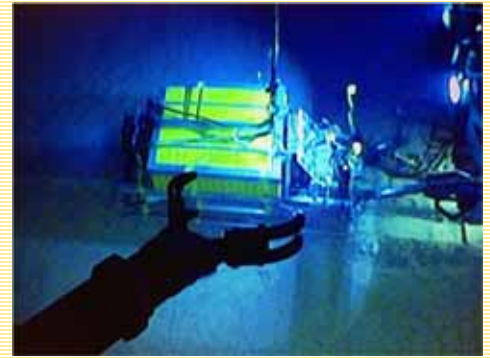
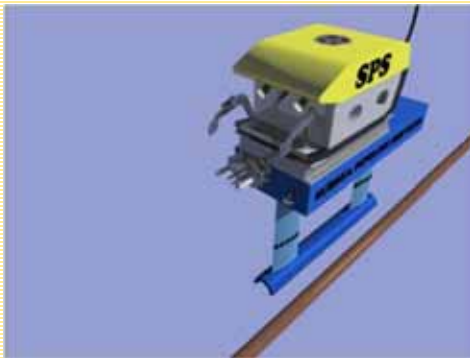
SUBSEA THERMAL OPERATING MODULE



PICTURES ABOVE AND BELOW SHOW THE SHOW OF AN SSTOM LANDING AND LANDED ON A SUBSEA PIPELINE.

PICTURE ABOVE SHOWS AN SSTOM DOCKED WITH A SUBSEA TREE HEATING THE TREE AND/OR THE VERTICAL RISER ABOVE THE TREE

FIELD OPERATION SHOWN BELOW



Beta Subsea Systems offers a combination of patent licensing, engineering, manufacturing capabilities, and products to assist you grow your business.

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PATENTED

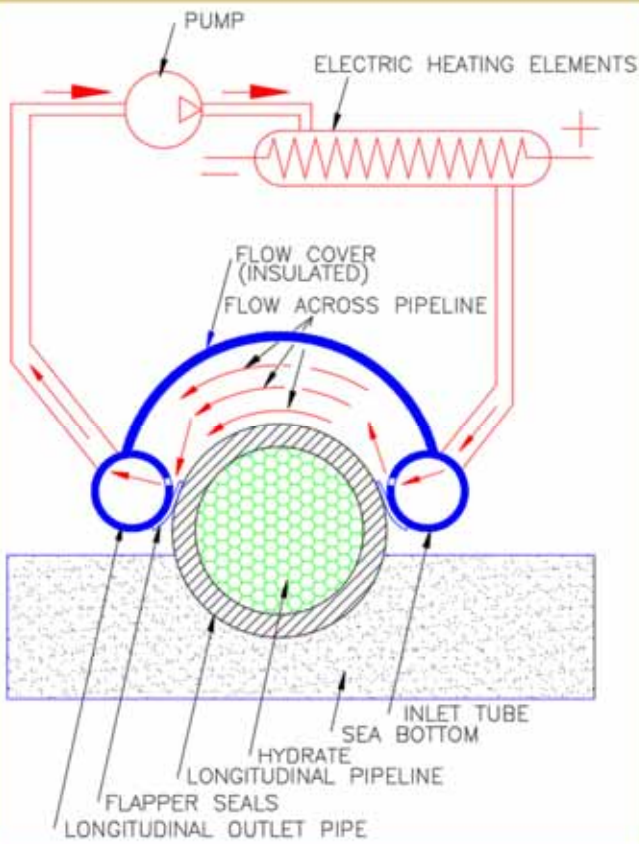


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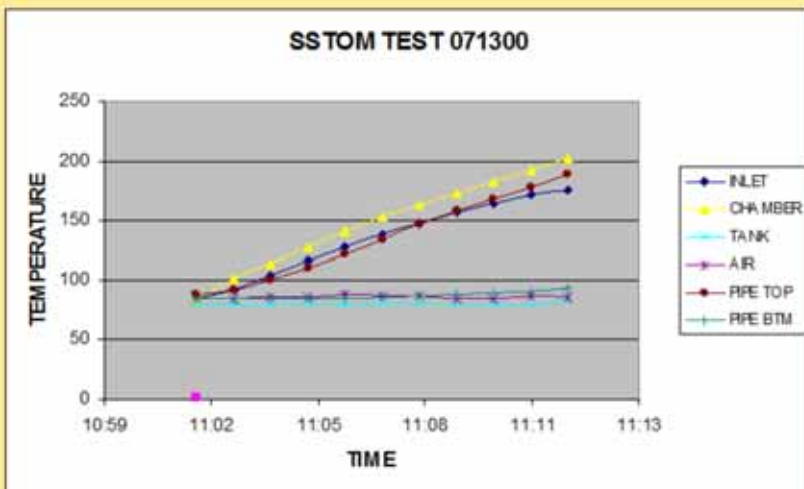
SUBSEA THERMAL OPERATING MODULE



THE SSTOM CONCEPT IS SHOWN TO THE RIGHT. A PUMP CIRCULATES WATER ACROSS A HEATER, DOWN TO A PLENUM TUBE ON ONE SIDE OF THE PIPELINE, OVER THE TOP HALF OF THE PIPELINE, INTO A PLENUM TUBE ON THE LEFT SIDE, AND BACK TO THE PUMP.

TANK TESTING AS SEEN BELOW SHOWS THAT THE TEMPERATURE RISE INSIDE THE 3/4" WALL PIPELINE WAS 10.1 DEGREES F. / MINUTE.

GENERALLY MEANS THAT IF YOU WANT A 40 DEGREES F. TEMPERATURE RISE, YOU MUST NOT TRAVEL THE LENGTH OF THE SSTOM SHOE IN LESS THAN 4 MINUTES



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