



BARGE "HFL 415"

INNAGE TRIM TABLE

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>
1 PORT	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4
1 STBD	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4
2 PORT	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8
2 STBD	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8
3 PORT	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8
3 STBD	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 1'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 3'-00" (DOWN BY STERN)

THE CORRECTION FOR 3'-00" TRIM DOWN BY STERN FOR 1 PORT IS 00-1/8"
 FOR A MEASURED INNAGE GAUGE OF 4'-00" ON 1 PORT, THE TRIM CORRECTED INNAGE IS 4'-00 1/8"

LENGTH BETWEEN DRAFT MARKS: 238'-06"

February 21, 2012

PRECISION MEASUREMENT
 & ANALYSIS, INC.

P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 415"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	384	0	13,219	0	28,108	0	43,093	0	58,017	0	72,960	0	87,946	0	102,932	0	117,913	0	132,892
1/4	561	1/4	13,519	1/4	28,420	1/4	43,405	1/4	58,327	1/4	73,273	1/4	88,258	1/4	103,244	1/4	118,225	1/4	133,205
1/2	737	1/2	13,820	1/2	28,732	1/2	43,718	1/2	58,637	1/2	73,585	1/2	88,571	1/2	103,556	1/2	118,537	1/2	133,517
3/4	914	3/4	14,121	3/4	29,044	3/4	44,030	3/4	58,947	3/4	73,897	3/4	88,883	3/4	103,869	3/4	118,849	3/4	133,829
1	1,090	1	14,421	1	29,357	1	44,342	1	59,257	1	74,209	1	89,195	1	104,181	1	119,161	1	134,141
1/4	1,328	1/4	14,726	1/4	29,669	1/4	44,654	1/4	59,566	1/4	74,521	1/4	89,507	1/4	104,493	1/4	119,473	1/4	134,453
1/2	1,566	1/2	15,030	1/2	29,981	1/2	44,966	1/2	59,876	1/2	74,834	1/2	89,819	1/2	104,805	1/2	119,786	1/2	134,765
3/4	1,804	3/4	15,335	3/4	30,293	3/4	45,279	3/4	60,186	3/4	75,146	3/4	90,132	3/4	105,117	3/4	120,098	3/4	135,077
2	2,043	2	15,639	2	30,605	2	45,591	2	60,496	2	75,458	2	90,444	2	105,430	2	120,410	2	135,389
1/4	2,304	1/4	15,948	1/4	30,918	1/4	45,903	1/4	60,806	1/4	75,770	1/4	90,756	1/4	105,742	1/4	120,722	1/4	135,701
1/2	2,565	1/2	16,256	1/2	31,230	1/2	46,215	1/2	61,116	1/2	76,082	1/2	91,068	1/2	106,054	1/2	121,034	1/2	136,013
3/4	2,826	3/4	16,564	3/4	31,542	3/4	46,527	3/4	61,426	3/4	76,395	3/4	91,380	3/4	106,366	3/4	121,346	3/4	136,325
3	3,088	3	16,873	3	31,854	3	46,840	3	61,735	3	76,707	3	91,693	3	106,678	3	121,658	3	136,637
1/4	3,353	1/4	17,184	1/4	32,166	1/4	47,152	1/4	62,045	1/4	77,019	1/4	92,005	1/4	106,991	1/4	121,970	1/4	136,949
1/2	3,619	1/2	17,495	1/2	32,479	1/2	47,464	1/2	62,355	1/2	77,331	1/2	92,317	1/2	107,303	1/2	122,282	1/2	137,261
3/4	3,885	3/4	17,806	3/4	32,791	3/4	47,776	3/4	62,665	3/4	77,643	3/4	92,629	3/4	107,615	3/4	122,594	3/4	137,573
4	4,151	4	18,118	4	33,103	4	48,088	4	62,975	4	77,956	4	92,941	4	107,927	4	122,906	4	137,886
1/4	4,421	1/4	18,430	1/4	33,415	1/4	48,400	1/4	63,286	1/4	78,268	1/4	93,254	1/4	108,239	1/4	123,218	1/4	138,198
1/2	4,691	1/2	18,742	1/2	33,727	1/2	48,711	1/2	63,597	1/2	78,580	1/2	93,566	1/2	108,551	1/2	123,530	1/2	138,510
3/4	4,961	3/4	19,054	3/4	34,040	3/4	49,023	3/4	63,908	3/4	78,892	3/4	93,878	3/4	108,863	3/4	123,842	3/4	138,822
5	5,230	5	19,366	5	34,352	5	49,334	5	64,219	5	79,204	5	94,190	5	109,175	5	124,155	5	139,134
1/4	5,504	1/4	19,679	1/4	34,664	1/4	49,645	1/4	64,531	1/4	79,517	1/4	94,502	1/4	109,487	1/4	124,467	1/4	139,446
1/2	5,778	1/2	19,991	1/2	34,976	1/2	49,956	1/2	64,843	1/2	79,829	1/2	94,815	1/2	109,799	1/2	124,779	1/2	139,758
3/4	6,052	3/4	20,303	3/4	35,288	3/4	50,267	3/4	65,155	3/4	80,141	3/4	95,127	3/4	110,111	3/4	125,091	3/4	140,070
6	6,325	6	20,615	6	35,601	6	50,577	6	65,467	6	80,453	6	95,439	6	110,423	6	125,403	6	140,382
1/4	6,603	1/4	20,927	1/4	35,913	1/4	50,888	1/4	65,780	1/4	80,765	1/4	95,751	1/4	110,736	1/4	125,715	1/4	140,694
1/2	6,881	1/2	21,240	1/2	36,225	1/2	51,198	1/2	66,092	1/2	81,078	1/2	96,063	1/2	111,048	1/2	126,027	1/2	141,006
3/4	7,158	3/4	21,552	3/4	36,537	3/4	51,509	3/4	66,404	3/4	81,390	3/4	96,376	3/4	111,360	3/4	126,339	3/4	141,318
7	7,436	7	21,864	7	36,849	7	51,819	7	66,716	7	81,702	7	96,688	7	111,672	7	126,651	7	141,630
1/4	7,717	1/4	22,176	1/4	37,162	1/4	52,129	1/4	67,028	1/4	82,014	1/4	97,000	1/4	111,984	1/4	126,963	1/4	141,942
1/2	7,999	1/2	22,488	1/2	37,474	1/2	52,440	1/2	67,341	1/2	82,326	1/2	97,312	1/2	112,296	1/2	127,275	1/2	142,255
3/4	8,280	3/4	22,801	3/4	37,786	3/4	52,750	3/4	67,653	3/4	82,639	3/4	97,624	3/4	112,608	3/4	127,587	3/4	142,567
8	8,562	8	23,113	8	38,098	8	53,060	8	67,965	8	82,951	8	97,937	8	112,920	8	127,899	8	142,879
1/4	8,847	1/4	23,425	1/4	38,410	1/4	53,370	1/4	68,277	1/4	83,263	1/4	98,249	1/4	113,232	1/4	128,211	1/4	143,191
1/2	9,132	1/2	23,737	1/2	38,723	1/2	53,679	1/2	68,589	1/2	83,575	1/2	98,561	1/2	113,544	1/2	128,523	1/2	143,503
3/4	9,418	3/4	24,049	3/4	39,035	3/4	53,989	3/4	68,902	3/4	83,887	3/4	98,873	3/4	113,856	3/4	128,836	3/4	143,815
9	9,703	9	24,362	9	39,347	9	54,299	9	69,214	9	84,200	9	99,185	9	114,168	9	129,148	9	144,127
1/4	9,992	1/4	24,674	1/4	39,659	1/4	54,609	1/4	69,526	1/4	84,512	1/4	99,498	1/4	114,480	1/4	129,460	1/4	144,439
1/2	10,281	1/2	24,986	1/2	39,971	1/2	54,919	1/2	69,838	1/2	84,824	1/2	99,810	1/2	114,792	1/2	129,772	1/2	144,751
3/4	10,570	3/4	25,298	3/4	40,283	3/4	55,229	3/4	70,150	3/4	85,136	3/4	100,122	3/4	115,105	3/4	130,084	3/4	145,063
10	10,859	10	25,610	10	40,596	10	55,538	10	70,463	10	85,448	10	100,434	10	115,417	10	130,396	10	145,375
1/4	11,152	1/4	25,923	1/4	40,908	1/4	55,848	1/4	70,775	1/4	85,761	1/4	100,746	1/4	115,729	1/4	130,708	1/4	145,687
1/2	11,445	1/2	26,235	1/2	41,220	1/2	56,158	1/2	71,087	1/2	86,073	1/2	101,059	1/2	116,041	1/2	131,020	1/2	145,999
3/4	11,738	3/4	26,547	3/4	41,532	3/4	56,468	3/4	71,399	3/4	86,385	3/4	101,371	3/4	116,353	3/4	131,332	3/4	146,311
11	12,031	11	26,859	11	41,844	11	56,778	11	71,711	11	86,697	11	101,683	11	116,665	11	131,644	11	146,624
1/4	12,328	1/4	27,171	1/4	42,157	1/4	57,088	1/4	72,024	1/4	87,010	1/4	101,995	1/4	116,977	1/4	131,956	1/4	146,936
1/2	12,625	1/2	27,484	1/2	42,469	1/2	57,397	1/2	72,336	1/2	87,322	1/2	102,308	1/2	117,289	1/2	132,268	1/2	147,248
3/4	12,922	3/4	27,796	3/4	42,781	3/4	57,707	3/4	72,648	3/4	87,634	3/4	102,620	3/4	117,601	3/4	132,580	3/4	147,560

