Base Load Power Hub (BLPH)

APPENDIX O – Ballast Sequence for TP

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1 INTRODUCTION

1.1 PROJECT OVERVIEW

Crosswind, a Shell and Eneco joint venture, was awarded the tender to develop the offshore Hollandse Kust Noord (HKN) wind farm, located 18.5km off the coast of Netherlands near the town of Egmond aan Zee. The consortium plans to have HKN operational in 2023 with an installed capacity of 759MW generating at least 3.3TWh per year. This is sufficient renewable power to supply more than 1 million Dutch households with green electricity.

Offshore wind farms produce intermittent electricity and balancing these dips and peaks and integrating this electricity into the national energy system requires new technologies. For this reason, the offshore wind farm will include several new technologies that could be implemented at full-scale in the future. The new technologies being explored include a floating solar park, a short-duration battery storage as well as long-term storage via green hydrogen produced by water electrolysis and subsequently consumed in a fuel cell. The combination of these individual measures, herein referred to as the Base Load Power Hub (BLPH) will ensure a continuous power supply regardless of the wind situation.

1.1.1 Project Location

The Hollandse Kust Noord (HKN) wind farm is located 18.5km off the coast of the Netherlands near the town of Egmond aan Zee.

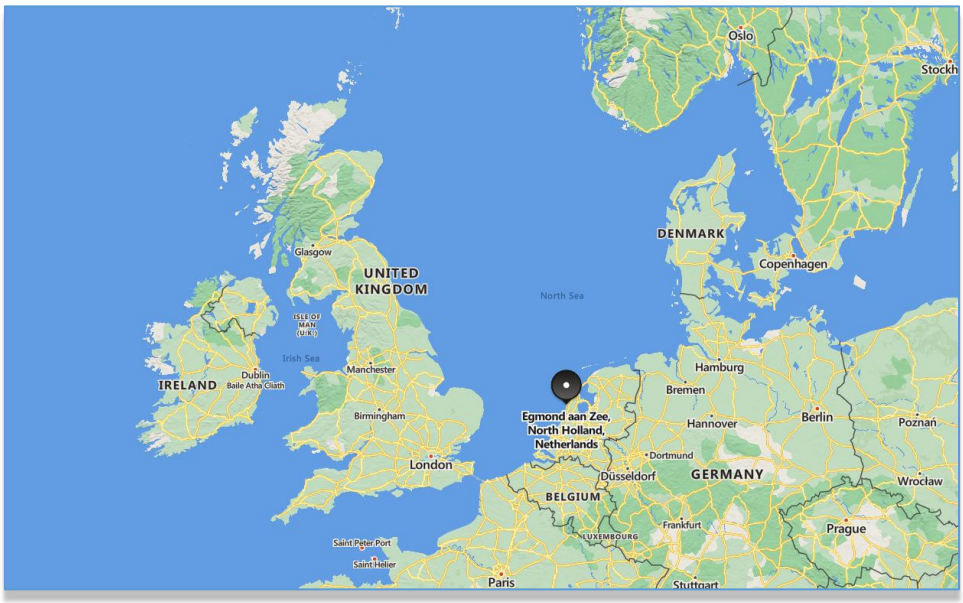


Figure 1.1 HOLLANDSE KUST NOORD WIND PARK Location Map

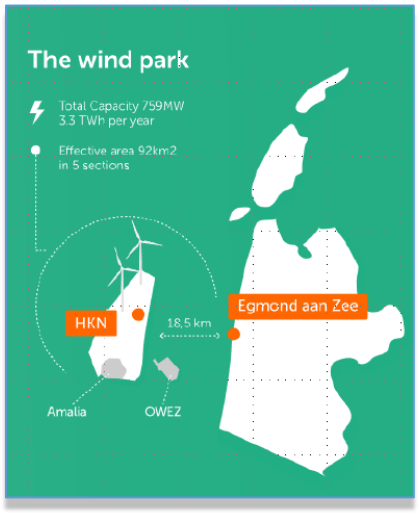


Figure 1.2 - Wind Park Details

The wind farm consist of No. 69 x 11.5MW wind turbine generators each to be installed on a dedicated monopile structure. A 70th monopile located on coordinates E 590719.1, N 5841602.3 is reserved for installing the platform accommodating the BLPH. The monopile structure was designed and installed by Van Oord Offshore Wind (VooW) and therefore not part of the BLPH scope.

1.1.2 Project Concept

All components included in the BLPH will be integrated onshore on a topsides and installed in an offshore location within the boundaries of the HKN wind farm. At its simplest, the BLPH will store energy during periods of high electricity generation from renewable sources (a wind turbine generator and the floating solar PV farm) and release it during periods of low generation. In practice. It is expected that the energy stored will supplement generation from renewable sources to ensure that at least 1.0MW of power is exported to the electrical grid regardless of wind/solar availability.

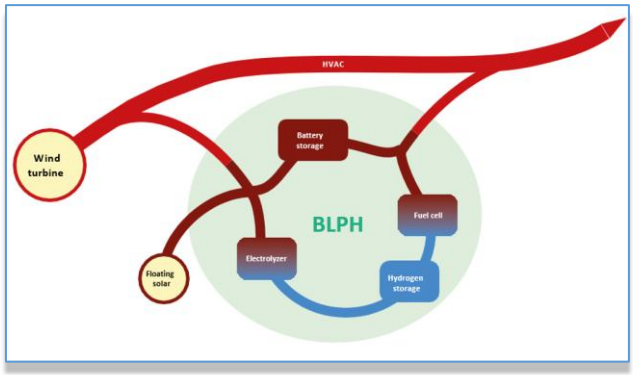


Figure 1.3 – BLPH Concept

Electricity in the BLPH will be stored in the form of electrons in a battery energy storage system (BESS) as well as converted into green hydrogen via water electrolysis. When the power output from the connecting wind turbine drops to below 1 MWe, the BLPH will return its stored energy to supplement the remaining power output. This will be by discharging the BESS, while stored hydrogen will be converted back into electricity using a fuel cell to extend the discharge duration.

The purpose of the BLPH is to function as a testbed for the integration of energy storage technologies with renewable generation. It is expected that equipment installed on the BLPH will operate as Normally Unmanned Installation for at least two (2) years with no or minimal maintenance and it will have its own independent control room with the ability to communicate with Crosswind's control room.

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2 SCOPE

This report presents the results of the load-out simulation of Transition Piece on board of VERVECE barge.

The selected cargo barge has the following main dimensions:

- Barge Name: Vervece
- LOA: 91.44 m
- Breadth: 27.43 m
- Depth: 6.1 m
- Frame Spacing: 2.286 m

The quay elevation above the mean sea level is 1.75 m.

The operation is planned to be performed the 17th of July 2025; the tide variation shall therefore be -20cm / +30cm.

Normal operation is planned in the rising tide phase. Tide variation shows, for the month of July-August, one deep tide saddle over the 24h. See appendix M.

Load out operation is classified type 2, given the possibility for water level differences due to environmental effects, as per section 10.2.1 of Ref./2/.

The analysis is performed in accordance with the design requirements, criteria and parameters reported in the Structural Design Premises, Ref./4/.

The International System of units (SI) is used in all engineering assessments and calculations.

The hull of the barge and the ballast compartments were modelled using Moses language, Ref./19/.

The Multi-Operational Structural Engineering Simulator (MOSES) offshore engineering software package, developed by Ultramarine Inc., was used to simulate intact stability, and assess the longitudinal strength of the transportation barge during load-out operations.

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3 REFERENCES

3.1 CODES AND STANDARDS

Doc. No.	Description
/1/ API RP 2A-WSD	Recommended practice for planning, designing and constructing fixed offshore platforms – Working stress design – 22nd edition – 2014
/2/ DNV-ST-N001	DNV - Marine operation and marine warranty - 2023

3.2 PROJECT DOCUMENTS

Doc. No.	Description
/3/ 123A90-DDL-MD-RE-01006	Monthly Weight Report
/4/ 123A90-DDL-ST-SP-90017	Structural Design Basis
/5/ 123A90-DDL-ST-SP-90018	Structural Material Specification for Topside & TP
/6/ 123A90-DDL-ST-SP-90118	Structural Material Specification for Flange & Bolts
/7/ 123A90-DDL-ST-TN-90119	Evaluating ISO and DNV approaches
/8/ 123A90-DDL-TI-SP-99014	Specification for TP, Topside and Caissons Transportation and Installation
/9/ 123A90-DDL-ST-RE-90008	TP loadout analysis
/10/ 123A90-DDL-TI-RE-99003	Technical note – validation of TP grillage and SF design on barge Vervece
/11/ 123A90-DDL-TI-RE-99004	TP Gr&SF report
/12/ 123A90-DDL-TI-DD-99036	TP – Upper Grillage plan view
/13/ 123A90-DDL-TI-DD-99037	TP upper grillage sections
/14/ 123A90-DDL-TI-DD-99038	TP upper grillage section and details
/15/ 123A90-DDL-TI-DD-99039	TP – Lower Grillage Assembly
/16/ 123A90-DDL-TI-DD-99040	TP – Lower Grillage – Plan and Section
/17/ 123A90-DDL-TI-RE-99013	TP & CF – Yard Checklist
/18/	Vervece Stability booklet

3.3 SOFTWARE

Doc. No.	Description
/19/ MOSES	Hydrostatic and Hydrodynamic Analysis Software for Offshore Installation and Platform Design– BENTLEY Inc, v.12

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4 TRANSPORTATION ARRANGMENT

The TP will be supported by SPMT installed directly below the upper grillage beams. It is assumed to be located on the barge deck as follows:

- With respect to the barge longitudinal axis an offset of 2416mm towards port side.
- Row 2 is located 18235mm from the barge stern.

The following figure shows the arrangement of the TP structure on the barge.

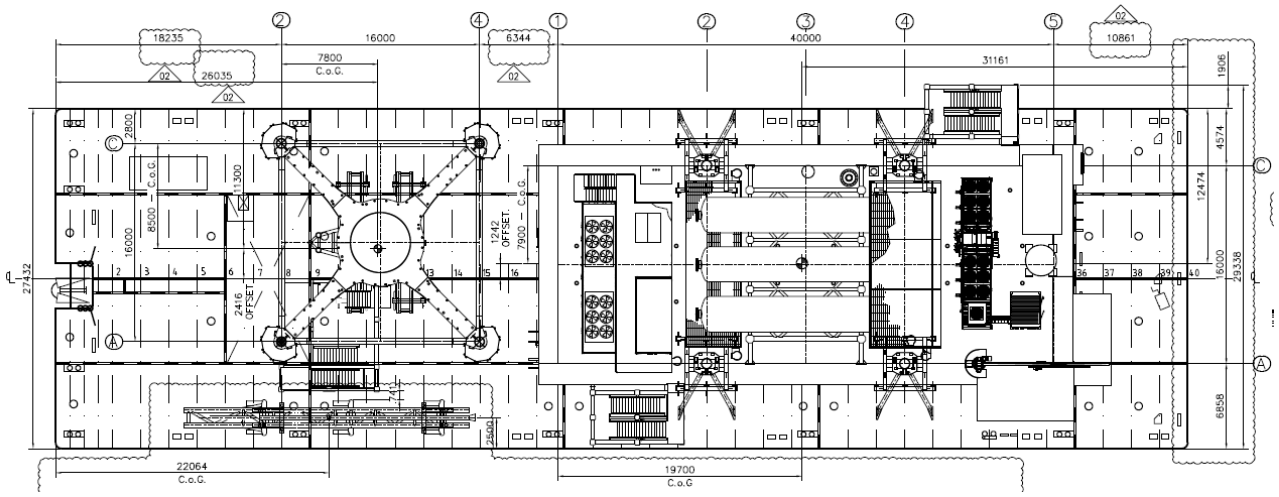


Figure 4.1 – Barge layout

Once the TP is loaded out onto the barge by means of the hydraulic trailers SPMT, it is lowered and it is supported on the 3 rows of the lower grillage beams.

The transportation restraint scheme is finally completed with the seafastenings.

Considering the depth of lower grillage (including shim plates mm), the bottom ends of TP flange is located at elevation +2.65 m above the barge deck.

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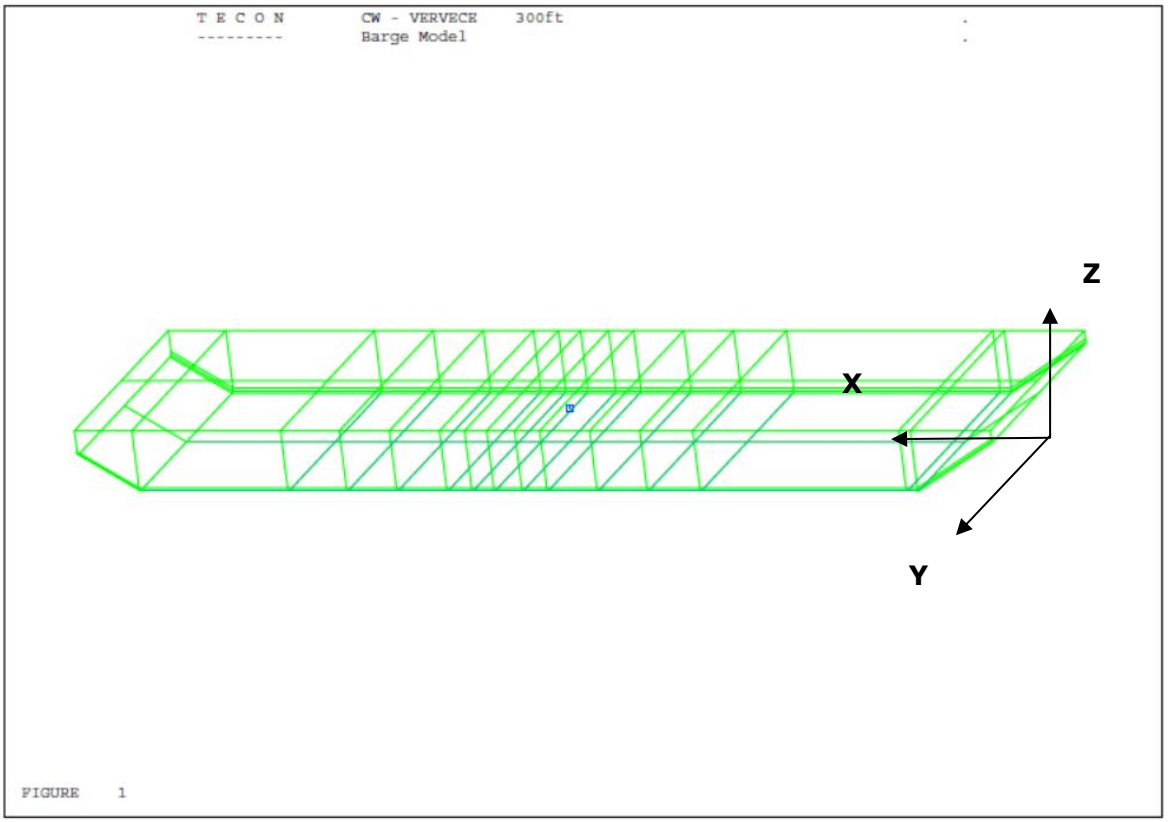
5 CARGO BARGE

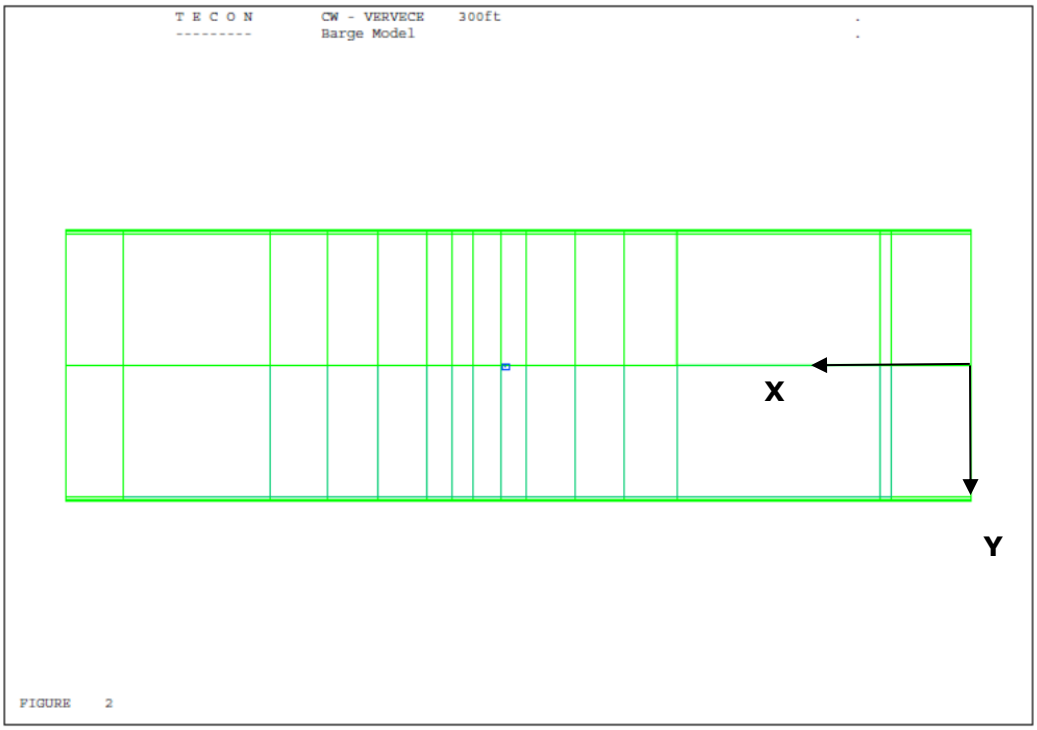
5.1 MOSES MODEL

VERVECE model was set out in MOSES language based on the hull drawings and on the tanks capacities and weight distribution included in the barge documents.

The standard Moses reference system has the origin at the bow of the barge, on the centreline and at keel elevation, the X axis positive from bow to stern, the Y axis positive to starboard and the Z axis positive upwards.

The Moses barge hull model is shown in the following figures:





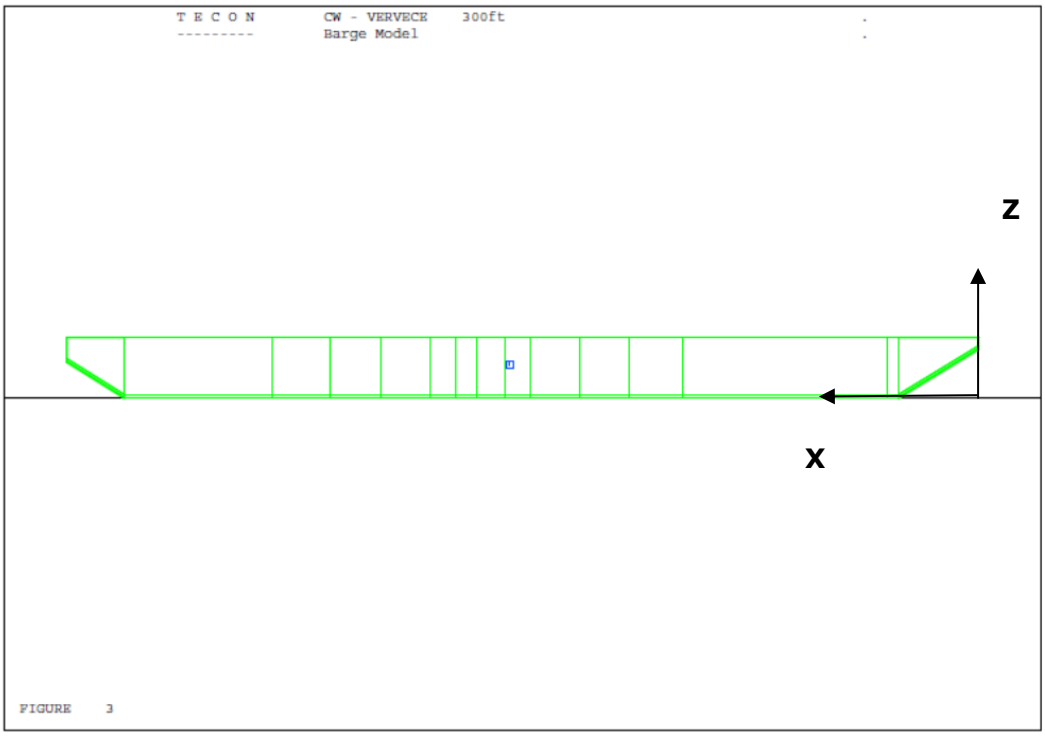


Figure 5.1 – Barge MOSES model and ref. system

The Barge hydrostatic properties are summarised in the following tables.

The density used for sea water is 1.025 t/m3.

```
**********************************************************************************************************
*                                          ***  MOSES   ***                                              *
*                                          ----------------                    25 March, 2025            *
*          T E C O N       CW - VERVECE    300ft                               .                         *
*          ---------       Hydrostatic Curves                                  .                         *
*                                                                                                        *
**********************************************************************************************************

                              +++ H Y D R O S T A T I C   P R O P E R T I E S +++
                              ==================================================

                  Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                        Results are in the Body System

                                              For Body VERVECE
```

/--- Condition ---			//- Displac-/	/-- Center Of Buoyancy --/			/ W.P. /	/C. Flotation /		/---- Metacentric Heights ----/			
Draft	Trim	Roll	M-Tons	---X---	---Y---	---Z---	Area	---X---	---Y---	-KMT-	-KML-	-BMT-	-BML-
0.10	0.00	0.00	211.04	46.85	0.00	0.05	2081.674	46.85	0.00	619.45	5128.82	619.40	5128.77
0.20	0.00	0.00	425.67	46.85	-0.00	0.10	2101.925	46.85	-0.00	313.63	2588.77	313.53	2588.67
0.30	0.00	0.00	641.89	46.85	0.00	0.15	2116.956	46.84	0.00	210.82	1743.33	210.67	1743.18
0.40	0.00	0.00	859.65	46.85	0.00	0.20	2132.015	46.84	0.00	159.57	1321.77	159.37	1321.57
0.50	0.00	0.00	1078.63	46.84	-0.00	0.25	2140.752	46.84	0.00	127.79	1066.52	127.54	1066.27
0.60	0.00	0.00	1298.50	46.84	0.00	0.30	2149.490	46.84	0.00	106.68	896.91	106.37	896.61
0.70	0.00	0.00	1519.27	46.84	-0.00	0.35	2158.227	46.83	0.00	91.64	776.06	91.29	775.70
0.80	0.00	0.00	1740.94	46.84	0.00	0.40	2166.965	46.83	0.00	80.39	685.59	79.99	685.19
0.90	0.00	0.00	1963.50	46.84	-0.00	0.45	2175.702	46.83	0.00	71.66	615.36	71.20	614.90
1.00	0.00	0.00	2186.96	46.84	0.00	0.50	2184.439	46.83	0.00	64.69	559.26	64.19	558.75
1.10	0.00	0.00	2411.31	46.84	-0.00	0.56	2193.177	46.83	0.00	59.00	513.42	58.45	512.87
1.20	0.00	0.00	2636.56	46.84	-0.00	0.61	2201.914	46.82	0.00	54.27	475.29	53.67	474.68
1.30	0.00	0.00	2862.70	46.84	-0.00	0.66	2210.652	46.82	0.00	50.28	443.07	49.62	442.41
1.40	0.00	0.00	3089.74	46.83	0.00	0.71	2219.389	46.82	0.00	46.87	415.49	46.16	414.78
1.50	0.00	0.00	3317.68	46.83	0.00	0.76	2228.126	46.82	0.00	43.92	391.62	43.16	390.86
1.60	0.00	0.00	3546.51	46.83	-0.00	0.81	2236.864	46.81	0.00	41.34	370.77	40.53	369.96
1.70	0.00	0.00	3776.23	46.83	-0.00	0.86	2245.601	46.81	0.00	39.07	352.40	38.21	351.54
1.80	0.00	0.00	4006.86	46.83	-0.00	0.91	2254.339	46.81	0.00	37.07	336.10	36.15	335.19
1.90	0.00	0.00	4238.37	46.83	-0.00	0.96	2263.076	46.81	0.00	35.28	321.54	34.31	320.58
2.00	0.00	0.00	4470.79	46.83	0.00	1.01	2271.813	46.81	0.00	33.67	308.46	32.65	307.45
2.10	0.00	0.00	4704.09	46.83	0.00	1.07	2280.551	46.80	0.00	32.22	296.65	31.15	295.58
2.20	0.00	0.00	4938.30	46.83	0.00	1.12	2289.288	46.80	0.00	30.91	285.93	29.79	284.81
2.30	0.00	0.00	5173.40	46.82	0.00	1.17	2298.026	46.80	0.00	29.71	276.17	28.54	275.00
2.40	0.00	0.00	5409.40	46.82	-0.00	1.22	2306.763	46.80	0.00	28.62	267.23	27.40	266.01
2.50	0.00	0.00	5646.29	46.82	-0.00	1.27	2315.500	46.79	0.00	27.63	259.03	26.35	257.76
2.60	0.00	0.00	5884.07	46.82	0.00	1.32	2324.238	46.79	0.00	26.71	251.48	25.38	250.15
2.70	0.00	0.00	6122.75	46.82	-0.00	1.38	2332.975	46.79	0.00	25.86	244.50	24.49	243.12
2.80	0.00	0.00	6362.33	46.82	0.00	1.43	2341.713	46.79	0.00	25.08	238.03	23.65	236.60
2.90	0.00	0.00	6602.80	46.82	0.00	1.48	2350.450	46.79	0.00	24.35	232.03	22.88	230.55
3.00	0.00	0.00	6844.17	46.82	0.00	1.53	2359.188	46.78	0.00	23.68	226.44	22.15	224.91
3.10	0.00	0.00	7086.44	46.81	0.00	1.58	2367.925	46.78	0.00	23.06	221.22	21.47	219.64
3.20	0.00	0.00	7329.60	46.81	0.00	1.63	2376.663	46.78	-0.00	22.47	216.35	20.84	214.71
3.30	0.00	0.00	7573.65	46.81	0.00	1.69	2385.400	46.78	0.00	21.93	211.78	20.24	210.10
3.40	0.00	0.00	7818.61	46.81	-0.00	1.74	2394.138	46.77	0.00	21.42	207.50	19.68	205.76
3.50	0.00	0.00	8064.45	46.81	0.00	1.79	2402.875	46.77	-0.00	20.94	203.47	19.15	201.68
3.60	0.00	0.00	8311.19	46.81	0.00	1.84	2411.444	46.77	-0.00	20.49	199.63	18.65	197.79
3.70	0.00	0.00	8558.60	46.81	0.00	1.90	2415.958	46.69	-0.00	20.04	195.05	18.14	193.15
3.80	0.00	0.00	8806.47	46.80	0.00	1.95	2420.419	46.61	-0.00	19.61	190.71	17.66	188.76
3.90	0.00	0.00	9054.78	46.80	0.00	2.00	2424.867	46.52	-0.00	19.21	186.60	17.21	184.60
4.00	0.00	0.00	9303.56	46.79	0.00	2.05	2429.302	46.44	-0.00	18.83	182.70	16.78	180.65
4.10	0.00	0.00	9552.79	46.78	-0.00	2.10	2433.730	46.36	0.00	18.48	179.00	16.37	176.90
4.20	0.00	0.00	9802.47	46.77	-0.00	2.16	2438.159	46.28	0.00	18.14	175.49	15.99	173.34
4.30	0.00	0.00	10052.61	46.75	0.00	2.21	2442.588	46.20	-0.00	17.82	172.15	15.62	169.95
4.40	0.00	0.00	10303.21	46.74	0.00	2.26	2447.017	46.11	0.00	17.52	168.98	15.26	166.72
4.50	0.00	0.00	10554.25	46.72	-0.00	2.31	2451.446	46.03	-0.00	17.24	165.95	14.93	163.64
4.60	0.00	0.00	10805.76	46.70	-0.00	2.36	2455.874	45.95	-0.00	16.97	163.06	14.61	160.69
4.70	0.00	0.00	11057.71	46.69	-0.00	2.42	2460.303	45.87	-0.00	16.72	160.30	14.30	157.88
4.80	0.00	0.00	11310.12	46.67	0.00	2.47	2464.732	45.79	-0.00	16.47	157.66	14.01	155.20
4.90	0.00	0.00	11562.96	46.65	0.00	2.52	2468.126	45.72	-0.00	16.24	154.95	13.72	152.43
5.00	0.00	0.00	11815.95	46.63	-0.00	2.57	2468.198	45.72	-0.00	16.00	151.75	13.43	149.18
5.10	0.00	0.00	12068.95	46.61	0.00	2.62	2468.228	45.72	-0.00	15.77	148.68	13.15	146.06
5.20	0.00	0.00	12321.94	46.59	-0.00	2.68	2468.245	45.72	0.00	15.55	145.74	12.88	143.06
5.30	0.00	0.00	12574.93	46.57	-0.00	2.73	2468.249	45.72	-0.00	15.34	142.91	12.62	140.18
5.40	0.00	0.00	12827.93	46.56	0.00	2.78	2468.249	45.72	-0.00	15.15	140.20	12.37	137.42
5.50	0.00	0.00	13080.93	46.54	0.00	2.83	2468.249	45.72	-0.00	14.96	137.59	12.13	134.76
5.60	0.00	0.00	13333.92	46.52	-0.00	2.88	2468.249	45.72	-0.00	14.78	135.09	11.90	132.20
5.70	0.00	0.00	13586.92	46.51	-0.00	2.93	2468.249	45.72	-0.00	14.61	132.68	11.68	129.74
5.80	0.00	0.00	13839.91	46.49	-0.00	2.99	2468.249	45.72	-0.00	14.45	130.36	11.46	127.37

5.90	0.00	0.00	14092.91	46.48	0.00	3.04	2468.249	45.72	-0.00	14.30	128.12	11.26	125.08
6.00	0.00	0.00	14345.91	46.47	-0.00	3.09	2468.249	45.72	-0.00	14.15	125.97	11.06	122.88

+++ H Y D R O S T A T I C C O E F F I C I E N T S +++

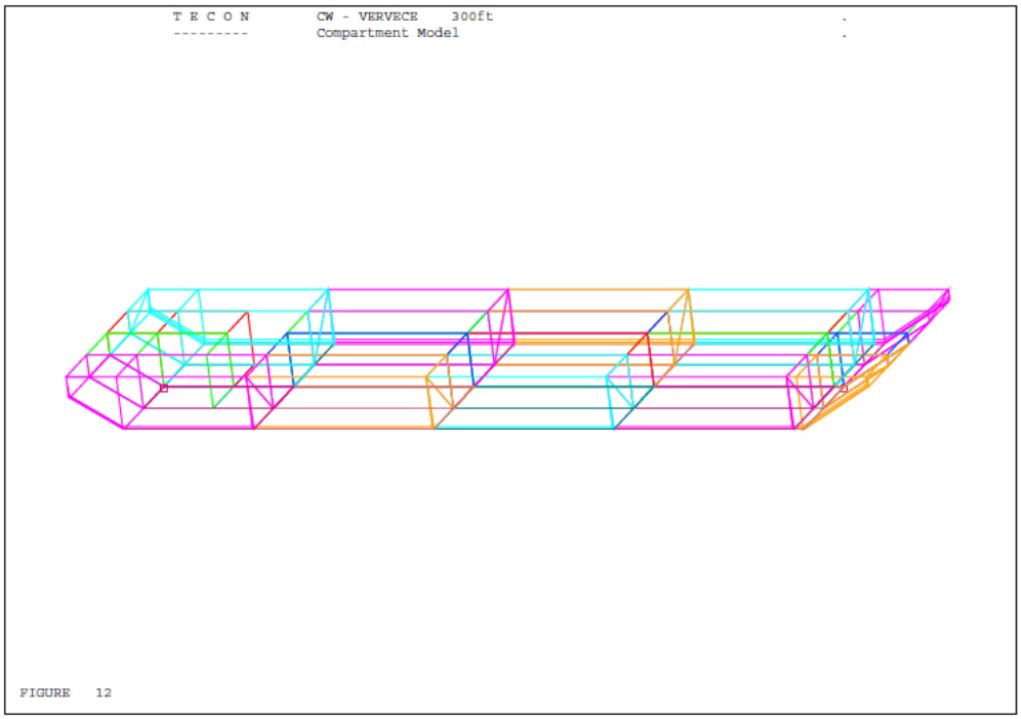
Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

Results are in the Body System

For Body VERVECE

/--- Condition ---/			Displacement	Wetted Surface	Load To Change Draft 1 MM	/--- For KG = KB ----/ Moment To Change .01 Deg	
Draft	Trim	Roll				--- Heel ---	--- Trim ---
0.10	0.00	0.00	211.04	2120.1	2.13	22.81	188.91
0.20	0.00	0.00	425.67	2151.4	2.15	23.29	192.32
0.30	0.00	0.00	641.89	2178.7	2.17	23.60	195.29
0.40	0.00	0.00	859.65	2206.1	2.19	23.91	198.28
0.50	0.00	0.00	1078.63	2232.2	2.19	24.01	200.73
0.60	0.00	0.00	1298.50	2258.4	2.20	24.11	203.20
0.70	0.00	0.00	1519.27	2284.7	2.21	24.21	205.69
0.80	0.00	0.00	1740.94	2311.0	2.22	24.30	208.20
0.90	0.00	0.00	1963.50	2337.4	2.23	24.40	210.72
1.00	0.00	0.00	2186.96	2363.9	2.24	24.50	213.27
1.10	0.00	0.00	2411.31	2390.4	2.25	24.60	215.84
1.20	0.00	0.00	2636.56	2417.0	2.26	24.70	218.43
1.30	0.00	0.00	2862.70	2443.6	2.27	24.79	221.04
1.40	0.00	0.00	3089.74	2470.3	2.27	24.89	223.67
1.50	0.00	0.00	3317.68	2497.1	2.28	24.99	226.33
1.60	0.00	0.00	3546.51	2524.0	2.29	25.09	229.00
1.70	0.00	0.00	3776.23	2550.9	2.30	25.19	231.69
1.80	0.00	0.00	4006.86	2577.9	2.31	25.28	234.41
1.90	0.00	0.00	4238.37	2604.9	2.32	25.38	237.15
2.00	0.00	0.00	4470.79	2632.0	2.33	25.48	239.90
2.10	0.00	0.00	4704.09	2659.2	2.34	25.58	242.68
2.20	0.00	0.00	4938.30	2686.4	2.35	25.68	245.48
2.30	0.00	0.00	5173.40	2713.7	2.36	25.77	248.30
2.40	0.00	0.00	5409.40	2741.1	2.36	25.87	251.15
2.50	0.00	0.00	5646.29	2768.5	2.37	25.97	254.01
2.60	0.00	0.00	5884.07	2796.0	2.38	26.07	256.90
2.70	0.00	0.00	6122.75	2823.6	2.39	26.17	259.80
2.80	0.00	0.00	6362.33	2851.2	2.40	26.26	262.73
2.90	0.00	0.00	6602.80	2878.9	2.41	26.36	265.69
3.00	0.00	0.00	6844.17	2906.7	2.42	26.46	268.66
3.10	0.00	0.00	7086.44	2934.5	2.43	26.56	271.66
3.20	0.00	0.00	7329.60	2962.4	2.44	26.66	274.67
3.30	0.00	0.00	7573.65	2990.3	2.45	26.75	277.71
3.40	0.00	0.00	7818.61	3018.4	2.45	26.85	280.78
3.50	0.00	0.00	8064.45	3046.4	2.46	26.95	283.86
3.60	0.00	0.00	8311.19	3074.5	2.47	27.05	286.91
3.70	0.00	0.00	8558.60	3100.3	2.48	27.10	288.53
3.80	0.00	0.00	8806.47	3126.2	2.48	27.15	290.13
3.90	0.00	0.00	9054.78	3152.1	2.49	27.20	291.73
4.00	0.00	0.00	9303.56	3178.0	2.49	27.25	293.33
4.10	0.00	0.00	9552.79	3204.0	2.49	27.30	294.94
4.20	0.00	0.00	9802.47	3230.0	2.50	27.35	296.55
4.30	0.00	0.00	10052.61	3256.0	2.50	27.40	298.17
4.40	0.00	0.00	10303.21	3282.0	2.51	27.45	299.80
4.50	0.00	0.00	10554.25	3308.1	2.51	27.50	301.43
4.60	0.00	0.00	10805.76	3334.3	2.52	27.55	303.06
4.70	0.00	0.00	11057.71	3360.4	2.52	27.60	304.71
4.80	0.00	0.00	11310.12	3386.6	2.53	27.65	306.35
4.90	0.00	0.00	11562.96	3412.3	2.53	27.69	307.62
5.00	0.00	0.00	11815.95	3436.0	2.53	27.69	307.65
5.10	0.00	0.00	12068.95	3459.8	2.53	27.69	307.66
5.20	0.00	0.00	12321.94	3483.6	2.53	27.69	307.67
5.30	0.00	0.00	12574.93	3507.3	2.53	27.69	307.67
5.40	0.00	0.00	12827.93	3531.1	2.53	27.69	307.67
5.50	0.00	0.00	13080.93	3554.9	2.53	27.69	307.67
5.60	0.00	0.00	13333.92	3578.7	2.53	27.69	307.67
5.70	0.00	0.00	13586.92	3602.4	2.53	27.69	307.67
5.80	0.00	0.00	13839.91	3626.2	2.53	27.69	307.67
5.90	0.00	0.00	14092.91	3650.0	2.53	27.69	307.67
6.00	0.00	0.00	14345.91	3673.8	2.53	27.69	307.67

The modelled compartment codes are shown in the following figure



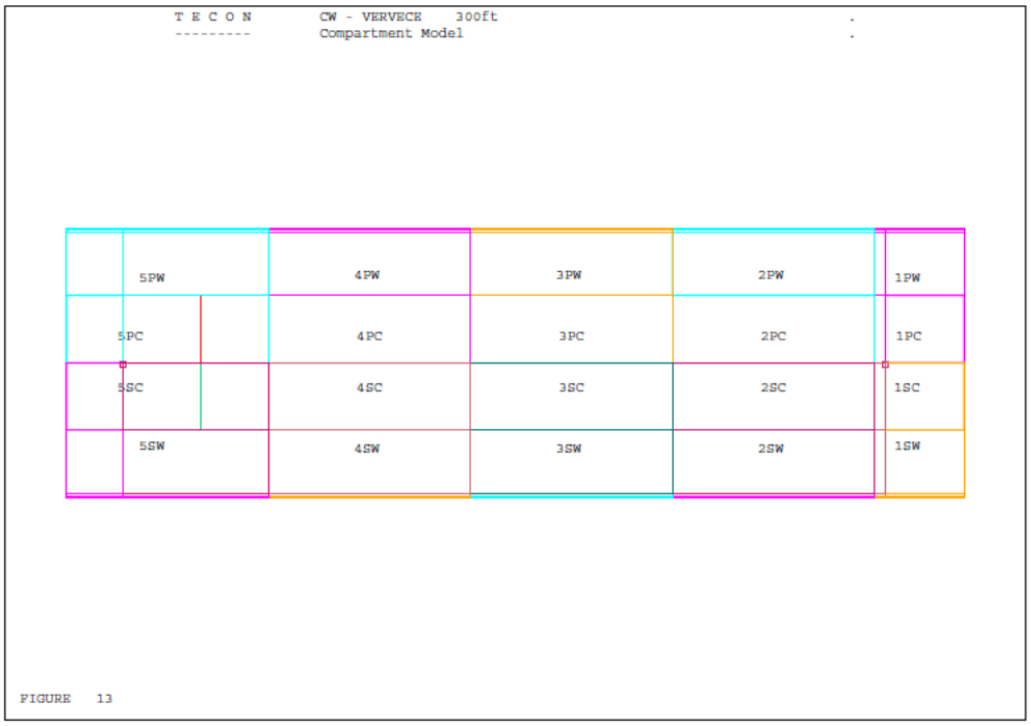


Figure 5.2 – Barge Compartments

The capacity plan for ballast compartments is presented in the Moses output.

