Base Load Power Hub (BLPH)

APPENDIX N - Ballast Sequence

Document Number: 123A90-DDL-TI-RE-99002

Document Class: 2

00	23/04/2025	Issued for Review (IFR)	A.Balzarotti	F.Ceroni	C.Giunchi
Rev.	Date	Description	Prepared	Reviewed	Approved
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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.

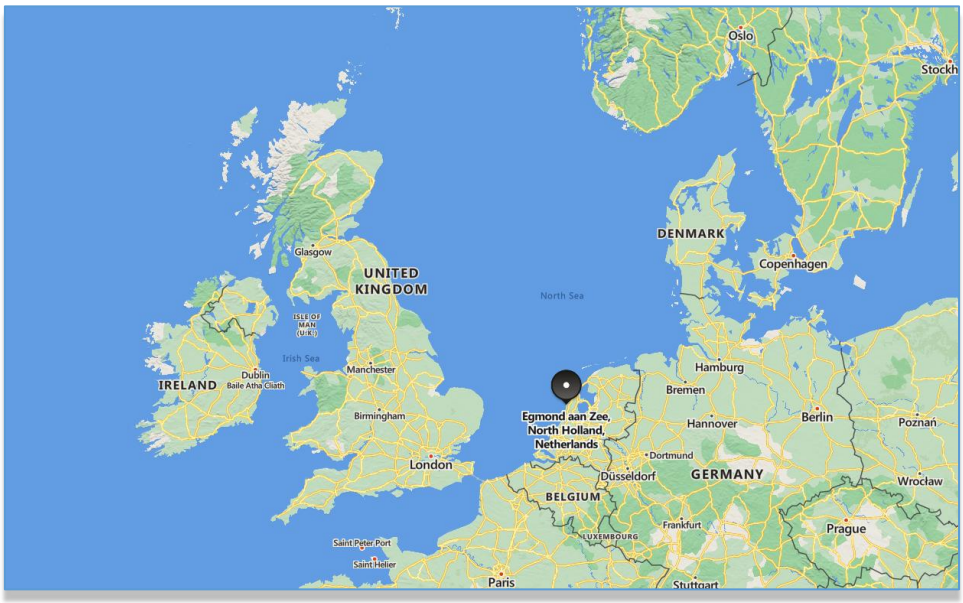


Figure 1.1 HOLLANDSE KUST NOORD WIND PARK Location Map

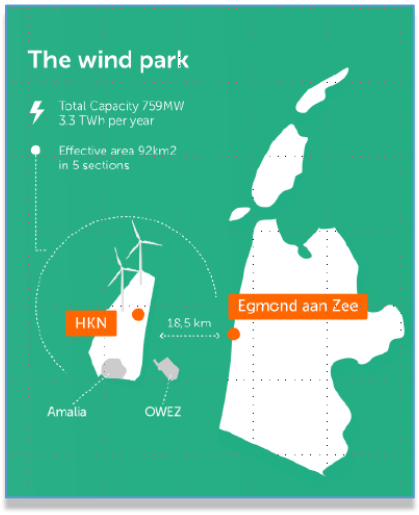


Figure 1.2 - Wind Park Details

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.

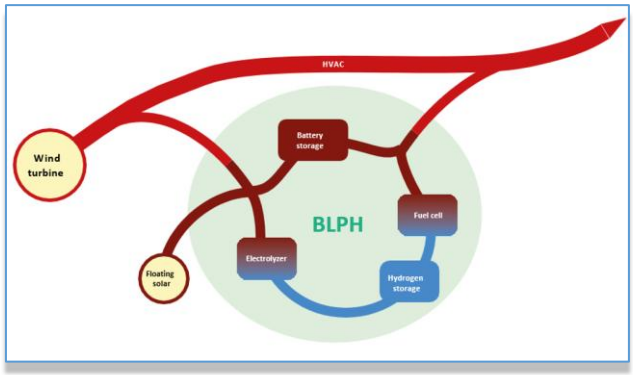


Figure 1.3 – BLPH Concept

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.

2 SCOPE

This report presents the results of the load-out simulation of the BLPH topside 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 in the first week of July 2025; the tide variation shall therefore be -40cm / +40cm.

Normal operation is planned in the rising tide phase. Tide variation shows, for the first week of July, on 1 tide saddle over the 24h. See appendix L.

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./16/.

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-90001	Topside loadout analysis
/10/ 123A90-DDL-TI-RE-99001	Topside Gr&SF report
/11/ 123A90-DDL-TI-DD-99021	Topside – Grillage Assembly
/12/ 123A90-DDL-TI-DD-99023	Topside – Grillage – Plan and Section
/13/ 123A90-DDL-TI-RE-99012	Topside – Yard Checklist
/14/ 123A90-DDL-TI-RE-99013	Topside – internal seafastening report
/15/	Vervece Stability booklet

3.3 SOFTWARE

Doc. No.	Description
/16/ MOSES	Hydrostatic and Hydrodynamic Analysis Software for Offshore Installation and Platform Design– BENTLEY Inc, v.12

4 TRANSPORTATION ARRANGMENT

The BLPH will be supported by spacers installed directly below the lower deck main beams. It is assumed to be located on the barge deck as follows:

- with respect to the barge longitudinal axis an offset of 1142mm.
- Row 1 is located 40580 mm from the barge stern.

The following figure shows the arrangement of the BLPH module on the barge.

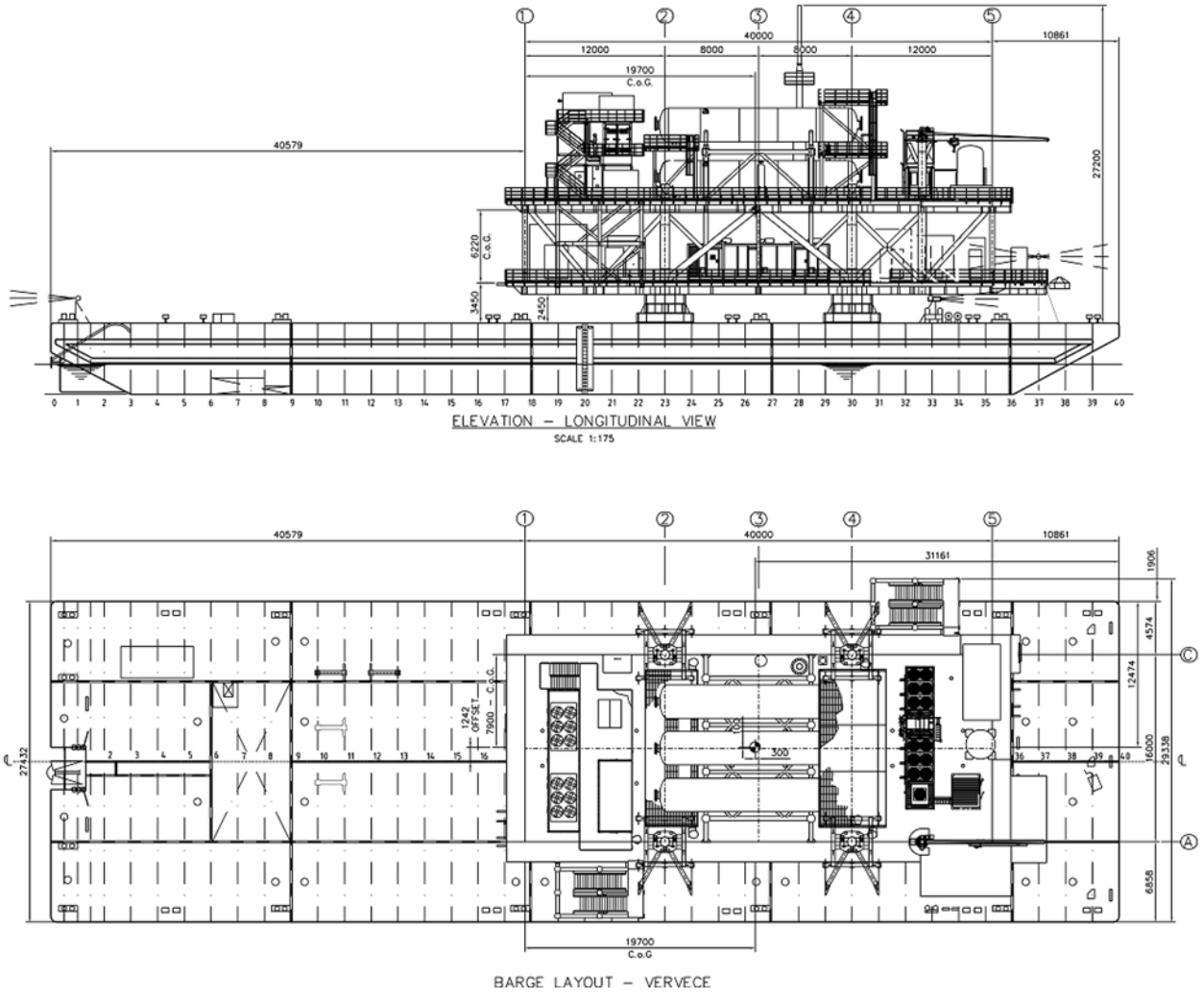


Figure 4.1 – Barge layout

Once the topside is loaded-out onto the barge by means of the hydraulic trailers SPMT, it is lowered and it is supported on 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 deck legs are located at elevation +2.45 m above the barge deck.

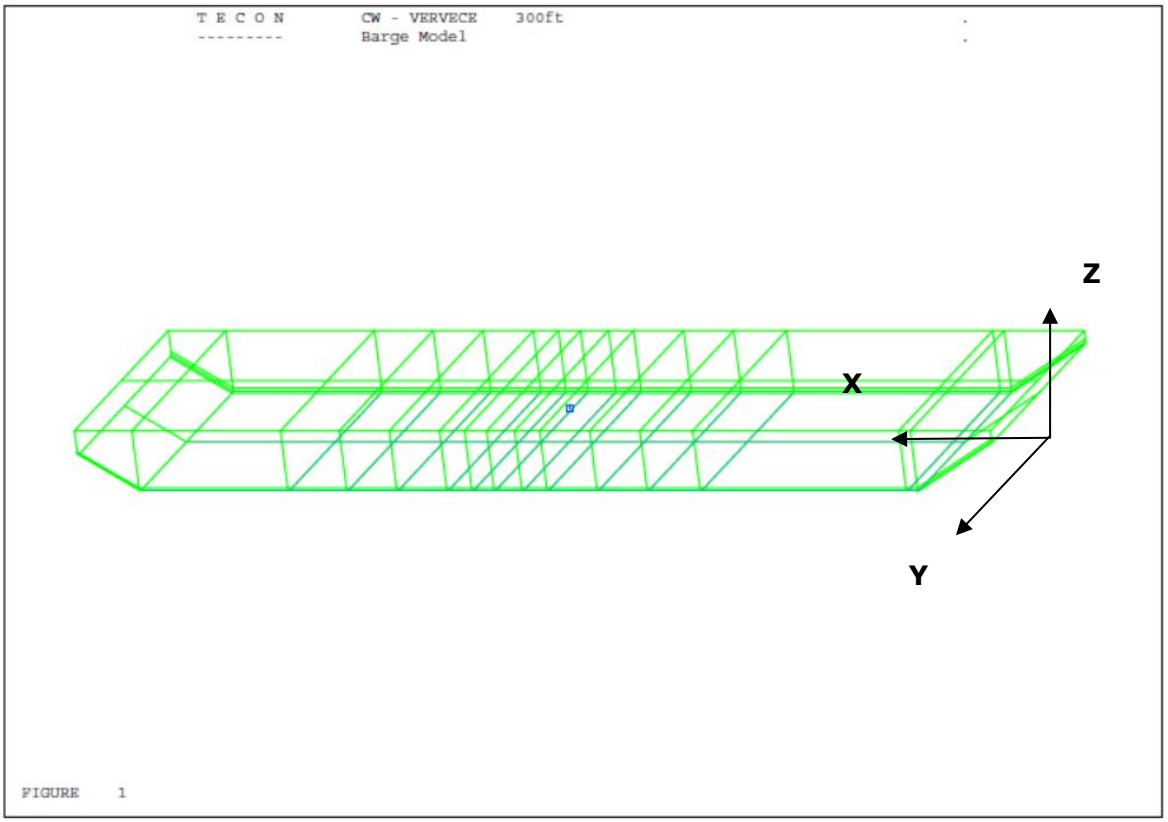
5 CARGO BARGE

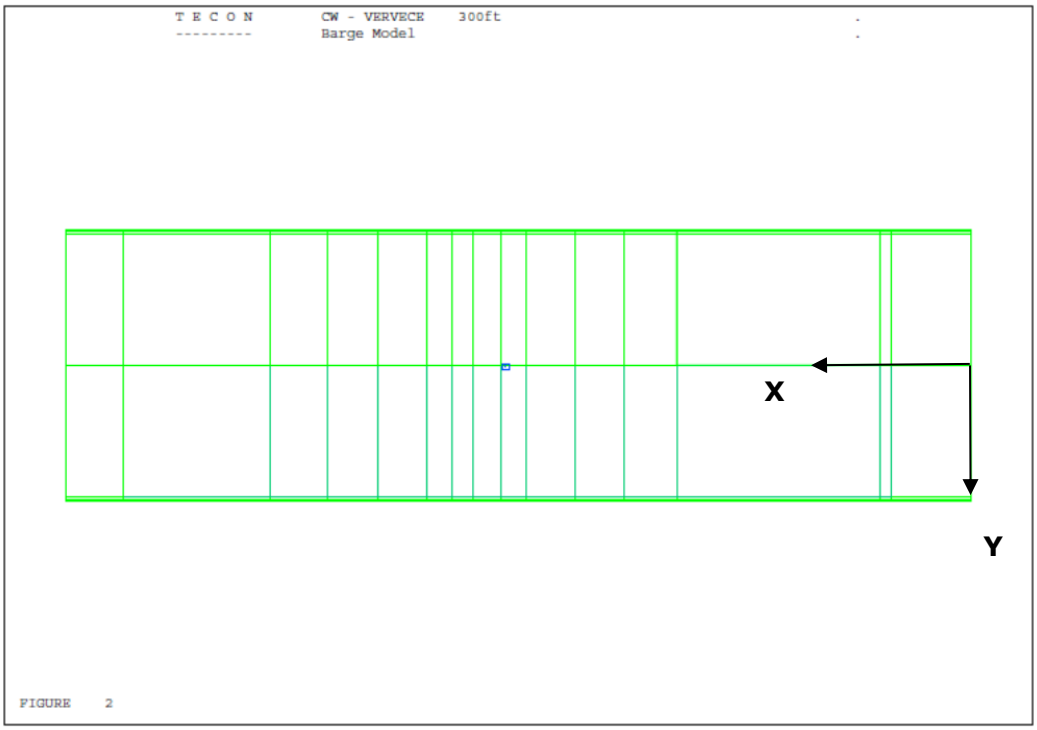
5.1 MOSES MODEL

AMT Carrier 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:





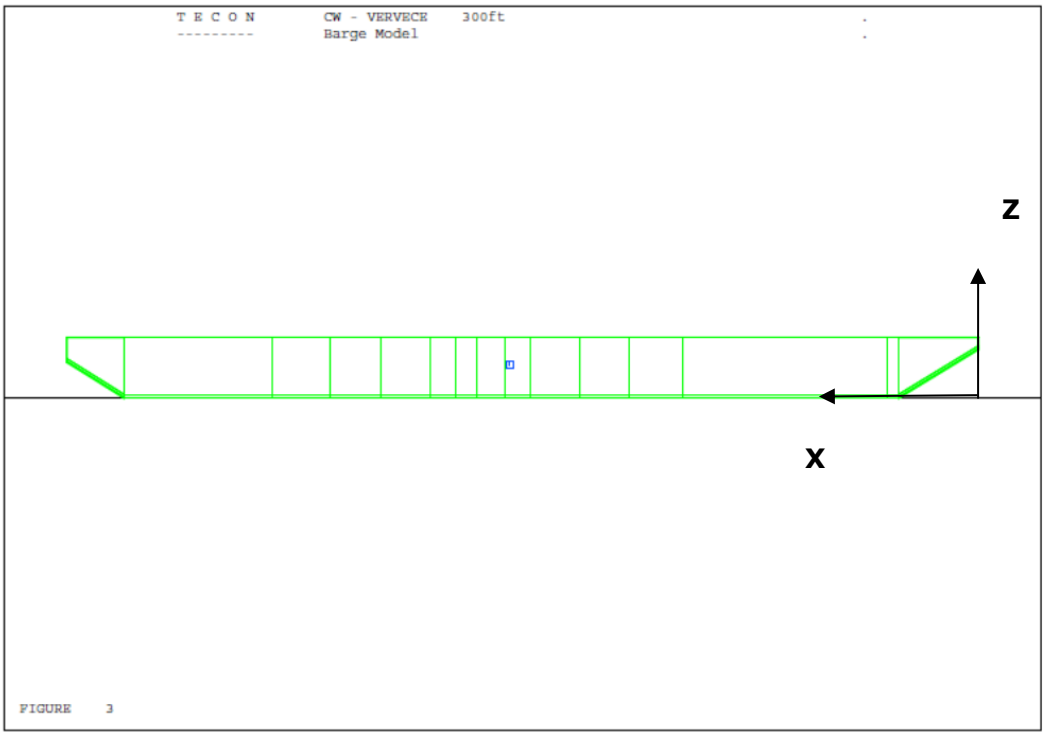


Figure 5.1 – Barge MOSES model and ref. system

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

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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 +++

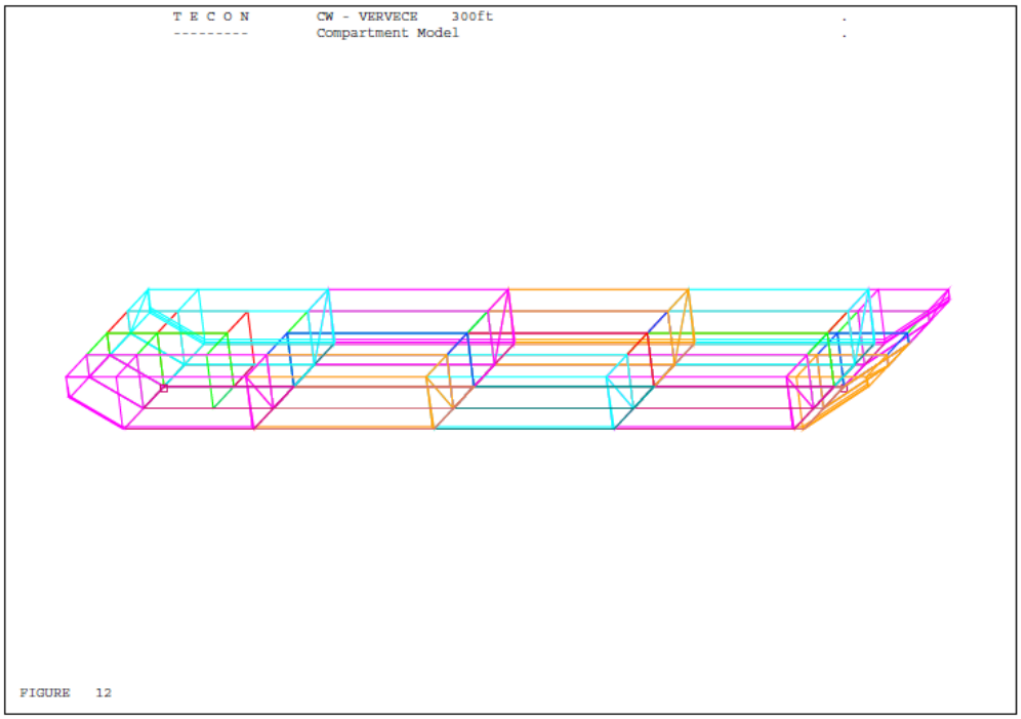
Process = DEFAULT: Units = Degrees, Meters, M-Tons, and MPa Unless Stated

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



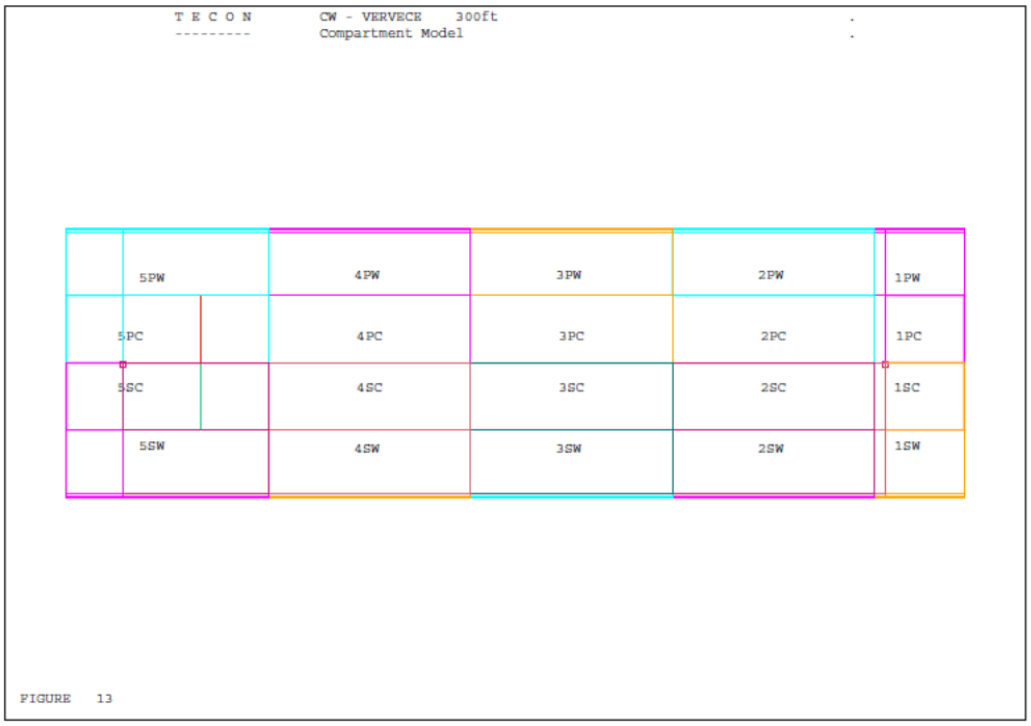


Figure 5.2 – Barge Compartments

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./15/.

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./15/, 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	

6 LOAD-OUT SIMULATION

The load-out was fully simulated using the software MOSES.

The transportation layout of BLPH on H-408 barge is shown below.

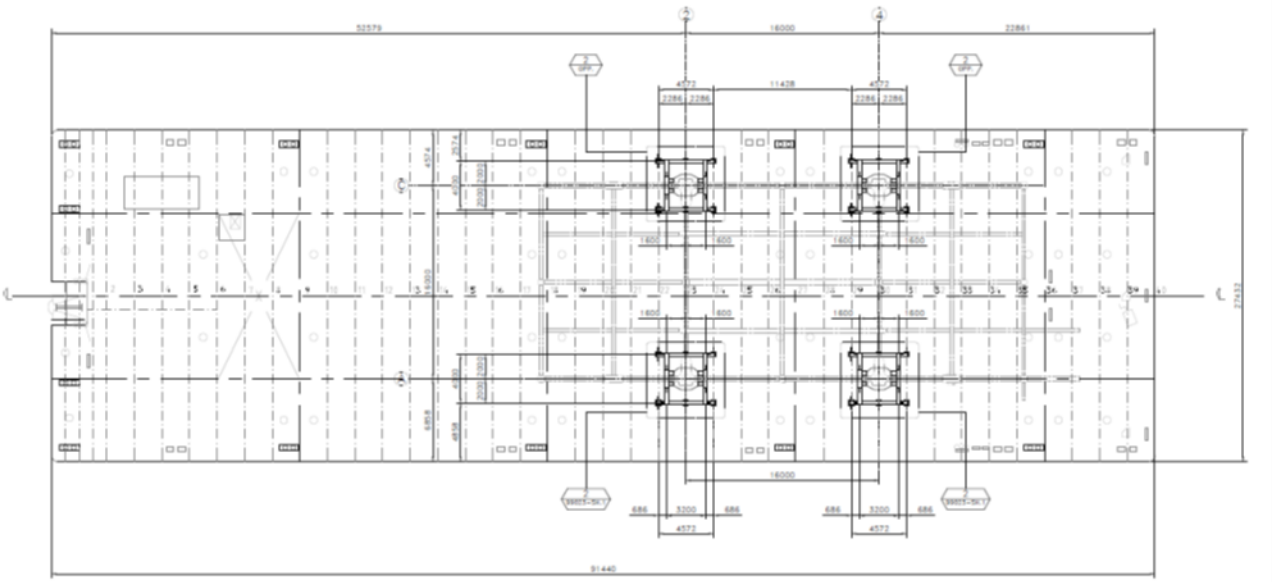


Figure 6.1 – Grillage arrangement – Top view

The operation was divided in 19 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: 1st – 5th of July 2025

Starting hour: 7:00 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. Drawing is included in Appendix 2 for easy reference.

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

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

- Loadout Expected Weight 2280 ton including Spacers and SPMTs;
- X_G = 19.70 m;
- Y_G = 7.90 m;
- Z_G = 29.30 m.

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

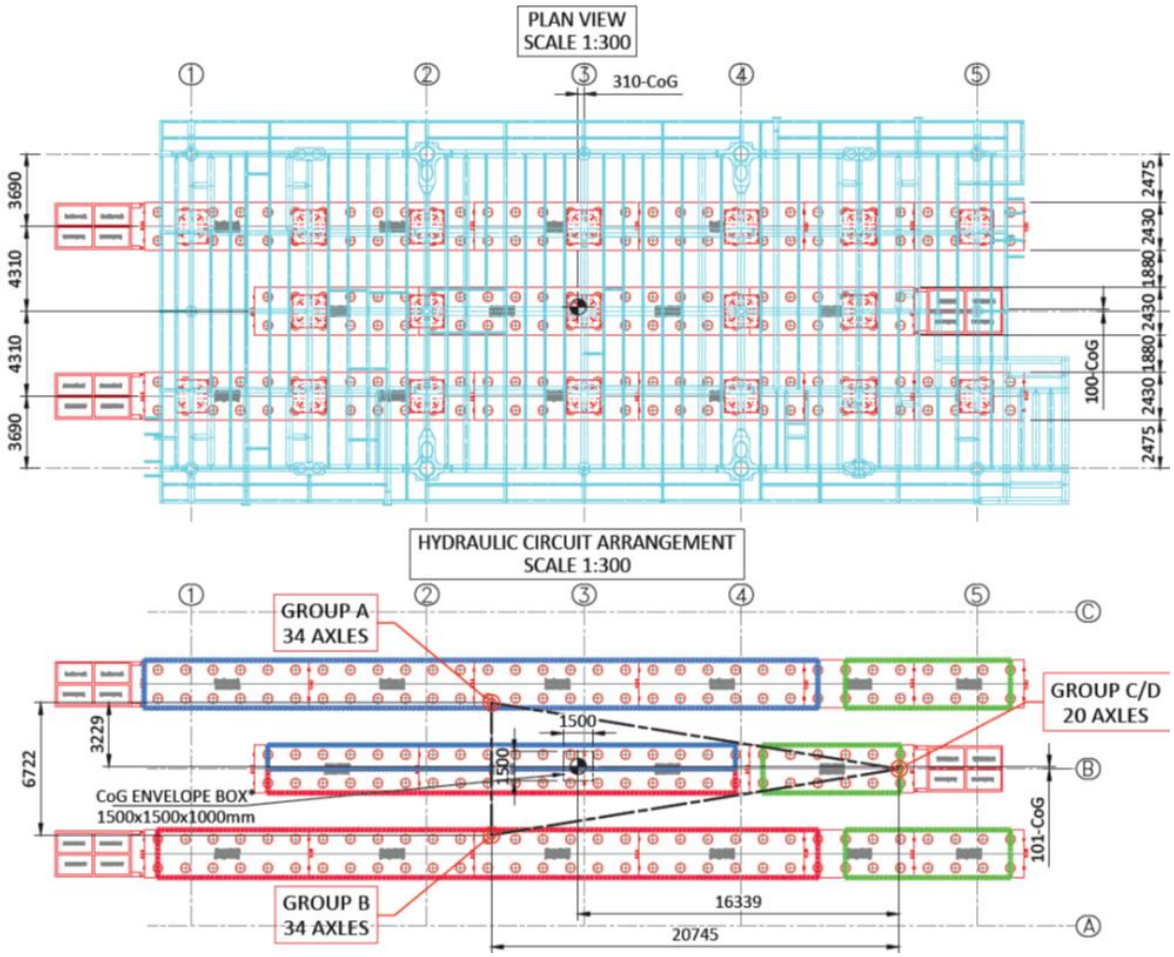


Figure 6.2 – BLPH loadout scheme

Before loadout operation, the final physical weighing operation will be performed in order to confirm the expected Weight and CoG. In case of the discrepancy in terms of weight and CoG position will be significant, the SPMT loads and ballasting sequence will be updated accordingly.

Lower Grillage weight has been applied as external loads to the barge model.

LOW-GRIL WEIGHT = 75 t

TRANSPORT CONFIGURATION: 88 AXLES			
ITEM weight (contingency included)			**1802 t**
SPMT dead weight			392,1 t
EQUIPMENT weight			85,5 t
TOTAL weight			2279,6 t
		BASE VALUES	**MAX VALUES**
Group A 35,5 AXLES	Weight per axles	28,5 t	35,9 t
	Capacity per axles	40,0 t	40,0 t
	Cylinder pressure	198 bar	253 bar
	Contact pressure under the wheel	8,5 kg/cm^2	9,4 kg/cm^2
	Average Ground pressure	8,4 t/m^2	10,5 t/m^2
Group B 36,5 AXLES	Weight per axles	24,8 t	31,9 t
	Capacity per axles	40,0 t	40,0 t
	Cylinder pressure	171 bar	224 bar
	Contact pressure under the wheel	8,0 kg/cm^2	8,9 kg/cm^2
	Average Ground pressure	7,3 t/m^2	9,4 t/m^2
Group C-D 16 AXLES	Weight per axles	22,8 t	29,1 t
	Capacity per axles	36,0 t	36,0 t
	Cylinder pressure	155 bar	201 bar
	Contact pressure under the wheel	7,7 kg/cm^2	8,6 kg/cm^2
	Average Ground pressure	6,7 t/m^2	8,6 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
GC-1-01	24.3	0.000	-5.142	1.000
GC-1-02	24.3	1.400	-5.142	1.000
GC-1-03	24.3	2.800	-5.142	1.000

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GC-1-04	24.3	4.200	-5.142	1.000
GC-1-05	24.3	5.600	-5.142	1.000
GC-1-06	24.3	7.000	-5.142	1.000
GC-1-07	24.3	8.400	-5.142	1.000
GC-2-01	24.3	0.000	2.858	1.000
GC-2-02	24.3	1.400	2.858	1.000
GC-2-03	24.3	2.800	2.858	1.000
GC-2-04	24.3	4.200	2.858	1.000
GC-2-05	24.3	5.600	2.858	1.000
GC-2-06	24.3	7.000	2.858	1.000
GC-2-07	24.3	8.400	2.858	1.000
GC-3-01	24.3	5.600	-1.142	1.000
GC-3-02	24.3	7.000	-1.142	1.000
GC-3-03	24.3	8.400	-1.142	1.000
GC-3-04	24.3	9.800	-1.142	1.000
GC-3-05	24.3	11.200	-1.142	1.000
GC-3-06	24.3	12.600	-1.142	1.000
GA-1-01	27.4	9.800	-5.142	1.000
GA-1-02	27.4	11.200	-5.142	1.000
GA-1-03	27.4	12.600	-5.142	1.000
GA-1-04	27.4	14.000	-5.142	1.000
GA-1-05	27.4	15.400	-5.142	1.000
GA-1-06	27.4	16.800	-5.142	1.000
GA-1-07	27.4	18.200	-5.142	1.000
GA-1-08	27.4	19.600	-5.142	1.000
GA-1-09	27.4	21.000	-5.142	1.000
GA-1-10	27.4	22.400	-5.142	1.000
GA-1-11	27.4	23.800	-5.142	1.000
GA-1-12	27.4	25.200	-5.142	1.000
GA-1-13	27.4	26.600	-5.142	1.000
GA-1-14	27.4	28.000	-5.142	1.000
GA-1-15	27.4	29.400	-5.142	1.000
GA-1-16	27.4	30.800	-5.142	1.000
GA-1-17	27.4	32.200	-5.142	1.000
GA-1-18	27.4	33.600	-5.142	1.000
GA-1-19	27.4	35.000	-5.142	1.000
GA-1-20	27.4	36.400	-5.142	1.000
GA-1-21	27.4	37.800	-5.142	1.000
GA-1-22	27.4	39.200	-5.142	1.000

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GA-1-23	27.4	40.600	-5.142	1.000
GA-1-24	27.4	42.000	-5.142	1.000
GA-1-25	27.4	43.400	-5.142	1.000
GA-2-01	13.7	14.000	-1.142	1.000
GA-2-02	13.7	15.400	-1.142	1.000
GA-2-03	13.7	16.800	-1.142	1.000
GA-2-04	13.7	18.200	-1.142	1.000
GA-2-05	13.7	19.600	-1.142	1.000
GA-2-06	13.7	21.000	-1.142	1.000
GA-2-07	13.7	22.400	-1.142	1.000
GA-2-08	13.7	23.800	-1.142	1.000
GA-2-09	13.7	25.200	-1.142	1.000
GA-2-10	13.7	26.600	-1.142	1.000
GA-2-11	13.7	28.000	-1.142	1.000
GA-2-12	13.7	29.400	-1.142	1.000
GA-2-13	13.7	30.800	-1.142	1.000
GA-2-14	13.7	32.200	-1.142	1.000
GA-2-15	13.7	33.600	-1.142	1.000
GA-2-16	13.7	35.000	-1.142	1.000
GA-2-17	13.7	36.400	-1.142	1.000
GA-2-18	13.7	37.800	-1.142	1.000
GB-1-01	26.2	9.800	2.858	1.000
GB-1-02	26.2	11.200	2.858	1.000
GB-1-03	26.2	12.600	2.858	1.000
GB-1-04	26.2	14.000	2.858	1.000
GB-1-05	26.2	15.400	2.858	1.000
GB-1-06	26.2	16.800	2.858	1.000
GB-1-07	26.2	18.200	2.858	1.000
GB-1-08	26.2	19.600	2.858	1.000
GB-1-09	26.2	21.000	2.858	1.000
GB-1-10	26.2	22.400	2.858	1.000
GB-1-11	26.2	23.800	2.858	1.000
GB-1-12	26.2	25.200	2.858	1.000
GB-1-13	26.2	26.600	2.858	1.000
GB-1-14	26.2	28.000	2.858	1.000
GB-1-15	26.2	29.400	2.858	1.000
GB-1-16	26.2	30.800	2.858	1.000
GB-1-17	26.2	32.200	2.858	1.000
GB-1-18	26.2	33.600	2.858	1.000

GB-1-19	26.2	35.000	2.858	1.000
GB-1-20	26.2	36.400	2.858	1.000
GB-1-21	26.2	37.800	2.858	1.000
GB-1-22	26.2	39.200	2.858	1.000
GB-1-23	26.2	40.600	2.858	1.000
GB-1-24	26.2	42.000	2.858	1.000
GB-1-25	26.2	43.400	2.858	1.000
GB-2-01	13.1	14.000	-1.142	1.000
GB-2-02	13.1	15.400	-1.142	1.000
GB-2-03	13.1	16.800	-1.142	1.000
GB-2-04	13.1	18.200	-1.142	1.000
GB-2-05	13.1	19.600	-1.142	1.000
GB-2-06	13.1	21.000	-1.142	1.000
GB-2-07	13.1	22.400	-1.142	1.000
GB-2-08	13.1	23.800	-1.142	1.000
GB-2-09	13.1	25.200	-1.142	1.000
GB-2-10	13.1	26.600	-1.142	1.000
GB-2-11	13.1	28.000	-1.142	1.000
GB-2-12	13.1	29.400	-1.142	1.000
GB-2-13	13.1	30.800	-1.142	1.000
GB-2-14	13.1	32.200	-1.142	1.000
GB-2-15	13.1	33.600	-1.142	1.000
GB-2-16	13.1	35.000	-1.142	1.000
GB-2-17	13.1	36.400	-1.142	1.000
GB-2-18	13.1	37.800	-1.142	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 topside. 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 at stern even keel

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

STERN						BOW
	full 5PW		90.0% 4PW u=0.6m	3PW	80% 2PW u=1.20m	full 1PW
	54.5% 5PC u=2.30m		4PC	full 3PC	51% 2PC u=2.80m	empty 1PC
	58.0% 5SC u=2.00m		4SC	full 3SC	52% 2SC u=u=2.70m	empty 1SC
	full 5SW		90.0% 4SW u=0.60m	3SW	80% 2SW u=1.20m	full 1SW

Figure 6.4 – Loadout Phase 0

Step 1 The first 2 axles of group C/D enter the barge stern.

Step 2 Trailers advance 4.2 m: next 3+3 axles of trailers of group C/D on board. Total axles on board: C/D-8.

Step 3 Trailers advance 4.2 m: next 3+3+3 axles of trailers of group C/D on board. Total axles on board: C/D-17.

Step 4 Trailers advance 1.40 m: next 1 axle of trailers of group C/D and first axles of trailers of group A and B on board. Total axles on board: C/D-18, A-1, B-1.

Step 5 Trailers advance 4.2 m: Total axles on board: C/D-20.

Step 6 Trailers advance 4.2 m: Total axles on board: C/D-20, A-7+4, B-7+4.

Step 7 Trailers advance 4.2 m: Total axles on board: C/D-20, A-10+7, B-10+7.

Step 8 Trailers advance 4.2 m: Total axles on board: C/D-20, A-13+10, B-13+10.

Step 9 Trailers advance 4.2 m: Total axles on board: C/D-20, A-16+13, B-16+13.

Step 10 Trailers advance 4.2 m: Total axles on board: C/D-20, A-19+16, B-19+16.

Step 11 Trailers advance 2.8 m: Total axles on board: C/D-20, A-21+18, B-21+18.

Step 12 Trailers advance 2.8 m: Total axles on board: C/D-20, A-23+18, B-23+18.

Step 13 Trailers advance 2.8 m: Total axles on board: C/D-20, A-25+18, B-25+18. All trailers on board of the barge.

Step 14 Trailers advance 7 m. All axles on board

Step 15 Trailers advance 7 m. All axles on board

Step 16 Trailers advance 7 m. All axles on board

Step 17 Trailers advance 7 m. All axles on board

Step 18 Trailers advance 7 m: All axles on board

Step 19 Trailers advance 3.18 m: All axles on board. Topside reaches the transport position.

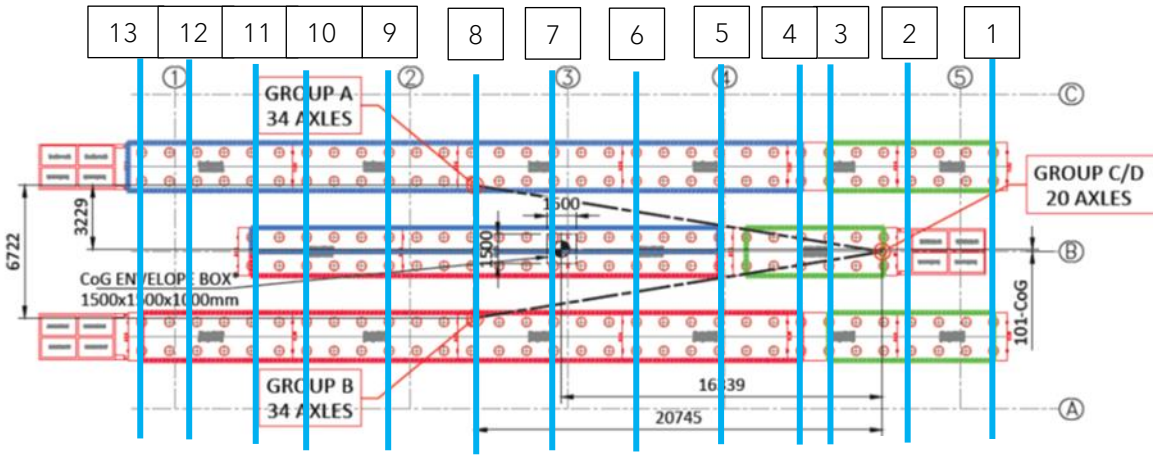
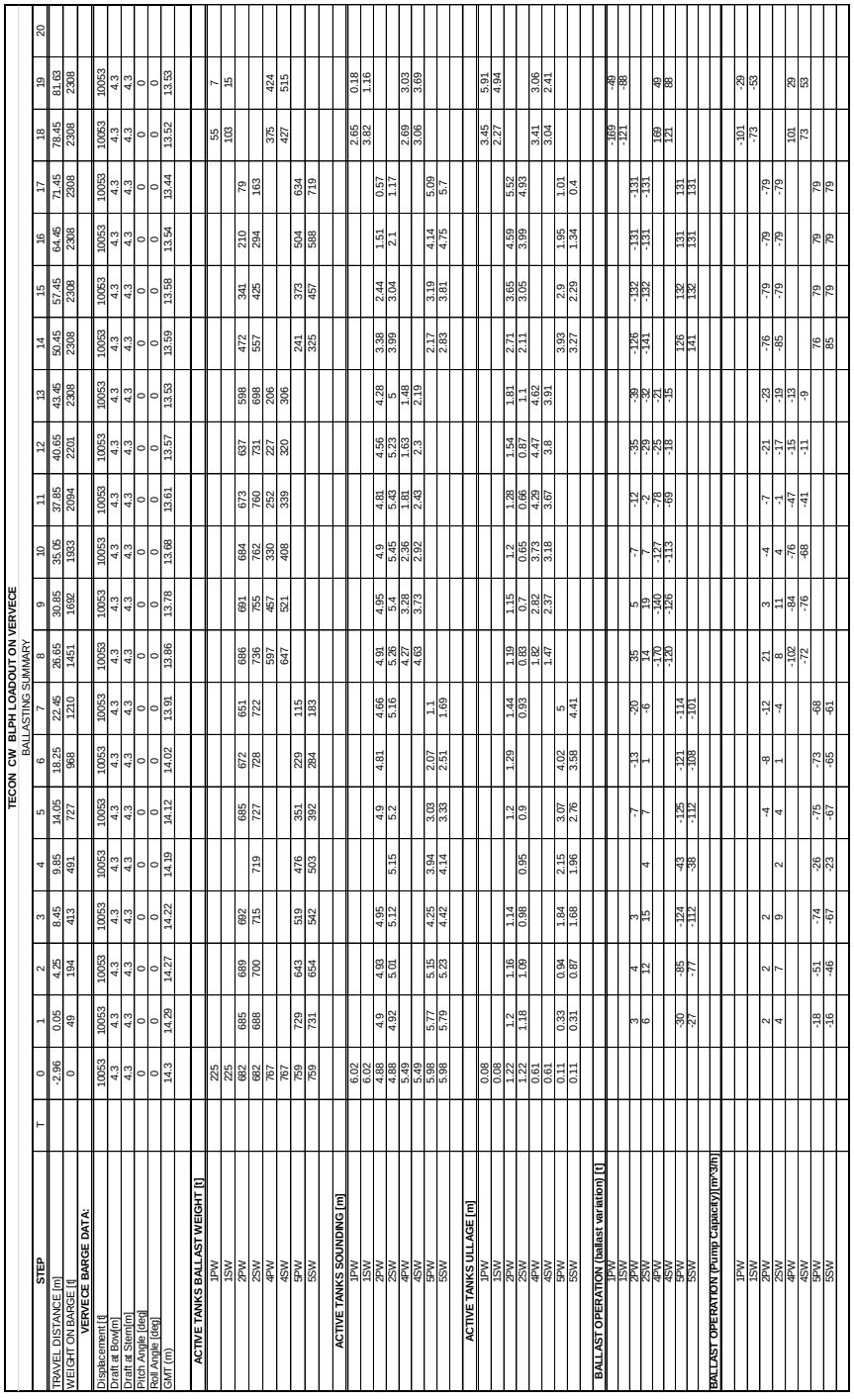


Figure 6.5 – Loadout Phases

Load out will be considered complete with BLPH in the final position.

The here below tables summarize the ballast variations.



