



BARGE "HFL 409"

ULLAGE 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	00-0/8	- 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
1 STBD	00-0/8	- 00-0/8	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
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 2 PORT IS - 00-1/8"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 2 PORT, THE TRIM CORRECTED ULLAGE IS 3'-11 7/8"

LENGTH BETWEEN DRAFT MARKS: 238'-06"

February 5, 2012

PRECISION MEASUREMENT
 & ANALYSIS, INC.

P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 409"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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		0		0	205,678	0	190,749	0	175,780	0	160,769	0	145,756	0	130,743	0	115,730	0	100,714
1/4		1/4		1/4	205,369	1/4	190,437	1/4	175,468	1/4	160,457	1/4	145,444	1/4	130,430	1/4	115,417	1/4	100,401
1/2		1/2		1/2	205,059	1/2	190,125	1/2	175,155	1/2	160,144	1/2	145,131	1/2	130,118	1/2	115,105	1/2	100,088
3/4		3/4		3/4	204,749	3/4	189,813	3/4	174,843	3/4	159,831	3/4	144,818	3/4	129,805	3/4	114,792	3/4	99,776
1		1		1	204,439	1	189,501	1	174,531	1	159,518	1	144,505	1	129,492	1	114,479	1	99,463
1/4		1/4		1/4	204,130	1/4	189,190	1/4	174,219	1/4	159,205	1/4	144,192	1/4	129,179	1/4	114,166	1/4	99,150
1/2		1/2		1/2	203,820	1/2	188,878	1/2	173,906	1/2	158,893	1/2	143,880	1/2	128,867	1/2	113,854	1/2	98,837
3/4		3/4		3/4	203,510	3/4	188,566	3/4	173,593	3/4	158,580	3/4	143,567	3/4	128,554	3/4	113,541	3/4	98,524
2		2		2	203,200	2	188,254	2	173,280	2	158,267	2	143,254	2	128,241	2	113,228	2	98,211
1/4		1/4		1/4	202,890	1/4	187,942	1/4	172,967	1/4	157,954	1/4	142,941	1/4	127,928	1/4	112,915	1/4	97,898
1/2		1/2		1/2	202,580	1/2	187,630	1/2	172,655	1/2	157,642	1/2	142,629	1/2	127,616	1/2	112,602	1/2	97,585
3/4		3/4		3/4	202,271	3/4	187,318	3/4	172,342	3/4	157,329	3/4	142,316	3/4	127,303	3/4	112,290	3/4	97,272
3		3		3	201,961	3	187,007	3	172,029	3	157,016	3	142,003	3	126,990	3	111,977	3	96,959
1/4		1/4		1/4	201,651	1/4	186,695	1/4	171,716	1/4	156,703	1/4	141,690	1/4	126,677	1/4	111,664	1/4	96,646
1/2		1/2		1/2	201,341	1/2	186,383	1/2	171,404	1/2	156,391	1/2	141,377	1/2	126,364	1/2	111,351	1/2	96,334
3/4		3/4		3/4	201,032	3/4	186,071	3/4	171,091	3/4	156,078	3/4	141,065	3/4	126,052	3/4	111,039	3/4	96,021
4		4		4	200,722	4	185,759	4	170,778	4	155,765	4	140,752	4	125,739	4	110,726	4	95,708
1/4		1/4		1/4	200,412	1/4	185,447	1/4	170,465	1/4	155,452	1/4	140,439	1/4	125,426	1/4	110,413	1/4	95,395
1/2		1/2		1/2	200,101	1/2	185,135	1/2	170,152	1/2	155,139	1/2	140,126	1/2	125,113	1/2	110,100	1/2	95,082
3/4		3/4		3/4	199,791	3/4	184,824	3/4	169,840	3/4	154,827	3/4	139,814	3/4	124,801	3/4	109,788	3/4	94,769