The density used for ballast water is 1.025 t/m3 (same of sea water).

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*          T E C O N       CW - VERVECE    300ft                                    .                          *
*          ---------       Capacity Plan                                            .                          *
*****************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ======================================================================
                Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                  Results Are Reported In Body System

                        Draft =     0.00 Roll Angle =     0.00 Pitch Angle =     0.00

                                     Wet Radii Of Gyration About CG

                                K-X =     7.95 K-Y =    24.53 K-Z =    25.56

                                          /-- Center of Gravity ---/  Sounding   % Full
                        Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                        ----------------  Part VERVECE    ------------
                        LOAD_GRO   1832.80    47.02     0.00     3.52
                        --- Contents ---
                        1PC         234.61     5.60    -3.43     3.81     6.10   100.00
                        1PW         234.98     5.60   -10.28     3.82     6.10   100.00
                        1SC         235.12     5.60     3.43     3.81     6.10   100.00
                        1SW         234.98     5.60    10.28     3.82     6.10   100.00
                        2PC         873.69    19.43    -3.43     3.05     6.10   100.00
                        2PW         873.63    19.43   -10.28     3.05     6.10   100.00
                        2SC         873.69    19.43     3.43     3.05     6.10   100.00
                        2SW         873.63    19.43    10.28     3.05     6.10   100.00
                        3PC         873.69    40.01    -3.43     3.05     6.10   100.00
                        3PW         873.63    40.00   -10.28     3.05     6.10   100.00
                        3SC         873.69    40.01     3.43     3.05     6.10   100.00
                        3SW         873.63    40.01    10.28     3.05     6.10   100.00
                        4PC         873.69    60.58    -3.43     3.05     6.10   100.00
                        4PW         873.63    60.58   -10.28     3.05     6.10   100.00
                        4SC         873.69    60.58     3.43     3.05     6.10   100.00
                        4SW         873.63    60.58    10.28     3.05     6.10   100.00
                        5PC         492.02    83.89    -3.43     3.31     6.10   100.00
                        5PW         793.58    80.40   -10.28     3.22     6.10   100.00
                        5SC         484.29    83.89     3.43     3.31     6.10   100.00
                        5SW         793.58    80.40    10.28     3.22     6.10   100.00
                        ========  ========  =======  =======  =======
                        Total     15819.89    45.53    -0.00     3.18
                        Buoyancy      0.00     0.00     0.00     0.00

                             +++ C O M P A R T M E N T   P R O P E R T I E S +++
                             ===================================================
                                       Results Are Reported In Body System

                            Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

                                      Fill   Specific /--- Ballast ---/ /------ % Full --------/ Sounding
                             Name     Type    Gravity  Maximum  Current   Max.    Min.    Curr.  --------