TECON CW BLPH LOADOUT ON VERVECE

BALLASTING SUMMARY

STEP	T	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TRAVEL DISTANCE [m]		-2.96	0.05	4.25	8.45	9.85	14.05	18.25	22.45	26.65	30.85	35.05	37.45	40.65	43.46	50.45	57.45	64.46	71.46	78.45	81.63	
WEIGHT ON BARGE [t]		0	49	194	413	491	727	968	1210	1451	1692	1933	2094	2201	2306	2308	2308	2308	2308	2308	2308	
VERVECE BARGE DATA:																						
Displacement [t]		10053	10053	10059	10053	10053	10053	10059	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10053	10059	
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	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	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	0	0	0	0	0	
Roll Angle [deg]		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
GMT (m)		14.3	14.29	14.27	14.22	14.19	14.12	14.02	13.91	13.86	13.78	13.68	13.61	13.57	13.53	13.59	13.58	13.54	13.44	13.52	13.53	
ACTIVE TANKS BALLAST WEIGHT [t]																						
1PW		225																		55	7	
1SW		225																		103	15	
2PW		682	685	689	692		685	672	651	686	691	684	673	637	598	472	341	210	79			
2SW		682	688	700	715	719	727	728	722	736	755	762	760	731	698	557	425	294	163			
4PW		767								597	457	330	252	227	206					375	424	
4SW		767								647	521	408	339	320	306					427	515	
5PW		759	729	643	519	476	351	229	115							241	373	504	634			
5SW		759	731	654	542	503	392	284	183							325	457	588	719			
ACTIVE TANKS SOUNDING [m]																						
1PW		6.02																		2.65	0.18	
1SW		6.02																		3.82	1.16	
2PW		4.88	4.9	4.93	4.95		4.9	4.81	4.66	4.91	4.95	4.9	4.81	4.56	4.28	3.38	2.44	1.51	0.57			
2SW		4.88	4.92	5.01	5.12	5.15	5.2		5.16	5.26	5.4	5.45	5.43	5.23	5	3.99	3.04	2.1	1.17			
4PW		5.49								4.27	3.28	2.36	1.81	1.63	1.48					2.69	3.03	
4SW		5.49								4.63	3.73	2.92	2.43	2.3	2.19					3.06	3.69	
5PW		5.98	5.77	5.45	4.25	3.94	3.03	2.07	1.1							2.17	3.19	4.14	5.09			
5SW		5.98	5.79	5.23	4.42	4.14	3.33	2.51	1.69							2.83	3.81	4.75	5.7			
ACTIVE TANKS ULLAGE [m]																						
1PW		0.08																		3.45	5.91	
1SW		0.08																		2.27	4.94	
2PW		1.22	1.2	1.16	1.14		1.2	1.29	1.44	1.19	1.15	1.2	1.28	1.54	1.81	2.71	3.65	4.59	5.52			
2SW		1.22	1.18	1.09	0.98	0.95	0.9		0.93	0.83	0.7	0.65	0.66	0.87	1.1	2.11	3.05	3.99	4.93			
4PW		0.61								1.82	2.82	3.73	4.29	4.47	4.62					3.41	3.06	
4SW		0.61								1.47	2.37	3.18	3.67	3.8	3.91					3.04	2.41	
5PW		0.11	0.33	0.94	1.84	2.15	3.07	4.02	5							3.93	2.9	1.95	1.01			
5SW		0.11	0.31	0.87	1.68	1.96	2.76	3.58	4.41							3.27	2.29	1.34	0.4			
BALLAST OPERATION (ballast variation) [t]																						
1PW																				169	49	
1SW																				121	88	
2PW			3	4	3		-7	-13	-20	-35	-5	7	-12	-35	-39	-126	-132	-131	-131			
2SW			6	12	15	4	7	1	-6	-14	-19	7	-2	-29	-32	-141	-132	-131	-131			
4PW										-82	-11	4	-1	-17	-19	-85	-79	-79	-79	169	49	
4SW										-102	-94	-76	-47	-15	-13					121	88	
5PW			30	85	124	43	125	121	114	-120	-126	-113	-69	-18	-15	126	132	131	131			
5SW			27	77	112	38	112	108	101	-72	-76	-68	-41	-11	-9	141	132	131	131			
BALLAST OPERATION (Pump Capacity) [m^3/h]																						
1PW																				-101	-29	
1SW																				-73	-53	
2PW			2	2	2		-4	-8	-12	21	3	-4	-7	-21	-23	-76	-79	-79	-79			
2SW			4	7	9	2	4	1	-4	8	11	4	-1	-17	-19	-85	-79	-79	-79			
4PW										-102	-94	-76	-47	-15	-13					101	29	
4SW										-72	-76	-68	-41	-11	-9					73	53	
5PW			-18	-51	-74	-26	-75	-73	-68							76	79	79	79			
5SW			-16	-46	-67	-23	-67	-65	-61							85	79	79	79			

Table 6.2 – Loadout summary Tables

From the above table the total amount of moved water is 2306 t.

6.4 MOSES OUTPUT SUMMARY

Weight ballast (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
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	4.30	4.30	4.30	4.30	4.30
1PW																		55	7
1SW																		103	15
2PW	685	689	692	692	685	672	651	686	691	684	673	637	598	472	341	210	79		
2SW	688	700	715	719	727	728	722	736	755	762	760	731	698	557	425	294	163		
4PW								597	457	330	252	227	206					375	424
4SW								647	521	408	339	320	306					427	515
5PW	729	643	519	476	351	229	115							241	373	504	634		
5SW	731	654	542	503	392	284	183							325	457	588	719		

Ballast Sounding (m)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
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	4.30	4.30	4.30	4.30	4.30
1PW																		2.65	0.18
1SW																		3.82	1.16
2PW	4.9	4.93	4.95	4.95	4.9	4.81	4.66	4.91	4.95	4.9	4.81	4.56	4.28	3.38	2.44	1.51	0.57		
2SW	4.92	5.01	5.12	5.15	5.2	5.21	5.16	5.26	5.4	5.45	5.43	5.23	5	3.99	3.04	2.1	1.17		
4PW								4.27	3.28	2.36	1.81	1.63	1.48					2.69	3.03
4SW								4.63	3.73	2.92	2.43	2.3	2.19					3.06	3.69
5PW	5.77	5.15	4.25	3.94	3.03	2.07	1.1							2.17	3.19	4.14	5.09		
5SW	5.79	5.23	4.42	4.14	3.33	2.51	1.69							2.83	3.81	4.75	5.7		

Weight ballast Variation (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
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	4.30	4.30	4.30	4.30	4.30
1PW																		-169	-49
1SW																		-121	-88
2PW	3	4	3		-7	-13	-20	35	5	-7	-12	-35	-39	-126	-132	-131	-131		
2SW	6	12	15	4	7	1	-6	14	19	7	-2	-29	-32	-141	-132	-131	-131		
4PW								-170	-140	-127	-78	-25	-21					169	49
4SW								-120	-126	-113	-69	-18	-15					121	88
5PW	-30	-85	-124	-43	-125	-121	-114							126	132	131	131		
5SW	-27	-77	-112	-38	-112	-108	-101							141	132	131	131		

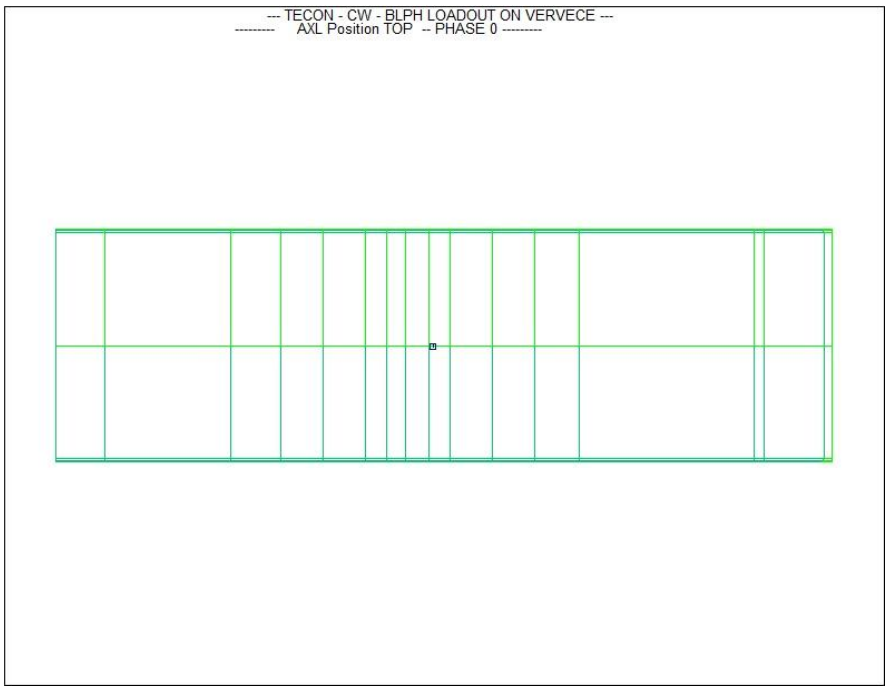
Ballast Ullage (t)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
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	4.30	4.30	4.30	4.30	4.30
1PW																		3.45	5.91
1SW																		2.27	4.94
2PW	1.2	1.16	1.14	1.15	1.2	1.29	1.44	1.19	1.15	1.2	1.28	1.54	1.81	2.71	3.65	4.59	5.52		
2SW	1.18	1.09	0.98	0.95	0.9	0.89	0.93	0.83	0.7	0.65	0.66	0.87	1.1	2.11	3.05	3.99	4.93		
4PW								1.82	2.82	3.73	4.29	4.47	4.62					3.41	3.06
4SW								1.47	2.37	3.18	3.67	3.8	3.91					3.04	2.41
5PW	0.33	0.94	1.84	2.15	3.07	4.02	5							3.93	2.9	1.95	1.01		
5SW	0.31	0.87	1.68	1.96	2.76	3.58	4.41							3.27	2.29	1.34	0.4		

Table 6.3 – Loadout summary Tables - Detailed

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

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



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

	5PW Full	4PW 767 t	3PW Empty	2PW 682 t	1PW Full
	5PC 279 t	4PC Empty	3PC Full	2PC 455 t	1PC Empty
	5SC 291 t	4SC Empty	3SC Full	2SC 468 t	1SC Empty
	5SW Full	4SW 767 t	3SW Empty	2SW 682 t	1SW Full

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

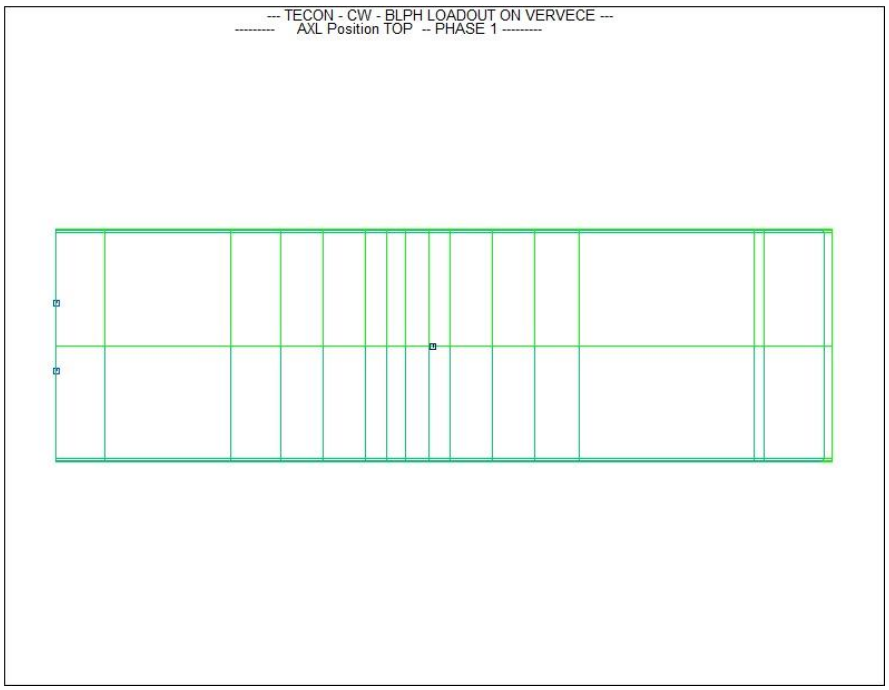
PHASE: 0 STRUCTURE WEIGHT ON BARGE(t): 0 DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00

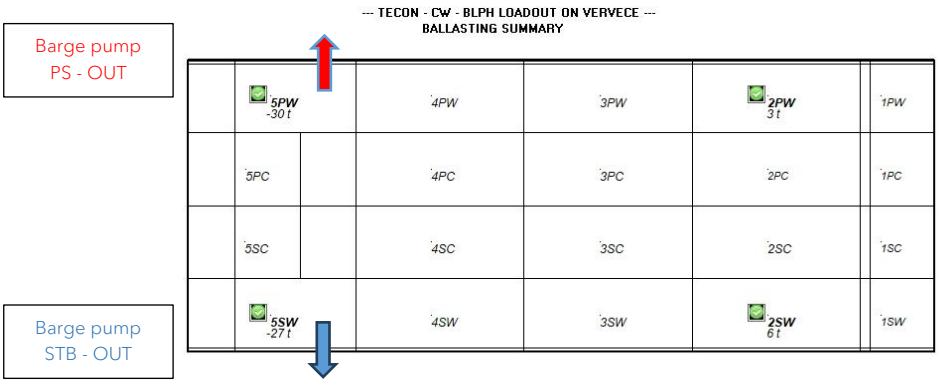
Phase -0-

Tank No	Ballast	Sounding	Ullage	Tank No	Ballast	Sounding	Ullage
1PC	7	,18	5,91	3SC	835	5,97	,12
1PW	225	6,02	,08	3SW	26	,18	5,91
1SC	7	,18	5,91	4PC	26	,18	5,91
1SW	225	6,02	,08	4PW	767	5,49	,61
2PC	455	3,26	2,84	4SC	26	,18	5,91
2PW	682	4,88	1,22	4SW	767	5,49	,61
2SC	468	3,35	2,75	5PC	279	3,86	2,24
2SW	682	4,88	1,22	5PW	759	5,98	,11
3PC	835	5,97	,12	5SC	291	4,05	2,05
3PW	26	,18	5,91	5SW	759	5,98	,11

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

6.4.2 Step 1





PHASE: 1
TRAVEL DISTANCE: ,05

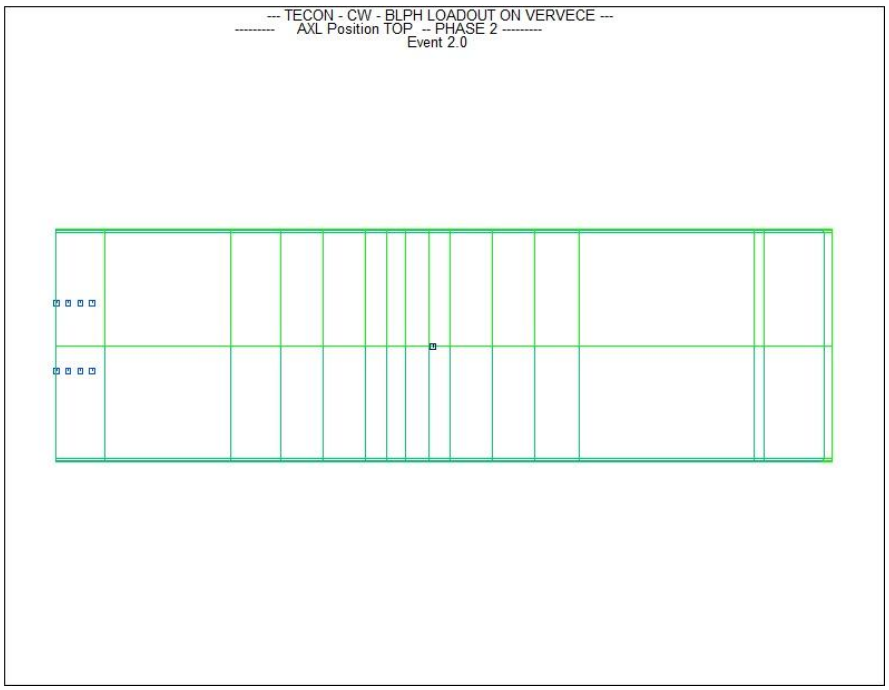
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 48,6

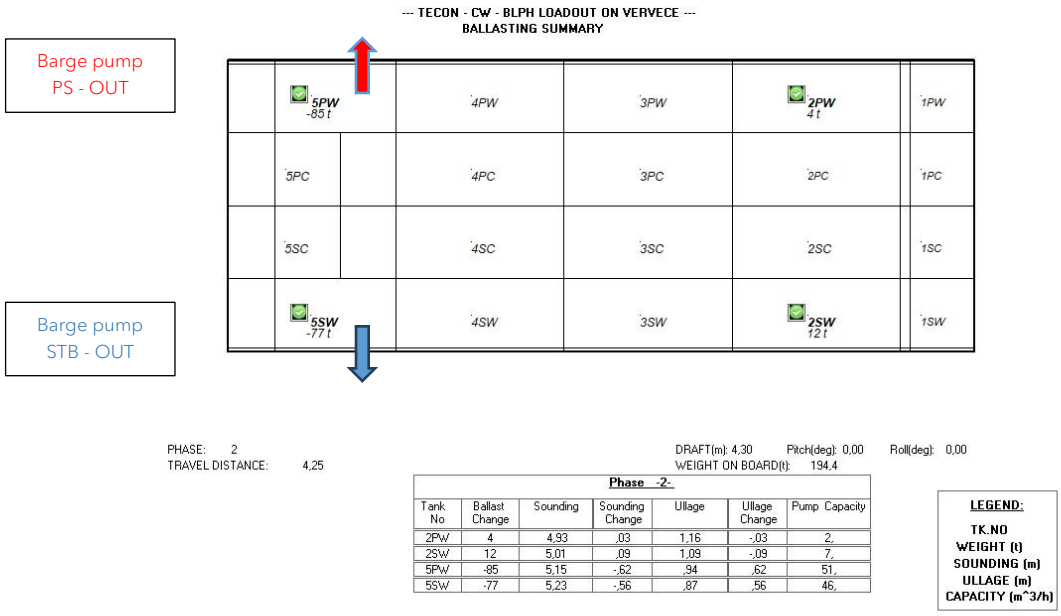
Phase -1-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	3	4,90	,02	1,20	-,02	2,
2SW	6	4,92	,04	1,18	-,04	4,
5PW	-30	5,77	-,22	,33	,22	18,
5SW	-27	5,79	-,20	,31	,20	16,

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

6.4.3 Step 2





PHASE: 2
TRAVEL DISTANCE: 4,25

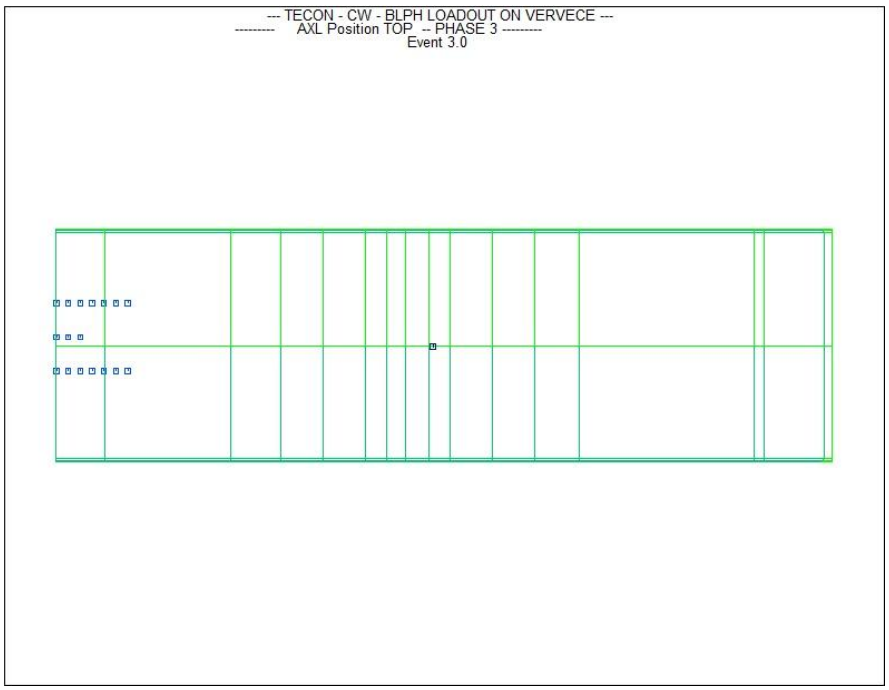
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 194,4

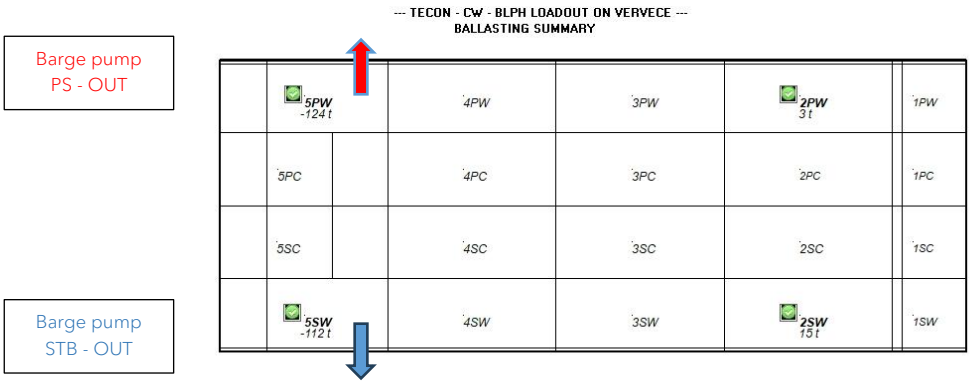
Phase -2-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	4	4,93	,03	1,16	-,03	2,
2SW	12	5,01	,09	1,09	-,09	7,
5PW	-85	5,15	-,62	,94	,62	51,
5SW	-77	5,23	-,56	,87	,56	46,

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

6.4.4 Step 3





PHASE: 3
TRAVEL DISTANCE: 8,45

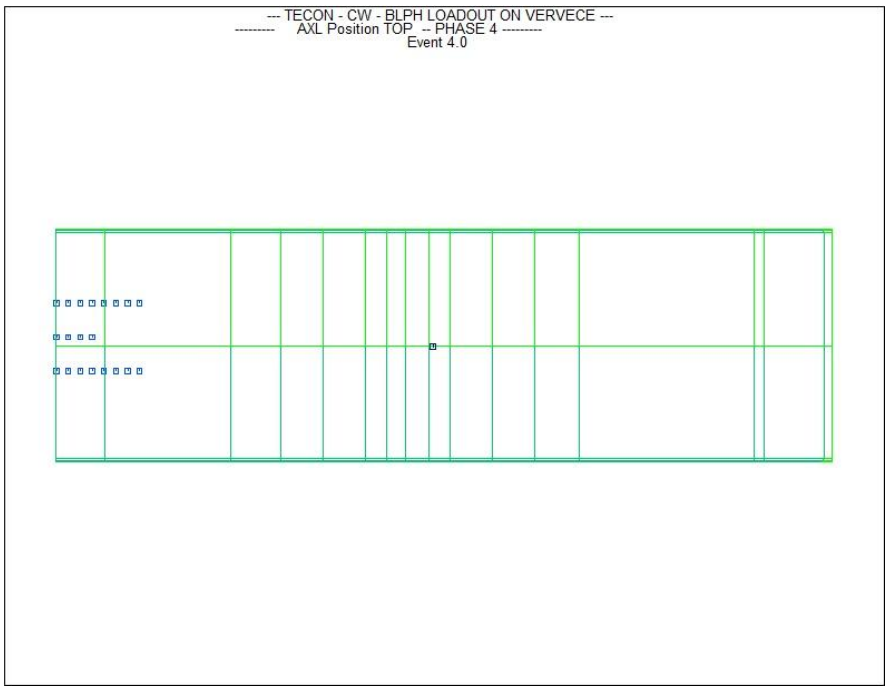
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 413,1

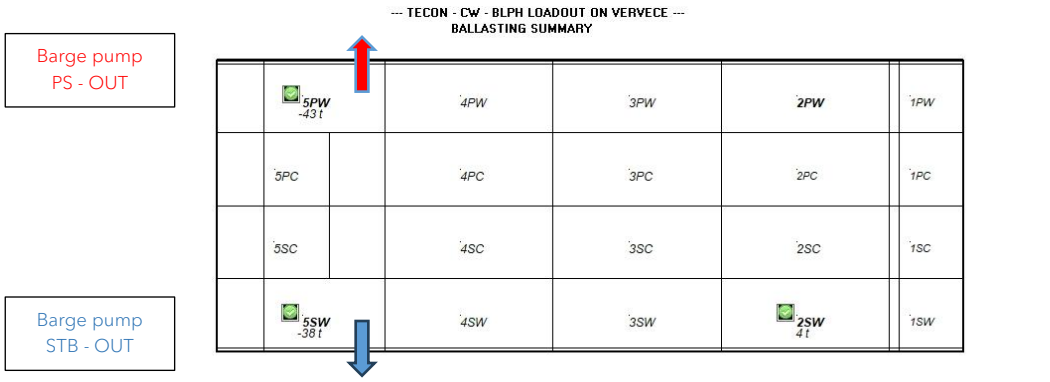
Phase -3-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	3	4,95	,02	1,14	-,02	2,
2SW	15	5,12	,11	,98	-,11	9,
5PW	-124	4,25	-,90	1,84	,90	74,
5SW	-112	4,42	-,81	1,68	,81	67,

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

6.4.5 Step 4





PHASE: 4
TRAVEL DISTANCE: 9,85

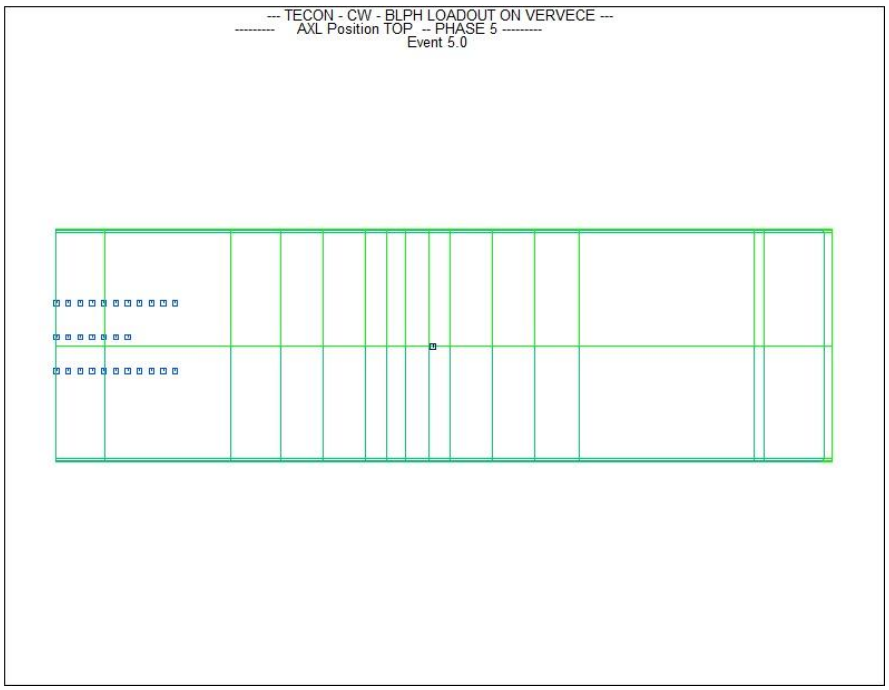
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 491

Phase -4-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2SW	4	5,15	,03	,95	-,03	2,
5PW	-43	3,94	-,31	2,15	,31	26,
5SW	-38	4,14	-,28	1,96	,28	23,

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

6.4.6 Step 5



Barge pump PS - OUT

Barge pump STB - OUT

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

	5PW -125 t	4PW	3PW	2PW -7 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW -112 t	4SW	3SW	2SW 7 t	1SW

PHASE: 5
TRAVEL DISTANCE: 14,05

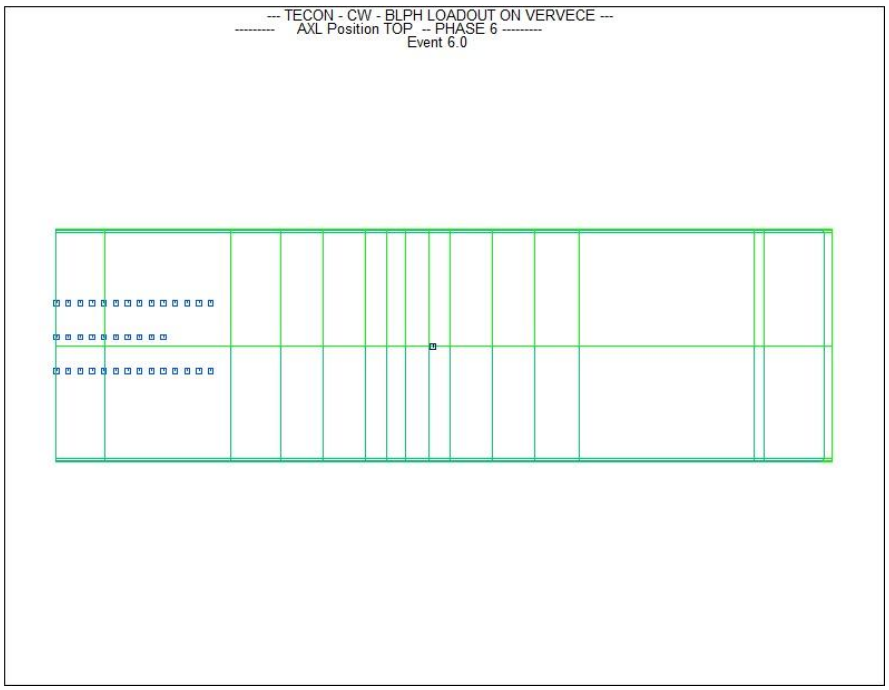
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 727,2

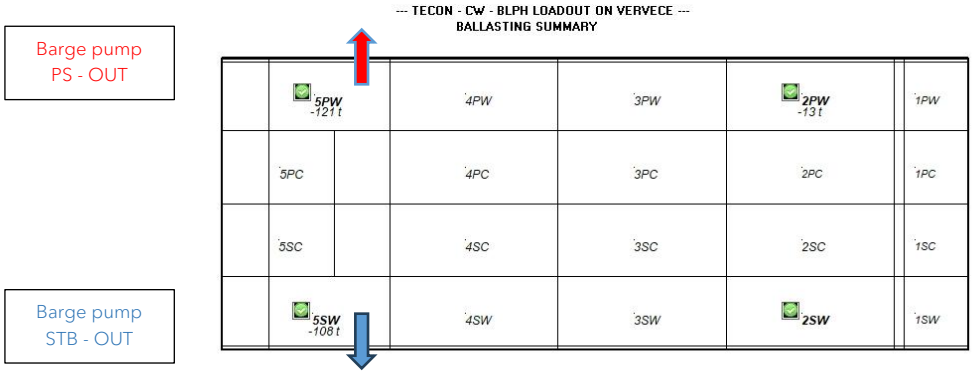
Phase -5-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-7	4,90	-,05	1,20	,05	4,
2SW	7	5,20	,05	,90	-,05	4,
5PW	-125	3,03	-,92	3,07	,92	75,
5SW	-112	3,33	-,81	2,76	,81	67,

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

6.4.7 Step 6





PHASE: 6
TRAVEL DISTANCE: 18,25

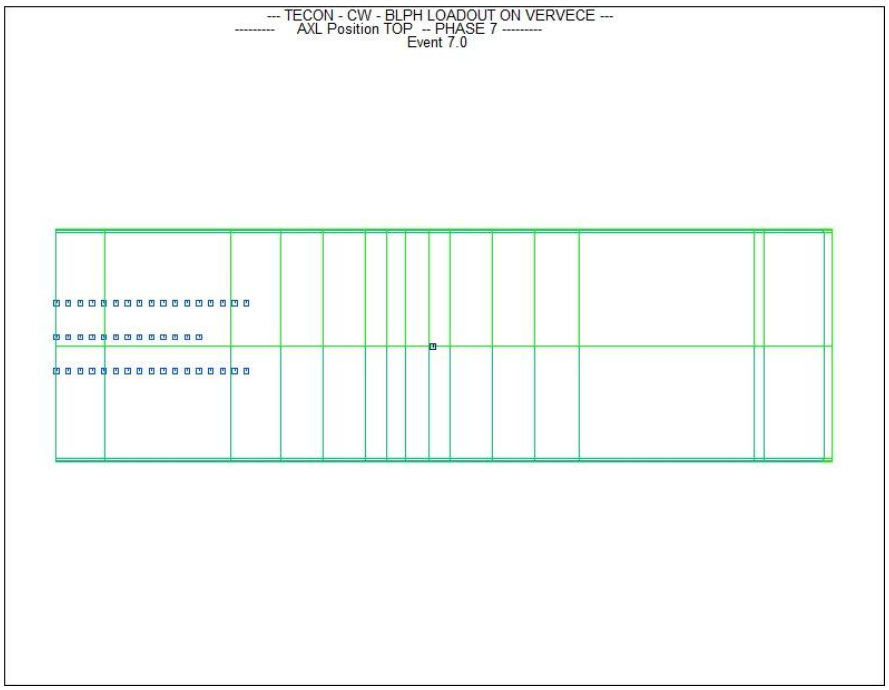
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 968,4

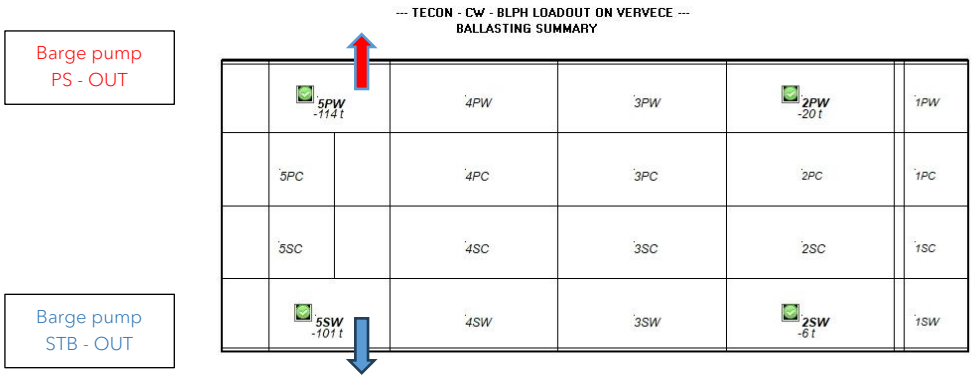
Phase -6-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-13	4,81	-,10	1,29	,10	8,
5PW	-121	2,07	-,95	4,02	,95	73,
5SW	-108	2,51	-,82	3,58	,82	65,

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

6.4.8 Step 7





PHASE: 7
TRAVEL DISTANCE: 22,45

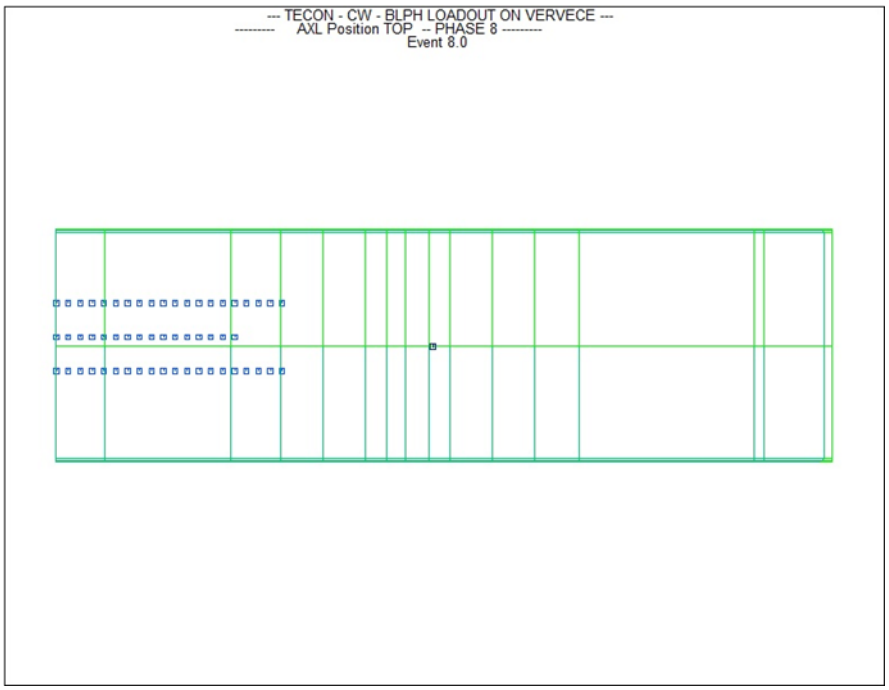
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1209,6

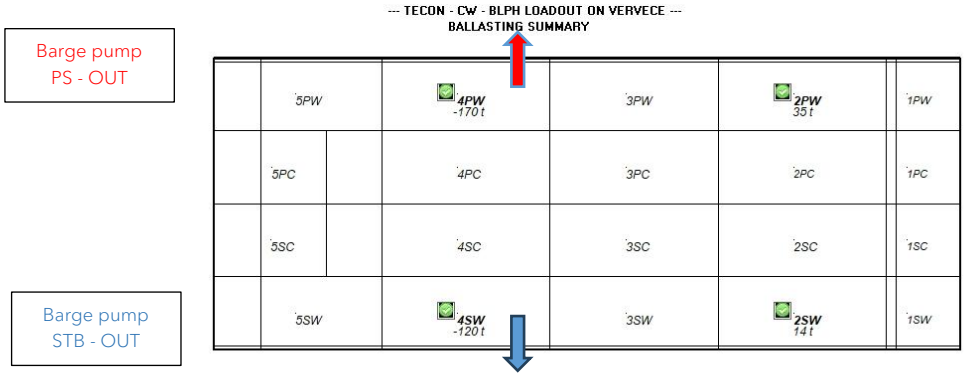
Phase -7-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-20	4,66	-,15	1,44	,15	12,
2SW	-6	5,16	-,04	,93	,04	4,
5PW	-114	1,10	-,98	5,00	,98	68,
5SW	-101	1,69	-,82	4,41	,82	61,

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

6.4.9 Step 8





PHASE: 8
TRAVEL DISTANCE: 26,65

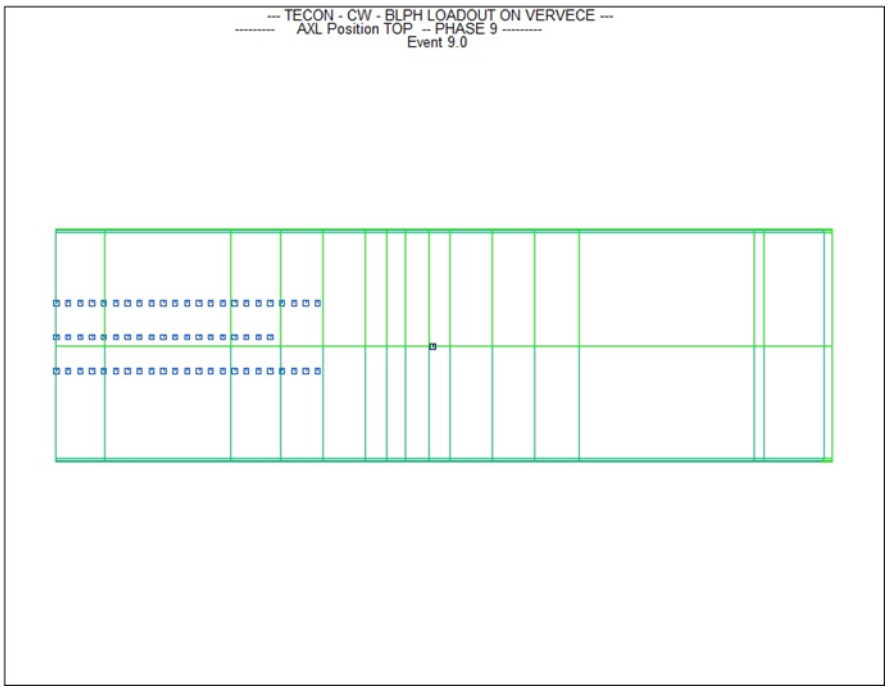
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1450,8

Phase -8-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	35	4,91	,25	1,19	-,25	21,
2SW	14	5,26	,10	,83	-,10	8,
4PW	-170	4,27	-1,21	1,82	1,21	102,
4SW	-120	4,63	-,86	1,47	,86	72,

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

6.4.10 Step 9



Barge pump PS - OUT

Barge pump STB - OUT

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

	5PW	4PW -140 t	3PW	2PW 5 t	1PW
	5PC	4PC	3PC	2PC	1PC
	5SC	4SC	3SC	2SC	1SC
	5SW	4SW -126 t	3SW	2SW 19 t	1SW

PHASE: 9
TRAVEL DISTANCE: 30,85

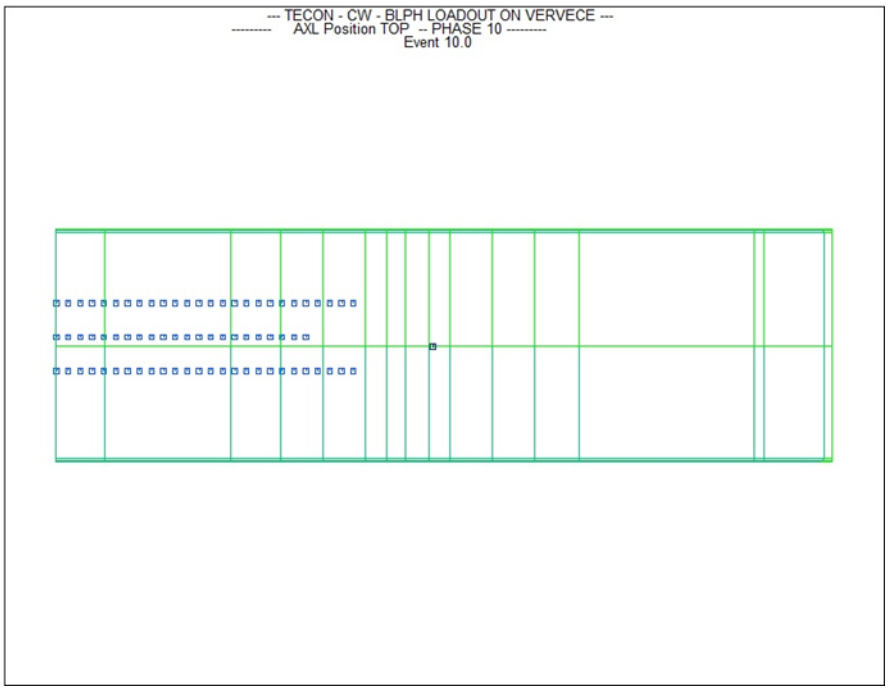
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1692

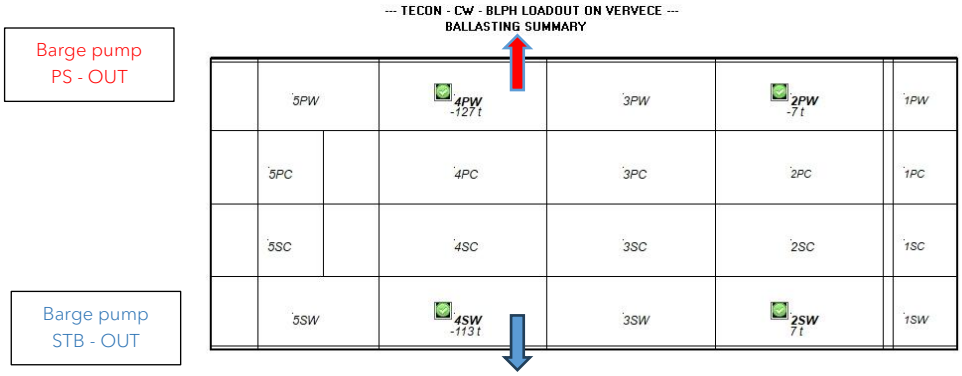
Phase -9-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	5	4,95	,04	1,15	-,04	3,
2SW	19	5,40	,14	,70	-,14	11,
4PW	-140	3,28	-1,00	2,82	1,00	84,
4SW	-126	3,73	-,90	2,37	,90	76,