5		5		5	199,480	5	184,512	5	169,527	5	154,514	5	139,501	5	124,488	5	109,475	5	94,456
1/4		1/4		1/4	199,169	1/4	184,200	1/4	169,214	1/4	154,201	1/4	139,188	1/4	124,175	1/4	109,162	1/4	94,143
1/2		1/2		1/2	198,857	1/2	183,888	1/2	168,901	1/2	153,888	1/2	138,875	1/2	123,862	1/2	108,849	1/2	93,830
3/4		3/4		3/4	198,545	3/4	183,576	3/4	168,589	3/4	153,576	3/4	138,563	3/4	123,549	3/4	108,536	3/4	93,517
6		6		6	198,234	6	183,264	6	168,276	6	153,263	6	138,250	6	123,237	6	108,224	6	93,204
1/4		1/4		1/4	197,922	1/4	182,952	1/4	167,963	1/4	152,950	1/4	137,937	1/4	122,924	1/4	107,911	1/4	92,892
1/2		1/2		1/2	197,610	1/2	182,641	1/2	167,650	1/2	152,637	1/2	137,624	1/2	122,611	1/2	107,598	1/2	92,579
3/4		3/4		3/4	197,298	3/4	182,329	3/4	167,338	3/4	152,324	3/4	137,311	3/4	122,298	3/4	107,285	3/4	92,266
7		7		7	196,986	7	182,017	7	167,025	7	152,012	7	136,999	7	121,986	7	106,972	7	91,953
1/4		1/4		1/4	210,593	1/4	196,674	1/4	181,705	1/4	166,712	1/4	151,699	1/4	136,686	1/4	121,673	1/4	106,660
1/2		1/2		1/2	210,414	1/2	196,362	1/2	181,393	1/2	166,399	1/2	151,386	1/2	136,373	1/2	121,360	1/2	106,347
3/4		3/4		3/4	210,234	3/4	196,050	3/4	181,081	3/4	166,086	3/4	151,073	3/4	136,060	3/4	121,047	3/4	106,034
8		8		8	210,055	8	195,739	8	180,769	8	165,774	8	150,761	8	135,748	8	120,735	8	105,721
1/4		1/4		1/4	209,875	1/4	195,427	1/4	180,458	1/4	165,461	1/4	150,448	1/4	135,435	1/4	120,422	1/4	105,408
1/2		1/2		1/2	209,644	1/2	195,115	1/2	180,146	1/2	165,148	1/2	150,135	1/2	135,122	1/2	120,109	1/2	105,095
3/4		3/4		3/4	209,412	3/4	194,803	3/4	179,834	3/4	164,835	3/4	149,822	3/4	134,809	3/4	119,796	3/4	104,782
9		9		9	209,180	9	194,491	9	179,522	9	164,523	9	149,510	9	134,496	9	119,483	9	104,469
1/4		1/4		1/4	208,949	1/4	194,179	1/4	179,210	1/4	164,210	1/4	149,197	1/4	134,184	1/4	119,171	1/4	104,156
1/2		1/2		1/2	208,669	1/2	193,867	1/2	178,898	1/2	163,897	1/2	148,884	1/2	133,871	1/2	118,858	1/2	103,843
3/4		3/4		3/4	208,389	3/4	193,556	3/4	178,586	3/4	163,584	3/4	148,571	3/4	133,558	3/4	118,545	3/4	103,530
10		10		10	208,109	10	193,244	10	178,275	10	163,271	10	148,258	10	133,245	10	118,232	10	103,218
1/4		1/4		1/4	207,829	1/4	192,932	1/4	177,963	1/4	162,959	1/4	147,946	1/4	132,933	1/4	117,920	1/4	102,905
1/2		1/2		1/2	207,523	1/2	192,620	1/2	177,651	1/2	162,646	1/2	147,633	1/2	132,620	1/2	117,607	1/2	102,592
3/4		3/4		3/4	207,217	3/4	192,308	3/4	177,339	3/4	162,333	3/4	147,320	3/4	132,307	3/4	117,294	3/4	102,279
11		11		11	206,912	11	191,996	11	177,027	11	162,020	11	147,007	11	131,994	11	116,981	11	101,966