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 415"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	147,872	0	162,851	0	177,821	0	192,757	0	207,620	0		0		0		0		0	
1/4	148,184	1/4	163,163	1/4	178,132	1/4	193,068	1/4	207,900	1/4		1/4		1/4		1/4		1/4	
1/2	148,496	1/2	163,475	1/2	178,444	1/2	193,379	1/2	208,179	1/2		1/2		1/2		1/2		1/2	
3/4	148,808	3/4	163,787	3/4	178,755	3/4	193,690	3/4	208,459	3/4		3/4		3/4		3/4		3/4	
1	149,120	1	164,099	1	179,066	1	194,002	1	208,738	1		1		1		1		1	
1/4	149,432	1/4	164,411	1/4	179,377	1/4	194,313	1/4	208,969	1/4		1/4		1/4		1/4		1/4	
1/2	149,744	1/2	164,724	1/2	179,688	1/2	194,624	1/2	209,200	1/2		1/2		1/2		1/2		1/2	
3/4	150,056	3/4	165,036	3/4	179,999	3/4	194,935	3/4	209,431	3/4		3/4		3/4		3/4		3/4	
2	150,368	2	165,348	2	180,311	2	195,246	2	209,662	2		2		2		2		2	
1/4	150,680	1/4	165,660	1/4	180,622	1/4	195,557	1/4	209,841	1/4		1/4		1/4		1/4		1/4	
1/2	150,992	1/2	165,972	1/2	180,933	1/2	195,869	1/2	210,020	1/2		1/2		1/2		1/2		1/2	
3/4	151,305	3/4	166,284	3/4	181,244	3/4	196,180	3/4	210,200	3/4		3/4		3/4		3/4		3/4	
3	151,617	3	166,596	3	181,555	3	196,491	3	210,379	3		3		3		3		3	
1/4	151,929	1/4	166,908	1/4	181,866	1/4	196,802	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,241	1/2	167,220	1/2	182,178	1/2	197,113	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,553	3/4	167,532	3/4	182,489	3/4	197,424	3/4		3/4		3/4		3/4		3/4		3/4	
4	152,865	4	167,844	4	182,800	4	197,735	4		4		4		4		4		4	
1/4	153,177	1/4	168,156	1/4	183,111	1/4	198,047	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,489	1/2	168,468	1/2	183,422	1/2	198,358	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,801	3/4	168,780	3/4	183,733	3/4	198,669	3/4		3/4		3/4		3/4		3/4		3/4	
5	154,113	5	169,092	5	184,044	5	198,980	5		5		5		5		5		5	
1/4	154,425	1/4	169,405	1/4	184,356	1/4	199,290	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,737	1/2	169,717	1/2	184,667	1/2	199,600	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,049	3/4	170,029	3/4	184,978	3/4	199,910	3/4		3/4		3/4		3/4		3/4		3/4	
6	155,361	6	170,341	6	185,289	6	200,220	6		6		6		6		6		6	
1/4	155,674	1/4	170,653	1/4	185,600	1/4	200,529	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,986	1/2	170,965	1/2	185,911	1/2	200,839	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,298	3/4	171,277	3/4	186,223	3/4	201,148	3/4		3/4		3/4		3/4		3/4		3/4	
7	156,610	7	171,589	7	186,534	7	201,457	7		7		7		7		7		7	
1/4	156,922	1/4	171,901	1/4	186,845	1/4	201,766	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,234	1/2	172,213	1/2	187,156	1/2	202,075	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,546	3/4	172,525	3/4	187,467	3/4	202,384	3/4		3/4		3/4		3/4		3/4		3/4	
8	157,858	8	172,837	8	187,778	8	202,693	8		8		8		8		8		8	
1/4	158,170	1/4	173,149	1/4	188,090	1/4	203,002	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,482	1/2	173,461	1/2	188,401	1/2	203,311	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,794	3/4	173,774	3/4	188,712	3/4	203,620	3/4		3/4		3/4		3/4		3/4		3/4	
9	159,106	9	174,086	9	189,023	9	203,930	9		9		9		9		9		9	
1/4	159,418	1/4	174,397	1/4	189,334	1/4	204,239	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,730	1/2	174,709	1/2	189,645	1/2	204,548	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,042	3/4	175,020	3/4	189,957	3/4	204,857	3/4		3/4		3/4		3/4		3/4		3/4	
10	160,355	10	175,332	10	190,268	10	205,166	10		10		10		10		10		10	
1/4	160,667	1/4	175,643	1/4	190,579	1/4	205,474	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	160,979	1/2	175,954	1/2	190,890	1/2	205,783	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,291	3/4	176,266	3/4	191,201	3/4	206,092	3/4		3/4		3/4		3/4		3/4		3/4	
11	161,603	11	176,577	11	191,512	11	206,400	11		11		11		11		11		11	
1/4	161,915	1/4	176,888	1/4	191,823	1/4	206,705	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,227	1/2	177,199	1/2	192,135	1/2	207,010	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,539	3/4	177,510	3/4	192,446	3/4	207,315	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 415"

1 STBD

INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	384	0	13,222	0	28,114	0	43,103	0	58,087	0	73,074	0	88,063	0	103,052	0	118,037	0	133,019
1/4	561	1/4	13,522	1/4	28,427	1/4	43,415	1/4	58,399	1/4	73,386	1/4	88,375	1/4	103,364	1/4	118,349	1/4	133,331
1/2	738	1/2	13,823	1/2	28,739	1/2	43,728	1/2	58,711	1/2	73,698	1/2	88,687	1/2	103,677	1/2	118,661	1/2	133,643
3/4	914	3/4	14,124	3/4	29,051	3/4	44,040	3/4	59,023	3/4	74,011	3/4	89,000	3/4	103,989	3/4	118,973	3/4	133,956
1	1,091	1	14,425	1	29,363	1	44,352	1	59,335	1	74,323	1	89,312	1	104,301	1	119,285	1	134,268
1/4	1,329	1/4	14,729	1/4	29,676	1/4	44,664	1/4	59,648	1/4	74,635	1/4	89,624	1/4	104,613	1/4	119,597	1/4	134,580
1/2	1,567	1/2	15,034	1/2	29,988	1/2	44,977	1/2	59,960	1/2	74,947	1/2	89,936	1/2	104,926	1/2	119,909	1/2	134,892
3/4	1,805	3/4	15,338	3/4	30,300	3/4	45,289	3/4	60,272	3/4	75,260	3/4	90,249	3/4	105,238	3/4	120,222	3/4	135,204
2	2,043	2	15,643	2	30,612	2	45,601	2	60,584	2	75,572	2	90,561	2	105,550	2	120,534	2	135,516
1/4	2,304	1/4	15,951	1/4	30,925	1/4	45,913	1/4	60,896	1/4	75,884	1/4	90,873	1/4	105,862	1/4	120,846	1/4	135,828
1/2	2,566	1/2	16,260	1/2	31,237	1/2	46,226	1/2	61,208	1/2	76,196	1/2	91,186	1/2	106,175	1/2	121,158	1/2	136,141
3/4	2,827	3/4	16,568	3/4	31,549	3/4	46,538	3/4	61,520	3/4	76,509	3/4	91,498	3/4	106,487	3/4	121,470	3/4	136,453
3	3,088	3	16,877	3	31,861	3	46,850	3	61,832	3	76,821	3	91,810	3	106,799	3	121,782	3	136,765
1/4	3,354	1/4	17,188	1/4	32,174	1/4	47,162	1/4	62,144	1/4	77,133	1/4	92,122	1/4	107,111	1/4	122,094	1/4	137,077
1/2	3,620	1/2	17,499	1/2	32,486	1/2	47,475	1/2	62,456	1/2	77,446	1/2	92,435	1/2	107,424	1/2	122,406	1/2	137,389
3/4	3,886	3/4	17,811	3/4	32,798	3/4	47,787	3/4	62,769	3/4	77,758	3/4	92,747	3/4	107,736	3/4	122,719	3/4	137,701
4	4,152	4	18,122	4	33,111	4	48,099	4	63,081	4	78,070	4	93,059	4	108,048	4	123,031	4	138,013
1/4	4,422	1/4	18,434	1/4	33,423	1/4	48,411	1/4	63,393	1/4	78,382	1/4	93,372	1/4	108,360	1/4	123,343	1/4	138,326
1/2	4,692	1/2	18,746	1/2	33,735	1/2	48,724	1/2	63,705	1/2	78,695	1/2	93,684	1/2	108,672	1/2	123,655	1/2	138,638
3/4	4,962	3/4	19,059	3/4	34,047	3/4	49,036	3/4	64,018	3/4	79,007	3/4	93,996	3/4	108,985	3/4	123,967	3/4	138,950
5	5,232	5	19,371	5	34,360	5	49,348	5	64,330	5	79,319	5	94,308	5	109,297	5	124,279	5	139,262
1/4	5,506	1/4	19,683	1/4	34,672	1/4	49,661	1/4	64,642	1/4	79,631	1/4	94,621	1/4	109,609	1/4	124,591	1/4	139,574
1/2	5,779	1/2	19,995	1/2	34,984	1/2	49,973	1/2	64,955	1/2	79,944	1/2	94,933	1/2	109,921	1/2	124,904	1/2	139,886
3/4	6,053	3/4	20,308	3/4	35,296	3/4	50,285	3/4	65,267	3/4	80,256	3/4	95,245	3/4	110,233	3/4	125,216	3/4	140,198
6	6,327	6	20,620	6	35,609	6	50,597	6	65,579	6	80,568	6	95,557	6	110,545	6	125,528	6	140,511
1/4	6,605	1/4	20,932	1/4	35,921	1/4	50,910	1/4	65,891	1/4	80,881	1/4	95,870	1/4	110,857	1/4	125,840	1/4	140,823
1/2	6,882	1/2	21,244	1/2	36,233	1/2	51,222	1/2	66,204	1/2	81,193	1/2	96,182	1/2	111,169	1/2	126,152	1/2	141,135
3/4	7,160	3/4	21,557	3/4	36,545	3/4	51,534	3/4	66,516	3/4	81,505	3/4	96,494	3/4	111,482	3/4	126,464	3/4	141,447
7	7,438	7	21,869	7	36,858	7	51,846	7	66,828	7	81,817	7	96,807	7	111,794	7	126,776	7	141,759
1/4	7,719	1/4	22,181	1/4	37,170	1/4	52,158	1/4	67,140	1/4	82,130	1/4	97,119	1/4	112,106	1/4	127,089	1/4	142,071
1/2	8,001	1/2	22,494	1/2	37,482	1/2	52,470	1/2	67,453	1/2	82,442	1/2	97,431	1/2	112,418	1/2	127,401	1/2	142,383
3/4	8,282	3/4	22,806	3/4	37,794	3/4	52,782	3/4	67,765	3/4	82,754	3/4	97,743	3/4	112,730	3/4	127,713	3/4	142,696
8	8,564	8	23,118	8	38,107	8	53,095	8	68,077	8	83,066	8	98,056	8	113,042	8	128,025	8	143,008
1/4	8,849	1/4	23,430	1/4	38,419	1/4	53,407	1/4	68,390	1/4	83,379	1/4	98,368	1/4	113,354	1/4	128,337	1/4	143,320
1/2	9,134	1/2	23,743	1/2	38,731	1/2	53,719	1/2	68,702	1/2	83,691	1/2	98,680	1/2	113,667	1/2	128,649	1/2	143,632
3/4	9,420	3/4	24,055	3/4	39,044	3/4	54,031	3/4	69,014	3/4	84,003	3/4	98,992	3/4	113,979	3/4	128,961	3/4	143,944
9	9,705	9	24,367	9	39,356	9	54,343	9	69,326	9	84,316	9	99,305	9	114,291	9	129,274	9	144,256
1/4	9,994	1/4	24,679	1/4	39,668	1/4	54,655	1/4	69,639	1/4	84,628	1/4	99,617	1/4	114,603	1/4	129,586	1/4	144,568
1/2	10,284	1/2	24,992	1/2	39,980	1/2	54,967	1/2	69,951	1/2	84,940	1/2	99,929	1/2	114,915	1/2	129,898	1/2	144,881
3/4	10,573	3/4	25,304	3/4	40,293	3/4	55,279	3/4	70,263	3/4	85,252	3/4	100,242	3/4	115,227	3/4	130,210	3/4	145,193
10	10,862	10	25,616	10	40,605	10	55,591	10	70,576	10	85,565	10	100,554	10	115,539	10	130,522	10	145,505
1/4	11,155	1/4	25,928	1/4	40,917	1/4	55,903	1/4	70,888	1/4	85,877	1/4	100,866	1/4	115,852	1/4	130,834	1/4	145,817
1/2	11,448	1/2	26,241	1/2	41,229	1/2	56,215	1/2	71,200	1/2	86,189	1/2	101,178	1/2	116,164	1/2	131,146	1/2	146,129
3/4	11,741	3/4	26,553	3/4	41,542	3/4	56,527	3/4	71,512	3/4	86,501	3/4	101,491	3/4	116,476	3/4	131,459	3/4	146,441
11	12,034	11	26,865	11	41,854	11	56,839	11	71,825	11	86,814	11	101,803	11	116,788	11	131,771	11	146,754
1/4	12,331	1/4	27,177	1/4	42,166	1/4	57,151	1/4	72,137	1/4	87,126	1/4	102,115	1/4	117,100	1/4	132,083	1/4	147,066
1/2	12,628	1/2	27,490	1/2	42,478	1/2	57,463	1/2	72,449	1/2	87,438	1/2	102,427	1/2	117,412	1/2	132,395	1/2	147,378
3/4	12,925	3/4	27,802	3/4	42,791	3/4	57,775	3/4	72,761	3/4	87,751	3/4	102,740	3/4	117,724	3/4	132,707	3/4	147,690

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 415"