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

6.4.11 Step 10





PHASE: 10
TRAVEL DISTANCE: 35,05

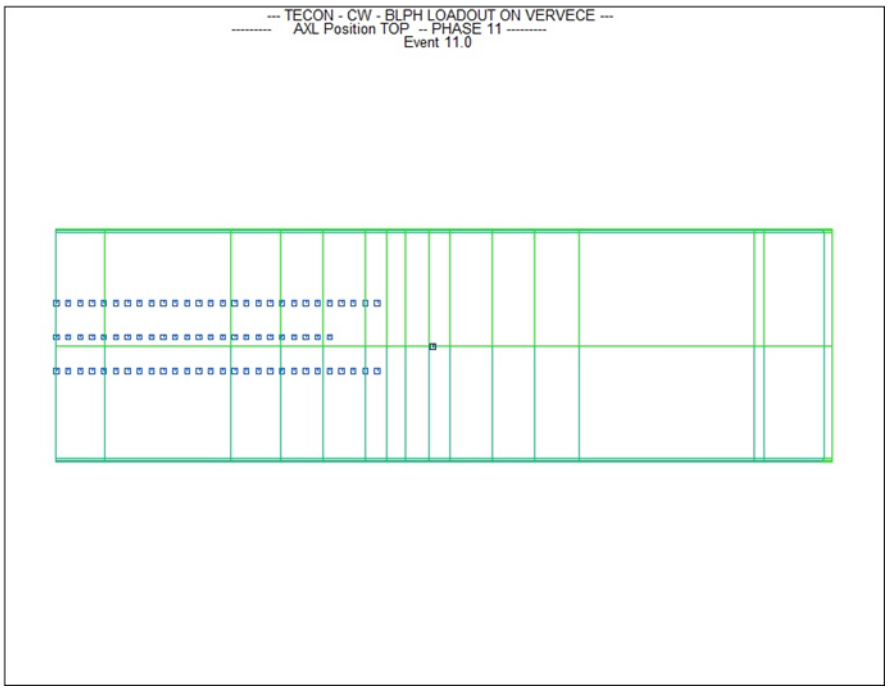
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 1933,2

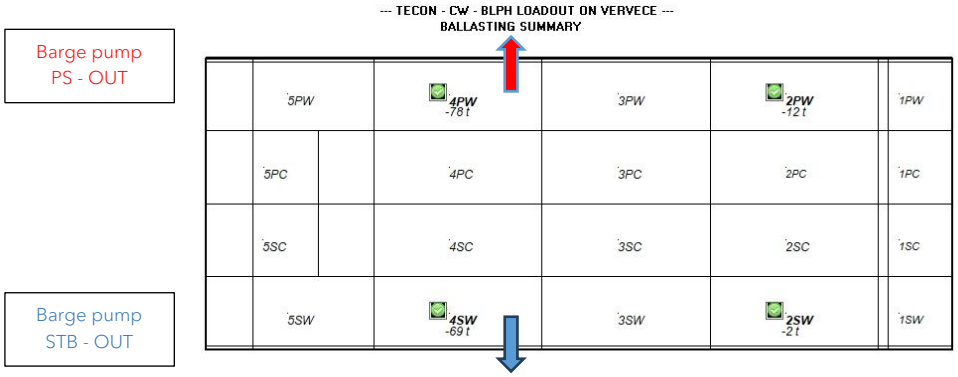
Phase -10-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-7	4,90	-,05	1,20	,05	4,
2SW	7	5,45	,05	,65	-,05	4,
4PW	-127	2,36	-,91	3,73	,91	76,
4SW	-113	2,92	-,81	3,18	,81	68,

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

6.4.12 Step 11





PHASE: 11
TRAVEL DISTANCE: 37,85

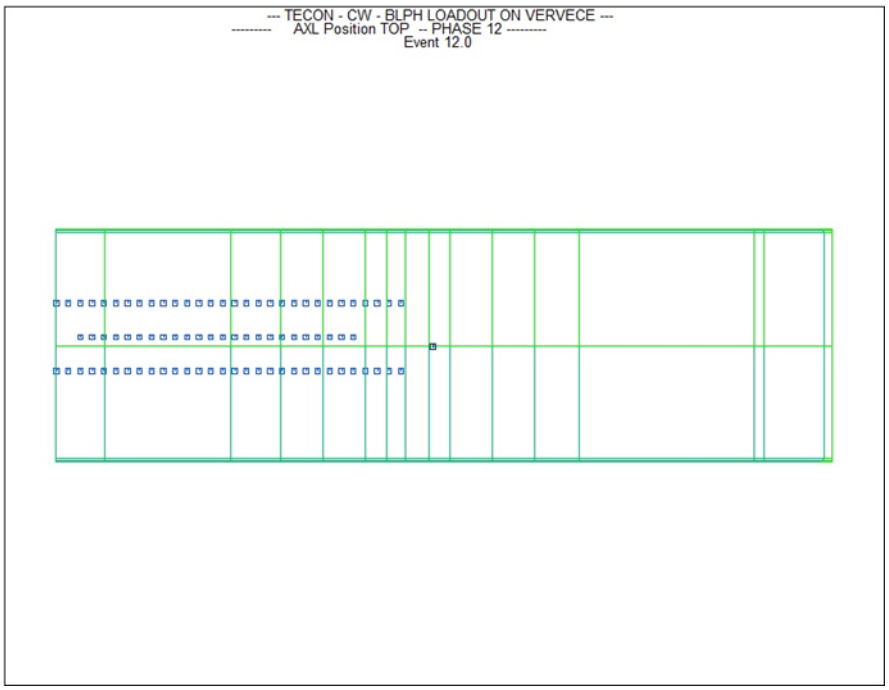
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2094

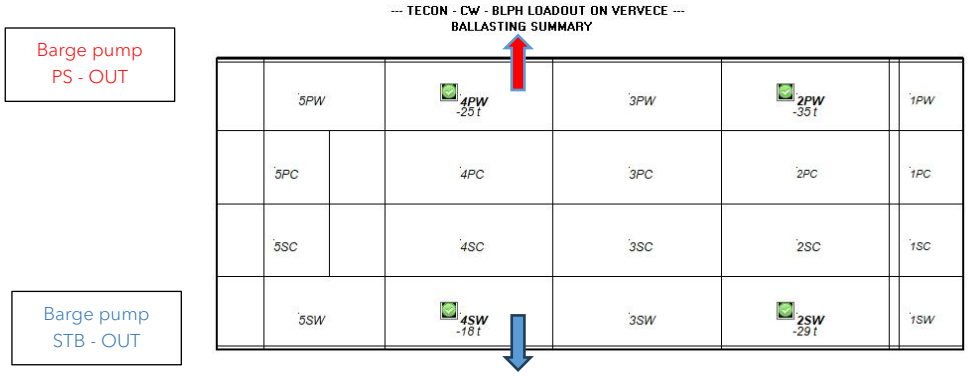
Phase -11-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-12	4,81	-,08	1,28	,08	7,
2SW	-2	5,43	-,02	,66	,02	1,
4PW	-78	1,81	-,56	4,29	,56	47,
4SW	-69	2,43	-,49	3,67	,49	41,

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

6.4.13 Step 12





PHASE: 12
TRAVEL DISTANCE: 40,65

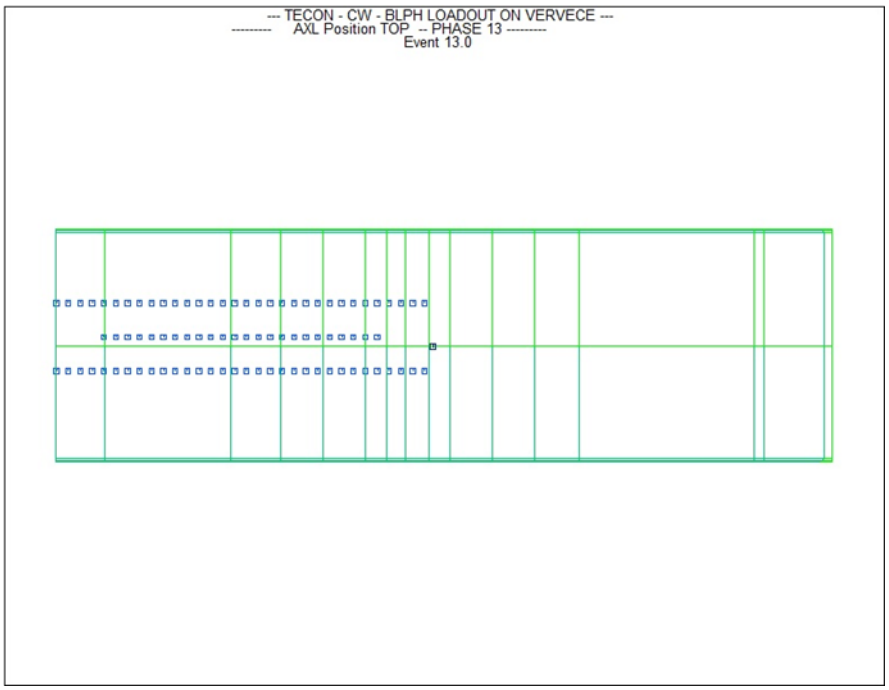
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2201,2

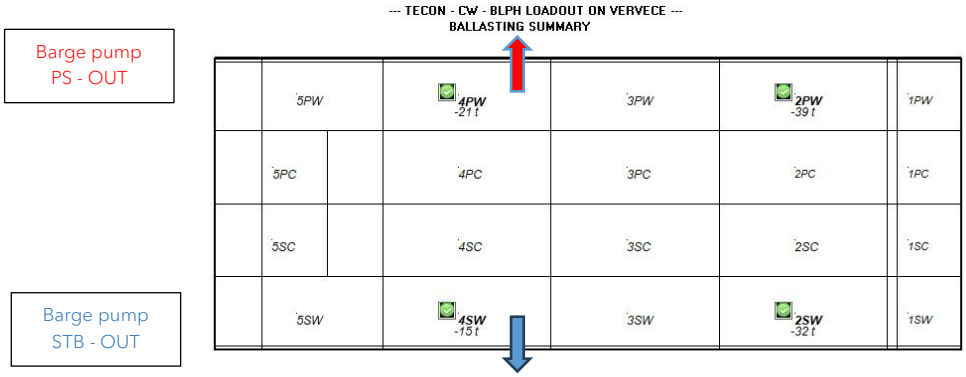
Phase -12-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-35	4,56	-,25	1,54	,25	21,
2SW	-29	5,23	-,21	,87	,21	17,
4PW	-25	1,63	-,18	4,47	,18	15,
4SW	-18	2,30	-,13	3,80	,13	11,

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

6.4.14 Step 13: All the axles on board.





PHASE: 13
TRAVEL DISTANCE: 43,45

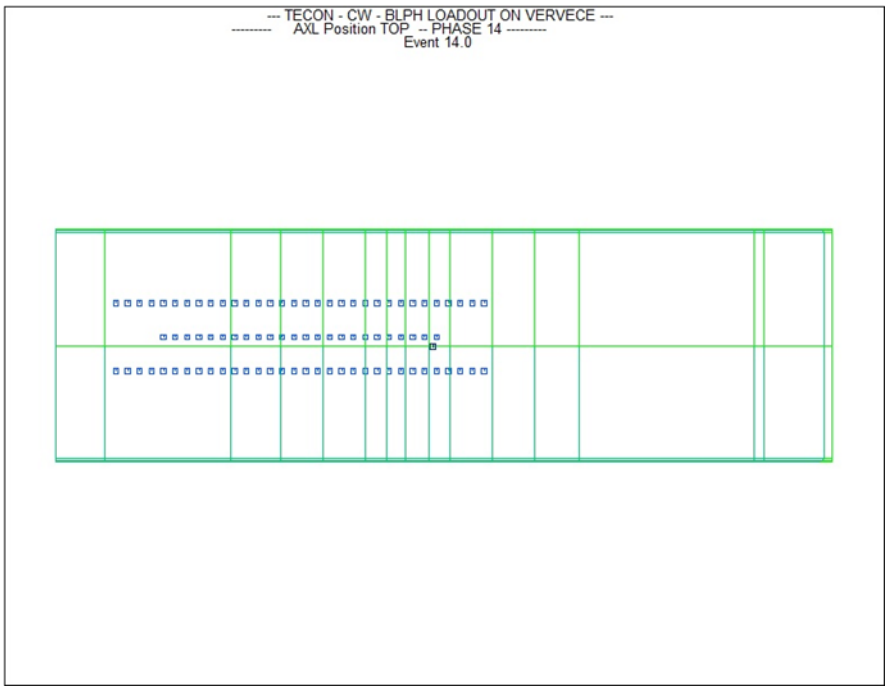
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

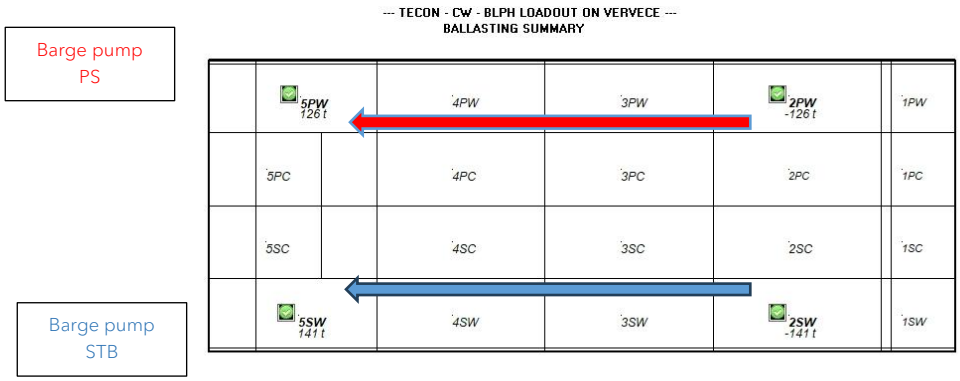
Phase -13-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-39	4,28	-,28	1,81	,28	23,
2SW	-32	5,00	-,23	1,10	,23	19,
4PW	-21	1,48	-,15	4,62	,15	13,
4SW	-15	2,19	-,11	3,91	,11	9,

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

6.4.15 Step 14: Shifting phase. All axles on board.





PHASE: 14
TRAVEL DISTANCE: 50,45

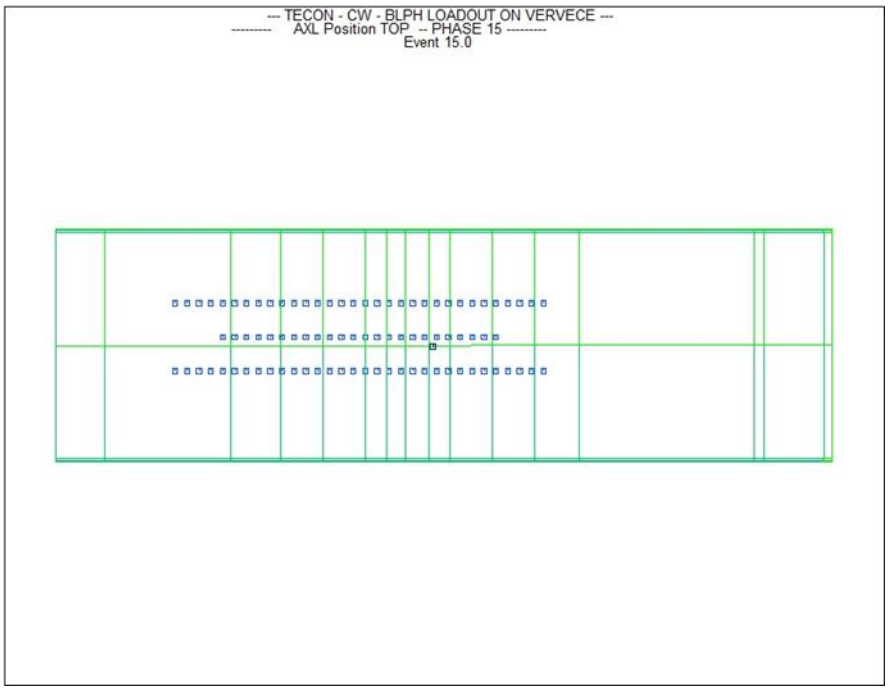
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

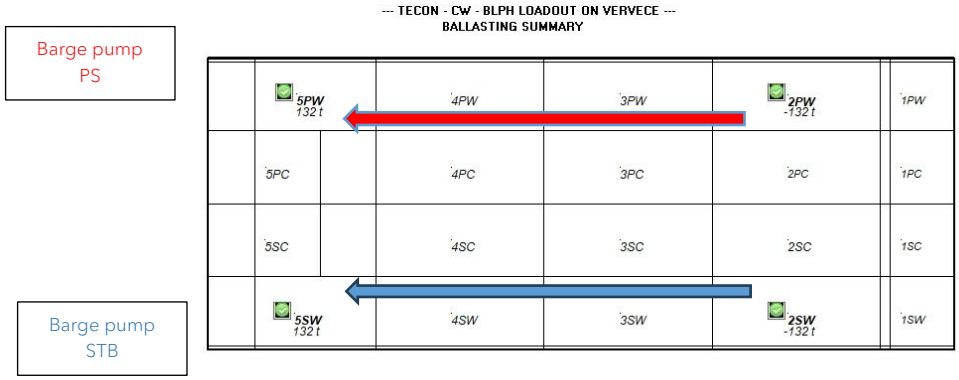
Phase -14-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-126	3,38	-,90	2,71	,90	76,
2SW	-141	3,99	-1,01	2,11	1,01	85,
5PW	126	2,17	1,07	3,93	-1,07	76,
5SW	141	2,83	1,14	3,27	-1,14	85,

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

6.4.16 Step 15: Shifting phase. All axles on board.





PHASE: 15
TRAVEL DISTANCE: 57,45

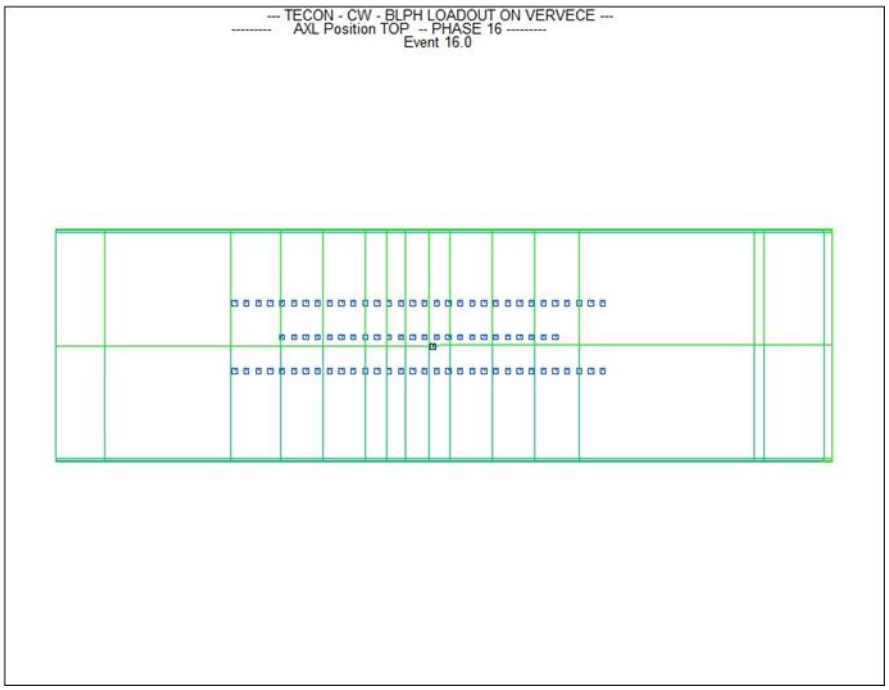
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

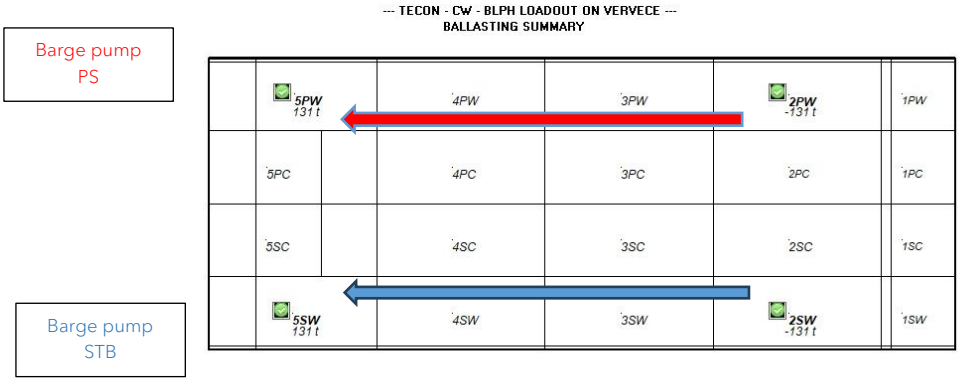
Phase -15-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-132	2,44	-,94	3,65	,94	79,
2SW	-132	3,04	-,94	3,05	,94	79,
5PW	132	3,19	1,02	2,90	-1,02	79,
5SW	132	3,81	,98	2,29	-,98	79,

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

6.4.17 Step 16: Shifting phase. All axles on board.





PHASE: 16
TRAVEL DISTANCE: 64,45

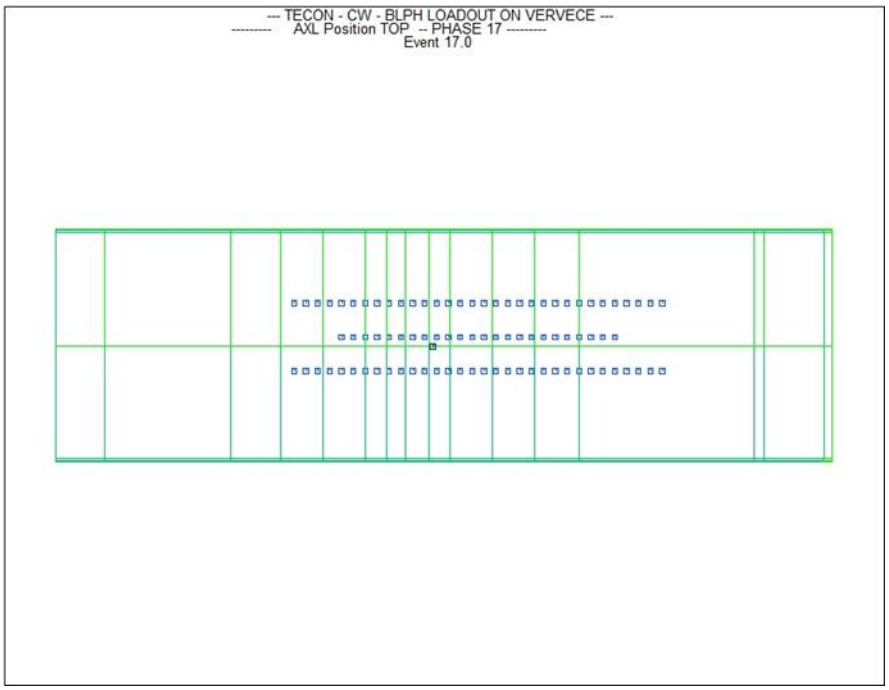
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

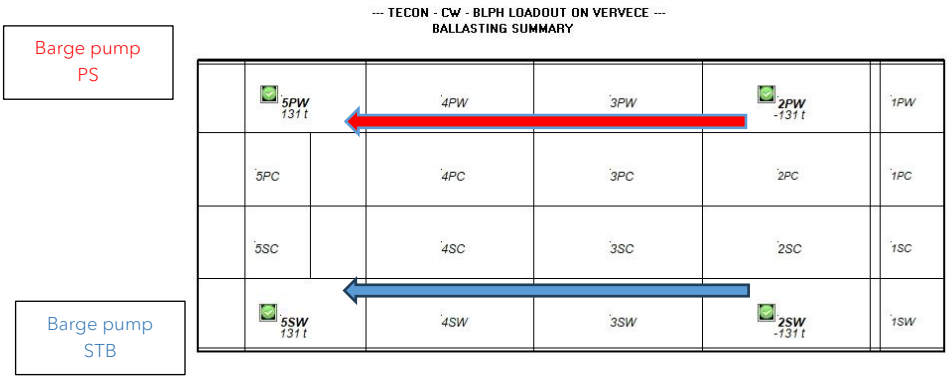
Phase -16-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-131	1,51	-,93	4,59	,93	79,
2SW	-131	2,10	-,94	3,99	,94	79,
5PW	131	4,14	,95	1,95	-,95	79,
5SW	131	4,75	,95	1,34	-,95	79,

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

6.4.18 Step 17: Shifting phase. All axles on board.





PHASE: 17
TRAVEL DISTANCE: 71,45

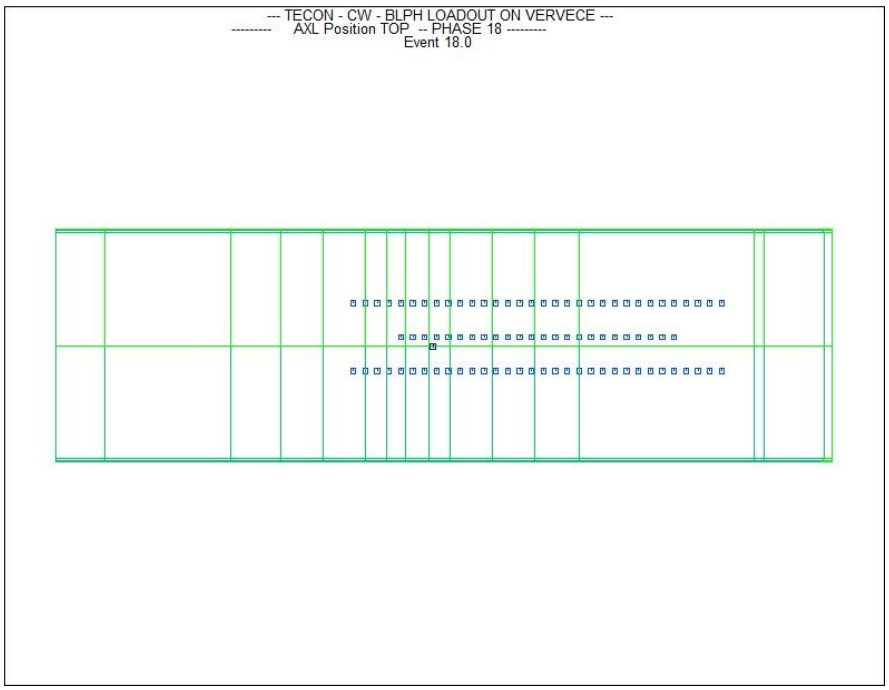
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

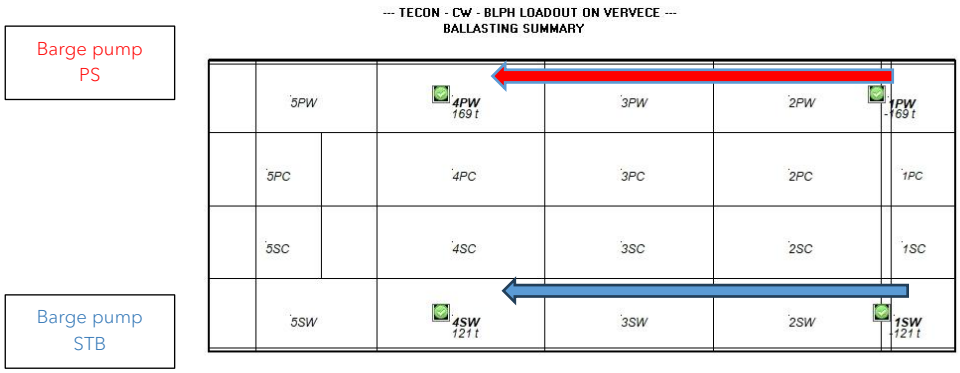
Phase -17-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
2PW	-131	,57	-,93	5,52	,93	79,
2SW	-131	1,17	-,94	4,93	,94	79,
5PW	131	5,09	,94	1,01	-,94	79,
5SW	131	5,70	,95	,40	-,95	79,

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

6.4.19 Step 18: Shifting phase. All axles on board.





PHASE: 18
TRAVEL DISTANCE: 78,45

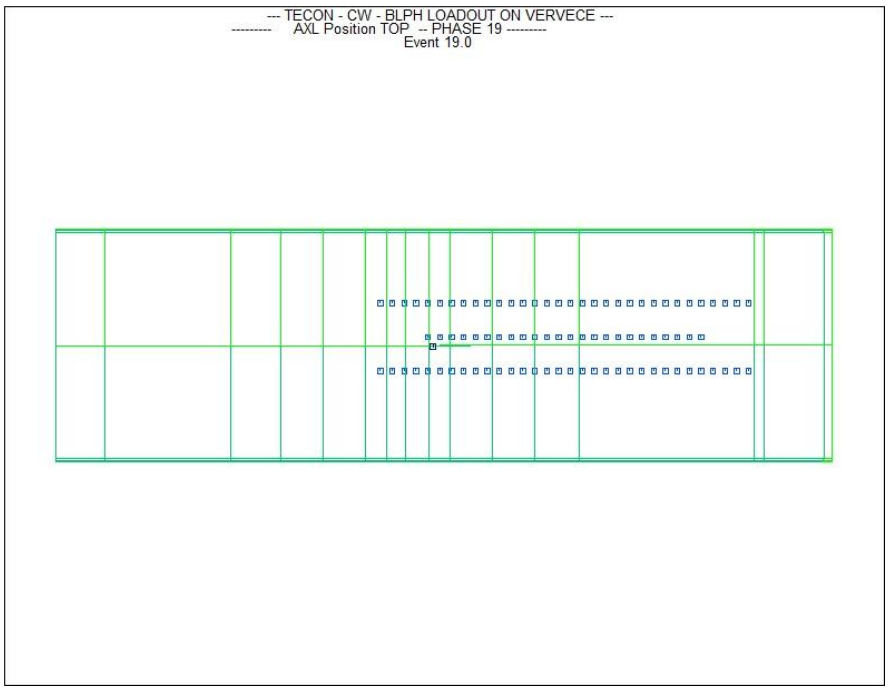
DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

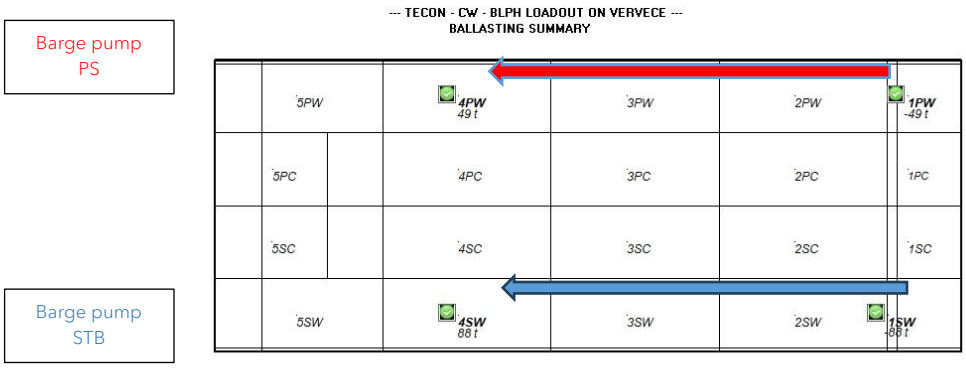
Phase -18-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
1PW	-169	2,65	-3,37	3,45	3,37	101,
1SW	-121	3,82	-2,19	2,27	2,19	73,
4PW	169	2,69	1,21	3,41	-1,21	101,
4SW	121	3,06	,87	3,04	-,87	73,

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

6.4.20 Step 19: Shifting phase. All axles on board. Topside reaches the transport position.





PHASE: 19
TRAVEL DISTANCE: 81,63

DRAFT(m): 4,30 Pitch(deg): 0,00 Roll(deg): 0,00
WEIGHT ON BOARD(t): 2308,4

Phase -19-

Tank No	Ballast Change	Sounding	Sounding Change	Ullage	Ullage Change	Pump Capacity
1PW	-49	,18	-2,47	5,91	2,47	29,
1SW	-88	1,16	-2,66	4,94	2,66	53,
4PW	49	3,03	,35	3,06	-,35	29,
4SW	88	3,69	,63	2,41	-,63	53,

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.

VERVECE - BALLAST PLAN - load-out Ph.0. - LOW TIDE D=3.95m evenkeel

STERN						BOW
full **5PW**		90.0% **4PW**	**3PW**	80% **2PW**	full **1PW**	
12% **5PC** 59 t		**4PC**	full **3PC**	18% **2PC** 160 t	**1PC**	
15% **5SC** 72 t		**4SC**	full **3SC**	20% **2SC** 173 t	**1SC**	
full **5SW**		90.0% **4SW**	**3SW**	80% **2SW**	full **1SW**	

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

STERN						BOW
full **5PW**		90.0% **4PW**	**3PW**	80% **2PW**	full **1PW**	
97% **5PC**		**4PC**	full **3PC**	86% **2PC**	**1PC**	
full **5SC**		**4SC**	full **3SC**	87% **2SC**	**1SC**	
full **5SW**		90.0% **4SW**	**3SW**	80% **2SW**	full **1SW**	

The same ballast plan will be used in case of load transfer stop using barge pumps.

6.5.1 Tide -40cm Phase 0

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*****************************************************************************************************************
*                                          *** MOSES ***                                                        *
*                                          ---------------                          15 April, 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 =     0.00

                                  Wet Radii Of Gyration About CG
```

```
                K-X =     8.80 K-Y =    25.04 K-Z =    26.18

                      GMT =    15.11 GML =   172.18

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

----------------  Part GRI&SF-B   ------------
LOAD_GRO     75.00    30.86    -1.14     7.35
----------------  Part VERVECE    ------------
LOAD_GRO   1832.80    47.02     0.00     3.52
--- Contents ---
1PC           2.35     8.46    -3.43     0.14     0.27     1.00
1PW         230.28     5.62   -10.28     3.77     6.02    98.00
1SC           2.35     8.46     3.43     0.14     0.27     1.00
1SW         230.28     5.62    10.28     3.77     6.02    98.00
2PC         159.94    19.43    -3.43     0.56     1.12    18.31
2PW         698.90    19.43   -10.28     2.44     4.88    80.00
2SC         172.40    19.43     3.43     0.60     1.20    19.73
2SW         698.90    19.43    10.28     2.44     4.88    80.00
3PC         856.22    40.01    -3.43     2.99     5.97    98.00
3PW          26.21    40.01   -10.18     0.09     0.19     3.00
3SC         856.22    40.01     3.43     2.99     5.97    98.00
3SW          26.21    40.01    10.18     0.09     0.19     3.00
4PC          26.21    60.58    -3.43     0.09     0.18     3.00
4PW         786.27    60.58   -10.28     2.75     5.49    90.00
4SC          26.21    60.58     3.43     0.09     0.18     3.00
4SW         786.27    60.58    10.28     2.75     5.49    90.00
5PC          59.11    82.12    -3.43     0.52     1.00    12.01
5PW         777.71    80.39   -10.28     3.16     5.98    98.00
5SC          71.58    82.21     3.43     0.63     1.21    14.78
5SW         777.71    80.39    10.28     3.16     5.98    98.00
========  ========  =======  =======  =======
Total      9179.12    46.80    -0.00     2.92
Buoyancy   9179.12    46.80    -0.00     2.03

        +++ 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        3.95 MIDST        3.95 STEPO        3.95 STEST        3.95
```

6.5.2 Tide +40cm Phase 0

```
*****************************************************************************************************************
*                                          ***  MOSES   ***                                                     *
*                                          ----------------                          15 April, 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 =     8.09 K-Y =    26.45 K-Z =    27.34

                                     GMT =    12.79 GML =   148.07

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

                     ----------------  Part GRI&SF-B   ------------
                     LOAD_GRO     75.00    30.86    -1.14     7.35
                     ----------------  Part VERVECE    ------------
                     LOAD_GRO   1832.80    47.02     0.00     3.52
                     --- Contents ---
                     1PC           2.35     8.46    -3.43     0.14     0.27     1.00
                     1PW         230.28     5.62   -10.28     3.77     6.02    98.00
                     1SC           2.35     8.46     3.43     0.14     0.27     1.00
```

1SW	230.28	5.62	10.28	3.77	6.02	98.00
2PC	748.06	19.43	-3.43	2.61	5.22	85.62
2PW	698.90	19.43	-10.28	2.44	4.88	80.00
2SC	762.05	19.43	3.43	2.66	5.32	87.22
2SW	698.90	19.43	10.28	2.44	4.88	80.00
3PC	856.22	40.00	-3.43	2.99	5.97	98.00
3PW	26.21	40.00	-10.18	0.09	0.19	3.00
3SC	856.22	40.00	3.43	2.99	5.97	98.00
3SW	26.21	40.00	10.18	0.09	0.19	3.00
4PC	26.21	60.58	-3.43	0.09	0.18	3.00
4PW	786.27	60.58	-10.28	2.75	5.49	90.00
4SC	26.21	60.58	3.43	0.09	0.18	3.00
4SW	786.27	60.58	10.28	2.75	5.49	90.00
5PC	473.34	83.86	-3.43	3.20	5.89	96.20
5PW	777.71	80.39	-10.28	3.16	5.98	98.00
5SC	484.29	83.89	3.43	3.31	6.10	100.00
5SW	777.71	80.39	10.28	3.16	5.98	98.00
Total	11183.85	46.68	-0.00	3.01		
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 9.

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 0.46 in phase 9 of loadout operation.

- UF = 11800/26130 = 0.46

For shear stress, the maximum usage factor is:

- UF_{shear} = 680/6150 = 0.11

in phase 18 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 3.5 cm (ph.10).

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   ***                                                    *
*                                         ----------------                          16 April, 2025          *
*          --- TECON - CW - BLPH 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

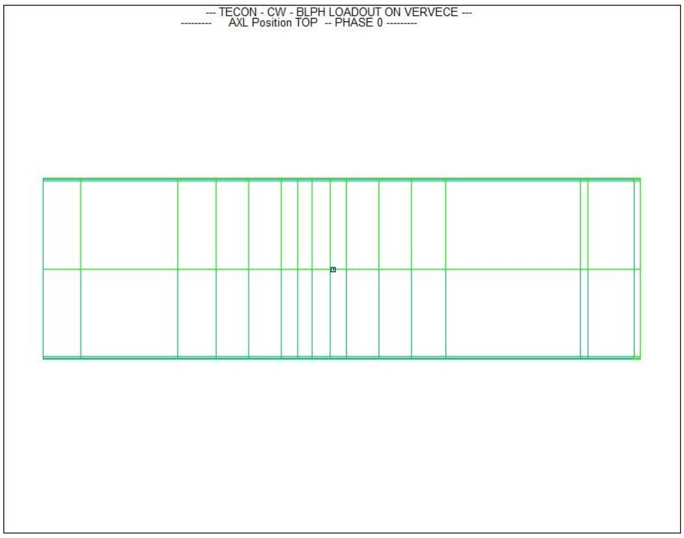
                                   Wet Radii Of Gyration About CG

                                K-X =     8.40 K-Y =    25.90 K-Z =    26.87

                                        GMT =    14.30 GML =   162.00

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

                                ----------------  Part GRI&SF-B   ------------
                                LOAD_GRO     75.00    30.86    -1.14     7.35
                                ----------------  Part VERVECE    ------------
                                LOAD_GRO   1832.80    47.02     0.00     3.52
                                             --- Contents ---
                            1PC     6.87     5.60    -3.43     0.11     0.18     3.00
                            1PW   224.67     5.62   -10.28     3.77     6.02    98.00
                            1SC     6.88     5.60     3.43     0.11     0.18     3.00
                            1SW   224.67     5.62    10.28     3.77     6.02    98.00
                            2PC   455.41    19.43    -3.43     1.63     3.26    53.43
                            2PW   681.86    19.43   -10.28     2.44     4.88    80.00
                            2SC   467.98    19.43     3.43     1.67     3.35    54.90
                            2SW   681.86    19.43    10.28     2.44     4.88    80.00
                            3PC   835.34    40.01    -3.43     2.99     5.97    98.00
                            3PW    25.57    40.01   -10.28     0.09     0.18     3.00
                            3SC   835.34    40.01     3.43     2.99     5.97    98.00
                            3SW    25.57    40.01    10.28     0.09     0.18     3.00
                            4PC    25.57    60.58    -3.43     0.09     0.18     3.00
                            4PW   767.09    60.58   -10.28     2.75     5.49    90.00
                            4SC    25.57    60.58     3.43     0.09     0.18     3.00
                            4SW   767.09    60.58    10.28     2.75     5.49    90.00
                            5PC   278.82    83.38    -3.43     2.10     3.86    58.09
                            5PW   758.74    80.39   -10.28     3.16     5.98    98.00
                            5SC   291.19    83.45     3.43     2.21     4.05    61.63
                            5SW   758.74    80.39    10.28     3.16     5.98    98.00
                                ========  ========  =======  =======  =======
                                Total     10052.61    46.75    -0.00     2.86
                                Buoyancy  10052.61    46.75    -0.00     2.21
```



+++ 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 ***
----------------                16 April, 2025
--- TECON - CW - BLPH 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 = 2.86, and Wind Speed = 10 Knots

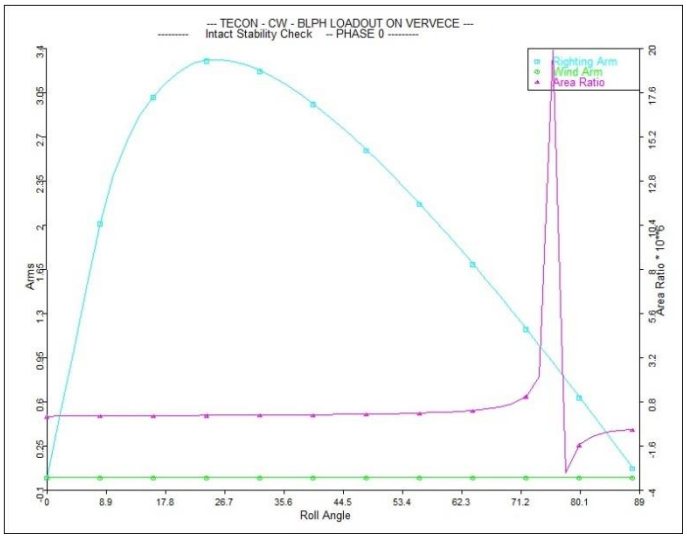
Initial: Roll = 0.00, Trim = 0.00 Deg.