1/4		1/4		1/4	206,606	1/4	191,684	1/4	176,715	1/4	161,708	1/4	146,695	1/4	131,682	1/4	116,668	1/4	101,653
1/2		1/2		1/2	206,297	1/2	191,373	1/2	176,403	1/2	161,395	1/2	146,382	1/2	131,369	1/2	116,356	1/2	101,340
3/4		3/4		3/4	205,987	3/4	191,061	3/4	176,091	3/4	161,082	3/4	146,069	3/4	131,056	3/4	116,043	3/4	101,027

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 ULLAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
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BARGE "HFL 409"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/4"

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	85,695	0	70,687	0	55,727	0	40,752	0	25,733	0	10,930	0		0		0		0	
1/4	85,382	1/4	70,374	1/4	55,416	1/4	40,439	1/4	25,420	1/4	10,637	1/4		1/4		1/4		1/4	
1/2	85,069	1/2	70,061	1/2	55,106	1/2	40,126	1/2	25,107	1/2	10,347	1/2		1/2		1/2		1/2	
3/4	84,757	3/4	69,749	3/4	54,795	3/4	39,813	3/4	24,794	3/4	10,058	3/4		3/4		3/4		3/4	
1	84,444	1	69,436	1	54,484	1	39,500	1	24,481	1	9,769	1		1		1		1	
1/4	84,132	1/4	69,123	1/4	54,174	1/4	39,188	1/4	24,168	1/4	9,479	1/4		1/4		1/4		1/4	
1/2	83,820	1/2	68,810	1/2	53,863	1/2	38,875	1/2	23,855	1/2	9,196	1/2		1/2		1/2		1/2	
3/4	83,507	3/4	68,497	3/4	53,553	3/4	38,562	3/4	23,542	3/4	8,913	3/4		3/4		3/4		3/4	
2	83,195	2	68,184	2	53,242	2	38,249	2	23,229	2	8,630	2		2		2		2	
1/4	82,883	1/4	67,871	1/4	52,932	1/4	37,936	1/4	22,916	1/4	8,347	1/4		1/4		1/4		1/4	
1/2	82,571	1/2	67,558	1/2	52,621	1/2	37,623	1/2	22,603	1/2	8,073	1/2		1/2		1/2		1/2	
3/4	82,259	3/4	67,245	3/4	52,310	3/4	37,310	3/4	22,291	3/4	7,799	3/4		3/4		3/4		3/4	
3	81,947	3	66,932	3	51,999	3	36,997	3	21,978	3	7,524	3		3		3		3	
1/4	81,635	1/4	66,619	1/4	51,689	1/4	36,684	1/4	21,665	1/4	7,250	1/4		1/4		1/4		1/4	
1/2	81,323	1/2	66,306	1/2	51,377	1/2	36,371	1/2	21,352	1/2	6,982	1/2		1/2		1/2		1/2	
3/4	81,010	3/4	65,994	3/4	51,066	3/4	36,059	3/4	21,039	3/4	6,714	3/4		3/4		3/4		3/4	
4	80,698	4	65,681	4	50,755	4	35,746	4	20,726	4	6,446	4		4		4		4	
1/4	80,386	1/4	65,368	1/4	50,444	1/4	35,433	1/4	20,413	1/4	6,178	1/4		1/4		1/4		1/4	
1/2	80,074	1/2	65,055	1/2	50,132	1/2	35,120	1/2	20,100	1/2	5,914	1/2		1/2		1/2		1/2	
3/4	79,761	3/4	64,742	3/4	49,821	3/4	34,807	3/4	19,787	3/4	5,650	3/4		3/4		3/4		3/4	
5	79,449	5	64,429	5	49,509	5	34,494	5	19,474	5	5,386	5		5		5		5	
1/4	79,136	1/4	64,117	1/4	49,198	1/4	34,181	1/4	19,162	1/4	5,122	1/4		1/4		1/4		1/4	
1/2	78,823	1/2	63,805	1/2	48,886	1/2	33,868	1/2	18,849	1/2	4,862	1/2		1/2		1/2		1/2	
3/4	78,510	3/4	63,493	3/4	48,573	3/4	33,555	3/4	18,536	3/4	4,602	3/4		3/4		3/4		3/4	
6	78,197	6	63,182	6	48,261	6	33,242	6	18,223	6	4,341	6		6		6		6	
1/4	77,884	1/4	62,870	1/4	47,949	1/4	32,929	1/4	17,910	1/4	4,081	1/4		1/4		1/4		1/4	