1 STBD
INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	148,002	0	162,985	0	177,959	0	192,898	0	207,765	0		0		0		0		0	
1/4	148,314	1/4	163,297	1/4	178,270	1/4	193,209	1/4	208,044	1/4		1/4		1/4		1/4		1/4	
1/2	148,626	1/2	163,609	1/2	178,581	1/2	193,520	1/2	208,324	1/2		1/2		1/2		1/2		1/2	
3/4	148,939	3/4	163,921	3/4	178,893	3/4	193,832	3/4	208,603	3/4		3/4		3/4		3/4		3/4	
1	149,251	1	164,234	1	179,204	1	194,143	1	208,883	1		1		1		1		1	
1/4	149,563	1/4	164,546	1/4	179,515	1/4	194,454	1/4	209,114	1/4		1/4		1/4		1/4		1/4	
1/2	149,875	1/2	164,858	1/2	179,826	1/2	194,765	1/2	209,345	1/2		1/2		1/2		1/2		1/2	
3/4	150,187	3/4	165,170	3/4	180,137	3/4	195,077	3/4	209,576	3/4		3/4		3/4		3/4		3/4	
2	150,499	2	165,482	2	180,449	2	195,388	2	209,807	2		2		2		2		2	
1/4	150,811	1/4	165,794	1/4	180,760	1/4	195,699	1/4	209,987	1/4		1/4		1/4		1/4		1/4	
1/2	151,124	1/2	166,106	1/2	181,071	1/2	196,010	1/2	210,166	1/2		1/2		1/2		1/2		1/2	
3/4	151,436	3/4	166,419	3/4	181,382	3/4	196,322	3/4	210,345	3/4		3/4		3/4		3/4		3/4	
3	151,748	3	166,731	3	181,694	3	196,633	3	210,524	3		3		3		3		3	
1/4	152,060	1/4	167,043	1/4	182,005	1/4	196,944	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,372	1/2	167,355	1/2	182,316	1/2	197,255	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,684	3/4	167,667	3/4	182,627	3/4	197,567	3/4		3/4		3/4		3/4		3/4		3/4	
4	152,996	4	167,979	4	182,939	4	197,878	4		4		4		4		4		4	
1/4	153,309	1/4	168,291	1/4	183,250	1/4	198,189	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,621	1/2	168,604	1/2	183,561	1/2	198,500	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,933	3/4	168,916	3/4	183,872	3/4	198,811	3/4		3/4		3/4		3/4		3/4		3/4	
5	154,245	5	169,228	5	184,183	5	199,123	5		5		5		5		5		5	
1/4	154,557	1/4	169,540	1/4	184,495	1/4	199,433	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,869	1/2	169,852	1/2	184,806	1/2	199,743	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,181	3/4	170,164	3/4	185,117	3/4	200,053	3/4		3/4		3/4		3/4		3/4		3/4	
6	155,494	6	170,476	6	185,428	6	200,363	6		6		6		6		6		6	
1/4	155,806	1/4	170,789	1/4	185,740	1/4	200,672	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,118	1/2	171,101	1/2	186,051	1/2	200,982	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,430	3/4	171,413	3/4	186,362	3/4	201,291	3/4		3/4		3/4		3/4		3/4		3/4	
7	156,742	7	171,725	7	186,673	7	201,600	7		7		7		7		7		7	
1/4	157,054	1/4	172,037	1/4	186,985	1/4	201,909	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,366	1/2	172,349	1/2	187,296	1/2	202,218	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,679	3/4	172,661	3/4	187,607	3/4	202,527	3/4		3/4		3/4		3/4		3/4		3/4	
8	157,991	8	172,974	8	187,918	8	202,836	8		8		8		8		8		8	
1/4	158,303	1/4	173,286	1/4	188,230	1/4	203,146	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,615	1/2	173,598	1/2	188,541	1/2	203,455	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,927	3/4	173,910	3/4	188,852	3/4	203,764	3/4		3/4		3/4		3/4		3/4		3/4	
9	159,239	9	174,222	9	189,163	9	204,073	9		9		9		9		9		9	
1/4	159,551	1/4	174,534	1/4	189,474	1/4	204,382	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,864	1/2	174,846	1/2	189,786	1/2	204,692	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,176	3/4	175,157	3/4	190,097	3/4	205,001	3/4		3/4		3/4		3/4		3/4		3/4	
10	160,488	10	175,469	10	190,408	10	205,310	10		10		10		10		10		10	
1/4	160,800	1/4	175,780	1/4	190,719	1/4	205,619	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	161,112	1/2	176,091	1/2	191,031	1/2	205,927	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,424	3/4	176,403	3/4	191,342	3/4	206,236	3/4		3/4		3/4		3/4		3/4		3/4	
11	161,736	11	176,714	11	191,653	11	206,545	11		11		11		11		11		11	
1/4	162,049	1/4	177,025	1/4	191,964	1/4	206,850	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,361	1/2	177,336	1/2	192,276	1/2	207,155	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,673	3/4	177,648	3/4	192,587	3/4	207,460	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
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BARGE "HFL 415"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	1,033	0	15,717	0	30,801	0	45,512	0	60,018	0	74,892	0	89,978	0	105,064	0	120,145	0	135,224
1/4	1,269	1/4	16,032	1/4	31,115	1/4	45,814	1/4	60,321	1/4	75,206	1/4	90,292	1/4	105,379	1/4	120,459	1/4	135,538
1/2	1,504	1/2	16,346	1/2	31,429	1/2	46,116	1/2	60,623	1/2	75,521	1/2	90,607	1/2	105,693	1/2	120,773	1/2	135,852
3/4	1,740	3/4	16,660	3/4	31,744	3/4	46,417	3/4	60,926	3/4	75,835	3/4	90,921	3/4	106,007	3/4	121,087	3/4	136,166
1	1,976	1	16,975	1	32,058	1	46,719	1	61,228	1	76,149	1	91,235	1	106,321	1	121,402	1	136,480
1/4	2,270	1/4	17,289	1/4	32,372	1/4	47,020	1/4	61,531	1/4	76,463	1/4	91,550	1/4	106,636	1/4	121,716	1/4	136,794
1/2	2,563	1/2	17,603	1/2	32,686	1/2	47,322	1/2	61,833	1/2	76,778	1/2	91,864	1/2	106,950	1/2	122,030	1/2	137,108
3/4	2,857	3/4	17,917	3/4	33,001	3/4	47,624	3/4	62,136	3/4	77,092	3/4	92,178	3/4	107,264	3/4	122,344	3/4	137,422
2	3,151	2	18,232	2	33,315	2	47,925	2	62,438	2	77,406	2	92,492	2	107,579	2	122,658	2	137,737
1/4	3,464	1/4	18,546	1/4	33,629	1/4	48,227	1/4	62,741	1/4	77,721	1/4	92,807	1/4	107,893	1/4	122,972	1/4	138,051
1/2	3,778	1/2	18,860	1/2	33,944	1/2	48,528	1/2	63,043	1/2	78,035	1/2	93,121	1/2	108,207	1/2	123,286	1/2	138,365
3/4	4,091	3/4	19,175	3/4	34,258	3/4	48,830	3/4	63,346	3/4	78,349	3/4	93,435	3/4	108,521	3/4	123,600	3/4	138,679
3	4,404	3	19,489	3	34,572	3	49,132	3	63,648	3	78,664	3	93,750	3	108,836	3	123,915	3	138,993
1/4	4,718	1/4	19,803	1/4	34,886	1/4	49,434	1/4	63,951	1/4	78,978	1/4	94,064	1/4	109,150	1/4	124,229	1/4	139,307
1/2	5,032	1/2	20,117	1/2	35,201	1/2	49,735	1/2	64,253	1/2	79,292	1/2	94,378	1/2	109,464	1/2	124,543	1/2	139,621
3/4	5,346	3/4	20,432	3/4	35,515	3/4	50,037	3/4	64,556	3/4	79,606	3/4	94,693	3/4	109,778	3/4	124,857	3/4	139,936
4	5,660	4	20,746	4	35,829	4	50,339	4	64,858	4	79,921	4	95,007	4	110,093	4	125,171	4	140,250
1/4	5,975	1/4	21,060	1/4	36,138	1/4	50,641	1/4	65,167	1/4	80,235	1/4	95,321	1/4	110,407	1/4	125,485	1/4	140,564
1/2	6,289	1/2	21,375	1/2	36,446	1/2	50,943	1/2	65,475	1/2	80,549	1/2	95,635	1/2	110,721	1/2	125,799	1/2	140,878
3/4	6,603	3/4	21,689	3/4	36,754	3/4	51,246	3/4	65,783	3/4	80,864	3/4	95,950	3/4	111,035	3/4	126,114	3/4	141,192
5	6,917	5	22,003	5	37,063	5	51,548	5	66,092	5	81,178	5	96,264	5	111,349	5	126,428	5	141,506
1/4	7,232	1/4	22,317	1/4	37,365	1/4	51,850	1/4	66,406	1/4	81,492	1/4	96,578	1/4	111,663	1/4	126,742	1/4	141,820
1/2	7,546	1/2	22,632	1/2	37,668	1/2	52,153	1/2	66,720	1/2	81,806	1/2	96,893	1/2	111,977	1/2	127,056	1/2	142,135
3/4	7,860	3/4	22,946	3/4	37,970	3/4	52,455	3/4	67,035	3/4	82,121	3/4	97,207	3/4	112,292	3/4	127,370	3/4	142,449
6	8,175	6	23,260	6	38,273	6	52,758	6	67,349	6	82,435	6	97,521	6	112,606	6	127,684	6	142,763
1/4	8,489	1/4	23,575	1/4	38,575	1/4	53,060	1/4	67,663	1/4	82,749	1/4	97,835	1/4	112,920	1/4	127,998	1/4	143,077
1/2	8,803	1/2	23,889	1/2	38,877	1/2	53,363	1/2	67,978	1/2	83,064	1/2	98,150	1/2	113,234	1/2	128,313	1/2	143,391
3/4	9,117	3/4	24,203	3/4	39,179	3/4	53,665	3/4	68,292	3/4	83,378	3/4	98,464	3/4	113,548	3/4	128,627	3/4	143,705
7	9,432	7	24,517	7	39,481	7	53,968	7	68,606	7	83,692	7	98,778	7	113,862	7	128,941	7	144,019
1/4	9,746	1/4	24,832	1/4	39,783	1/4	54,270	1/4	68,920	1/4	84,007	1/4	99,093	1/4	114,176	1/4	129,255	1/4	144,333
1/2	10,060	1/2	25,146	1/2	40,084	1/2	54,573	1/2	69,235	1/2	84,321	1/2	99,407	1/2	114,491	1/2	129,569	1/2	144,648
3/4	10,375	3/4	25,460	3/4	40,386	3/4	54,875	3/4	69,549	3/4	84,635	3/4	99,721	3/4	114,805	3/4	129,883	3/4	144,962
8	10,689	8	25,775	8	40,687	8	55,178	8	69,863	8	84,949	8	100,036	8	115,119	8	130,197	8	145,276
1/4	11,003	1/4	26,089	1/4	40,989	1/4	55,480	1/4	70,178	1/4	85,264	1/4	100,350	1/4	115,433	1/4	130,511	1/4	145,590
1/2	11,317	1/2	26,403	1/2	41,290	1/2	55,783	1/2	70,492	1/2	85,578	1/2	100,664	1/2	115,747	1/2	130,826	1/2	145,904
3/4	11,632	3/4	26,717	3/4	41,592	3/4	56,085	3/4	70,806	3/4	85,892	3/4	100,978	3/4	116,061	3/4	131,140	3/4	146,218
9	11,946	9	27,031	9	41,894	9	56,388	9	71,120	9	86,207	9	101,293	9	116,375	9	131,454	9	146,532
1/4	12,260	1/4	27,345	1/4	42,195	1/4	56,690	1/4	71,435	1/4	86,521	1/4	101,607	1/4	116,689	1/4	131,768	1/4	146,847
1/2	12,575	1/2	27,659	1/2	42,497	1/2	56,993	1/2	71,749	1/2	86,835	1/2	101,921	1/2	117,004	1/2	132,082	1/2	147,161
3/4	12,889	3/4	27,974	3/4	42,798	3/4	57,295	3/4	72,063	3/4	87,149	3/4	102,236	3/4	117,318	3/4	132,396	3/4	147,475
10	13,203	10	28,288	10	43,100	10	57,598	10	72,378	10	87,464	10	102,550	10	117,632	10	132,710	10	147,789
1/4	13,517	1/4	28,602	1/4	43,401	1/4	57,900	1/4	72,692	1/4	87,778	1/4	102,864	1/4	117,946	1/4	133,025	1/4	148,103
1/2	13,832	1/2	28,916	1/2	43,703	1/2	58,203	1/2	73,006	1/2	88,092	1/2	103,178	1/2	118,260	1/2	133,339	1/2	148,417
3/4	14,146	3/4	29,230	3/4	44,005	3/4	58,505	3/4	73,321	3/4	88,407	3/4	103,493	3/4	118,574	3/4	133,653	3/4	148,731
11	14,460	11	29,544	11	44,306	11	58,808	11	73,635	11	88,721	11	103,807	11	118,888	11	133,967	11	149,046
1/4	14,775	1/4	29,858	1/4	44,608	1/4	59,110	1/4	73,949	1/4	89,035	1/4	104,121	1/4	119,203	1/4	134,281	1/4	149,360
1/2	15,089	1/2	30,172	1/2	44,909	1/2	59,413	1/2	74,263	1/2	89,350	1/2	104,436	1/2	119,517	1/2	134,595	1/2	149,674
3/4	15,403	3/4	30,487	3/4	45,211	3/4	59,715	3/4	74,578	3/4	89,664	3/4	104,750	3/4	119,831	3/4	134,909	3/4	149,988