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	3124.82	0.500
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6430.00	1.004
4.27	6.00	0.00	9999.00	1.03	1.51	4.52	0.00	0.00	9999.00	1.512
4.25	8.00	0.00	9999.00	0.57	2.01	8.05	0.00	0.00	9999.00	2.014
4.26	10.00	0.00	9999.00	0.08	2.39	12.45	0.00	0.00	9999.00	2.395
4.31	12.00	0.00	9999.00	-0.46	2.66	17.51	0.00	0.00	9999.00	2.665
4.39	14.00	0.00	9999.00	-1.04	2.86	23.04	0.00	0.00	9999.00	2.865
4.48	16.00	0.00	9999.00	-1.63	3.02	28.93	0.00	0.00	9999.00	3.016
4.60	18.00	0.00	9999.00	-2.25	3.13	35.07	0.00	0.00	9999.00	3.132
4.72	20.00	0.00	9999.00	-2.88	3.22	41.43	0.00	0.00	9999.00	3.219
4.85	22.00	0.00	9999.00	-3.51	3.28	47.92	0.00	0.00	9999.00	3.277
4.97	24.00	0.00	9999.00	-4.14	3.31	54.50	0.00	0.00	9999.00	3.305
5.09	26.00	0.00	9999.00	-4.77	3.31	61.12	0.00	0.00	9999.00	3.309
5.20	28.00	0.00	9999.00	-5.39	3.29	67.72	0.00	0.00	9999.00	3.294
5.31	30.00	0.00	9999.00	-6.01	3.26	74.28	0.00	0.00	9999.00	3.265
5.41	32.00	0.00	9999.00	-6.62	3.22	80.77	0.00	0.00	9999.00	3.222
5.50	34.00	0.00	9999.00	-7.22	3.17	87.16	0.00	0.00	9999.00	3.170
5.58	36.00	0.00	9999.00	-7.81	3.11	93.44	-0.00	0.00	9999.00	3.108
5.66	38.00	0.00	9999.00	-8.39	3.04	99.58	-0.00	0.00	9999.00	3.038
5.73	40.00	0.00	9999.00	-8.96	2.96	105.58	-0.00	0.00	9999.00	2.960

5.80	42.00	0.00	9999.00	-9.52	2.88	111.42	-0.00	0.00	9999.00	2.877
5.86	44.00	0.00	9999.00	-10.07	2.79	117.08	-0.00	0.00	9999.00	2.788
5.91	46.00	0.00	9999.00	-10.61	2.69	122.56	-0.00	0.00	9999.00	2.694
5.95	48.00	0.00	9999.00	-11.13	2.60	127.85	-0.00	0.00	9999.00	2.596
5.99	50.00	0.00	9999.00	-11.64	2.49	132.94	-0.00	0.00	9999.00	2.494
6.02	52.00	0.00	9999.00	-12.14	2.39	137.83	-0.00	0.00	9999.00	2.389
6.04	54.00	0.00	9999.00	-12.62	2.28	142.49	-0.00	0.00	9999.00	2.280
6.05	56.00	0.00	9999.00	-13.08	2.17	146.94	-0.00	0.00	9999.00	2.168
6.06	58.00	0.00	9999.00	-13.53	2.05	151.17	-0.00	0.00	9999.00	2.054
6.06	60.00	0.00	9999.00	-13.97	1.94	155.16	-0.00	0.00	9999.00	1.936
6.05	62.00	0.00	9999.00	-14.38	1.82	158.91	-0.00	0.00	9999.00	1.816
6.03	64.00	0.00	9999.00	-14.78	1.69	162.41	-0.00	0.00	9999.00	1.693
6.01	66.00	0.00	9999.00	-15.16	1.57	165.67	-0.00	0.00	9999.00	1.567
5.98	68.00	0.00	9999.00	-15.53	1.44	168.68	-0.00	0.00	9999.00	1.439
5.94	70.00	0.00	9999.00	-15.87	1.31	171.43	-0.00	0.00	9999.00	1.310
5.90	72.00	0.00	9999.00	-16.19	1.18	173.92	-0.00	0.00	9999.00	1.178
5.85	74.00	0.00	9999.00	-16.50	1.05	176.14	-0.00	0.00	9999.00	1.045
5.79	76.00	0.00	9999.00	-16.78	0.91	178.10	-0.00	0.00	9999.00	0.910
5.72	78.00	0.00	9999.00	-17.05	0.77	179.78	-0.00	-0.00	-9999.00	0.774
5.65	80.00	0.00	9999.00	-17.29	0.64	181.19	-0.00	-0.00	-9999.00	0.637
5.57	82.00	0.00	9999.00	-17.51	0.50	182.33	-0.00	-0.00	-9999.00	0.498
5.48	84.00	0.00	9999.00	-17.71	0.36	183.18	-0.00	-0.00	-9999.00	0.359
5.39	86.00	0.00	9999.00	-17.89	0.22	183.76	-0.00	-0.00	-9999.00	0.218
5.29	88.00	0.00	9999.00	-18.05	0.08	184.06	-0.00	-0.00	-9999.00	0.075



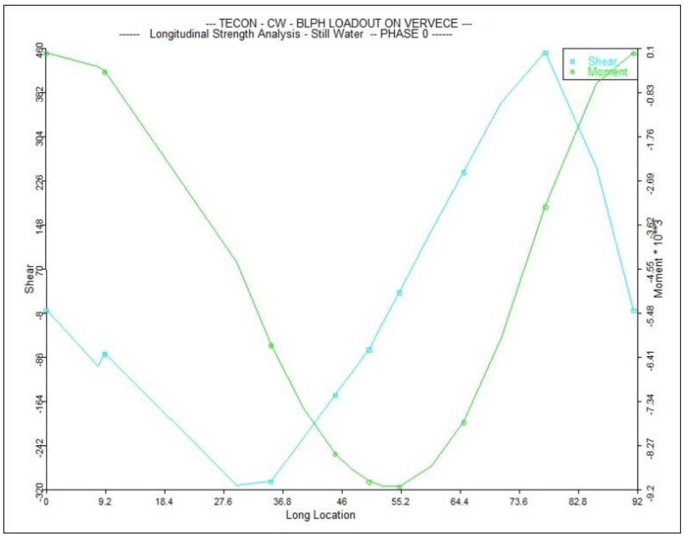

```
                    *******************************************************
*                                   ***  MOSES   ***                                  *
*                                   ----------------                  16 April, 2025  *
*         --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                 *
*         ------ 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   G R I & S F - B +++
            ===================================================================================

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

 LOAD              CONT.           /---------- FACTOR ---------/ /----------- AREA ----------/ /--------- LOCATION --------/
  GROUP     WEIGHT    NAME      DISPL     WIND   ADD. MASS     DRAG        X         Y         Z         X         Y         Z
-------- --------- -------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ---------

GRI&SF-B     75.00                                                                                    30.86     -1.14      7.35
                                                #WEI|004 #Weight
```



+++ 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 V E R V E C E +++

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

LOAD GROUP	WEIGHT	CONT. NAME	FACTOR DISPL	FACTOR WIND	FACTOR ADD. MASS	FACTOR 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  ***                                    *
*                         ----------------                 16 April, 2025    *
*     --- TECON - CW - BLPH 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	-101	-288	-0.0114	6.3407
9.14	-79	-391	-0.0155	7.2440
29.72	-312	-4405	-0.1741	22.2293
35.00	-305	-6151	-0.2431	25.1310
40.00	-227	-7486	-0.2958	27.1875
45.00	-151	-8436	-0.3334	28.4222
47.50	-113	-8769	-0.3465	28.6971
50.29	-71	-9029	-0.3568	28.7184
52.50	-24	-9136	-0.3610	28.5159
55.00	29	-9130	-0.3608	28.0498
60.00	136	-8717	-0.3445	26.3676
65.00	242	-7773	-0.3072	23.7293
70.87	364	-5995	-0.2369	19.5588
77.72	454	-3232	-0.1278	13.5619
85.70	248	-630	-0.0250	5.7685
91.44	-1	0	0.0000	0.0000

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

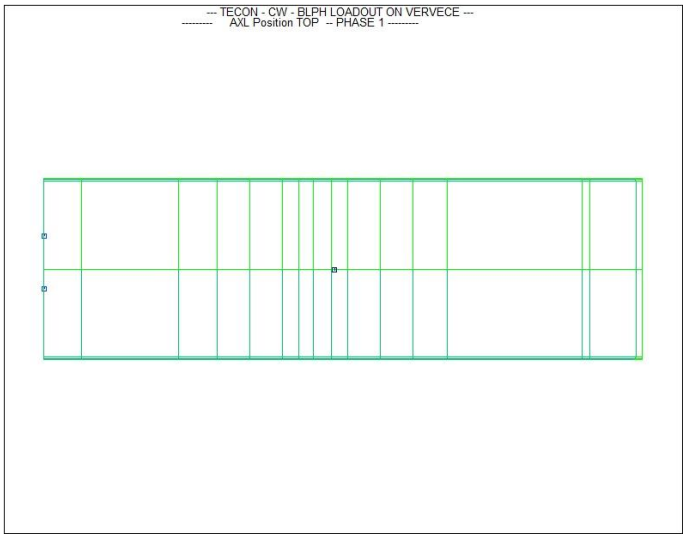
                                 Wet Radii Of Gyration About CG

                           K-X =     8.38 K-Y =    25.97 K-Z =    26.92

                                    GMT =    14.29 GML =   161.97

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

                          ----------------  Part AXL1       ------------
                          LOAD_GRO     48.60    91.39    -1.14     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                    1PC         6.87     5.60    -3.43     0.11     0.18     3.00
                    1PW       224.67     5.62   -10.28     3.77     6.02    98.00
                    1SC         6.88     5.60     3.43     0.11     0.18     3.00
                    1SW       224.67     5.62    10.28     3.77     6.02    98.00
                    2PC       455.41    19.43    -3.43     1.63     3.26    53.43
                    2PW       684.94    19.43   -10.28     2.45     4.90    80.36
                    2SC       467.98    19.43     3.43     1.67     3.35    54.90
                    2SW       687.63    19.43    10.28     2.46     4.92    80.68
                    3PC       835.34    40.00    -3.43     2.99     5.97    98.00
                    3PW        25.57    40.01   -10.28     0.09     0.18     3.00
                    3SC       835.34    40.00     3.43     2.99     5.97    98.00
                    3SW        25.57    40.01    10.28     0.09     0.18     3.00
                    4PC        25.57    60.58    -3.43     0.09     0.18     3.00
                    4PW       767.09    60.58   -10.28     2.75     5.49    90.00
                    4SC        25.57    60.58     3.43     0.09     0.18     3.00
                    4SW       767.09    60.58    10.28     2.75     5.49    90.00
                    5PC       278.82    83.38    -3.43     2.10     3.86    58.09
                    5PW       728.66    80.35   -10.28     3.05     5.77    94.12
                    5SC       291.19    83.45     3.43     2.21     4.05    61.63
                    5SW       731.36    80.36    10.28     3.06     5.79    94.46
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75     0.00     2.87
                          Buoyancy  10052.60    46.75     0.00     2.21
```



```
                                  ******************************************************
*                                         ***  MOSES   ***                                                  *
*                                         ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                         ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 = 2.87, and Wind Speed = 10 Knots

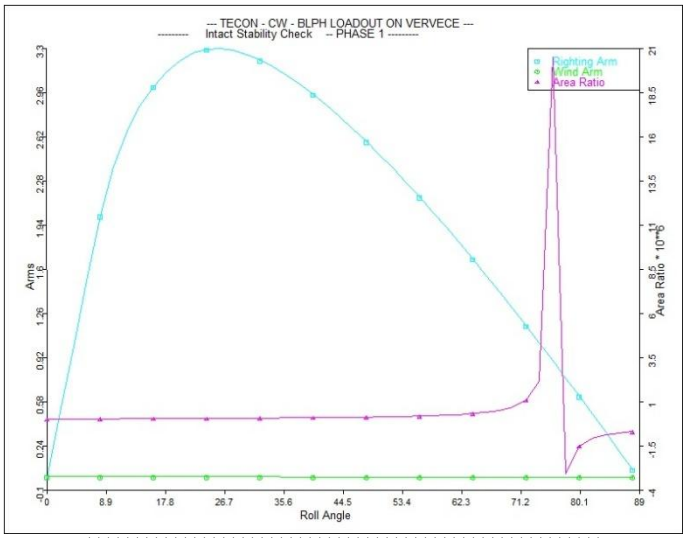
                                  Initial: Roll = -0.00, Trim = -0.00 Deg.

                                  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   3123.76      0.499
    4.29    4.00    0.00     9999.00      1.48       1.00      2.00       0.00      0.00   6422.11      1.002
    4.27    6.00    0.00     9999.00      1.03       1.51      4.51       0.00      0.00   9999.00      1.507
    4.25    8.00    0.00     9999.00      0.57       2.01      8.02       0.00      0.00   9999.00      2.007
    4.26   10.00    0.00     9999.00      0.07       2.39     12.42       0.00      0.00   9999.00      2.386
    4.31   12.00    0.00     9999.00     -0.47       2.65     17.46       0.00      0.00   9999.00      2.655
    4.39   14.00    0.00     9999.00     -1.04       2.85     22.97       0.00      0.00   9999.00      2.854
    4.49   16.00    0.00     9999.00     -1.63       3.00     28.82       0.00      0.00   9999.00      3.004
    4.60   18.00    0.00     9999.00     -2.25       3.12     34.95       0.00      0.00   9999.00      3.120
    4.72   20.00    0.00     9999.00     -2.88       3.21     41.27       0.00      0.00   9999.00      3.206
    4.85   22.00    0.00     9999.00     -3.51       3.26     47.74       0.00      0.00   9999.00      3.264
    4.97   24.00    0.00     9999.00     -4.15       3.29     54.30       0.00      0.00   9999.00      3.291
    5.09   26.00    0.00     9999.00     -4.77       3.29     60.89       0.00      0.00   9999.00      3.295
    5.20   28.00    0.00     9999.00     -5.40       3.28     67.46       0.00      0.00   9999.00      3.280
    5.31   30.00    0.00     9999.00     -6.01       3.25     73.99       0.00      0.00   9999.00      3.250
    5.41   32.00    0.00     9999.00     -6.62       3.21     80.45       0.00      0.00   9999.00      3.208
    5.50   34.00    0.00     9999.00     -7.22       3.15     86.81       0.00      0.00   9999.00      3.155
    5.59   36.00    0.00     9999.00     -7.81       3.09     93.06      -0.00      0.00   9999.00      3.093
    5.66   38.00    0.00     9999.00     -8.39       3.02     99.17      -0.00      0.00   9999.00      3.023
    5.74   40.00    0.00     9999.00     -8.96       2.95    105.14      -0.00      0.00   9999.00      2.945
    5.80   42.00    0.00     9999.00     -9.52       2.86    110.95      -0.00      0.00   9999.00      2.862
    5.86   44.00    0.00     9999.00    -10.07       2.77    116.58      -0.00      0.00   9999.00      2.773
    5.91   46.00    0.00     9999.00    -10.61       2.68    122.03      -0.00      0.00   9999.00      2.679
    5.95   48.00    0.00     9999.00    -11.13       2.58    127.29      -0.00      0.00   9999.00      2.581
    5.99   50.00    0.00     9999.00    -11.64       2.48    132.35      -0.00      0.00   9999.00      2.479
    6.02   52.00    0.00     9999.00    -12.14       2.37    137.21      -0.00      0.00   9999.00      2.374
    6.04   54.00    0.00     9999.00    -12.62       2.27    141.85      -0.00      0.00   9999.00      2.265
    6.05   56.00    0.00     9999.00    -13.09       2.15    146.26      -0.00      0.00   9999.00      2.153
    6.06   58.00    0.00     9999.00    -13.53       2.04    150.46      -0.00      0.00   9999.00      2.039
    6.06   60.00    0.00     9999.00    -13.97       1.92    154.42      -0.00      0.00   9999.00      1.921
    6.05   62.00    0.00     9999.00    -14.38       1.80    158.14      -0.00      0.00   9999.00      1.801
    6.03   64.00    0.00     9999.00    -14.78       1.68    161.62      -0.00      0.00   9999.00      1.678
    6.01   66.00    0.00     9999.00    -15.16       1.55    164.85      -0.00      0.00   9999.00      1.553
    5.98   68.00    0.00     9999.00    -15.53       1.42    167.82      -0.00      0.00   9999.00      1.425
    5.94   70.00    0.00     9999.00    -15.87       1.30    170.54      -0.00      0.00   9999.00      1.295
    5.90   72.00    0.00     9999.00    -16.19       1.16    173.00      -0.00      0.00   9999.00      1.164
    5.85   74.00    0.00     9999.00    -16.50       1.03    175.20      -0.00      0.00   9999.00      1.030
    5.79   76.00    0.00     9999.00    -16.78       0.90    177.12      -0.00      0.00   9999.00      0.895
    5.72   78.00    0.00     9999.00    -17.05       0.76    178.78      -0.00     -0.00  -9999.00      0.759
    5.65   80.00    0.00     9999.00    -17.29       0.62    180.16      -0.00     -0.00  -9999.00      0.621
    5.57   82.00    0.00     9999.00    -17.51       0.48    181.26      -0.00     -0.00  -9999.00      0.481
    5.48   84.00    0.00     9999.00    -17.71       0.34    182.08      -0.00     -0.00  -9999.00      0.341
    5.39   86.00    0.00     9999.00    -17.89       0.20    182.62      -0.00     -0.00  -9999.00      0.199
    5.29   88.00    0.00     9999.00    -18.05       0.06    182.87      -0.00     -0.00  -9999.00      0.056
```




```
**********************************************************
*                                *** MOSES ***                                *
*                                ---------------                              *
*                                                          16 April, 2025     *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                          *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 1 ------ *
*                                                                             *
*******************************************************************************
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+++ 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 +++

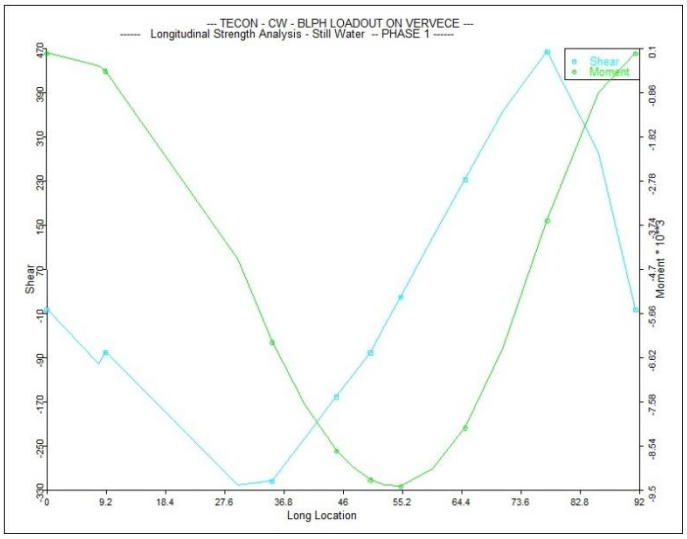
Process is 1: Units Are Degrees, Meters, and M-Tons Unless Specified

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-100	-286	-0.0113	6.5258
9.14	-78	-389	-0.0154	7.4557
29.72	-320	-4485	-0.1772	22.9078
35.00	-313	-6273	-0.2479	25.9146
40.00	-235	-7648	-0.3023	28.0568
45.00	-159	-8639	-0.3414	29.3594
47.50	-121	-8992	-0.3553	29.6602
50.29	-79	-9274	-0.3665	29.7028
52.50	-32	-9399	-0.3714	29.5116
55.00	21	-9413	-0.3720	29.0512
60.00	128	-9041	-0.3573	27.3565
65.00	233	-8138	-0.3216	24.6698
70.87	356	-6408	-0.2533	20.3911
77.72	464	-3637	-0.1437	14.1889
85.70	281	-862	-0.0341	6.0555
91.44	-1	0	0.0000	0.0000

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--- TECON - CW - BLPH 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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*        --- TECON - CW - BLPH 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

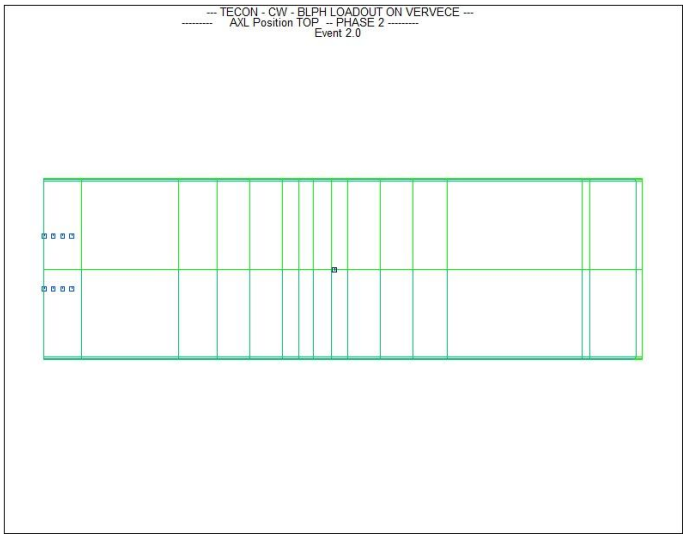
                                 Wet Radii Of Gyration About CG

                           K-X =     8.31 K-Y =    26.11 K-Z =    27.03

                                  GMT =    14.27 GML =   161.84

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

                          ----------------  Part AXL2       ------------
                          LOAD_GRO    194.40    89.29    -1.14     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                    1PC         6.87     5.60    -3.43     0.11     0.18     3.00
                    1PW       224.67     5.62   -10.28     3.77     6.02    98.00
                    1SC         6.88     5.60     3.43     0.11     0.18     3.00
                    1SW       224.67     5.62    10.28     3.77     6.02    98.00
                    2PC       455.41    19.43    -3.43     1.63     3.26    53.43
                    2PW       689.30    19.43   -10.28     2.47     4.93    80.87
                    2SC       467.98    19.43     3.43     1.67     3.35    54.90
                    2SW       700.09    19.43    10.28     2.51     5.01    82.14
                    3PC       835.34    40.01    -3.43     2.99     5.97    98.00
                    3PW        25.57    40.01   -10.28     0.09     0.18     3.00
                    3SC       835.34    40.01     3.43     2.99     5.97    98.00
                    3SW        25.57    40.01    10.28     0.09     0.18     3.00
                    4PC        25.57    60.58    -3.43     0.09     0.18     3.00
                    4PW       767.09    60.58   -10.28     2.75     5.49    90.00
                    4SC        25.57    60.58     3.43     0.09     0.18     3.00
                    4SW       767.09    60.58    10.28     2.75     5.49    90.00
                    5PC       278.82    83.38    -3.43     2.10     3.86    58.09
                    5PW       643.31    80.25   -10.28     2.73     5.15    83.09
                    5SC       291.19    83.45     3.43     2.21     4.05    61.63
                    5SW       654.09    80.26    10.28     2.77     5.23    84.48
                   ========  ========  =======  =======  =======
                   Total     10052.61    46.75    -0.00     2.89
                   Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*                                                                                                                                  *
*                                          ***  MOSES   ***                                                                    *
*                                          ----------------                                  16 April, 2025                  *
*          --- TECON - CW - BLPH 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   ***                                                                    *
*                                          ----------------                                  16 April, 2025                  *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                                          *
*          ---------     Intact Stability Check    -- PHASE 2 ---------                                                        . *
*                                                                                                                               *
*********************************************************************************************************************************
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+++ 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

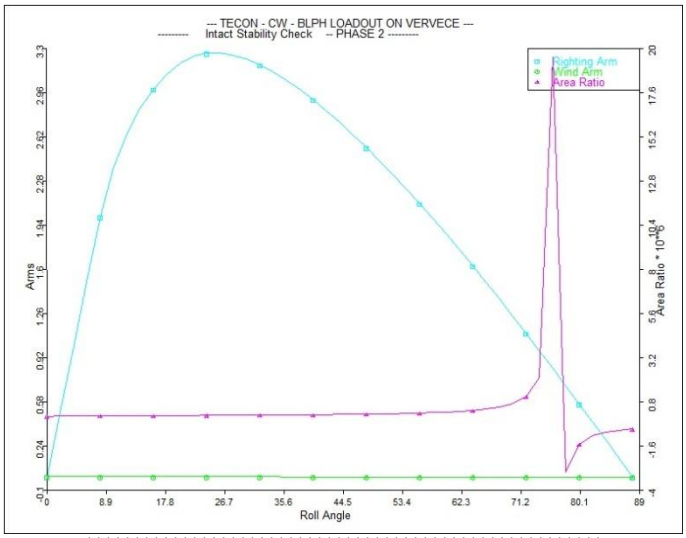
Moment Scaled By 10052.61, KG = 2.89, and Wind Speed = 10 Knots

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	3118.71	0.499
4.29	4.00	0.00	9999.00	1.49	1.00	2.00	0.00	0.00	6411.77	1.001
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	2.379
4.31	12.00	0.00	9999.00	-0.46	2.64	17.41	0.00	0.00	9999.00	2.644
4.39	14.00	0.00	9999.00	-1.04	2.84	22.90	0.00	0.00	9999.00	2.839
4.48	16.00	0.00	9999.00	-1.63	2.99	28.72	0.00	0.00	9999.00	2.986
4.60	18.00	0.00	9999.00	-2.25	3.10	34.80	0.00	0.00	9999.00	3.098
4.72	20.00	0.00	9999.00	-2.88	3.18	41.08	0.00	0.00	9999.00	3.182
4.85	22.00	0.00	9999.00	-3.51	3.24	47.50	0.00	0.00	9999.00	3.237
4.97	24.00	0.00	9999.00	-4.14	3.26	54.00	0.00	0.00	9999.00	3.262
5.09	26.00	0.00	9999.00	-4.77	3.26	60.52	0.00	0.00	9999.00	3.263
5.20	28.00	0.00	9999.00	-5.39	3.25	67.03	0.00	0.00	9999.00	3.247
5.31	30.00	0.00	9999.00	-6.01	3.21	73.50	0.00	0.00	9999.00	3.215
5.41	32.00	0.00	9999.00	-6.62	3.17	79.88	0.00	0.00	9999.00	3.171
5.50	34.00	0.00	9999.00	-7.22	3.12	86.17	0.00	0.00	9999.00	3.116
5.58	36.00	0.00	9999.00	-7.81	3.05	92.34	-0.00	0.00	9999.00	3.053
5.66	38.00	0.00	9999.00	-8.39	2.98	98.37	-0.00	0.00	9999.00	2.981
5.73	40.00	0.00	9999.00	-8.96	2.90	104.26	-0.00	0.00	9999.00	2.903
5.80	42.00	0.00	9999.00	-9.52	2.82	109.98	-0.00	0.00	9999.00	2.818
5.86	44.00	0.00	9999.00	-10.07	2.73	115.52	-0.00	0.00	9999.00	2.728
5.91	46.00	0.00	9999.00	-10.61	2.63	120.88	-0.00	0.00	9999.00	2.633
5.95	48.00	0.00	9999.00	-11.13	2.53	126.05	-0.00	0.00	9999.00	2.534
5.99	50.00	0.00	9999.00	-11.64	2.43	131.02	-0.00	0.00	9999.00	2.431
6.02	52.00	0.00	9999.00	-12.14	2.33	135.77	-0.00	0.00	9999.00	2.325
6.04	54.00	0.00	9999.00	-12.62	2.22	140.31	-0.00	0.00	9999.00	2.216
6.05	56.00	0.00	9999.00	-13.08	2.10	144.63	-0.00	0.00	9999.00	2.103
6.06	58.00	0.00	9999.00	-13.53	1.99	148.72	-0.00	0.00	9999.00	1.987
6.06	60.00	0.00	9999.00	-13.97	1.87	152.58	-0.00	0.00	9999.00	1.869
6.05	62.00	0.00	9999.00	-14.38	1.75	156.19	-0.00	0.00	9999.00	1.748
6.03	64.00	0.00	9999.00	-14.78	1.62	159.57	-0.00	0.00	9999.00	1.624
6.01	66.00	0.00	9999.00	-15.16	1.50	162.69	-0.00	0.00	9999.00	1.498
5.98	68.00	0.00	9999.00	-15.53	1.37	165.56	-0.00	0.00	9999.00	1.369
5.94	70.00	0.00	9999.00	-15.87	1.24	168.16	-0.00	0.00	9999.00	1.238
5.90	72.00	0.00	9999.00	-16.19	1.11	170.51	-0.00	0.00	9999.00	1.105
5.85	74.00	0.00	9999.00	-16.50	0.97	172.58	-0.00	0.00	9999.00	0.971
5.79	76.00	0.00	9999.00	-16.78	0.84	174.39	-0.00	0.00	9999.00	0.835
5.72	78.00	0.00	9999.00	-17.05	0.70	175.92	-0.00	-0.00	-9999.00	0.698
5.65	80.00	0.00	9999.00	-17.29	0.56	177.18	-0.00	-0.00	-9999.00	0.560
5.57	82.00	0.00	9999.00	-17.51	0.42	178.16	-0.00	-0.00	-9999.00	0.421
5.48	84.00	0.00	9999.00	-17.71	0.28	178.86	-0.00	-0.00	-9999.00	0.281
5.39	86.00	0.00	9999.00	-17.89	0.14	179.28	-0.00	-0.00	-9999.00	0.141
5.29	88.00	0.00	9999.00	-18.05	-0.00	179.42	-0.00	-0.00	-9999.00	-0.001




```
**********************************************************
*                                *** MOSES ***                                *
*                                ---------------                              *
*                                                          16 April, 2025     *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                          *
*        ------  Longitudinal Strength Analysis - Still Water  -- PHASE 2 ------ *
*                                                                             *
*******************************************************************************
```

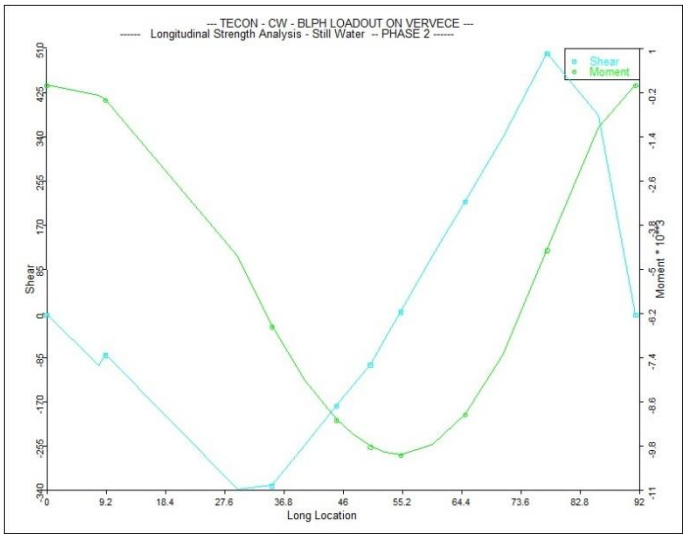
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-288	-0.0114	6.9376
9.14	-79	-390	-0.0155	7.9263
29.72	-338	-4669	-0.1845	24.4061
35.00	-330	-6550	-0.2589	27.6411
40.00	-253	-8013	-0.3167	29.9682
45.00	-177	-9091	-0.3593	31.4154
47.50	-139	-9488	-0.3750	31.7704
50.29	-97	-9819	-0.3881	31.8576
52.50	-49	-9983	-0.3945	31.6881
55.00	3	-10041	-0.3968	31.2372
60.00	110	-9757	-0.3856	29.5086
65.00	216	-8941	-0.3534	26.7091
70.87	339	-7314	-0.2890	22.1844
77.72	501	-4475	-0.1769	15.5226
85.70	381	-1152	-0.0456	6.6492
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 2 ------
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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*        --- TECON - CW - BLPH 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

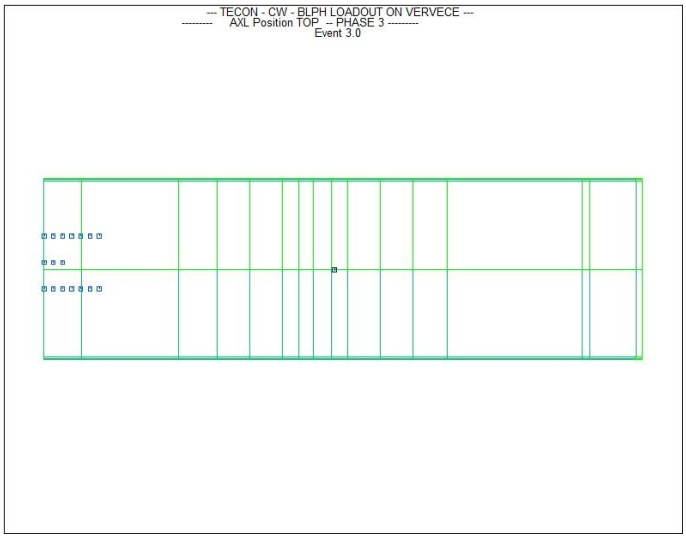
                                 Wet Radii Of Gyration About CG

                           K-X =     8.21 K-Y =    26.25 K-Z =    27.13

                                    GMT =    14.22 GML =   161.60

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

                           ----------------  Part AXL3       ------------
                           LOAD_GRO    413.10    87.68    -1.14     7.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC        6.87     5.60    -3.43     0.11     0.18     3.00
                      1PW      224.67     5.62   -10.28     3.77     6.02    98.00
                      1SC        6.88     5.60     3.43     0.11     0.18     3.00
                      1SW      224.67     5.62    10.28     3.77     6.02    98.00
                      2PC      455.41    19.43    -3.43     1.63     3.26    53.43
                      2PW      692.22    19.43   -10.28     2.48     4.95    81.22
                      2SC      467.98    19.43     3.43     1.67     3.35    54.90
                      2SW      715.22    19.43    10.28     2.56     5.12    83.91
                      3PC      835.34    40.01    -3.43     2.99     5.97    98.00
                      3PW       25.57    40.01   -10.28     0.09     0.18     3.00
                      3SC      835.34    40.01     3.43     2.99     5.97    98.00
                      3SW       25.57    40.01    10.28     0.09     0.18     3.00
                      4PC       25.57    60.58    -3.43     0.09     0.18     3.00
                      4PW      767.09    60.58   -10.28     2.75     5.49    90.00
                      4SC       25.57    60.58     3.43     0.09     0.18     3.00
                      4SW      767.09    60.58    10.28     2.75     5.49    90.00
                      5PC      278.82    83.38    -3.43     2.10     3.86    58.09
                      5PW      518.90    80.03   -10.28     2.25     4.25    67.02
                      5SC      291.19    83.45     3.43     2.21     4.05    61.63
                      5SW      541.76    80.08    10.28     2.34     4.42    69.97
                           ========  ========  =======  =======  =======
                           Total     10052.61    46.75    -0.00     2.94
                           Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*                                                                                                                                                    *
*                                          ***  MOSES   ***                                                                                      *
*                                          ----------------                                  16 April, 2025                                     *
*          --- TECON - CW - BLPH 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   ***                                                                                      *
*                                          ----------------                                  16 April, 2025                                     *
*          --- TECON - CW - BLPH 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 = 2.94, and Wind Speed = 10 Knots

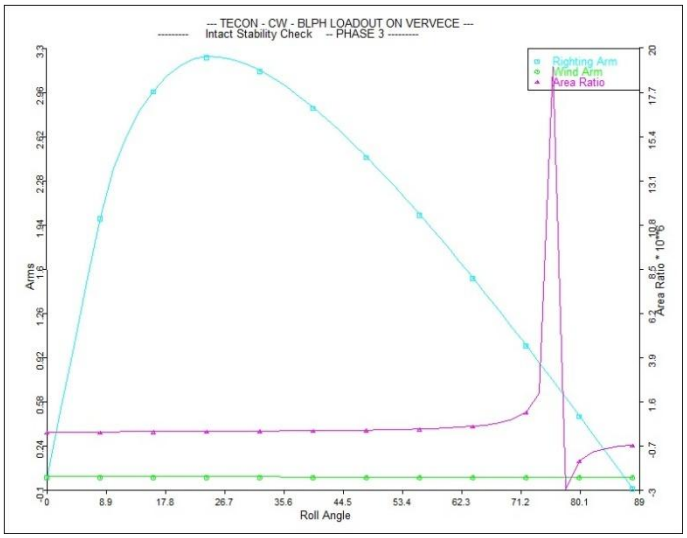
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                                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    3107.49     0.497
   4.29    4.00    0.00     9999.00       1.49       1.00       1.99       0.00       0.00    6388.74     0.997
   4.27    6.00    0.00     9999.00       1.03       1.50       4.49       0.00       0.00    9999.00     1.499
   4.25    8.00    0.00     9999.00       0.57       2.00       7.98       0.00       0.00    9999.00     1.995
   4.26   10.00    0.00     9999.00       0.08       2.37      12.35       0.00       0.00    9999.00     2.370
   4.31   12.00    0.00     9999.00      -0.46       2.63      17.35       0.00       0.00    9999.00     2.633
   4.39   14.00    0.00     9999.00      -1.04       2.83      22.81       0.00       0.00    9999.00     2.827
   4.48   16.00    0.00     9999.00      -1.63       2.97      28.61       0.00       0.00    9999.00     2.971
   4.60   18.00    0.00     9999.00      -2.25       3.08      34.66       0.00       0.00    9999.00     3.081
   4.72   20.00    0.00     9999.00      -2.88       3.16      40.90       0.00       0.00    9999.00     3.162
   4.85   22.00    0.00     9999.00      -3.51       3.21      47.28       0.00       0.00    9999.00     3.214
   4.97   24.00    0.00     9999.00      -4.14       3.24      53.73       0.00       0.00    9999.00     3.235
   5.09   26.00    0.00     9999.00      -4.77       3.23      60.19       0.00       0.00    9999.00     3.233
   5.20   28.00    0.00     9999.00      -5.39       3.21      66.64       0.00       0.00    9999.00     3.211
   5.31   30.00    0.00     9999.00      -6.01       3.18      73.03       0.00       0.00    9999.00     3.175
   5.41   32.00    0.00     9999.00      -6.62       3.13      79.33       0.00       0.00    9999.00     3.127
   5.50   34.00    0.00     9999.00      -7.22       3.07      85.52       0.00       0.00    9999.00     3.069
   5.58   36.00    0.00     9999.00      -7.81       3.00      91.59      -0.00       0.00    9999.00     3.002
   5.66   38.00    0.00     9999.00      -8.39       2.93      97.52      -0.00       0.00    9999.00     2.926
   5.73   40.00    0.00     9999.00      -8.96       2.84     103.29      -0.00       0.00    9999.00     2.844
   5.80   42.00    0.00     9999.00      -9.52       2.76     108.89      -0.00       0.00    9999.00     2.756
   5.86   44.00    0.00     9999.00     -10.07       2.66     114.31      -0.00       0.00    9999.00     2.663
   5.91   46.00    0.00     9999.00     -10.61       2.56     119.54      -0.00       0.00    9999.00     2.565
   5.95   48.00    0.00     9999.00     -11.13       2.46     124.57      -0.00       0.00    9999.00     2.463
   5.99   50.00    0.00     9999.00     -11.64       2.36     129.39      -0.00       0.00    9999.00     2.357
   6.02   52.00    0.00     9999.00     -12.14       2.25     133.99      -0.00       0.00    9999.00     2.248
   6.04   54.00    0.00     9999.00     -12.62       2.14     138.38      -0.00       0.00    9999.00     2.136
   6.05   56.00    0.00     9999.00     -13.08       2.02     142.53      -0.00       0.00    9999.00     2.020
   6.06   58.00    0.00     9999.00     -13.53       1.90     146.45      -0.00       0.00    9999.00     1.902
   6.06   60.00    0.00     9999.00     -13.97       1.78     150.14      -0.00       0.00    9999.00     1.782
   6.05   62.00    0.00     9999.00     -14.38       1.66     153.58      -0.00       0.00    9999.00     1.659
   6.03   64.00    0.00     9999.00     -14.78       1.53     156.77      -0.00       0.00    9999.00     1.534
   6.01   66.00    0.00     9999.00     -15.16       1.41     159.71      -0.00       0.00    9999.00     1.407
   5.98   68.00    0.00     9999.00     -15.53       1.28     162.39      -0.00       0.00    9999.00     1.277
   5.94   70.00    0.00     9999.00     -15.87       1.15     164.82      -0.00       0.00    9999.00     1.146
   5.90   72.00    0.00     9999.00     -16.19       1.01     166.98      -0.00       0.00    9999.00     1.014
   5.85   74.00    0.00     9999.00     -16.50       0.88     168.87      -0.00       0.00    9999.00     0.880
   5.79   76.00    0.00     9999.00     -16.78       0.74     170.49      -0.00       0.00    9999.00     0.744
   5.72   78.00    0.00     9999.00     -17.05       0.61     171.85      -0.00      -0.00   -9999.00     0.608
   5.65   80.00    0.00     9999.00     -17.29       0.47     172.92      -0.00      -0.00   -9999.00     0.470
   5.57   82.00    0.00     9999.00     -17.51       0.33     173.73      -0.00      -0.00   -9999.00     0.332
   5.48   84.00    0.00     9999.00     -17.71       0.19     174.25      -0.00      -0.00   -9999.00     0.193
   5.39   86.00    0.00     9999.00     -17.89       0.05     174.50      -0.00      -0.00   -9999.00     0.054
   5.29   88.00    0.00     9999.00     -18.05      -0.09     174.46      -0.00      -0.00   -9999.00    -0.087
```




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*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 3 ------   *
*                                                                                      *
****************************************************************************************************************
```

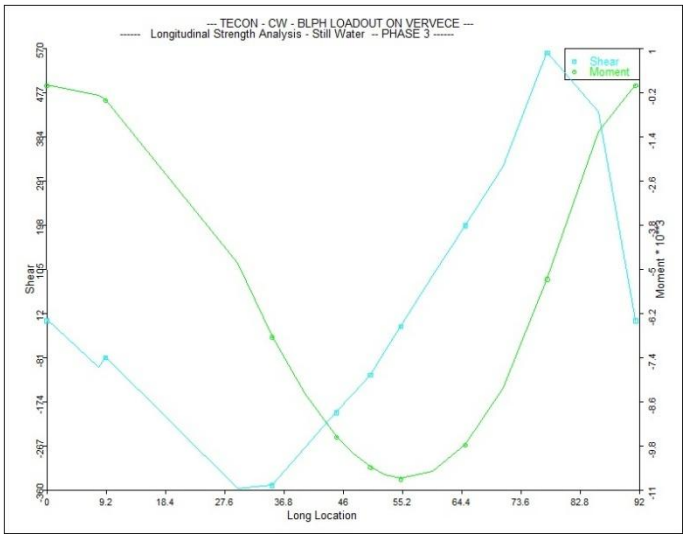
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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

Allowable Stress = 155.00 Mpa

Allowable Deflection = 1.00 MM

Longitudinal Location	Shear Force	Bending Moment	B. Stress/ Allowable	Deflection/ Allowable
0.00	-1	0	0.0000	0.0000
8.00	-101	-288	-0.0114	7.3513
9.14	-79	-391	-0.0155	8.3991
29.72	-356	-4855	-0.1919	25.9136
35.00	-348	-6832	-0.2700	29.3785
40.00	-271	-8385	-0.3314	31.8913
45.00	-195	-9554	-0.3776	33.4833
47.50	-157	-9995	-0.3950	33.8923
50.29	-115	-10378	-0.4101	34.0230
52.50	-67	-10581	-0.4182	33.8745
55.00	-14	-10685	-0.4222	33.4319
60.00	92	-10490	-0.4146	31.6652
65.00	198	-9765	-0.3859	28.7469
70.87	321	-8244	-0.3258	23.9661
77.72	562	-5258	-0.2078	16.8296
85.70	436	-1280	-0.0506	7.2189
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 3 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

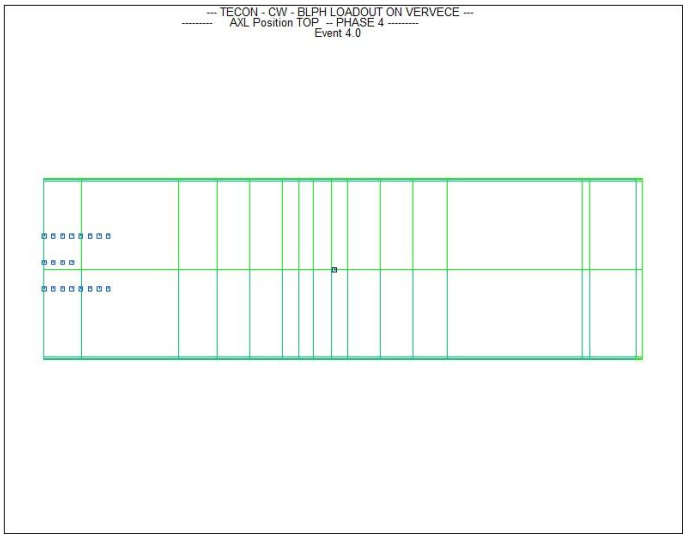
                                 Wet Radii Of Gyration About CG

                           K-X =     8.18 K-Y =    26.28 K-Z =    27.14

                                    GMT =    14.19 GML =   161.49

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

                          ----------------  Part AXL4       ------------
                          LOAD_GRO    491.00    87.09    -1.15     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                   1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                   1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                   1SC          6.88     5.60     3.43     0.11     0.18     3.00
                   1SW        224.67     5.62    10.28     3.77     6.02    98.00
                   2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                   2PW        691.71    19.43   -10.28     2.48     4.95    81.16
                   2SC        467.98    19.43     3.43     1.67     3.35    54.90
                   2SW        719.32    19.43    10.28     2.58     5.15    84.40
                   3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                   3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                   3SC        835.34    40.01     3.43     2.99     5.97    98.00
                   3SW         25.57    40.01    10.28     0.09     0.18     3.00
                   4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                   4PW        767.09    60.58   -10.28     2.75     5.49    90.00
                   4SC         25.57    60.58     3.43     0.09     0.18     3.00
                   4SW        767.09    60.58    10.28     2.75     5.49    90.00
                   5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                   5PW        475.90    79.93   -10.28     2.09     3.94    61.47
                   5SC        291.19    83.45     3.43     2.21     4.05    61.63
                   5SW        503.27    80.00    10.28     2.19     4.14    65.00
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75     0.00     2.97
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
                                  ******************************************************
*                                         ***  MOSES   ***                                                  *
*                                         ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                         ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 = 2.97, and Wind Speed = 10 Knots

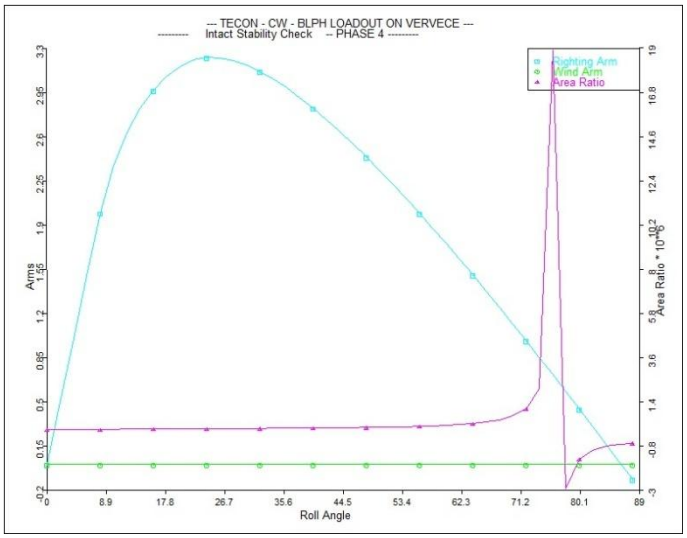
                                  Initial: Roll = 0.00, Trim = 0.00 Deg.