1/2	77,571	1/2	62,559	1/2	47,636	1/2	32,617	1/2	17,598	1/2	3,825	1/2		1/2		1/2		1/2	
3/4	77,259	3/4	62,249	3/4	47,323	3/4	32,304	3/4	17,286	3/4	3,568	3/4		3/4		3/4		3/4	
7	76,946	7	61,938	7	47,010	7	31,991	7	16,974	7	3,312	7		7		7		7	
1/4	76,633	1/4	61,627	1/4	46,697	1/4	31,678	1/4	16,662	1/4	3,055	1/4		1/4		1/4		1/4	
1/2	76,320	1/2	61,317	1/2	46,384	1/2	31,365	1/2	16,353	1/2	2,801	1/2		1/2		1/2		1/2	
3/4	76,007	3/4	61,006	3/4	46,072	3/4	31,052	3/4	16,044	3/4	2,546	3/4		3/4		3/4		3/4	
8	75,694	8	60,695	8	45,759	8	30,739	8	15,735	8	2,292	8		8		8		8	
1/4	75,381	1/4	60,385	1/4	45,446	1/4	30,426	1/4	15,426	1/4	2,037	1/4		1/4		1/4		1/4	
1/2	75,068	1/2	60,074	1/2	45,133	1/2	30,113	1/2	15,121	1/2	1,801	1/2		1/2		1/2		1/2	
3/4	74,755	3/4	59,764	3/4	44,820	3/4	29,800	3/4	14,815	3/4	1,565	3/4		3/4		3/4		3/4	
9	74,442	9	59,453	9	44,507	9	29,487	9	14,510	9	1,329	9		9		9		9	
1/4	74,129	1/4	59,143	1/4	44,194	1/4	29,175	1/4	14,205	1/4	1,093	1/4		1/4		1/4		1/4	
1/2	73,816	1/2	58,832	1/2	43,881	1/2	28,862	1/2	13,904	1/2	916	1/2		1/2		1/2		1/2	
3/4	73,504	3/4	58,522	3/4	43,568	3/4	28,549	3/4	13,602	3/4	739	3/4		3/4		3/4		3/4	
10	73,191	10	58,211	10	43,255	10	28,236	10	13,301	10	562	10		10		10		10	
1/4	72,878	1/4	57,900	1/4	42,942	1/4	27,923	1/4	13,000	1/4	385	1/4		1/4		1/4		1/4	
1/2	72,565	1/2	57,590	1/2	42,630	1/2	27,610	1/2	12,702	1/2		1/2		1/2		1/2		1/2	
3/4	72,252	3/4	57,279	3/4	42,317	3/4	27,297	3/4	12,405	3/4		3/4		3/4		3/4		3/4	
11	71,939	11	56,969	11	42,004	11	26,984	11	12,107	11		11		11		11		11	
1/4	71,626	1/4	56,658	1/4	41,691	1/4	26,671	1/4	11,810	1/4		1/4		1/4		1/4		1/4	
1/2	71,313	1/2	56,348	1/2	41,378	1/2	26,358	1/2	11,517	1/2		1/2		1/2		1/2		1/2	
3/4	71,000	3/4	56,037	3/4	41,065	3/4	26,045	3/4	11,223	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "HFL 409"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-09 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		0		0	205,153	0	190,235	0	175,265	0	160,253	0	145,240	0	130,226	0	115,213	0	100,197
1/4		1/4		1/4	204,844	1/4	189,923	1/4	174,953	1/4	159,940	1/4	144,927	1/4	129,914	1/4	114,900	1/4	99,884
1/2		1/2		1/2	204,536	1/2	189,612	1/2	174,641	1/2	159,628	1/2	144,614	1/2	129,601	1/2	114,588	1/2	99,571
3/4		3/4		3/4	204,227	3/4	189,300	3/4	174,328	3/4	159,315	3/4	144,301	3/4	129,288	3/4	114,275	3/4	99,258
1		1		1	203,918	1	188,988	1	174,015	1	159,002	1	143,989	1	128,975	1	113,962	1	98,945
1/4		1/4		1/4	203,609	1/4	188,676	1/4	173,703	1/4	158,689	1/4	143,676	1/4	128,662	1/4	113,649	1/4	98,632
1/2		1/2		1/2	203,300	1/2	188,364	1/2	173,390	1/2	158,376	1/2	143,363	1/2	128,350	1/2	113,336	1/2	98,319