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 415"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	150,302	0	165,381	0	180,448	0	195,476	0	210,406	0		0		0		0		0	
1/4	150,616	1/4	165,695	1/4	180,762	1/4	195,789	1/4	210,686	1/4		1/4		1/4		1/4		1/4	
1/2	150,930	1/2	166,009	1/2	181,075	1/2	196,102	1/2	210,966	1/2		1/2		1/2		1/2		1/2	
3/4	151,244	3/4	166,323	3/4	181,388	3/4	196,415	3/4	211,247	3/4		3/4		3/4		3/4		3/4	
1	151,559	1	166,637	1	181,701	1	196,728	1	211,527	1		1		1		1		1	
1/4	151,873	1/4	166,951	1/4	182,014	1/4	197,041	1/4	211,758	1/4		1/4		1/4		1/4		1/4	
1/2	152,187	1/2	167,265	1/2	182,327	1/2	197,354	1/2	211,990	1/2		1/2		1/2		1/2		1/2	
3/4	152,501	3/4	167,580	3/4	182,640	3/4	197,667	3/4	212,221	3/4		3/4		3/4		3/4		3/4	
2	152,815	2	167,894	2	182,953	2	197,980	2	212,453	2		2		2		2		2	
1/4	153,129	1/4	168,208	1/4	183,266	1/4	198,293	1/4	212,632	1/4		1/4		1/4		1/4		1/4	
1/2	153,443	1/2	168,522	1/2	183,579	1/2	198,607	1/2	212,811	1/2		1/2		1/2		1/2		1/2	
3/4	153,758	3/4	168,836	3/4	183,892	3/4	198,920	3/4	212,990	3/4		3/4		3/4		3/4		3/4	
3	154,072	3	169,150	3	184,205	3	199,233	3	213,170	3		3		3		3		3	
1/4	154,386	1/4	169,464	1/4	184,518	1/4	199,546	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,700	1/2	169,779	1/2	184,831	1/2	199,859	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,014	3/4	170,093	3/4	185,145	3/4	200,172	3/4		3/4		3/4		3/4		3/4		3/4	
4	155,328	4	170,407	4	185,458	4	200,485	4		4		4		4		4		4	
1/4	155,642	1/4	170,721	1/4	185,771	1/4	200,798	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,957	1/2	171,035	1/2	186,084	1/2	201,111	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,271	3/4	171,349	3/4	186,397	3/4	201,424	3/4		3/4		3/4		3/4		3/4		3/4	
5	156,585	5	171,663	5	186,710	5	201,737	5		5		5		5		5		5	
1/4	156,899	1/4	171,977	1/4	187,023	1/4	202,049	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,213	1/2	172,292	1/2	187,336	1/2	202,360	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,527	3/4	172,606	3/4	187,649	3/4	202,672	3/4		3/4		3/4		3/4		3/4		3/4	
6	157,841	6	172,920	6	187,962	6	202,983	6		6		6		6		6		6	
1/4	158,155	1/4	173,234	1/4	188,275	1/4	203,293	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,470	1/2	173,548	1/2	188,588	1/2	203,603	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,784	3/4	173,862	3/4	188,901	3/4	203,913	3/4		3/4		3/4		3/4		3/4		3/4	
7	159,098	7	174,176	7	189,214	7	204,223	7		7		7		7		7		7	
1/4	159,412	1/4	174,491	1/4	189,528	1/4	204,533	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,726	1/2	174,805	1/2	189,841	1/2	204,843	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,040	3/4	175,119	3/4	190,154	3/4	205,153	3/4		3/4		3/4		3/4		3/4		3/4	
8	160,354	8	175,433	8	190,467	8	205,463	8		8		8		8		8		8	
1/4	160,669	1/4	175,747	1/4	190,780	1/4	205,774	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	160,983	1/2	176,061	1/2	191,093	1/2	206,084	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,297	3/4	176,375	3/4	191,406	3/4	206,394	3/4		3/4		3/4		3/4		3/4		3/4	
9	161,611	9	176,690	9	191,719	9	206,704	9		9		9		9		9		9	
1/4	161,925	1/4	177,003	1/4	192,032	1/4	207,014	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,239	1/2	177,317	1/2	192,345	1/2	207,324	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,553	3/4	177,630	3/4	192,658	3/4	207,634	3/4		3/4		3/4		3/4		3/4		3/4	
10	162,868	10	177,944	10	192,971	10	207,944	10		10		10		10		10		10	
1/4	163,182	1/4	178,257	1/4	193,284	1/4	208,254	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	163,496	1/2	178,570	1/2	193,597	1/2	208,563	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	163,810	3/4	178,883	3/4	193,911	3/4	208,873	3/4		3/4		3/4		3/4		3/4		3/4	
11	164,124	11	179,196	11	194,224	11	209,183	11		11		11		11		11		11	
1/4	164,438	1/4	179,509	1/4	194,537	1/4	209,488	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	164,752	1/2	179,822	1/2	194,850	1/2	209,794	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	165,066	3/4	180,135	3/4	195,163	3/4	210,100	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
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BARGE "HFL 415"

2 STBD

INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	1,033	0	15,718	0	30,802	0	45,867	0	60,939	0	76,025	0	91,111	0	106,197	0	121,278	0	136,356
1/4	1,269	1/4	16,032	1/4	31,116	1/4	46,181	1/4	61,253	1/4	76,339	1/4	91,425	1/4	106,511	1/4	121,592	1/4	136,670
1/2	1,505	1/2	16,347	1/2	31,430	1/2	46,494	1/2	61,567	1/2	76,653	1/2	91,739	1/2	106,825	1/2	121,906	1/2	136,984
3/4	1,740	3/4	16,661	3/4	31,745	3/4	46,807	3/4	61,881	3/4	76,968	3/4	92,054	3/4	107,140	3/4	122,220	3/4	137,299
1	1,976	1	16,975	1	32,059	1	47,121	1	62,196	1	77,282	1	92,368	1	107,454	1	122,534	1	137,613
1/4	2,270	1/4	17,289	1/4	32,373	1/4	47,434	1/4	62,510	1/4	77,596	1/4	92,682	1/4	107,768	1/4	122,848	1/4	137,927
1/2	2,564	1/2	17,604	1/2	32,688	1/2	47,748	1/2	62,824	1/2	77,910	1/2	92,997	1/2	108,083	1/2	123,162	1/2	138,241
3/4	2,857	3/4	17,918	3/4	33,002	3/4	48,061	3/4	63,139	3/4	78,225	3/4	93,311	3/4	108,397	3/4	123,477	3/4	138,555
2	3,151	2	18,232	2	33,316	2	48,374	2	63,453	2	78,539	2	93,625	2	108,711	2	123,791	2	138,869
1/4	3,465	1/4	18,547	1/4	33,630	1/4	48,688	1/4	63,767	1/4	78,853	1/4	93,939	1/4	109,026	1/4	124,105	1/4	139,183
1/2	3,778	1/2	18,861	1/2	33,945	1/2	49,001	1/2	64,081	1/2	79,168	1/2	94,254	1/2	109,340	1/2	124,419	1/2	139,498
3/4	4,091	3/4	19,175	3/4	34,259	3/4	49,315	3/4	64,396	3/4	79,482	3/4	94,568	3/4	109,654	3/4	124,733	3/4	139,812
3	4,405	3	19,490	3	34,573	3	49,628	3	64,710	3	79,796	3	94,882	3	109,968	3	125,047	3	140,126
1/4	4,719	1/4	19,804	1/4	34,888	1/4	49,942	1/4	65,024	1/4	80,110	1/4	95,197	1/4	110,283	1/4	125,361	1/4	140,440
1/2	5,033	1/2	20,118	1/2	35,202	1/2	50,255	1/2	65,339	1/2	80,425	1/2	95,511	1/2	110,597	1/2	125,676	1/2	140,754
3/4	5,347	3/4	20,432	3/4	35,516	3/4	50,569	3/4	65,653	3/4	80,739	3/4	95,825	3/4	110,911	3/4	125,990	3/4	141,068
4	5,661	4	20,747	4	35,830	4	50,883	4	65,967	4	81,053	4	96,139	4	111,225	4	126,304	4	141,382
1/4	5,975	1/4	21,061	1/4	36,145	1/4	51,196	1/4	66,282	1/4	81,368	1/4	96,454	1/4	111,539	1/4	126,618	1/4	141,696
1/2	6,289	1/2	21,375	1/2	36,459	1/2	51,510	1/2	66,596	1/2	81,682	1/2	96,768	1/2	111,854	1/2	126,932	1/2	142,011
3/4	6,604	3/4	21,690	3/4	36,773	3/4	51,824	3/4	66,910	3/4	81,996	3/4	97,082	3/4	112,168	3/4	127,246	3/4	142,325
5	6,918	5	22,004	5	37,088	5	52,138	5	67,224	5	82,311	5	97,397	5	112,482	5	127,560	5	142,639
1/4	7,232	1/4	22,318	1/4	37,402	1/4	52,453	1/4	67,539	1/4	82,625	1/4	97,711	1/4	112,796	1/4	127,874	1/4	142,953
1/2	7,546	1/2	22,632	1/2	37,716	1/2	52,767	1/2	67,853	1/2	82,939	1/2	98,025	1/2	113,110	1/2	128,189	1/2	143,267
3/4	7,861	3/4	22,947	3/4	38,030	3/4	53,081	3/4	68,167	3/4	83,253	3/4	98,340	3/4	113,424	3/4	128,503	3/4	143,581
6	8,175	6	23,261	6	38,345	6	53,395	6	68,482	6	83,568	6	98,654	6	113,738	6	128,817	6	143,895
1/4	8,489	1/4	23,575	1/4	38,659	1/4	53,710	1/4	68,796	1/4	83,882	1/4	98,968	1/4	114,052	1/4	129,131	1/4	144,210
1/2	8,804	1/2	23,890	1/2	38,972	1/2	54,024	1/2	69,110	1/2	84,196	1/2	99,282	1/2	114,367	1/2	129,445	1/2	144,524
3/4	9,118	3/4	24,204	3/4	39,286	3/4	54,338	3/4	69,424	3/4	84,511	3/4	99,597	3/4	114,681	3/4	129,759	3/4	144,838
7	9,432	7	24,518	7	39,600	7	54,653	7	69,739	7	84,825	7	99,911	7	114,995	7	130,073	7	145,152
1/4	9,746	1/4	24,832	1/4	39,913	1/4	54,967	1/4	70,053	1/4	85,139	1/4	100,225	1/4	115,309	1/4	130,388	1/4	145,466
1/2	10,061	1/2	25,147	1/2	40,227	1/2	55,281	1/2	70,367	1/2	85,453	1/2	100,540	1/2	115,623	1/2	130,702	1/2	145,780
3/4	10,375	3/4	25,461	3/4	40,540	3/4	55,596	3/4	70,682	3/4	85,768	3/4	100,854	3/4	115,937	3/4	131,016	3/4	146,094
8	10,689	8	25,775	8	40,854	8	55,910	8	70,996	8	86,082	8	101,168	8	116,251	8	131,330	8	146,409
1/4	11,004	1/4	26,090	1/4	41,167	1/4	56,224	1/4	71,310	1/4	86,396	1/4	101,482	1/4	116,566	1/4	131,644	1/4	146,723
1/2	11,318	1/2	26,404	1/2	41,480	1/2	56,538	1/2	71,625	1/2	86,711	1/2	101,797	1/2	116,880	1/2	131,958	1/2	147,037
3/4	11,632	3/4	26,718	3/4	41,794	3/4	56,853	3/4	71,939	3/4	87,025	3/4	102,111	3/4	117,194	3/4	132,272	3/4	147,351
9	11,946	9	27,032	9	42,107	9	57,167	9	72,253	9	87,339	9	102,425	9	117,508	9	132,587	9	147,665
1/4	12,261	1/4	27,346	1/4	42,420	1/4	57,481	1/4	72,567	1/4	87,654	1/4	102,740	1/4	117,822	1/4	132,901	1/4	147,979
1/2	12,575	1/2	27,660	1/2	42,734	1/2	57,796	1/2	72,882	1/2	87,968	1/2	103,054	1/2	118,136	1/2	133,215	1/2	148,293
3/4	12,889	3/4	27,974	3/4	43,047	3/4	58,110	3/4	73,196	3/4	88,282	3/4	103,368	3/4	118,450	3/4	133,529	3/4	148,607
10	13,204	10	28,289	10	43,360	10	58,424	10	73,510	10	88,596	10	103,683	10	118,765	10	133,843	10	148,922
1/4	13,518	1/4	28,603	1/4	43,674	1/4	58,738	1/4	73,825	1/4	88,911	1/4	103,997	1/4	119,079	1/4	134,157	1/4	149,236
1/2	13,832	1/2	28,917	1/2	43,987	1/2	59,053	1/2	74,139	1/2	89,225	1/2	104,311	1/2	119,393	1/2	134,471	1/2	149,550
3/4	14,147	3/4	29,231	3/4	44,301	3/4	59,367	3/4	74,453	3/4	89,539	3/4	104,625	3/4	119,707	3/4	134,785	3/4	149,864
11	14,461	11	29,545	11	44,614	11	59,681	11	74,767	11	89,854	11	104,940	11	120,021	11	135,100	11	150,178
1/4	14,775	1/4	29,859	1/4	44,927	1/4	59,996	1/4	75,082	1/4	90,168	1/4	105,254	1/4	120,335	1/4	135,414	1/4	150,492
1/2	15,089	1/2	30,173	1/2	45,241	1/2	60,310	1/2	75,396	1/2	90,482	1/2	105,568	1/2	120,649	1/2	135,728	1/2	150,806
3/4	15,404	3/4	30,488	3/4	45,554	3/4	60,624	3/4	75,710	3/4	90,796	3/4	105,883	3/4	120,963	3/4	136,042	3/4	151,121