                                  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    3102.48     0.496
    4.29    4.00    0.00    9999.00       1.49       1.00       1.99       0.00       0.00    6378.45     0.995
    4.27    6.00    0.00    9999.00       1.03       1.50       4.48       0.00       0.00    9999.00     1.496
    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       0.08       2.37      12.33       0.00       0.00    9999.00     2.366
    4.31   12.00    0.00    9999.00      -0.46       2.63      17.32       0.00       0.00    9999.00     2.628
    4.39   14.00    0.00    9999.00      -1.04       2.82      22.77       0.00       0.00    9999.00     2.821
    4.48   16.00    0.00    9999.00      -1.63       2.97      28.56       0.00       0.00    9999.00     2.965
    4.60   18.00    0.00    9999.00      -2.25       3.07      34.59       0.00       0.00    9999.00     3.074
    4.72   20.00    0.00    9999.00      -2.88       3.15      40.82       0.00       0.00    9999.00     3.155
    4.85   22.00    0.00    9999.00      -3.51       3.21      47.18       0.00       0.00    9999.00     3.206
    4.97   24.00    0.00    9999.00      -4.14       3.23      53.62       0.00       0.00    9999.00     3.226
    5.09   26.00    0.00    9999.00      -4.77       3.22      60.07       0.00       0.00    9999.00     3.223
    5.20   28.00    0.00    9999.00      -5.39       3.20      66.49       0.00       0.00    9999.00     3.201
    5.31   30.00    0.00    9999.00      -6.01       3.16      72.86       0.00       0.00    9999.00     3.164
    5.41   32.00    0.00    9999.00      -6.62       3.11      79.13       0.00       0.00    9999.00     3.114
    5.50   34.00    0.00    9999.00      -7.22       3.05      85.30       0.00       0.00    9999.00     3.054
    5.58   36.00    0.00    9999.00      -7.81       2.99      91.34      -0.00       0.00    9999.00     2.985
    5.66   38.00    0.00    9999.00      -8.39       2.91      97.24      -0.00       0.00    9999.00     2.909
    5.73   40.00    0.00    9999.00      -8.96       2.82     102.97      -0.00       0.00    9999.00     2.825
    5.80   42.00    0.00    9999.00      -9.52       2.74     108.53      -0.00       0.00    9999.00     2.735
    5.86   44.00    0.00    9999.00     -10.07       2.64     113.90      -0.00       0.00    9999.00     2.640
    5.91   46.00    0.00    9999.00     -10.61       2.54     119.09      -0.00       0.00    9999.00     2.541
    5.95   48.00    0.00    9999.00     -11.13       2.44     124.06      -0.00       0.00    9999.00     2.437
    5.99   50.00    0.00    9999.00     -11.64       2.33     128.83      -0.00       0.00    9999.00     2.330
    6.02   52.00    0.00    9999.00     -12.14       2.22     133.38      -0.00       0.00    9999.00     2.220
    6.04   54.00    0.00    9999.00     -12.62       2.11     137.71      -0.00       0.00    9999.00     2.107
    6.05   56.00    0.00    9999.00     -13.08       1.99     141.81      -0.00       0.00    9999.00     1.991
    6.06   58.00    0.00    9999.00     -13.53       1.87     145.67      -0.00       0.00    9999.00     1.872
    6.06   60.00    0.00    9999.00     -13.97       1.75     149.29      -0.00       0.00    9999.00     1.751
    6.05   62.00    0.00    9999.00     -14.38       1.63     152.67      -0.00       0.00    9999.00     1.628
    6.03   64.00    0.00    9999.00     -14.78       1.50     155.80      -0.00       0.00    9999.00     1.503
    6.01   66.00    0.00    9999.00     -15.16       1.38     158.68      -0.00       0.00    9999.00     1.376
    5.98   68.00    0.00    9999.00     -15.53       1.25     161.30      -0.00       0.00    9999.00     1.246
    5.94   70.00    0.00    9999.00     -15.87       1.12     163.67      -0.00       0.00    9999.00     1.115
    5.90   72.00    0.00    9999.00     -16.19       0.98     165.76      -0.00       0.00    9999.00     0.983
    5.85   74.00    0.00    9999.00     -16.50       0.85     167.59      -0.00       0.00    9999.00     0.848
    5.79   76.00    0.00    9999.00     -16.78       0.71     169.16      -0.00       0.00    9999.00     0.713
    5.72   78.00    0.00    9999.00     -17.05       0.58     170.45      -0.00      -0.00   -9999.00     0.576
    5.65   80.00    0.00    9999.00     -17.29       0.44     171.46      -0.00      -0.00   -9999.00     0.439
    5.57   82.00    0.00    9999.00     -17.51       0.30     172.20      -0.00      -0.00   -9999.00     0.301
    5.48   84.00    0.00    9999.00     -17.71       0.16     172.66      -0.00      -0.00   -9999.00     0.163
    5.39   86.00    0.00    9999.00     -17.89       0.02     172.85      -0.00      -0.00   -9999.00     0.023
    5.29   88.00    0.00    9999.00     -18.05      -0.12     172.76      -0.00      -0.00   -9999.00    -0.117
```




```
**********************************************************
*                                *** MOSES ***                                  *
*                                ---------------                 16 April, 2025 *
*        --- TECON - CW - BLPH 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 +++
                    ================================================================

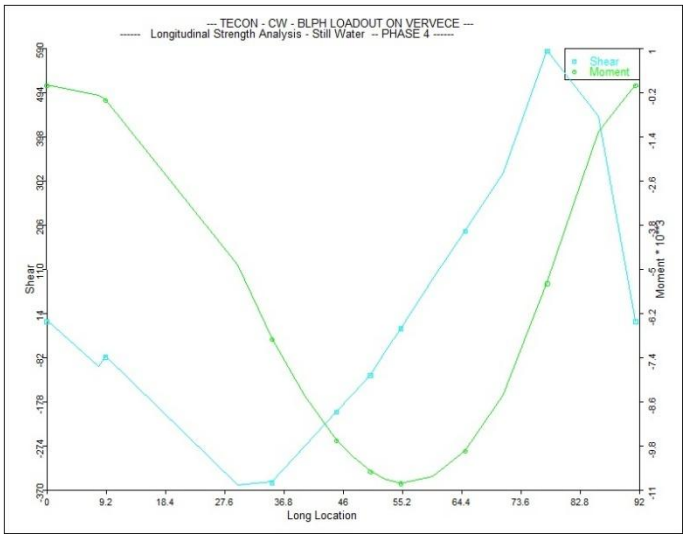
                Process is 4: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  Allowable Stress =     155.00 Mpa

                                Allowable Deflection =       1.00 MM

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

           0.00            -1              0           0.0000          0.0000
           8.00          -101           -288          -0.0114          7.4297
           9.14           -79           -390          -0.0155          8.4887
          29.72          -359          -4891          -0.1933         26.1995
          35.00          -352          -6887          -0.2722         29.7077
          40.00          -275          -8458          -0.3342         32.2556
          45.00          -198          -9644          -0.3811         33.8745
          47.50          -160         -10095          -0.3989         34.2934
          50.29          -118         -10487          -0.4144         34.4318
          52.50           -71         -10698          -0.4228         34.2868
          55.00           -17         -10811          -0.4272         33.8450
          60.00            89         -10635          -0.4203         32.0694
          65.00           194          -9927          -0.3923         29.1263
          70.87           317          -8426          -0.3330         24.2936
          77.72           586          -5372          -0.2123         17.0625
          85.70           443          -1279          -0.0506          7.3168
          91.44            -1              0           0.0000          0.0000
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 4 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

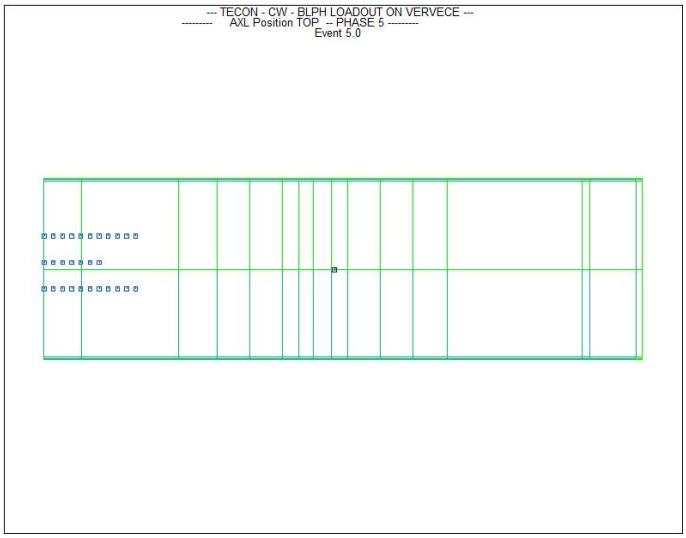
                                 Wet Radii Of Gyration About CG

                           K-X =     8.07 K-Y =    26.28 K-Z =    27.10

                                    GMT =    14.12 GML =   161.53

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

                          ----------------  Part AXL5       ------------
                          LOAD_GRO    727.20    85.20    -1.17     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                   1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                   1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                   1SC          6.88     5.60     3.43     0.11     0.18     3.00
                   1SW        224.67     5.62    10.28     3.77     6.02    98.00
                   2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                   2PW        685.06    19.43   -10.28     2.45     4.90    80.38
                   2SC        467.98    19.43     3.43     1.67     3.35    54.90
                   2SW        726.74    19.43    10.28     2.60     5.20    85.27
                   3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                   3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                   3SC        835.34    40.01     3.43     2.99     5.97    98.00
                   3SW         25.57    40.01    10.28     0.09     0.18     3.00
                   4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                   4PW        767.09    60.58   -10.28     2.75     5.49    90.00
                   4SC         25.57    60.58     3.43     0.09     0.18     3.00
                   4SW        767.09    60.58    10.28     2.75     5.49    90.00
                   5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                   5PW        350.64    79.54   -10.28     1.59     3.03    45.29
                   5SC        291.19    83.45     3.43     2.21     4.05    61.63
                   5SW        391.56    79.68    10.28     1.75     3.33    50.57
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     3.05
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*******************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 5 ---------                 . *
*                                                                                       *
*****************************************************************************************************************

                              +++ 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 = 3.05, and Wind Speed = 10 Knots

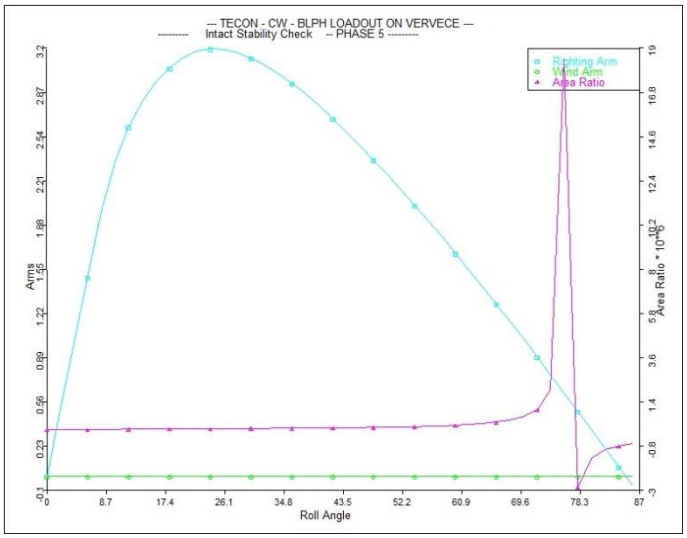
                          Initial: Roll = 0.00, Trim = 0.00 Deg.

                    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       0.49      0.49       0.00      0.00   3085.28     0.493
   4.29    4.00    0.00     9999.00      1.49       0.99      1.98       0.00      0.00   6343.18     0.990
   4.27    6.00    0.00     9999.00      1.03       1.49      4.45       0.00      0.00   9962.45     1.488
   4.25    8.00    0.00     9999.00      0.57       1.98      7.92       0.00      0.00   9999.00     1.981
   4.26   10.00    0.00     9999.00      0.08       2.35     12.26       0.00      0.00   9999.00     2.352
   4.31   12.00    0.00     9999.00     -0.46       2.61     17.22       0.00      0.00   9999.00     2.612
   4.39   14.00    0.00     9999.00     -1.04       2.80     22.64       0.00      0.00   9999.00     2.802
   4.48   16.00    0.00     9999.00     -1.63       2.94     28.38       0.00      0.00   9999.00     2.944
   4.60   18.00    0.00     9999.00     -2.25       3.05     34.37       0.00      0.00   9999.00     3.050
   4.72   20.00    0.00     9999.00     -2.88       3.13     40.55       0.00      0.00   9999.00     3.128
   4.85   22.00    0.00     9999.00     -3.51       3.18     46.86       0.00      0.00   9999.00     3.177
   4.97   24.00    0.00     9999.00     -4.14       3.19     53.23       0.00      0.00   9999.00     3.195
   5.09   26.00    0.00     9999.00     -4.77       3.19     59.61       0.00      0.00   9999.00     3.189
   5.20   28.00    0.00     9999.00     -5.39       3.16     65.97       0.00      0.00   9999.00     3.165
   5.31   30.00    0.00     9999.00     -6.01       3.13     72.26       0.00      0.00   9999.00     3.125
   5.41   32.00    0.00     9999.00     -6.62       3.07     78.46       0.00      0.00   9999.00     3.073
   5.50   34.00    0.00     9999.00     -7.22       3.01     84.54       0.00      0.00   9999.00     3.010
   5.58   36.00    0.00     9999.00     -7.81       2.94     90.49      -0.00      0.00   9999.00     2.938
   5.66   38.00    0.00     9999.00     -8.39       2.86     96.28      -0.00      0.00   9999.00     2.857
   5.73   40.00    0.00     9999.00     -8.96       2.77    101.91      -0.00      0.00   9999.00     2.769
   5.80   42.00    0.00     9999.00     -9.52       2.67    107.35      -0.00      0.00   9999.00     2.675
   5.86   44.00    0.00     9999.00    -10.07       2.58    112.60      -0.00      0.00   9999.00     2.575
   5.91   46.00    0.00     9999.00    -10.61       2.47    117.65      -0.00      0.00   9999.00     2.472
   5.95   48.00    0.00     9999.00    -11.13       2.37    122.49      -0.00      0.00   9999.00     2.365
   5.99   50.00    0.00     9999.00    -11.64       2.26    127.11      -0.00      0.00   9999.00     2.255
   6.02   52.00    0.00     9999.00    -12.14       2.14    131.50      -0.00      0.00   9999.00     2.143
   6.04   54.00    0.00     9999.00    -12.62       2.03    135.68      -0.00      0.00   9999.00     2.028
   6.05   56.00    0.00     9999.00    -13.08       1.91    139.61      -0.00      0.00   9999.00     1.910
   6.06   58.00    0.00     9999.00    -13.53       1.79    143.31      -0.00      0.00   9999.00     1.790
   6.06   60.00    0.00     9999.00    -13.97       1.67    146.77      -0.00      0.00   9999.00     1.668
   6.05   62.00    0.00     9999.00    -14.38       1.54    149.98      -0.00      0.00   9999.00     1.544
   6.03   64.00    0.00     9999.00    -14.78       1.42    152.94      -0.00      0.00   9999.00     1.417
   6.01   66.00    0.00     9999.00    -15.16       1.29    155.65      -0.00      0.00   9999.00     1.289
   5.98   68.00    0.00     9999.00    -15.53       1.16    158.10      -0.00      0.00   9999.00     1.158
   5.94   70.00    0.00     9999.00    -15.87       1.03    160.28      -0.00      0.00   9999.00     1.026
   5.90   72.00    0.00     9999.00    -16.19       0.89    162.20      -0.00      0.00   9999.00     0.893
   5.85   74.00    0.00     9999.00    -16.50       0.76    163.85      -0.00      0.00   9999.00     0.758
   5.79   76.00    0.00     9999.00    -16.78       0.62    165.23      -0.00      0.00   9999.00     0.622
   5.72   78.00    0.00     9999.00    -17.05       0.49    166.34      -0.00     -0.00  -9999.00     0.485
   5.65   80.00    0.00     9999.00    -17.29       0.35    167.17      -0.00     -0.00  -9999.00     0.348
   5.57   82.00    0.00     9999.00    -17.51       0.21    167.73      -0.00     -0.00  -9999.00     0.209
   5.48   84.00    0.00     9999.00    -17.71       0.07    168.01      -0.00     -0.00  -9999.00     0.071
   5.39   86.00    0.00     9999.00    -17.89      -0.07    168.01      -0.00     -0.00  -9999.00    -0.068
```




```
**********************************************************
*                                *** MOSES ***                                 *
*                                ---------------                 16 April, 2025 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                         *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 5 ------ *
*                                                                              *
********************************************************************************************************************
```

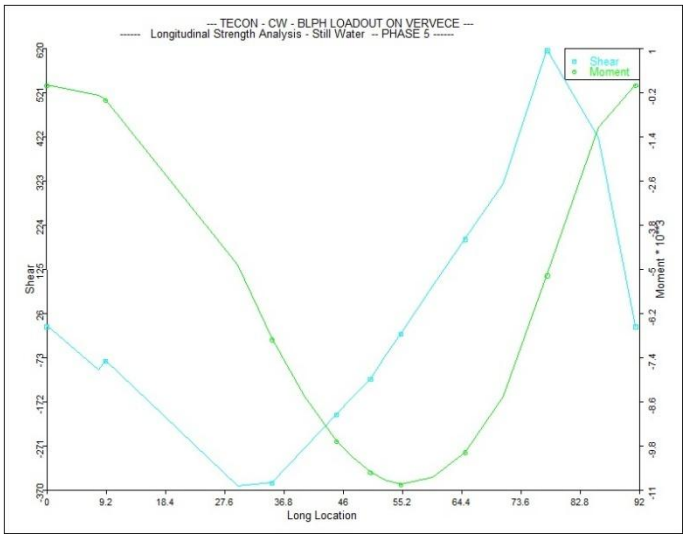
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-288	-0.0114	7.4377
9.14	-79	-391	-0.0155	8.4980
29.72	-360	-4900	-0.1937	26.2276
35.00	-353	-6900	-0.2727	29.7390
40.00	-275	-8475	-0.3349	32.2882
45.00	-199	-9665	-0.3820	33.9067
47.50	-161	-10118	-0.3999	34.3244
50.29	-119	-10513	-0.4154	34.4608
52.50	-72	-10726	-0.4239	34.3137
55.00	-18	-10840	-0.4284	33.8687
60.00	88	-10668	-0.4216	32.0843
65.00	193	-9964	-0.3938	29.1287
70.87	316	-8468	-0.3347	24.2761
77.72	617	-5159	-0.2039	17.0184
85.70	420	-1153	-0.0456	7.2847
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 5 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

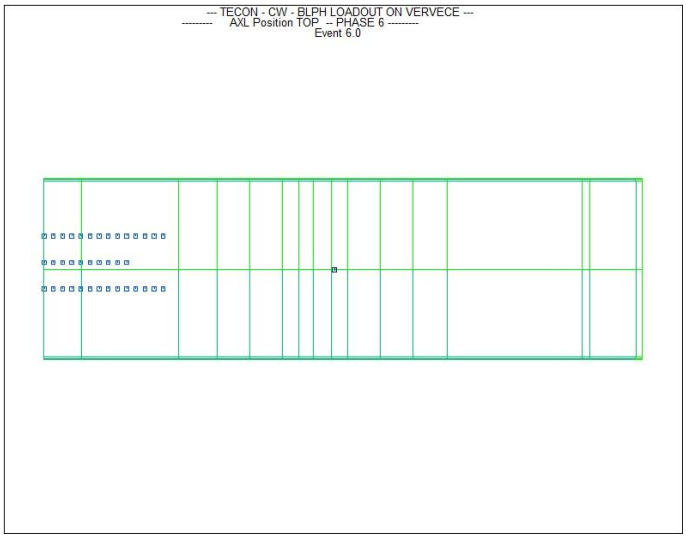
                                 Wet Radii Of Gyration About CG

                           K-X =     7.95 K-Y =    26.18 K-Z =    26.97

                                  GMT =    14.02 GML =   161.98

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

                          ----------------  Part AXL6       ------------
                          LOAD_GRO    968.40    83.24    -1.18     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                   1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                   1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                   1SC          6.88     5.60     3.43     0.11     0.18     3.00
                   1SW        224.67     5.62    10.28     3.77     6.02    98.00
                   2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                   2PW        671.68    19.43   -10.28     2.41     4.81    78.81
                   2SC        467.98    19.43     3.43     1.67     3.35    54.90
                   2SW        727.78    19.43    10.28     2.61     5.21    85.39
                   3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                   3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                   3SC        835.34    40.01     3.43     2.99     5.97    98.00
                   3SW         25.57    40.01    10.28     0.09     0.18     3.00
                   4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                   4PW        767.09    60.58   -10.28     2.75     5.49    90.00
                   4SC         25.57    60.58     3.43     0.09     0.18     3.00
                   4SW        767.09    60.58    10.28     2.75     5.49    90.00
                   5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                   5PW        229.33    79.14   -10.27     1.07     2.07    29.62
                   5SC        291.19    83.45     3.43     2.21     4.05    61.63
                   5SW        284.01    79.32    10.28     1.31     2.51    36.68
                          ========  ========  =======  =======  =======
                          Total     10052.62    46.75    -0.00     3.15
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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


                              *********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.15, and Wind Speed = 10 Knots

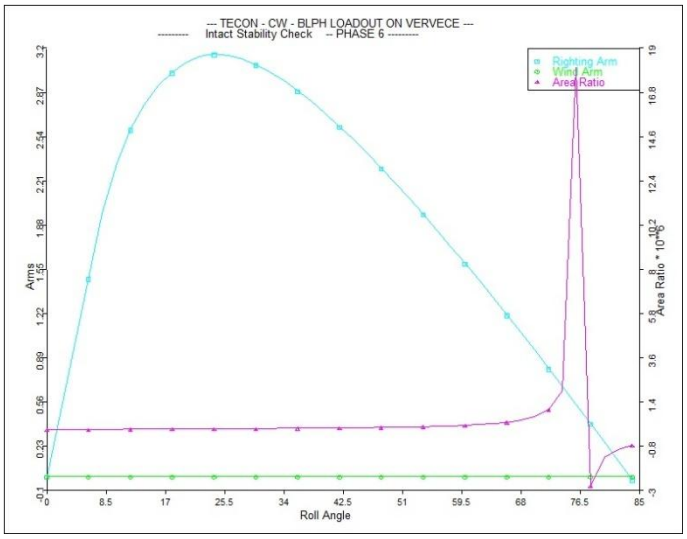
                          Initial: Roll = 0.00, Trim = 0.00 Deg.

                    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       0.49      0.49       0.00      0.00   3064.53     0.490
   4.29    4.00    0.00     9999.00      1.49       0.98      1.96       0.00      0.00   6300.65     0.983
   4.27    6.00    0.00     9999.00      1.03       1.48      4.42       0.00      0.00   9895.83     1.478
   4.25    8.00    0.00     9999.00      0.57       1.97      7.87       0.00      0.00   9999.00     1.968
   4.26   10.00    0.00     9999.00      0.08       2.34     12.17       0.00      0.00   9999.00     2.335
   4.31   12.00    0.00     9999.00     -0.46       2.59     17.10       0.00      0.00   9999.00     2.592
   4.39   14.00    0.00     9999.00     -1.04       2.78     22.47       0.00      0.00   9999.00     2.779
   4.48   16.00    0.00     9999.00     -1.63       2.92     28.17       0.00      0.00   9999.00     2.917
   4.60   18.00    0.00     9999.00     -2.25       3.02     34.11       0.00      0.00   9999.00     3.021
   4.72   20.00    0.00     9999.00     -2.88       3.10     40.23       0.00      0.00   9999.00     3.096
   4.85   22.00    0.00     9999.00     -3.51       3.14     46.46       0.00      0.00   9999.00     3.141
   4.97   24.00    0.00     9999.00     -4.14       3.16     52.76       0.00      0.00   9999.00     3.156
   5.09   26.00    0.00     9999.00     -4.77       3.15     59.06       0.00      0.00   9999.00     3.147
   5.20   28.00    0.00     9999.00     -5.39       3.12     65.33       0.00      0.00   9999.00     3.119
   5.31   30.00    0.00     9999.00     -6.01       3.08     71.52       0.00      0.00   9999.00     3.077
   5.41   32.00    0.00     9999.00     -6.62       3.02     77.62       0.00      0.00   9999.00     3.022
   5.50   34.00    0.00     9999.00     -7.22       2.96     83.60       0.00      0.00   9999.00     2.956
   5.58   36.00    0.00     9999.00     -7.81       2.88     89.44      -0.00      0.00   9999.00     2.882
   5.66   38.00    0.00     9999.00     -8.39       2.80     95.12      -0.00      0.00   9999.00     2.800
   5.73   40.00    0.00     9999.00     -8.96       2.71    100.63      -0.00      0.00   9999.00     2.711
   5.80   42.00    0.00     9999.00     -9.52       2.62    105.96      -0.00      0.00   9999.00     2.616
   5.86   44.00    0.00     9999.00    -10.07       2.52    111.09      -0.00      0.00   9999.00     2.516
   5.91   46.00    0.00     9999.00    -10.61       2.41    116.02      -0.00      0.00   9999.00     2.412
   5.95   48.00    0.00     9999.00    -11.13       2.30    120.74      -0.00      0.00   9999.00     2.304
   5.99   50.00    0.00     9999.00    -11.64       2.19    125.23      -0.00      0.00   9999.00     2.192
   6.02   52.00    0.00     9999.00    -12.14       2.08    129.50      -0.00      0.00   9999.00     2.078
   6.04   54.00    0.00     9999.00    -12.62       1.96    133.54      -0.00      0.00   9999.00     1.960
   6.05   56.00    0.00     9999.00    -13.08       1.84    137.34      -0.00      0.00   9999.00     1.840
   6.06   58.00    0.00     9999.00    -13.53       1.72    140.90      -0.00      0.00   9999.00     1.718
   6.06   60.00    0.00     9999.00    -13.97       1.59    144.21      -0.00      0.00   9999.00     1.594
   6.05   62.00    0.00     9999.00    -14.38       1.47    147.27      -0.00      0.00   9999.00     1.467
   6.03   64.00    0.00     9999.00    -14.78       1.34    150.08      -0.00      0.00   9999.00     1.339
   6.01   66.00    0.00     9999.00    -15.16       1.21    152.62      -0.00      0.00   9999.00     1.208
   5.98   68.00    0.00     9999.00    -15.53       1.08    154.91      -0.00      0.00   9999.00     1.076
   5.94   70.00    0.00     9999.00    -15.87       0.94    156.93      -0.00      0.00   9999.00     0.943
   5.90   72.00    0.00     9999.00    -16.19       0.81    158.68      -0.00      0.00   9999.00     0.808
   5.85   74.00    0.00     9999.00    -16.50       0.67    160.16      -0.00      0.00   9999.00     0.672
   5.79   76.00    0.00     9999.00    -16.78       0.53    161.37      -0.00      0.00   9999.00     0.535
   5.72   78.00    0.00     9999.00    -17.05       0.40    162.30      -0.00     -0.00  -9999.00     0.397
   5.65   80.00    0.00     9999.00    -17.29       0.26    162.95      -0.00     -0.00  -9999.00     0.258
   5.57   82.00    0.00     9999.00    -17.51       0.12    163.33      -0.00     -0.00  -9999.00     0.119
   5.48   84.00    0.00     9999.00    -17.71      -0.02    163.43      -0.00     -0.00  -9999.00    -0.021
```




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**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                  16 April, 2025  *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                              *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 6 ------  *
*                                                                                    *
**************************************************************************************************************
```

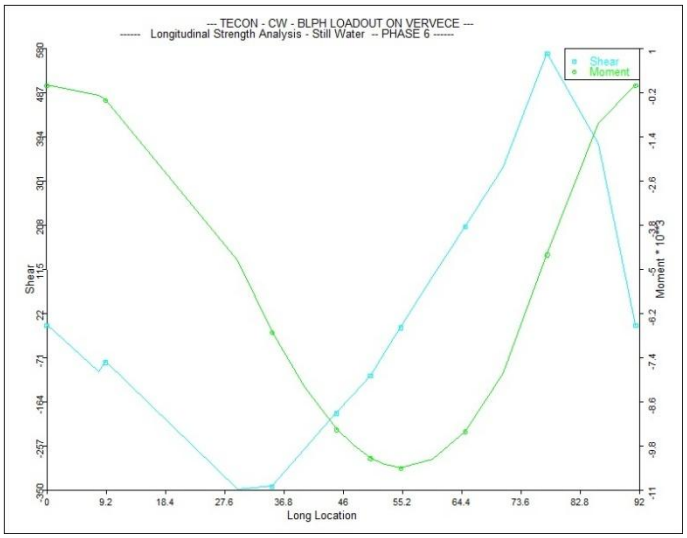
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-288	-0.0114	7.1512
9.14	-79	-390	-0.0155	8.1705
29.72	-348	-4772	-0.1886	25.1835
35.00	-340	-6707	-0.2651	28.5353
40.00	-263	-8220	-0.3249	30.9554
45.00	-187	-9349	-0.3695	32.4727
47.50	-149	-9771	-0.3861	32.8525
50.29	-107	-10131	-0.4004	32.9580
52.50	-59	-10316	-0.4077	32.7955
55.00	-6	-10400	-0.4110	32.3439
60.00	100	-10166	-0.4018	30.5834
65.00	206	-9401	-0.3715	27.7070
70.87	329	-7832	-0.3095	23.0270
77.72	570	-4593	-0.1815	16.0950
85.70	378	-1023	-0.0404	6.8792
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 6 ------
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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*       --- TECON - CW - BLPH 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

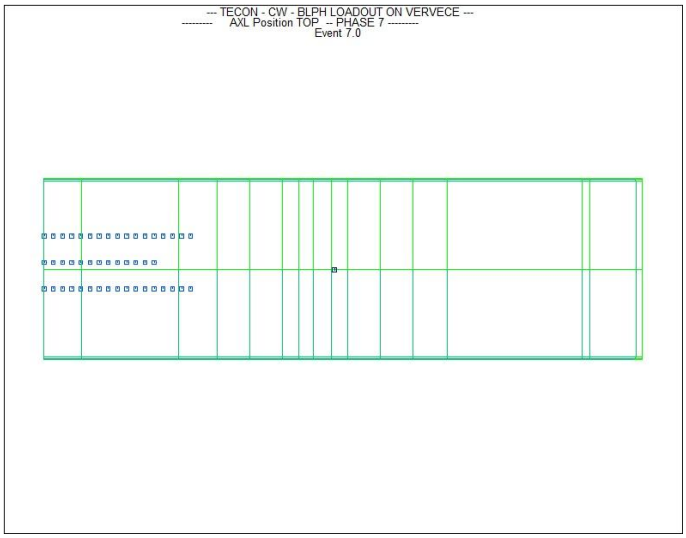
                                 Wet Radii Of Gyration About CG

                           K-X =     7.83 K-Y =    26.02 K-Z =    26.78

                                    GMT =    13.91 GML =   162.34

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

                           ----------------  Part AXL7       ------------
                           LOAD_GRO   1209.60    81.23    -1.18     7.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC        6.87     5.60    -3.43     0.11     0.18     3.00
                      1PW      224.67     5.62   -10.28     3.77     6.02    98.00
                      1SC        6.88     5.60     3.43     0.11     0.18     3.00
                      1SW      224.67     5.62    10.28     3.77     6.02    98.00
                      2PC      455.41    19.43    -3.43     1.63     3.26    53.43
                      2PW      651.19    19.43   -10.28     2.33     4.66    76.40
                      2SC      467.98    19.43     3.43     1.67     3.35    54.90
                      2SW      721.85    19.43    10.28     2.59     5.16    84.69
                      3PC      835.34    40.01    -3.43     2.99     5.97    98.00
                      3PW       25.57    40.01   -10.28     0.09     0.18     3.00
                      3SC      835.34    40.01     3.43     2.99     5.97    98.00
                      3SW       25.57    40.01    10.28     0.09     0.18     3.00
                      4PC       25.57    60.58    -3.43     0.09     0.18     3.00
                      4PW      767.09    60.58   -10.28     2.75     5.49    90.00
                      4SC       25.57    60.58     3.43     0.09     0.18     3.00
                      4SW      767.09    60.58    10.28     2.75     5.49    90.00
                      5PC      278.82    83.38    -3.43     2.10     3.86    58.09
                      5PW      115.12    78.73   -10.26     0.56     1.10    14.87
                      5SC      291.19    83.45     3.43     2.21     4.05    61.63
                      5SW      183.43    78.97    10.27     0.87     1.69    23.69
                           ========  ========  =======  =======  =======
                           Total     10052.62    46.75     0.00     3.27
                           Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                                    *
*                                    ----------------                          16 April, 2025          *
*          --- TECON - CW - BLPH 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   ***                                                    *
*                                    ----------------                          16 April, 2025          *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*          ---------     Intact Stability Check    -- PHASE 7 ---------                                 . *
*                                                                                                       *
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+++ 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

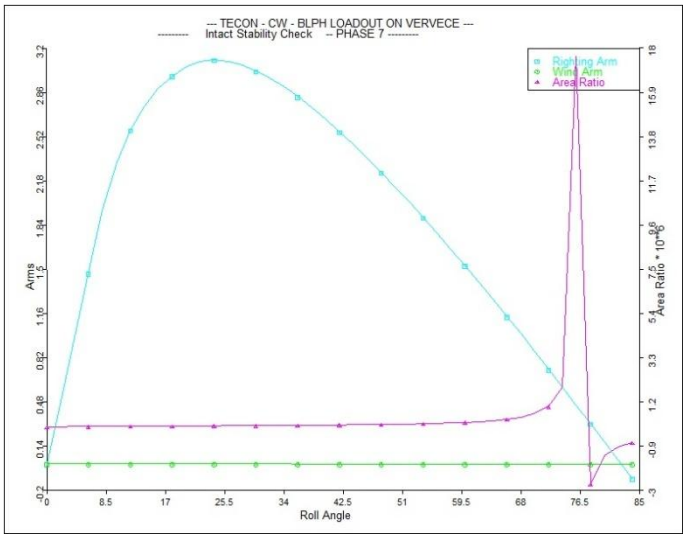
Moment Scaled By 10052.62, KG = 3.27, and Wind Speed = 10 Knots

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	0.49	0.49	0.00	0.00	3040.38	0.486
4.29	4.00	0.00	9999.00	1.49	0.98	1.95	0.00	0.00	6251.02	0.975
4.27	6.00	0.00	9999.00	1.03	1.47	4.39	0.00	0.00	9818.03	1.467
4.25	8.00	0.00	9999.00	0.57	1.95	7.81	0.00	0.00	9999.00	1.952
4.26	10.00	0.00	9999.00	0.08	2.32	12.08	0.00	0.00	9999.00	2.316
4.31	12.00	0.00	9999.00	-0.46	2.57	16.96	0.00	0.00	9999.00	2.569
4.39	14.00	0.00	9999.00	-1.04	2.75	22.29	0.00	0.00	9999.00	2.752
4.48	16.00	0.00	9999.00	-1.63	2.89	27.92	0.00	0.00	9999.00	2.887
4.60	18.00	0.00	9999.00	-2.25	2.99	33.80	0.00	0.00	9999.00	2.986
4.72	20.00	0.00	9999.00	-2.88	3.06	39.84	0.00	0.00	9999.00	3.058
4.85	22.00	0.00	9999.00	-3.51	3.10	46.00	0.00	0.00	9999.00	3.100
4.97	24.00	0.00	9999.00	-4.14	3.11	52.21	0.00	0.00	9999.00	3.112
5.09	26.00	0.00	9999.00	-4.77	3.10	58.42	0.00	0.00	9999.00	3.100
5.20	28.00	0.00	9999.00	-5.39	3.07	64.59	0.00	0.00	9999.00	3.070
5.31	30.00	0.00	9999.00	-6.01	3.03	70.69	0.00	0.00	9999.00	3.026
5.41	32.00	0.00	9999.00	-6.62	2.97	76.68	0.00	0.00	9999.00	2.969
5.50	34.00	0.00	9999.00	-7.22	2.90	82.55	0.00	0.00	9999.00	2.902
5.58	36.00	0.00	9999.00	-7.81	2.83	88.28	-0.00	0.00	9999.00	2.827
5.66	38.00	0.00	9999.00	-8.39	2.74	93.85	-0.00	0.00	9999.00	2.744
5.73	40.00	0.00	9999.00	-8.96	2.65	99.25	-0.00	0.00	9999.00	2.654
5.80	42.00	0.00	9999.00	-9.52	2.56	104.46	-0.00	0.00	9999.00	2.558
5.86	44.00	0.00	9999.00	-10.07	2.46	109.48	-0.00	0.00	9999.00	2.457
5.91	46.00	0.00	9999.00	-10.61	2.35	114.29	-0.00	0.00	9999.00	2.352
5.95	48.00	0.00	9999.00	-11.13	2.24	118.88	-0.00	0.00	9999.00	2.243
5.99	50.00	0.00	9999.00	-11.64	2.13	123.26	-0.00	0.00	9999.00	2.131
6.02	52.00	0.00	9999.00	-12.14	2.02	127.40	-0.00	0.00	9999.00	2.015
6.04	54.00	0.00	9999.00	-12.62	1.90	131.31	-0.00	0.00	9999.00	1.897
6.05	56.00	0.00	9999.00	-13.08	1.78	134.99	-0.00	0.00	9999.00	1.776
6.06	58.00	0.00	9999.00	-13.53	1.65	138.42	-0.00	0.00	9999.00	1.652
6.06	60.00	0.00	9999.00	-13.97	1.53	141.59	-0.00	0.00	9999.00	1.526
6.05	62.00	0.00	9999.00	-14.38	1.40	144.52	-0.00	0.00	9999.00	1.397
6.03	64.00	0.00	9999.00	-14.78	1.27	147.18	-0.00	0.00	9999.00	1.267
6.01	66.00	0.00	9999.00	-15.16	1.13	149.58	-0.00	0.00	9999.00	1.135
5.98	68.00	0.00	9999.00	-15.53	1.00	151.72	-0.00	0.00	9999.00	1.001
5.94	70.00	0.00	9999.00	-15.87	0.87	153.58	-0.00	0.00	9999.00	0.865
5.90	72.00	0.00	9999.00	-16.19	0.73	155.18	-0.00	0.00	9999.00	0.728
5.85	74.00	0.00	9999.00	-16.50	0.59	156.50	-0.00	0.00	9999.00	0.590
5.79	76.00	0.00	9999.00	-16.78	0.45	157.54	-0.00	0.00	9999.00	0.451
5.72	78.00	0.00	9999.00	-17.05	0.31	158.30	-0.00	-0.00	-9999.00	0.311
5.65	80.00	0.00	9999.00	-17.29	0.17	158.78	-0.00	-0.00	-9999.00	0.171
5.57	82.00	0.00	9999.00	-17.51	0.03	158.98	-0.00	-0.00	-9999.00	0.030
5.48	84.00	0.00	9999.00	-17.71	-0.11	158.90	-0.00	-0.00	-9999.00	-0.111




```
                    *******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 +++
                  ================================================================

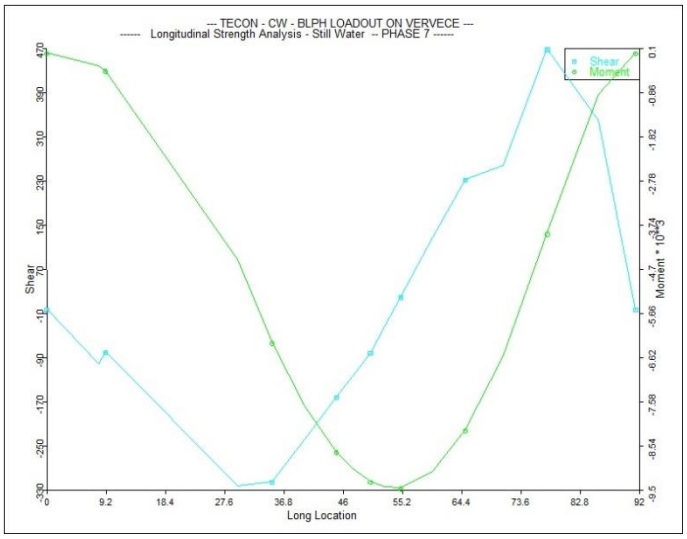
              Process is 7: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

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

           0.00            -1              0          0.0000          0.0000
           8.00          -101           -287         -0.0114          6.5730
           9.14           -79           -390         -0.0155          7.5096
          29.72          -321          -4500         -0.1779         23.0782
          35.00          -314          -6295         -0.2488         26.1115
          40.00          -237          -7676         -0.3034         28.2764
          45.00          -160          -8673         -0.3427         29.5986
          47.50          -122          -9028         -0.3568         29.9079
          50.29           -80          -9314         -0.3681         29.9588
          52.50           -33          -9442         -0.3731         29.7730
          55.00            20          -9459         -0.3738         29.3177
          60.00           127          -9093         -0.3594         27.6295
          65.00           232          -8196         -0.3239         24.9436
          70.87           258          -6586         -0.2603         20.6573
          77.72           469          -3923         -0.1550         14.4091
          85.70           338           -909         -0.0359          6.1561
          91.44            -1              0          0.0000          0.0000
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 7 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                 *
*        ---------     Intact Stability Check    -- PHASE 8 ---------                                *
*                                                                                                    *
******************************************************************************************************************

                +++ 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

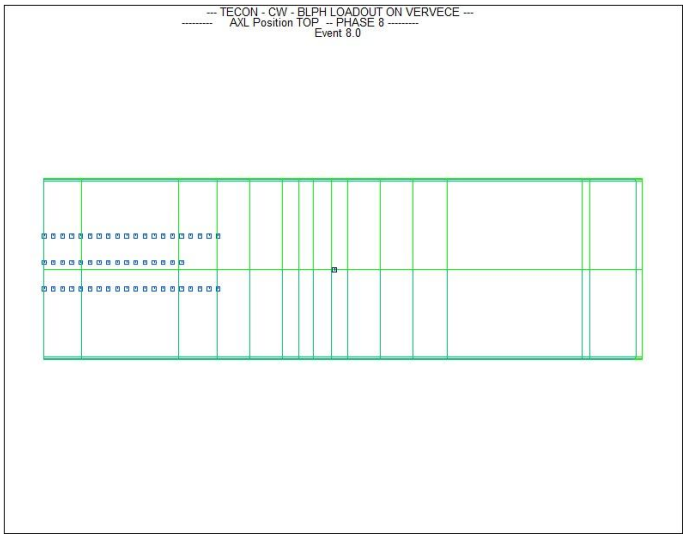
                                 Wet Radii Of Gyration About CG

                           K-X =     7.71 K-Y =    26.22 K-Z =    26.93

                                    GMT =    13.86 GML =   162.29

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

                           ----------------  Part AXL8       ------------
                           LOAD_GRO   1450.80    79.18    -1.19     7.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC        6.87     5.60    -3.43     0.11     0.18     3.00
                      1PW      224.67     5.62   -10.28     3.77     6.02    98.00
                      1SC        6.88     5.60     3.43     0.11     0.18     3.00
                      1SW      224.67     5.62    10.28     3.77     6.02    98.00
                      2PC      455.41    19.43    -3.43     1.63     3.26    53.43
                      2PW      686.29    19.43   -10.28     2.46     4.91    80.52
                      2SC      467.98    19.43     3.43     1.67     3.35    54.90
                      2SW      735.71    19.43    10.28     2.63     5.26    86.32
                      3PC      835.34    40.01    -3.43     2.99     5.97    98.00
                      3PW       25.57    40.01   -10.28     0.09     0.18     3.00
                      3SC      835.34    40.01     3.43     2.99     5.97    98.00
                      3SW       25.57    40.01    10.28     0.09     0.18     3.00
                      4PC       25.57    60.58    -3.43     0.09     0.18     3.00
                      4PW      597.30    60.58   -10.28     2.14     4.27    70.08
                      4SC       25.57    60.58     3.43     0.09     0.18     3.00
                      4SW      646.72    60.58    10.28     2.32     4.63    75.88
                      5PC      278.82    83.38    -3.43     2.10     3.86    58.09
                      5PW      115.12    78.73   -10.26     0.56     1.10    14.87
                      5SC      291.19    83.45     3.43     2.21     4.05    61.63
                      5SW      183.43    78.97    10.27     0.87     1.69    23.69
                           ========  ========  =======  =======  =======
                           Total     10052.62    46.75     0.00     3.32
                           Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 8 ---------                 . *
*                                                                                       *
*****************************************************************************************************************

                              +++ 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 10052.62, KG = 3.32, and Wind Speed = 10 Knots

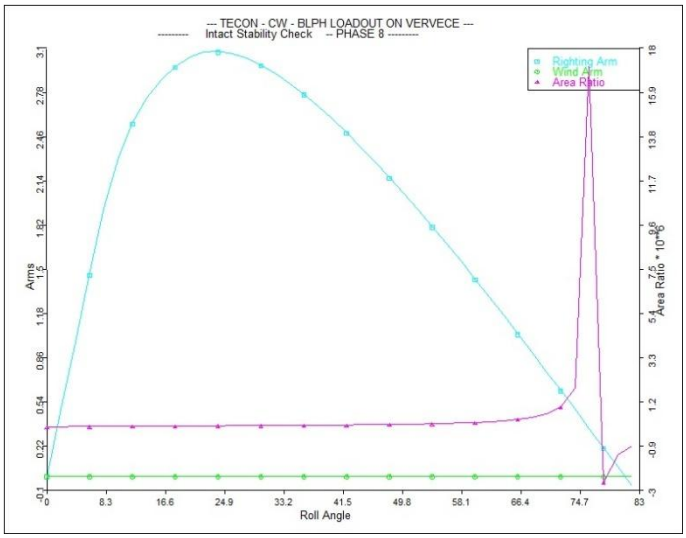
                          Initial: Roll = 0.00, Trim = 0.00 Deg.