3/4		3/4		3/4	202,991	3/4	188,052	3/4	173,077	3/4	158,064	3/4	143,050	3/4	128,037	3/4	113,024	3/4	98,006
2		2		2	202,682	2	187,740	2	172,764	2	157,751	2	142,737	2	127,724	2	112,711	2	97,693
1/4		1/4		1/4	202,374	1/4	187,428	1/4	172,452	1/4	157,438	1/4	142,425	1/4	127,411	1/4	112,398	1/4	97,381
1/2		1/2		1/2	202,065	1/2	187,117	1/2	172,139	1/2	157,125	1/2	142,112	1/2	127,099	1/2	112,085	1/2	97,068
3/4		3/4		3/4	201,756	3/4	186,805	3/4	171,826	3/4	156,813	3/4	141,799	3/4	126,786	3/4	111,773	3/4	96,755
3		3		3	201,447	3	186,493	3	171,513	3	156,500	3	141,486	3	126,473	3	111,460	3	96,442
1/4		1/4		1/4	201,138	1/4	186,181	1/4	171,200	1/4	156,187	1/4	141,173	1/4	126,160	1/4	111,147	1/4	96,129
1/2		1/2		1/2	200,830	1/2	185,869	1/2	170,888	1/2	155,874	1/2	140,861	1/2	125,847	1/2	110,834	1/2	95,816
3/4		3/4		3/4	200,521	3/4	185,557	3/4	170,575	3/4	155,561	3/4	140,548	3/4	125,535	3/4	110,521	3/4	95,503
4		4		4	200,210	4	185,245	4	170,262	4	155,249	4	140,235	4	125,222	4	110,209	4	95,190
1/4		1/4		1/4	199,900	1/4	184,934	1/4	169,949	1/4	154,936	1/4	139,922	1/4	124,909	1/4	109,896	1/4	94,877
1/2		1/2		1/2	199,590	1/2	184,622	1/2	169,637	1/2	154,623	1/2	139,610	1/2	124,596	1/2	109,583	1/2	94,564
3/4		3/4		3/4	199,279	3/4	184,310	3/4	169,324	3/4	154,310	3/4	139,297	3/4	124,284	3/4	109,270	3/4	94,251
5		5		5	198,968	5	183,998	5	169,011	5	153,997	5	138,984	5	123,971	5	108,958	5	93,939
1/4		1/4		1/4	198,656	1/4	183,686	1/4	168,698	1/4	153,685	1/4	138,671	1/4	123,658	1/4	108,645	1/4	93,626
1/2		1/2		1/2	198,344	1/2	183,374	1/2	168,385	1/2	153,372	1/2	138,358	1/2	123,345	1/2	108,332	1/2	93,313
3/4		3/4		3/4	198,032	3/4	183,062	3/4	168,073	3/4	153,059	3/4	138,046	3/4	123,032	3/4	108,019	3/4	93,000
6		6		6	197,720	6	182,750	6	167,760	6	152,746	6	137,733	6	122,720	6	107,706	6	92,687
1/4		1/4		1/4	197,408	1/4	182,439	1/4	167,447	1/4	152,434	1/4	137,420	1/4	122,407	1/4	107,394	1/4	92,374
1/2		1/2		1/2	197,096	1/2	182,127	1/2	167,134	1/2	152,121	1/2	137,107	1/2	122,094	1/2	107,081	1/2	92,061
3/4		3/4		3/4	210,668	3/4	196,785	3/4	181,815	3/4	166,821	3/4	151,808	3/4	136,795	3/4	121,781	3/4	91,748
7		7		7	210,489	7	196,473	7	181,503	7	166,509	7	151,495	7	136,482	7	121,469	7	91,435
1/4		1/4		1/4	210,311	1/4	196,161	1/4	181,191	1/4	166,196	1/4	151,182	1/4	136,169	1/4	121,156	1/4	91,122
1/2		1/2		1/2	210,132	1/2	195,849	1/2	180,879	1/2	165,883	1/2	150,870	1/2	135,856	1/2	120,843	1/2	90,809
3/4		3/4		3/4	209,954	3/4	195,537	3/4	180,567	3/4	165,570	3/4	150,557	3/4	135,543	3/4	120,530	3/4	90,497
8		8		8	209,723	8	195,225	8	180,256	8	165,258	8	150,244	8	135,231	8	120,217	8	90,184