                            1PC     CORRECT     1.0250    234.6    234.6  100.00    0.00  100.00     6.096
                            1PW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                            1SC     CORRECT     1.0250    235.1    235.1  100.00    0.00  100.00     6.096
                            1SW     CORRECT     1.0250    235.0    235.0  100.00    0.00  100.00     6.096
                            2PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            2PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            2SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            2SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            3PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            3PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            3SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            3SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            4PC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            4PW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            4SC     CORRECT     1.0250    873.7    873.7  100.00    0.00  100.00     6.096
                            4SW     CORRECT     1.0250    873.6    873.6  100.00    0.00  100.00     6.096
                            5PC     CORRECT     1.0250    492.0    492.0  100.00    0.00  100.00     6.096
                            5PW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
                            5SC     CORRECT     1.0250    484.3    484.3  100.00    0.00  100.00     6.096
                            5SW     CORRECT     1.0250    793.6    793.6  100.00    0.00  100.00     6.096
```

5.2 LIGHTSHIP

As indicated in the barge Stability booklet the barge has the following properties:

- Lightweight = 1833 t
- LCG = 44.42 m
- VCG = 3.524 m
- TCG = 0.0 m

5.3 DOWNFLOODING POINTS

Down flooding points have been modelled at barge edges and at deck elevation+600mm, Ref./18/.

Following FloodingPoints are included in the calculations:

No.	Type	Fr.AP(M)	Fr.CL(M)	Ab/BASE(M)	Description
1	3	90.000	-13.000	6.700	Ventilator, Tk. 1 PW
2	3	90.000	13.000	6.700	Ventilator, Tk. 1 SW
3	3	1.000	-13.000	6.700	Ventilator, Tk. 5 PW
4	3	1.000	13.000	6.700	Ventilator, TK. 5 SW

5.4 ALLOWABLE LONG. BENDING MOMENT AND SHEAR IN STILL WATER

Section 13 of Ref./18/, indicates the following values of bending moment and shear in still water:

	Max B.M.	W
Hogging	26700 tm	3.24 m3
Sagging	26130 tm	3.24 m3
Max shear midship	6150 ton	

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6 LOAD-OUT SIMULATION

The load-out was fully simulated using the software MOSES. The TP grillage layout on Vervece barge is shown below. Pre installed items on barge in final position are:

- CF and its grillage
- BLPH lower grillage
- TP lower grillage.

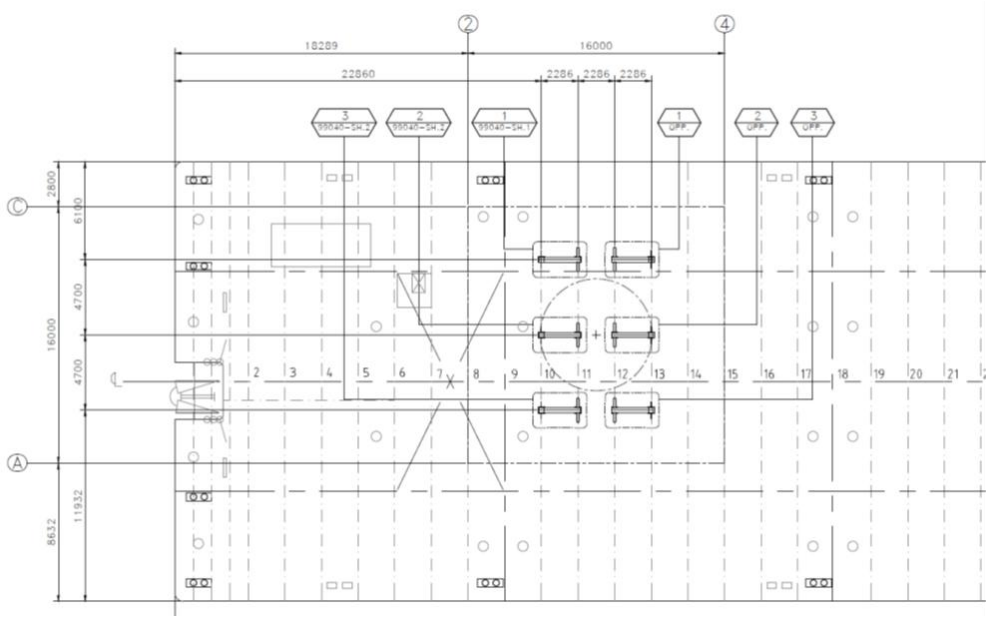


Figure 6.1 – Grillage arrangement – Top view

The operation was divided into 14 steps plus the initial step 0 that shows the initial ballast pattern. In recognition of the physical limitations of the ballasting system, the following criteria have been applied in the load-out analyses:

- At 3% volume ballast tanks are considered empty.
- at 98% volume ballast tanks are considered full.

The load-out simulation was performed according to the following premises:

Load-out date: 17th of July 2025

Starting hour: 8:00 AM

Trailer speed: 9 to 20 m / hour

6.1 LOAD DESCRIPTION

The SPMT drawing, Ref. Appendix H, shows all data for the load-out on board of the cargo barge.

The following figures show parts of the above-mentioned drawing.

CoG position is taken from ref. /3/, according to the last issued WCR revision, TP has the following CoG and weight position relevant to loadout condition:

- Loadout expected weight 361.5 ton (-55.5 ton compared with WCR) including SPMTs;
  TP weighed weight +3% cont. = 254.5 ton
  SPMTs and spacers = 99+8 ton
- X_G = 19.663 m;
- Y_G = 8.774 m;
- Z_G = 20.10 m.

TP loadout scheme with CoG position is shown in the next figure.

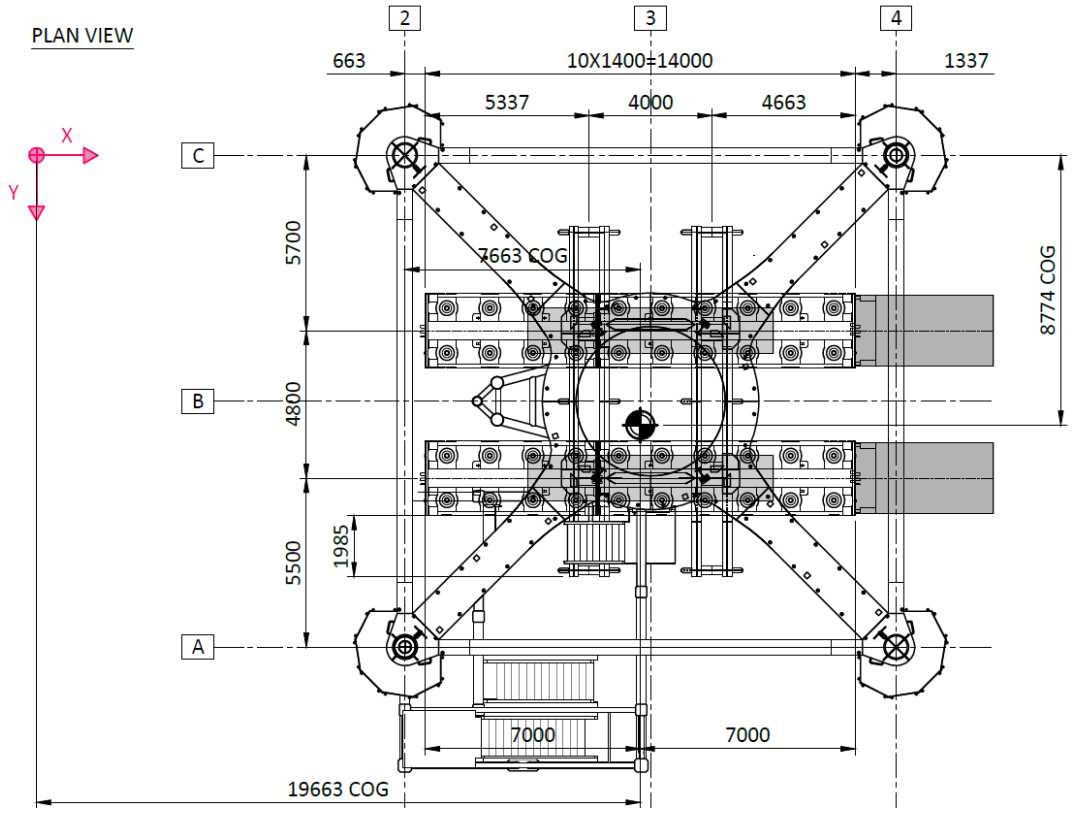


Figure 6.2 – TP loadout scheme

Note: ballast plan is prepared according to WCR having, the weighing operation, confirmed the CoG position and the final weight.

Lower Grillage weight, CF and its grillage and SF and BLPH grillage were all applied as external loads to the barge model.

- TP LOW-GRIL WEIGHT = 45 t
- BLPH GRILLAGE WEIGHT = 75 t
- CF WEIGHT = 28 t
- CF GRILLAGE WEIGHT = 0.5 t

TRANSPORT CONFIGURATION: 20 AXLES			
ITEM weight (contingency included)			**310 t**
SPMT dead weight			99 t
EQUIPMENT weight			8 t
TOTAL weight			417 t
		BASE VALUES	**MAX VALUES**
Group A 6 AXLES	Weight per axles	26,7 t	33,5 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	183 bar	233 bar
	Contact pressure under the wheel	8,3 kg/cm^2	9,1 kg/cm^2
	Average Ground pressure	7,8 t/m^2	9,8 t/m^2
Group B 6 AXLES	Weight per axles	21,2 t	27,7 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	143 bar	190 bar
	Contact pressure under the wheel	7,4 kg/cm^2	8,4 kg/cm^2
	Average Ground pressure	6,2 t/m^2	8,1 t/m^2
Group C-D 8 AXLES (1 Hidden Axles)	Weight per axles	18,5 t	22,0 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	124 bar	149 bar
	Contact pressure under the wheel	6,9 kg/cm^2	7,6 kg/cm^2
	Average Ground pressure	5,5 t/m^2	6,5 t/m^2

Figure 6.3 – Loads

For load out simulation the loads have been described as a set of concentrated forces, one per each trailer axle, i.e. at 1.4m interval. The following tables report the complete set of loads applied, with ref to the above fig. 6.2.

LoadNam	Weight	Xw	Yw	Zw
GA-1-01	26.70	0.000	2.258	1.000
GA-1-02	26.70	1.400	2.258	1.000
GA-1-03	26.70	2.800	2.258	1.000
GA-1-04	26.70	4.200	2.258	1.000
GA-1-05	26.70	5.600	2.258	1.000
GA-1-06	13.35	7.000	2.983	1.000
GA-1-07	13.35	8.400	2.983	1.000
GB-1-01	21.20	0.000	-2.542	1.000
GB-1-02	21.20	1.400	-2.542	1.000
GB-1-03	21.20	2.800	-2.542	1.000
GB-1-04	21.20	4.200	-2.542	1.000
GB-1-05	21.20	5.600	-2.542	1.000
GB-1-06	10.60	7.000	-3.267	1.000
GB-1-07	10.60	8.400	-3.267	1.000
GC-1-01	9.25	7.000	-1.817	1.000
GC-1-02	9.25	8.400	-1.817	1.000
GC-1-04	18.50	11.200	-2.542	1.000
GC-1-05	18.50	12.600	-2.542	1.000
GC-2-01	9.25	7.000	1.533	1.000
GC-2-02	9.25	8.400	1.533	1.000
GC-2-03	18.50	9.800	2.258	1.000
GC-2-04	18.50	11.200	2.258	1.000
GC-2-05	18.50	12.600	2.258	1.000

Table 6.1 – Axles loads

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6.2 BALLAST WATER MANAGEMENT

Barge is equipped with an internal ballast management system; therefore, water can be both moved to other tanks or discharged to the sea.

6.3 LOADOUT SEQUENCE

The above-described operation sequence was divided into the following steps:

Step 0 Barge ready for starting load-out of the TP from the bow. The ballast pattern is selected in order of having the barge deck at the same elevation as the quay.

Barge is with 4.30m draft even keel

VERVECE - BALLAST PLAN - load-out TP - Ph.0 - Draft = 4.30m evenkeel

STERN						BOW
	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	50% **3PW**	50% **2PW** u=3.0m	90% **1PW** u=0.40m
	50% **5PC** u=3.0m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	50% **5SC** u=3.0m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	50% **3SW**	50% **2SW** u=3.0m	90% **1SW** u=0.40m

Figure 6.4 – Loadout Phase 0

Step 1 The first 2 axles of group A and B enter the barge bow.

Step 2 Trailers advance 2.80 m: next 2+2 axles of trailers of group A and B on board. Total axles on board: 6.

Step 3 Trailers advance 2.80 m: next 2+2 axles of trailers of group A and B on board. Total axles on board: 10.

Step 4 Trailers advance 2.80 m: next 1 axle of trailers of group A and 1 axle of group B and first axles of trailers of group C/D on board. Total axles on board: 14.

Step 5 Trailers advance 4.2 m: all groups on board.

Step 6 Trailers advance 9 m

Step 7 Trailers advance 9 m

Step 8 Trailers advance 9 m

Step 9 Trailers advance 9 m

Step 10 Trailers shift toward PS

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Step 11 Trailers advance 7 m

Step 12 Trailers shift toward PS for final alignment with grillage

Step 13 Trailers advance 8 m

Step 14 Trailers advance 8.57m. TP reaches the transport position.

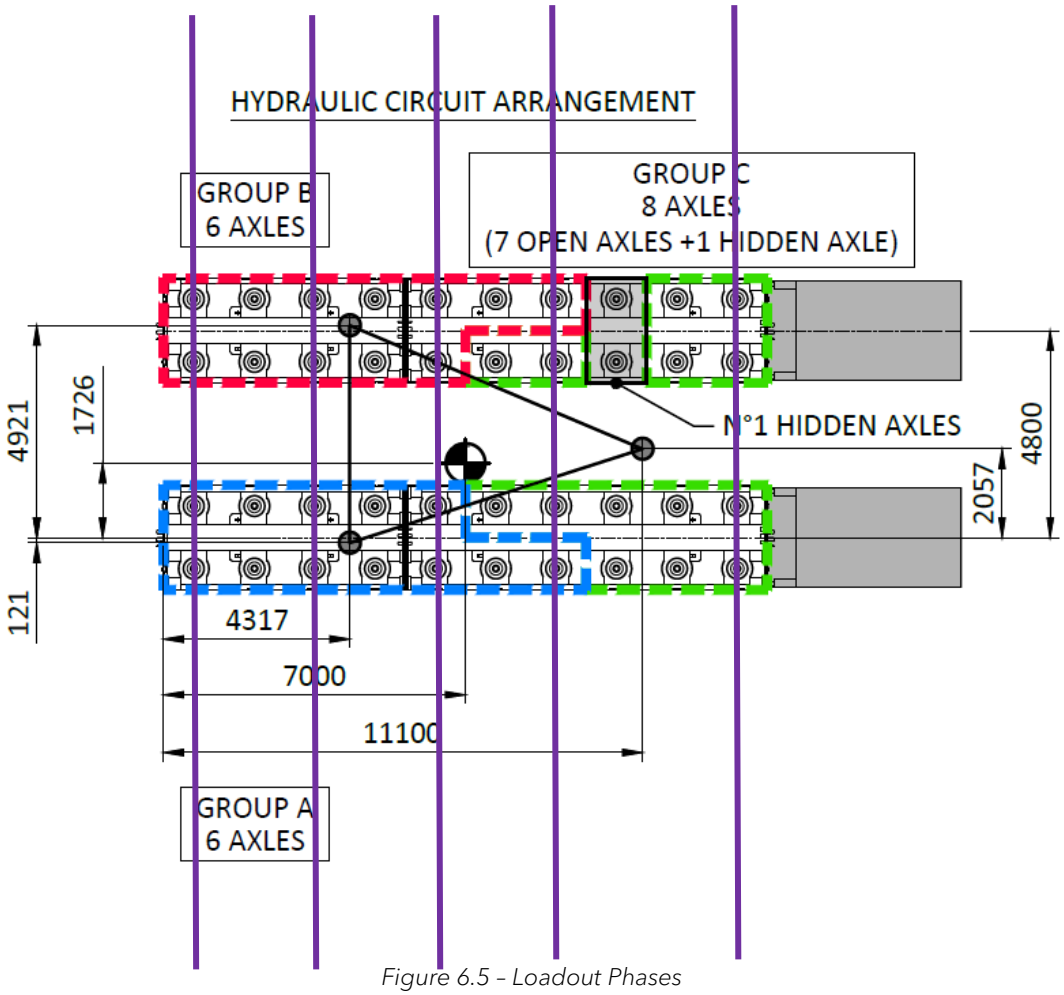


Figure 6.5 – Loadout Phases

The here below tables summarize the ballast variations.

TECON CW TP LOADOUT ON VERVECE

BALLASTING SUMMARY

STEP	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	MAX.	MIN.
TRAVEL DISTANCE [m]	0	3.01	5.81	8.61	11.41	15.61	24.61	33.61	42.61	51.61	51.61	58.61	58.61	66.61	75.18		
WEIGHT ON BARGE [t]	0	48	144	240	324	417	417	417	417	417	417	417	417	417	417		
VERVECE BARGE DATA:																	
Displacement [t]	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053		
Draft at Bow[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Draft at Stern[m]	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Pitch Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Roll Angle [deg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GMT (m)	14.4	14.38	14.33	14.27	14.22	14.17	14.19	14.21	14.23	14.24	14.24	14.25	14.25	14.25	14.26		
ACTIVE TANKS BALLAST WEIGHT [t]																MAX.	MIN.
2PW	428	396	335	277	227	179	210	240	270	300	286	310	295	323	351	428	179
2SW	423	392	330	271	221	171	202	232	263	293	307	331	345	372	401	423	171
5PW	574	581	595	607	614	618	587	556	526	496	482	458	444	417	388	618	388
5SW	569	577	590	601	608	610	579	549	518	488	503	478	493	466	437	610	437
ACTIVE TANKS SOUNDING [m]																MAX.	MIN.
2PW	3.06	2.84	2.4	1.98	1.63	1.28	1.5	1.72	1.94	2.15	2.05	2.22	2.12	2.31	2.52	3.06	1.28
2SW	3.03	2.81	2.36	1.94	1.58	1.23	1.45	1.67	1.88	2.1	2.2	2.37	2.47	2.66	2.87	3.03	1.23
5PW	4.65	4.7	4.8	4.89	4.94	4.97	4.74	4.52	4.3	4.09	3.99	3.81	3.71	3.52	3.3	4.97	3.30
5SW	4.62	4.67	4.77	4.84	4.9	4.91	4.69	4.47	4.25	4.03	4.14	3.96	4.07	3.87	3.66	4.91	3.66
ACTIVE TANKS ULLAGE [m]																MAX.	MIN.
2PW	3.03	3.26	3.69	4.11	4.47	4.81	4.59	4.37	4.16	3.94	4.05	3.87	3.98	3.79	3.58	4.81	3.03
2SW	3.06	3.29	3.73	4.16	4.51	4.87	4.65	4.43	4.21	4	3.9	3.73	3.63	3.43	3.23	4.87	3.06
5PW	1.45	1.39	1.29	1.21	1.15	1.13	1.35	1.57	1.79	2.01	2.11	2.28	2.38	2.58	2.79	2.79	1.13
5SW	1.48	1.43	1.33	1.25	1.2	1.19	1.41	1.63	1.85	2.06	1.96	2.13	2.03	2.22	2.43	2.43	1.19
BALLAST OPERATION (ballast variation) [t]																TOTAL VARIATION [t]	
2PW		-31	-61	-59	-50	-48	31	30	30	30	-14	24	-15	27	29	479	
2SW		-32	-62	-59	-50	-50	31	30	30	30	14	24	14	27	29	462	
5PW		8	14	12	8	3	-31	-30	-30	-30	-14	-24	-14	-27	-29	274	
5SW		7	13	11	7	2	-31	-30	-30	-30	14	-24	15	-27	-29	270	
BALLAST OPERATION (Pump Capacity)[m^3/h]																MAX.	MIN.
2PW		-186	-244	-236	-300	-288	186	180	180	180	-84	144	-90	162	174	186	-300
2SW		-192	-248	-236	-300	-300	186	180	180	180	84	144	84	162	174	186	-300
5PW		48	56	48	48	18	-186	-180	-180	-180	-84	-144	-84	-162	-174	56	-186
5SW		42	52	44	42	12	-186	-180	-180	-180	84	-144	90	-162	-174	90	-186
time (min.)	0	10'	15'	15'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	150'	-

Table 6.2 – Loadout summary Tables

From the above table the total amount of moved water is 417 t (same of WCR).

Weight ballast (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	396	335	277	227	179	210	240	270	300	286	310	295	323	351
2SW	392	330	271	221	171	202	232	263	293	307	331	345	372	401
5PW	581	595	607	614	618	587	556	526	496	482	458	444	417	388
5SW	577	590	601	608	610	579	549	518	488	503	478	493	466	437

Ballast Sounding (m)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	2.84	2.4	1.98	1.63	1.28	1.5	1.72	1.94	2.15	2.05	2.22	2.12	2.31	2.52
2SW	2.81	2.36	1.94	1.58	1.23	1.45	1.67	1.88	2.1	2.2	2.37	2.47	2.66	2.87
5PW	4.7	4.8	4.89	4.94	4.97	4.74	4.52	4.3	4.09	3.99	3.81	3.71	3.52	3.3
5SW	4.67	4.77	4.84	4.9	4.91	4.69	4.47	4.25	4.03	4.14	3.96	4.07	3.87	3.66

Weight ballast Variation (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	-31	-61	-59	-50	-48	31	30	30	30	-14	24	-15	27	29
2SW	-32	-62	-59	-50	-50	31	30	30	30	14	24	14	27	29
5PW	8	14	12	8	3	-31	-30	-30	-30	-14	-24	-14	-27	-29
5SW	7	13	11	7	2	-31	-30	-30	-30	14	-24	15	-27	-29

Ballast Ullage (t)

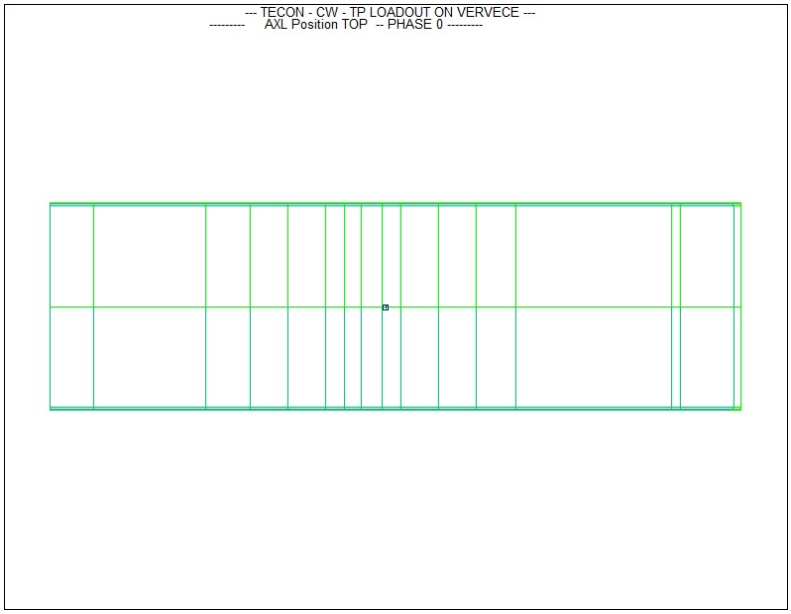
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Barge draft [m]	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
2PW	3.26	3.69	4.11	4.47	4.81	4.59	4.37	4.16	3.94	4.05	3.87	3.98	3.79	3.58
2SW	3.29	3.73	4.16	4.51	4.87	4.65	4.43	4.21	4	3.9	3.73	3.63	3.43	3.23
5PW	1.39	1.29	1.21	1.15	1.13	1.35	1.57	1.79	2.01	2.11	2.28	2.38	2.58	2.79
5SW	1.43	1.33	1.25	1.2	1.19	1.41	1.63	1.85	2.06	1.96	2.13	2.03	2.22	2.43

Table 6.3 – Loadout summary Tables - Detailed

Ballast variation lower than 15 ton are to be considered for numerical stability only.

6.4 MOSES OUTPUT SUMMARY

6.4.1 Step 0: barge ready for loadout. Barge is with 4.30m draft evenkeel



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

	5PW 574 t	4PW 426 t	3PW 426 t	2PW 428 t	1PW 206 t
	5PC 240 t	4PC Full	3PC Empty	2PC 426 t	1PC Full
	5SC 236 t	4SC Full	3SC Empty	2SC 426 t	1SC Full
	5SW 569 t	4SW 426 t	3SW 426 t	2SW 423 t	1SW 206 t

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)

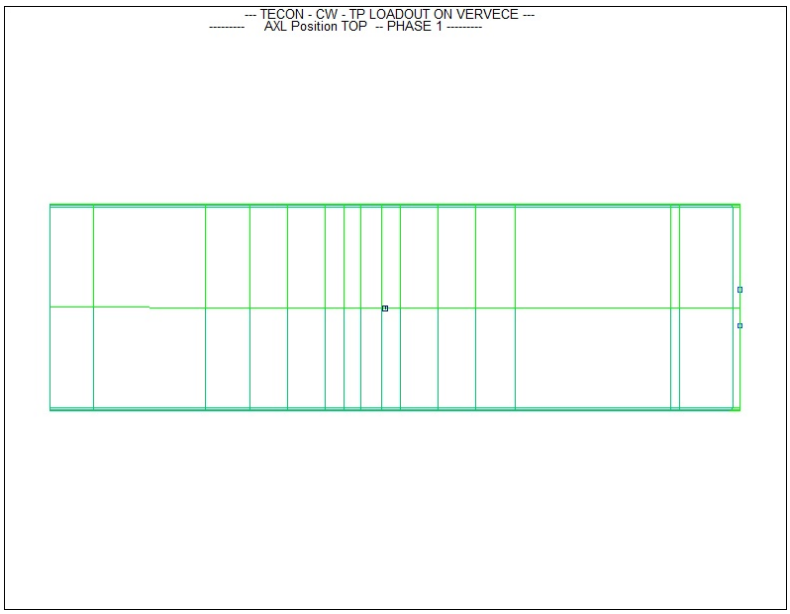
PHASE: 0 STRUCTURE WEIGHT ON BARGE(t): 0 DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00

Phase -0-

Tank No	Ballast	Sounding	Ullage	Tank No	Ballast	Sounding	Ullage
1PC	224	6,02	,08	3SC	256	1,83	4,27
1PW	206	5,70	,40	3SW	426	3,05	3,04
1SC	225	6,02	,08	4PC	835	5,97	,12
1SW	206	5,70	,40	4PW	426	3,05	3,04
2PC	426	3,05	3,05	4SC	835	5,97	,12
2PW	428	3,06	3,03	4SW	426	3,05	3,04
2SC	426	3,05	3,05	5PC	240	3,42	2,67
2SW	423	3,03	3,06	5PW	574	4,65	1,45
3PC	256	1,83	4,27	5SC	236	3,42	2,67
3PW	426	3,05	3,04	5SW	569	4,62	1,48

Being the distance between quay and barge bow <= 1.0m, the load of the axles is considered onshore on onboard.

6.4.2 Step 1



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS - OUT

	5PW 8 t	4PW	3PW	2PW -31 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW 7 t	4SW	3SW	2SW -32 t	1SW

Barge pump STB - OUT

PHASE: 1
TRAVEL DISTANCE: 3,01

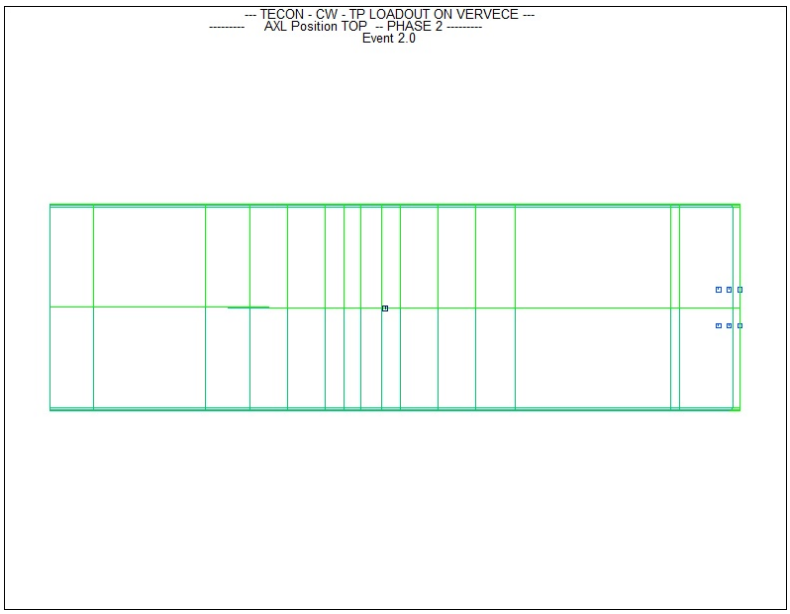
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 47,9

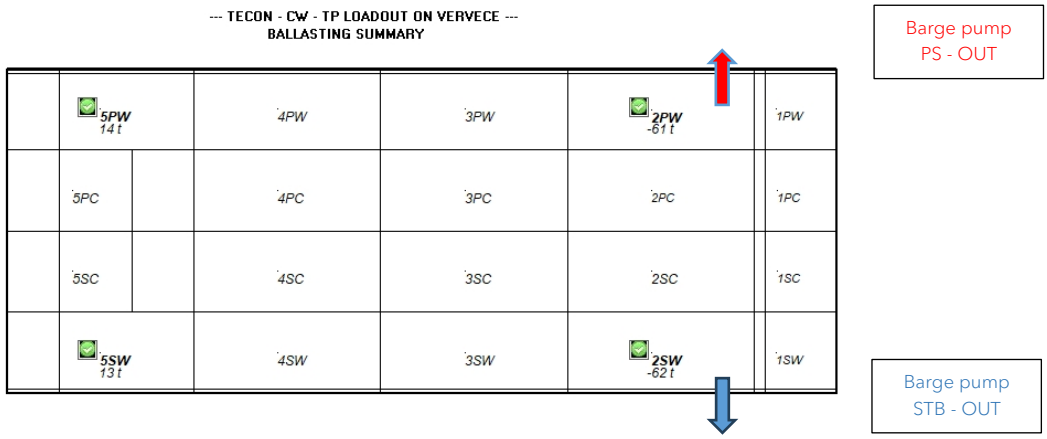
Phase -1-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-31	2,84	-,22	3,26	,22	186,
2SW	-32	2,81	-,23	3,29	,23	192,
5PW	8	4,70	,06	1,39	-,06	48,
5SW	7	4,67	,05	1,43	-,05	42,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.3 Step 2





PHASE: 2
TRAVEL DISTANCE: 5,81

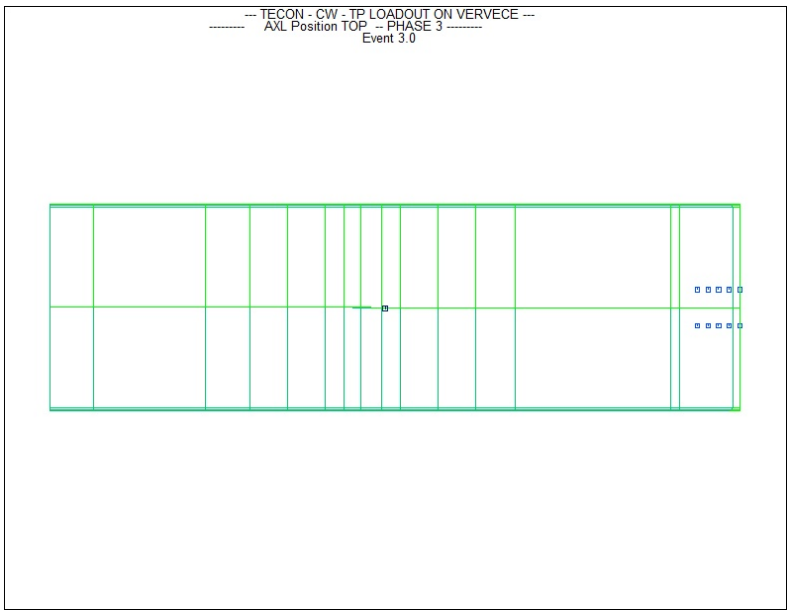
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 143,7

Phase -2-

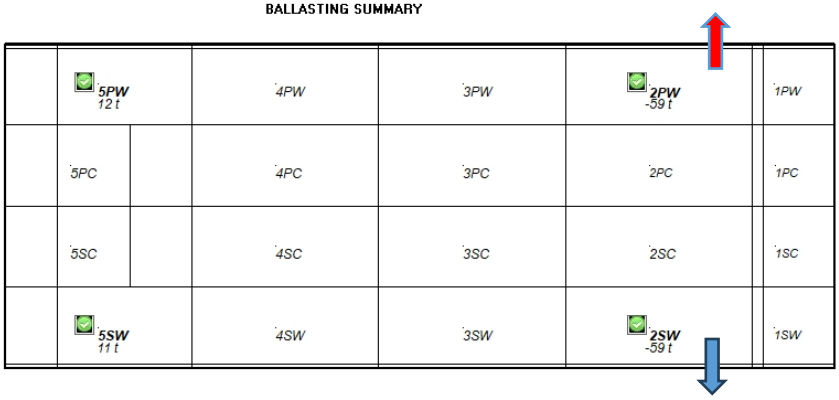
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-61	2,40	-,44	3,69	,44	244,
2SW	-62	2,36	-,44	3,73	,44	248,
5PW	14	4,80	,10	1,29	-,10	56,
5SW	13	4,77	,10	1,33	-,10	52,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.4 Step 3



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



Barge pump
PS - OUT

Barge pump
STB - OUT

PHASE: 3
TRAVEL DISTANCE: 8,61

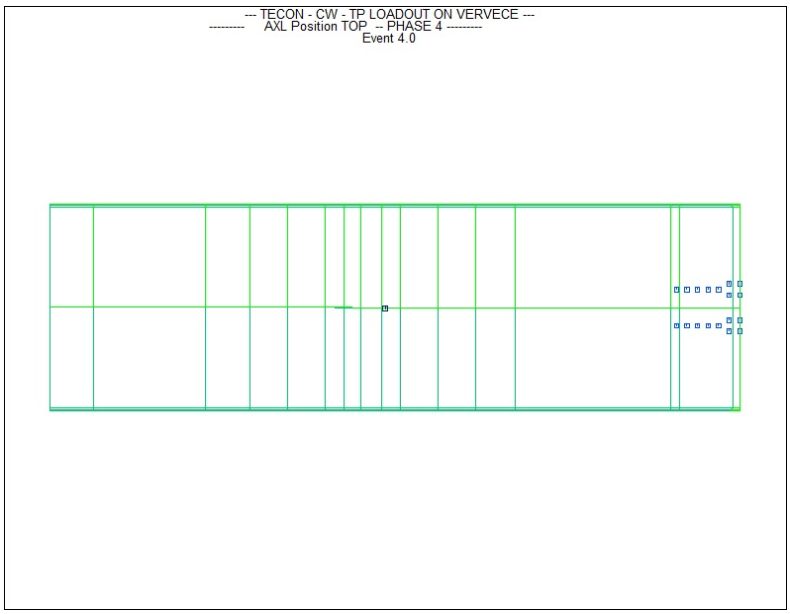
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 239,5

Phase -3-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-59	1,98	-,42	4,11	,42	236,
2SW	-59	1,94	-,42	4,16	,42	236,
5PW	12	4,89	,08	1,21	-,08	48,
5SW	11	4,84	,08	1,25	-,08	44,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.5 Step 4



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

	5PW 8 t	4PW	3PW	2PW -50 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW 7 t	4SW	3SW	2SW -50 t	1SW

Barge pump PS - OUT

Barge pump STB - OUT

PHASE: 4
TRAVEL DISTANCE: 11,41

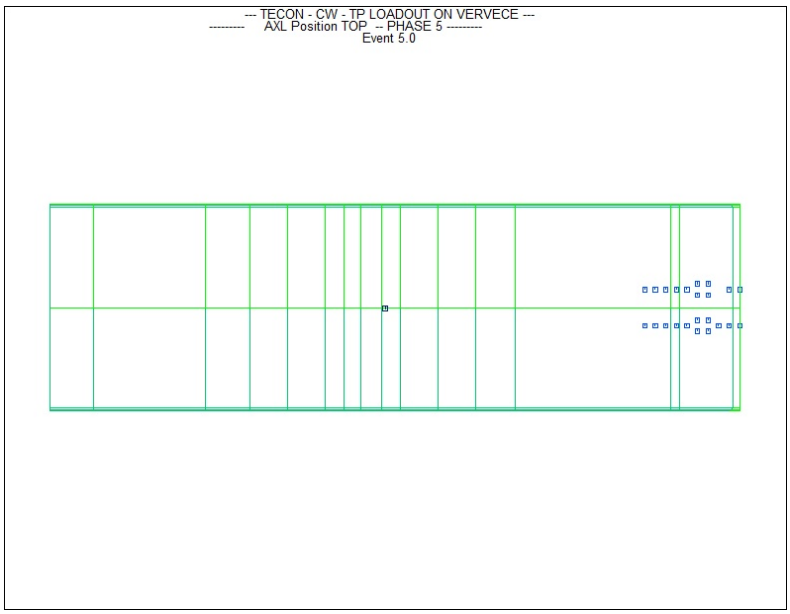
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 324,4

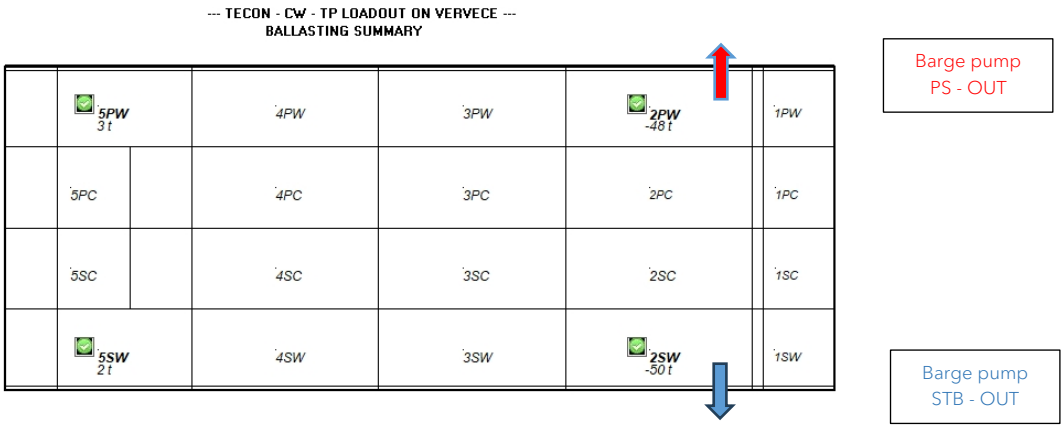
Phase -4-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-50	1,63	-,36	4,47	,36	300,
2SW	-50	1,58	-,36	4,51	,36	300,
5PW	8	4,94	,05	1,15	-,05	48,
5SW	7	4,90	,05	1,20	-,05	42,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.6 Step 5 – All axles on board





PHASE: 5
TRAVEL DISTANCE: 15,61

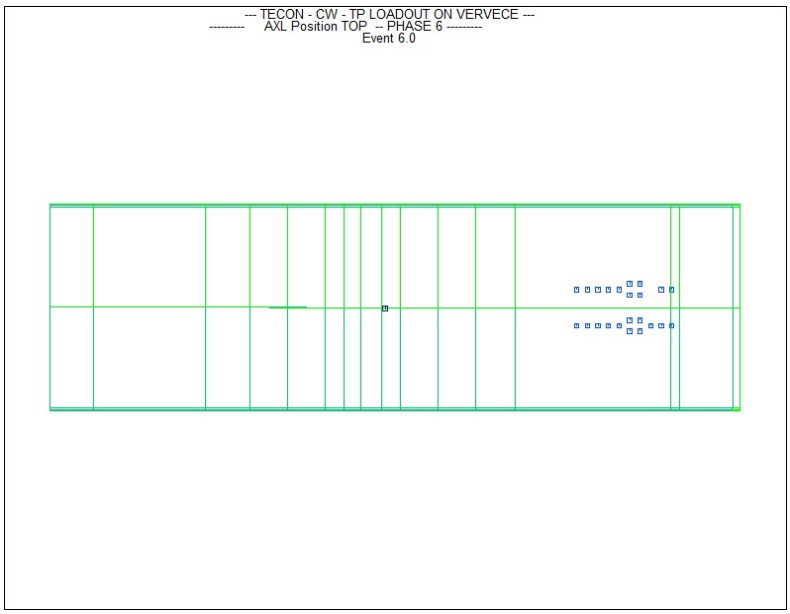
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -5-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-48	1,28	-,34	4,81	,34	288,
2SW	-50	1,23	-,35	4,87	,35	300,
5PW	3	4,97	,02	1,13	-,02	18,
5SW	2	4,91	,01	1,19	-,01	12,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.7 Step 6: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -31 t	4PW	3PW	2PW 31 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -31 t	4SW	3SW	2SW 31 t	1SW

Barge pump STB

PHASE: 6
TRAVEL DISTANCE: 24,61

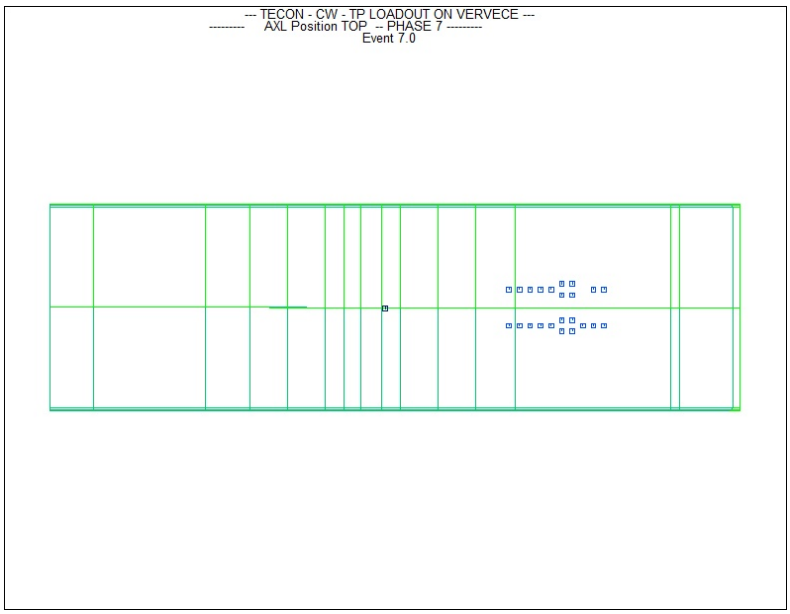
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -6-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	31	1,50	,22	4,59	-,22	186,
2SW	31	1,45	,22	4,65	-,22	186,
5PW	-31	4,74	-,22	1,35	,22	186,
5SW	-31	4,69	-,22	1,41	,22	186,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.8 Step 7: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 7
TRAVEL DISTANCE: 33,61

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

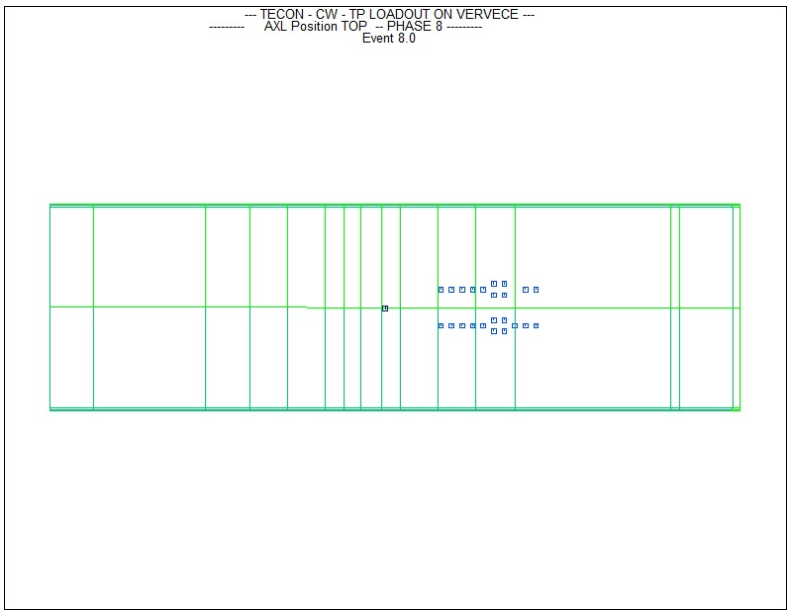
Phase -7-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	1,72	,22	4,37	-,22	180,
2SW	30	1,67	,22	4,43	-,22	180,
5PW	-30	4,52	-,22	1,57	,22	180,
5SW	-30	4,47	-,22	1,63	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

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6.4.9 Step 8: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 8
TRAVEL DISTANCE: 42,61

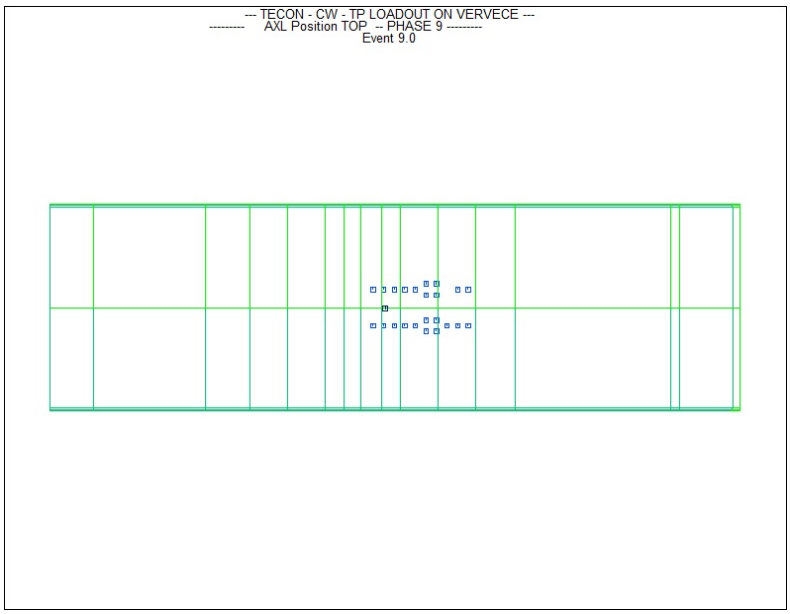
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -8-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	1,94	,22	4,16	-,22	180,
2SW	30	1,88	,22	4,21	-,22	180,
5PW	-30	4,30	-,22	1,79	,22	180,
5SW	-30	4,25	-,22	1,85	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.10 Step 9: Shifting phase. All axles on board.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -30 t	4PW	3PW	2PW 30 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -30 t	4SW	3SW	2SW 30 t	1SW

Barge pump STB

PHASE: 9
TRAVEL DISTANCE: 51,61

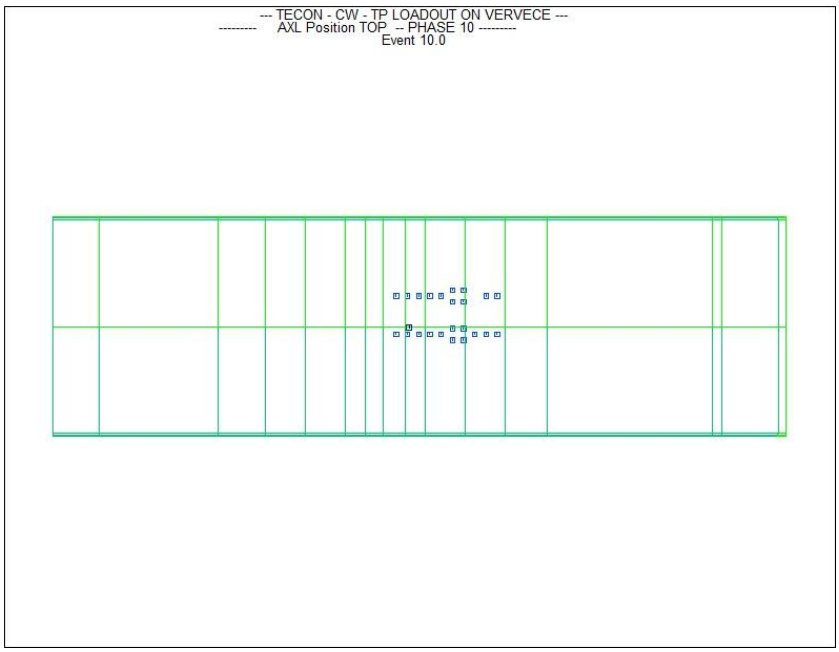
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -9-

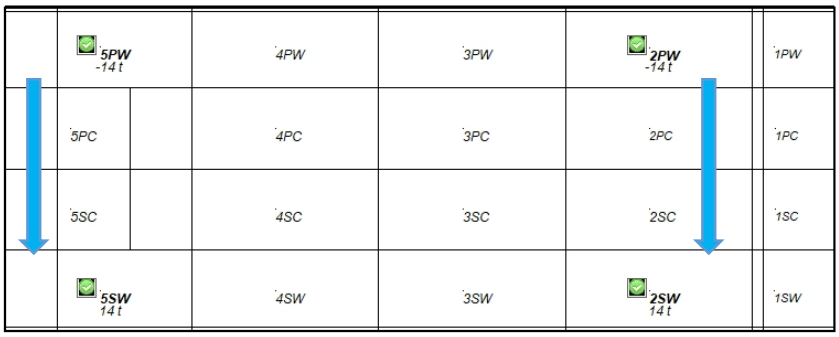
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	30	2,15	,21	3,94	-,21	180,
2SW	30	2,10	,21	4,00	-,21	180,
5PW	-30	4,09	-,22	2,01	,22	180,
5SW	-30	4,03	-,22	2,06	,22	180,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.11 Step 10: Transversal shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



PHASE: 10
TRAVEL DISTANCE: 51,61

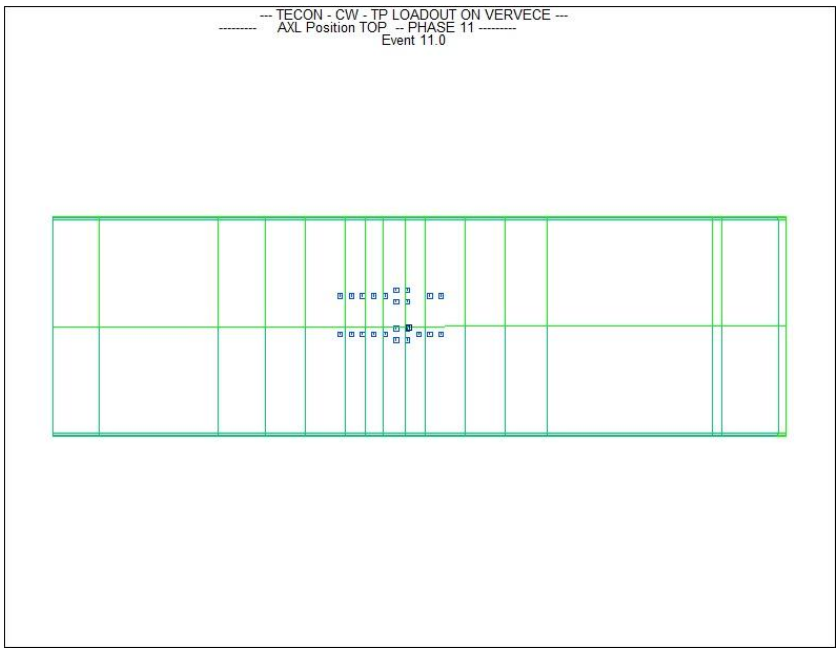
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -10-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-14	2,05	-,10	4,05	,10	84,
2SW	14	2,20	,10	3,90	-,10	84,
5PW	-14	3,99	-,10	2,11	,10	84,
5SW	14	4,14	,10	1,96	-,10	84,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.12 Step 11: Shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -24 t	4PW	3PW	2PW 24 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -24 t	4SW	3SW	2SW 24 t	1SW

Barge pump STB

PHASE: 11
TRAVEL DISTANCE: 58,61

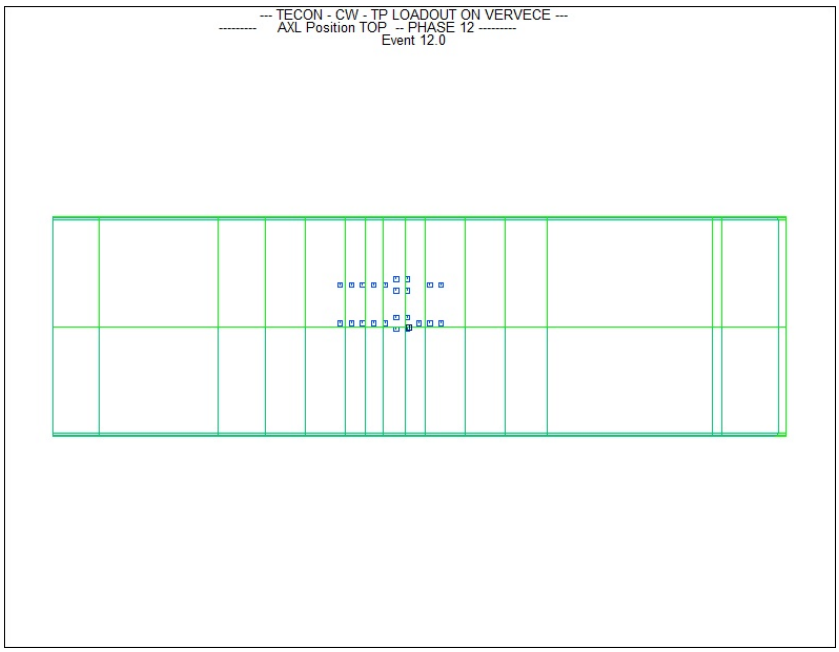
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -11-

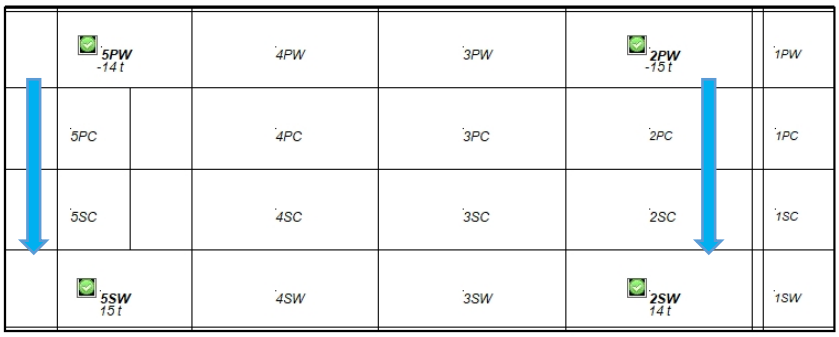
Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	24	2,22	,17	3,87	-,17	144,
2SW	24	2,37	,17	3,73	-,17	144,
5PW	-24	3,81	-,17	2,28	,17	144,
5SW	-24	3,96	-,17	2,13	,17	144,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.13 Step 12: Transversal shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY



PHASE: 12
TRAVEL DISTANCE: 58,61

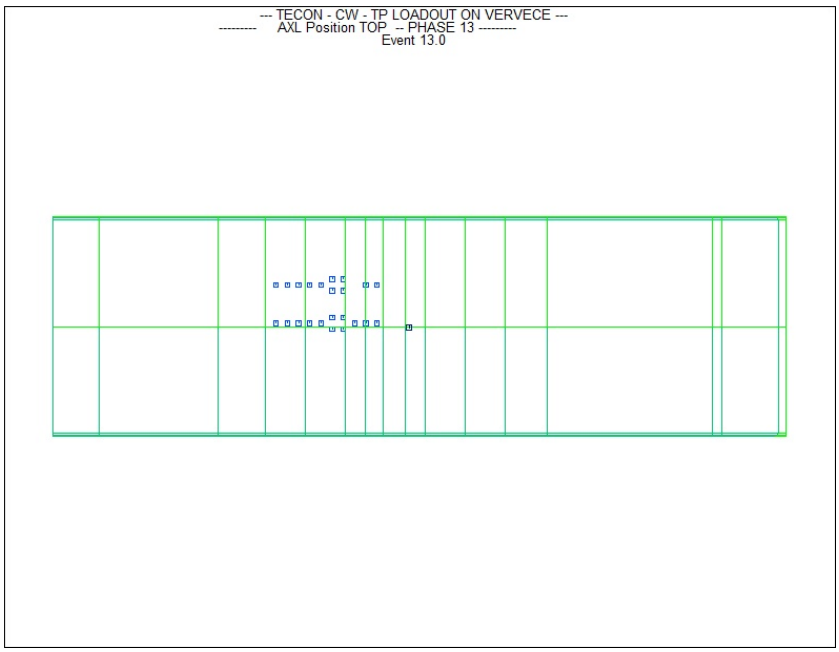
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -12-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-15	2,12	-,11	3,98	,11	90,
2SW	14	2,47	,10	3,63	-,10	84,
5PW	-14	3,71	-,10	2,38	,10	84,
5SW	15	4,07	,11	2,03	-,11	90,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.14 Step 13: Shifting phase.



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -27 t	4PW	3PW	2PW 27 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -27 t	4SW	3SW	2SW 27 t	1SW

Barge pump STB

PHASE: 13
TRAVEL DISTANCE: 66,61

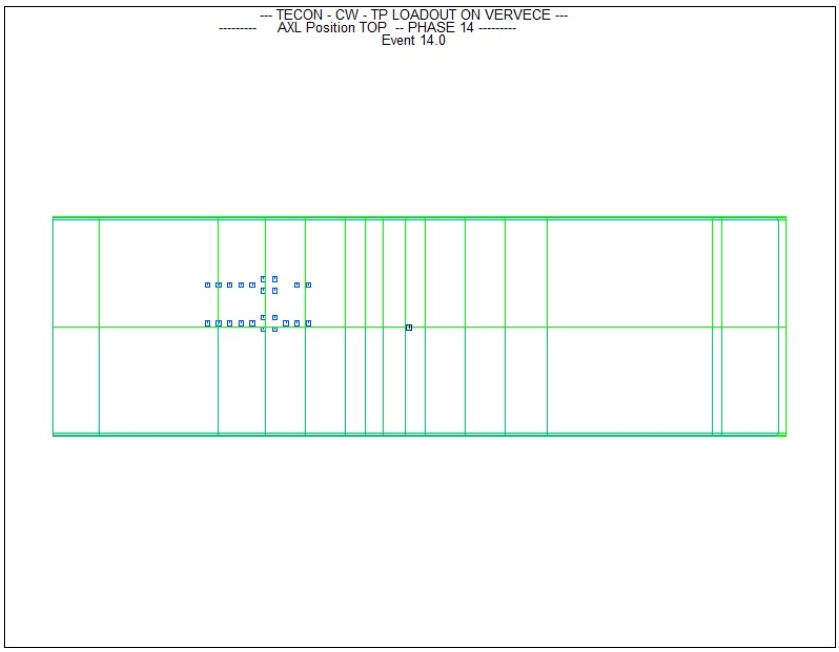
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -13-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	27	2,31	,19	3,79	-,19	162,
2SW	27	2,66	,19	3,43	-,19	162,
5PW	-27	3,52	-,20	2,58	,20	162,
5SW	-27	3,87	-,19	2,22	,19	162,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.4.15 Step 14: TP in final position



--- TECON - CW - TP LOADOUT ON VERVECE ---
BALLASTING SUMMARY

Barge pump PS

5PW -29 t	4PW	3PW	2PW 29 t	1PW
5PC	4PC	3PC	2PC	1PC
5SC	4SC	3SC	2SC	1SC
5SW -29 t	4SW	3SW	2SW 29 t	1SW

Barge pump STB

PHASE: 14
TRAVEL DISTANCE: 75,18

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 416,9

Phase -14-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	29	2,52	,21	3,58	-,21	174,
2SW	29	2,87	,21	3,23	-,21	174,
5PW	-29	3,30	-,21	2,79	,21	174,
5SW	-29	3,66	-,21	2,43	,21	174,

LEGEND:
TK.NO
WEIGHT (t)
SOUNDING (m)
ULLAGE (m)
CAPACITY (m^3/h)

6.5 BALLAST CORRECTION FOR TIDE

The correction to compensate for sea level variation at start of LO operation is shown below. Intermediate level of water at start of operation requires interpolation of the values only in the tanks highlighted in yellow or blue.

VERVECE - BALLAST PLAN - load-out Ph.0. - LOW TIDE D=3.95m trim 0.10deg

	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	3% **3PW**	50% **2PW** u=3.0m	90% **1PW** u=0.40m
STERN	44% **5PC** u=3.1m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	44% **5SC** u=3.1m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	3% **3SW**	50% **2SW** u=3.0m	90% **1SW** u=0.40m

VERVECE - BALLAST PLAN - load-out Ph.0. - HIGH TIDE D=4.75m evenkeel

	74.0% **5PW** u=1.45m		50% **4PW** u=3.0m	97% **3PW** u=0.20m	50% **2PW** u=3.0m	90% **1PW** u=0.40m
STERN	62.5% **5PC** u=2.0m		full **4PC**	30% **3PC** u=4.30m	50% **2PC** u=3.0m	full **1PC**
	63.0% **5SC** u=2.0m		full **4SC**	30% **3SC** u=4.30m	50% **2SC** u=3.0m	full **1SC**
	73.5% **5SW** u=1.45m		50% **4SW** u=3.0m	96% **3SW** u=0.25m	50% **2SW** u=3.0m	90% **1SW** u=0.40m

Figure 6.6 – Ballast plan for tide compensation

6.5.1 Tide -40cm Phase 0

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*                                          ----------------                    17 June, 2025                   *
*          T E C O N                                                .                                          *
*          ---------     Barge Configuration                                  .                                *
*                                                                                                               *
*****************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Results Are Reported In Body System

                          Draft =     3.95 Roll Angle =     0.00 Pitch Angle =     0.10

                                        Wet Radii Of Gyration About CG
```

```
                K-X =     7.77 K-Y =    26.45 K-Z =    27.23

                      GMT =    15.11 GML =   167.17

                         /-- Center of Gravity ---/  Sounding   % Full
Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

----------------  Part CF         ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B   ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C   ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T   ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part VERVECE    ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC          229.92     5.62    -3.43     3.77     6.02    98.00
1PW          211.48     5.72   -10.28     3.59     5.70    90.00
1SC          230.42     5.62     3.43     3.77     6.02    98.00
1SW          211.48     5.72    10.28     3.59     5.70    90.00
2PC          436.85    19.45    -3.43     1.52     3.05    50.00
2PW          436.81    19.45   -10.28     1.53     3.05    50.00
2SC          436.85    19.45     3.43     1.52     3.05    50.00
2SW          436.81    19.45    10.28     1.53     3.05    50.00
3PC          262.11    40.04    -3.43     0.91     1.83    30.00
3PW           33.50    40.27   -10.19     0.12     0.24     3.83
3SC          262.11    40.04     3.43     0.91     1.83    30.00
3SW           27.91    40.32    10.18     0.10     0.20     3.20
4PC          856.22    60.59    -3.43     2.99     5.97    98.00
4PW          436.82    60.60   -10.28     1.53     3.05    50.00
4SC          856.22    60.59     3.43     2.99     5.97    98.00
4SW          436.82    60.60    10.28     1.53     3.05    50.00
5PC          214.36    83.04    -3.43     1.65     3.06    43.57
5PW          587.25    80.15   -10.28     2.46     4.64    74.00
5SC          212.45    83.05     3.43     1.66     3.08    43.87
5SW          583.28    80.15    10.28     2.45     4.62    73.50
========  ========  =======  =======  =======
Total       9380.96    47.10    -0.00     2.56
Buoyancy    9380.95    47.10    -0.00     2.07


                  +++ D R A F T   M A R K   R E A D I N G S +++
                  ============================================

            Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        3.95 BOWST        3.95 MIDPO        4.03 MIDST        4.03 STEPO        4.11 STEST        4.11
```