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 415"

**2 STBD
INNAGE TABLE**

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	151,435	0	166,513	0	181,581	0	196,609	0	211,539	0		0		0		0		0	
1/4	151,749	1/4	166,827	1/4	181,894	1/4	196,922	1/4	211,819	1/4		1/4		1/4		1/4		1/4	
1/2	152,063	1/2	167,142	1/2	182,207	1/2	197,235	1/2	212,099	1/2		1/2		1/2		1/2		1/2	
3/4	152,377	3/4	167,456	3/4	182,520	3/4	197,548	3/4	212,379	3/4		3/4		3/4		3/4		3/4	
1	152,691	1	167,770	1	182,833	1	197,861	1	212,660	1		1		1		1		1	
1/4	153,005	1/4	168,084	1/4	183,146	1/4	198,174	1/4	212,891	1/4		1/4		1/4		1/4		1/4	
1/2	153,320	1/2	168,398	1/2	183,460	1/2	198,487	1/2	213,123	1/2		1/2		1/2		1/2		1/2	
3/4	153,634	3/4	168,712	3/4	183,773	3/4	198,800	3/4	213,354	3/4		3/4		3/4		3/4		3/4	
2	153,948	2	169,026	2	184,086	2	199,113	2	213,586	2		2		2		2		2	
1/4	154,262	1/4	169,340	1/4	184,399	1/4	199,426	1/4	213,765	1/4		1/4		1/4		1/4		1/4	
1/2	154,576	1/2	169,655	1/2	184,712	1/2	199,739	1/2	213,944	1/2		1/2		1/2		1/2		1/2	
3/4	154,890	3/4	169,969	3/4	185,025	3/4	200,052	3/4	214,123	3/4		3/4		3/4		3/4		3/4	
3	155,204	3	170,283	3	185,338	3	200,365	3	214,302	3		3		3		3		3	
1/4	155,518	1/4	170,597	1/4	185,651	1/4	200,678	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,833	1/2	170,911	1/2	185,964	1/2	200,992	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,147	3/4	171,225	3/4	186,277	3/4	201,305	3/4		3/4		3/4		3/4		3/4		3/4	
4	156,461	4	171,539	4	186,590	4	201,618	4		4		4		4		4		4	
1/4	156,775	1/4	171,854	1/4	186,903	1/4	201,931	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,089	1/2	172,168	1/2	187,216	1/2	202,244	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,403	3/4	172,482	3/4	187,529	3/4	202,557	3/4		3/4		3/4		3/4		3/4		3/4	
5	157,717	5	172,796	5	187,843	5	202,870	5		5		5		5		5		5	
1/4	158,032	1/4	173,110	1/4	188,156	1/4	203,181	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,346	1/2	173,424	1/2	188,469	1/2	203,493	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,660	3/4	173,738	3/4	188,782	3/4	203,804	3/4		3/4		3/4		3/4		3/4		3/4	
6	158,974	6	174,053	6	189,095	6	204,116	6		6		6		6		6		6	
1/4	159,288	1/4	174,367	1/4	189,408	1/4	204,426	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,602	1/2	174,681	1/2	189,721	1/2	204,736	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,916	3/4	174,995	3/4	190,034	3/4	205,046	3/4		3/4		3/4		3/4		3/4		3/4	
7	160,231	7	175,309	7	190,347	7	205,356	7		7		7		7		7		7	
1/4	160,545	1/4	175,623	1/4	190,660	1/4	205,666	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	160,859	1/2	175,937	1/2	190,973	1/2	205,976	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,173	3/4	176,251	3/4	191,286	3/4	206,286	3/4		3/4		3/4		3/4		3/4		3/4	
8	161,487	8	176,566	8	191,599	8	206,596	8		8		8		8		8		8	
1/4	161,801	1/4	176,880	1/4	191,912	1/4	206,906	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,115	1/2	177,194	1/2	192,226	1/2	207,216	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,429	3/4	177,508	3/4	192,539	3/4	207,526	3/4		3/4		3/4		3/4		3/4		3/4	
9	162,744	9	177,822	9	192,852	9	207,837	9		9		9		9		9		9	
1/4	163,058	1/4	178,136	1/4	193,165	1/4	208,147	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	163,372	1/2	178,449	1/2	193,478	1/2	208,457	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	163,686	3/4	178,763	3/4	193,791	3/4	208,767	3/4		3/4		3/4		3/4		3/4		3/4	
10	164,000	10	179,077	10	194,104	10	209,077	10		10		10		10		10		10	
1/4	164,314	1/4	179,390	1/4	194,417	1/4	209,386	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	164,628	1/2	179,703	1/2	194,730	1/2	209,696	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	164,943	3/4	180,016	3/4	195,043	3/4	210,006	3/4		3/4		3/4		3/4		3/4		3/4	
11	165,257	11	180,329	11	195,356	11	210,315	11		11		11		11		11		11	
1/4	165,571	1/4	180,642	1/4	195,669	1/4	210,621	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	165,885	1/2	180,955	1/2	195,982	1/2	210,927	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	166,199	3/4	181,268	3/4	196,295	3/4	211,233	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 415"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	1,028	0	15,638	0	30,631	0	45,395	0	59,956	0	74,870	0	89,841	0	104,823	0	119,795	0	134,764
1/4	1,263	1/4	15,950	1/4	30,943	1/4	45,697	1/4	60,268	1/4	75,181	1/4	90,153	1/4	105,135	1/4	120,107	1/4	135,076
1/2	1,498	1/2	16,262	1/2	31,255	1/2	45,998	1/2	60,580	1/2	75,491	1/2	90,465	1/2	105,448	1/2	120,419	1/2	135,388
3/4	1,732	3/4	16,575	3/4	31,568	3/4	46,300	3/4	60,892	3/4	75,801	3/4	90,777	3/4	105,760	3/4	120,731	3/4	135,700
1	1,967	1	16,887	1	31,880	1	46,602	1	61,204	1	76,112	1	91,089	1	106,072	1	121,043	1	136,012
1/4	2,259	1/4	17,200	1/4	32,193	1/4	46,904	1/4	61,516	1/4	76,422	1/4	91,401	1/4	106,384	1/4	121,355	1/4	136,323
1/2	2,552	1/2	17,512	1/2	32,505	1/2	47,206	1/2	61,828	1/2	76,732	1/2	91,713	1/2	106,696	1/2	121,666	1/2	136,635
3/4	2,845	3/4	17,824	3/4	32,817	3/4	47,508	3/4	62,140	3/4	77,043	3/4	92,025	3/4	107,008	3/4	121,978	3/4	136,947
2	3,137	2	18,137	2	33,130	2	47,810	2	62,452	2	77,353	2	92,337	2	107,321	2	122,290	2	137,259
1/4	3,449	1/4	18,449	1/4	33,442	1/4	48,113	1/4	62,763	1/4	77,665	1/4	92,649	1/4	107,632	1/4	122,602	1/4	137,571
1/2	3,761	1/2	18,762	1/2	33,755	1/2	48,415	1/2	63,075	1/2	77,976	1/2	92,961	1/2	107,944	1/2	122,914	1/2	137,883
3/4	4,073	3/4	19,074	3/4	34,067	3/4	48,718	3/4	63,386	3/4	78,287	3/4	93,273	3/4	108,256	3/4	123,226	3/4	138,195
3	4,385	3	19,386	3	34,379	3	49,021	3	63,697	3	78,599	3	93,585	3	108,568	3	123,538	3	138,506
1/4	4,697	1/4	19,699	1/4	34,691	1/4	49,323	1/4	64,007	1/4	78,911	1/4	93,897	1/4	108,880	1/4	123,849	1/4	138,818
1/2	5,010	1/2	20,011	1/2	35,003	1/2	49,626	1/2	64,318	1/2	79,223	1/2	94,209	1/2	109,192	1/2	124,161	1/2	139,130
3/4	5,322	3/4	20,324	3/4	35,315	3/4	49,928	3/4	64,628	3/4	79,536	3/4	94,521	3/4	109,504	3/4	124,473	3/4	139,442
4	5,635	4	20,636	4	35,627	4	50,231	4	64,938	4	79,848	4	94,833	4	109,816	4	124,785	4	139,754
1/4	5,947	1/4	20,948	1/4	35,935	1/4	50,533	1/4	65,249	1/4	80,160	1/4	95,145	1/4	110,128	1/4	125,097	1/4	140,066
1/2	6,260	1/2	21,261	1/2	36,243	1/2	50,836	1/2	65,559	1/2	80,473	1/2	95,457	1/2	110,440	1/2	125,409	1/2	140,377
3/4	6,573	3/4	21,573	3/4	36,551	3/4	51,138	3/4	65,870	3/4	80,785	3/4	95,769	3/4	110,752	3/4	125,720	3/4	140,689
5	6,885	5	21,886	5	36,860	5	51,441	5	66,180	5	81,097	5	96,081	5	111,063	5	126,032	5	141,001
1/4	7,198	1/4	22,198	1/4	37,165	1/4	51,743	1/4	66,490	1/4	81,410	1/4	96,393	1/4	111,375	1/4	126,344	1/4	141,313
1/2	7,510	1/2	22,510	1/2	37,470	1/2	52,046	1/2	66,801	1/2	81,722	1/2	96,705	1/2	111,687	1/2	126,656	1/2	141,624
3/4	7,823	3/4	22,823	3/4	37,775	3/4	52,348	3/4	67,111	3/4	82,034	3/4	97,017	3/4	111,999	3/4	126,968	3/4	141,936
6	8,136	6	23,135	6	38,080	6	52,651	6	67,421	6	82,347	6	97,329	6	112,311	6	127,280	6	142,247
1/4	8,448	1/4	23,448	1/4	38,385	1/4	52,953	1/4	67,732	1/4	82,659	1/4	97,641	1/4	112,623	1/4	127,592	1/4	142,554
1/2	8,761	1/2	23,760	1/2	38,690	1/2	53,256	1/2	68,042	1/2	82,971	1/2	97,953	1/2	112,935	1/2	127,903	1/2	142,861
3/4	9,074	3/4	24,072	3/4	38,995	3/4	53,558	3/4	68,353	3/4	83,284	3/4	98,265	3/4	113,246	3/4	128,215	3/4	143,169
7	9,387	7	24,385	7	39,300	7	53,861	7	68,663	7	83,596	7	98,578	7	113,558	7	128,527	7	143,476
1/4	9,700	1/4	24,697	1/4	39,605	1/4	54,164	1/4	68,973	1/4	83,908	1/4	98,890	1/4	113,870	1/4	128,839	1/4	143,770
1/2	10,013	1/2	25,009	1/2	39,910	1/2	54,466	1/2	69,284	1/2	84,221	1/2	99,202	1/2	114,182	1/2	129,151	1/2	144,065
3/4	10,325	3/4	25,322	3/4	40,215	3/4	54,769	3/4	69,594	3/4	84,533	3/4	99,514	3/4	114,494	3/4	129,463	3/4	144,360
8	10,638	8	25,634	8	40,520	8	55,071	8	69,904	8	84,845	8	99,827	8	114,806	8	129,775	8	144,655
1/4	10,951	1/4	25,947	1/4	40,826	1/4	55,374	1/4	70,215	1/4	85,158	1/4	100,139	1/4	115,117	1/4	130,086	1/4	144,933
1/2	11,264	1/2	26,259	1/2	41,131	1/2	55,676	1/2	70,525	1/2	85,470	1/2	100,451	1/2	115,429	1/2	130,398	1/2	145,212
3/4	11,576	3/4	26,571	3/4	41,436	3/4	55,979	3/4	70,835	3/4	85,782	3/4	100,763	3/4	115,741	3/4	130,710	3/4	145,491
9	11,889	9	26,884	9	41,741	9	56,281	9	71,146	9	86,095	9	101,076	9	116,053	9	131,022	9	145,769
1/4	12,201	1/4	27,196	1/4	42,046	1/4	56,585	1/4	71,456	1/4	86,407	1/4	101,388	1/4	116,365	1/4	131,334	1/4	146,032
1/2	12,514	1/2	27,508	1/2	42,351	1/2	56,889	1/2	71,767	1/2	86,719	1/2	101,700	1/2	116,677	1/2	131,646	1/2	146,295
3/4	12,826	3/4	27,820	3/4	42,656	3/4	57,194	3/4	72,077	3/4	87,032	3/4	102,013	3/4	116,989	3/4	131,958	3/4	146,558
10	13,138	10	28,132	10	42,961	10	57,498	10	72,387	10	87,344	10	102,325	10	117,300	10	132,269	10	146,821
1/4	13,451	1/4	28,445	1/4	43,266	1/4	57,803	1/4	72,698	1/4	87,656	1/4	102,637	1/4	117,612	1/4	132,581	1/4	147,068
1/2	13,763	1/2	28,757	1/2	43,571	1/2	58,109	1/2	73,008	1/2	87,968	1/2	102,949	1/2	117,924	1/2	132,893	1/2	147,316
3/4	14,076	3/4	29,069	3/4	43,876	3/4	58,415	3/4	73,318	3/4	88,280	3/4	103,262	3/4	118,236	3/4	133,205	3/4	147,563
11	14,388	11	29,381	11	44,181	11	58,721	11	73,629	11	88,593	11	103,574	11	118,548	11	133,517	11	147,810
1/4	14,700	1/4	29,694	1/4	44,485	1/4	59,029	1/4	73,939	1/4	88,905	1/4	103,886	1/4	118,860	1/4	133,829	1/4	148,041
1/2	15,013	1/2	30,006	1/2	44,788	1/2	59,338	1/2	74,250	1/2	89,217	1/2	104,198	1/2	119,172	1/2	134,140	1/2	148,273
3/4	15,325	3/4	30,318	3/4	45,092	3/4	59,647	3/4	74,560	3/4	89,529	3/4	104,511	3/4	119,483	3/4	134,452	3/4	148,504