1/4		1/4		1/4	209,492	1/4	194,913	1/4	179,944	1/4	164,945	1/4	149,931	1/4	134,918	1/4	119,905	1/4	89,871
1/2		1/2		1/2	209,261	1/2	194,601	1/2	179,632	1/2	164,632	1/2	149,619	1/2	134,605	1/2	119,592	1/2	89,558
3/4		3/4		3/4	209,031	3/4	194,290	3/4	179,320	3/4	164,319	3/4	149,306	3/4	134,292	3/4	119,279	3/4	89,245
9		9		9	208,752	9	193,978	9	179,008	9	164,006	9	148,993	9	133,980	9	118,966	9	88,932
1/4		1/4		1/4	208,473	1/4	193,666	1/4	178,696	1/4	163,694	1/4	148,680	1/4	133,667	1/4	118,654	1/4	88,619
1/2		1/2		1/2	208,194	1/2	193,354	1/2	178,384	1/2	163,381	1/2	148,367	1/2	133,354	1/2	118,341	1/2	88,306
3/4		3/4		3/4	207,915	3/4	193,042	3/4	178,072	3/4	163,068	3/4	148,055	3/4	133,041	3/4	118,028	3/4	87,993
10		10		10	207,610	10	192,730	10	177,761	10	162,755	10	147,742	10	132,728	10	117,715	10	87,680
1/4		1/4		1/4	207,305	1/4	192,418	1/4	177,449	1/4	162,443	1/4	147,429	1/4	132,416	1/4	117,402	1/4	87,367
1/2		1/2		1/2	207,000	1/2	192,107	1/2	177,137	1/2	162,130	1/2	147,116	1/2	132,103	1/2	117,090	1/2	87,054
3/4		3/4		3/4	206,696	3/4	191,795	3/4	176,825	3/4	161,817	3/4	146,804	3/4	131,790	3/4	116,777	3/4	86,742
11		11		11	206,387	11	191,483	11	176,513	11	161,504	11	146,491	11	131,477	11	116,464	11	86,429
1/4		1/4		1/4	206,079	1/4	191,171	1/4	176,201	1/4	161,191	1/4	146,178	1/4	131,165	1/4	116,151	1/4	86,116
1/2		1/2		1/2	205,770	1/2	190,859	1/2	175,889	1/2	160,879	1/2	145,865	1/2	130,852	1/2	115,839	1/2	85,803
3/4		3/4		3/4	205,462	3/4	190,547	3/4	175,578	3/4	160,566	3/4	145,552	3/4	130,539	3/4	115,526	3/4	85,490

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 ULLAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 409"

1 STBD
ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-09 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	85,177	0	70,157	0	55,142	0	40,126	0	25,106	0	10,347	0		0		0		0	
1/4	84,864	1/4	69,844	1/4	54,830	1/4	39,813	1/4	24,793	1/4	10,058	1/4		1/4		1/4		1/4	
1/2	84,551	1/2	69,532	1/2	54,517	1/2	39,500	1/2	24,481	1/2	9,769	1/2		1/2		1/2		1/2	
3/4	84,238	3/4	69,219	3/4	54,204	3/4	39,187	3/4	24,168	3/4	9,479	3/4		3/4		3/4		3/4	
1	83,925	1	68,906	1	53,892	1	38,874	1	23,855	1	9,196	1		1		1		1	
1/4	83,612	1/4	68,593	1/4	53,579	1/4	38,561	1/4	23,542	1/4	8,913	1/4		1/4		1/4		1/4	
1/2	83,300	1/2	68,280	1/2	53,266	1/2	38,248	1/2	23,229	1/2	8,630	1/2		1/2		1/2		1/2	
3/4	82,987	3/4	67,967	3/4	52,954	3/4	37,935	3/4	22,916	3/4	8,347	3/4		3/4		3/4		3/4	
2	82,674	2	67,654	2	52,641	2	37,622	2	22,603	2	8,073	2		2		2		2	
1/4	82,361	1/4	67,341	1/4	52,328	1/4	37,310	1/4	22,290	1/4	7,799	1/4		1/4		1/4		1/4	
1/2	82,048	1/2	67,028	1/2	52,015	1/2	36,997	1/2	21,977	1/2	7,524	1/2		1/2		1/2		1/2	