6.5.2 Tide +40cm Phase 0

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*                                          ----------------                          17 June, 2025               *
*         T E C O N                                                        .                                      *
*         ---------     Barge Configuration                                .                                      *
*                                                                                                                *
*****************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

              Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                   Draft =     4.75 Roll Angle =    -0.00 Pitch Angle =     0.00

                                  Wet Radii Of Gyration About CG

                            K-X =     8.14 K-Y =    24.90 K-Z =    25.85

                                  GMT =    13.09 GML =   147.02

                                     /-- Center of Gravity ---/  Sounding   % Full
                   Name      Weight    ---X---  ---Y---  ---Z---  -------- --------
```

```
----------------  Part CF          ------------
LOAD_GRO     28.00    69.38    11.22     8.10
----------------  Part GRI&SF-B    ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part GRI&SF-C    ------------
LOAD_GRO      0.50    67.44    11.22     7.10
----------------  Part GRI&SF-T    ------------
LOAD_GRO     45.00    65.20    -2.92     7.40
----------------  Part VERVECE     ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC          229.92     5.62    -3.43     3.77     6.02    98.00
1PW          211.48     5.71   -10.28     3.59     5.70    90.00
1SC          230.42     5.62     3.43     3.77     6.02    98.00
1SW          211.48     5.71    10.28     3.59     5.70    90.00
2PC          436.85    19.43    -3.43     1.52     3.05    50.00
2PW          436.81    19.43   -10.28     1.53     3.05    50.00
2SC          436.85    19.43     3.43     1.52     3.05    50.00
2SW          436.81    19.43    10.28     1.53     3.05    50.00
3PC          262.11    40.01    -3.43     0.91     1.83    30.00
3PW          842.42    40.01   -10.28     2.94     5.88    96.43
3SC          262.11    40.01     3.43     0.91     1.83    30.00
3SW          836.89    40.01    10.28     2.92     5.84    95.79
4PC          856.22    60.58    -3.43     2.99     5.97    98.00
4PW          436.82    60.58   -10.28     1.53     3.05    50.00
4SC          856.22    60.58     3.43     2.99     5.97    98.00
4SW          436.82    60.58    10.28     1.53     3.05    50.00
5PC          306.89    83.47    -3.43     2.23     4.09    62.37
5PW          587.25    80.14   -10.28     2.46     4.64    74.00
5SC          304.91    83.48     3.43     2.25     4.12    62.96
5SW          583.28    80.13    10.28     2.45     4.62    73.50
========  ========  =======  =======  =======
Total     11183.85    46.68     0.00     2.65
Buoyancy  11183.85    46.68     0.00     2.44
```

```
+++ D R A F T   M A R K   R E A D I N G S +++
=============================================

Process is DEFAULT: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.75 BOWST        4.75 MIDPO        4.75 MIDST        4.75 STEPO        4.75 STEST        4.75
```

7 BARGE LONGITUDINAL STRUCTURAL CHECKS

The longitudinal strength analysis was carried out for the still water condition. The complete MOSES output is reported in section 8.

The allowable stresses were assumed as follows:

- Fy = 235 N/mm^2 yield stress
- σ_{all} = 0.66 x Fy = 155 N/mm^2
- τ_{all} = 0.4 x Fy = 94 N/mm^2

For normal stress, the maximum usage factor, i.e. the maximum bending / allowable stress ratio, is 0.475 in phase 5 of loadout operation.

- UF = 12412/26130 = 0.475

For shear stress, the maximum usage factor is:

- UF_{shear} = 802/6150 = 0.13

in phase 4 of loadout.

Values of BM and Shear along the longitudinal section of the cargo barge were compared with the admissible values shown in section 5.4. All the values are within allowable ones.

The maximum deflection results 3.56 cm (ph.5).

8 BARGE INTACT STABILITY – COMPLETE MOSES OUTPUT

In the following tables, the allowable deflection was conventionally set equal to unity, therefore the values indicated under the columns with heading Deflection / Allowable are actually the computed deflections.

```
                                  ********************************
*                                         ***  MOSES   ***                                                    *
*                                         ----------------                          18 June, 2025           *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                         *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                      *
*                                                                                                            *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

                                   Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

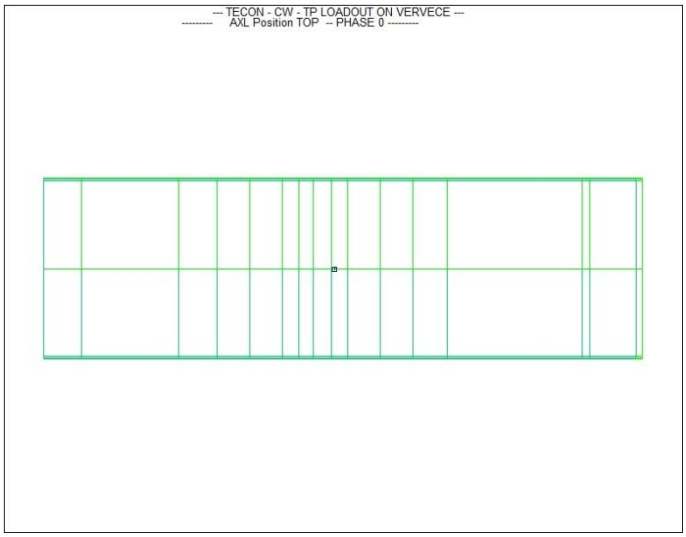
                                   Wet Radii Of Gyration About CG

                                K-X =     7.99 K-Y =    25.59 K-Z =    26.44

                                        GMT =    14.40 GML =   159.51

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight     ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part CF          ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B    ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C    ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T    ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part VERVECE     ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                            1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                            1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                            1SC         224.80     5.62     3.43     3.77     6.02    98.00
                            1SW         206.33     5.71    10.28     3.59     5.70    90.00
                            2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                            2PW         427.89    19.43   -10.28     1.53     3.06    50.20
                            2SC         426.19    19.43     3.43     1.52     3.05    50.00
                            2SW         423.45    19.43    10.28     1.52     3.03    49.68
                            3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                            3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                            3SC         255.71    40.01     3.43     0.91     1.83    30.00
                            3SW         426.16    40.01    10.28     1.53     3.05    50.00
                            4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                            4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                            4SC         835.34    60.58     3.43     2.99     5.97    98.00
                            4SW         426.16    60.58    10.28     1.53     3.05    50.00
                            5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                            5PW         573.65    80.14   -10.28     2.46     4.65    74.09
                            5SC         236.24    83.19     3.43     1.86     3.42    50.00
                            5SW         569.19    80.13    10.28     2.45     4.62    73.52
                                       ========  ========  =======  =======  =======
                                       Total     10052.61    46.75    -0.00     2.50
                                       Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 0 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 0 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.50, and Wind Speed = 10 Knots

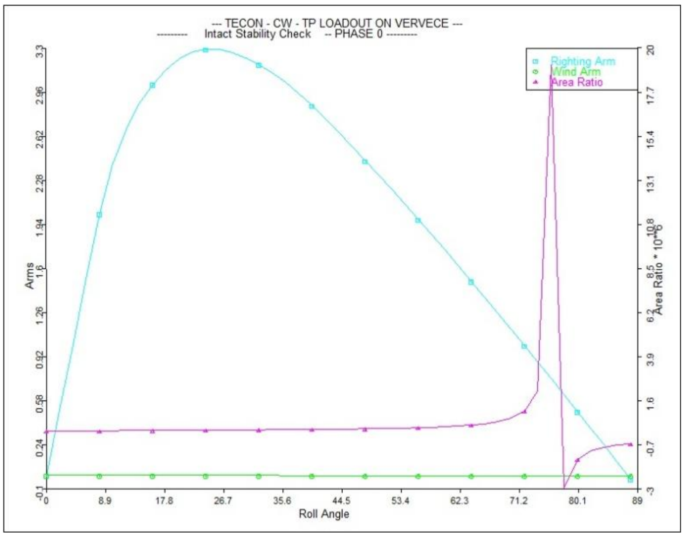
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3147.89	0.503
4.29	4.00	0.00	9999.00	1.49	1.01	2.02	0.00	0.00	6471.55	1.010
4.27	6.00	0.00	9999.00	1.03	1.52	4.54	0.00	0.00	9999.00	1.518
4.25	8.00	0.00	9999.00	0.57	2.02	8.08	0.00	0.00	9999.00	2.021
4.26	10.00	0.00	9999.00	0.08	2.40	12.51	0.00	0.00	9999.00	2.402
4.31	12.00	0.00	9999.00	-0.46	2.67	17.58	0.00	0.00	9999.00	2.672
4.39	14.00	0.00	9999.00	-1.03	2.87	23.12	0.00	0.00	9999.00	2.871
4.48	16.00	0.00	9999.00	-1.63	3.02	29.01	0.00	0.00	9999.00	3.020
4.60	18.00	0.00	9999.00	-2.25	3.13	35.17	0.00	0.00	9999.00	3.133
4.72	20.00	0.00	9999.00	-2.88	3.22	41.52	0.00	0.00	9999.00	3.217
4.85	22.00	0.00	9999.00	-3.51	3.27	48.00	0.00	0.00	9999.00	3.269
4.97	24.00	0.00	9999.00	-4.14	3.29	54.56	0.00	0.00	9999.00	3.291
5.09	26.00	0.00	9999.00	-4.77	3.29	61.14	0.00	0.00	9999.00	3.287
5.20	28.00	0.00	9999.00	-5.39	3.26	67.69	0.00	0.00	9999.00	3.264
5.31	30.00	0.00	9999.00	-6.01	3.22	74.18	0.00	0.00	9999.00	3.225
5.41	32.00	0.00	9999.00	-6.62	3.17	80.58	0.00	0.00	9999.00	3.173
5.50	34.00	0.00	9999.00	-7.22	3.11	86.86	0.00	0.00	9999.00	3.109
5.58	36.00	0.00	9999.00	-7.81	3.03	93.00	-0.00	0.00	9999.00	3.034
5.66	38.00	0.00	9999.00	-8.39	2.95	98.99	-0.00	0.00	9999.00	2.950
5.73	40.00	0.00	9999.00	-8.96	2.86	104.79	-0.00	0.00	9999.00	2.856
5.80	42.00	0.00	9999.00	-9.52	2.75	110.40	-0.00	0.00	9999.00	2.754
5.86	44.00	0.00	9999.00	-10.07	2.65	115.80	-0.00	0.00	9999.00	2.648
5.91	46.00	0.00	9999.00	-10.61	2.54	120.99	-0.00	0.00	9999.00	2.540
5.95	48.00	0.00	9999.00	-11.13	2.43	125.96	-0.00	0.00	9999.00	2.431
5.99	50.00	0.00	9999.00	-11.64	2.32	130.72	-0.00	0.00	9999.00	2.321
6.02	52.00	0.00	9999.00	-12.14	2.21	135.24	-0.00	0.00	9999.00	2.208
6.04	54.00	0.00	9999.00	-12.62	2.09	139.55	-0.00	0.00	9999.00	2.094
6.05	56.00	0.00	9999.00	-13.08	1.98	143.62	-0.00	0.00	9999.00	1.978
6.06	58.00	0.00	9999.00	-13.53	1.86	147.46	-0.00	0.00	9999.00	1.860
6.06	60.00	0.00	9999.00	-13.97	1.74	151.06	-0.00	0.00	9999.00	1.741
6.05	62.00	0.00	9999.00	-14.38	1.62	154.42	-0.00	0.00	9999.00	1.621
6.03	64.00	0.00	9999.00	-14.78	1.50	157.54	-0.00	0.00	9999.00	1.499
6.01	66.00	0.00	9999.00	-15.16	1.38	160.42	-0.00	0.00	9999.00	1.377
5.98	68.00	0.00	9999.00	-15.53	1.25	163.05	-0.00	0.00	9999.00	1.253
5.94	70.00	0.00	9999.00	-15.87	1.13	165.43	-0.00	0.00	9999.00	1.128
5.90	72.00	0.00	9999.00	-16.19	1.00	167.56	-0.00	0.00	9999.00	1.003
5.85	74.00	0.00	9999.00	-16.50	0.88	169.44	-0.00	0.00	9999.00	0.876
5.79	76.00	0.00	9999.00	-16.78	0.75	171.06	-0.00	0.00	9999.00	0.749
5.72	78.00	0.00	9999.00	-17.05	0.62	172.43	-0.00	-0.00	-9999.00	0.621
5.65	80.00	0.00	9999.00	-17.29	0.49	173.55	-0.00	-0.00	-9999.00	0.493
5.57	82.00	0.00	9999.00	-17.51	0.36	174.40	-0.00	-0.00	-9999.00	0.364
5.48	84.00	0.00	9999.00	-17.71	0.23	175.00	-0.00	-0.00	-9999.00	0.234
5.39	86.00	0.00	9999.00	-17.89	0.10	175.34	-0.00	-0.00	-9999.00	0.104
5.29	88.00	0.00	9999.00	-18.05	-0.03	175.41	-0.00	-0.00	-9999.00	-0.028

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+++ S T A B I L I T Y   S U M M A R Y +++
=========================================

The Following Intact Condition
=======================================
Draft                    =      4.30 M
Roll                     =      0.00 Deg
Pitch                    =      0.00 Deg
VCG                      =      2.47 M
Axis Angle               =      0.00 Deg
Wind Vel                 =    100.00 Knots
1st Intercept            =      0.03 Deg
2st Intercept            =     87.55 Deg
NWT Down-Flooding        =     10.17 Deg
WT Down-Flooding         = Not App. Deg
MIN (1st Int. NWT Down)  =     10.17 Deg

Passes All of The Stability Requirements:
=========================================

GM                           >=    1.00      M    14.40 Passes
Range                        >=   36.00    DEG    87.39 Passes
Area Ratio                   >=    1.40          193.27 Passes
```

```
                            *******************************************************
 *                                            ***  MOSES   ***                                           *
 *                                            ----------------                    18 June, 2025          *
 *           --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
 *           ------ Wind Exposed Areas ------                                                            *
 *                                                                                                       *
*********************************************************************************************************

              +++ L O A D   G R O U P   A T T R I B U T E S   F O R   P A R T   C F +++
              =========================================================================

                 Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified
```

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
CF	28.00									69.38	11.22	8.10

#WEI|010 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-B	75.00									30.86	-1.14	7.35

#WEI|004 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-C	0.50									67.44	11.22	7.10

#WEI|008 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
GRI&SF-T	45.00									65.20	-2.92	7.40

#WEI|006 #Weight

LOAD GROUP	WEIGHT	CONT. NAME	DISPL	WIND	FACTOR ADD. MASS	DRAG	AREA X	AREA Y	AREA Z	LOCATION X	LOCATION Y	LOCATION Z
VERVECE	1832.80									47.02	0.00	3.52

#WEI|002 #Weight

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          18 June, 2025        *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 0 ------   *
*                                                                                    *
**************************************************************************************************************
```

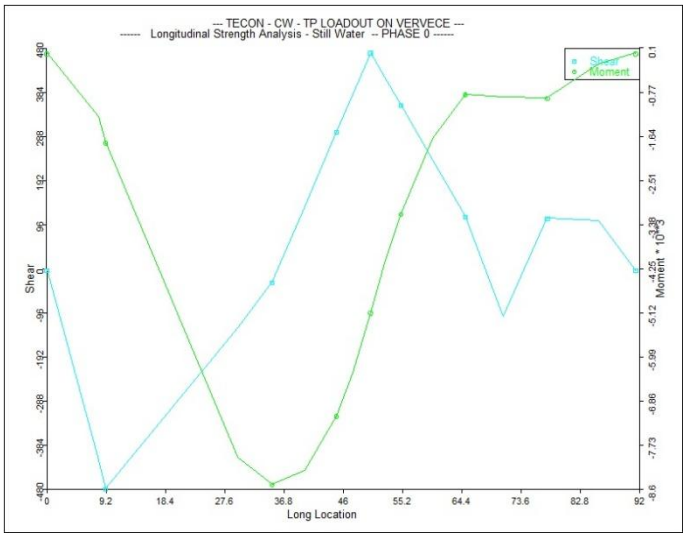
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 0: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1247	-0.0493	6.9449
9.14	-477	-1758	-0.0695	7.9230
29.72	-127	-7973	-0.3151	21.2966
35.00	-28	-8501	-0.3360	22.6689
40.00	135	-8235	-0.3254	23.0128
45.00	299	-7149	-0.2825	22.4563
47.50	380	-6301	-0.2490	21.8744
50.29	471	-5113	-0.2021	21.0211
52.50	418	-4133	-0.1633	20.2196
55.00	357	-3164	-0.1251	19.2056
60.00	236	-1680	-0.0664	16.9378
65.00	114	-805	-0.0318	14.4788
70.87	-103	-857	-0.0339	11.4708
77.72	110	-878	-0.0347	7.7854
85.70	104	-219	-0.0087	3.2880
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 1 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

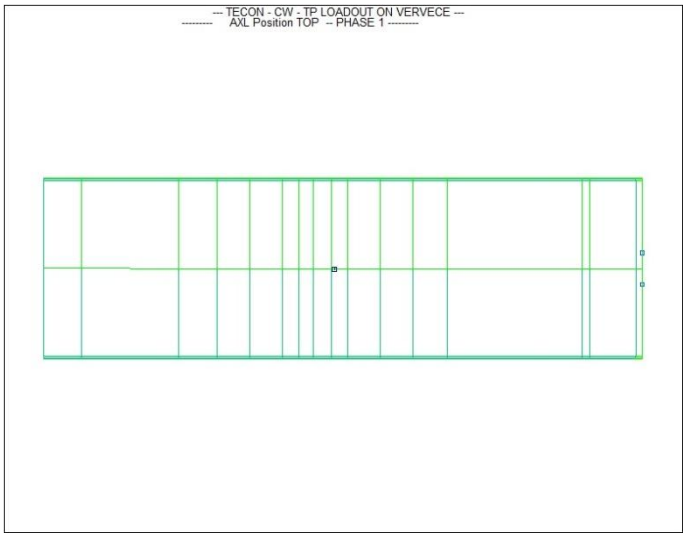
                                 Wet Radii Of Gyration About CG

                           K-X =     7.97 K-Y =    25.74 K-Z =    26.57

                                    GMT =    14.38 GML =   159.50

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL1       ------------
                           LOAD_GRO     47.90     0.01     0.13     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      396.48    19.43   -10.28     1.42     2.84    46.52
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      391.72    19.43    10.28     1.41     2.81    45.96
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      581.43    80.15   -10.28     2.49     4.70    75.10
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      576.65    80.14    10.28     2.47     4.67    74.48
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.52
                           Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 1 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 1 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.52, and Wind Speed = 10 Knots

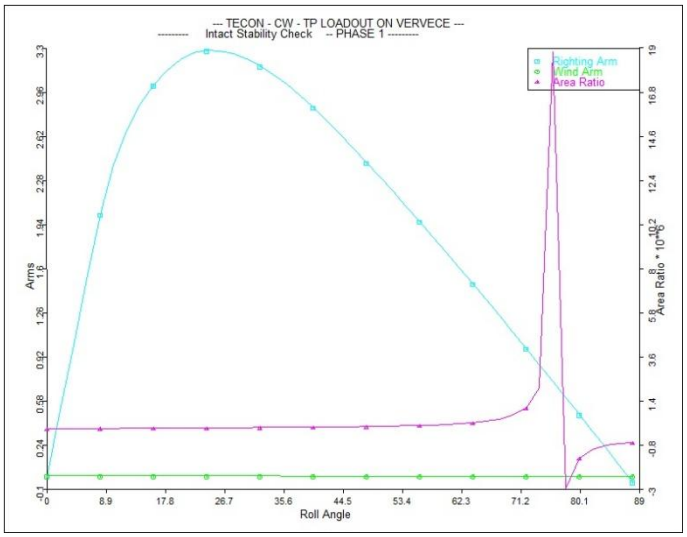
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3142.98	0.502
4.29	4.00	0.00	9999.00	1.49	1.01	2.01	0.00	0.00	6461.45	1.008
4.27	6.00	0.00	9999.00	1.03	1.52	4.54	0.00	0.00	9999.00	1.516
4.25	8.00	0.00	9999.00	0.57	2.02	8.07	0.00	0.00	9999.00	2.018
4.26	10.00	0.00	9999.00	0.07	2.40	12.49	0.00	0.00	9999.00	2.398
4.31	12.00	0.00	9999.00	-0.46	2.67	17.55	0.00	0.00	9999.00	2.667
4.39	14.00	0.00	9999.00	-1.04	2.87	23.08	0.00	0.00	9999.00	2.865
4.48	16.00	0.00	9999.00	-1.63	3.01	28.96	0.00	0.00	9999.00	3.014
4.60	18.00	0.00	9999.00	-2.25	3.13	35.10	0.00	0.00	9999.00	3.126
4.72	20.00	0.00	9999.00	-2.88	3.21	41.44	0.00	0.00	9999.00	3.209
4.85	22.00	0.00	9999.00	-3.51	3.26	47.91	0.00	0.00	9999.00	3.261
4.97	24.00	0.00	9999.00	-4.14	3.28	54.45	0.00	0.00	9999.00	3.282
5.09	26.00	0.00	9999.00	-4.77	3.28	61.01	0.00	0.00	9999.00	3.278
5.20	28.00	0.00	9999.00	-5.39	3.25	67.54	0.00	0.00	9999.00	3.254
5.31	30.00	0.00	9999.00	-6.01	3.21	74.01	0.00	0.00	9999.00	3.214
5.41	32.00	0.00	9999.00	-6.62	3.16	80.39	0.00	0.00	9999.00	3.162
5.50	34.00	0.00	9999.00	-7.22	3.10	86.65	0.00	0.00	9999.00	3.097
5.58	36.00	0.00	9999.00	-7.81	3.02	92.77	-0.00	0.00	9999.00	3.022
5.66	38.00	0.00	9999.00	-8.39	2.94	98.73	-0.00	0.00	9999.00	2.938
5.73	40.00	0.00	9999.00	-8.96	2.84	104.51	-0.00	0.00	9999.00	2.844
5.80	42.00	0.00	9999.00	-9.52	2.74	110.09	-0.00	0.00	9999.00	2.742
5.86	44.00	0.00	9999.00	-10.07	2.64	115.47	-0.00	0.00	9999.00	2.635
5.91	46.00	0.00	9999.00	-10.61	2.53	120.63	-0.00	0.00	9999.00	2.527
5.95	48.00	0.00	9999.00	-11.13	2.42	125.58	-0.00	0.00	9999.00	2.418
5.99	50.00	0.00	9999.00	-11.64	2.31	130.30	-0.00	0.00	9999.00	2.307
6.02	52.00	0.00	9999.00	-12.14	2.19	134.80	-0.00	0.00	9999.00	2.194
6.04	54.00	0.00	9999.00	-12.62	2.08	139.08	-0.00	0.00	9999.00	2.080
6.05	56.00	0.00	9999.00	-13.08	1.96	143.12	-0.00	0.00	9999.00	1.963
6.06	58.00	0.00	9999.00	-13.53	1.85	146.93	-0.00	0.00	9999.00	1.845
6.06	60.00	0.00	9999.00	-13.97	1.73	150.50	-0.00	0.00	9999.00	1.726
6.05	62.00	0.00	9999.00	-14.38	1.61	153.83	-0.00	0.00	9999.00	1.605
6.03	64.00	0.00	9999.00	-14.78	1.48	156.92	-0.00	0.00	9999.00	1.483
6.01	66.00	0.00	9999.00	-15.16	1.36	159.76	-0.00	0.00	9999.00	1.360
5.98	68.00	0.00	9999.00	-15.53	1.24	162.36	-0.00	0.00	9999.00	1.236
5.94	70.00	0.00	9999.00	-15.87	1.11	164.70	-0.00	0.00	9999.00	1.111
5.90	72.00	0.00	9999.00	-16.19	0.98	166.80	-0.00	0.00	9999.00	0.985
5.85	74.00	0.00	9999.00	-16.50	0.86	168.64	-0.00	0.00	9999.00	0.858
5.79	76.00	0.00	9999.00	-16.78	0.73	170.23	-0.00	0.00	9999.00	0.731
5.72	78.00	0.00	9999.00	-17.05	0.60	171.57	-0.00	-0.00	-9999.00	0.603
5.65	80.00	0.00	9999.00	-17.29	0.47	172.64	-0.00	-0.00	-9999.00	0.474
5.57	82.00	0.00	9999.00	-17.51	0.34	173.46	-0.00	-0.00	-9999.00	0.345
5.48	84.00	0.00	9999.00	-17.71	0.21	174.02	-0.00	-0.00	-9999.00	0.215
5.39	86.00	0.00	9999.00	-17.89	0.08	174.32	-0.00	-0.00	-9999.00	0.085
5.29	88.00	0.00	9999.00	-18.05	-0.05	174.36	-0.00	-0.00	-9999.00	-0.047

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                    ****************************************************
*                                  ***  MOSES   ***                                                  *
*                                  ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 1 ------                 *
*                                                                                                   *
*************************************************************************************************************

                  +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                  ================================================================

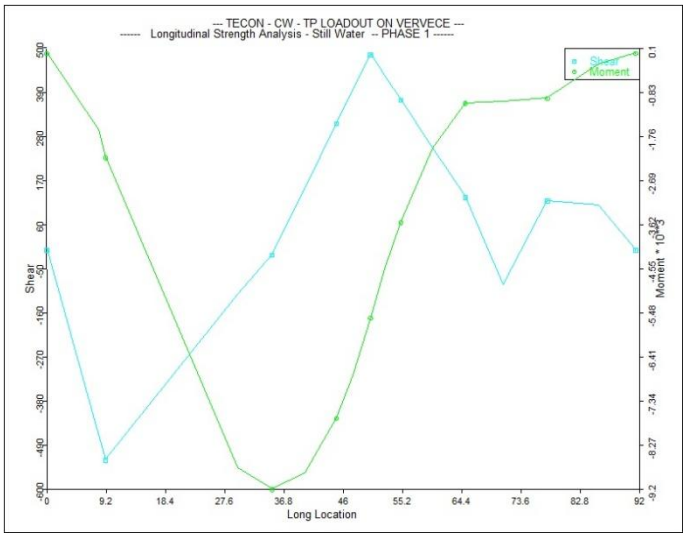
                Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM

     Longitudinal       Shear          Bending         B. Stress/     Deflection/
       Location         Force           Moment          Allowable      Allowable
    --------------  --------------  --------------  --------------  --------------

           0.00            -1              0          0.0000          0.0000
           8.00          -465          -1630         -0.0644          7.7408
           9.14          -525          -2195         -0.0868          8.8265
          29.72          -112          -8749         -0.3458         23.4979
          35.00           -13          -9197         -0.3635         24.9724
          40.00           150          -8855         -0.3500         25.3342
          45.00           314          -7695         -0.3041         24.7273
          47.50           395          -6809         -0.2691         24.0969
          50.29           486          -5579         -0.2205         23.1732
          52.50           433          -4566         -0.1805         22.3045
          55.00           372          -3559         -0.1407         21.2034
          60.00           251          -2000         -0.0791         18.7296
          65.00           129          -1049         -0.0415         16.0293
          70.87           -88          -1013         -0.0401         12.7045
          77.72           120           -948         -0.0375          8.6192
          85.70           109           -231         -0.0092          3.6388
          91.44            -1              0          0.0000          0.0001
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 1 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 18 June, 2025   *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 2 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

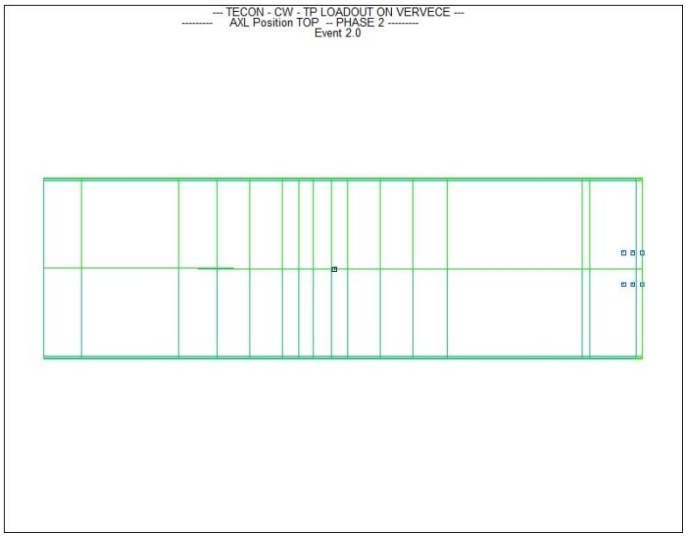
                                    Wet Radii Of Gyration About CG

                               K-X =     7.92 K-Y =    26.00 K-Z =    26.80

                                        GMT =    14.33 GML =   159.47

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL2       ------------
                               LOAD_GRO    143.70     1.41     0.13     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      335.35    19.43   -10.28     1.20     2.40    39.35
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      329.98    19.43    10.28     1.19     2.36    38.72
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      595.28    80.18   -10.28     2.55     4.80    76.89
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      589.87    80.17    10.28     2.52     4.77    76.19
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.76    -0.00     2.57
                               Buoyancy  10052.62    46.76    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                                 . *
*                                                                                                       *
*************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.57, and Wind Speed = 10 Knots

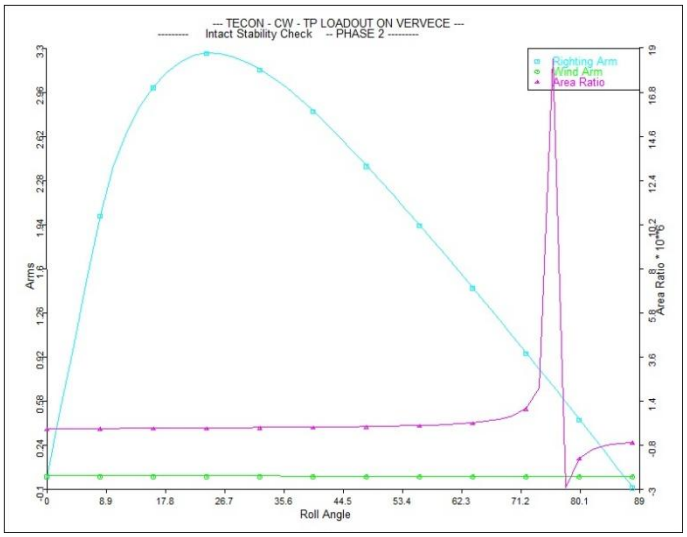
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3132.33	0.501
4.29	4.00	0.00	9999.00	1.49	1.00	2.01	0.00	0.00	6439.61	1.005
4.27	6.00	0.00	9999.00	1.03	1.51	4.52	0.00	0.00	9999.00	1.511
4.25	8.00	0.00	9999.00	0.57	2.01	8.04	0.00	0.00	9999.00	2.011
4.26	10.00	0.00	9999.00	0.07	2.39	12.44	0.00	0.00	9999.00	2.390
4.31	12.00	0.00	9999.00	-0.46	2.66	17.49	0.00	0.00	9999.00	2.657
4.39	14.00	0.00	9999.00	-1.04	2.85	23.00	0.00	0.00	9999.00	2.853
4.48	16.00	0.00	9999.00	-1.63	3.00	28.85	0.00	0.00	9999.00	3.000
4.60	18.00	0.00	9999.00	-2.25	3.11	34.97	0.00	0.00	9999.00	3.111
4.72	20.00	0.00	9999.00	-2.88	3.19	41.27	0.00	0.00	9999.00	3.192
4.85	22.00	0.00	9999.00	-3.51	3.24	47.70	0.00	0.00	9999.00	3.243
4.97	24.00	0.00	9999.00	-4.14	3.26	54.21	0.00	0.00	9999.00	3.263
5.09	26.00	0.00	9999.00	-4.77	3.26	60.73	0.00	0.00	9999.00	3.257
5.20	28.00	0.00	9999.00	-5.39	3.23	67.22	0.00	0.00	9999.00	3.233
5.31	30.00	0.00	9999.00	-6.01	3.19	73.64	0.00	0.00	9999.00	3.192
5.41	32.00	0.00	9999.00	-6.62	3.14	79.97	0.00	0.00	9999.00	3.138
5.50	34.00	0.00	9999.00	-7.22	3.07	86.19	0.00	0.00	9999.00	3.073
5.58	36.00	0.00	9999.00	-7.81	3.00	92.25	-0.00	0.00	9999.00	2.997
5.66	38.00	0.00	9999.00	-8.39	2.91	98.16	-0.00	0.00	9999.00	2.912
5.73	40.00	0.00	9999.00	-8.96	2.82	103.89	-0.00	0.00	9999.00	2.818
5.80	42.00	0.00	9999.00	-9.52	2.72	109.43	-0.00	0.00	9999.00	2.717
5.86	44.00	0.00	9999.00	-10.07	2.61	114.76	-0.00	0.00	9999.00	2.612
5.91	46.00	0.00	9999.00	-10.61	2.50	119.87	-0.00	0.00	9999.00	2.504
5.95	48.00	0.00	9999.00	-11.13	2.39	124.77	-0.00	0.00	9999.00	2.394
5.99	50.00	0.00	9999.00	-11.64	2.28	129.45	-0.00	0.00	9999.00	2.282
6.02	52.00	0.00	9999.00	-12.14	2.17	133.90	-0.00	0.00	9999.00	2.168
6.04	54.00	0.00	9999.00	-12.62	2.05	138.12	-0.00	0.00	9999.00	2.053
6.05	56.00	0.00	9999.00	-13.08	1.94	142.11	-0.00	0.00	9999.00	1.936
6.06	58.00	0.00	9999.00	-13.53	1.82	145.86	-0.00	0.00	9999.00	1.817
6.06	60.00	0.00	9999.00	-13.97	1.70	149.37	-0.00	0.00	9999.00	1.697
6.05	62.00	0.00	9999.00	-14.38	1.58	152.65	-0.00	0.00	9999.00	1.576
6.03	64.00	0.00	9999.00	-14.78	1.45	155.67	-0.00	0.00	9999.00	1.453
6.01	66.00	0.00	9999.00	-15.16	1.33	158.46	-0.00	0.00	9999.00	1.329
5.98	68.00	0.00	9999.00	-15.53	1.20	160.99	-0.00	0.00	9999.00	1.204
5.94	70.00	0.00	9999.00	-15.87	1.08	163.27	-0.00	0.00	9999.00	1.078
5.90	72.00	0.00	9999.00	-16.19	0.95	165.30	-0.00	0.00	9999.00	0.951
5.85	74.00	0.00	9999.00	-16.50	0.82	167.07	-0.00	0.00	9999.00	0.824
5.79	76.00	0.00	9999.00	-16.78	0.70	168.59	-0.00	0.00	9999.00	0.696
5.72	78.00	0.00	9999.00	-17.05	0.57	169.86	-0.00	-0.00	-9999.00	0.567
5.65	80.00	0.00	9999.00	-17.29	0.44	170.86	-0.00	-0.00	-9999.00	0.437
5.57	82.00	0.00	9999.00	-17.51	0.31	171.61	-0.00	-0.00	-9999.00	0.307
5.48	84.00	0.00	9999.00	-17.71	0.18	172.09	-0.00	-0.00	-9999.00	0.177
5.39	86.00	0.00	9999.00	-17.89	0.05	172.31	-0.00	-0.00	-9999.00	0.046
5.29	88.00	0.00	9999.00	-18.05	-0.09	172.27	-0.00	-0.00	-9999.00	-0.086