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 415"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	148,735	0	159,120	0	169,483	0	179,817	0	190,137	0		0		0		0		0	
1/4	148,955	1/4	159,336	1/4	169,698	1/4	180,033	1/4	190,330	1/4		1/4		1/4		1/4		1/4	
1/2	149,174	1/2	159,552	1/2	169,914	1/2	180,248	1/2	190,523	1/2		1/2		1/2		1/2		1/2	
3/4	149,394	3/4	159,768	3/4	170,129	3/4	180,463	3/4	190,716	3/4		3/4		3/4		3/4		3/4	
1	149,613	1	159,984	1	170,344	1	180,678	1	190,909	1		1		1		1		1	
1/4	149,829	1/4	160,200	1/4	170,559	1/4	180,894	1/4	191,069	1/4		1/4		1/4		1/4		1/4	
1/2	150,045	1/2	160,416	1/2	170,775	1/2	181,109	1/2	191,229	1/2		1/2		1/2		1/2		1/2	
3/4	150,261	3/4	160,632	3/4	170,990	3/4	181,324	3/4	191,389	3/4		3/4		3/4		3/4		3/4	
2	150,477	2	160,848	2	171,205	2	181,540	2	191,548	2		2		2		2		2	
1/4	150,694	1/4	161,064	1/4	171,421	1/4	181,755	1/4	191,672	1/4		1/4		1/4		1/4		1/4	
1/2	150,910	1/2	161,280	1/2	171,636	1/2	181,970	1/2	191,796	1/2		1/2		1/2		1/2		1/2	
3/4	151,126	3/4	161,496	3/4	171,851	3/4	182,186	3/4	191,919	3/4		3/4		3/4		3/4		3/4	
3	151,342	3	161,712	3	172,067	3	182,401	3	192,043	3		3		3		3		3	
1/4	151,558	1/4	161,929	1/4	172,282	1/4	182,616	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	151,774	1/2	162,145	1/2	172,497	1/2	182,831	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	151,990	3/4	162,361	3/4	172,712	3/4	183,047	3/4		3/4		3/4		3/4		3/4		3/4	
4	152,206	4	162,577	4	172,928	4	183,262	4		4		4		4		4		4	
1/4	152,422	1/4	162,793	1/4	173,143	1/4	183,477	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,638	1/2	163,009	1/2	173,358	1/2	183,693	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,854	3/4	163,225	3/4	173,574	3/4	183,908	3/4		3/4		3/4		3/4		3/4		3/4	
5	153,070	5	163,441	5	173,789	5	184,123	5		5		5		5		5		5	
1/4	153,286	1/4	163,657	1/4	174,004	1/4	184,339	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,502	1/2	163,873	1/2	174,220	1/2	184,554	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,718	3/4	164,089	3/4	174,435	3/4	184,769	3/4		3/4		3/4		3/4		3/4		3/4	
6	153,934	6	164,305	6	174,650	6	184,984	6		6		6		6		6		6	
1/4	154,150	1/4	164,521	1/4	174,865	1/4	185,200	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,367	1/2	164,737	1/2	175,081	1/2	185,415	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	154,583	3/4	164,953	3/4	175,296	3/4	185,630	3/4		3/4		3/4		3/4		3/4		3/4	
7	154,799	7	165,169	7	175,511	7	185,846	7		7		7		7		7		7	
1/4	155,015	1/4	165,385	1/4	175,727	1/4	186,061	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,231	1/2	165,602	1/2	175,942	1/2	186,276	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,447	3/4	165,818	3/4	176,157	3/4	186,492	3/4		3/4		3/4		3/4		3/4		3/4	
8	155,663	8	166,034	8	176,372	8	186,707	8		8		8		8		8		8	
1/4	155,879	1/4	166,250	1/4	176,588	1/4	186,922	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,095	1/2	166,466	1/2	176,803	1/2	187,138	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,311	3/4	166,682	3/4	177,018	3/4	187,353	3/4		3/4		3/4		3/4		3/4		3/4	
9	156,527	9	166,898	9	177,234	9	187,569	9		9		9		9		9		9	
1/4	156,743	1/4	167,114	1/4	177,449	1/4	187,784	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,959	1/2	167,329	1/2	177,664	1/2	187,999	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,175	3/4	167,545	3/4	177,880	3/4	188,215	3/4		3/4		3/4		3/4		3/4		3/4	
10	157,391	10	167,761	10	178,095	10	188,430	10		10		10		10		10		10	
1/4	157,607	1/4	167,976	1/4	178,310	1/4	188,645	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,823	1/2	168,191	1/2	178,525	1/2	188,860	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,040	3/4	168,406	3/4	178,741	3/4	189,075	3/4		3/4		3/4		3/4		3/4		3/4	
11	158,256	11	168,622	11	178,956	11	189,290	11		11		11		11		11		11	
1/4	158,472	1/4	168,837	1/4	179,171	1/4	189,502	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,688	1/2	169,052	1/2	179,387	1/2	189,714	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,904	3/4	169,268	3/4	179,602	3/4	189,925	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
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BARGE "HFL 415"