3/4	81,735	3/4	66,715	3/4	51,703	3/4	36,684	3/4	21,664	3/4	7,250	3/4		3/4		3/4		3/4	
3	81,422	3	66,402	3	51,390	3	36,371	3	21,352	3	6,982	3		3		3		3	
1/4	81,109	1/4	66,089	1/4	51,077	1/4	36,058	1/4	21,039	1/4	6,714	1/4		1/4		1/4		1/4	
1/2	80,796	1/2	65,777	1/2	50,764	1/2	35,745	1/2	20,726	1/2	6,446	1/2		1/2		1/2		1/2	
3/4	80,483	3/4	65,464	3/4	50,451	3/4	35,432	3/4	20,413	3/4	6,178	3/4		3/4		3/4		3/4	
4	80,170	4	65,151	4	50,138	4	35,119	4	20,100	4	5,914	4		4		4		4	
1/4	79,858	1/4	64,838	1/4	49,826	1/4	34,806	1/4	19,787	1/4	5,650	1/4		1/4		1/4		1/4	
1/2	79,545	1/2	64,525	1/2	49,513	1/2	34,493	1/2	19,474	1/2	5,386	1/2		1/2		1/2		1/2	
3/4	79,232	3/4	64,212	3/4	49,200	3/4	34,180	3/4	19,161	3/4	5,122	3/4		3/4		3/4		3/4	
5	78,919	5	63,899	5	48,887	5	33,868	5	18,848	5	4,862	5		5		5		5	
1/4	78,606	1/4	63,586	1/4	48,574	1/4	33,555	1/4	18,535	1/4	4,602	1/4		1/4		1/4		1/4	
1/2	78,293	1/2	63,273	1/2	48,261	1/2	33,242	1/2	18,223	1/2	4,341	1/2		1/2		1/2		1/2	
3/4	77,980	3/4	62,960	3/4	47,948	3/4	32,929	3/4	17,910	3/4	4,081	3/4		3/4		3/4		3/4	
6	77,667	6	62,648	6	47,635	6	32,616	6	17,598	6	3,825	6		6		6		6	
1/4	77,354	1/4	62,335	1/4	47,322	1/4	32,303	1/4	17,286	1/4	3,568	1/4		1/4		1/4		1/4	
1/2	77,041	1/2	62,022	1/2	47,009	1/2	31,990	1/2	16,974	1/2	3,312	1/2		1/2		1/2		1/2	
3/4	76,728	3/4	61,709	3/4	46,697	3/4	31,677	3/4	16,662	3/4	3,055	3/4		3/4		3/4		3/4	
7	76,416	7	61,396	7	46,384	7	31,364	7	16,353	7	2,801	7		7		7		7	
1/4	76,103	1/4	61,083	1/4	46,071	1/4	31,051	1/4	16,044	1/4	2,546	1/4		1/4		1/4		1/4	
1/2	75,790	1/2	60,771	1/2	45,758	1/2	30,739	1/2	15,735	1/2	2,292	1/2		1/2		1/2		1/2	
3/4	75,477	3/4	60,458	3/4	45,445	3/4	30,426	3/4	15,426	3/4	2,037	3/4		3/4		3/4		3/4	
8	75,164	8	60,145	8	45,132	8	30,113	8	15,120	8	1,801	8		8		8		8	
1/4	74,851	1/4	59,833	1/4	44,819	1/4	29,800	1/4	14,815	1/4	1,565	1/4		1/4		1/4		1/4	
1/2	74,538	1/2	59,520	1/2	44,506	1/2	29,487	1/2	14,510	1/2	1,329	1/2		1/2		1/2		1/2	
3/4	74,225	3/4	59,207	3/4	44,193	3/4	29,174	3/4	14,205	3/4	1,093	3/4		3/4		3/4		3/4	
9	73,912	9	58,895	9	43,880	9	28,861	9	13,904	9	916	9		9		9		9	
1/4	73,599	1/4	58,582	1/4	43,568	1/4	28,548	1/4	13,602	1/4	739	1/4		1/4		1/4		1/4	
1/2	73,286	1/2	58,269	1/2	43,255	1/2	28,235	1/2	13,301	1/2	562	1/2		1/2		1/2		1/2	
3/4	72,974	3/4	57,957	3/4	42,942	3/4	27,922	3/4	13,000	3/4	385	3/4		3/4		3/4		3/4	
10	72,661	10	57,644	10	42,629	10	27,610	10	12,702	10		10		10		10		10	
1/4	72,348	1/4	57,331	1/4	42,316	1/4	27,297	1/4	12,405	1/4		1/4		1/4		1/4		1/4	
1/2	72,035	1/2	57,019	1/2	42,003	1/2	26,984	1/2	12,107	1/2		1/2		1/2		1/2		1/2	
