

Table 3
Screening Analysis - Summary of Estimated Oil Outflows

Baseline Tanker Model	Measure	13F Total Mean Oil	Reg. 13G Total Oil	% Outflow of Total Oil Carried		Annual Mean Accidental Oil Outflow	Annual Operational Oil Outflow	Total Annual Oil Outflow
		(Bbls) (cu.m.)	(Bbls) (cu.m.)	13F	13G			
70,000 dwt Pre-MARPOL	1.a. PL/Spaces, 30% coverage	24,742 3,934	17,804 2,831	4.7%	3.4%	1,064 169	953 151	2,017 321
70,000 dwt Pre-MARPOL	1.b. PL/SBT, 30% coverage, with ballast to max. feasible draft	18,130 2,882	14,497 2,305	3.9%	3.1%	780 124	0 0	780 124
70,000 dwt Pre-MARPOL	1.c. PL/CBT, 30% coverage, empty to extent feasible	23,022 3,660	18,181 2,891	4.9%	3.9%	990 157	0 0	990 157
70,000 dwt MARPOL '73	2.a. HBL all tanks	15,191 2,415	9,728 1,546	3.9%	2.5%	653 104	0 0	653 104
70,000 dwt MARPOL '73	2.b. HBL, equivalent to Regulation 13G	18,907 3,006	15,408 2,450	4.0%	3.2%	813 129	0 0	813 129
70,000 dwt Pre-MARPOL	3. PL/Spaces as in 1.c. and HBL as in 2.b.	15,037 2,391	12,645 2,010	3.4%	2.8%	647 103	808 128	1,455 321
70,000 dwt MARPOL '73	4. Retrofit double bottom	13,010 2,068	10,806 1,718	2.7%	2.2%	559 89	0 0	559 89
70,000 dwt MARPOL '73	5. Retrofit double sides	26,519 4,216	20,056 3,189	5.3%	4.0%	1,140 181	0 0	1,140 181
12,700 dwt Tank Barge	6. PL/Spaces (install bulkheads)	8,195 1,303	5,835 928	3.5%	2.5%	337* 53*	0 0	337* 53*
12,700 dwt Tank Barge	7. PL/Spaces using existing cargo tanks	9,989 1,588	6,649 1,057	4.8%	3.2%	399* 63*	0 0	399* 63*
264,000 dwt Pre-MARPOL	1.a. PL/Spaces, 30% coverage	60,868 9,677	61,072 9,710	3.0%	3.0%	2,617 416	677 108	3,294 524
264,000 dwt Pre-MARPOL	1.b. PL/SBT, 30% coverage, with ballast to max. feasible draft	45,659 7,259	39,933 6,349	2.8%	2.4%	1,963 312	0 0 0	1,963 312
264,000 dwt Pre-MARPOL	1.c. PL/CBT, 30% coverage, empty to extent feasible	81,422 12,948	66,510 10,574	4.9%	4.0%	3,502 557	0 0	3,502 557
264,000 dwt MARPOL '73	2.a. HBL all tanks	36,196 5,755	28,243 4,490	3.2%	2.5%	1,556 247	0 0	1,556 247
264,000 dwt MARPOL '73	2.b. HBL, equivalent to Regulation 13G	45,260 7,196	42,696 6,788	3.0%	2.9%	1,946 309	0 0	1,946 309
264,000 dwt Pre-MARPOL	3. PL/Spaces as in 1.c. and HBL as in 2.b.	47,976 7,628	44,508 7,076	3.4%	3.1%	2,063 328	475 76	2,538 404
264,000 dwt Pre-MARPOL	4. Retrofit double bottom	50,005 7,950	49,443 7,861	2.6%	2.6%	2,150 342	843 102	2,793 444
264,000 dwt Pre-MARPOL	5. Retrofit double sides	52,938 8,416	57,655 9,166	2.8%	3.0%	2,276 362	640 102	2,917 464
31,000 dwt Tank Barge	6. PL/Spaces (install bulkheads)	5,669 901	4,358 693	5.8%	4.5%	241* 38*	0 0	241* 38*
31,000 dwt Tank Barge	7. PL/Spaces using existing cargo tanks	6,606 1,050	5,036 801	9.7%	7.4%	279* 44*	0 0	279* 44*

*Annual mean accidental oil outflow calculations were not done for tank barges. However, if the average combined collision and grounding probabilities for tank vessels are extrapolated to apply to tank barges, this estimated oil outflow results.