3 STBD

INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	1,028	0	15,646	0	30,662	0	45,663	0	60,679	0	75,696	0	90,713	0	105,730	0	120,731	0	135,728
1/4	1,263	1/4	15,959	1/4	30,975	1/4	45,976	1/4	60,991	1/4	76,009	1/4	91,026	1/4	106,043	1/4	121,043	1/4	136,040
1/2	1,498	1/2	16,271	1/2	31,288	1/2	46,288	1/2	61,304	1/2	76,321	1/2	91,339	1/2	106,356	1/2	121,355	1/2	136,353
3/4	1,732	3/4	16,584	3/4	31,601	3/4	46,601	3/4	61,617	3/4	76,634	3/4	91,651	3/4	106,669	3/4	121,668	3/4	136,665
1	1,967	1	16,897	1	31,914	1	46,913	1	61,930	1	76,947	1	91,964	1	106,981	1	121,980	1	136,977
1/4	2,259	1/4	17,210	1/4	32,227	1/4	47,226	1/4	62,243	1/4	77,260	1/4	92,277	1/4	107,294	1/4	122,293	1/4	137,290
1/2	2,552	1/2	17,523	1/2	32,539	1/2	47,539	1/2	62,556	1/2	77,573	1/2	92,590	1/2	107,607	1/2	122,605	1/2	137,602
3/4	2,844	3/4	17,836	3/4	32,852	3/4	47,852	3/4	62,869	3/4	77,886	3/4	92,903	3/4	107,920	3/4	122,918	3/4	137,915
2	3,137	2	18,148	2	33,165	2	48,164	2	63,181	2	78,199	2	93,216	2	108,232	2	123,230	2	138,227
1/4	3,449	1/4	18,461	1/4	33,478	1/4	48,477	1/4	63,494	1/4	78,511	1/4	93,529	1/4	108,545	1/4	123,542	1/4	138,540
1/2	3,761	1/2	18,774	1/2	33,791	1/2	48,790	1/2	63,807	1/2	78,824	1/2	93,841	1/2	108,857	1/2	123,855	1/2	138,852
3/4	4,072	3/4	19,087	3/4	34,104	3/4	49,103	3/4	64,120	3/4	79,137	3/4	94,154	3/4	109,170	3/4	124,167	3/4	139,165
3	4,384	3	19,400	3	34,417	3	49,416	3	64,433	3	79,450	3	94,467	3	109,482	3	124,480	3	139,477
1/4	4,697	1/4	19,713	1/4	34,729	1/4	49,729	1/4	64,746	1/4	79,763	1/4	94,780	1/4	109,795	1/4	124,792	1/4	139,789
1/2	5,009	1/2	20,026	1/2	35,042	1/2	50,041	1/2	65,059	1/2	80,076	1/2	95,093	1/2	110,107	1/2	125,105	1/2	140,102
3/4	5,322	3/4	20,338	3/4	35,354	3/4	50,354	3/4	65,371	3/4	80,389	3/4	95,406	3/4	110,420	3/4	125,417	3/4	140,414
4	5,635	4	20,651	4	35,667	4	50,667	4	65,684	4	80,701	4	95,719	4	110,732	4	125,730	4	140,727
1/4	5,947	1/4	20,964	1/4	35,979	1/4	50,980	1/4	65,997	1/4	81,014	1/4	96,031	1/4	111,045	1/4	126,042	1/4	141,039
1/2	6,260	1/2	21,277	1/2	36,292	1/2	51,293	1/2	66,310	1/2	81,327	1/2	96,344	1/2	111,357	1/2	126,354	1/2	141,351
3/4	6,573	3/4	21,590	3/4	36,604	3/4	51,606	3/4	66,623	3/4	81,640	3/4	96,657	3/4	111,670	3/4	126,667	3/4	141,664
5	6,886	5	21,903	5	36,916	5	51,919	5	66,936	5	81,953	5	96,970	5	111,982	5	126,979	5	141,976
1/4	7,199	1/4	22,215	1/4	37,229	1/4	52,231	1/4	67,249	1/4	82,266	1/4	97,283	1/4	112,295	1/4	127,292	1/4	142,288
1/2	7,512	1/2	22,528	1/2	37,541	1/2	52,544	1/2	67,561	1/2	82,579	1/2	97,596	1/2	112,607	1/2	127,604	1/2	142,600
3/4	7,824	3/4	22,841	3/4	37,854	3/4	52,857	3/4	67,874	3/4	82,891	3/4	97,909	3/4	112,920	3/4	127,917	3/4	142,913
6	8,137	6	23,154	6	38,166	6	53,170	6	68,187	6	83,204	6	98,221	6	113,232	6	128,229	6	143,225
1/4	8,450	1/4	23,467	1/4	38,478	1/4	53,483	1/4	68,500	1/4	83,517	1/4	98,534	1/4	113,544	1/4	128,542	1/4	143,532
1/2	8,763	1/2	23,780	1/2	38,791	1/2	53,796	1/2	68,813	1/2	83,830	1/2	98,847	1/2	113,857	1/2	128,854	1/2	143,840
3/4	9,076	3/4	24,093	3/4	39,103	3/4	54,109	3/4	69,126	3/4	84,143	3/4	99,160	3/4	114,169	3/4	129,166	3/4	144,148
7	9,389	7	24,405	7	39,415	7	54,421	7	69,439	7	84,456	7	99,473	7	114,482	7	129,479	7	144,456
1/4	9,702	1/4	24,718	1/4	39,728	1/4	54,734	1/4	69,751	1/4	84,769	1/4	99,786	1/4	114,794	1/4	129,791	1/4	144,751
1/2	10,014	1/2	25,031	1/2	40,040	1/2	55,047	1/2	70,064	1/2	85,081	1/2	100,099	1/2	115,107	1/2	130,104	1/2	145,046
3/4	10,327	3/4	25,344	3/4	40,352	3/4	55,360	3/4	70,377	3/4	85,394	3/4	100,411	3/4	115,419	3/4	130,416	3/4	145,342
8	10,640	8	25,657	8	40,665	8	55,673	8	70,690	8	85,707	8	100,724	8	115,731	8	130,729	8	145,637
1/4	10,953	1/4	25,970	1/4	40,977	1/4	55,986	1/4	71,003	1/4	86,020	1/4	101,037	1/4	116,044	1/4	131,041	1/4	145,916
1/2	11,266	1/2	26,283	1/2	41,289	1/2	56,299	1/2	71,316	1/2	86,333	1/2	101,350	1/2	116,356	1/2	131,353	1/2	146,195
3/4	11,579	3/4	26,595	3/4	41,602	3/4	56,611	3/4	71,629	3/4	86,646	3/4	101,663	3/4	116,669	3/4	131,666	3/4	146,475
9	11,892	9	26,908	9	41,914	9	56,924	9	71,941	9	86,959	9	101,976	9	116,981	9	131,978	9	146,754
1/4	12,204	1/4	27,221	1/4	42,227	1/4	57,237	1/4	72,254	1/4	87,271	1/4	102,289	1/4	117,294	1/4	132,291	1/4	147,017
1/2	12,517	1/2	27,534	1/2	42,539	1/2	57,550	1/2	72,567	1/2	87,584	1/2	102,601	1/2	117,606	1/2	132,603	1/2	147,280
3/4	12,830	3/4	27,847	3/4	42,851	3/4	57,863	3/4	72,880	3/4	87,897	3/4	102,914	3/4	117,919	3/4	132,916	3/4	147,544
10	13,143	10	28,160	10	43,164	10	58,176	10	73,193	10	88,210	10	103,227	10	118,231	10	133,228	10	147,807
1/4	13,456	1/4	28,472	1/4	43,476	1/4	58,489	1/4	73,506	1/4	88,523	1/4	103,540	1/4	118,543	1/4	133,541	1/4	148,054
1/2	13,769	1/2	28,785	1/2	43,788	1/2	58,801	1/2	73,819	1/2	88,836	1/2	103,853	1/2	118,856	1/2	133,853	1/2	148,302
3/4	14,081	3/4	29,098	3/4	44,101	3/4	59,114	3/4	74,131	3/4	89,149	3/4	104,166	3/4	119,168	3/4	134,165	3/4	148,549
11	14,394	11	29,411	11	44,413	11	59,427	11	74,444	11	89,461	11	104,479	11	119,481	11	134,478	11	148,796
1/4	14,707	1/4	29,724	1/4	44,726	1/4	59,740	1/4	74,757	1/4	89,774	1/4	104,791	1/4	119,793	1/4	134,790	1/4	149,027
1/2	15,020	1/2	30,037	1/2	45,038	1/2	60,053	1/2	75,070	1/2	90,087	1/2	105,104	1/2	120,106	1/2	135,103	1/2	149,258
3/4	15,333	3/4	30,350	3/4	45,351	3/4	60,366	3/4	75,383	3/4	90,400	3/4	105,417	3/4	120,418	3/4	135,415	3/4	149,490

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 415"

**3 STBD
INNAGE TABLE**

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	149,721	0	160,103	0	170,463	0	180,794	0	191,110	0		0		0		0		0	
1/4	149,940	1/4	160,319	1/4	170,678	1/4	181,009	1/4	191,303	1/4		1/4		1/4		1/4		1/4	
1/2	150,160	1/2	160,535	1/2	170,893	1/2	181,224	1/2	191,496	1/2		1/2		1/2		1/2		1/2	
3/4	150,379	3/4	160,751	3/4	171,108	3/4	181,439	3/4	191,689	3/4		3/4		3/4		3/4		3/4	
1	150,599	1	160,967	1	171,323	1	181,655	1	191,882	1		1		1		1		1	
1/4	150,815	1/4	161,182	1/4	171,539	1/4	181,870	1/4	192,042	1/4		1/4		1/4		1/4		1/4	
1/2	151,031	1/2	161,398	1/2	171,754	1/2	182,085	1/2	192,202	1/2		1/2		1/2		1/2		1/2	
3/4	151,247	3/4	161,614	3/4	171,969	3/4	182,300	3/4	192,361	3/4		3/4		3/4		3/4		3/4	
2	151,463	2	161,830	2	172,184	2	182,515	2	192,521	2		2		2		2		2	
1/4	151,679	1/4	162,046	1/4	172,400	1/4	182,731	1/4	192,645	1/4		1/4		1/4		1/4		1/4	
1/2	151,895	1/2	162,262	1/2	172,615	1/2	182,946	1/2	192,768	1/2		1/2		1/2		1/2		1/2	
3/4	152,111	3/4	162,478	3/4	172,830	3/4	183,161	3/4	192,892	3/4		3/4		3/4		3/4		3/4	
3	152,327	3	162,694	3	173,045	3	183,376	3	193,015	3		3		3		3		3	
1/4	152,543	1/4	162,910	1/4	173,261	1/4	183,592	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,759	1/2	163,126	1/2	173,476	1/2	183,807	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,975	3/4	163,342	3/4	173,691	3/4	184,022	3/4		3/4		3/4		3/4		3/4		3/4	
4	153,191	4	163,558	4	173,906	4	184,237	4		4		4		4		4		4	
1/4	153,407	1/4	163,774	1/4	174,121	1/4	184,453	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,623	1/2	163,990	1/2	174,337	1/2	184,668	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,839	3/4	164,206	3/4	174,552	3/4	184,883	3/4		3/4		3/4		3/4		3/4		3/4	
5	154,055	5	164,422	5	174,767	5	185,098	5		5		5		5		5		5	
1/4	154,271	1/4	164,638	1/4	174,982	1/4	185,313	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,487	1/2	164,854	1/2	175,198	1/2	185,529	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	154,703	3/4	165,070	3/4	175,413	3/4	185,744	3/4		3/4		3/4		3/4		3/4		3/4	
6	154,919	6	165,286	6	175,628	6	185,959	6		6		6		6		6		6	
1/4	155,135	1/4	165,502	1/4	175,843	1/4	186,174	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,351	1/2	165,718	1/2	176,059	1/2	186,390	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,567	3/4	165,934	3/4	176,274	3/4	186,605	3/4		3/4		3/4		3/4		3/4		3/4	
7	155,783	7	166,150	7	176,489	7	186,820	7		7		7		7		7		7	
1/4	155,999	1/4	166,366	1/4	176,704	1/4	187,035	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,215	1/2	166,582	1/2	176,919	1/2	187,251	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,431	3/4	166,798	3/4	177,135	3/4	187,466	3/4		3/4		3/4		3/4		3/4		3/4	
8	156,647	8	167,014	8	177,350	8	187,681	8		8		8		8		8		8	
1/4	156,863	1/4	167,230	1/4	177,565	1/4	187,897	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,079	1/2	167,446	1/2	177,780	1/2	188,112	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,295	3/4	167,662	3/4	177,996	3/4	188,327	3/4		3/4		3/4		3/4		3/4		3/4	
9	157,511	9	167,878	9	178,211	9	188,543	9		9		9		9		9		9	
1/4	157,727	1/4	168,094	1/4	178,426	1/4	188,758	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,943	1/2	168,309	1/2	178,641	1/2	188,973	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,159	3/4	168,525	3/4	178,857	3/4	189,188	3/4		3/4		3/4		3/4		3/4		3/4	
10	158,375	10	168,741	10	179,072	10	189,404	10		10		10		10		10		10	
1/4	158,591	1/4	168,956	1/4	179,287	1/4	189,619	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,807	1/2	169,171	1/2	179,502	1/2	189,834	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,023	3/4	169,386	3/4	179,717	3/4	190,049	3/4		3/4		3/4		3/4		3/4		3/4	
11	159,239	11	169,602	11	179,933	11	190,264	11		11		11		11		11		11	
1/4	159,455	1/4	169,817	1/4	180,148	1/4	190,475	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,671	1/2	170,032	1/2	180,363	1/2	190,687	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,887	3/4	170,247	3/4	180,578	3/4	190,899	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW
CALCULATED: 02/22/2012 CL
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
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BARGE "HFL 415"

