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vii. ENERGY SOURCE Cont.

The energy source used on the M/V Magnificent Creek consisted of four sub-arrays with a total capacity of 2180 cubic inches. The sub-arrays were towed with a 8.3 metre spread between them. The distance from the stern of the vessel to the first gun of each sub-array was 70 metres.

Each sub-array includes two low pressure, open-ended air lines so that the depth could be monitored by means of static air pressure at all times. The arrays were ballasted with the use of plastic Norwegian buoys. This enabled the sub-arrays to ride at the contract specified depth, in this case six metres.

The Texas Instruments Airgun Controllers (TIGER II) monitored the firing of each airgun in each of the sub-arrays. Individual gun firing times were continuously controlled to give phasing within +/- 1 millisecond to ensure maximum pulse amplitude and front-to-back ratio.

The TIGER II also performed a quality control function by indicating with individual gun LED displays, the status of a gun if it was not operating correctly ie. a self-fire or no-fire. The airgun performances were logged on both the CMS navigation tape and printer log.