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 2
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.9
17.8
26.7
35.6
44.5
53.4
62.3
71.2
80.1
89

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 2 ------*
*                                                                              *
********************************************************************************************************************
```

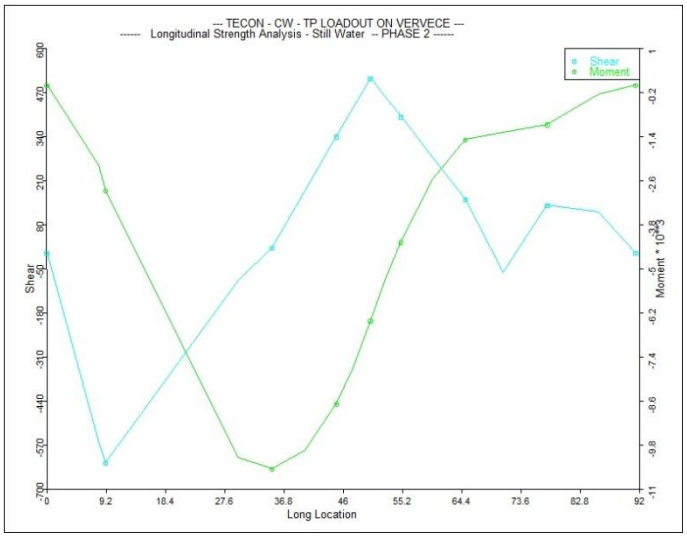
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 2: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-560	-2194	-0.0867	9.1166
9.14	-621	-2869	-0.1134	10.3909
29.72	-86	-10133	-0.4004	27.3756
35.00	13	-10439	-0.4125	29.0368
40.00	177	-9963	-0.3937	29.4340
45.00	341	-8667	-0.3425	28.7406
47.50	422	-7714	-0.3049	28.0257
50.29	512	-6410	-0.2533	26.9783
52.50	459	-5337	-0.2109	25.9916
55.00	399	-4263	-0.1685	24.7368
60.00	278	-2570	-0.1016	21.8989
65.00	156	-1484	-0.0587	18.7723
70.87	-61	-1290	-0.0510	14.8870
77.72	138	-1071	-0.0424	10.0945
85.70	116	-253	-0.0100	4.2595
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 3 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                         Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

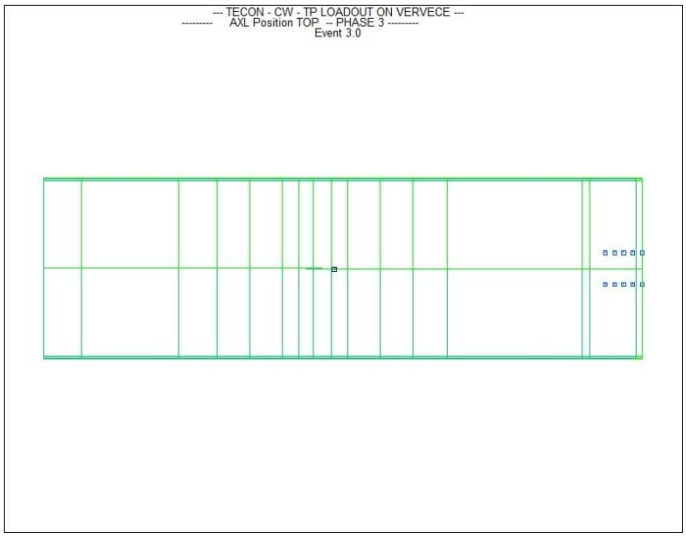
                                    Wet Radii Of Gyration About CG

                                K-X =     7.87 K-Y =    26.21 K-Z =    26.98

                                         GMT =    14.27 GML =   159.44

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL3       ------------
                                LOAD_GRO    239.50     2.81     0.13     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC       224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW       206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC       224.80     5.62     3.43     3.77     6.02    98.00
                          1SW       206.33     5.71    10.28     3.59     5.70    90.00
                          2PC       426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW       276.53    19.43   -10.27     0.99     1.98    32.44
                          2SC       426.19    19.43     3.43     1.52     3.05    50.00
                          2SW       270.54    19.43    10.27     0.97     1.94    31.74
                          3PC       255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW       426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC       255.71    40.01     3.43     0.91     1.83    30.00
                          3SW       426.16    40.01    10.28     1.53     3.05    50.00
                          4PC       835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW       426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC       835.34    60.58     3.43     2.99     5.97    98.00
                          4SW       426.16    60.58    10.28     1.53     3.05    50.00
                          5PC       240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW       606.82    80.19   -10.28     2.59     4.89    78.38
                          5SC       236.24    83.19     3.43     1.86     3.42    50.00
                          5SW       600.79    80.18    10.28     2.57     4.84    77.60
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75    -0.00     2.62
                                Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                      18 June, 2025              *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 3 ---------                               *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 3 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.62, and Wind Speed = 10 Knots

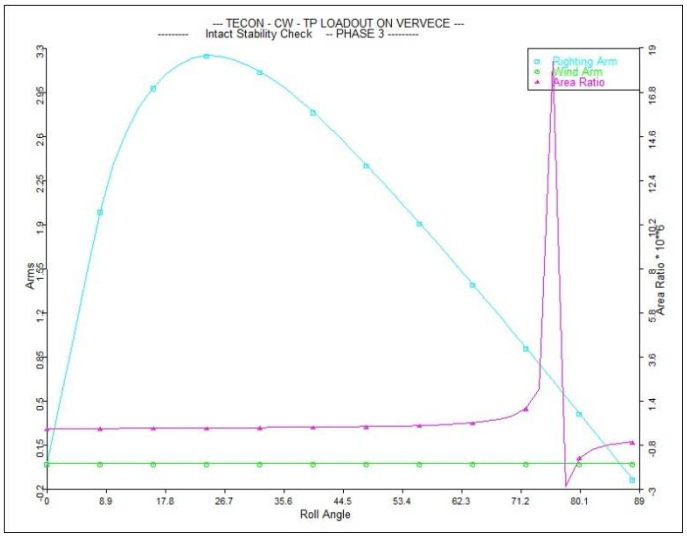
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3120.80	0.499
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6415.95	1.001
4.27	6.00	0.00	9999.00	1.03	1.51	4.51	0.00	0.00	9999.00	1.505
4.25	8.00	0.00	9999.00	0.57	2.00	8.01	0.00	0.00	9999.00	2.003
4.26	10.00	0.00	9999.00	0.07	2.38	12.40	0.00	0.00	9999.00	2.380
4.31	12.00	0.00	9999.00	-0.46	2.65	17.42	0.00	0.00	9999.00	2.646
4.39	14.00	0.00	9999.00	-1.04	2.84	22.91	0.00	0.00	9999.00	2.841
4.48	16.00	0.00	9999.00	-1.63	2.99	28.74	0.00	0.00	9999.00	2.986
4.60	18.00	0.00	9999.00	-2.25	3.09	34.82	0.00	0.00	9999.00	3.095
4.72	20.00	0.00	9999.00	-2.88	3.17	41.09	0.00	0.00	9999.00	3.174
4.85	22.00	0.00	9999.00	-3.51	3.22	47.48	0.00	0.00	9999.00	3.223
4.97	24.00	0.00	9999.00	-4.14	3.24	53.95	0.00	0.00	9999.00	3.242
5.09	26.00	0.00	9999.00	-4.77	3.24	60.43	0.00	0.00	9999.00	3.235
5.20	28.00	0.00	9999.00	-5.39	3.21	66.87	0.00	0.00	9999.00	3.209
5.31	30.00	0.00	9999.00	-6.01	3.17	73.25	0.00	0.00	9999.00	3.167
5.41	32.00	0.00	9999.00	-6.62	3.11	79.53	0.00	0.00	9999.00	3.113
5.50	34.00	0.00	9999.00	-7.22	3.05	85.69	0.00	0.00	9999.00	3.047
5.58	36.00	0.00	9999.00	-7.81	2.97	91.71	-0.00	0.00	9999.00	2.971
5.66	38.00	0.00	9999.00	-8.39	2.89	97.56	-0.00	0.00	9999.00	2.887
5.73	40.00	0.00	9999.00	-8.96	2.79	103.24	-0.00	0.00	9999.00	2.794
5.80	42.00	0.00	9999.00	-9.52	2.69	108.73	-0.00	0.00	9999.00	2.693
5.86	44.00	0.00	9999.00	-10.07	2.59	114.01	-0.00	0.00	9999.00	2.588
5.91	46.00	0.00	9999.00	-10.61	2.48	119.08	-0.00	0.00	9999.00	2.480
5.95	48.00	0.00	9999.00	-11.13	2.37	123.93	-0.00	0.00	9999.00	2.371
5.99	50.00	0.00	9999.00	-11.64	2.26	128.56	-0.00	0.00	9999.00	2.259
6.02	52.00	0.00	9999.00	-12.14	2.15	132.97	-0.00	0.00	9999.00	2.146
6.04	54.00	0.00	9999.00	-12.62	2.03	137.14	-0.00	0.00	9999.00	2.030
6.05	56.00	0.00	9999.00	-13.08	1.91	141.08	-0.00	0.00	9999.00	1.911
6.06	58.00	0.00	9999.00	-13.53	1.79	144.79	-0.00	0.00	9999.00	1.792
6.06	60.00	0.00	9999.00	-13.97	1.67	148.25	-0.00	0.00	9999.00	1.671
6.05	62.00	0.00	9999.00	-14.38	1.55	151.47	-0.00	0.00	9999.00	1.548
6.03	64.00	0.00	9999.00	-14.78	1.42	154.44	-0.00	0.00	9999.00	1.425
6.01	66.00	0.00	9999.00	-15.16	1.30	157.16	-0.00	0.00	9999.00	1.300
5.98	68.00	0.00	9999.00	-15.53	1.17	159.64	-0.00	0.00	9999.00	1.174
5.94	70.00	0.00	9999.00	-15.87	1.05	161.86	-0.00	0.00	9999.00	1.047
5.90	72.00	0.00	9999.00	-16.19	0.92	163.82	-0.00	0.00	9999.00	0.919
5.85	74.00	0.00	9999.00	-16.50	0.79	165.53	-0.00	0.00	9999.00	0.791
5.79	76.00	0.00	9999.00	-16.78	0.66	166.98	-0.00	0.00	9999.00	0.662
5.72	78.00	0.00	9999.00	-17.05	0.53	168.18	-0.00	-0.00	-9999.00	0.532
5.65	80.00	0.00	9999.00	-17.29	0.40	169.11	-0.00	-0.00	-9999.00	0.402
5.57	82.00	0.00	9999.00	-17.51	0.27	169.78	-0.00	-0.00	-9999.00	0.271
5.48	84.00	0.00	9999.00	-17.71	0.14	170.19	-0.00	-0.00	-9999.00	0.140
5.39	86.00	0.00	9999.00	-17.89	0.01	170.34	-0.00	-0.00	-9999.00	0.009
5.29	88.00	0.00	9999.00	-18.05	-0.12	170.23	-0.00	-0.00	-9999.00	-0.124

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                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025          *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                 *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 3 ------                  *
*                                                                                                     *
*******************************************************************************************************

                  +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                  ================================================================

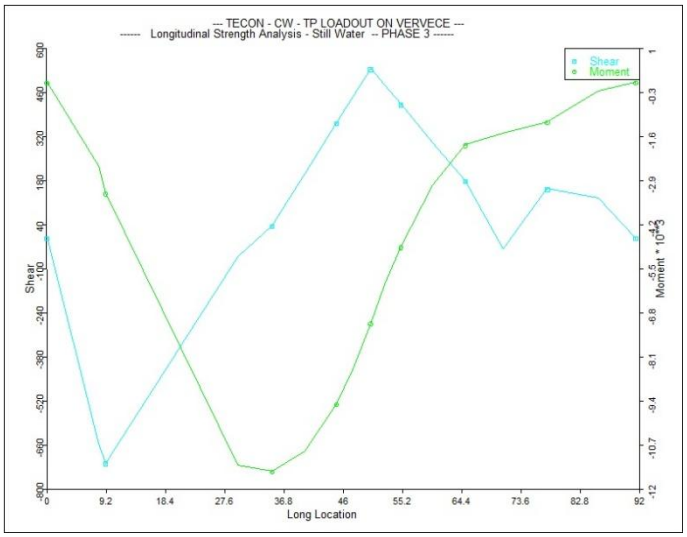
                Process is 3: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

  Longitudinal       Shear          Bending         B. Stress/     Deflection/
    Location         Force           Moment          Allowable      Allowable
 --------------  --------------  --------------  --------------  --------------

       0.00             -1               0          0.0000          0.0000
       8.00           -656           -2490         -0.0984         10.2094
       9.14           -717           -3275         -0.1294         11.6369
      29.72            -63          -11291         -0.4462         30.5562
      35.00             36          -11479         -0.4536         32.3790
      40.00            200          -10890         -0.4304         32.8114
      45.00            363           -9482         -0.3747         32.0507
      47.50            444           -8472         -0.3348         31.2679
      50.29            535           -7105         -0.2808         30.1198
      52.50            482           -5982         -0.2364         29.0365
      55.00            422           -4852         -0.1918         27.6556
      60.00            301           -3046         -0.1204         24.5187
      65.00            179           -1848         -0.0731         21.0401
      70.87            -38           -1522         -0.0602         16.6920
      77.72            153           -1174         -0.0464         11.3147
      85.70            123            -271         -0.0107          4.7729
      91.44             -1               0          0.0000          0.0001
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 3 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
600
460
320
180
40
-100
-240
-380
-520
-660
-800
1
-0.3
-1.6
-2.9
-4.2
-5.5
-6.8
-8.1
-9.4
-10.7
-12
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 4 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

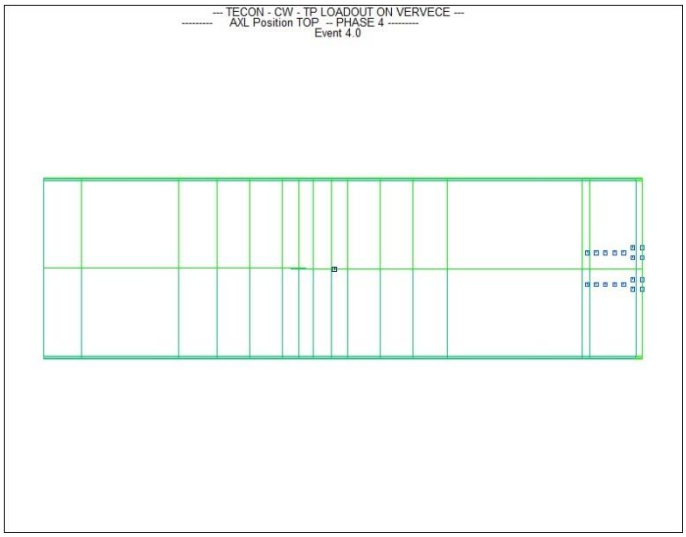
                                    Wet Radii Of Gyration About CG

                               K-X =     7.83 K-Y =    26.33 K-Z =    27.08

                                        GMT =    14.22 GML =   159.40

                               /-- Center of Gravity ---/  Sounding   % Full
                          Name  Weight    ---X---  ---Y---  ---Z---  -------- --------

                               ----------------  Part AXL4       ------------
                               LOAD_GRO    324.40     4.33     0.11     7.10
                               ----------------  Part CF         ------------
                               LOAD_GRO     28.00    69.38    11.22     8.10
                               ----------------  Part GRI&SF-B   ------------
                               LOAD_GRO     75.00    30.86    -1.14     7.35
                               ----------------  Part GRI&SF-C   ------------
                               LOAD_GRO      0.50    67.44    11.22     7.10
                               ----------------  Part GRI&SF-T   ------------
                               LOAD_GRO     45.00    65.20    -2.92     7.40
                               ----------------  Part VERVECE    ------------
                               LOAD_GRO   1832.80    47.02     0.00     3.52
                                            --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      226.82    19.43   -10.27     0.82     1.63    26.61
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      220.59    19.43    10.27     0.79     1.58    25.88
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      614.33    80.21   -10.28     2.62     4.94    79.35
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      608.04    80.20    10.28     2.59     4.90    78.54
                               ========  ========  =======  =======  =======
                               Total     10052.61    46.75    -0.00     2.67
                               Buoyancy  10052.62    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 4 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 4 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.67, and Wind Speed = 10 Knots

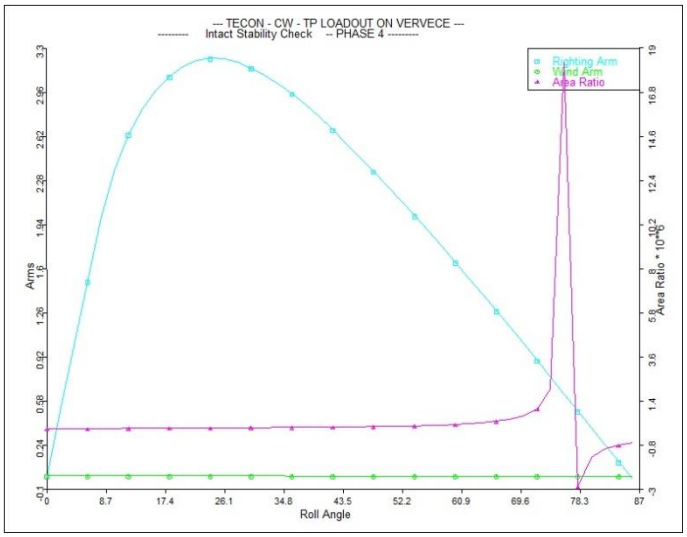
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *STEPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3110.03	0.497
4.29	4.00	0.00	9999.00	1.49	1.00	1.99	0.00	0.00	6393.83	0.998
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.500
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.997
4.26	10.00	0.00	9999.00	0.07	2.37	12.35	0.00	0.00	9999.00	2.372
4.31	12.00	0.00	9999.00	-0.46	2.64	17.36	0.00	0.00	9999.00	2.636
4.39	14.00	0.00	9999.00	-1.04	2.83	22.83	0.00	0.00	9999.00	2.828
4.48	16.00	0.00	9999.00	-1.63	2.97	28.63	0.00	0.00	9999.00	2.972
4.60	18.00	0.00	9999.00	-2.25	3.08	34.68	0.00	0.00	9999.00	3.079
4.72	20.00	0.00	9999.00	-2.88	3.16	40.92	0.00	0.00	9999.00	3.157
4.85	22.00	0.00	9999.00	-3.51	3.21	47.28	0.00	0.00	9999.00	3.205
4.97	24.00	0.00	9999.00	-4.14	3.22	53.71	0.00	0.00	9999.00	3.222
5.09	26.00	0.00	9999.00	-4.77	3.21	60.14	0.00	0.00	9999.00	3.215
5.20	28.00	0.00	9999.00	-5.39	3.19	66.55	0.00	0.00	9999.00	3.188
5.31	30.00	0.00	9999.00	-6.01	3.15	72.88	0.00	0.00	9999.00	3.146
5.41	32.00	0.00	9999.00	-6.62	3.09	79.12	0.00	0.00	9999.00	3.091
5.50	34.00	0.00	9999.00	-7.22	3.03	85.23	0.00	0.00	9999.00	3.026
5.58	36.00	0.00	9999.00	-7.81	2.95	91.21	-0.00	0.00	9999.00	2.950
5.66	38.00	0.00	9999.00	-8.39	2.87	97.03	-0.00	0.00	9999.00	2.865
5.73	40.00	0.00	9999.00	-8.96	2.77	102.66	-0.00	0.00	9999.00	2.772
5.80	42.00	0.00	9999.00	-9.52	2.67	108.11	-0.00	0.00	9999.00	2.671
5.86	44.00	0.00	9999.00	-10.07	2.57	113.35	-0.00	0.00	9999.00	2.566
5.91	46.00	0.00	9999.00	-10.61	2.46	118.37	-0.00	0.00	9999.00	2.459
5.95	48.00	0.00	9999.00	-11.13	2.35	123.18	-0.00	0.00	9999.00	2.350
5.99	50.00	0.00	9999.00	-11.64	2.24	127.77	-0.00	0.00	9999.00	2.238
6.02	52.00	0.00	9999.00	-12.14	2.12	132.13	-0.00	0.00	9999.00	2.125
6.04	54.00	0.00	9999.00	-12.62	2.01	136.26	-0.00	0.00	9999.00	2.009
6.05	56.00	0.00	9999.00	-13.08	1.89	140.16	-0.00	0.00	9999.00	1.891
6.06	58.00	0.00	9999.00	-13.53	1.77	143.83	-0.00	0.00	9999.00	1.771
6.06	60.00	0.00	9999.00	-13.97	1.65	147.25	-0.00	0.00	9999.00	1.649
6.05	62.00	0.00	9999.00	-14.38	1.53	150.42	-0.00	0.00	9999.00	1.525
6.03	64.00	0.00	9999.00	-14.78	1.40	153.35	-0.00	0.00	9999.00	1.401
6.01	66.00	0.00	9999.00	-15.16	1.27	156.02	-0.00	0.00	9999.00	1.275
5.98	68.00	0.00	9999.00	-15.53	1.15	158.44	-0.00	0.00	9999.00	1.148
5.94	70.00	0.00	9999.00	-15.87	1.02	160.61	-0.00	0.00	9999.00	1.020
5.90	72.00	0.00	9999.00	-16.19	0.89	162.52	-0.00	0.00	9999.00	0.892
5.85	74.00	0.00	9999.00	-16.50	0.76	164.18	-0.00	0.00	9999.00	0.762
5.79	76.00	0.00	9999.00	-16.78	0.63	165.57	-0.00	0.00	9999.00	0.632
5.72	78.00	0.00	9999.00	-17.05	0.50	166.71	-0.00	-0.00	-9999.00	0.502
5.65	80.00	0.00	9999.00	-17.29	0.37	167.58	-0.00	-0.00	-9999.00	0.371
5.57	82.00	0.00	9999.00	-17.51	0.24	168.19	-0.00	-0.00	-9999.00	0.239
5.48	84.00	0.00	9999.00	-17.71	0.11	168.54	-0.00	-0.00	-9999.00	0.108
5.39	86.00	0.00	9999.00	-17.89	-0.02	168.62	-0.00	-0.00	-9999.00	-0.025

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--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 4 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                  18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 4 ------     *
*                                                                                      *
****************************************************************************************************************

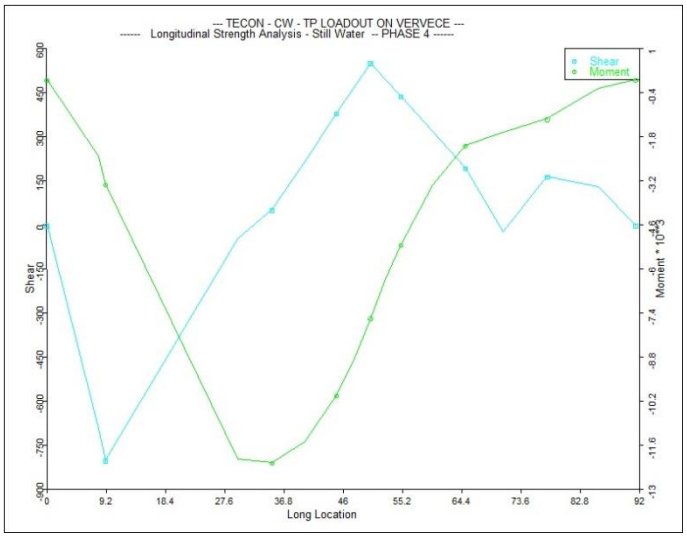
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Allowable Stress =     155.00 Mpa

                                  Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-693	-2458	-0.0972	10.8624
9.14	-802	-3320	-0.1312	12.3842
29.72	-48	-12057	-0.4765	32.5734
35.00	50	-12165	-0.4807	34.5101
40.00	215	-11502	-0.4545	34.9722
45.00	378	-10020	-0.3960	34.1738
47.50	459	-8973	-0.3546	33.3495
50.29	550	-7564	-0.2989	32.1387
52.50	497	-6408	-0.2533	30.9944
55.00	437	-5241	-0.2071	29.5338
60.00	315	-3360	-0.1328	26.2059
65.00	193	-2088	-0.0825	22.5018
70.87	-24	-1675	-0.0662	17.8559
77.72	163	-1242	-0.0491	12.1018
85.70	127	-283	-0.0112	5.1042
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 5 ---------               *
*                                                                                    *
**************************************************************************************************************

                    +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                    ====================================================================

                     Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Results Are Reported In Body System

                        Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

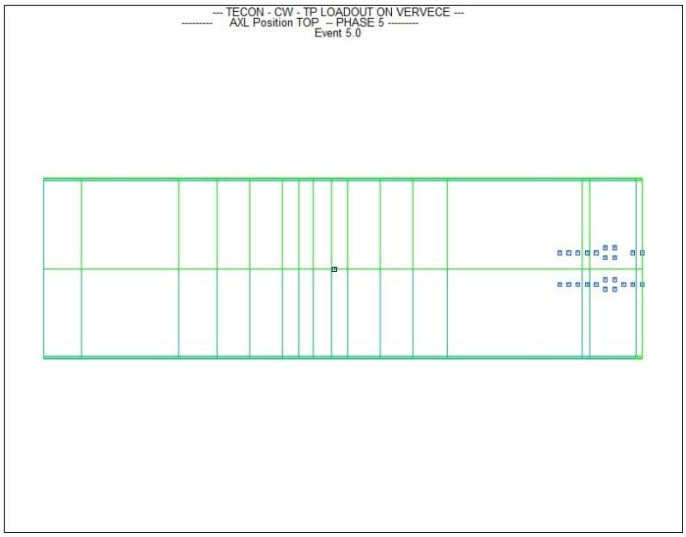
                                    Wet Radii Of Gyration About CG

                                K-X =     7.78 K-Y =    26.37 K-Z =    27.10

                                        GMT =    14.17 GML =   159.35

                                /-- Center of Gravity ---/  Sounding   % Full
                          Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                                ----------------  Part AXL5       ------------
                                LOAD_GRO    416.90     6.89     0.16     7.10
                                ----------------  Part CF         ------------
                                LOAD_GRO     28.00    69.38    11.22     8.10
                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part GRI&SF-C   ------------
                                LOAD_GRO      0.50    67.44    11.22     7.10
                                ----------------  Part GRI&SF-T   ------------
                                LOAD_GRO     45.00    65.20    -2.92     7.40
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                          1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                          1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                          1SC      224.80     5.62     3.43     3.77     6.02    98.00
                          1SW      206.33     5.71    10.28     3.59     5.70    90.00
                          2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                          2PW      178.73    19.43   -10.27     0.64     1.28    20.97
                          2SC      426.19    19.43     3.43     1.52     3.05    50.00
                          2SW      170.99    19.43    10.27     0.62     1.23    20.06
                          3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                          3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                          3SC      255.71    40.01     3.43     0.91     1.83    30.00
                          3SW      426.16    40.01    10.28     1.53     3.05    50.00
                          4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                          4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                          4SC      835.34    60.58     3.43     2.99     5.97    98.00
                          4SW      426.16    60.58    10.28     1.53     3.05    50.00
                          5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                          5PW      617.69    80.21   -10.28     2.63     4.97    79.78
                          5SC      236.24    83.19     3.43     1.86     3.42    50.00
                          5SW      609.88    80.20    10.28     2.60     4.91    78.77
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75    -0.00     2.72
                                Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 5 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 5 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
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+++ R I G H T I N G A R M R E S U L T S +++

Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

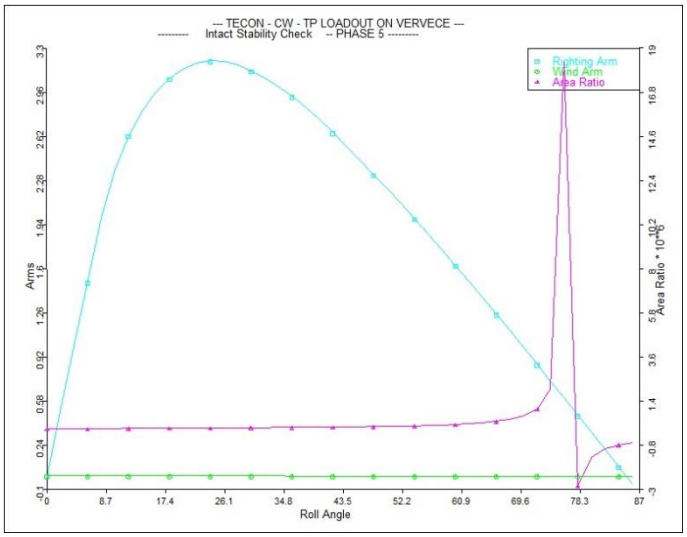
Moment Scaled By 10052.61, KG = 2.72, and Wind Speed = 10 Knots

Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3098.21	0.495
4.29	4.00	0.00	9999.00	1.49	0.99	1.98	0.00	0.00	6369.66	0.994
4.27	6.00	0.00	9999.00	1.03	1.49	4.47	0.00	0.00	9999.00	1.494
4.25	8.00	0.00	9999.00	0.57	1.99	7.96	0.00	0.00	9999.00	1.989
4.26	10.00	0.00	9999.00	0.08	2.36	12.31	0.00	0.00	9999.00	2.362
4.31	12.00	0.00	9999.00	-0.46	2.62	17.29	0.00	0.00	9999.00	2.624
4.39	14.00	0.00	9999.00	-1.04	2.82	22.73	0.00	0.00	9999.00	2.815
4.48	16.00	0.00	9999.00	-1.63	2.96	28.51	0.00	0.00	9999.00	2.957
4.60	18.00	0.00	9999.00	-2.25	3.06	34.53	0.00	0.00	9999.00	3.063
4.72	20.00	0.00	9999.00	-2.88	3.14	40.73	0.00	0.00	9999.00	3.139
4.85	22.00	0.00	9999.00	-3.51	3.19	47.06	0.00	0.00	9999.00	3.186
4.97	24.00	0.00	9999.00	-4.14	3.20	53.44	0.00	0.00	9999.00	3.202
5.09	26.00	0.00	9999.00	-4.77	3.19	59.84	0.00	0.00	9999.00	3.194
5.20	28.00	0.00	9999.00	-5.39	3.17	66.20	0.00	0.00	9999.00	3.167
5.31	30.00	0.00	9999.00	-6.01	3.12	72.49	0.00	0.00	9999.00	3.125
5.41	32.00	0.00	9999.00	-6.62	3.07	78.69	0.00	0.00	9999.00	3.070
5.50	34.00	0.00	9999.00	-7.22	3.00	84.76	0.00	0.00	9999.00	3.004
5.58	36.00	0.00	9999.00	-7.81	2.93	90.69	-0.00	0.00	9999.00	2.928
5.66	38.00	0.00	9999.00	-8.39	2.84	96.47	-0.00	0.00	9999.00	2.843
5.73	40.00	0.00	9999.00	-8.96	2.75	102.06	-0.00	0.00	9999.00	2.750
5.80	42.00	0.00	9999.00	-9.52	2.65	107.46	-0.00	0.00	9999.00	2.648
5.86	44.00	0.00	9999.00	-10.07	2.54	112.65	-0.00	0.00	9999.00	2.543
5.91	46.00	0.00	9999.00	-10.61	2.44	117.63	-0.00	0.00	9999.00	2.435
5.95	48.00	0.00	9999.00	-11.13	2.33	122.39	-0.00	0.00	9999.00	2.326
5.99	50.00	0.00	9999.00	-11.64	2.21	126.93	-0.00	0.00	9999.00	2.214
6.02	52.00	0.00	9999.00	-12.14	2.10	131.24	-0.00	0.00	9999.00	2.100
6.04	54.00	0.00	9999.00	-12.62	1.98	135.33	-0.00	0.00	9999.00	1.984
6.05	56.00	0.00	9999.00	-13.08	1.87	139.18	-0.00	0.00	9999.00	1.866
6.06	58.00	0.00	9999.00	-13.53	1.75	142.79	-0.00	0.00	9999.00	1.746
6.06	60.00	0.00	9999.00	-13.97	1.62	146.16	-0.00	0.00	9999.00	1.624
6.05	62.00	0.00	9999.00	-14.38	1.50	149.28	-0.00	0.00	9999.00	1.501
6.03	64.00	0.00	9999.00	-14.78	1.38	152.16	-0.00	0.00	9999.00	1.375
6.01	66.00	0.00	9999.00	-15.16	1.25	154.78	-0.00	0.00	9999.00	1.248
5.98	68.00	0.00	9999.00	-15.53	1.12	157.15	-0.00	0.00	9999.00	1.120
5.94	70.00	0.00	9999.00	-15.87	0.99	159.26	-0.00	0.00	9999.00	0.991
5.90	72.00	0.00	9999.00	-16.19	0.86	161.11	-0.00	0.00	9999.00	0.862
5.85	74.00	0.00	9999.00	-16.50	0.73	162.71	-0.00	0.00	9999.00	0.731
5.79	76.00	0.00	9999.00	-16.78	0.60	164.04	-0.00	0.00	9999.00	0.601
5.72	78.00	0.00	9999.00	-17.05	0.47	165.11	-0.00	-0.00	-9999.00	0.469
5.65	80.00	0.00	9999.00	-17.29	0.34	165.92	-0.00	-0.00	-9999.00	0.337
5.57	82.00	0.00	9999.00	-17.51	0.20	166.46	-0.00	-0.00	-9999.00	0.205
5.48	84.00	0.00	9999.00	-17.71	0.07	166.73	-0.00	-0.00	-9999.00	0.072
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.75	-0.00	-0.00	-9999.00	-0.061


--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 5
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                    18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 5 ------   *
*                                                                                     *
***************************************************************************************************************

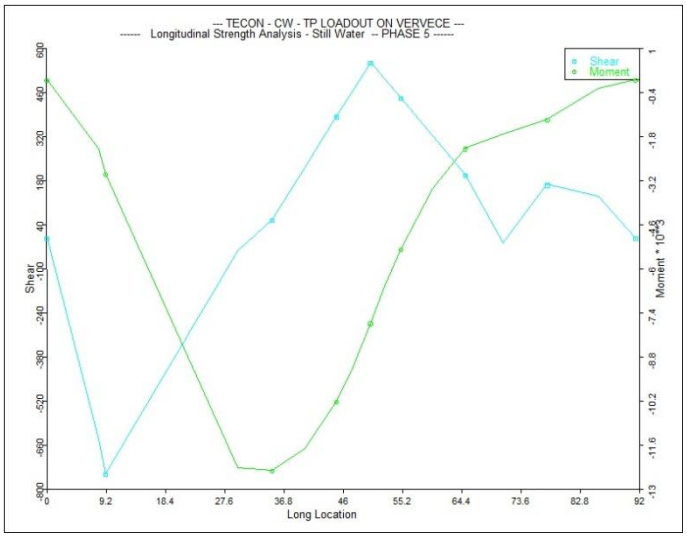
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 5: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-642	-2192	-0.0867	10.9526
9.14	-751	-2996	-0.1184	12.4910
29.72	-43	-12332	-0.4873	33.1034
35.00	56	-12412	-0.4905	35.0974
40.00	220	-11722	-0.4632	35.5857
45.00	383	-10213	-0.4036	34.7892
47.50	465	-9152	-0.3617	33.9578
50.29	555	-7728	-0.3054	32.7332
52.50	502	-6561	-0.2593	31.5741
55.00	442	-5380	-0.2126	30.0923
60.00	321	-3473	-0.1373	26.7117
65.00	199	-2173	-0.0859	22.9424
70.87	-18	-1729	-0.0684	18.2081
77.72	167	-1266	-0.0501	12.3405
85.70	128	-286	-0.0114	5.2047
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 6 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

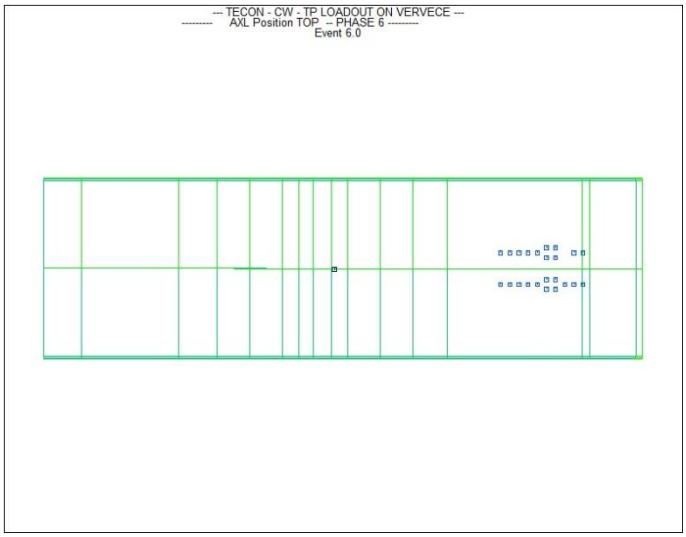
                                 Wet Radii Of Gyration About CG

                           K-X =     7.78 K-Y =    25.81 K-Z =    26.55

                                    GMT =    14.19 GML =   159.34

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL6       ------------
                           LOAD_GRO    416.90    15.89     0.16     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      209.63    19.43   -10.27     0.75     1.50    24.60
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      201.90    19.43    10.27     0.73     1.45    23.69
                      3PC      255.71    40.00    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.00   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.00     3.43     0.91     1.83    30.00
                      3SW      426.16    40.00    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      586.78    80.16   -10.28     2.51     4.74    75.79
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      578.97    80.15    10.28     2.48     4.69    74.78
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.70
                           Buoyancy  10052.60    46.75     0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 6 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

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*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 6 ---------                 . *
*                                                                                      *
****************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.70, and Wind Speed = 10 Knots

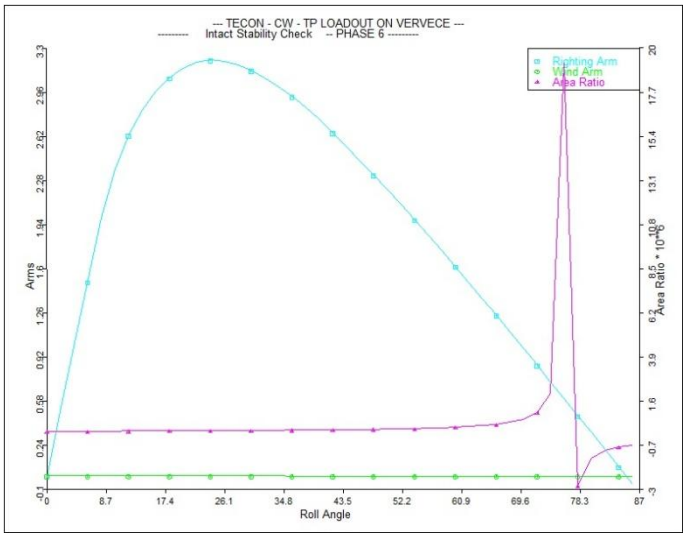
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3103.10	0.496
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6379.58	0.995
4.27	6.00	0.00	9999.00	1.03	1.50	4.48	0.00	0.00	9999.00	1.497
4.25	8.00	0.00	9999.00	0.57	1.99	7.97	0.00	0.00	9999.00	1.992
4.26	10.00	0.00	9999.00	0.07	2.37	12.33	0.00	0.00	9999.00	2.366
4.31	12.00	0.00	9999.00	-0.47	2.63	17.32	0.00	0.00	9999.00	2.629
4.39	14.00	0.00	9999.00	-1.04	2.82	22.77	0.00	0.00	9999.00	2.821
4.49	16.00	0.00	9999.00	-1.63	2.96	28.56	0.00	0.00	9999.00	2.963
4.60	18.00	0.00	9999.00	-2.25	3.07	34.59	0.00	0.00	9999.00	3.069
4.72	20.00	0.00	9999.00	-2.88	3.15	40.80	0.00	0.00	9999.00	3.146
4.85	22.00	0.00	9999.00	-3.51	3.19	47.14	0.00	0.00	9999.00	3.192
4.98	24.00	0.00	9999.00	-4.15	3.21	53.54	0.00	0.00	9999.00	3.208
5.09	26.00	0.00	9999.00	-4.77	3.20	59.95	0.00	0.00	9999.00	3.198
5.20	28.00	0.00	9999.00	-5.40	3.17	66.32	0.00	0.00	9999.00	3.170
5.31	30.00	0.00	9999.00	-6.01	3.13	72.61	0.00	0.00	9999.00	3.127
5.41	32.00	0.00	9999.00	-6.62	3.07	78.81	0.00	0.00	9999.00	3.071
5.50	34.00	0.00	9999.00	-7.22	3.00	84.89	0.00	0.00	9999.00	3.005
5.59	36.00	0.00	9999.00	-7.81	2.93	90.82	-0.00	0.00	9999.00	2.928
5.66	38.00	0.00	9999.00	-8.39	2.84	96.59	-0.00	0.00	9999.00	2.842
5.74	40.00	0.00	9999.00	-8.96	2.75	102.18	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.65	107.58	-0.00	0.00	9999.00	2.646
5.86	44.00	0.00	9999.00	-10.07	2.54	112.76	-0.00	0.00	9999.00	2.540
5.91	46.00	0.00	9999.00	-10.61	2.43	117.74	-0.00	0.00	9999.00	2.432
5.95	48.00	0.00	9999.00	-11.13	2.32	122.49	-0.00	0.00	9999.00	2.322
5.99	50.00	0.00	9999.00	-11.64	2.21	127.02	-0.00	0.00	9999.00	2.210
6.02	52.00	0.00	9999.00	-12.14	2.10	131.33	-0.00	0.00	9999.00	2.095
6.04	54.00	0.00	9999.00	-12.62	1.98	135.40	-0.00	0.00	9999.00	1.979
6.05	56.00	0.00	9999.00	-13.09	1.86	139.24	-0.00	0.00	9999.00	1.860
6.06	58.00	0.00	9999.00	-13.54	1.74	142.84	-0.00	0.00	9999.00	1.739
6.06	60.00	0.00	9999.00	-13.97	1.62	146.19	-0.00	0.00	9999.00	1.616
6.05	62.00	0.00	9999.00	-14.38	1.49	149.30	-0.00	0.00	9999.00	1.492
6.03	64.00	0.00	9999.00	-14.78	1.37	152.16	-0.00	0.00	9999.00	1.367
6.01	66.00	0.00	9999.00	-15.16	1.24	154.77	-0.00	0.00	9999.00	1.240
5.98	68.00	0.00	9999.00	-15.53	1.11	157.12	-0.00	0.00	9999.00	1.113
5.94	70.00	0.00	9999.00	-15.87	0.98	159.22	-0.00	0.00	9999.00	0.985
5.90	72.00	0.00	9999.00	-16.19	0.86	161.06	-0.00	0.00	9999.00	0.856
5.85	74.00	0.00	9999.00	-16.50	0.73	162.64	-0.00	0.00	9999.00	0.726
5.79	76.00	0.00	9999.00	-16.78	0.60	163.96	-0.00	0.00	9999.00	0.596
5.72	78.00	0.00	9999.00	-17.05	0.47	165.02	-0.00	-0.00	-9999.00	0.465
5.65	80.00	0.00	9999.00	-17.29	0.33	165.82	-0.00	-0.00	-9999.00	0.334
5.57	82.00	0.00	9999.00	-17.51	0.20	166.36	-0.00	-0.00	-9999.00	0.203
5.48	84.00	0.00	9999.00	-17.71	0.07	166.63	-0.00	-0.00	-9999.00	0.071
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.64	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 6
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                 *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 6 ------  *
*                                                                                    *
**************************************************************************************************************
```