                    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       0.48      0.48       0.00      0.00   3029.33     0.484
   4.29    4.00    0.00      9999.00      1.49       0.97      1.94       0.00      0.00   6228.21     0.972
   4.27    6.00    0.00      9999.00      1.03       1.46      4.37       0.00      0.00   9782.19     1.461
   4.25    8.00    0.00      9999.00      0.57       1.95      7.78       0.00      0.00   9999.00     1.945
   4.26   10.00    0.00      9999.00      0.08       2.31     12.03       0.00      0.00   9999.00     2.307
   4.31   12.00    0.00      9999.00     -0.46       2.56     16.90       0.00      0.00   9999.00     2.558
   4.39   14.00    0.00      9999.00     -1.04       2.74     22.20       0.00      0.00   9999.00     2.738
   4.48   16.00    0.00      9999.00     -1.63       2.87     27.80       0.00      0.00   9999.00     2.869
   4.60   18.00    0.00      9999.00     -2.25       2.96     33.64       0.00      0.00   9999.00     2.965
   4.72   20.00    0.00      9999.00     -2.88       3.03     39.63       0.00      0.00   9999.00     3.032
   4.85   22.00    0.00      9999.00     -3.51       3.07     45.74       0.00      0.00   9999.00     3.070
   4.97   24.00    0.00      9999.00     -4.14       3.08     51.88       0.00      0.00   9999.00     3.077
   5.09   26.00    0.00      9999.00     -4.77       3.06     58.02       0.00      0.00   9999.00     3.061
   5.20   28.00    0.00      9999.00     -5.39       3.03     64.11       0.00      0.00   9999.00     3.027
   5.31   30.00    0.00      9999.00     -6.01       2.98     70.11       0.00      0.00   9999.00     2.978
   5.41   32.00    0.00      9999.00     -6.62       2.92     76.01       0.00      0.00   9999.00     2.917
   5.50   34.00    0.00      9999.00     -7.22       2.85     81.77       0.00      0.00   9999.00     2.846
   5.58   36.00    0.00      9999.00     -7.81       2.77     87.38      -0.00      0.00   9999.00     2.767
   5.66   38.00    0.00      9999.00     -8.39       2.68     92.83      -0.00      0.00   9999.00     2.680
   5.73   40.00    0.00      9999.00     -8.96       2.59     98.10      -0.00      0.00   9999.00     2.587
   5.80   42.00    0.00      9999.00     -9.52       2.49    103.17      -0.00      0.00   9999.00     2.488
   5.86   44.00    0.00      9999.00    -10.07       2.38    108.04      -0.00      0.00   9999.00     2.384
   5.91   46.00    0.00      9999.00    -10.61       2.28    112.70      -0.00      0.00   9999.00     2.275
   5.95   48.00    0.00      9999.00    -11.13       2.16    117.14      -0.00      0.00   9999.00     2.163
   5.99   50.00    0.00      9999.00    -11.64       2.05    121.35      -0.00      0.00   9999.00     2.048
   6.02   52.00    0.00      9999.00    -12.14       1.93    125.33      -0.00      0.00   9999.00     1.930
   6.04   54.00    0.00      9999.00    -12.62       1.81    129.07      -0.00      0.00   9999.00     1.808
   6.05   56.00    0.00      9999.00    -13.08       1.68    132.56      -0.00      0.00   9999.00     1.684
   6.06   58.00    0.00      9999.00    -13.53       1.56    135.80      -0.00      0.00   9999.00     1.558
   6.06   60.00    0.00      9999.00    -13.97       1.43    138.79      -0.00      0.00   9999.00     1.429
   6.05   62.00    0.00      9999.00    -14.38       1.30    141.52      -0.00      0.00   9999.00     1.298
   6.03   64.00    0.00      9999.00    -14.78       1.17    143.98      -0.00      0.00   9999.00     1.166
   6.01   66.00    0.00      9999.00    -15.16       1.03    146.18      -0.00      0.00   9999.00     1.032
   5.98   68.00    0.00      9999.00    -15.53       0.90    148.11      -0.00      0.00   9999.00     0.896
   5.94   70.00    0.00      9999.00    -15.87       0.76    149.76      -0.00      0.00   9999.00     0.760
   5.90   72.00    0.00      9999.00    -16.19       0.62    151.14      -0.00      0.00   9999.00     0.622
   5.85   74.00    0.00      9999.00    -16.50       0.48    152.25      -0.00      0.00   9999.00     0.484
   5.79   76.00    0.00      9999.00    -16.78       0.34    153.08      -0.00      0.00   9999.00     0.345
   5.72   78.00    0.00      9999.00    -17.05       0.21    153.63      -0.00     -0.00  -9999.00     0.206
   5.65   80.00    0.00      9999.00    -17.29       0.07    153.90      -0.00     -0.00  -9999.00     0.066
   5.57   82.00    0.00      9999.00    -17.51      -0.07    153.89      -0.00     -0.00  -9999.00    -0.073
```




```
*******************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 16 April, 2025   *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 8 ------  *
*                                                                                     *
***************************************************************************************************************
```

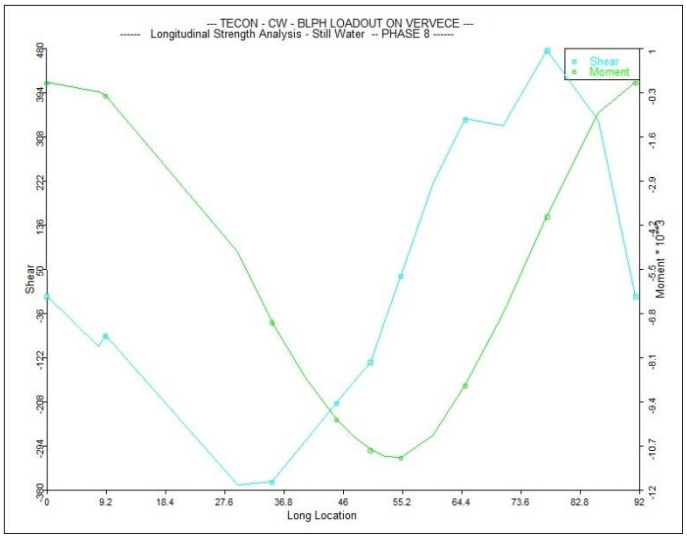
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-287	-0.0114	7.3546
9.14	-79	-390	-0.0155	8.4030
29.72	-370	-5003	-0.1978	25.9035
35.00	-363	-7057	-0.2789	29.3364
40.00	-286	-8683	-0.3431	31.7937
45.00	-209	-9924	-0.3922	33.2972
47.50	-171	-10402	-0.4111	33.6470
50.29	-129	-10825	-0.4278	33.6986
52.50	-51	-11026	-0.4357	33.4766
55.00	37	-11044	-0.4364	32.9395
60.00	214	-10414	-0.4116	30.9597
65.00	342	-8911	-0.3522	27.8397
70.87	329	-6812	-0.2692	22.9436
77.72	477	-3941	-0.1558	15.9377
85.70	338	-909	-0.0359	6.7958
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH 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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*       --- TECON - CW - BLPH 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

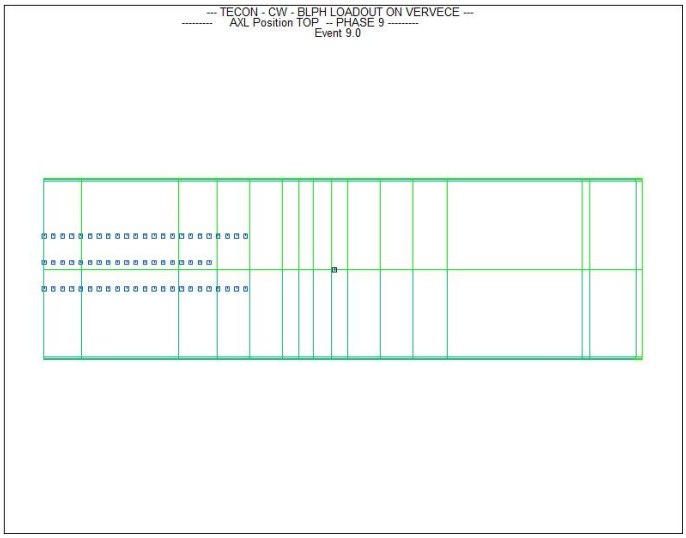
                                  Wet Radii Of Gyration About CG

                            K-X =     7.59 K-Y =    26.32 K-Z =    26.97

                                     GMT =    13.78 GML =   162.21

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

                           ----------------  Part AXL9       ------------
                           LOAD_GRO   1692.00    77.12    -1.19     7.10
                           ----------------  Part GRI&SF-B   ------------
                           LOAD_GRO     75.00    30.86    -1.14     7.35
                           ----------------  Part VERVECE    ------------
                           LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                      1PC        6.87     5.60    -3.43     0.11     0.18     3.00
                      1PW      224.67     5.62   -10.28     3.77     6.02    98.00
                      1SC        6.88     5.60     3.43     0.11     0.18     3.00
                      1SW      224.67     5.62    10.28     3.77     6.02    98.00
                      2PC      455.41    19.43    -3.43     1.63     3.26    53.43
                      2PW      691.40    19.43   -10.28     2.48     4.95    81.12
                      2SC      467.98    19.43     3.43     1.67     3.35    54.90
                      2SW      754.92    19.43    10.28     2.70     5.40    88.57
                      3PC      835.34    40.01    -3.43     2.99     5.97    98.00
                      3PW       25.57    40.01   -10.28     0.09     0.18     3.00
                      3SC      835.34    40.01     3.43     2.99     5.97    98.00
                      3SW       25.57    40.01    10.28     0.09     0.18     3.00
                      4PC       25.57    60.58    -3.43     0.09     0.18     3.00
                      4PW      457.50    60.58   -10.28     1.64     3.28    53.68
                      4SC       25.57    60.58     3.43     0.09     0.18     3.00
                      4SW      521.01    60.58    10.28     1.87     3.73    61.13
                      5PC      278.82    83.38    -3.43     2.10     3.86    58.09
                      5PW      115.12    78.73   -10.26     0.56     1.10    14.87
                      5SC      291.19    83.45     3.43     2.21     4.05    61.63
                      5SW      183.43    78.97    10.27     0.87     1.69    23.69
                           ========  ========  =======  =======  =======
                           Total     10052.62    46.75     0.00     3.40
                           Buoyancy  10052.61    46.75    -0.00     2.21
```



```
                          ******************************************************
*                                        ***  MOSES   ***                                                  *
*                                        ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                        ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.40, and Wind Speed = 10 Knots

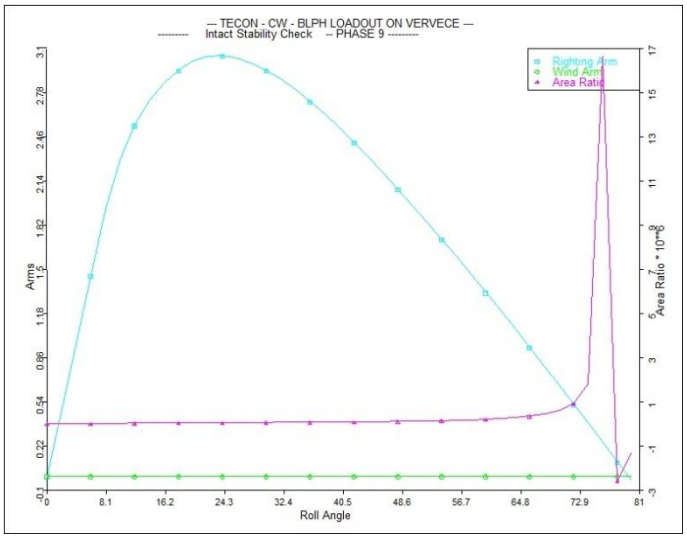
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                        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       0.48      0.48       0.00      0.00   3012.35     0.482
   4.29    4.00    0.00     9999.00      1.49       0.97      1.93       0.00      0.00   6193.26     0.966
   4.27    6.00    0.00     9999.00      1.03       1.45      4.35       0.00      0.00   9727.36     1.453
   4.25    8.00    0.00     9999.00      0.57       1.93      7.74       0.00      0.00   9999.00     1.934
   4.26   10.00    0.00     9999.00      0.08       2.29     11.97       0.00      0.00   9999.00     2.294
   4.31   12.00    0.00     9999.00     -0.46       2.54     16.80       0.00      0.00   9999.00     2.542
   4.39   14.00    0.00     9999.00     -1.04       2.72     22.06       0.00      0.00   9999.00     2.720
   4.48   16.00    0.00     9999.00     -1.63       2.85     27.63       0.00      0.00   9999.00     2.849
   4.60   18.00    0.00     9999.00     -2.25       2.94     33.42       0.00      0.00   9999.00     2.942
   4.72   20.00    0.00     9999.00     -2.88       3.01     39.37       0.00      0.00   9999.00     3.007
   4.85   22.00    0.00     9999.00     -3.51       3.04     45.42       0.00      0.00   9999.00     3.042
   4.97   24.00    0.00     9999.00     -4.14       3.05     51.51       0.00      0.00   9999.00     3.048
   5.09   26.00    0.00     9999.00     -4.77       3.03     57.59       0.00      0.00   9999.00     3.029
   5.20   28.00    0.00     9999.00     -5.39       2.99     63.61       0.00      0.00   9999.00     2.992
   5.31   30.00    0.00     9999.00     -6.01       2.94     69.54       0.00      0.00   9999.00     2.940
   5.41   32.00    0.00     9999.00     -6.62       2.87     75.35       0.00      0.00   9999.00     2.875
   5.50   34.00    0.00     9999.00     -7.22       2.80     81.03       0.00      0.00   9999.00     2.800
   5.58   36.00    0.00     9999.00     -7.81       2.72     86.54      -0.00      0.00   9999.00     2.716
   5.66   38.00    0.00     9999.00     -8.39       2.62     91.88      -0.00      0.00   9999.00     2.624
   5.73   40.00    0.00     9999.00     -8.96       2.52     97.03      -0.00      0.00   9999.00     2.525
   5.80   42.00    0.00     9999.00     -9.52       2.42    101.98      -0.00      0.00   9999.00     2.420
   5.86   44.00    0.00     9999.00    -10.07       2.31    106.71      -0.00      0.00   9999.00     2.311
   5.91   46.00    0.00     9999.00    -10.61       2.20    111.22      -0.00      0.00   9999.00     2.198
   5.95   48.00    0.00     9999.00    -11.13       2.08    115.50      -0.00      0.00   9999.00     2.081
   5.99   50.00    0.00     9999.00    -11.64       1.96    119.54      -0.00      0.00   9999.00     1.962
   6.02   52.00    0.00     9999.00    -12.14       1.84    123.34      -0.00      0.00   9999.00     1.840
   6.04   54.00    0.00     9999.00    -12.62       1.72    126.90      -0.00      0.00   9999.00     1.716
   6.05   56.00    0.00     9999.00    -13.08       1.59    130.21      -0.00      0.00   9999.00     1.590
   6.06   58.00    0.00     9999.00    -13.53       1.46    133.26      -0.00      0.00   9999.00     1.462
   6.06   60.00    0.00     9999.00    -13.97       1.33    136.05      -0.00      0.00   9999.00     1.332
   6.05   62.00    0.00     9999.00    -14.38       1.20    138.59      -0.00      0.00   9999.00     1.201
   6.03   64.00    0.00     9999.00    -14.78       1.07    140.85      -0.00      0.00   9999.00     1.068
   6.01   66.00    0.00     9999.00    -15.16       0.93    142.85      -0.00      0.00   9999.00     0.933
   5.98   68.00    0.00     9999.00    -15.53       0.80    144.59      -0.00      0.00   9999.00     0.797
   5.94   70.00    0.00     9999.00    -15.87       0.66    146.04      -0.00      0.00   9999.00     0.660
   5.90   72.00    0.00     9999.00    -16.19       0.52    147.23      -0.00      0.00   9999.00     0.522
   5.85   74.00    0.00     9999.00    -16.50       0.38    148.13      -0.00      0.00   9999.00     0.384
   5.79   76.00    0.00     9999.00    -16.78       0.25    148.76      -0.00      0.00   9999.00     0.245
   5.72   78.00    0.00     9999.00    -17.05       0.11    149.11      -0.00     -0.00  -9999.00     0.106
   5.65   80.00    0.00     9999.00    -17.29      -0.03    149.18      -0.00     -0.00  -9999.00    -0.033
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025        *
*          --- TECON - CW - BLPH 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 +++
                    ================================================================

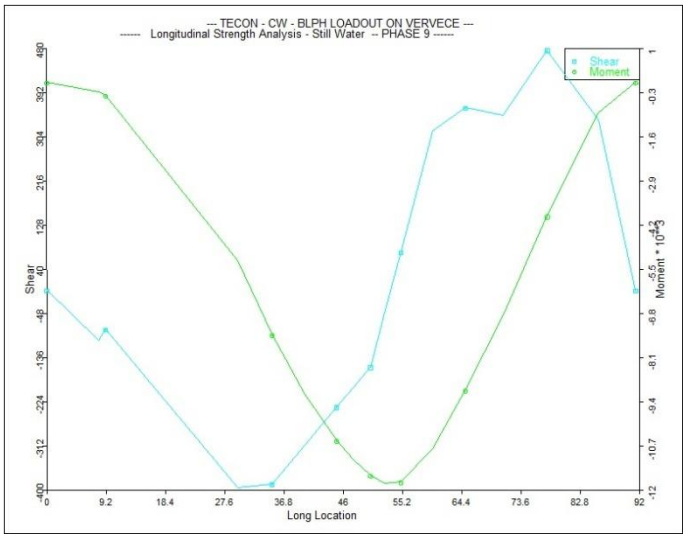
                    Process is 9: Units Are Degrees, Meters, and M-Tons Unless Specified

                                      Allowable Stress =     155.00 Mpa

                                    Allowable Deflection =       1.00 MM

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

                       0.00             -1              0          0.0000          0.0000
                       8.00           -101           -287         -0.0114          7.7065
                       9.14            -79           -390         -0.0155          8.8052
                      29.72           -395          -5254         -0.2076         27.1719
                      35.00           -387          -7436         -0.2939         30.7791
                      40.00           -310          -9183         -0.3629         33.3587
                      45.00           -234         -10546         -0.4168         34.9295
                      47.50           -196         -11085         -0.4381         35.2881
                      50.29           -154         -11575         -0.4574         35.3271
                      52.50            -47         -11799         -0.4663         35.0773
                      55.00             74         -11766         -0.4650         34.4885
                      60.00            315         -10792         -0.4265         32.3500
                      65.00            362          -9062         -0.3581         29.0286
                      70.87            347          -6867         -0.2714         23.8756
                      77.72            477          -3941         -0.1558         16.5596
                      85.70            338           -909         -0.0359          7.0561
                      91.44             -1              0          0.0000          0.0000
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 9 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

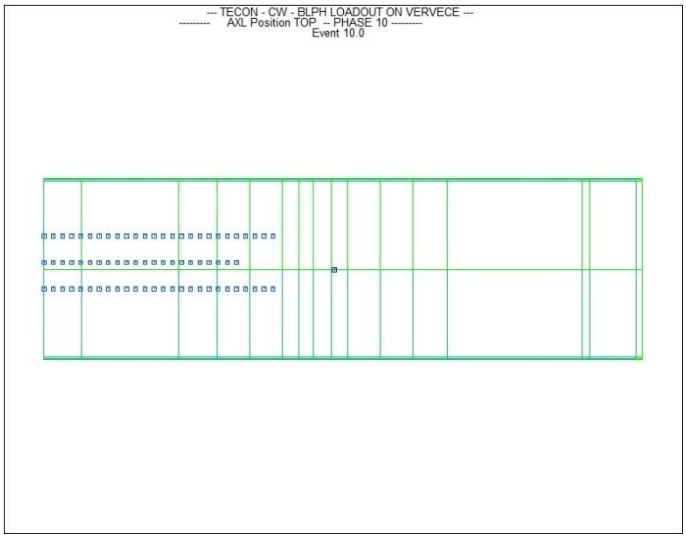
                                 Wet Radii Of Gyration About CG

                           K-X =     7.47 K-Y =    26.34 K-Z =    26.94

                                    GMT =    13.68 GML =   162.11

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

                          ----------------  Part AXL10      ------------
                          LOAD_GRO   1933.20    75.05    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        684.20    19.43   -10.28     2.45     4.90    80.28
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        761.82    19.43    10.28     2.73     5.45    89.38
                  3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.01     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        330.00    60.58   -10.28     1.19     2.36    38.72
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        407.60    60.58    10.28     1.46     2.92    47.82
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        115.12    78.73   -10.26     0.56     1.10    14.87
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        183.43    78.97    10.27     0.87     1.69    23.69
                          ========  ========  =======  =======  =======
                          Total     10052.62    46.75     0.00     3.50
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.50, and Wind Speed = 10 Knots

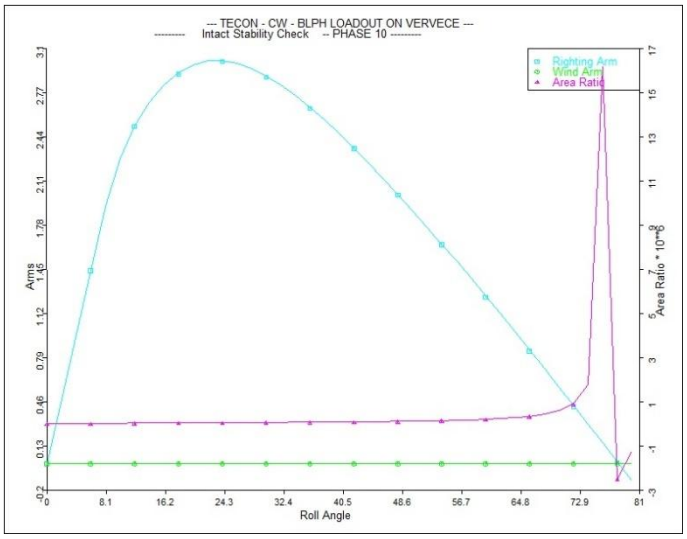
                              Initial: Roll = 0.00, Trim = 0.00 Deg.

                    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       0.48      0.48       0.00      0.00   2991.21     0.478
   4.29    4.00    0.00     9999.00      1.49       0.96      1.92       0.00      0.00   6149.77     0.960
   4.27    6.00    0.00     9999.00      1.03       1.44      4.32       0.00      0.00   9659.17     1.443
   4.25    8.00    0.00     9999.00      0.57       1.92      7.68       0.00      0.00   9999.00     1.921
   4.26   10.00    0.00     9999.00      0.08       2.28     11.88       0.00      0.00   9999.00     2.277
   4.31   12.00    0.00     9999.00     -0.46       2.52     16.68       0.00      0.00   9999.00     2.522
   4.39   14.00    0.00     9999.00     -1.04       2.70     21.90       0.00      0.00   9999.00     2.696
   4.48   16.00    0.00     9999.00     -1.63       2.82     27.42       0.00      0.00   9999.00     2.822
   4.60   18.00    0.00     9999.00     -2.25       2.91     33.15       0.00      0.00   9999.00     2.912
   4.72   20.00    0.00     9999.00     -2.88       2.97     39.04       0.00      0.00   9999.00     2.974
   4.85   22.00    0.00     9999.00     -3.51       3.01     45.02       0.00      0.00   9999.00     3.006
   4.97   24.00    0.00     9999.00     -4.14       3.01     51.03       0.00      0.00   9999.00     3.008
   5.09   26.00    0.00     9999.00     -4.77       2.99     57.03       0.00      0.00   9999.00     2.987
   5.20   28.00    0.00     9999.00     -5.39       2.95     62.96       0.00      0.00   9999.00     2.947
   5.31   30.00    0.00     9999.00     -6.01       2.89     68.80       0.00      0.00   9999.00     2.891
   5.41   32.00    0.00     9999.00     -6.62       2.82     74.51       0.00      0.00   9999.00     2.824
   5.50   34.00    0.00     9999.00     -7.22       2.75     80.08       0.00      0.00   9999.00     2.746
   5.58   36.00    0.00     9999.00     -7.81       2.66     85.49      -0.00      0.00   9999.00     2.659
   5.66   38.00    0.00     9999.00     -8.39       2.56     90.71      -0.00      0.00   9999.00     2.564
   5.73   40.00    0.00     9999.00     -8.96       2.46     95.74      -0.00      0.00   9999.00     2.463
   5.80   42.00    0.00     9999.00     -9.52       2.36    100.56      -0.00      0.00   9999.00     2.356
   5.86   44.00    0.00     9999.00    -10.07       2.24    105.16      -0.00      0.00   9999.00     2.244
   5.91   46.00    0.00     9999.00    -10.61       2.13    109.53      -0.00      0.00   9999.00     2.128
   5.95   48.00    0.00     9999.00    -11.13       2.01    113.67      -0.00      0.00   9999.00     2.009
   5.99   50.00    0.00     9999.00    -11.64       1.89    117.56      -0.00      0.00   9999.00     1.888
   6.02   52.00    0.00     9999.00    -12.14       1.76    121.21      -0.00      0.00   9999.00     1.764
   6.04   54.00    0.00     9999.00    -12.62       1.64    124.61      -0.00      0.00   9999.00     1.638
   6.05   56.00    0.00     9999.00    -13.08       1.51    127.76      -0.00      0.00   9999.00     1.510
   6.06   58.00    0.00     9999.00    -13.53       1.38    130.65      -0.00      0.00   9999.00     1.380
   6.06   60.00    0.00     9999.00    -13.97       1.25    133.28      -0.00      0.00   9999.00     1.248
   6.05   62.00    0.00     9999.00    -14.38       1.11    135.64      -0.00      0.00   9999.00     1.115
   6.03   64.00    0.00     9999.00    -14.78       0.98    137.73      -0.00      0.00   9999.00     0.980
   6.01   66.00    0.00     9999.00    -15.16       0.84    139.56      -0.00      0.00   9999.00     0.844
   5.98   68.00    0.00     9999.00    -15.53       0.71    141.11      -0.00      0.00   9999.00     0.707
   5.94   70.00    0.00     9999.00    -15.87       0.57    142.38      -0.00      0.00   9999.00     0.569
   5.90   72.00    0.00     9999.00    -16.19       0.43    143.38      -0.00      0.00   9999.00     0.430
   5.85   74.00    0.00     9999.00    -16.50       0.29    144.10      -0.00      0.00   9999.00     0.290
   5.79   76.00    0.00     9999.00    -16.78       0.15    144.54      -0.00      0.00   9999.00     0.151
   5.72   78.00    0.00     9999.00    -17.05       0.01    144.70      -0.00     -0.00  -9999.00     0.011
   5.65   80.00    0.00     9999.00    -17.29      -0.13    144.59      -0.00     -0.00  -9999.00    -0.129
```




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 +++
                  ================================================================

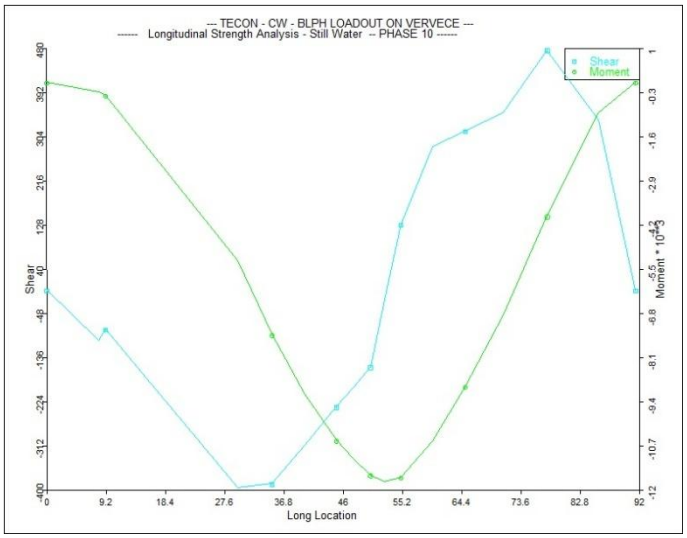
              Process is 10: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

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

           0.00            -1              0          0.0000          0.0000
           8.00          -101           -287         -0.0114          7.6725
           9.14           -79           -390         -0.0155          8.7663
          29.72          -394          -5250         -0.2075         27.0461
          35.00          -387          -7431         -0.2937         30.6316
          40.00          -310          -9177         -0.3627         33.1912
          45.00          -233         -10538         -0.4165         34.7427
          47.50          -195         -11076         -0.4377         35.0919
          50.29          -153         -11566         -0.4571         35.1207
          52.50           -20         -11760         -0.4647         34.8631
          55.00           129         -11625         -0.4594         34.2668
          60.00           284         -10551         -0.4170         32.1279
          65.00           316          -8950         -0.3537         28.8314
          70.87           352          -6875         -0.2717         23.7219
          77.72           477          -3941         -0.1558         16.4571
          85.70           338           -909         -0.0359          7.0132
          91.44            -1              0          0.0000          0.0000
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 10 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
480
392
304
216
128
40
-48
-136
-224
-312
-400
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

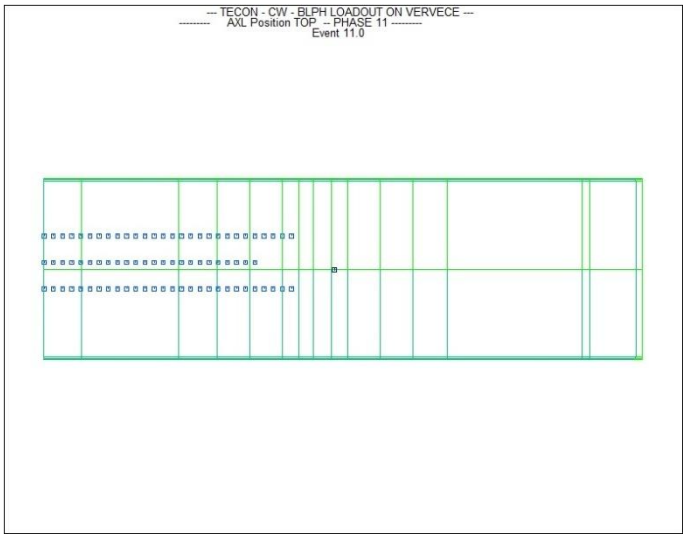
                                 Wet Radii Of Gyration About CG

                           K-X =     7.38 K-Y =    26.30 K-Z =    26.87

                                    GMT =    13.61 GML =   162.04

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

                          ----------------  Part AXL11      ------------
                          LOAD_GRO   2094.00    73.67    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        672.56    19.43   -10.28     2.41     4.81    78.91
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        759.58    19.43    10.28     2.72     5.43    89.12
                  3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.01     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        251.85    60.58   -10.27     0.91     1.81    29.55
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        338.83    60.58    10.28     1.22     2.43    39.75
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        115.12    78.73   -10.26     0.56     1.10    14.87
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        183.43    78.97    10.27     0.87     1.69    23.69
                          ========  ========  =======  =======  =======
                          Total     10052.62    46.75     0.00     3.57
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
                          ******************************************************
*                                         ***  MOSES   ***                                                  *
*                                         -----------------                    16 April, 2025               *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                         -----------------                    16 April, 2025               *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.57, and Wind Speed = 10 Knots

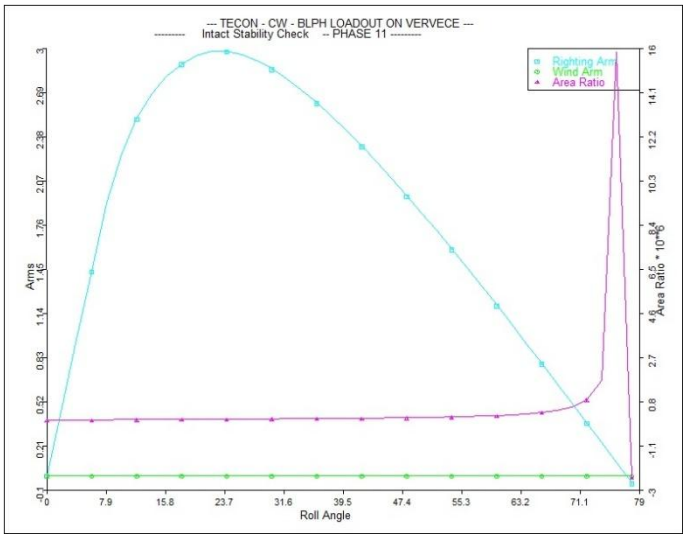
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                        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       0.48      0.48       0.00      0.00   2975.44     0.476
   4.29    4.00    0.00     9999.00      1.49       0.95      1.91       0.00      0.00   6117.42     0.955
   4.27    6.00    0.00     9999.00      1.03       1.44      4.30       0.00      0.00   9608.46     1.435
   4.25    8.00    0.00     9999.00      0.57       1.91      7.64       0.00      0.00   9999.00     1.911
   4.26   10.00    0.00     9999.00      0.08       2.26     11.82       0.00      0.00   9999.00     2.264
   4.31   12.00    0.00     9999.00     -0.46       2.51     16.59       0.00      0.00   9999.00     2.507
   4.39   14.00    0.00     9999.00     -1.04       2.68     21.77       0.00      0.00   9999.00     2.679
   4.48   16.00    0.00     9999.00     -1.63       2.80     27.26       0.00      0.00   9999.00     2.802
   4.60   18.00    0.00     9999.00     -2.25       2.89     32.95       0.00      0.00   9999.00     2.890
   4.72   20.00    0.00     9999.00     -2.88       2.95     38.79       0.00      0.00   9999.00     2.949
   4.85   22.00    0.00     9999.00     -3.51       2.98     44.71       0.00      0.00   9999.00     2.979
   4.97   24.00    0.00     9999.00     -4.14       2.98     50.67       0.00      0.00   9999.00     2.978
   5.09   26.00    0.00     9999.00     -4.77       2.95     56.60       0.00      0.00   9999.00     2.954
   5.20   28.00    0.00     9999.00     -5.39       2.91     62.47       0.00      0.00   9999.00     2.912
   5.31   30.00    0.00     9999.00     -6.01       2.85     68.24       0.00      0.00   9999.00     2.854
   5.41   32.00    0.00     9999.00     -6.62       2.78     73.87       0.00      0.00   9999.00     2.785
   5.50   34.00    0.00     9999.00     -7.22       2.71     79.36       0.00      0.00   9999.00     2.706
   5.58   36.00    0.00     9999.00     -7.81       2.62     84.69      -0.00      0.00   9999.00     2.618
   5.66   38.00    0.00     9999.00     -8.39       2.52     89.83      -0.00      0.00   9999.00     2.523
   5.73   40.00    0.00     9999.00     -8.96       2.42     94.77      -0.00      0.00   9999.00     2.421
   5.80   42.00    0.00     9999.00     -9.52       2.31     99.51      -0.00      0.00   9999.00     2.313
   5.86   44.00    0.00     9999.00    -10.07       2.20    104.02      -0.00      0.00   9999.00     2.201
   5.91   46.00    0.00     9999.00    -10.61       2.09    108.31      -0.00      0.00   9999.00     2.085
   5.95   48.00    0.00     9999.00    -11.13       1.97    112.36      -0.00      0.00   9999.00     1.966
   5.99   50.00    0.00     9999.00    -11.64       1.84    116.17      -0.00      0.00   9999.00     1.843
   6.02   52.00    0.00     9999.00    -12.14       1.72    119.73      -0.00      0.00   9999.00     1.718
   6.04   54.00    0.00     9999.00    -12.62       1.59    123.04      -0.00      0.00   9999.00     1.591
   6.05   56.00    0.00     9999.00    -13.08       1.46    126.09      -0.00      0.00   9999.00     1.461
   6.06   58.00    0.00     9999.00    -13.53       1.33    128.88      -0.00      0.00   9999.00     1.330
   6.06   60.00    0.00     9999.00    -13.97       1.20    131.41      -0.00      0.00   9999.00     1.197
   6.05   62.00    0.00     9999.00    -14.38       1.06    133.67      -0.00      0.00   9999.00     1.062
   6.03   64.00    0.00     9999.00    -14.78       0.93    135.66      -0.00      0.00   9999.00     0.926
   6.01   66.00    0.00     9999.00    -15.16       0.79    137.37      -0.00      0.00   9999.00     0.788
   5.98   68.00    0.00     9999.00    -15.53       0.65    138.81      -0.00      0.00   9999.00     0.650
   5.94   70.00    0.00     9999.00    -15.87       0.51    139.97      -0.00      0.00   9999.00     0.511
   5.90   72.00    0.00     9999.00    -16.19       0.37    140.85      -0.00      0.00   9999.00     0.371
   5.85   74.00    0.00     9999.00    -16.50       0.23    141.45      -0.00      0.00   9999.00     0.231
   5.79   76.00    0.00     9999.00    -16.78       0.09    141.77      -0.00      0.00   9999.00     0.090
   5.72   78.00    0.00     9999.00    -17.05      -0.05    141.81      -0.00     -0.00  -9999.00    -0.051
```