PORT SLOP INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	96	0	1,249	0	2,402	0	3,553	0	4,706	0		0		0		0		0	
1/4	120	1/4	1,273	1/4	2,426	1/4	3,578	1/4	4,730	1/4		1/4		1/4		1/4		1/4	
1/2	144	1/2	1,297	1/2	2,449	1/2	3,602	1/2	4,754	1/2		1/2		1/2		1/2		1/2	
3/4	168	3/4	1,321	3/4	2,473	3/4	3,626	3/4	4,777	3/4		3/4		3/4		3/4		3/4	
1	192	1	1,345	1	2,497	1	3,650	1	4,801	1		1		1		1		1	
1/4	216	1/4	1,369	1/4	2,521	1/4	3,674	1/4	4,825	1/4		1/4		1/4		1/4		1/4	
1/2	240	1/2	1,393	1/2	2,545	1/2	3,698	1/2	4,848	1/2		1/2		1/2		1/2		1/2	
3/4	264	3/4	1,417	3/4	2,569	3/4	3,722	3/4	4,872	3/4		3/4		3/4		3/4		3/4	
2	288	2	1,441	2	2,593	2	3,746	2	4,896	2		2		2		2		2	
1/4	312	1/4	1,465	1/4	2,617	1/4	3,770	1/4	4,919	1/4		1/4		1/4		1/4		1/4	
1/2	336	1/2	1,489	1/2	2,641	1/2	3,794	1/2	4,943	1/2		1/2		1/2		1/2		1/2	
3/4	360	3/4	1,513	3/4	2,665	3/4	3,818	3/4	4,967	3/4		3/4		3/4		3/4		3/4	
3	384	3	1,537	3	2,689	3	3,842	3	4,990	3		3		3		3		3	
1/4	408	1/4	1,561	1/4	2,713	1/4	3,866	1/4	5,014	1/4		1/4		1/4		1/4		1/4	
1/2	432	1/2	1,585	1/2	2,737	1/2	3,890	1/2	5,037	1/2		1/2		1/2		1/2		1/2	
3/4	456	3/4	1,609	3/4	2,761	3/4	3,914	3/4	5,061	3/4		3/4		3/4		3/4		3/4	
4	480	4	1,633	4	2,785	4	3,938	4	5,084	4		4		4		4		4	
1/4	504	1/4	1,657	1/4	2,809	1/4	3,962	1/4	5,096	1/4		1/4		1/4		1/4		1/4	
1/2	528	1/2	1,681	1/2	2,833	1/2	3,986	1/2	5,108	1/2		1/2		1/2		1/2		1/2	
3/4	552	3/4	1,705	3/4	2,857	3/4	4,010	3/4	5,119	3/4		3/4		3/4		3/4		3/4	
5	577	5	1,729	5	2,881	5	4,034	5	5,131	5		5		5		5		5	
1/4	601	1/4	1,753	1/4	2,905	1/4	4,058	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	625	1/2	1,777	1/2	2,929	1/2	4,082	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	649	3/4	1,801	3/4	2,953	3/4	4,106	3/4		3/4		3/4		3/4		3/4		3/4	
6	673	6	1,825	6	2,977	6	4,130	6		6		6		6		6		6	
1/4	697	1/4	1,849	1/4	3,001	1/4	4,154	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	721	1/2	1,873	1/2	3,025	1/2	4,178	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	745	3/4	1,897	3/4	3,049	3/4	4,202	3/4		3/4		3/4		3/4		3/4		3/4	
7	769	7	1,921	7	3,073	7	4,226	7		7		7		7		7		7	
1/4	793	1/4	1,945	1/4	3,097	1/4	4,250	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	817	1/2	1,969	1/2	3,121	1/2	4,274	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	841	3/4	1,993	3/4	3,145	3/4	4,298	3/4		3/4		3/4		3/4		3/4		3/4	
8	865	8	2,017	8	3,169	8	4,322	8		8		8		8		8		8	
1/4	889	1/4	2,042	1/4	3,193	1/4	4,346	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	913	1/2	2,066	1/2	3,217	1/2	4,370	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	937	3/4	2,090	3/4	3,241	3/4	4,394	3/4		3/4		3/4		3/4		3/4		3/4	
9	961	9	2,114	9	3,265	9	4,418	9		9		9		9		9		9	
1/4	985	1/4	2,138	1/4	3,289	1/4	4,442	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,009	1/2	2,162	1/2	3,313	1/2	4,466	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,033	3/4	2,186	3/4	3,337	3/4	4,490	3/4		3/4		3/4		3/4		3/4		3/4	
10	1,057	10	2,210	10	3,361	10	4,514	10		10		10		10		10		10	
1/4	1,081	1/4	2,234	1/4	3,385	1/4	4,538	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,105	1/2	2,258	1/2	3,409	1/2	4,562	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,129	3/4	2,282	3/4	3,433	3/4	4,586	3/4		3/4		3/4		3/4		3/4		3/4	
11	1,153	11	2,306	11	3,457	11	4,610	11		11		11		11		11		11	
1/4	1,177	1/4	2,330	1/4	3,481	1/4	4,634	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,201	1/2	2,354	1/2	3,505	1/2	4,658	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,225	3/4	2,378	3/4	3,529	3/4	4,682	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 02/15/2012 CL - SW

CALCULATED: 02/16/2012 CL

PRINTED: 02/16/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 415"

STBD SLOP INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01 1/2"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	96	0	1,249	0	2,402	0	3,553	0	4,706	0		0		0		0		0	
1/4	120	1/4	1,273	1/4	2,426	1/4	3,578	1/4	4,730	1/4		1/4		1/4		1/4		1/4	
1/2	144	1/2	1,297	1/2	2,449	1/2	3,602	1/2	4,754	1/2		1/2		1/2		1/2		1/2	
3/4	168	3/4	1,321	3/4	2,473	3/4	3,626	3/4	4,777	3/4		3/4		3/4		3/4		3/4	
1	192	1	1,345	1	2,497	1	3,650	1	4,801	1		1		1		1		1	
1/4	216	1/4	1,369	1/4	2,521	1/4	3,674	1/4	4,825	1/4		1/4		1/4		1/4		1/4	
1/2	240	1/2	1,393	1/2	2,545	1/2	3,698	1/2	4,848	1/2		1/2		1/2		1/2		1/2	
3/4	264	3/4	1,417	3/4	2,569	3/4	3,722	3/4	4,872	3/4		3/4		3/4		3/4		3/4	
2	288	2	1,441	2	2,593	2	3,746	2	4,896	2		2		2		2		2	
1/4	312	1/4	1,465	1/4	2,617	1/4	3,770	1/4	4,919	1/4		1/4		1/4		1/4		1/4	
1/2	336	1/2	1,489	1/2	2,641	1/2	3,794	1/2	4,943	1/2		1/2		1/2		1/2		1/2	
3/4	360	3/4	1,513	3/4	2,665	3/4	3,818	3/4	4,967	3/4		3/4		3/4		3/4		3/4	
3	384	3	1,537	3	2,689	3	3,842	3	4,990	3		3		3		3		3	
1/4	408	1/4	1,561	1/4	2,713	1/4	3,866	1/4	5,014	1/4		1/4		1/4		1/4		1/4	
1/2	432	1/2	1,585	1/2	2,737	1/2	3,890	1/2	5,037	1/2		1/2		1/2		1/2		1/2	
3/4	456	3/4	1,609	3/4	2,761	3/4	3,914	3/4	5,061	3/4		3/4		3/4		3/4		3/4	
4	480	4	1,633	4	2,785	4	3,938	4	5,084	4		4		4		4		4	
1/4	504	1/4	1,657	1/4	2,809	1/4	3,962	1/4	5,096	1/4		1/4		1/4		1/4		1/4	
1/2	528	1/2	1,681	1/2	2,833	1/2	3,986	1/2	5,108	1/2		1/2		1/2		1/2		1/2	
3/4	552	3/4	1,705	3/4	2,857	3/4	4,010	3/4	5,119	3/4		3/4		3/4		3/4		3/4	
5	577	5	1,729	5	2,881	5	4,034	5	5,131	5		5		5		5		5	
1/4	601	1/4	1,753	1/4	2,905	1/4	4,058	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	625	1/2	1,777	1/2	2,929	1/2	4,082	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	649	3/4	1,801	3/4	2,953	3/4	4,106	3/4		3/4		3/4		3/4		3/4		3/4	
6	673	6	1,825	6	2,977	6	4,130	6		6		6		6		6		6	
1/4	697	1/4	1,849	1/4	3,001	1/4	4,154	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	721	1/2	1,873	1/2	3,025	1/2	4,178	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	745	3/4	1,897	3/4	3,049	3/4	4,202	3/4		3/4		3/4		3/4		3/4		3/4	
7	769	7	1,921	7	3,073	7	4,226	7		7		7		7		7		7	
1/4	793	1/4	1,945	1/4	3,097	1/4	4,250	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	817	1/2	1,969	1/2	3,121	1/2	4,274	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	841	3/4	1,993	3/4	3,145	3/4	4,298	3/4		3/4		3/4		3/4		3/4		3/4	
8	865	8	2,017	8	3,169	8	4,322	8		8		8		8		8		8	
1/4	889	1/4	2,042	1/4	3,193	1/4	4,346	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	913	1/2	2,066	1/2	3,217	1/2	4,370	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	937	3/4	2,090	3/4	3,241	3/4	4,394	3/4		3/4		3/4		3/4		3/4		3/4	
9	961	9	2,114	9	3,265	9	4,418	9		9		9		9		9		9	
1/4	985	1/4	2,138	1/4	3,289	1/4	4,442	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,009	1/2	2,162	1/2	3,313	1/2	4,466	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,033	3/4	2,186	3/4	3,337	3/4	4,490	3/4		3/4		3/4		3/4		3/4		3/4	
10	1,057	10	2,210	10	3,361	10	4,514	10		10		10		10		10		10	
1/4	1,081	1/4	2,234	1/4	3,385	1/4	4,538	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,105	1/2	2,258	1/2	3,409	1/2	4,562	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,129	3/4	2,282	3/4	3,433	3/4	4,586	3/4		3/4		3/4		3/4		3/4		3/4	
11	1,153	11	2,306	11	3,457	11	4,610	11		11		11		11		11		11	
1/4	1,177	1/4	2,330	1/4	3,481	1/4	4,634	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,201	1/2	2,354	1/2	3,505	1/2	4,658	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,225	3/4	2,378	3/4	3,529	3/4	4,682	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 02/15/2012 CL - SW

CALCULATED: 02/16/2012 CL

PRINTED: 02/16/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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