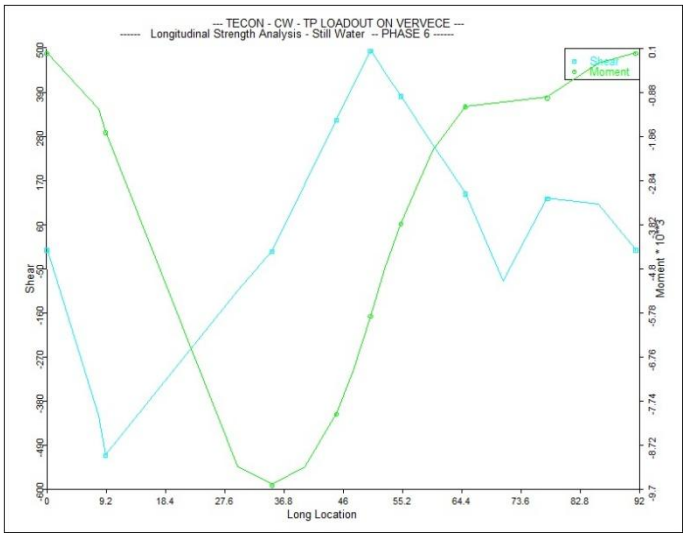
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 6: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	7.7992
9.14	-514	-1760	-0.0696	8.8996
29.72	-104	-9200	-0.3636	24.1661
35.00	-4	-9602	-0.3795	25.7515
40.00	159	-9216	-0.3642	26.1722
45.00	323	-8011	-0.3166	25.5844
47.50	404	-7102	-0.2807	24.9503
50.29	495	-5848	-0.2311	24.0128
52.50	441	-4814	-0.1903	23.1267
55.00	381	-3786	-0.1496	21.9994
60.00	260	-2183	-0.0863	19.4550
65.00	138	-1188	-0.0470	16.6641
70.87	-79	-1102	-0.0436	13.2137
77.72	126	-987	-0.0390	8.9652
85.70	111	-238	-0.0094	3.7847
91.44	-1	0	0.0000	0.0001



```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  -----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 7 ---------                 *
*                                                                                     *
***************************************************************************************************************

                  +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                  ====================================================================

                   Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

                                 Results Are Reported In Body System

                       Draft =     4.30 Roll Angle =    -0.00 Pitch Angle =    -0.00

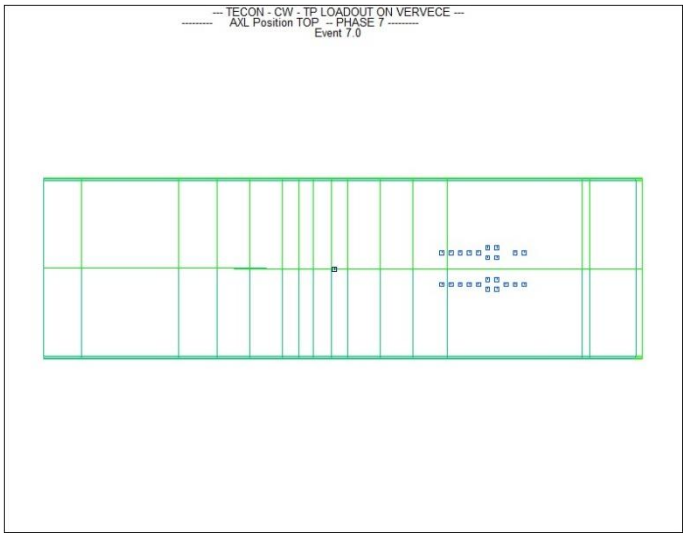
                                    Wet Radii Of Gyration About CG

                              K-X =     7.78 K-Y =    25.37 K-Z =    26.13

                                       GMT =    14.21 GML =   159.31

                              /-- Center of Gravity ---/  Sounding   % Full
                        Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                              ----------------  Part AXL7       ------------
                              LOAD_GRO    416.90    24.89     0.16     7.10
                              ----------------  Part CF         ------------
                              LOAD_GRO     28.00    69.38    11.22     8.10
                              ----------------  Part GRI&SF-B   ------------
                              LOAD_GRO     75.00    30.86    -1.14     7.35
                              ----------------  Part GRI&SF-C   ------------
                              LOAD_GRO      0.50    67.44    11.22     7.10
                              ----------------  Part GRI&SF-T   ------------
                              LOAD_GRO     45.00    65.20    -2.92     7.40
                              ----------------  Part VERVECE    ------------
                              LOAD_GRO   1832.80    47.02     0.00     3.52
                                           --- Contents ---
                        1PC       224.31     5.62    -3.43     3.77     6.02    98.00
                        1PW       206.33     5.71   -10.28     3.59     5.70    90.00
                        1SC       224.80     5.62     3.43     3.77     6.02    98.00
                        1SW       206.33     5.71    10.28     3.59     5.70    90.00
                        2PC       426.19    19.43    -3.43     1.52     3.05    50.00
                        2PW       240.05    19.43   -10.27     0.86     1.72    28.16
                        2SC       426.19    19.43     3.43     1.52     3.05    50.00
                        2SW       232.31    19.43    10.27     0.84     1.67    27.26
                        3PC       255.71    40.00    -3.43     0.91     1.83    30.00
                        3PW       426.16    40.00   -10.28     1.53     3.05    50.00
                        3SC       255.71    40.00     3.43     0.91     1.83    30.00
                        3SW       426.16    40.00    10.28     1.53     3.05    50.00
                        4PC       835.34    60.58    -3.43     2.99     5.97    98.00
                        4PW       426.16    60.58   -10.28     1.53     3.05    50.00
                        4SC       835.34    60.58     3.43     2.99     5.97    98.00
                        4SW       426.16    60.58    10.28     1.53     3.05    50.00
                        5PC       240.01    83.19    -3.43     1.86     3.42    50.00
                        5PW       556.37    80.11   -10.28     2.40     4.52    71.86
                        5SC       236.24    83.19     3.43     1.86     3.42    50.00
                        5SW       548.55    80.09    10.28     2.37     4.47    70.85
                              ========  ========  =======  =======  =======
                              Total     10052.61    46.75     0.00     2.68
                              Buoyancy  10052.60    46.75     0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                    *
*                                      ----------------                          18 June, 2025          *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                  . *
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.68, and Wind Speed = 10 Knots

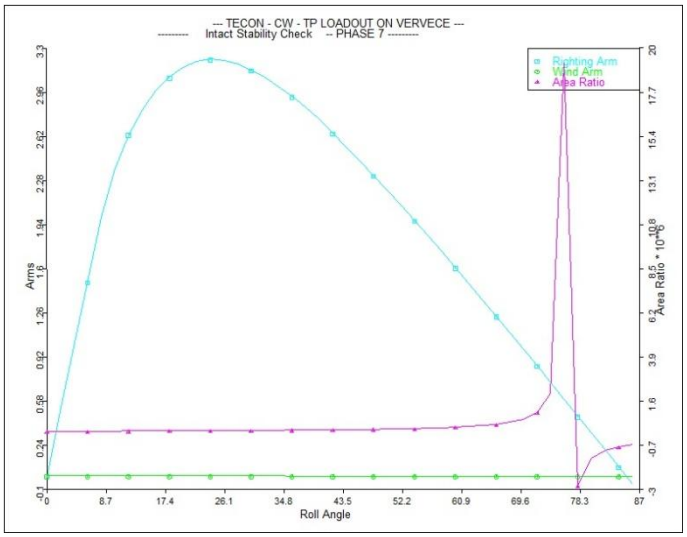
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3107.09	0.497
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6387.78	0.997
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.498
4.25	8.00	0.00	9999.00	0.57	1.99	7.98	0.00	0.00	9999.00	1.995
4.26	10.00	0.00	9999.00	0.07	2.37	12.34	0.00	0.00	9999.00	2.369
4.31	12.00	0.00	9999.00	-0.47	2.63	17.34	0.00	0.00	9999.00	2.633
4.39	14.00	0.00	9999.00	-1.04	2.83	22.80	0.00	0.00	9999.00	2.825
4.49	16.00	0.00	9999.00	-1.63	2.97	28.60	0.00	0.00	9999.00	2.968
4.60	18.00	0.00	9999.00	-2.25	3.08	34.64	0.00	0.00	9999.00	3.075
4.72	20.00	0.00	9999.00	-2.88	3.15	40.87	0.00	0.00	9999.00	3.152
4.85	22.00	0.00	9999.00	-3.51	3.20	47.22	0.00	0.00	9999.00	3.199
4.98	24.00	0.00	9999.00	-4.15	3.21	53.63	0.00	0.00	9999.00	3.214
5.09	26.00	0.00	9999.00	-4.77	3.20	60.05	0.00	0.00	9999.00	3.205
5.20	28.00	0.00	9999.00	-5.40	3.18	66.43	0.00	0.00	9999.00	3.175
5.31	30.00	0.00	9999.00	-6.01	3.13	72.74	0.00	0.00	9999.00	3.131
5.41	32.00	0.00	9999.00	-6.62	3.07	78.94	0.00	0.00	9999.00	3.074
5.50	34.00	0.00	9999.00	-7.22	3.01	85.02	0.00	0.00	9999.00	3.006
5.59	36.00	0.00	9999.00	-7.81	2.93	90.96	-0.00	0.00	9999.00	2.929
5.66	38.00	0.00	9999.00	-8.39	2.84	96.73	-0.00	0.00	9999.00	2.842
5.74	40.00	0.00	9999.00	-8.96	2.75	102.32	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.71	-0.00	0.00	9999.00	2.645
5.86	44.00	0.00	9999.00	-10.07	2.54	112.89	-0.00	0.00	9999.00	2.538
5.91	46.00	0.00	9999.00	-10.61	2.43	117.86	-0.00	0.00	9999.00	2.429
5.95	48.00	0.00	9999.00	-11.13	2.32	122.61	-0.00	0.00	9999.00	2.318
5.99	50.00	0.00	9999.00	-11.64	2.20	127.13	-0.00	0.00	9999.00	2.205
6.02	52.00	0.00	9999.00	-12.14	2.09	131.42	-0.00	0.00	9999.00	2.090
6.04	54.00	0.00	9999.00	-12.62	1.97	135.49	-0.00	0.00	9999.00	1.972
6.05	56.00	0.00	9999.00	-13.09	1.85	139.31	-0.00	0.00	9999.00	1.853
6.06	58.00	0.00	9999.00	-13.54	1.73	142.90	-0.00	0.00	9999.00	1.731
6.06	60.00	0.00	9999.00	-13.97	1.61	146.23	-0.00	0.00	9999.00	1.608
6.05	62.00	0.00	9999.00	-14.38	1.48	149.33	-0.00	0.00	9999.00	1.484
6.03	64.00	0.00	9999.00	-14.78	1.36	152.17	-0.00	0.00	9999.00	1.359
6.01	66.00	0.00	9999.00	-15.16	1.23	154.76	-0.00	0.00	9999.00	1.233
5.98	68.00	0.00	9999.00	-15.53	1.11	157.10	-0.00	0.00	9999.00	1.106
5.94	70.00	0.00	9999.00	-15.87	0.98	159.18	-0.00	0.00	9999.00	0.979
5.90	72.00	0.00	9999.00	-16.19	0.85	161.01	-0.00	0.00	9999.00	0.850
5.85	74.00	0.00	9999.00	-16.50	0.72	162.59	-0.00	0.00	9999.00	0.722
5.79	76.00	0.00	9999.00	-16.78	0.59	163.90	-0.00	0.00	9999.00	0.592
5.72	78.00	0.00	9999.00	-17.05	0.46	164.95	-0.00	-0.00	-9999.00	0.462
5.65	80.00	0.00	9999.00	-17.29	0.33	165.75	-0.00	-0.00	-9999.00	0.332
5.57	82.00	0.00	9999.00	-17.51	0.20	166.28	-0.00	-0.00	-9999.00	0.201
5.48	84.00	0.00	9999.00	-17.71	0.07	166.55	-0.00	-0.00	-9999.00	0.070
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.56	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 7
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ---------------                 18 June, 2025 *
*       --- TECON - CW - TP LOADOUT ON VERVECE ---                             *
*       ------  Longitudinal Strength Analysis - Still Water  -- PHASE 7 ------ *
*                                                                              *
********************************************************************************************************************
```

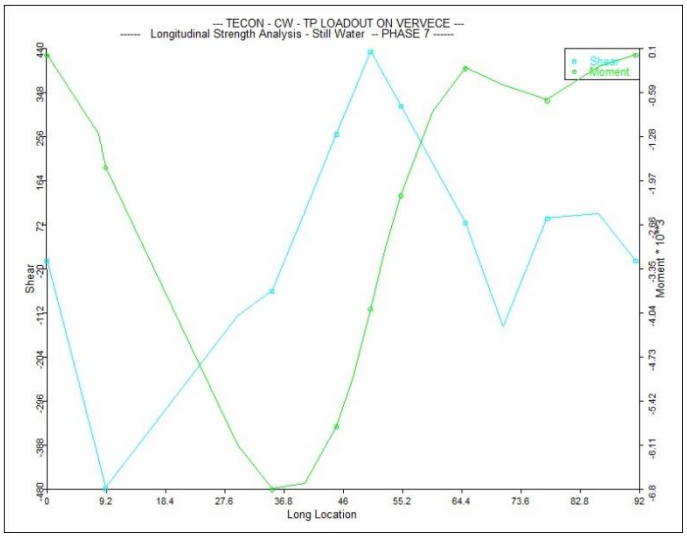
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	5.6097
9.14	-477	-1755	-0.0694	6.3970
29.72	-117	-6116	-0.2417	16.8414
35.00	-65	-6796	-0.2686	17.8826
40.00	98	-6714	-0.2653	18.1066
45.00	262	-5813	-0.2297	17.5981
47.50	343	-5056	-0.1998	17.0967
50.29	434	-3972	-0.1570	16.3735
52.50	381	-3072	-0.1214	15.7032
55.00	320	-2196	-0.0868	14.8650
60.00	199	-897	-0.0355	13.0262
65.00	77	-206	-0.0082	11.0826
70.87	-140	-476	-0.0189	8.7618
77.72	85	-709	-0.0281	5.9517
85.70	94	-189	-0.0075	2.5161
91.44	-1	0	0.0000	0.0001



```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  -----------------                 18 June, 2025   *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ---------     Intact Stability Check    -- PHASE 8 ---------               *
*                                                                                    *
**************************************************************************************************************
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+++ B U O Y A N C Y A N D W E I G H T F O R V E R V E C E +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Results Are Reported In Body System

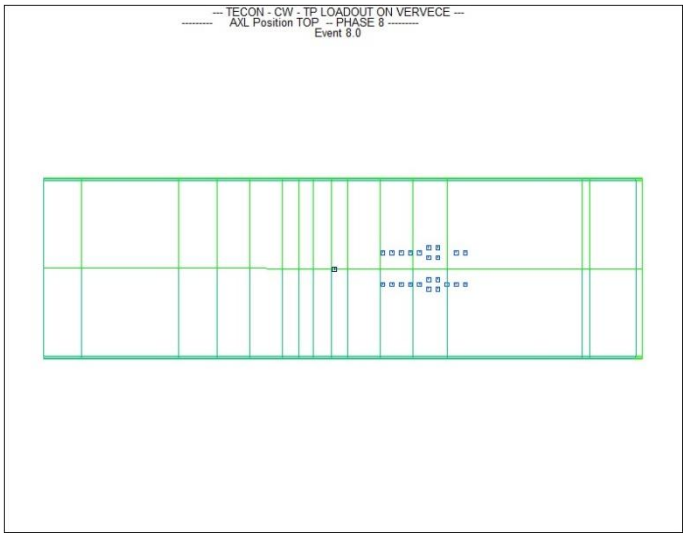
Draft = 4.30 Roll Angle = -0.00 Pitch Angle = -0.00

Wet Radii Of Gyration About CG

K-X = 7.78 K-Y = 25.06 K-Z = 25.82

GMT = 14.23 GML = 159.26

Name	Weight	/-- Center of Gravity ---/ ---X---	---Y---	---Z---	Sounding	% Full
		Part AXL8				
LOAD_GRO	416.90	33.89	0.16	7.10		
		Part CF				
LOAD_GRO	28.00	69.38	11.22	8.10		
		Part GRI&SF-B				
LOAD_GRO	75.00	30.86	-1.14	7.35		
		Part GRI&SF-C				
LOAD_GRO	0.50	67.44	11.22	7.10		
		Part GRI&SF-T				
LOAD_GRO	45.00	65.20	-2.92	7.40		
		Part VERVECE				
LOAD_GRO	1832.80	47.02	0.00	3.52		
		--- Contents ---				
1PC	224.31	5.62	-3.43	3.77	6.02	98.00
1PW	206.33	5.71	-10.28	3.59	5.70	90.00
1SC	224.80	5.62	3.43	3.77	6.02	98.00
1SW	206.33	5.71	10.28	3.59	5.70	90.00
2PC	426.19	19.43	-3.43	1.52	3.05	50.00
2PW	270.47	19.43	-10.27	0.97	1.94	31.73
2SC	426.19	19.43	3.43	1.52	3.05	50.00
2SW	262.73	19.43	10.27	0.94	1.88	30.83
3PC	255.71	40.00	-3.43	0.91	1.83	30.00
3PW	426.16	40.00	-10.28	1.53	3.05	50.00
3SC	255.71	40.00	3.43	0.91	1.83	30.00
3SW	426.16	40.00	10.28	1.53	3.05	50.00
4PC	835.34	60.58	-3.43	2.99	5.97	98.00
4PW	426.16	60.58	-10.28	1.53	3.05	50.00
4SC	835.34	60.58	3.43	2.99	5.97	98.00
4SW	426.16	60.58	10.28	1.53	3.05	50.00
5PC	240.01	83.19	-3.43	1.86	3.42	50.00
5PW	525.95	80.05	-10.28	2.28	4.30	67.93
5SC	236.24	83.19	3.43	1.86	3.42	50.00
5SW	518.13	80.03	10.28	2.25	4.25	66.92
Total	10052.61	46.75	0.00	2.67		
Buoyancy	10052.60	46.75	0.00	2.21		




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 8 ---------                                  *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 18 June, 2025     *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                    *
*        ---------     Intact Stability Check    -- PHASE 8 ---------                 . *
*                                                                                      *
****************************************************************************************************************************
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+++ R I G H T I N G A R M R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.67, and Wind Speed = 10 Knots

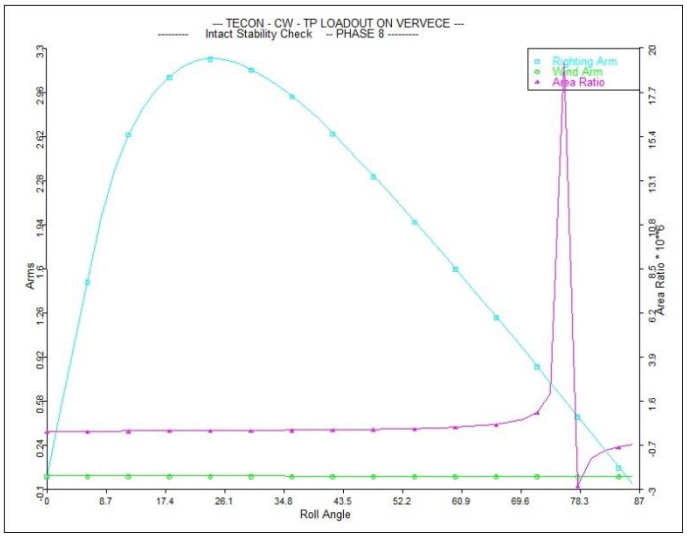
Initial: Roll = -0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3110.51	0.497
4.29	4.00	0.00	9999.00	1.48	1.00	1.99	0.00	0.00	6394.80	0.998
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.500
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.997
4.26	10.00	0.00	9999.00	0.07	2.37	12.36	0.00	0.00	9999.00	2.372
4.31	12.00	0.00	9999.00	-0.47	2.64	17.36	0.00	0.00	9999.00	2.636
4.39	14.00	0.00	9999.00	-1.04	2.83	22.83	0.00	0.00	9999.00	2.829
4.49	16.00	0.00	9999.00	-1.63	2.97	28.63	0.00	0.00	9999.00	2.972
4.60	18.00	0.00	9999.00	-2.25	3.08	34.68	0.00	0.00	9999.00	3.080
4.72	20.00	0.00	9999.00	-2.88	3.16	40.92	0.00	0.00	9999.00	3.158
4.85	22.00	0.00	9999.00	-3.51	3.21	47.28	0.00	0.00	9999.00	3.205
4.98	24.00	0.00	9999.00	-4.15	3.22	53.71	0.00	0.00	9999.00	3.221
5.09	26.00	0.00	9999.00	-4.77	3.21	60.14	0.00	0.00	9999.00	3.211
5.20	28.00	0.00	9999.00	-5.40	3.18	66.53	0.00	0.00	9999.00	3.182
5.31	30.00	0.00	9999.00	-6.01	3.14	72.85	0.00	0.00	9999.00	3.136
5.41	32.00	0.00	9999.00	-6.62	3.08	79.07	0.00	0.00	9999.00	3.078
5.50	34.00	0.00	9999.00	-7.22	3.01	85.15	0.00	0.00	9999.00	3.009
5.59	36.00	0.00	9999.00	-7.81	2.93	91.09	-0.00	0.00	9999.00	2.931
5.66	38.00	0.00	9999.00	-8.39	2.84	96.87	-0.00	0.00	9999.00	2.843
5.74	40.00	0.00	9999.00	-8.96	2.75	102.46	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.85	-0.00	0.00	9999.00	2.644
5.86	44.00	0.00	9999.00	-10.07	2.54	113.03	-0.00	0.00	9999.00	2.536
5.91	46.00	0.00	9999.00	-10.61	2.43	117.99	-0.00	0.00	9999.00	2.426
5.95	48.00	0.00	9999.00	-11.13	2.31	122.73	-0.00	0.00	9999.00	2.314
5.99	50.00	0.00	9999.00	-11.64	2.20	127.24	-0.00	0.00	9999.00	2.200
6.02	52.00	0.00	9999.00	-12.14	2.08	131.53	-0.00	0.00	9999.00	2.084
6.04	54.00	0.00	9999.00	-12.62	1.97	135.58	-0.00	0.00	9999.00	1.966
6.05	56.00	0.00	9999.00	-13.09	1.85	139.39	-0.00	0.00	9999.00	1.845
6.06	58.00	0.00	9999.00	-13.54	1.72	142.96	-0.00	0.00	9999.00	1.723
6.06	60.00	0.00	9999.00	-13.97	1.60	146.28	-0.00	0.00	9999.00	1.601
6.05	62.00	0.00	9999.00	-14.38	1.48	149.36	-0.00	0.00	9999.00	1.477
6.03	64.00	0.00	9999.00	-14.78	1.35	152.19	-0.00	0.00	9999.00	1.353
6.01	66.00	0.00	9999.00	-15.16	1.23	154.77	-0.00	0.00	9999.00	1.227
5.98	68.00	0.00	9999.00	-15.53	1.10	157.10	-0.00	0.00	9999.00	1.101
5.94	70.00	0.00	9999.00	-15.87	0.97	159.17	-0.00	0.00	9999.00	0.974
5.90	72.00	0.00	9999.00	-16.19	0.85	160.99	-0.00	0.00	9999.00	0.846
5.85	74.00	0.00	9999.00	-16.50	0.72	162.55	-0.00	0.00	9999.00	0.718
5.79	76.00	0.00	9999.00	-16.78	0.59	163.86	-0.00	0.00	9999.00	0.589
5.72	78.00	0.00	9999.00	-17.05	0.46	164.91	-0.00	-0.00	-9999.00	0.460
5.65	80.00	0.00	9999.00	-17.29	0.33	165.70	-0.00	-0.00	-9999.00	0.330
5.57	82.00	0.00	9999.00	-17.51	0.20	166.23	-0.00	-0.00	-9999.00	0.200
5.48	84.00	0.00	9999.00	-17.71	0.07	166.50	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.51	-0.00	-0.00	-9999.00	-0.062

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                    ******************************************************
*                                  ***  MOSES   ***                                                  *
*                                  ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 8 ------                 *
*                                                                                                   *
*************************************************************************************************************
```