```
*********************************************************
*                                                       *
*                          ***  MOSES   ***             *
*                          ----------------  16 April, 2025 *
*     --- TECON - CW - BLPH LOADOUT ON VERVECE ---      *
*     ------  Longitudinal Strength Analysis - Still Water  -- PHASE 11 ------ *
*                                                       *
*********************************************************
```

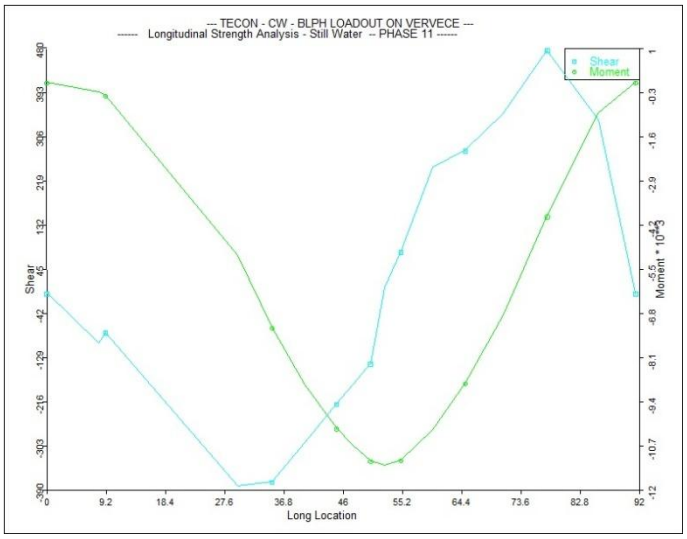
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-287	-0.0114	7.4603
9.14	-79	-390	-0.0155	8.5237
29.72	-381	-5108	-0.2019	26.2798
35.00	-373	-7215	-0.2851	29.7582
40.00	-296	-8891	-0.3514	32.2408
45.00	-219	-10183	-0.4024	33.7467
47.50	-182	-10687	-0.4223	34.0874
50.29	-140	-11138	-0.4401	34.1194
52.50	8	-11284	-0.4459	33.8747
55.00	79	-11121	-0.4395	33.3054
60.00	245	-10226	-0.4041	31.2585
65.00	279	-8844	-0.3495	28.0885
70.87	352	-6875	-0.2717	23.1427
77.72	477	-3941	-0.1558	16.0710
85.70	338	-909	-0.0359	6.8516
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 11 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

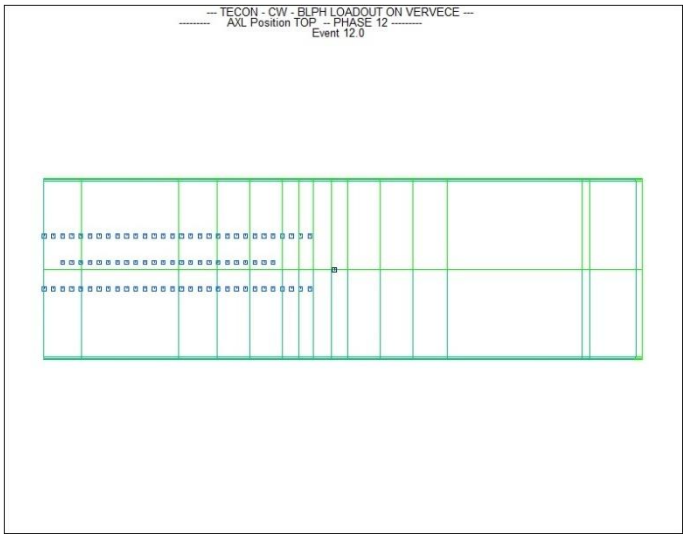
                                 Wet Radii Of Gyration About CG

                           K-X =     7.32 K-Y =    26.03 K-Z =    26.58

                                    GMT =    13.57 GML =   162.00

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

                          ----------------  Part AXL12      ------------
                          LOAD_GRO   2201.20    71.83    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                            1PC         6.87     5.60    -3.43     0.11     0.18     3.00
                            1PW       224.67     5.62   -10.28     3.77     6.02    98.00
                            1SC         6.88     5.60     3.43     0.11     0.18     3.00
                            1SW       224.67     5.62    10.28     3.77     6.02    98.00
                            2PC       455.41    19.43    -3.43     1.63     3.26    53.43
                            2PW       637.33    19.43   -10.28     2.28     4.56    74.78
                            2SC       467.98    19.43     3.43     1.67     3.35    54.90
                            2SW       730.77    19.43    10.28     2.62     5.23    85.74
                            3PC       835.34    40.01    -3.43     2.99     5.97    98.00
                            3PW        25.57    40.01   -10.28     0.09     0.18     3.00
                            3SC       835.34    40.01     3.43     2.99     5.97    98.00
                            3SW        25.57    40.01    10.28     0.09     0.18     3.00
                            4PC        25.57    60.58    -3.43     0.09     0.18     3.00
                            4PW       227.08    60.58   -10.27     0.82     1.63    26.64
                            4SC        25.57    60.58     3.43     0.09     0.18     3.00
                            4SW       320.46    60.58    10.28     1.15     2.30    37.60
                            5PC       278.82    83.38    -3.43     2.10     3.86    58.09
                            5PW       115.12    78.73   -10.26     0.56     1.10    14.87
                            5SC       291.19    83.45     3.43     2.21     4.05    61.63
                            5SW       183.43    78.97    10.27     0.87     1.69    23.69
                          ========  ========  =======  =======  =======
                          Total     10052.62    46.75     0.00     3.60
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



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                          ******************************************************
*                                        ***  MOSES   ***                                                  *
*                                        ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                        ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.60, and Wind Speed = 10 Knots

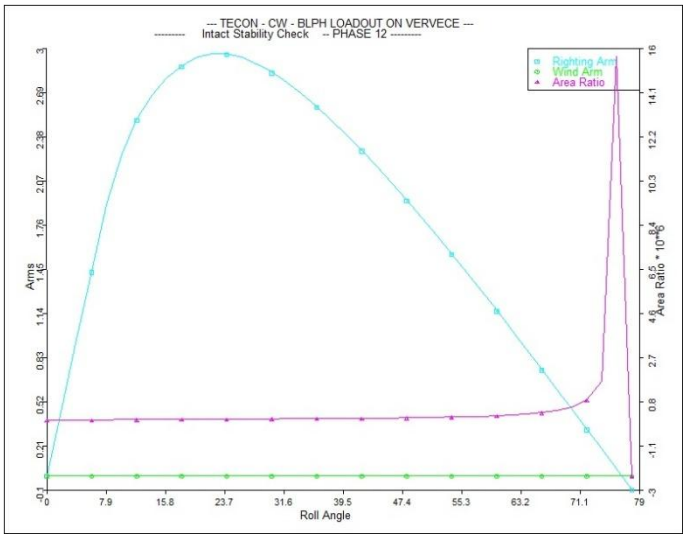
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                        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       0.47      0.47       0.00      0.00   2967.60     0.474
   4.29    4.00    0.00     9999.00      1.49       0.95      1.90       0.00      0.00   6101.43     0.952
   4.27    6.00    0.00     9999.00      1.03       1.43      4.29       0.00      0.00   9583.46     1.432
   4.25    8.00    0.00     9999.00      0.57       1.91      7.62       0.00      0.00   9999.00     1.906
   4.26   10.00    0.00     9999.00      0.08       2.26     11.79       0.00      0.00   9999.00     2.258
   4.31   12.00    0.00     9999.00     -0.46       2.50     16.54       0.00      0.00   9999.00     2.499
   4.39   14.00    0.00     9999.00     -1.04       2.67     21.71       0.00      0.00   9999.00     2.670
   4.48   16.00    0.00     9999.00     -1.63       2.79     27.17       0.00      0.00   9999.00     2.791
   4.60   18.00    0.00     9999.00     -2.25       2.88     32.84       0.00      0.00   9999.00     2.877
   4.72   20.00    0.00     9999.00     -2.88       2.93     38.65       0.00      0.00   9999.00     2.935
   4.85   22.00    0.00     9999.00     -3.51       2.96     44.55       0.00      0.00   9999.00     2.963
   4.97   24.00    0.00     9999.00     -4.14       2.96     50.47       0.00      0.00   9999.00     2.960
   5.09   26.00    0.00     9999.00     -4.77       2.93     56.37       0.00      0.00   9999.00     2.934
   5.20   28.00    0.00     9999.00     -5.39       2.89     62.19       0.00      0.00   9999.00     2.890
   5.31   30.00    0.00     9999.00     -6.01       2.83     67.91       0.00      0.00   9999.00     2.831
   5.41   32.00    0.00     9999.00     -6.62       2.76     73.51       0.00      0.00   9999.00     2.760
   5.50   34.00    0.00     9999.00     -7.22       2.68     78.95       0.00      0.00   9999.00     2.680
   5.58   36.00    0.00     9999.00     -7.81       2.59     84.22      -0.00      0.00   9999.00     2.591
   5.66   38.00    0.00     9999.00     -8.39       2.49     89.30      -0.00      0.00   9999.00     2.495
   5.73   40.00    0.00     9999.00     -8.96       2.39     94.19      -0.00      0.00   9999.00     2.392
   5.80   42.00    0.00     9999.00     -9.52       2.28     98.86      -0.00      0.00   9999.00     2.284
   5.86   44.00    0.00     9999.00    -10.07       2.17    103.32      -0.00      0.00   9999.00     2.171
   5.91   46.00    0.00     9999.00    -10.61       2.05    107.54      -0.00      0.00   9999.00     2.054
   5.95   48.00    0.00     9999.00    -11.13       1.93    111.53      -0.00      0.00   9999.00     1.934
   5.99   50.00    0.00     9999.00    -11.64       1.81    115.27      -0.00      0.00   9999.00     1.810
   6.02   52.00    0.00     9999.00    -12.14       1.68    118.77      -0.00      0.00   9999.00     1.684
   6.04   54.00    0.00     9999.00    -12.62       1.56    122.01      -0.00      0.00   9999.00     1.556
   6.05   56.00    0.00     9999.00    -13.08       1.43    124.99      -0.00      0.00   9999.00     1.425
   6.06   58.00    0.00     9999.00    -13.53       1.29    127.71      -0.00      0.00   9999.00     1.293
   6.06   60.00    0.00     9999.00    -13.97       1.16    130.16      -0.00      0.00   9999.00     1.158
   6.05   62.00    0.00     9999.00    -14.38       1.02    132.34      -0.00      0.00   9999.00     1.022
   6.03   64.00    0.00     9999.00    -14.78       0.89    134.25      -0.00      0.00   9999.00     0.885
   6.01   66.00    0.00     9999.00    -15.16       0.75    135.88      -0.00      0.00   9999.00     0.747
   5.98   68.00    0.00     9999.00    -15.53       0.61    137.23      -0.00      0.00   9999.00     0.608
   5.94   70.00    0.00     9999.00    -15.87       0.47    138.31      -0.00      0.00   9999.00     0.468
   5.90   72.00    0.00     9999.00    -16.19       0.33    139.11      -0.00      0.00   9999.00     0.328
   5.85   74.00    0.00     9999.00    -16.50       0.19    139.62      -0.00      0.00   9999.00     0.187
   5.79   76.00    0.00     9999.00    -16.78       0.05    139.85      -0.00      0.00   9999.00     0.046
   5.72   78.00    0.00     9999.00    -17.05      -0.09    139.81      -0.00     -0.00  -9999.00    -0.095
```




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*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                  16 April, 2025   *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 12 ------  *
*                                                                                      *
****************************************************************************************************************
```

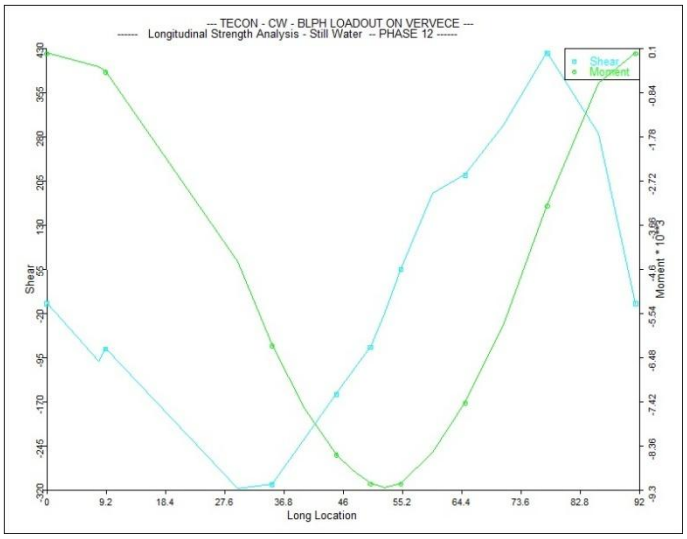
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-287	-0.0114	6.3497
9.14	-79	-390	-0.0155	7.2544
29.72	-317	-4449	-0.1758	22.2568
35.00	-309	-6218	-0.2457	25.1546
40.00	-232	-7574	-0.2993	27.2001
45.00	-155	-8546	-0.3377	28.4139
47.50	-117	-8889	-0.3513	28.6741
50.29	-76	-9161	-0.3620	28.6749
52.50	-19	-9259	-0.3659	28.4532
55.00	56	-9161	-0.3621	27.9621
60.00	184	-8497	-0.3358	26.2314
65.00	215	-7434	-0.2938	23.5677
70.87	298	-5813	-0.2297	19.4117
77.72	423	-3246	-0.1283	13.4649
85.70	285	-641	-0.0254	5.7299
91.44	-1	0	0.0000	0.0000


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 12 ------
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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*        --- TECON - CW - BLPH 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

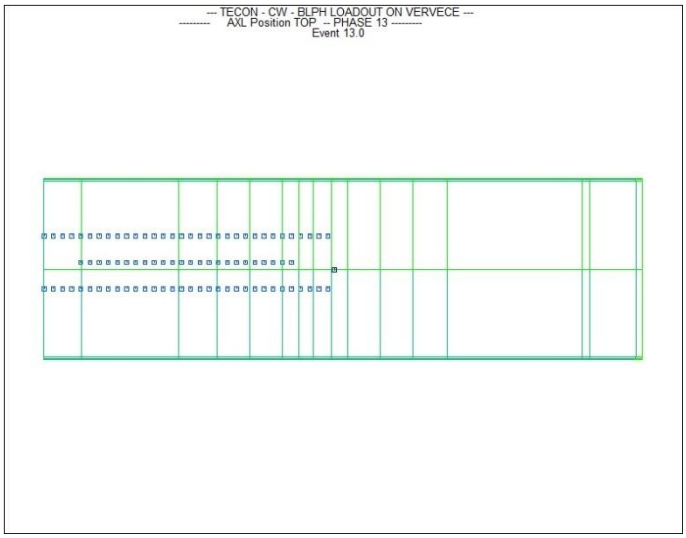
                                 Wet Radii Of Gyration About CG

                           K-X =     7.27 K-Y =    25.75 K-Z =    26.29

                                    GMT =    13.53 GML =   161.97

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

                          ----------------  Part AXL13      ------------
                          LOAD_GRO   2308.40    70.04    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        598.44    19.43   -10.28     2.14     4.28    70.21
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        698.31    19.43    10.28     2.50     5.00    81.93
                  3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.01     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        205.94    60.58   -10.27     0.74     1.48    24.16
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        305.73    60.58    10.28     1.10     2.19    35.87
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        115.12    78.73   -10.26     0.56     1.10    14.87
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        183.43    78.97    10.27     0.87     1.69    23.69
                          ========  ========  =======  =======  =======
                          Total     10052.62    46.75     0.00     3.64
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
                                  ******************************************************
*                                                 ***  MOSES   ***                                                  *
*                                                 ----------------                          16 April, 2025      *
*          --- TECON - CW - BLPH 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   ***                                                  *
*                                                 ----------------                          16 April, 2025      *
*          --- TECON - CW - BLPH 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 10052.62, KG = 3.64, and Wind Speed = 10 Knots

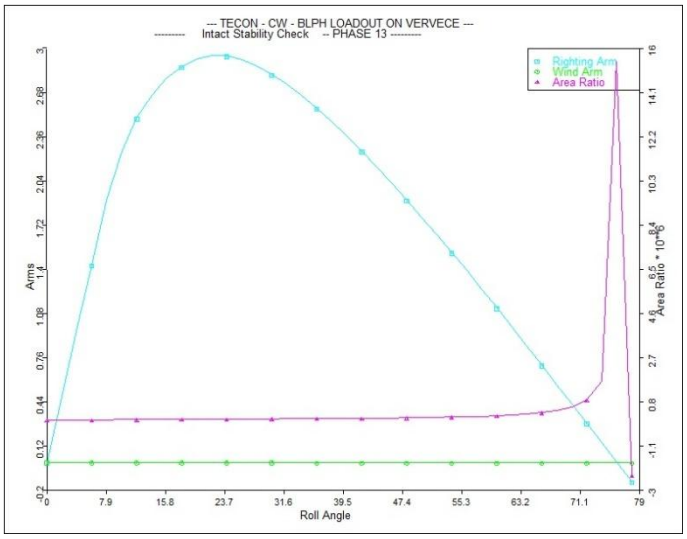
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                        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       0.47      0.47       0.00      0.00   2959.86     0.473
   4.29    4.00    0.00      9999.00      1.49       0.95      1.90       0.00      0.00   6085.52     0.950
   4.27    6.00    0.00      9999.00      1.03       1.43      4.27       0.00      0.00   9558.52     1.428
   4.25    8.00    0.00      9999.00      0.57       1.90      7.60       0.00      0.00   9999.00     1.901
   4.26   10.00    0.00      9999.00      0.08       2.25     11.76       0.00      0.00   9999.00     2.252
   4.31   12.00    0.00      9999.00     -0.46       2.49     16.50       0.00      0.00   9999.00     2.492
   4.39   14.00    0.00      9999.00     -1.04       2.66     21.65       0.00      0.00   9999.00     2.661
   4.48   16.00    0.00      9999.00     -1.63       2.78     27.09       0.00      0.00   9999.00     2.781
   4.60   18.00    0.00      9999.00     -2.25       2.87     32.74       0.00      0.00   9999.00     2.865
   4.72   20.00    0.00      9999.00     -2.88       2.92     38.53       0.00      0.00   9999.00     2.921
   4.85   22.00    0.00      9999.00     -3.51       2.95     44.40       0.00      0.00   9999.00     2.948
   4.97   24.00    0.00      9999.00     -4.14       2.94     50.29       0.00      0.00   9999.00     2.944
   5.09   26.00    0.00      9999.00     -4.77       2.92     56.15       0.00      0.00   9999.00     2.916
   5.20   28.00    0.00      9999.00     -5.39       2.87     61.93       0.00      0.00   9999.00     2.870
   5.31   30.00    0.00      9999.00     -6.01       2.81     67.61       0.00      0.00   9999.00     2.810
   5.41   32.00    0.00      9999.00     -6.62       2.74     73.16       0.00      0.00   9999.00     2.737
   5.50   34.00    0.00      9999.00     -7.22       2.66     78.55       0.00      0.00   9999.00     2.655
   5.58   36.00    0.00      9999.00     -7.81       2.56     83.77      -0.00      0.00   9999.00     2.565
   5.66   38.00    0.00      9999.00     -8.39       2.47     88.81      -0.00      0.00   9999.00     2.467
   5.73   40.00    0.00      9999.00     -8.96       2.36     93.64      -0.00      0.00   9999.00     2.363
   5.80   42.00    0.00      9999.00     -9.52       2.25     98.25      -0.00      0.00   9999.00     2.254
   5.86   44.00    0.00      9999.00    -10.07       2.14    102.65      -0.00      0.00   9999.00     2.140
   5.91   46.00    0.00      9999.00    -10.61       2.02    106.81      -0.00      0.00   9999.00     2.022
   5.95   48.00    0.00      9999.00    -11.13       1.90    110.73      -0.00      0.00   9999.00     1.900
   5.99   50.00    0.00      9999.00    -11.64       1.78    114.41      -0.00      0.00   9999.00     1.776
   6.02   52.00    0.00      9999.00    -12.14       1.65    117.83      -0.00      0.00   9999.00     1.649
   6.04   54.00    0.00      9999.00    -12.62       1.52    121.00      -0.00      0.00   9999.00     1.519
   6.05   56.00    0.00      9999.00    -13.08       1.39    123.91      -0.00      0.00   9999.00     1.388
   6.06   58.00    0.00      9999.00    -13.53       1.25    126.55      -0.00      0.00   9999.00     1.254
   6.06   60.00    0.00      9999.00    -13.97       1.12    128.92      -0.00      0.00   9999.00     1.119
   6.05   62.00    0.00      9999.00    -14.38       0.98    131.02      -0.00      0.00   9999.00     0.982
   6.03   64.00    0.00      9999.00    -14.78       0.84    132.85      -0.00      0.00   9999.00     0.844
   6.01   66.00    0.00      9999.00    -15.16       0.71    134.40      -0.00      0.00   9999.00     0.705
   5.98   68.00    0.00      9999.00    -15.53       0.57    135.67      -0.00      0.00   9999.00     0.565
   5.94   70.00    0.00      9999.00    -15.87       0.42    136.66      -0.00      0.00   9999.00     0.425
   5.90   72.00    0.00      9999.00    -16.19       0.28    137.37      -0.00      0.00   9999.00     0.284
   5.85   74.00    0.00      9999.00    -16.50       0.14    137.79      -0.00      0.00   9999.00     0.143
   5.79   76.00    0.00      9999.00    -16.78       0.00    137.94      -0.00      0.00   9999.00     0.002
   5.72   78.00    0.00      9999.00    -17.05      -0.14    137.80      -0.00     -0.00  -9999.00    -0.139
```




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                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH 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 +++
                  ================================================================

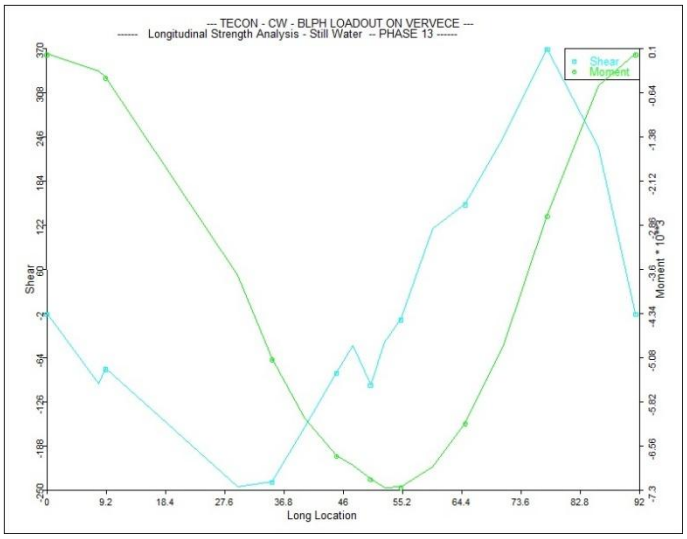
              Process is 13: Units Are Degrees, Meters, and M-Tons Unless Specified

                                Allowable Stress =     155.00 Mpa

                              Allowable Deflection =       1.00 MM

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

          0.00            -1              0           0.0000          0.0000
          8.00          -101           -287          -0.0114          5.2064
          9.14           -79           -390          -0.0155          5.9476
         29.72          -245          -3715          -0.1468         18.1239
         35.00          -238          -5107          -0.2018         20.4370
         40.00          -160          -6106          -0.2413         22.0540
         45.00           -84          -6722          -0.2656         23.0011
         47.50           -46          -6887          -0.2722         23.2009
         50.29          -101          -7115          -0.2812         23.1993
         52.50           -41          -7266          -0.2871         23.0253
         55.00            -9          -7252          -0.2866         22.6399
         60.00           116          -6913          -0.2732         21.2734
         65.00           152          -6177          -0.2441         19.1487
         70.87           244          -4900          -0.1937         15.7995
         77.72           369          -2701          -0.1068         10.9686
         85.70           231           -524          -0.0207          4.6682
         91.44            -1              0           0.0000          0.0000
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 13 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH 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

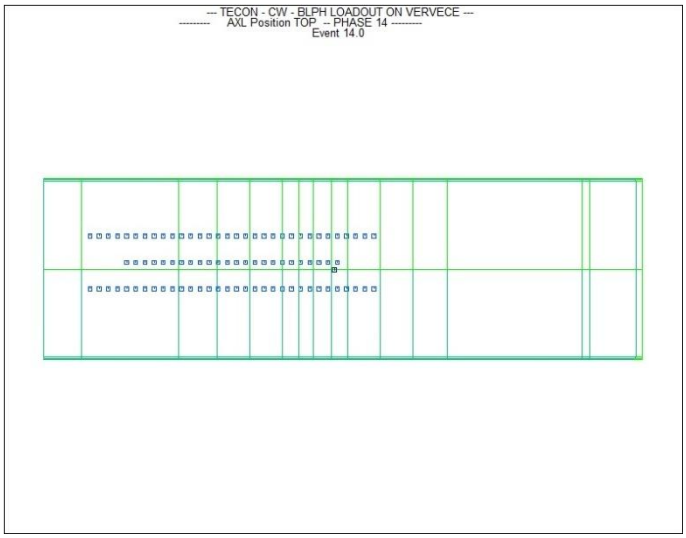
                                 Wet Radii Of Gyration About CG

                           K-X =     7.28 K-Y =    24.69 K-Z =    25.24

                                    GMT =    13.59 GML =   161.42

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

                          ----------------  Part AXL14      ------------
                          LOAD_GRO   2308.40    63.04    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        472.38    19.43   -10.28     1.69     3.38    55.42
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        557.02    19.43    10.28     2.00     3.99    65.35
                  3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.01     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        205.94    60.58   -10.27     0.74     1.48    24.16
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        305.73    60.58    10.28     1.10     2.19    35.87
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        241.20    79.18   -10.27     1.13     2.17    31.15
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        324.71    79.46    10.28     1.48     2.83    41.94
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     3.58
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
**********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH 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 = 3.58, and Wind Speed = 10 Knots

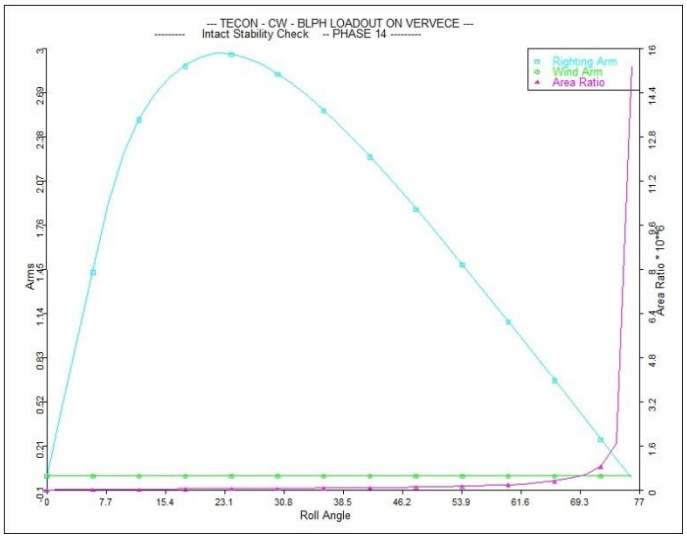
                              Initial: Roll = 0.00, Trim = 0.00 Deg.

                    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       0.47      0.47       0.00      0.00   2970.29     0.475
   4.29    4.00    0.00      9999.00      1.49       0.95      1.90       0.00      0.00   6107.29     0.953
   4.27    6.00    0.00      9999.00      1.03       1.43      4.29       0.00      0.00   9592.81     1.433
   4.25    8.00    0.00      9999.00      0.57       1.91      7.63       0.00      0.00   9999.00     1.908
   4.26   10.00    0.00      9999.00      0.08       2.26     11.80       0.00      0.00   9999.00     2.260
   4.31   12.00    0.00      9999.00     -0.46       2.50     16.56       0.00      0.00   9999.00     2.502
   4.39   14.00    0.00      9999.00     -1.04       2.67     21.74       0.00      0.00   9999.00     2.673
   4.48   16.00    0.00      9999.00     -1.63       2.79     27.20       0.00      0.00   9999.00     2.795
   4.60   18.00    0.00      9999.00     -2.25       2.88     32.88       0.00      0.00   9999.00     2.881
   4.72   20.00    0.00      9999.00     -2.88       2.94     38.70       0.00      0.00   9999.00     2.938
   4.85   22.00    0.00      9999.00     -3.51       2.96     44.60       0.00      0.00   9999.00     2.964
   4.97   24.00    0.00      9999.00     -4.14       2.96     50.52       0.00      0.00   9999.00     2.960
   5.09   26.00    0.00      9999.00     -4.77       2.93     56.42       0.00      0.00   9999.00     2.932
   5.20   28.00    0.00      9999.00     -5.39       2.88     62.23       0.00      0.00   9999.00     2.885
   5.31   30.00    0.00      9999.00     -6.01       2.82     67.94       0.00      0.00   9999.00     2.822
   5.41   32.00    0.00      9999.00     -6.62       2.75     73.51       0.00      0.00   9999.00     2.747
   5.50   34.00    0.00      9999.00     -7.22       2.66     78.92       0.00      0.00   9999.00     2.661
   5.58   36.00    0.00      9999.00     -7.81       2.57     84.15      -0.00      0.00   9999.00     2.567
   5.66   38.00    0.00      9999.00     -8.39       2.46     89.18      -0.00      0.00   9999.00     2.464
   5.73   40.00    0.00      9999.00     -8.96       2.36     94.00      -0.00      0.00   9999.00     2.355
   5.80   42.00    0.00      9999.00     -9.52       2.24     98.59      -0.00      0.00   9999.00     2.241
   5.86   44.00    0.00      9999.00    -10.07       2.12    102.96      -0.00      0.00   9999.00     2.122
   5.91   46.00    0.00      9999.00    -10.61       2.00    107.08      -0.00      0.00   9999.00     2.000
   5.95   48.00    0.00      9999.00    -11.13       1.87    110.95      -0.00      0.00   9999.00     1.874
   5.99   50.00    0.00      9999.00    -11.64       1.75    114.57      -0.00      0.00   9999.00     1.747
   6.02   52.00    0.00      9999.00    -12.14       1.62    117.94      -0.00      0.00   9999.00     1.617
   6.04   54.00    0.00      9999.00    -12.62       1.48    121.04      -0.00      0.00   9999.00     1.485
   6.05   56.00    0.00      9999.00    -13.08       1.35    123.88      -0.00      0.00   9999.00     1.352
   6.06   58.00    0.00      9999.00    -13.53       1.22    126.45      -0.00      0.00   9999.00     1.218
   6.06   60.00    0.00      9999.00    -13.97       1.08    128.75      -0.00      0.00   9999.00     1.083
   6.05   62.00    0.00      9999.00    -14.38       0.95    130.78      -0.00      0.00   9999.00     0.946
   6.03   64.00    0.00      9999.00    -14.78       0.81    132.53      -0.00      0.00   9999.00     0.810
   6.01   66.00    0.00      9999.00    -15.16       0.67    134.01      -0.00      0.00   9999.00     0.672
   5.98   68.00    0.00      9999.00    -15.53       0.53    135.22      -0.00      0.00   9999.00     0.534
   5.94   70.00    0.00      9999.00    -15.87       0.40    136.15      -0.00      0.00   9999.00     0.396
   5.90   72.00    0.00      9999.00    -16.19       0.26    136.80      -0.00      0.00   9999.00     0.257
   5.85   74.00    0.00      9999.00    -16.50       0.12    137.18      -0.00      0.00   9999.00     0.119
   5.79   76.00    0.00      9999.00    -16.78      -0.02    137.28      -0.00      0.00   9999.00    -0.020
```




```
*******************************************************
*                                                                                                                     *
*                                    ***  MOSES   ***                                                             *
*                                    ----------------                          16 April, 2025                    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                            *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 14 ------                              *
*                                                                                                                     *
*******************************************************************************************************************
```

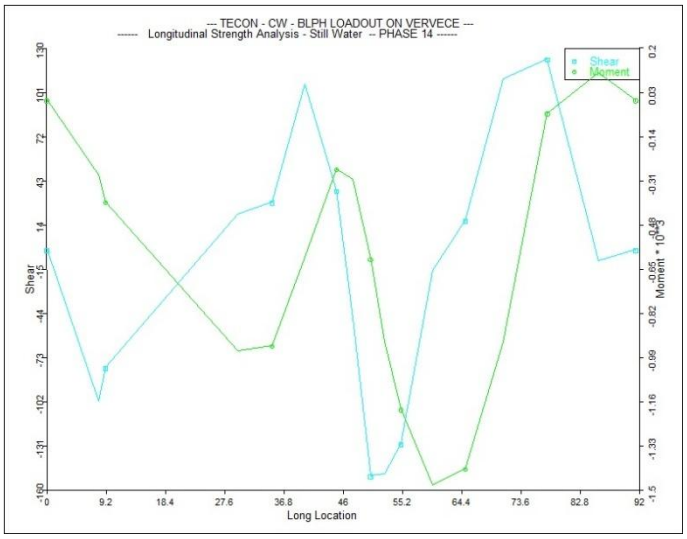
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

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	-101	-287	-0.0114	1.0962
9.14	-79	-390	-0.0154	1.2496
29.72	21	-963	-0.0381	3.2841
35.00	29	-943	-0.0373	3.5213
40.00	106	-605	-0.0239	3.6425
45.00	37	-264	-0.0105	3.6972
47.50	-46	-303	-0.0120	3.7118
50.29	-150	-610	-0.0241	3.7173
52.50	-148	-926	-0.0366	3.7073
55.00	-129	-1188	-0.0470	3.6716
60.00	-15	-1481	-0.0586	3.4975
65.00	17	-1416	-0.0560	3.1633
70.87	110	-929	-0.0368	2.5783
77.72	123	-49	-0.0020	1.7274
85.70	-8	104	0.0041	0.7113
91.44	-1	0	0.0000	0.0001


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 14 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                 *
*        ---------     Intact Stability Check    -- PHASE 15 ---------                               *
*                                                                                                    *
******************************************************************************************************

                +++ 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 15: 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

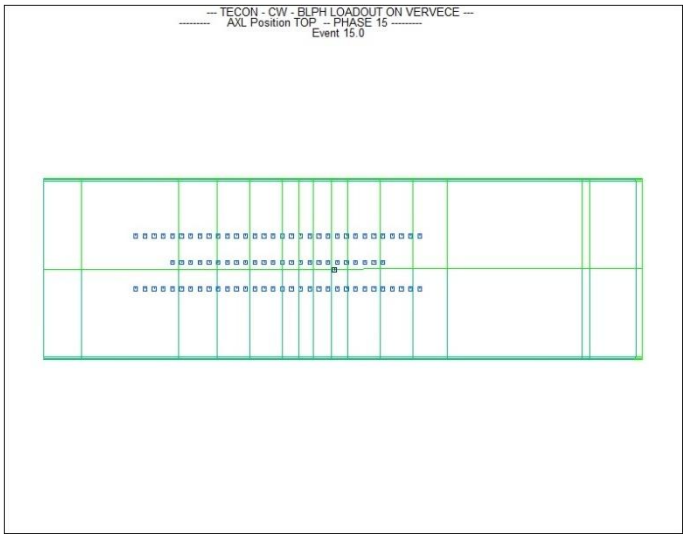
                                 Wet Radii Of Gyration About CG

                           K-X =     7.28 K-Y =    24.10 K-Z =    24.64

                                    GMT =    13.58 GML =   160.90

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

                          ----------------  Part AXL15      ------------
                          LOAD_GRO   2308.40    56.04    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        340.79    19.43   -10.28     1.22     2.44    39.98
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        424.79    19.43    10.28     1.52     3.04    49.84
                  3PC        835.34    40.00    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.00     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        205.94    60.58   -10.27     0.74     1.48    24.16
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        305.73    60.58    10.28     1.10     2.19    35.87
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        372.79    79.62   -10.28     1.68     3.19    48.15
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        456.94    79.88    10.28     2.01     3.81    59.02
                 ========  ========  =======  =======  =======
                 Total     10052.61    46.75    -0.00     3.58
                 Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 15 ---------               *
*                                                                                       *
*****************************************************************************************************************

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

                    Process is 15: 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 15 ---------               .*
*                                                                                       *
*****************************************************************************************************************

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

                    Process is 15: Units Are Degrees, Meters, and M-Tons Unless Specified

                    Moment Scaled By 10052.61, KG = 3.58, and Wind Speed = 10 Knots

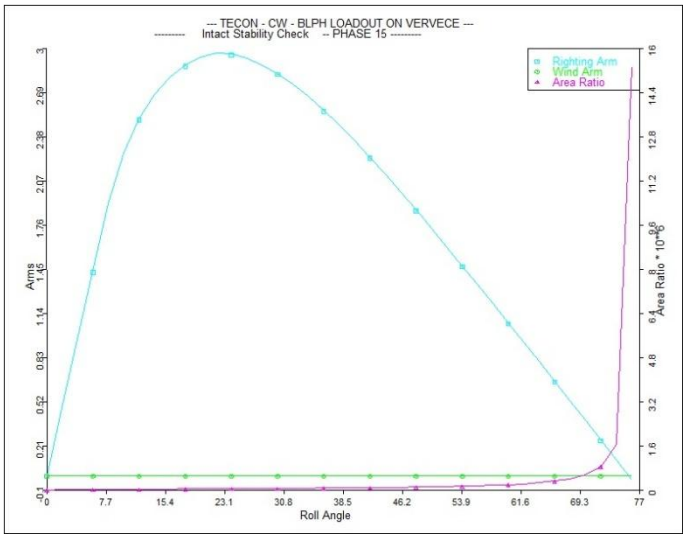
                              Initial: Roll = 0.00, Trim = -0.00 Deg.

                    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       0.47      0.47       0.00      0.00   2969.91     0.475
   4.29    4.00    0.00      9999.00      1.49       0.95      1.90       0.00      0.00   6106.44     0.953
   4.27    6.00    0.00      9999.00      1.03       1.43      4.29       0.00      0.00   9591.44     1.433
   4.25    8.00    0.00      9999.00      0.57       1.91      7.63       0.00      0.00   9999.00     1.907
   4.26   10.00    0.00      9999.00      0.07       2.26     11.80       0.00      0.00   9999.00     2.260
   4.31   12.00    0.00      9999.00     -0.46       2.50     16.56       0.00      0.00   9999.00     2.502
   4.39   14.00    0.00      9999.00     -1.04       2.67     21.73       0.00      0.00   9999.00     2.672
   4.48   16.00    0.00      9999.00     -1.63       2.79     27.20       0.00      0.00   9999.00     2.794
   4.60   18.00    0.00      9999.00     -2.25       2.88     32.87       0.00      0.00   9999.00     2.880
   4.72   20.00    0.00      9999.00     -2.88       2.94     38.69       0.00      0.00   9999.00     2.937
   4.85   22.00    0.00      9999.00     -3.51       2.96     44.59       0.00      0.00   9999.00     2.964
   4.97   24.00    0.00      9999.00     -4.14       2.96     50.51       0.00      0.00   9999.00     2.960
   5.09   26.00    0.00      9999.00     -4.77       2.93     56.41       0.00      0.00   9999.00     2.931
   5.20   28.00    0.00      9999.00     -5.39       2.88     62.22       0.00      0.00   9999.00     2.884
   5.31   30.00    0.00      9999.00     -6.01       2.82     67.93       0.00      0.00   9999.00     2.821
   5.41   32.00    0.00      9999.00     -6.62       2.75     73.49       0.00      0.00   9999.00     2.746
   5.50   34.00    0.00      9999.00     -7.22       2.66     78.90       0.00      0.00   9999.00     2.660
   5.58   36.00    0.00      9999.00     -7.81       2.56     84.12      -0.00      0.00   9999.00     2.564
   5.66   38.00    0.00      9999.00     -8.39       2.46     89.15      -0.00      0.00   9999.00     2.461
   5.73   40.00    0.00      9999.00     -8.96       2.35     93.96      -0.00      0.00   9999.00     2.350
   5.80   42.00    0.00      9999.00     -9.52       2.23     98.54      -0.00      0.00   9999.00     2.234
   5.86   44.00    0.00      9999.00    -10.07       2.11    102.89      -0.00      0.00   9999.00     2.114
   5.91   46.00    0.00      9999.00    -10.61       1.99    106.99      -0.00      0.00   9999.00     1.990
   5.95   48.00    0.00      9999.00    -11.13       1.86    110.85      -0.00      0.00   9999.00     1.864
   5.99   50.00    0.00      9999.00    -11.64       1.74    114.45      -0.00      0.00   9999.00     1.735
   6.02   52.00    0.00      9999.00    -12.14       1.61    117.79      -0.00      0.00   9999.00     1.605
   6.04   54.00    0.00      9999.00    -12.62       1.47    120.86      -0.00      0.00   9999.00     1.474
   6.05   56.00    0.00      9999.00    -13.08       1.34    123.68      -0.00      0.00   9999.00     1.341
   6.06   58.00    0.00      9999.00    -13.53       1.21    126.23      -0.00      0.00   9999.00     1.207
   6.06   60.00    0.00      9999.00    -13.97       1.07    128.51      -0.00      0.00   9999.00     1.072
   6.05   62.00    0.00      9999.00    -14.38       0.94    130.51      -0.00      0.00   9999.00     0.936
   6.03   64.00    0.00      9999.00    -14.78       0.80    132.25      -0.00      0.00   9999.00     0.800
   6.01   66.00    0.00      9999.00    -15.16       0.66    133.71      -0.00      0.00   9999.00     0.663
   5.98   68.00    0.00      9999.00    -15.53       0.52    134.90      -0.00      0.00   9999.00     0.525
   5.94   70.00    0.00      9999.00    -15.87       0.39    135.81      -0.00      0.00   9999.00     0.387
   5.90   72.00    0.00      9999.00    -16.19       0.25    136.45      -0.00      0.00   9999.00     0.249
   5.85   74.00    0.00      9999.00    -16.50       0.11    136.81      -0.00      0.00   9999.00     0.111
   5.79   76.00    0.00      9999.00    -16.78      -0.03    136.89      -0.00      0.00   9999.00    -0.027
```




```
*******************************************************
*                                                     *
*                        ***  MOSES   ***             *
*                        ----------------  16 April, 2025 *
*     --- TECON - CW - BLPH LOADOUT ON VERVECE ---    *
*     ------  Longitudinal Strength Analysis - Still Water  -- PHASE 15 ------ *
*                                                     *
*******************************************************
```

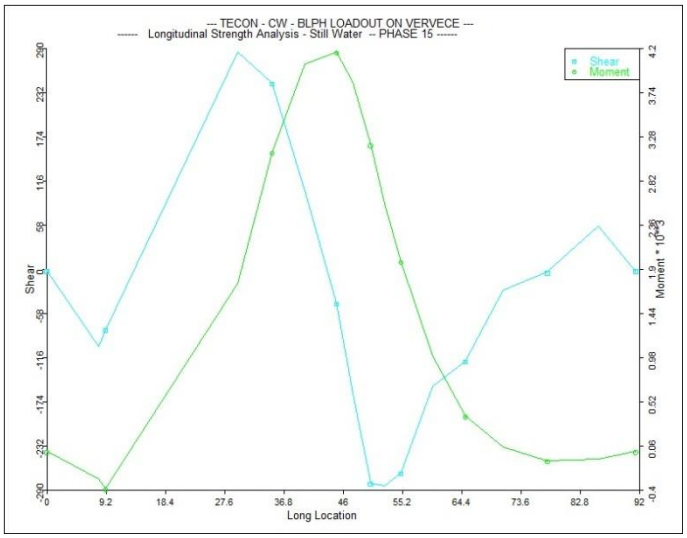
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 15: 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	-101	-287	-0.0114	-1.6927
9.14	-79	-390	-0.0154	-1.9381
29.72	285	1750	0.0692	-6.6543
35.00	244	3115	0.1231	-7.6295
40.00	103	4032	0.1593	-8.2059
45.00	-44	4160	0.1644	-8.3456
47.50	-162	3844	0.1519	-8.2435
50.29	-280	3191	0.1261	-8.0055
52.50	-284	2581	0.1020	-7.7386
55.00	-267	1977	0.0781	-7.3701
60.00	-153	994	0.0393	-6.4837
65.00	-120	368	0.0145	-5.4843
70.87	-27	45	0.0018	-4.2596
77.72	-3	-96	-0.0038	-2.8193
85.70	57	-82	-0.0033	-1.1709
91.44	-1	0	0.0000	0.0001