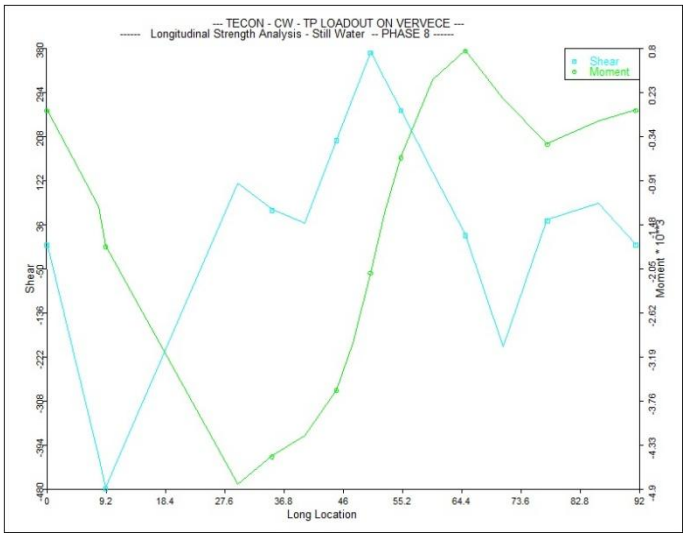
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 8: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	4.2871
9.14	-477	-1755	-0.0694	4.8853
29.72	117	-4832	-0.1910	11.9390
35.00	65	-4471	-0.1767	12.2955
40.00	38	-4212	-0.1665	12.1252
45.00	201	-3615	-0.1429	11.4935
47.50	282	-3010	-0.1190	11.0233
50.29	373	-2095	-0.0828	10.4016
52.50	320	-1330	-0.0526	9.8572
55.00	260	-606	-0.0240	9.2070
60.00	138	389	0.0154	7.8710
65.00	16	775	0.0306	6.5723
70.87	-201	148	0.0059	5.1434
77.72	45	-431	-0.0171	3.4938
85.70	77	-141	-0.0056	1.4800
91.44	-1	0	0.0000	0.0001


--- TECON - CW - TP LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 8 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 9 ---------                               *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                 Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                     Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

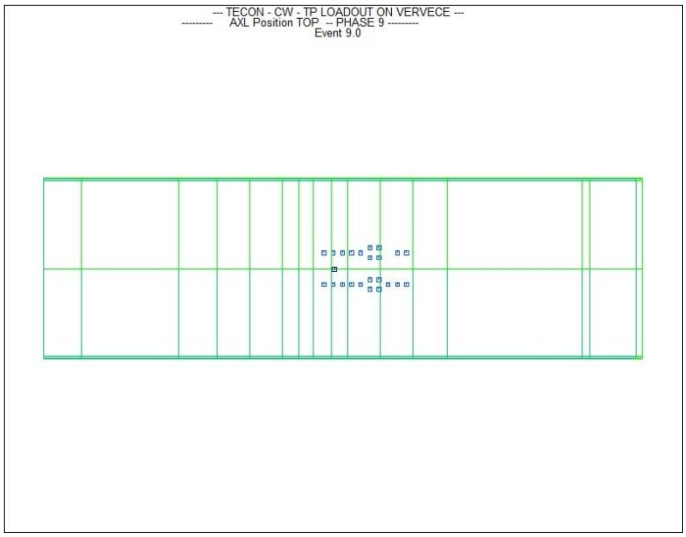
                                 Wet Radii Of Gyration About CG

                           K-X =     7.78 K-Y =    24.88 K-Z =    25.65

                                    GMT =    14.24 GML =   159.20

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL9       ------------
                           LOAD_GRO    416.90    42.89     0.16     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      300.34    19.43   -10.28     1.08     2.15    35.24
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      292.59    19.43    10.28     1.05     2.10    34.33
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      496.08    79.98   -10.28     2.17     4.09    64.07
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      488.27    79.96    10.28     2.14     4.03    63.07
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.66
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 9 ---------                                  *
*                                                                                                         *
***********************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
-------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 9 ---------                                 . *
*                                                                                                       *
*************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.66, and Wind Speed = 10 Knots

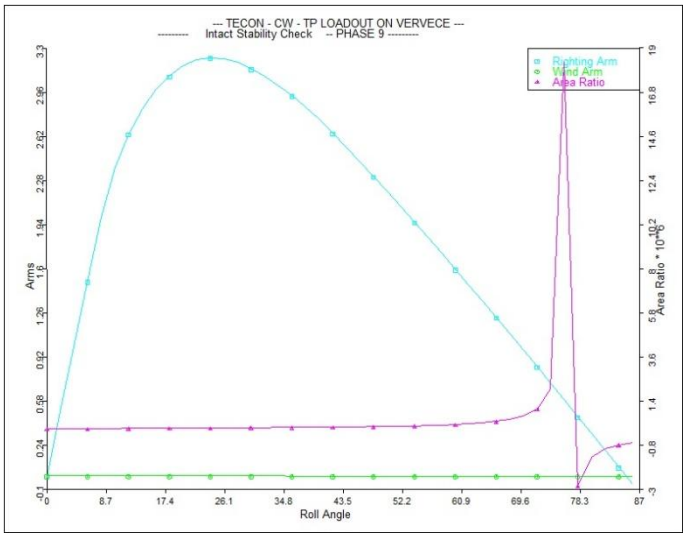
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3113.11	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	1.99	0.00	0.00	6400.17	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.49	0.00	0.00	9999.00	1.501
4.25	8.00	0.00	9999.00	0.57	2.00	7.99	0.00	0.00	9999.00	1.999
4.26	10.00	0.00	9999.00	0.08	2.37	12.37	0.00	0.00	9999.00	2.374
4.31	12.00	0.00	9999.00	-0.46	2.64	17.38	0.00	0.00	9999.00	2.639
4.39	14.00	0.00	9999.00	-1.04	2.83	22.85	0.00	0.00	9999.00	2.832
4.48	16.00	0.00	9999.00	-1.63	2.98	28.66	0.00	0.00	9999.00	2.976
4.60	18.00	0.00	9999.00	-2.25	3.08	34.72	0.00	0.00	9999.00	3.084
4.72	20.00	0.00	9999.00	-2.88	3.16	40.97	0.00	0.00	9999.00	3.162
4.85	22.00	0.00	9999.00	-3.51	3.21	47.34	0.00	0.00	9999.00	3.210
4.97	24.00	0.00	9999.00	-4.14	3.23	53.77	0.00	0.00	9999.00	3.226
5.09	26.00	0.00	9999.00	-4.77	3.22	60.22	0.00	0.00	9999.00	3.217
5.20	28.00	0.00	9999.00	-5.39	3.19	66.62	0.00	0.00	9999.00	3.188
5.31	30.00	0.00	9999.00	-6.01	3.14	72.95	0.00	0.00	9999.00	3.142
5.41	32.00	0.00	9999.00	-6.62	3.08	79.18	0.00	0.00	9999.00	3.083
5.50	34.00	0.00	9999.00	-7.22	3.01	85.27	0.00	0.00	9999.00	3.013
5.58	36.00	0.00	9999.00	-7.81	2.93	91.22	-0.00	0.00	9999.00	2.933
5.66	38.00	0.00	9999.00	-8.39	2.84	97.00	-0.00	0.00	9999.00	2.845
5.73	40.00	0.00	9999.00	-8.96	2.75	102.59	-0.00	0.00	9999.00	2.747
5.80	42.00	0.00	9999.00	-9.52	2.64	107.98	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.16	-0.00	0.00	9999.00	2.534
5.91	46.00	0.00	9999.00	-10.61	2.42	118.12	-0.00	0.00	9999.00	2.423
5.95	48.00	0.00	9999.00	-11.13	2.31	122.85	-0.00	0.00	9999.00	2.310
5.99	50.00	0.00	9999.00	-11.64	2.19	127.35	-0.00	0.00	9999.00	2.195
6.02	52.00	0.00	9999.00	-12.14	2.08	131.63	-0.00	0.00	9999.00	2.078
6.04	54.00	0.00	9999.00	-12.62	1.96	135.66	-0.00	0.00	9999.00	1.959
6.05	56.00	0.00	9999.00	-13.08	1.84	139.46	-0.00	0.00	9999.00	1.839
6.06	58.00	0.00	9999.00	-13.53	1.72	143.02	-0.00	0.00	9999.00	1.717
6.06	60.00	0.00	9999.00	-13.97	1.59	146.33	-0.00	0.00	9999.00	1.595
6.05	62.00	0.00	9999.00	-14.38	1.47	149.39	-0.00	0.00	9999.00	1.472
6.03	64.00	0.00	9999.00	-14.78	1.35	152.21	-0.00	0.00	9999.00	1.348
6.01	66.00	0.00	9999.00	-15.16	1.22	154.78	-0.00	0.00	9999.00	1.223
5.98	68.00	0.00	9999.00	-15.53	1.10	157.10	-0.00	0.00	9999.00	1.097
5.94	70.00	0.00	9999.00	-15.87	0.97	159.17	-0.00	0.00	9999.00	0.970
5.90	72.00	0.00	9999.00	-16.19	0.84	160.98	-0.00	0.00	9999.00	0.843
5.85	74.00	0.00	9999.00	-16.50	0.72	162.54	-0.00	0.00	9999.00	0.715
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.587
5.72	78.00	0.00	9999.00	-17.05	0.46	164.89	-0.00	-0.00	-9999.00	0.458
5.65	80.00	0.00	9999.00	-17.29	0.33	165.68	-0.00	-0.00	-9999.00	0.329
5.57	82.00	0.00	9999.00	-17.51	0.20	166.20	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.47	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.48	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 9 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES    ***                                  *
*                                  ----------------                    18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 9 ------   *
*                                                                                     *
***************************************************************************************************************

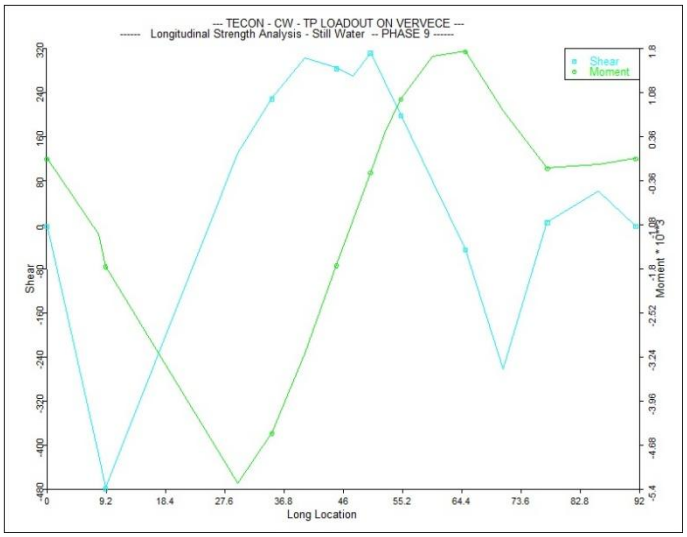
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7201
9.14	-477	-1757	-0.0695	4.2372
29.72	130	-5314	-0.2100	9.7319
35.00	230	-4476	-0.1769	9.5916
40.00	301	-3183	-0.1258	8.9549
45.00	284	-1739	-0.0688	7.9685
47.50	269	-1022	-0.0404	7.3935
50.29	312	-224	-0.0089	6.7190
52.50	259	406	0.0160	6.1786
55.00	199	978	0.0387	5.5776
60.00	78	1670	0.0660	4.4675
65.00	-43	1753	0.0693	3.5356
70.87	-261	771	0.0305	2.6723
77.72	5	-154	-0.0061	1.8009
85.70	60	-92	-0.0037	0.7641
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 10 ---------                             *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

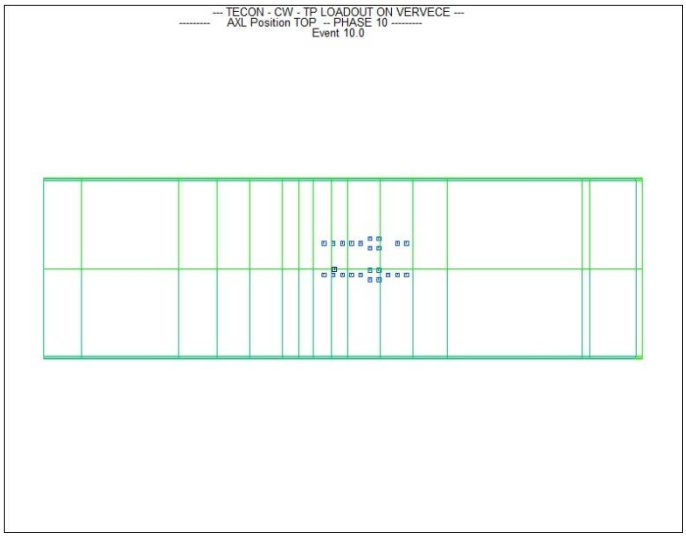
                                 Wet Radii Of Gyration About CG

                           K-X =     7.79 K-Y =    24.88 K-Z =    25.65

                                    GMT =    14.24 GML =   159.19

                           /-- Center of Gravity ---/  Sounding   % Full
                     Name   Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL10      ------------
                           LOAD_GRO    416.90    42.89    -1.24     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                     1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                     1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                     1SC         224.80     5.62     3.43     3.77     6.02    98.00
                     1SW         206.33     5.71    10.28     3.59     5.70    90.00
                     2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                     2PW         286.07    19.43   -10.27     1.03     2.05    33.56
                     2SC         426.19    19.43     3.43     1.52     3.05    50.00
                     2SW         306.88    19.43    10.28     1.10     2.20    36.00
                     3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                     3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                     3SC         255.71    40.01     3.43     0.91     1.83    30.00
                     3SW         426.16    40.01    10.28     1.53     3.05    50.00
                     4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                     4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                     4SC         835.34    60.58     3.43     2.99     5.97    98.00
                     4SW         426.16    60.58    10.28     1.53     3.05    50.00
                     5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                     5PW         481.79    79.94   -10.28     2.11     3.99    62.23
                     5SC         236.24    83.19     3.43     1.86     3.42    50.00
                     5SW         502.54    79.99    10.28     2.19     4.14    64.91
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.66
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 10 ---------                                .*
*                                                                                                        *
**********************************************************************************************************

                              +++ R I G H T I N G   A R M   R E S U L T S +++
                              ==============================================

                    Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                    Moment Scaled By 10052.61, KG = 2.66, and Wind Speed = 10 Knots

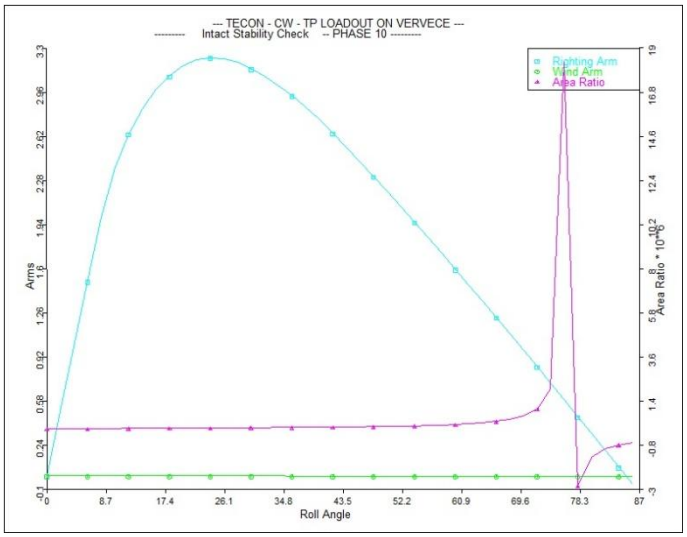
                              Initial: Roll = 0.00, Trim = 0.00 Deg.

                              Critical NWT Down Flooding Point Is *BOWPTWT

                              Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/   /-- Min. Height --/   /--- Righting ---/    /--- Heeling ---/    Area        Net
 Draft    Roll    Trim      W Tight  NW Tight        Arm      Area        Arm      Area     Ratio       Arm

  4.30    0.00    0.00     9999.00      2.40       0.00      0.00       0.00      0.00      0.00    -0.000
  4.30    2.00    0.00     9999.00      1.94       0.50      0.50       0.00      0.00   3113.75     0.498
  4.29    4.00    0.00     9999.00      1.49       1.00      1.99       0.00      0.00   6400.79     0.999
  4.27    6.00    0.00     9999.00      1.03       1.50      4.49       0.00      0.00   9999.00     1.501
  4.25    8.00    0.00     9999.00      0.57       2.00      7.99       0.00      0.00   9999.00     1.999
  4.26   10.00    0.00     9999.00      0.08       2.37     12.37       0.00      0.00   9999.00     2.374
  4.31   12.00    0.00     9999.00     -0.46       2.64     17.38       0.00      0.00   9999.00     2.639
  4.39   14.00    0.00     9999.00     -1.04       2.83     22.85       0.00      0.00   9999.00     2.832
  4.48   16.00    0.00     9999.00     -1.63       2.98     28.66       0.00      0.00   9999.00     2.976
  4.60   18.00    0.00     9999.00     -2.25       3.08     34.72       0.00      0.00   9999.00     3.084
  4.72   20.00    0.00     9999.00     -2.88       3.16     40.97       0.00      0.00   9999.00     3.162
  4.85   22.00    0.00     9999.00     -3.51       3.21     47.34       0.00      0.00   9999.00     3.210
  4.97   24.00    0.00     9999.00     -4.14       3.23     53.77       0.00      0.00   9999.00     3.226
  5.09   26.00    0.00     9999.00     -4.77       3.22     60.22       0.00      0.00   9999.00     3.217
  5.20   28.00    0.00     9999.00     -5.39       3.19     66.62       0.00      0.00   9999.00     3.188
  5.31   30.00    0.00     9999.00     -6.01       3.14     72.95       0.00      0.00   9999.00     3.142
  5.41   32.00    0.00     9999.00     -6.62       3.08     79.18       0.00      0.00   9999.00     3.083
  5.50   34.00    0.00     9999.00     -7.22       3.01     85.27       0.00      0.00   9999.00     3.013
  5.58   36.00    0.00     9999.00     -7.81       2.93     91.22      -0.00      0.00   9999.00     2.933
  5.66   38.00    0.00     9999.00     -8.39       2.84     97.00      -0.00      0.00   9999.00     2.845
  5.73   40.00    0.00     9999.00     -8.96       2.75    102.59      -0.00      0.00   9999.00     2.748
  5.80   42.00    0.00     9999.00     -9.52       2.64    107.98      -0.00      0.00   9999.00     2.643
  5.86   44.00    0.00     9999.00    -10.07       2.53    113.16      -0.00      0.00   9999.00     2.534
  5.91   46.00    0.00     9999.00    -10.61       2.42    118.12      -0.00      0.00   9999.00     2.423
  5.95   48.00    0.00     9999.00    -11.13       2.31    122.85      -0.00      0.00   9999.00     2.310
  5.99   50.00    0.00     9999.00    -11.64       2.19    127.35      -0.00      0.00   9999.00     2.195
  6.02   52.00    0.00     9999.00    -12.14       2.08    131.63      -0.00      0.00   9999.00     2.078
  6.04   54.00    0.00     9999.00    -12.62       1.96    135.66      -0.00      0.00   9999.00     1.959
  6.05   56.00    0.00     9999.00    -13.08       1.84    139.46      -0.00      0.00   9999.00     1.839
  6.06   58.00    0.00     9999.00    -13.53       1.72    143.02      -0.00      0.00   9999.00     1.717
  6.06   60.00    0.00     9999.00    -13.97       1.59    146.33      -0.00      0.00   9999.00     1.595
  6.05   62.00    0.00     9999.00    -14.38       1.47    149.40      -0.00      0.00   9999.00     1.472
  6.03   64.00    0.00     9999.00    -14.78       1.35    152.22      -0.00      0.00   9999.00     1.348
  6.01   66.00    0.00     9999.00    -15.16       1.22    154.79      -0.00      0.00   9999.00     1.223
  5.98   68.00    0.00     9999.00    -15.53       1.10    157.11      -0.00      0.00   9999.00     1.097
  5.94   70.00    0.00     9999.00    -15.87       0.97    159.17      -0.00      0.00   9999.00     0.970
  5.90   72.00    0.00     9999.00    -16.19       0.84    160.99      -0.00      0.00   9999.00     0.843
  5.85   74.00    0.00     9999.00    -16.50       0.72    162.55      -0.00      0.00   9999.00     0.715
  5.79   76.00    0.00     9999.00    -16.78       0.59    163.85      -0.00      0.00   9999.00     0.587
  5.72   78.00    0.00     9999.00    -17.05       0.46    164.89      -0.00     -0.00  -9999.00     0.458
  5.65   80.00    0.00     9999.00    -17.29       0.33    165.68      -0.00     -0.00  -9999.00     0.329
  5.57   82.00    0.00     9999.00    -17.51       0.20    166.21      -0.00     -0.00  -9999.00     0.199
  5.48   84.00    0.00     9999.00    -17.71       0.07    166.47      -0.00     -0.00  -9999.00     0.069
  5.39   86.00    0.00     9999.00    -17.89      -0.06    166.48      -0.00     -0.00  -9999.00    -0.062
```


--- TECON - CW - TP LOADOUT ON VERVECE ---
--------- Intact Stability Check -- PHASE 10 ---------
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10**6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 10 ------ *
*                                                                              *
********************************************************************************************************************

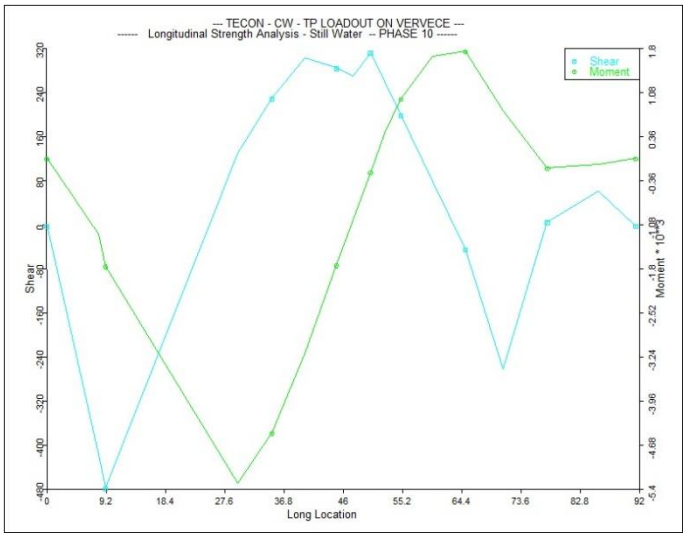
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7200
9.14	-477	-1757	-0.0695	4.2370
29.72	130	-5314	-0.2100	9.7315
35.00	230	-4476	-0.1769	9.5912
40.00	301	-3183	-0.1258	8.9545
45.00	284	-1739	-0.0687	7.9681
47.50	269	-1022	-0.0404	7.3932
50.29	312	-224	-0.0089	6.7187
52.50	259	406	0.0160	6.1783
55.00	199	978	0.0387	5.5774
60.00	78	1670	0.0660	4.4673
65.00	-43	1753	0.0693	3.5355
70.87	-261	771	0.0305	2.6722
77.72	5	-154	-0.0061	1.8008
85.70	60	-92	-0.0037	0.7641
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 11 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

                              Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =    -0.00

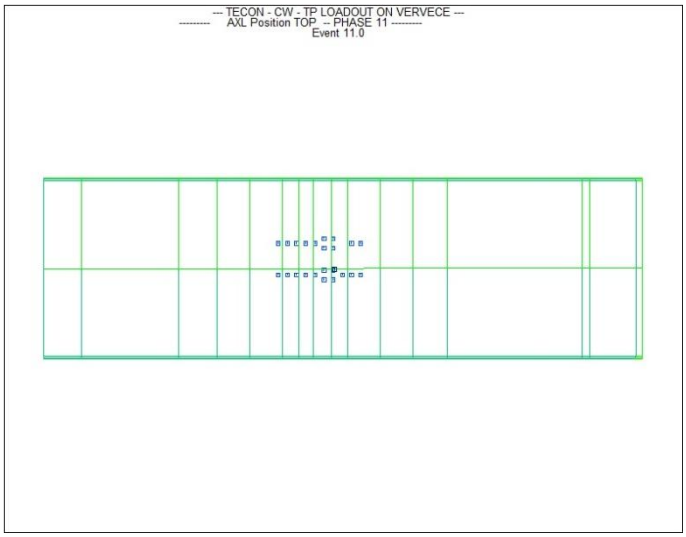
                                 Wet Radii Of Gyration About CG

                           K-X =     7.79 K-Y =    24.83 K-Z =    25.60

                                    GMT =    14.25 GML =   159.16

                           /-- Center of Gravity ---/  Sounding   % Full
                  Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                          ----------------  Part AXL11      ------------
                          LOAD_GRO    416.90    49.89    -1.24     7.10
                          ----------------  Part CF         ------------
                          LOAD_GRO     28.00    69.38    11.22     8.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part GRI&SF-C   ------------
                          LOAD_GRO      0.50    67.44    11.22     7.10
                          ----------------  Part GRI&SF-T   ------------
                          LOAD_GRO     45.00    65.20    -2.92     7.40
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                    1PC       224.31     5.62    -3.43     3.77     6.02    98.00
                    1PW       206.33     5.71   -10.28     3.59     5.70    90.00
                    1SC       224.80     5.62     3.43     3.77     6.02    98.00
                    1SW       206.33     5.71    10.28     3.59     5.70    90.00
                    2PC       426.19    19.43    -3.43     1.52     3.05    50.00
                    2PW       310.23    19.43   -10.28     1.11     2.22    36.40
                    2SC       426.19    19.43     3.43     1.52     3.05    50.00
                    2SW       330.92    19.43    10.28     1.19     2.37    38.83
                    3PC       255.71    40.00    -3.43     0.91     1.83    30.00
                    3PW       426.16    40.00   -10.28     1.53     3.05    50.00
                    3SC       255.71    40.00     3.43     0.91     1.83    30.00
                    3SW       426.16    40.00    10.28     1.53     3.05    50.00
                    4PC       835.34    60.58    -3.43     2.99     5.97    98.00
                    4PW       426.16    60.58   -10.28     1.53     3.05    50.00
                    4SC       835.34    60.58     3.43     2.99     5.97    98.00
                    4SW       426.16    60.58    10.28     1.53     3.05    50.00
                    5PC       240.01    83.19    -3.43     1.86     3.42    50.00
                    5PW       457.65    79.88   -10.28     2.02     3.81    59.11
                    5SC       236.24    83.19     3.43     1.86     3.42    50.00
                    5SW       478.47    79.94    10.28     2.10     3.96    61.80
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     2.65
                          Buoyancy  10052.60    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 11 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 11 ---------                                 .*
*                                                                                                         *
***********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.65, and Wind Speed = 10 Knots

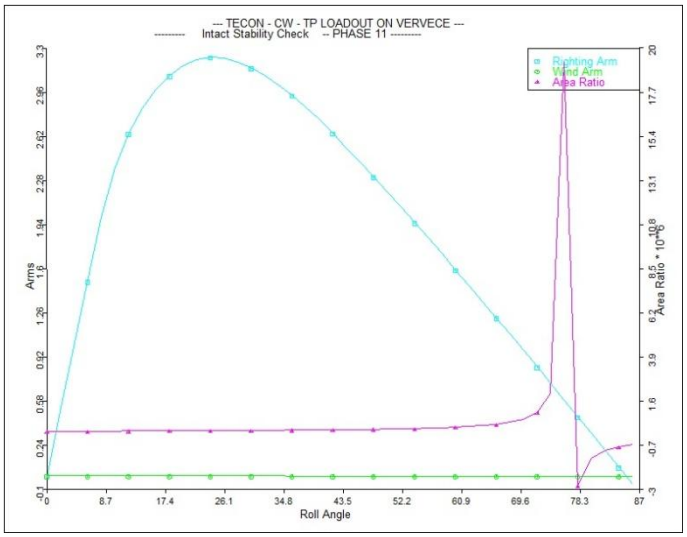
Initial: Roll = 0.00, Trim = -0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.39	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3115.10	0.498
4.29	4.00	0.00	9999.00	1.48	1.00	2.00	0.00	0.00	6404.21	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.502
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.000
4.26	10.00	0.00	9999.00	0.07	2.38	12.37	0.00	0.00	9999.00	2.376
4.31	12.00	0.00	9999.00	-0.47	2.64	17.39	0.00	0.00	9999.00	2.640
4.39	14.00	0.00	9999.00	-1.04	2.83	22.87	0.00	0.00	9999.00	2.834
4.49	16.00	0.00	9999.00	-1.63	2.98	28.68	0.00	0.00	9999.00	2.978
4.60	18.00	0.00	9999.00	-2.25	3.09	34.74	0.00	0.00	9999.00	3.087
4.72	20.00	0.00	9999.00	-2.88	3.17	41.00	0.00	0.00	9999.00	3.165
4.85	22.00	0.00	9999.00	-3.51	3.21	47.37	0.00	0.00	9999.00	3.213
4.98	24.00	0.00	9999.00	-4.15	3.23	53.82	0.00	0.00	9999.00	3.230
5.09	26.00	0.00	9999.00	-4.77	3.22	60.27	0.00	0.00	9999.00	3.221
5.20	28.00	0.00	9999.00	-5.40	3.19	66.68	0.00	0.00	9999.00	3.192
5.31	30.00	0.00	9999.00	-6.01	3.15	73.02	0.00	0.00	9999.00	3.147
5.41	32.00	0.00	9999.00	-6.62	3.09	79.25	0.00	0.00	9999.00	3.088
5.50	34.00	0.00	9999.00	-7.22	3.02	85.36	0.00	0.00	9999.00	3.017
5.59	36.00	0.00	9999.00	-7.81	2.94	91.31	-0.00	0.00	9999.00	2.936
5.66	38.00	0.00	9999.00	-8.39	2.85	97.09	-0.00	0.00	9999.00	2.846
5.74	40.00	0.00	9999.00	-8.96	2.75	102.69	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.64	108.08	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.26	-0.00	0.00	9999.00	2.533
5.91	46.00	0.00	9999.00	-10.61	2.42	118.21	-0.00	0.00	9999.00	2.421
5.95	48.00	0.00	9999.00	-11.13	2.31	122.94	-0.00	0.00	9999.00	2.307
5.99	50.00	0.00	9999.00	-11.64	2.19	127.43	-0.00	0.00	9999.00	2.191
6.02	52.00	0.00	9999.00	-12.14	2.07	131.70	-0.00	0.00	9999.00	2.073
6.04	54.00	0.00	9999.00	-12.62	1.95	135.73	-0.00	0.00	9999.00	1.955
6.05	56.00	0.00	9999.00	-13.09	1.83	139.52	-0.00	0.00	9999.00	1.835
6.06	58.00	0.00	9999.00	-13.54	1.71	143.06	-0.00	0.00	9999.00	1.713
6.06	60.00	0.00	9999.00	-13.97	1.59	146.37	-0.00	0.00	9999.00	1.591
6.05	62.00	0.00	9999.00	-14.38	1.47	149.43	-0.00	0.00	9999.00	1.469
6.03	64.00	0.00	9999.00	-14.78	1.34	152.24	-0.00	0.00	9999.00	1.345
6.01	66.00	0.00	9999.00	-15.16	1.22	154.81	-0.00	0.00	9999.00	1.220
5.98	68.00	0.00	9999.00	-15.53	1.09	157.12	-0.00	0.00	9999.00	1.095
5.94	70.00	0.00	9999.00	-15.87	0.97	159.18	-0.00	0.00	9999.00	0.968
5.90	72.00	0.00	9999.00	-16.19	0.84	160.99	-0.00	0.00	9999.00	0.841
5.85	74.00	0.00	9999.00	-16.50	0.71	162.55	-0.00	0.00	9999.00	0.714
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.586
5.72	78.00	0.00	9999.00	-17.05	0.46	164.89	-0.00	-0.00	-9999.00	0.457
5.65	80.00	0.00	9999.00	-17.29	0.33	165.67	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.20	-0.00	-0.00	-9999.00	0.198
5.48	84.00	0.00	9999.00	-17.71	0.07	166.47	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.47	-0.00	-0.00	-9999.00	-0.062

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 11 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  18 June, 2025  *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                 *
*         ------   Longitudinal Strength Analysis - Still Water  -- PHASE 11 ------ *
*                                                                                    *
**************************************************************************************************************

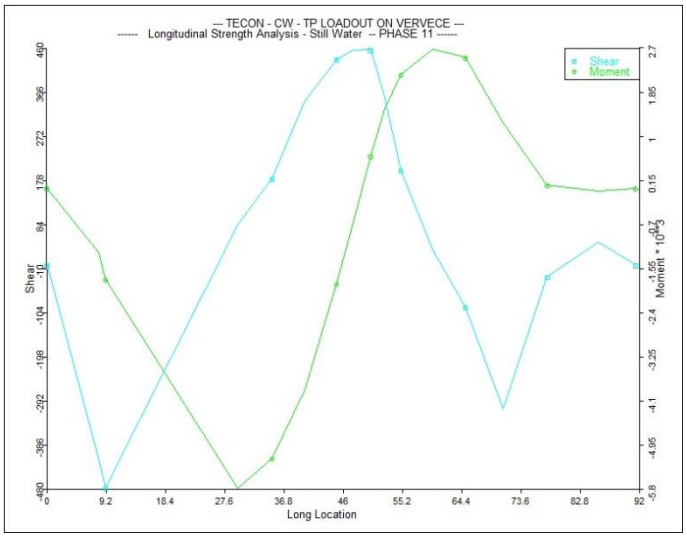
                    +++ L O N G I T U D I N A L   S T R E N G T H   R E S U L T S +++
                    ================================================================

                  Process is 11: Units Are Degrees, Meters, and M-Tons Unless Specified

                                    Allowable Stress =     155.00 Mpa

                                  Allowable Deflection =       1.00 MM
```

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-416	-1245	-0.0492	3.7131
9.14	-477	-1755	-0.0694	4.2291
29.72	83	-5796	-0.2291	9.6338
35.00	182	-5209	-0.2059	9.3783
40.00	347	-3886	-0.1536	8.5523
45.00	436	-1841	-0.0728	7.3051
47.50	456	-693	-0.0274	6.5909
50.29	456	622	0.0246	5.7721
52.50	356	1519	0.0600	5.1373
55.00	199	2190	0.0865	4.4581
60.00	30	2674	0.1057	3.2880
65.00	-91	2521	0.0996	2.4069
70.87	-309	1260	0.0498	1.7092
77.72	-26	62	0.0024	1.1232
85.70	47	-54	-0.0022	0.4747
91.44	-1	0	-0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 12 ---------                              *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

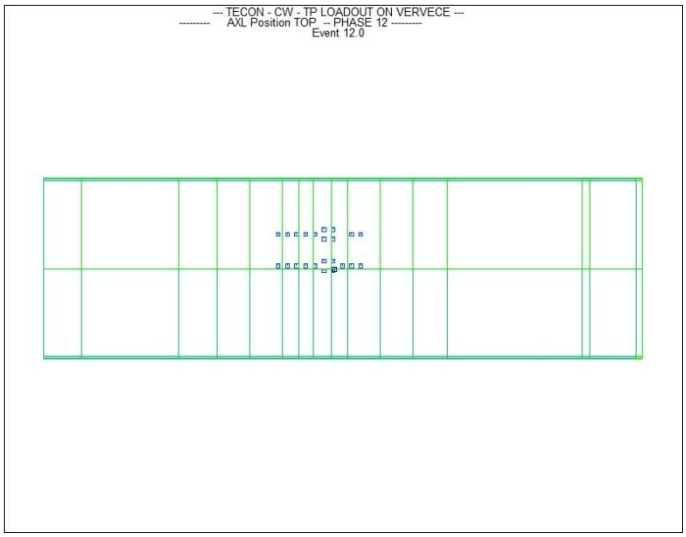
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    24.83 K-Z =    25.61

                                    GMT =    14.25 GML =   159.14

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL12      ------------
                           LOAD_GRO    416.90    49.89    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      295.50    19.43   -10.28     1.06     2.12    34.67
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      344.73    19.43    10.28     1.24     2.47    40.45
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      443.83    79.84   -10.28     1.96     3.71    57.33
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      493.22    79.97    10.28     2.15     4.07    63.71
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75     0.00     2.65
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 12 ---------                              *
*                                                                                                      *
********************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                          18 June, 2025        *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 12 ---------                                .*
*                                                                                                        *
**********************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.65, and Wind Speed = 10 Knots

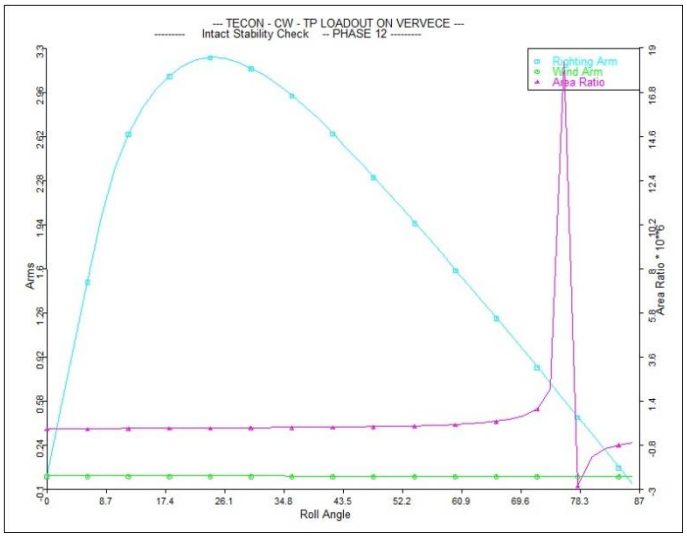
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3115.38	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6404.17	0.999
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.502
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.000
4.26	10.00	0.00	9999.00	0.08	2.38	12.37	0.00	0.00	9999.00	2.376
4.31	12.00	0.00	9999.00	-0.46	2.64	17.39	0.00	0.00	9999.00	2.640
4.39	14.00	0.00	9999.00	-1.04	2.83	22.86	0.00	0.00	9999.00	2.834
4.48	16.00	0.00	9999.00	-1.63	2.98	28.68	0.00	0.00	9999.00	2.978
4.60	18.00	0.00	9999.00	-2.25	3.09	34.74	0.00	0.00	9999.00	3.086
4.72	20.00	0.00	9999.00	-2.88	3.17	40.99	0.00	0.00	9999.00	3.165
4.85	22.00	0.00	9999.00	-3.51	3.21	47.37	0.00	0.00	9999.00	3.213
4.97	24.00	0.00	9999.00	-4.14	3.23	53.81	0.00	0.00	9999.00	3.230
5.09	26.00	0.00	9999.00	-4.77	3.22	60.26	0.00	0.00	9999.00	3.221
5.20	28.00	0.00	9999.00	-5.39	3.19	66.68	0.00	0.00	9999.00	3.192
5.31	30.00	0.00	9999.00	-6.01	3.15	73.01	0.00	0.00	9999.00	3.146
5.41	32.00	0.00	9999.00	-6.62	3.09	79.25	0.00	0.00	9999.00	3.087
5.50	34.00	0.00	9999.00	-7.22	3.02	85.35	0.00	0.00	9999.00	3.017
5.58	36.00	0.00	9999.00	-7.81	2.94	91.31	-0.00	0.00	9999.00	2.936
5.66	38.00	0.00	9999.00	-8.39	2.85	97.09	-0.00	0.00	9999.00	2.847
5.73	40.00	0.00	9999.00	-8.96	2.75	102.68	-0.00	0.00	9999.00	2.748
5.80	42.00	0.00	9999.00	-9.52	2.64	108.07	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.25	-0.00	0.00	9999.00	2.533
5.91	46.00	0.00	9999.00	-10.61	2.42	118.20	-0.00	0.00	9999.00	2.421
5.95	48.00	0.00	9999.00	-11.13	2.31	122.93	-0.00	0.00	9999.00	2.307
5.99	50.00	0.00	9999.00	-11.64	2.19	127.43	-0.00	0.00	9999.00	2.191
6.02	52.00	0.00	9999.00	-12.14	2.07	131.69	-0.00	0.00	9999.00	2.074
6.04	54.00	0.00	9999.00	-12.62	1.96	135.72	-0.00	0.00	9999.00	1.955
6.05	56.00	0.00	9999.00	-13.08	1.84	139.51	-0.00	0.00	9999.00	1.835
6.06	58.00	0.00	9999.00	-13.53	1.71	143.06	-0.00	0.00	9999.00	1.714
6.06	60.00	0.00	9999.00	-13.97	1.59	146.37	-0.00	0.00	9999.00	1.592
6.05	62.00	0.00	9999.00	-14.38	1.47	149.43	-0.00	0.00	9999.00	1.469
6.03	64.00	0.00	9999.00	-14.78	1.35	152.24	-0.00	0.00	9999.00	1.345
6.01	66.00	0.00	9999.00	-15.16	1.22	154.81	-0.00	0.00	9999.00	1.220
5.98	68.00	0.00	9999.00	-15.53	1.09	157.12	-0.00	0.00	9999.00	1.095
5.94	70.00	0.00	9999.00	-15.87	0.97	159.19	-0.00	0.00	9999.00	0.969
5.90	72.00	0.00	9999.00	-16.19	0.84	161.00	-0.00	0.00	9999.00	0.842
5.85	74.00	0.00	9999.00	-16.50	0.71	162.55	-0.00	0.00	9999.00	0.714
5.79	76.00	0.00	9999.00	-16.78	0.59	163.85	-0.00	0.00	9999.00	0.586
5.72	78.00	0.00	9999.00	-17.05	0.46	164.90	-0.00	-0.00	-9999.00	0.457
5.65	80.00	0.00	9999.00	-17.29	0.33	165.68	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.21	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.48	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.48	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 12 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*******************************************************
*                                *** MOSES ***                                *
*                                ----------------          18 June, 2025      *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                            *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 12 ------ *
*                                                                              *
********************************************************************************************************************
```

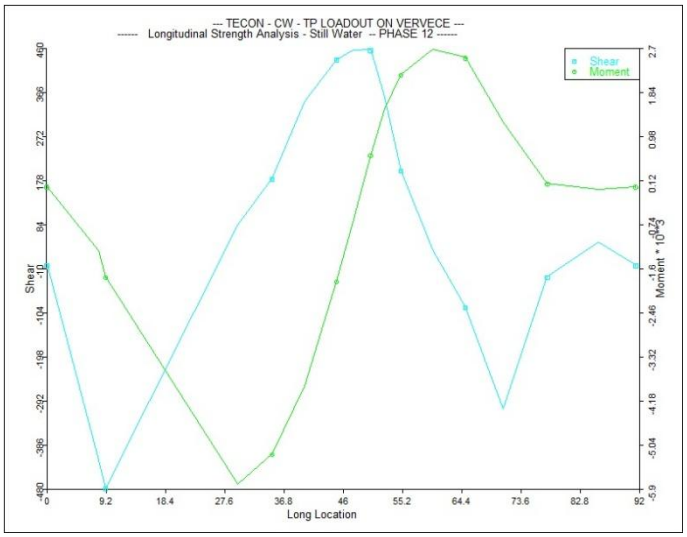
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 12: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	3.7180
9.14	-477	-1757	-0.0695	4.2347
29.72	83	-5800	-0.2292	9.6483
35.00	182	-5213	-0.2060	9.3939
40.00	347	-3890	-0.1538	8.5685
45.00	436	-1844	-0.0729	7.3214
47.50	456	-697	-0.0276	6.6071
50.29	456	618	0.0244	5.7882
52.50	356	1515	0.0599	5.1530
55.00	199	2186	0.0864	4.4732
60.00	30	2670	0.1055	3.3021
65.00	-91	2517	0.0995	2.4195
70.87	-309	1258	0.0497	1.7192
77.72	-26	61	0.0024	1.1300
85.70	47	-54	-0.0022	0.4776
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 13 ---------                              *
*                                                                                                     *
*******************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

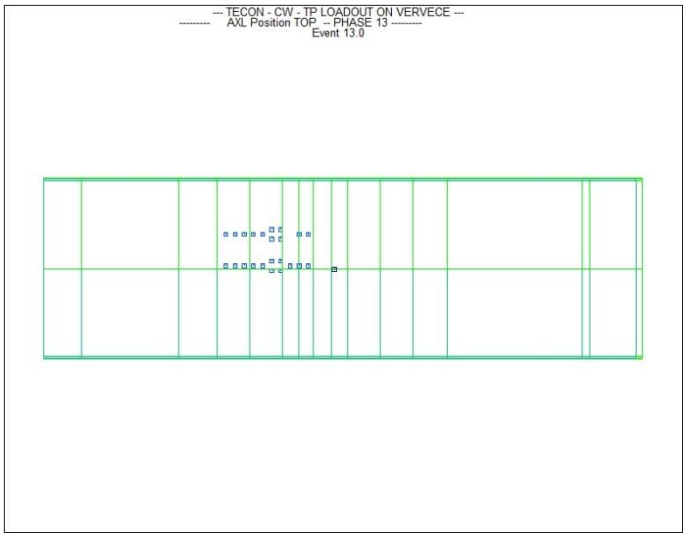
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    24.87 K-Z =    25.65

                                    GMT =    14.25 GML =   159.12

                           /-- Center of Gravity ---/  Sounding   % Full
                    Name    Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL13      ------------
                           LOAD_GRO    416.90    57.89    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                       --- Contents ---
                      1PC      224.31     5.62    -3.43     3.77     6.02    98.00
                      1PW      206.33     5.71   -10.28     3.59     5.70    90.00
                      1SC      224.80     5.62     3.43     3.77     6.02    98.00
                      1SW      206.33     5.71    10.28     3.59     5.70    90.00
                      2PC      426.19    19.43    -3.43     1.52     3.05    50.00
                      2PW      322.54    19.43   -10.28     1.16     2.31    37.84
                      2SC      426.19    19.43     3.43     1.52     3.05    50.00
                      2SW      371.71    19.43    10.28     1.33     2.66    43.61
                      3PC      255.71    40.01    -3.43     0.91     1.83    30.00
                      3PW      426.16    40.01   -10.28     1.53     3.05    50.00
                      3SC      255.71    40.01     3.43     0.91     1.83    30.00
                      3SW      426.16    40.01    10.28     1.53     3.05    50.00
                      4PC      835.34    60.58    -3.43     2.99     5.97    98.00
                      4PW      426.16    60.58   -10.28     1.53     3.05    50.00
                      4SC      835.34    60.58     3.43     2.99     5.97    98.00
                      4SW      426.16    60.58    10.28     1.53     3.05    50.00
                      5PC      240.01    83.19    -3.43     1.86     3.42    50.00
                      5PW      416.81    79.76   -10.28     1.85     3.52    53.84
                      5SC      236.24    83.19     3.43     1.86     3.42    50.00
                      5SW      466.22    79.90    10.28     2.05     3.87    60.22
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.64
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                      18 June, 2025              *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 13 ---------                             *
*                                                                                                     *
*******************************************************************************************************

                          +++ D R A F T   M A R K   R E A D I N G S +++
                          ============================================

                Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

  Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
                    ******************************************************
*                                       ***  MOSES   ***                                                  *
*                                       ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                     *
*          ---------     Intact Stability Check    -- PHASE 13 ---------                                 .*
*                                                                                                        *
**********************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.64, and Wind Speed = 10 Knots

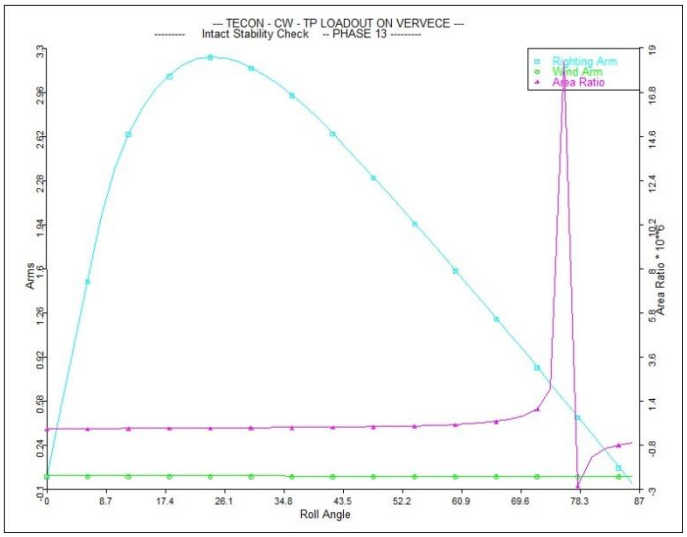
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3116.47	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6407.07	1.000
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.503
4.25	8.00	0.00	9999.00	0.57	2.00	8.00	0.00	0.00	9999.00	2.001
4.26	10.00	0.00	9999.00	0.08	2.38	12.38	0.00	0.00	9999.00	2.377
4.31	12.00	0.00	9999.00	-0.46	2.64	17.40	0.00	0.00	9999.00	2.642
4.39	14.00	0.00	9999.00	-1.04	2.84	22.88	0.00	0.00	9999.00	2.836
4.48	16.00	0.00	9999.00	-1.63	2.98	28.69	0.00	0.00	9999.00	2.980
4.60	18.00	0.00	9999.00	-2.25	3.09	34.76	0.00	0.00	9999.00	3.089
4.72	20.00	0.00	9999.00	-2.88	3.17	41.02	0.00	0.00	9999.00	3.168
4.85	22.00	0.00	9999.00	-3.51	3.22	47.40	0.00	0.00	9999.00	3.216
4.97	24.00	0.00	9999.00	-4.14	3.23	53.85	0.00	0.00	9999.00	3.233
5.09	26.00	0.00	9999.00	-4.77	3.22	60.31	0.00	0.00	9999.00	3.224
5.20	28.00	0.00	9999.00	-5.39	3.20	66.73	0.00	0.00	9999.00	3.196
5.31	30.00	0.00	9999.00	-6.01	3.15	73.08	0.00	0.00	9999.00	3.150
5.41	32.00	0.00	9999.00	-6.62	3.09	79.32	0.00	0.00	9999.00	3.092
5.50	34.00	0.00	9999.00	-7.22	3.02	85.43	0.00	0.00	9999.00	3.021
5.58	36.00	0.00	9999.00	-7.81	2.94	91.39	-0.00	0.00	9999.00	2.940
5.66	38.00	0.00	9999.00	-8.39	2.85	97.18	-0.00	0.00	9999.00	2.849
5.73	40.00	0.00	9999.00	-8.96	2.75	102.78	-0.00	0.00	9999.00	2.750
5.80	42.00	0.00	9999.00	-9.52	2.64	108.17	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.35	-0.00	0.00	9999.00	2.532
5.91	46.00	0.00	9999.00	-10.61	2.42	118.30	-0.00	0.00	9999.00	2.418
5.95	48.00	0.00	9999.00	-11.13	2.30	123.02	-0.00	0.00	9999.00	2.304
5.99	50.00	0.00	9999.00	-11.64	2.19	127.51	-0.00	0.00	9999.00	2.188
6.02	52.00	0.00	9999.00	-12.14	2.07	131.77	-0.00	0.00	9999.00	2.070
6.04	54.00	0.00	9999.00	-12.62	1.95	135.79	-0.00	0.00	9999.00	1.952
6.05	56.00	0.00	9999.00	-13.08	1.83	139.57	-0.00	0.00	9999.00	1.832
6.06	58.00	0.00	9999.00	-13.53	1.71	143.11	-0.00	0.00	9999.00	1.711
6.06	60.00	0.00	9999.00	-13.97	1.59	146.41	-0.00	0.00	9999.00	1.589
6.05	62.00	0.00	9999.00	-14.38	1.47	149.47	-0.00	0.00	9999.00	1.466
6.03	64.00	0.00	9999.00	-14.78	1.34	152.28	-0.00	0.00	9999.00	1.343
6.01	66.00	0.00	9999.00	-15.16	1.22	154.84	-0.00	0.00	9999.00	1.218
5.98	68.00	0.00	9999.00	-15.53	1.09	157.15	-0.00	0.00	9999.00	1.093
5.94	70.00	0.00	9999.00	-15.87	0.97	159.21	-0.00	0.00	9999.00	0.967
5.90	72.00	0.00	9999.00	-16.19	0.84	161.02	-0.00	0.00	9999.00	0.840
5.85	74.00	0.00	9999.00	-16.50	0.71	162.57	-0.00	0.00	9999.00	0.713
5.79	76.00	0.00	9999.00	-16.78	0.58	163.87	-0.00	0.00	9999.00	0.585
5.72	78.00	0.00	9999.00	-17.05	0.46	164.91	-0.00	-0.00	-9999.00	0.456
5.65	80.00	0.00	9999.00	-17.29	0.33	165.69	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.22	-0.00	-0.00	-9999.00	0.198
5.48	84.00	0.00	9999.00	-17.71	0.07	166.49	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.50	-0.00	-0.00	-9999.00	-0.061

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 13 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                    18 June, 2025 *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 13 ------  *
*                                                                                    *
**************************************************************************************************************
```

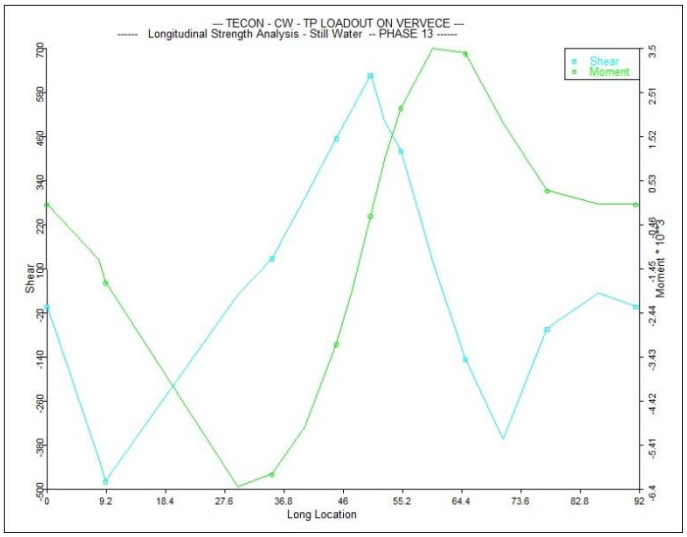
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1246	-0.0493	4.1136
9.14	-477	-1757	-0.0695	4.6869
29.72	29	-6356	-0.2512	11.0315
35.00	128	-6054	-0.2393	10.9094
40.00	292	-5002	-0.1977	10.1145
45.00	456	-3131	-0.1238	8.7755
47.50	537	-1890	-0.0747	7.9630
50.29	628	-263	-0.0104	6.9964
52.50	501	1005	0.0397	6.2225
55.00	422	2159	0.0853	5.3729
60.00	120	3495	0.1381	3.8737
65.00	-145	3390	0.1339	2.7464
70.87	-363	1813	0.0716	1.8771
77.72	-62	308	0.0122	1.1947
85.70	32	-11	-0.0005	0.4981
91.44	-1	0	0.0000	0.0001



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          18 June, 2025        *
*         --- TECON - CW - TP LOADOUT ON VERVECE ---                                                  *
*         ---------     Intact Stability Check    -- PHASE 14 ---------                              *
*                                                                                                     *
*******************************************************************************************************************

                +++ B U O Y A N C Y   A N D   W E I G H T   F O R   V E R V E C E +++
                ======================================================================

                Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Results Are Reported In Body System

                    Draft =     4.30 Roll Angle =     0.00 Pitch Angle =     0.00

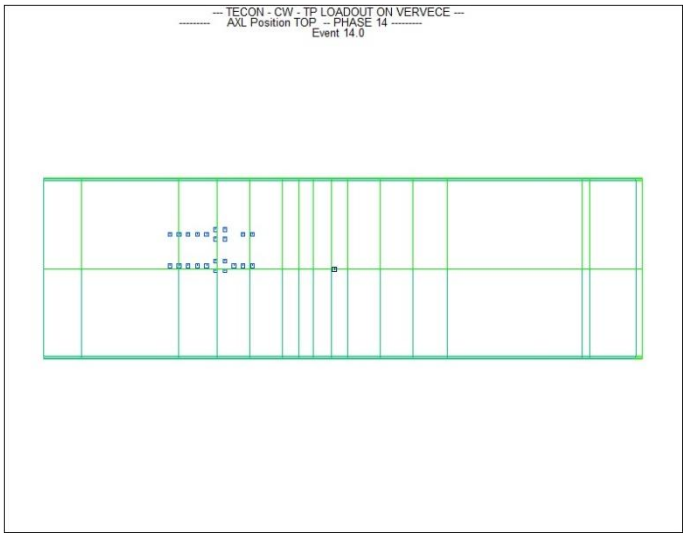
                                Wet Radii Of Gyration About CG

                           K-X =     7.80 K-Y =    25.04 K-Z =    25.82

                                    GMT =    14.26 GML =   159.16

                           /-- Center of Gravity ---/  Sounding   % Full
                  Name      Weight    ---X---  ---Y---  ---Z---  -------- --------

                           ----------------  Part AXL14      ------------
                           LOAD_GRO    416.90    66.46    -2.65     7.10
                           ----------------  Part CF         ------------
                           LOAD_GRO     28.00    69.38    11.22     8.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part GRI&SF-C   ------------
                           LOAD_GRO      0.50    67.44    11.22     7.10
                           ----------------  Part GRI&SF-T   ------------
                           LOAD_GRO     45.00    65.20    -2.92     7.40
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                    1PC         224.31     5.62    -3.43     3.77     6.02    98.00
                    1PW         206.33     5.71   -10.28     3.59     5.70    90.00
                    1SC         224.80     5.62     3.43     3.77     6.02    98.00
                    1SW         206.33     5.71    10.28     3.59     5.70    90.00
                    2PC         426.19    19.43    -3.43     1.52     3.05    50.00
                    2PW         351.48    19.43   -10.28     1.26     2.52    41.24
                    2SC         426.19    19.43     3.43     1.52     3.05    50.00
                    2SW         400.72    19.43    10.28     1.44     2.87    47.02
                    3PC         255.71    40.01    -3.43     0.91     1.83    30.00
                    3PW         426.16    40.01   -10.28     1.53     3.05    50.00
                    3SC         255.71    40.01     3.43     0.91     1.83    30.00
                    3SW         426.16    40.01    10.28     1.53     3.05    50.00
                    4PC         835.34    60.58    -3.43     2.99     5.97    98.00
                    4PW         426.16    60.58   -10.28     1.53     3.05    50.00
                    4SC         835.34    60.58     3.43     2.99     5.97    98.00
                    4SW         426.16    60.58    10.28     1.53     3.05    50.00
                    5PC         240.01    83.19    -3.43     1.86     3.42    50.00
                    5PW         387.87    79.67   -10.28     1.74     3.30    50.10
                    5SC         236.24    83.19     3.43     1.86     3.42    50.00
                    5SW         437.21    79.82    10.28     1.94     3.66    56.47
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.63
                           Buoyancy  10052.61    46.75    -0.00     2.21
```




```
                    ********************************************************
*                                      ***  MOSES   ***                                                  *
*                                      ----------------                    18 June, 2025                *
*          --- TECON - CW - TP LOADOUT ON VERVECE ---                                                    *
*          ---------     Intact Stability Check    -- PHASE 14 ---------                                 *
*                                                                                                        *
**********************************************************************************************************

                              +++ D R A F T   M A R K   R E A D I N G S +++
                              ============================================

                  Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

   Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft    Name     Draft
 -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- -------- --------

 BOWPO        4.30 BOWST        4.30 MIDPO        4.30 MIDST        4.30 STEPO        4.30 STEST        4.30
```

```
*********************************************************
*                                   ***  MOSES   ***                                  *
*                                   ----------------                 18 June, 2025    *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                   *
*        ---------     Intact Stability Check    -- PHASE 14 ---------              .*
*                                                                                     *
***************************************************************************************************************
```

+++ R I G H T I N G A R M R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 2.63, and Wind Speed = 10 Knots

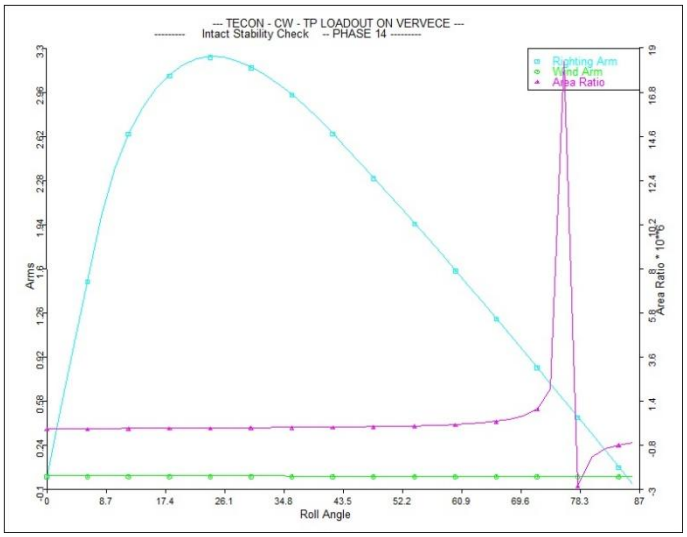
Initial: Roll = 0.00, Trim = 0.00 Deg.

Critical NWT Down Flooding Point Is *BOWPTWT

Arms About Axis Yawed 0.0 Deg From Vessel X

/----- Condition -----/			/-- Min. Height --/		/--- Righting ---/		/--- Heeling ---/		Area	Net
Draft	Roll	Trim	W Tight	NW Tight	Arm	Area	Arm	Area	Ratio	Arm
4.30	0.00	0.00	9999.00	2.40	-0.00	0.00	0.00	0.00	0.00	-0.000
4.30	2.00	0.00	9999.00	1.94	0.50	0.50	0.00	0.00	3117.93	0.498
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6410.08	1.000
4.27	6.00	0.00	9999.00	1.03	1.50	4.50	0.00	0.00	9999.00	1.504
4.25	8.00	0.00	9999.00	0.57	2.00	8.01	0.00	0.00	9999.00	2.002
4.26	10.00	0.00	9999.00	0.08	2.38	12.39	0.00	0.00	9999.00	2.378
4.31	12.00	0.00	9999.00	-0.46	2.64	17.41	0.00	0.00	9999.00	2.643
4.39	14.00	0.00	9999.00	-1.04	2.84	22.89	0.00	0.00	9999.00	2.837
4.48	16.00	0.00	9999.00	-1.63	2.98	28.71	0.00	0.00	9999.00	2.982
4.60	18.00	0.00	9999.00	-2.25	3.09	34.78	0.00	0.00	9999.00	3.091
4.72	20.00	0.00	9999.00	-2.88	3.17	41.04	0.00	0.00	9999.00	3.170
4.85	22.00	0.00	9999.00	-3.51	3.22	47.43	0.00	0.00	9999.00	3.219
4.97	24.00	0.00	9999.00	-4.14	3.24	53.89	0.00	0.00	9999.00	3.236
5.09	26.00	0.00	9999.00	-4.77	3.23	60.35	0.00	0.00	9999.00	3.227
5.20	28.00	0.00	9999.00	-5.39	3.20	66.78	0.00	0.00	9999.00	3.199
5.31	30.00	0.00	9999.00	-6.01	3.15	73.13	0.00	0.00	9999.00	3.154
5.41	32.00	0.00	9999.00	-6.62	3.10	79.38	0.00	0.00	9999.00	3.095
5.50	34.00	0.00	9999.00	-7.22	3.02	85.50	0.00	0.00	9999.00	3.025
5.58	36.00	0.00	9999.00	-7.81	2.94	91.47	-0.00	0.00	9999.00	2.943
5.66	38.00	0.00	9999.00	-8.39	2.85	97.26	-0.00	0.00	9999.00	2.852
5.73	40.00	0.00	9999.00	-8.96	2.75	102.86	-0.00	0.00	9999.00	2.751
5.80	42.00	0.00	9999.00	-9.52	2.64	108.26	-0.00	0.00	9999.00	2.643
5.86	44.00	0.00	9999.00	-10.07	2.53	113.43	-0.00	0.00	9999.00	2.531
5.91	46.00	0.00	9999.00	-10.61	2.42	118.38	-0.00	0.00	9999.00	2.417
5.95	48.00	0.00	9999.00	-11.13	2.30	123.10	-0.00	0.00	9999.00	2.301
5.99	50.00	0.00	9999.00	-11.64	2.19	127.58	-0.00	0.00	9999.00	2.185
6.02	52.00	0.00	9999.00	-12.14	2.07	131.84	-0.00	0.00	9999.00	2.068
6.04	54.00	0.00	9999.00	-12.62	1.95	135.85	-0.00	0.00	9999.00	1.950
6.05	56.00	0.00	9999.00	-13.08	1.83	139.63	-0.00	0.00	9999.00	1.830
6.06	58.00	0.00	9999.00	-13.53	1.71	143.17	-0.00	0.00	9999.00	1.709
6.06	60.00	0.00	9999.00	-13.97	1.59	146.47	-0.00	0.00	9999.00	1.587
6.05	62.00	0.00	9999.00	-14.38	1.46	149.52	-0.00	0.00	9999.00	1.465
6.03	64.00	0.00	9999.00	-14.78	1.34	152.33	-0.00	0.00	9999.00	1.341
6.01	66.00	0.00	9999.00	-15.16	1.22	154.88	-0.00	0.00	9999.00	1.217
5.98	68.00	0.00	9999.00	-15.53	1.09	157.19	-0.00	0.00	9999.00	1.092
5.94	70.00	0.00	9999.00	-15.87	0.97	159.25	-0.00	0.00	9999.00	0.966
5.90	72.00	0.00	9999.00	-16.19	0.84	161.06	-0.00	0.00	9999.00	0.840
5.85	74.00	0.00	9999.00	-16.50	0.71	162.61	-0.00	0.00	9999.00	0.712
5.79	76.00	0.00	9999.00	-16.78	0.58	163.91	-0.00	0.00	9999.00	0.585
5.72	78.00	0.00	9999.00	-17.05	0.46	164.95	-0.00	-0.00	-9999.00	0.456
5.65	80.00	0.00	9999.00	-17.29	0.33	165.73	-0.00	-0.00	-9999.00	0.328
5.57	82.00	0.00	9999.00	-17.51	0.20	166.26	-0.00	-0.00	-9999.00	0.199
5.48	84.00	0.00	9999.00	-17.71	0.07	166.53	-0.00	-0.00	-9999.00	0.069
5.39	86.00	0.00	9999.00	-17.89	-0.06	166.53	-0.00	-0.00	-9999.00	-0.060

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--- TECON - CW - TP LOADOUT ON VERVECE ---
Intact Stability Check -- PHASE 14 ---
Righting Arm
Wind Arm
Area Ratio
Arms
Area Ratio * 10^-6
Roll Angle
0
8.7
17.4
26.1
34.8
43.5
52.2
60.9
69.6
78.3
87

```
*********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  18 June, 2025  *
*        --- TECON - CW - TP LOADOUT ON VERVECE ---                                  *
*        ------   Longitudinal Strength Analysis - Still Water  -- PHASE 14 ------  *
*                                                                                    *
**************************************************************************************************************
```

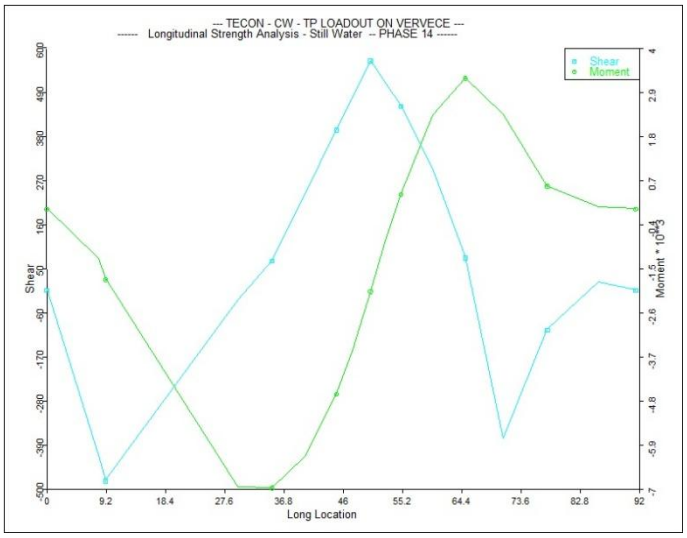
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 14: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-417	-1247	-0.0493	4.9197
9.14	-477	-1757	-0.0695	5.6083
29.72	-28	-6952	-0.2748	13.9332
35.00	70	-6956	-0.2749	14.2052
40.00	235	-6194	-0.2448	13.6816
45.00	398	-4613	-0.1823	12.4825
47.50	479	-3516	-0.1390	11.6808
50.29	570	-2052	-0.0811	10.6730
52.50	517	-852	-0.0337	9.8234
55.00	456	363	0.0144	8.8402
60.00	298	2327	0.0920	6.9327
65.00	78	3265	0.1290	5.2713
70.87	-373	2342	0.0925	3.7576
77.72	-100	569	0.0225	2.4055
85.70	16	34	0.0013	0.9978
91.44	-1	0	0.0000	0.0001



9 BALLASTING SYSTEM CHECKS

9.1 BALLAST TANK CAPACITY

The tanks filling was included in a range from 3% to 98% during all the Load-out and satisfies the requirement of table 4-1, section 4.5.3 of Ref. /2/ for Loadout class 2.

9.2 BALLAST PUMPING CAPACITY

Ballast pumps must be tried (turning on and off the pumps) to ensure perfect functioning of system/item within 24h of the start of load-out.

Pumping capacity of the external pumps consists of 8 pumps, with a rated capacity of min 300 m3/h + 2 x 600 m3/h internal barge pumps.

Load out weight:	417 t
Cross over estimated duration:	1 Hours
Capacity required for the load compensation	420 t/h

Capacity required for tide compensation:

- @max tide speed: 0.16 m/h x (2.52 t/mmx1000mm) = 403 t/h
- Average: 0.80 m x 91.4x27.4 = 2000 t / 6 hours = 334 t/h

a) Normal operation - Load transfer as planned: 130% capacity with intact system and 100% with 1 pump failed.

Capacity with intact system = 2*300 + 2*600 m3/h = 1800 m3/h

Intact system ratio = 1800/(420+403) = 2.18 > 1.3 (OK)

Capacity with 1 pump failed = 2*300 + 1*600 m3/h = 1200 m3/h

Damaged system ratio = 1200/(420+403) = 1.45 > 1.0 (OK)

b) Load transfer stopped: 150% capacity with intact system and 100% capacity with one pump failed.

Capacity with intact system = 4x300 = 1200 m3/h

Intact system ratio = 1200/403 = 3.00 > 1.5 (OK)

Capacity with 1 pump failed = replaced by 1 spare or 1 not used for load transfer being stopped