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 15 ------
Shear
Moment
Shear
Moment * 10^3
Long Location
290
232
174
116
58
0
-58
-116
-174
-232
-290
4.2
3.74
3.28
2.82
2.36
1.9
1.44
0.98
0.52
0.06
-0.4
0
9.2
18.4
27.6
36.8
46
55.2
64.4
73.6
82.8
92

```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                 *
*        ---------     Intact Stability Check    -- PHASE 16 ---------                               *
*                                                                                                    *
******************************************************************************************************************

                +++ 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 16: 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

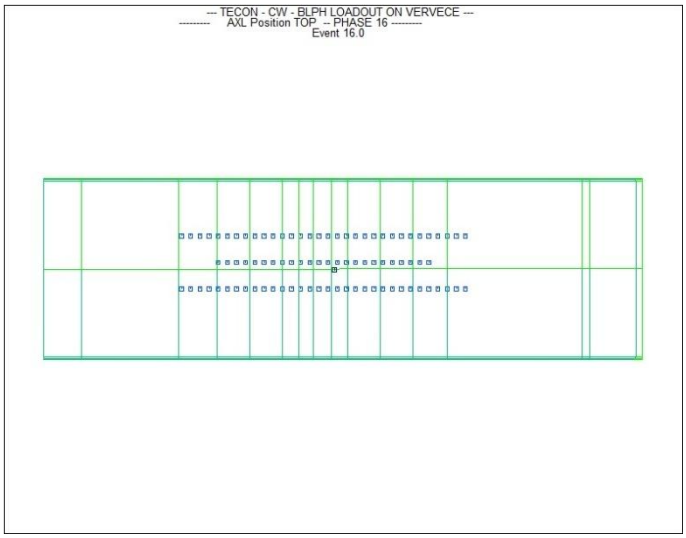
                                Wet Radii Of Gyration About CG

                           K-X =     7.27 K-Y =    23.97 K-Z =    24.50

                                    GMT =    13.54 GML =   160.95

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

                          ----------------  Part AXL16      ------------
                          LOAD_GRO   2308.40    49.04    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW        224.67     5.62   -10.28     3.77     6.02    98.00
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        224.67     5.62    10.28     3.77     6.02    98.00
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW        209.99    19.43   -10.27     0.76     1.51    24.64
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        293.62    19.43    10.28     1.06     2.10    34.45
                  3PC        835.34    40.00    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.00     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        205.94    60.58   -10.27     0.74     1.48    24.16
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        305.73    60.58    10.28     1.10     2.19    35.87
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        503.60    80.00   -10.28     2.19     4.14    65.05
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        588.10    80.16    10.28     2.52     4.75    75.96
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     3.62
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 16 ---------               *
*                                                                                       *
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```

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

Process is 16: 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 16 ---------               .*
*                                                                                       *
*********************************************************************************************************************
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+++ R I G H T I N G A R M R E S U L T S +++

Process is 16: Units Are Degrees, Meters, and M-Tons Unless Specified

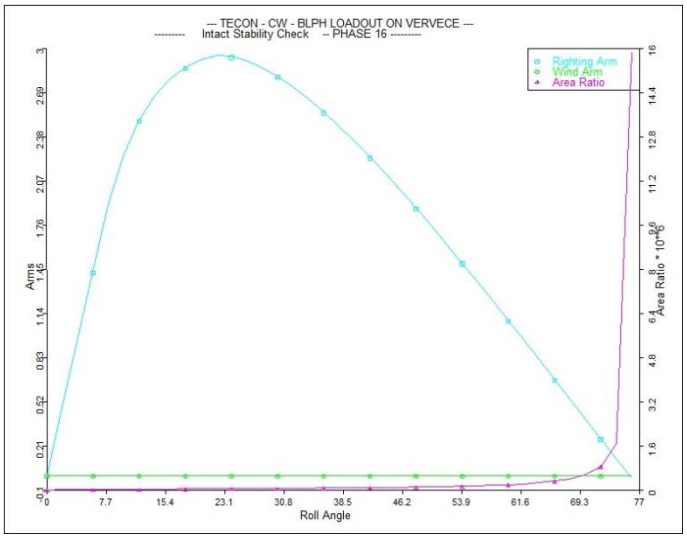
Moment Scaled By 10052.61, KG = 3.62, and Wind Speed = 10 Knots

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	0.47	0.47	0.00	0.00	2959.87	0.473
4.29	4.00	0.00	9999.00	1.49	0.95	1.90	0.00	0.00	6085.83	0.950
4.27	6.00	0.00	9999.00	1.03	1.43	4.27	0.00	0.00	9559.12	1.428
4.25	8.00	0.00	9999.00	0.57	1.90	7.60	0.00	0.00	9999.00	1.901
4.26	10.00	0.00	9999.00	0.07	2.25	11.76	0.00	0.00	9999.00	2.252
4.31	12.00	0.00	9999.00	-0.46	2.49	16.50	0.00	0.00	9999.00	2.492
4.39	14.00	0.00	9999.00	-1.04	2.66	21.65	0.00	0.00	9999.00	2.661
4.48	16.00	0.00	9999.00	-1.63	2.78	27.10	0.00	0.00	9999.00	2.781
4.60	18.00	0.00	9999.00	-2.25	2.87	32.74	0.00	0.00	9999.00	2.865
4.72	20.00	0.00	9999.00	-2.88	2.92	38.53	0.00	0.00	9999.00	2.921
4.85	22.00	0.00	9999.00	-3.51	2.95	44.40	0.00	0.00	9999.00	2.946
4.97	24.00	0.00	9999.00	-4.14	2.94	50.28	0.00	0.00	9999.00	2.941
5.09	26.00	0.00	9999.00	-4.77	2.91	56.13	0.00	0.00	9999.00	2.912
5.20	28.00	0.00	9999.00	-5.39	2.86	61.91	0.00	0.00	9999.00	2.864
5.31	30.00	0.00	9999.00	-6.01	2.80	67.58	0.00	0.00	9999.00	2.802
5.41	32.00	0.00	9999.00	-6.62	2.73	73.11	0.00	0.00	9999.00	2.728
5.50	34.00	0.00	9999.00	-7.22	2.64	78.48	0.00	0.00	9999.00	2.644
5.58	36.00	0.00	9999.00	-7.81	2.55	83.67	-0.00	0.00	9999.00	2.552
5.66	38.00	0.00	9999.00	-8.39	2.45	88.68	-0.00	0.00	9999.00	2.452
5.74	40.00	0.00	9999.00	-8.96	2.35	93.48	-0.00	0.00	9999.00	2.347
5.80	42.00	0.00	9999.00	-9.52	2.24	98.06	-0.00	0.00	9999.00	2.236
5.86	44.00	0.00	9999.00	-10.07	2.12	102.42	-0.00	0.00	9999.00	2.120
5.91	46.00	0.00	9999.00	-10.61	2.00	106.54	-0.00	0.00	9999.00	2.001
5.95	48.00	0.00	9999.00	-11.13	1.88	110.41	-0.00	0.00	9999.00	1.878
5.99	50.00	0.00	9999.00	-11.64	1.75	114.04	-0.00	0.00	9999.00	1.752
6.02	52.00	0.00	9999.00	-12.14	1.62	117.42	-0.00	0.00	9999.00	1.623
6.04	54.00	0.00	9999.00	-12.62	1.49	120.54	-0.00	0.00	9999.00	1.492
6.05	56.00	0.00	9999.00	-13.08	1.36	123.39	-0.00	0.00	9999.00	1.360
6.06	58.00	0.00	9999.00	-13.53	1.23	125.97	-0.00	0.00	9999.00	1.226
6.06	60.00	0.00	9999.00	-13.97	1.09	128.29	-0.00	0.00	9999.00	1.090
6.05	62.00	0.00	9999.00	-14.38	0.95	130.33	-0.00	0.00	9999.00	0.953
6.03	64.00	0.00	9999.00	-14.78	0.82	132.10	-0.00	0.00	9999.00	0.815
6.01	66.00	0.00	9999.00	-15.16	0.68	133.59	-0.00	0.00	9999.00	0.677
5.98	68.00	0.00	9999.00	-15.53	0.54	134.81	-0.00	0.00	9999.00	0.538
5.94	70.00	0.00	9999.00	-15.87	0.40	135.74	-0.00	0.00	9999.00	0.398
5.90	72.00	0.00	9999.00	-16.19	0.26	136.40	-0.00	0.00	9999.00	0.259
5.85	74.00	0.00	9999.00	-16.50	0.12	136.77	-0.00	0.00	9999.00	0.119
5.79	76.00	0.00	9999.00	-16.78	-0.02	136.87	-0.00	0.00	9999.00	-0.021




```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 16 ------                 *
*                                                                                                     *
*******************************************************************************************************

                  +++ 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 +++
                  ================================================================

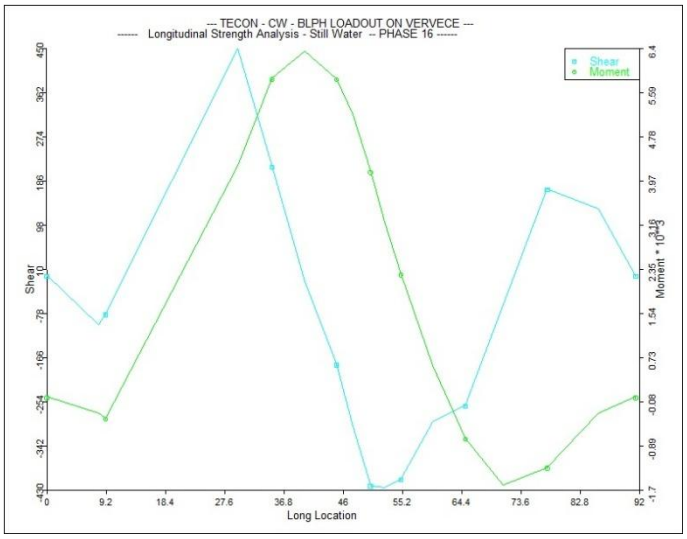
               Process is 16: Units Are Degrees, Meters, and M-Tons Unless Specified

                                  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          -101           -287          -0.0114         -2.8929
             9.14           -79           -390          -0.0154         -3.3100
            29.72           450           4248           0.1678        -10.6944
            35.00           215           5844           0.2309        -11.8732
            40.00           -14           6351           0.2510        -12.3380
            45.00          -179           5839           0.2307        -12.1119
            47.50          -302           5178           0.2046        -11.7529
            50.29          -421           4134           0.1634        -11.1853
            52.50          -424           3215           0.1270        -10.6339
            55.00          -407           2260           0.0893         -9.9273
            60.00          -293            577           0.0228         -8.3508
            65.00          -260           -749          -0.0296         -6.7075
            70.87           -60          -1617          -0.0639         -4.8872
            77.72           170          -1286          -0.0509         -3.0548
            85.70           129           -290          -0.0115         -1.2376
            91.44            -1              0           0.0000          0.0001
```


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 16 ------
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   ***                                                  *
*                                   -----------------                          16 April, 2025       *
*        --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                 *
*        ---------     Intact Stability Check    -- PHASE 17 ---------                               *
*                                                                                                    *
******************************************************************************************************************
```

+++ 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 17: Units Are Degrees, Meters, and M-Tons Unless Specified

Results Are Reported In Body System

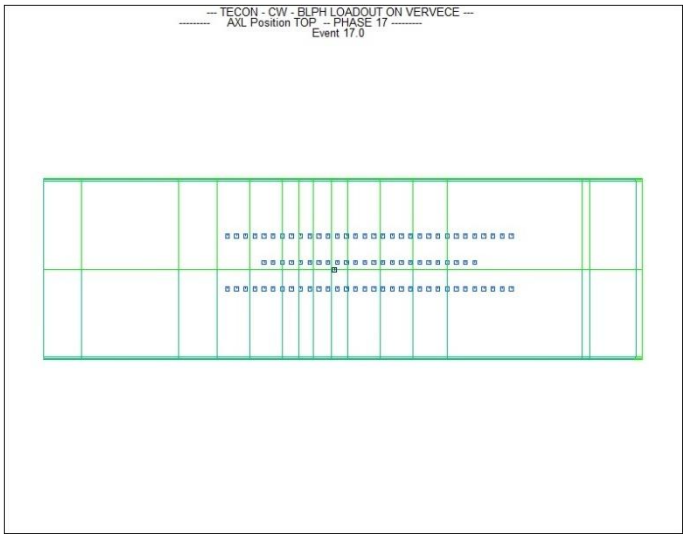
Draft = 4.30 Roll Angle = 0.00 Pitch Angle = 0.00

Wet Radii Of Gyration About CG

K-X = 7.26 K-Y = 24.29 K-Z = 24.82

GMT = 13.44 GML = 161.06

Name	Weight	/-- Center of Gravity ---/ ---X---	---Y---	---Z---	Sounding	% Full
		Part AXL17				
LOAD_GRO	2308.40	42.04	-1.19	7.10		
		Part GRI&SF-B				
LOAD_GRO	75.00	30.86	-1.14	7.35		
		Part VERVECE				
LOAD_GRO	1832.80	47.02	0.00	3.52		
		--- Contents ---				
1PC	6.87	5.60	-3.43	0.11	0.18	3.00
1PW	224.67	5.62	-10.28	3.77	6.02	98.00
1SC	6.88	5.60	3.43	0.11	0.18	3.00
1SW	224.67	5.62	10.28	3.77	6.02	98.00
2PC	455.41	19.43	-3.43	1.63	3.26	53.43
2PW	79.15	19.43	-10.24	0.29	0.57	9.29
2SC	467.98	19.43	3.43	1.67	3.35	54.90
2SW	162.61	19.43	10.27	0.59	1.17	19.08
3PC	835.34	40.01	-3.43	2.99	5.97	98.00
3PW	25.57	40.01	-10.28	0.09	0.18	3.00
3SC	835.34	40.01	3.43	2.99	5.97	98.00
3SW	25.57	40.01	10.28	0.09	0.18	3.00
4PC	25.57	60.58	-3.43	0.09	0.18	3.00
4PW	205.94	60.58	-10.27	0.74	1.48	24.16
4SC	25.57	60.58	3.43	0.09	0.18	3.00
4SW	305.73	60.58	10.28	1.10	2.19	35.87
5PC	278.82	83.38	-3.43	2.10	3.86	58.09
5PW	634.43	80.24	-10.28	2.69	5.09	81.94
5SC	291.19	83.45	3.43	2.21	4.05	61.63
5SW	719.10	80.34	10.28	3.01	5.70	92.88
Total	10052.61	46.75	-0.00	3.71		
Buoyancy	10052.61	46.75	-0.00	2.21		



```
                    ******************************************************
*                                   ***  MOSES   ***                                                  *
*                                   ----------------                          16 April, 2025        *
*       --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*       ---------     Intact Stability Check    -- PHASE 17 ---------                                 *
*                                                                                                     *
*******************************************************************************************************

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

                Process is 17: 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   ***                                                  *
*                                   ----------------                          16 April, 2025        *
*       --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*       ---------     Intact Stability Check    -- PHASE 17 ---------                                .*
*                                                                                                     *
*******************************************************************************************************

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

                Process is 17: Units Are Degrees, Meters, and M-Tons Unless Specified

                Moment Scaled By 10052.61, KG = 3.71, and Wind Speed = 10 Knots

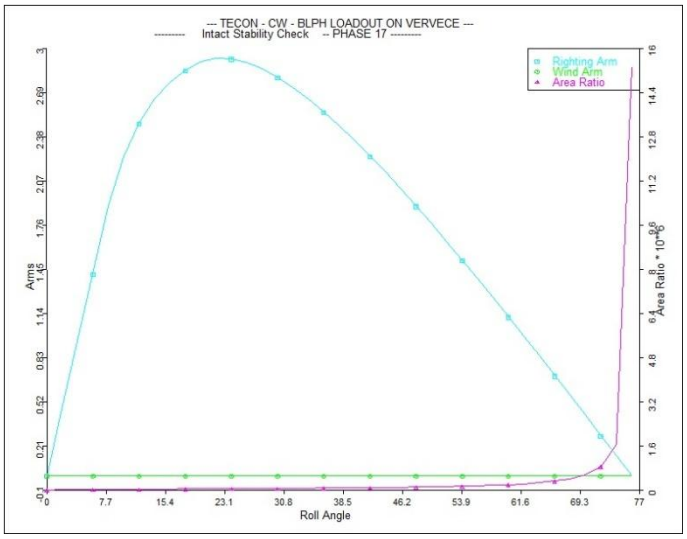
                          Initial: Roll = 0.00, Trim = 0.00 Deg.

                          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       0.47      0.47       0.00      0.00   2939.37     0.470
   4.29    4.00    0.00     9999.00      1.49       0.94      1.88       0.00      0.00   6043.81     0.943
   4.27    6.00    0.00     9999.00      1.03       1.42      4.24       0.00      0.00   9493.28     1.418
   4.25    8.00    0.00     9999.00      0.57       1.89      7.55       0.00      0.00   9999.00     1.888
   4.26   10.00    0.00     9999.00      0.08       2.24     11.68       0.00      0.00   9999.00     2.237
   4.31   12.00    0.00     9999.00     -0.46       2.48     16.39       0.00      0.00   9999.00     2.475
   4.39   14.00    0.00     9999.00     -1.03       2.64     21.51       0.00      0.00   9999.00     2.643
   4.48   16.00    0.00     9999.00     -1.63       2.76     26.91       0.00      0.00   9999.00     2.763
   4.60   18.00    0.00     9999.00     -2.25       2.85     32.52       0.00      0.00   9999.00     2.847
   4.72   20.00    0.00     9999.00     -2.88       2.90     38.27       0.00      0.00   9999.00     2.903
   4.85   22.00    0.00     9999.00     -3.51       2.93     44.10       0.00      0.00   9999.00     2.930
   4.97   24.00    0.00     9999.00     -4.14       2.93     49.96       0.00      0.00   9999.00     2.927
   5.09   26.00    0.00     9999.00     -4.77       2.90     55.79       0.00      0.00   9999.00     2.900
   5.20   28.00    0.00     9999.00     -5.39       2.86     61.54       0.00      0.00   9999.00     2.855
   5.31   30.00    0.00     9999.00     -6.01       2.80     67.20       0.00      0.00   9999.00     2.796
   5.41   32.00    0.00     9999.00     -6.62       2.73     72.72       0.00      0.00   9999.00     2.725
   5.50   34.00    0.00     9999.00     -7.22       2.64     78.09       0.00      0.00   9999.00     2.644
   5.58   36.00    0.00     9999.00     -7.81       2.55     83.28      -0.00      0.00   9999.00     2.554
   5.66   38.00    0.00     9999.00     -8.39       2.46     88.30      -0.00      0.00   9999.00     2.457
   5.73   40.00    0.00     9999.00     -8.96       2.35     93.11      -0.00      0.00   9999.00     2.354
   5.80   42.00    0.00     9999.00     -9.52       2.25     97.71      -0.00      0.00   9999.00     2.245
   5.86   44.00    0.00     9999.00    -10.07       2.13    102.08      -0.00      0.00   9999.00     2.132
   5.91   46.00    0.00     9999.00    -10.61       2.01    106.23      -0.00      0.00   9999.00     2.014
   5.95   48.00    0.00     9999.00    -11.13       1.89    110.14      -0.00      0.00   9999.00     1.893
   5.99   50.00    0.00     9999.00    -11.64       1.77    113.80      -0.00      0.00   9999.00     1.770
   6.02   52.00    0.00     9999.00    -12.14       1.64    117.21      -0.00      0.00   9999.00     1.643
   6.04   54.00    0.00     9999.00    -12.62       1.51    120.37      -0.00      0.00   9999.00     1.514
   6.05   56.00    0.00     9999.00    -13.08       1.38    123.27      -0.00      0.00   9999.00     1.384
   6.06   58.00    0.00     9999.00    -13.53       1.25    125.90      -0.00      0.00   9999.00     1.251
   6.06   60.00    0.00     9999.00    -13.97       1.12    128.27      -0.00      0.00   9999.00     1.116
   6.05   62.00    0.00     9999.00    -14.38       0.98    130.37      -0.00      0.00   9999.00     0.980
   6.03   64.00    0.00     9999.00    -14.78       0.84    132.19      -0.00      0.00   9999.00     0.843
   6.01   66.00    0.00     9999.00    -15.16       0.70    133.73      -0.00      0.00   9999.00     0.704
   5.98   68.00    0.00     9999.00    -15.53       0.56    135.00      -0.00      0.00   9999.00     0.564
   5.94   70.00    0.00     9999.00    -15.87       0.42    135.99      -0.00      0.00   9999.00     0.423
   5.90   72.00    0.00     9999.00    -16.19       0.28    136.69      -0.00      0.00   9999.00     0.282
   5.85   74.00    0.00     9999.00    -16.50       0.14    137.12      -0.00      0.00   9999.00     0.140
   5.79   76.00    0.00     9999.00    -16.78      -0.00    137.25      -0.00      0.00   9999.00    -0.002
```




```
*********************************************************
*                                  ***  MOSES   ***                                    *
*                                  ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 17 ------  *
*                                                                                      *
****************************************************************************************************************
```

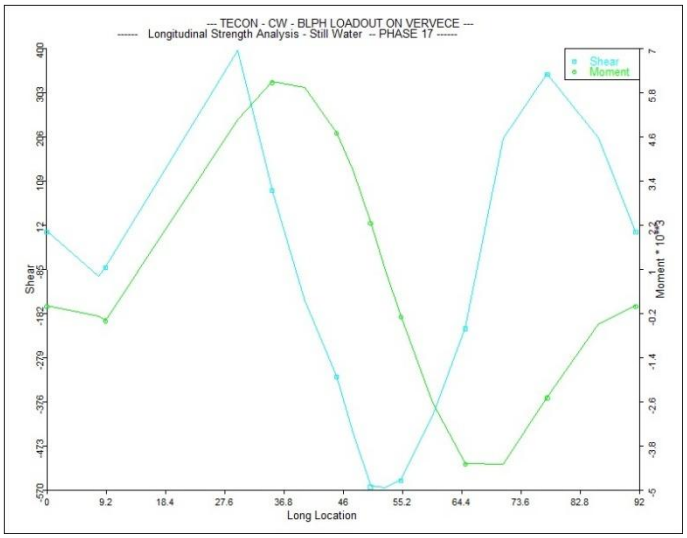
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 17: 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	-101	-287	-0.0114	-2.2396
9.14	-79	-390	-0.0154	-2.5633
29.72	396	5058	0.1999	-7.9239
35.00	89	6085	0.2405	-8.3558
40.00	-154	5918	0.2339	-8.0859
45.00	-319	4705	0.1859	-7.1732
47.50	-442	3693	0.1459	-6.5132
50.29	-561	2258	0.0892	-5.6577
52.50	-564	1029	0.0406	-4.9239
55.00	-547	-275	-0.0109	-4.0677
60.00	-406	-2638	-0.1043	-2.4115
65.00	-213	-4273	-0.1689	-1.0391
70.87	201	-4311	-0.1704	-0.0156
77.72	344	-2484	-0.0982	0.3895
85.70	202	-500	-0.0198	0.2359
91.44	-1	0	0.0000	0.0001


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 17 ------
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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*       --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*       ---------     Intact Stability Check    -- PHASE 18 ---------                                 *
*                                                                                                     *
*******************************************************************************************************

                +++ 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 18: 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

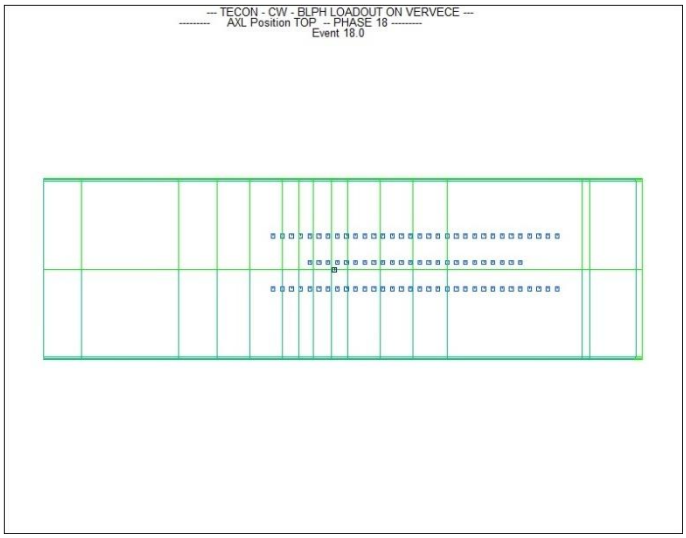
                                 Wet Radii Of Gyration About CG

                           K-X =     7.26 K-Y =    23.91 K-Z =    24.44

                                    GMT =    13.52 GML =   161.34

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

                          ----------------  Part AXL18      ------------
                          LOAD_GRO   2308.40    35.04    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                  1PC          6.87     5.60    -3.43     0.11     0.18     3.00
                  1PW         55.46     7.25   -10.27     1.62     2.65    24.19
                  1SC          6.88     5.60     3.43     0.11     0.18     3.00
                  1SW        103.38     6.62    10.28     2.38     3.82    45.09
                  2PC        455.41    19.43    -3.43     1.63     3.26    53.43
                  2PW         79.15    19.43   -10.24     0.29     0.57     9.29
                  2SC        467.98    19.43     3.43     1.67     3.35    54.90
                  2SW        162.61    19.43    10.27     0.59     1.17    19.08
                  3PC        835.34    40.01    -3.43     2.99     5.97    98.00
                  3PW         25.57    40.01   -10.28     0.09     0.18     3.00
                  3SC        835.34    40.01     3.43     2.99     5.97    98.00
                  3SW         25.57    40.01    10.28     0.09     0.18     3.00
                  4PC         25.57    60.58    -3.43     0.09     0.18     3.00
                  4PW        375.13    60.58   -10.28     1.35     2.69    44.01
                  4SC         25.57    60.58     3.43     0.09     0.18     3.00
                  4SW        427.04    60.58    10.28     1.53     3.06    50.10
                  5PC        278.82    83.38    -3.43     2.10     3.86    58.09
                  5PW        634.43    80.24   -10.28     2.69     5.09    81.94
                  5SC        291.19    83.45     3.43     2.21     4.05    61.63
                  5SW        719.10    80.34    10.28     3.01     5.70    92.88
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     3.64
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
*********************************************************
*                                    ***  MOSES   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 18 ---------               *
*                                                                                       *
*****************************************************************************************************************
```

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

Process is 18: 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   ***                                    *
*                                    ----------------                 16 April, 2025    *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                  *
*          ---------     Intact Stability Check    -- PHASE 18 ---------               .*
*                                                                                       *
*****************************************************************************************************************
```

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

Process is 18: Units Are Degrees, Meters, and M-Tons Unless Specified

Moment Scaled By 10052.61, KG = 3.64, and Wind Speed = 10 Knots

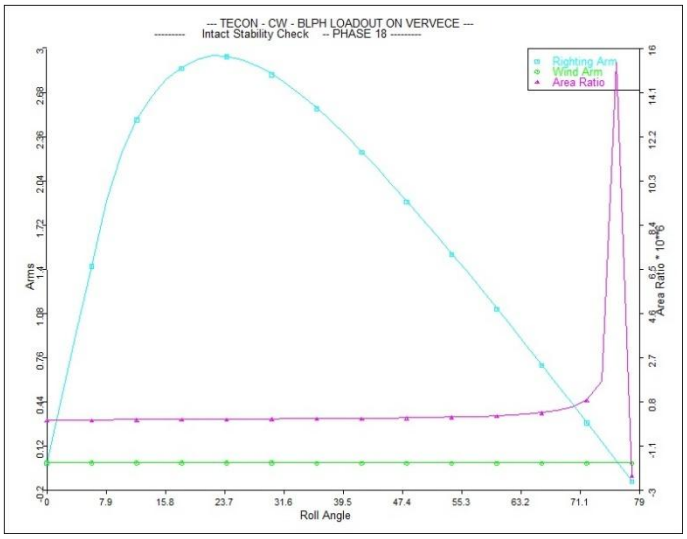
Initial: Roll = 0.00, Trim = 0.00 Deg.

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	0.47	0.47	0.00	0.00	2956.40	0.473
4.29	4.00	0.00	9999.00	1.49	0.95	1.89	0.00	0.00	6075.67	0.948
4.27	6.00	0.00	9999.00	1.03	1.42	4.27	0.00	0.00	9538.87	1.424
4.25	8.00	0.00	9999.00	0.57	1.90	7.59	0.00	0.00	9999.00	1.895
4.26	10.00	0.00	9999.00	0.08	2.25	11.73	0.00	0.00	9999.00	2.245
4.31	12.00	0.00	9999.00	-0.46	2.49	16.46	0.00	0.00	9999.00	2.485
4.39	14.00	0.00	9999.00	-1.04	2.65	21.60	0.00	0.00	9999.00	2.654
4.48	16.00	0.00	9999.00	-1.63	2.77	27.02	0.00	0.00	9999.00	2.775
4.60	18.00	0.00	9999.00	-2.25	2.86	32.66	0.00	0.00	9999.00	2.860
4.72	20.00	0.00	9999.00	-2.88	2.92	38.44	0.00	0.00	9999.00	2.918
4.85	22.00	0.00	9999.00	-3.51	2.95	44.30	0.00	0.00	9999.00	2.945
4.97	24.00	0.00	9999.00	-4.14	2.94	50.19	0.00	0.00	9999.00	2.943
5.09	26.00	0.00	9999.00	-4.77	2.92	56.05	0.00	0.00	9999.00	2.917
5.20	28.00	0.00	9999.00	-5.39	2.87	61.84	0.00	0.00	9999.00	2.873
5.31	30.00	0.00	9999.00	-6.01	2.81	67.53	0.00	0.00	9999.00	2.814
5.41	32.00	0.00	9999.00	-6.62	2.74	73.08	0.00	0.00	9999.00	2.742
5.50	34.00	0.00	9999.00	-7.22	2.66	78.48	0.00	0.00	9999.00	2.660
5.58	36.00	0.00	9999.00	-7.81	2.57	83.71	-0.00	0.00	9999.00	2.568
5.66	38.00	0.00	9999.00	-8.39	2.47	88.75	-0.00	0.00	9999.00	2.469
5.73	40.00	0.00	9999.00	-8.96	2.36	93.58	-0.00	0.00	9999.00	2.363
5.80	42.00	0.00	9999.00	-9.52	2.25	98.19	-0.00	0.00	9999.00	2.251
5.86	44.00	0.00	9999.00	-10.07	2.13	102.58	-0.00	0.00	9999.00	2.135
5.91	46.00	0.00	9999.00	-10.61	2.01	106.73	-0.00	0.00	9999.00	2.015
5.95	48.00	0.00	9999.00	-11.13	1.89	110.64	-0.00	0.00	9999.00	1.892
5.99	50.00	0.00	9999.00	-11.64	1.77	114.30	-0.00	0.00	9999.00	1.768
6.02	52.00	0.00	9999.00	-12.14	1.64	117.70	-0.00	0.00	9999.00	1.641
6.04	54.00	0.00	9999.00	-12.62	1.51	120.86	-0.00	0.00	9999.00	1.512
6.05	56.00	0.00	9999.00	-13.08	1.38	123.75	-0.00	0.00	9999.00	1.382
6.06	58.00	0.00	9999.00	-13.53	1.25	126.38	-0.00	0.00	9999.00	1.250
6.06	60.00	0.00	9999.00	-13.97	1.12	128.75	-0.00	0.00	9999.00	1.116
6.05	62.00	0.00	9999.00	-14.38	0.98	130.84	-0.00	0.00	9999.00	0.981
6.03	64.00	0.00	9999.00	-14.78	0.84	132.67	-0.00	0.00	9999.00	0.845
6.01	66.00	0.00	9999.00	-15.16	0.71	134.22	-0.00	0.00	9999.00	0.707
5.98	68.00	0.00	9999.00	-15.53	0.57	135.50	-0.00	0.00	9999.00	0.569
5.94	70.00	0.00	9999.00	-15.87	0.43	136.50	-0.00	0.00	9999.00	0.429
5.90	72.00	0.00	9999.00	-16.19	0.29	137.22	-0.00	0.00	9999.00	0.290
5.85	74.00	0.00	9999.00	-16.50	0.15	137.65	-0.00	0.00	9999.00	0.149
5.79	76.00	0.00	9999.00	-16.78	0.01	137.81	-0.00	0.00	9999.00	0.009
5.72	78.00	0.00	9999.00	-17.05	-0.13	137.69	-0.00	-0.00	-9999.00	-0.132

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*******************************************************
*                                *** MOSES ***                                 *
*                                ---------------                 16 April, 2025 *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                         *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 18 ------                         *
*                                                                              *
********************************************************************************************************************
```

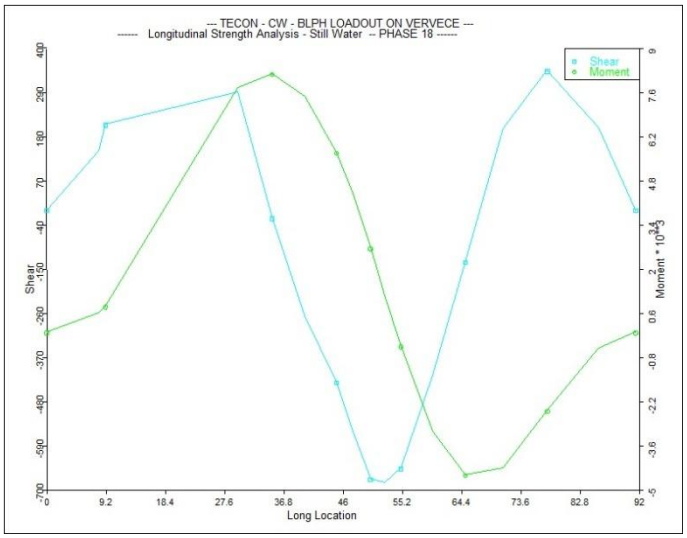
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 18: 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	145	623	0.0246	-4.5400
9.14	211	827	0.0327	-5.1809
29.72	292	7743	0.3060	-13.7665
35.00	-21	8192	0.3237	-14.1492
40.00	-266	7467	0.2951	-13.5927
45.00	-430	5696	0.2251	-12.2228
47.50	-553	4406	0.1741	-11.2893
50.29	-672	2659	0.1051	-10.1056
52.50	-680	1158	0.0457	-9.1020
55.00	-645	-442	-0.0175	-7.9371
60.00	-414	-3152	-0.1246	-5.6839
65.00	-130	-4515	-0.1785	-3.7654
70.87	201	-4311	-0.1704	-2.1347
77.72	344	-2484	-0.0982	-1.0232
85.70	202	-500	-0.0198	-0.3553
91.44	-1	0	0.0000	0.0001


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 18 ------
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   ***                                                  *
*                                   -----------------                    16 April, 2025              *
*       --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                  *
*       ---------     Intact Stability Check    -- PHASE 19 ---------                                 *
*                                                                                                     *
*******************************************************************************************************

                +++ 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 19: 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

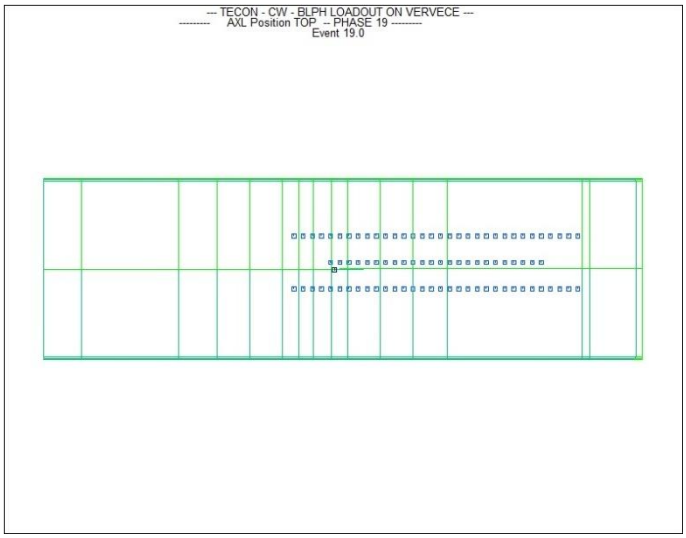
                                Wet Radii Of Gyration About CG

                           K-X =     7.26 K-Y =    23.92 K-Z =    24.45

                                    GMT =    13.53 GML =   161.66

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

                          ----------------  Part AXL19      ------------
                          LOAD_GRO   2308.40    31.86    -1.19     7.10
                          ----------------  Part GRI&SF-B   ------------
                          LOAD_GRO     75.00    30.86    -1.14     7.35
                          ----------------  Part VERVECE    ------------
                          LOAD_GRO   1832.80    47.02     0.00     3.52
                                        --- Contents ---
                            1PC         6.87     5.60    -3.43     0.11     0.18     3.00
                            1PW         6.88     5.60   -10.28     0.11     0.18     3.00
                            1SC         6.88     5.60     3.43     0.11     0.18     3.00
                            1SW        15.28     8.03    10.26     0.67     1.16     6.67
                            2PC       455.41    19.43    -3.43     1.63     3.26    53.43
                            2PW        79.15    19.43   -10.24     0.29     0.57     9.29
                            2SC       467.98    19.43     3.43     1.67     3.35    54.90
                            2SW       162.61    19.43    10.27     0.59     1.17    19.08
                            3PC       835.34    40.01    -3.43     2.99     5.97    98.00
                            3PW        25.57    40.01   -10.28     0.09     0.18     3.00
                            3SC       835.34    40.01     3.43     2.99     5.97    98.00
                            3SW        25.57    40.01    10.28     0.09     0.18     3.00
                            4PC        25.57    60.58    -3.43     0.09     0.18     3.00
                            4PW       423.71    60.58   -10.28     1.52     3.03    49.71
                            4SC        25.57    60.58     3.43     0.09     0.18     3.00
                            4SW       515.14    60.58    10.28     1.85     3.69    60.44
                            5PC       278.82    83.38    -3.43     2.10     3.86    58.09
                            5PW       634.43    80.24   -10.28     2.69     5.09    81.94
                            5SC       291.19    83.45     3.43     2.21     4.05    61.63
                            5SW       719.10    80.34    10.28     3.01     5.70    92.88
                          ========  ========  =======  =======  =======
                          Total     10052.61    46.75    -0.00     3.66
                          Buoyancy  10052.61    46.75    -0.00     2.21
```



```
                                  ******************************************************
*                                           ***  MOSES   ***                                                  *
*                                           ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                       *
*          ---------     Intact Stability Check    -- PHASE 19 ---------                                     *
*                                                                                                            *
**************************************************************************************************************

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

                        Process is 19: 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   ***                                                  *
*                                           ----------------                          16 April, 2025       *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                                                       *
*          ---------     Intact Stability Check    -- PHASE 19 ---------                                     .*
*                                                                                                            *
**************************************************************************************************************

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

                        Process is 19: Units Are Degrees, Meters, and M-Tons Unless Specified

                        Moment Scaled By 10052.61, KG = 3.66, and Wind Speed = 10 Knots

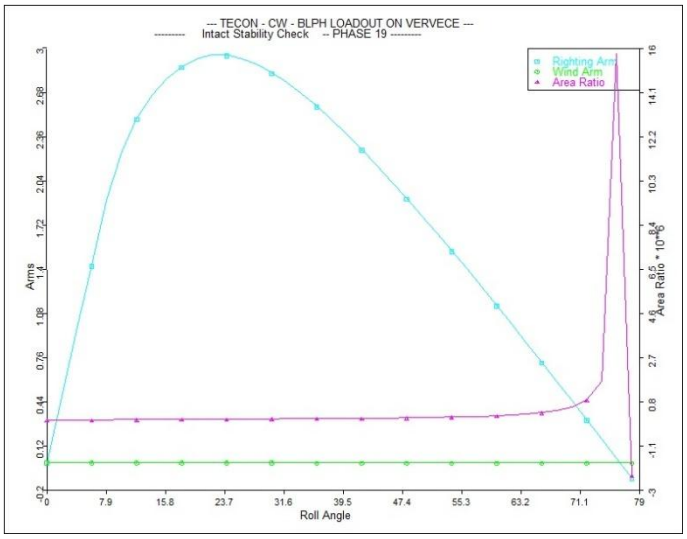
                                Initial: Roll = 0.00, Trim = 0.00 Deg.

                              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       0.47      0.47       0.00      0.00   2959.33     0.473
   4.29    4.00    0.00     9999.00      1.49       0.95      1.89       0.00      0.00   6081.64     0.949
   4.27    6.00    0.00     9999.00      1.03       1.43      4.27       0.00      0.00   9548.24     1.426
   4.25    8.00    0.00     9999.00      0.57       1.90      7.59       0.00      0.00   9999.00     1.897
   4.26   10.00    0.00     9999.00      0.07       2.25     11.74       0.00      0.00   9999.00     2.248
   4.31   12.00    0.00     9999.00     -0.46       2.49     16.47       0.00      0.00   9999.00     2.488
   4.39   14.00    0.00     9999.00     -1.04       2.66     21.62       0.00      0.00   9999.00     2.657
   4.48   16.00    0.00     9999.00     -1.63       2.78     27.06       0.00      0.00   9999.00     2.779
   4.60   18.00    0.00     9999.00     -2.25       2.86     32.70       0.00      0.00   9999.00     2.865
   4.72   20.00    0.00     9999.00     -2.88       2.92     38.49       0.00      0.00   9999.00     2.923
   4.85   22.00    0.00     9999.00     -3.51       2.95     44.36       0.00      0.00   9999.00     2.951
   4.97   24.00    0.00     9999.00     -4.14       2.95     50.26       0.00      0.00   9999.00     2.950
   5.09   26.00    0.00     9999.00     -4.77       2.92     56.14       0.00      0.00   9999.00     2.925
   5.20   28.00    0.00     9999.00     -5.39       2.88     61.94       0.00      0.00   9999.00     2.881
   5.31   30.00    0.00     9999.00     -6.01       2.82     67.65       0.00      0.00   9999.00     2.822
   5.41   32.00    0.00     9999.00     -6.62       2.75     73.22       0.00      0.00   9999.00     2.752
   5.50   34.00    0.00     9999.00     -7.22       2.67     78.64       0.00      0.00   9999.00     2.670
   5.58   36.00    0.00     9999.00     -7.81       2.58     83.89      -0.00      0.00   9999.00     2.580
   5.66   38.00    0.00     9999.00     -8.39       2.48     88.95      -0.00      0.00   9999.00     2.482
   5.73   40.00    0.00     9999.00     -8.96       2.38     93.81      -0.00      0.00   9999.00     2.377
   5.80   42.00    0.00     9999.00     -9.52       2.27     98.46      -0.00      0.00   9999.00     2.267
   5.86   44.00    0.00     9999.00    -10.07       2.15    102.87      -0.00      0.00   9999.00     2.151
   5.91   46.00    0.00     9999.00    -10.61       2.03    107.06      -0.00      0.00   9999.00     2.033
   5.95   48.00    0.00     9999.00    -11.13       1.91    111.00      -0.00      0.00   9999.00     1.911
   5.99   50.00    0.00     9999.00    -11.64       1.79    114.70      -0.00      0.00   9999.00     1.787
   6.02   52.00    0.00     9999.00    -12.14       1.66    118.15      -0.00      0.00   9999.00     1.661
   6.04   54.00    0.00     9999.00    -12.62       1.53    121.34      -0.00      0.00   9999.00     1.532
   6.05   56.00    0.00     9999.00    -13.08       1.40    124.27      -0.00      0.00   9999.00     1.402
   6.06   58.00    0.00     9999.00    -13.53       1.27    126.95      -0.00      0.00   9999.00     1.270
   6.06   60.00    0.00     9999.00    -13.97       1.14    129.35      -0.00      0.00   9999.00     1.136
   6.05   62.00    0.00     9999.00    -14.38       1.00    131.49      -0.00      0.00   9999.00     1.001
   6.03   64.00    0.00     9999.00    -14.78       0.86    133.36      -0.00      0.00   9999.00     0.865
   6.01   66.00    0.00     9999.00    -15.16       0.73    134.95      -0.00      0.00   9999.00     0.727
   5.98   68.00    0.00     9999.00    -15.53       0.59    136.26      -0.00      0.00   9999.00     0.589
   5.94   70.00    0.00     9999.00    -15.87       0.45    137.30      -0.00      0.00   9999.00     0.449
   5.90   72.00    0.00     9999.00    -16.19       0.31    138.06      -0.00      0.00   9999.00     0.309
   5.85   74.00    0.00     9999.00    -16.50       0.17    138.54      -0.00      0.00   9999.00     0.168
   5.79   76.00    0.00     9999.00    -16.78       0.03    138.73      -0.00      0.00   9999.00     0.027
   5.72   78.00    0.00     9999.00    -17.05      -0.11    138.64      -0.00     -0.00  -9999.00    -0.114
```




```
**********************************************************
*                                  ***  MOSES   ***                                  *
*                                  ----------------                 16 April, 2025   *
*          --- TECON - CW - BLPH LOADOUT ON VERVECE ---                               *
*          ------   Longitudinal Strength Analysis - Still Water  -- PHASE 19 ------ *
*                                                                                     *
***************************************************************************************************************
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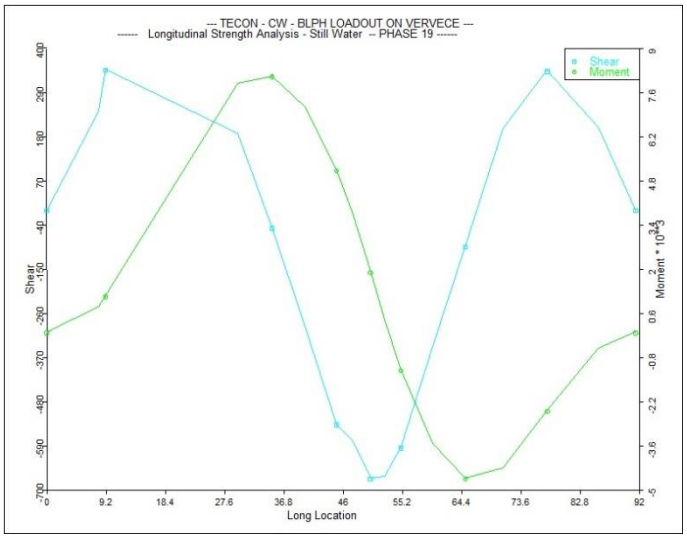
+++ L O N G I T U D I N A L S T R E N G T H R E S U L T S +++

Process is 19: 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	243	813	0.0321	-4.6164
9.14	347	1150	0.0455	-5.2664
29.72	187	7896	0.3120	-13.4944
35.00	-46	8119	0.3208	-13.6777
40.00	-290	7150	0.2825	-12.9419
45.00	-535	5150	0.2035	-11.4272
47.50	-578	3754	0.1483	-10.4423
50.29	-670	1912	0.0756	-9.2229
52.50	-665	405	0.0160	-8.2089
55.00	-593	-1199	-0.0474	-7.0521
60.00	-342	-3540	-0.1399	-4.8715
65.00	-91	-4627	-0.1829	-3.0699
70.87	200	-4309	-0.1703	-1.5926
77.72	344	-2483	-0.0981	-0.6620
85.70	202	-499	-0.0198	-0.2041
91.44	-1	0	0.0000	0.0001


--- TECON - CW - BLPH LOADOUT ON VERVECE ---
------ Longitudinal Strength Analysis - Still Water -- PHASE 19 ------
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

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 6 pumps, with a rated capacity of min 300 m3/h + 2 x 600 m3/h internal barge pumps.

Load out weight:	2300 t
Cross over estimated duration:	2.5 Hours
Capacity required for the load compensation	920 t/h
Capacity required for tide compensation	2 x 1060 t (tide var +/-40cm, ref section 6.5)
Tide full cycle:	6 Hours
Capacity required for the tide compensation	354 t/h

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

Capacity with intact system = 6x300 + 2*600 m3/h = 3000 m3/h

Intact system ratio = 3000/(920+354) = 2.35 > 1.3 (OK)

Capacity with 1 pump failed = 6x300 + 1*600 m3/h = 2400 m3/h

Damaged system ratio = 2400/(920+354) = 1.88 > 1.0 (OK)

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

Capacity with intact system = 2*600 m3/h (or 4x300) = 1200 m3/h

Intact system ratio = 1200/354 = 3.38 > 1.5 (OK)

Capacity with 1 pump failed = replaced by 1 spare.