3/4	71,722	3/4	56,706	3/4	41,690	3/4	26,671	3/4	11,810	3/4		3/4		3/4		3/4		3/4	
11	71,409	11	56,393	11	41,377	11	26,358	11	11,517	11		11		11		11		11	
1/4	71,096	1/4	56,080	1/4	41,064	1/4	26,045	1/4	11,223	1/4		1/4		1/4		1/4		1/4	
1/2	70,783	1/2	55,768	1/2	40,751	1/2	25,732	1/2	10,930	1/2		1/2		1/2		1/2		1/2	
3/4	70,470	3/4	55,455	3/4	40,439	3/4	25,419	3/4	10,637	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
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BARGE "HFL 409"

2 PORT ULLAGE 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		0		0	208,233	0	193,293	0	178,288	0	163,238	0	148,182	0	133,127	0	118,071	0	103,012
1/4		1/4		1/4	207,924	1/4	192,980	1/4	177,976	1/4	162,924	1/4	147,869	1/4	132,813	1/4	117,757	1/4	102,698
1/2		1/2		1/2	207,615	1/2	192,668	1/2	177,663	1/2	162,611	1/2	147,555	1/2	132,499	1/2	117,444	1/2	102,384
3/4		3/4		3/4	207,305	3/4	192,355	3/4	177,351	3/4	162,297	3/4	147,241	3/4	132,186	3/4	117,130	3/4	102,071
1		1		1	206,996	1	192,043	1	177,038	1	161,983	1	146,928	1	131,872	1	116,816	1	101,757
1/4		1/4		1/4	206,686	1/4	191,730	1/4	176,724	1/4	161,670	1/4	146,614	1/4	131,558	1/4	116,503	1/4	101,443
1/2		1/2		1/2	206,377	1/2	191,418	1/2	176,411	1/2	161,356	1/2	146,300	1/2	131,245	1/2	116,189	1/2	101,129
3/4		3/4		3/4	206,067	3/4	191,105	3/4	176,098	3/4	161,042	3/4	145,987	3/4	130,931	3/4	115,875	3/4	100,815
2		2		2	205,757	2	190,792	2	175,784	2	160,729	2	145,673	2	130,617	2	115,562	2	100,502
1/4		1/4		1/4	205,448	1/4	190,480	1/4	175,471	1/4	160,415	1/4	145,359	1/4	130,304	1/4	115,248	1/4	100,188
1/2		1/2		1/2	205,138	1/2	190,167	1/2	175,157	1/2	160,101	1/2	145,046	1/2	129,990	1/2	114,934	1/2	99,874
3/4		3/4		3/4	204,829	3/4	189,855	3/4	174,844	3/4	159,788	3/4	144,732	3/4	129,676	3/4	114,621	3/4	99,560
3		3		3	204,519	3	189,542	3	174,530	3	159,474	3	144,418	3	129,363	3	114,307	3	99,246
1/4		1/4		1/4	204,209	1/4	189,229	1/4	174,216	1/4	159,160	1/4	144,105	1/4	129,049	1/4	113,993	1/4	98,932
1/2		1/2		1/2	203,900	1/2	188,917	1/2	173,903	1/2	158,847	1/2	143,791	1/2	128,735	1/2	113,680	1/2	98,619
3/4		3/4		3/4	203,590	3/4	188,604	3/4	173,589	3/4	158,533	3/4	143,477	3/4	128,422	3/4	113,366	3/4	98,305
4		4		4	203,281	4	188,292	4	173,275	4	158,219	4	143,164	4	128,108	4	113,052	4	97,991
1/4		1/4		1/4	202,971	1/4	187,979	1/4	172,962	1/4	157,906	1/4	142,850	1/4	127,794	1/4	112,739	1/4	97,677
1/2		1/2		1/2	202,662	1/2	187,666	1/2	172,648	1/2	157,592	1/2	142,536	1/2	127,481	1/2	112,425	1/2	97,363
3/4		3/4		3/4	202,352	3/4	187,354	3/4	172,334	3/4	157,278	3/4	142,223	3/4	127,167	3/4	112,111	3/4	97,050
5		5		5	202,041	5	187,041	5	172,021	5	156,965	5	141,909	5	126,853	5	111,798	5	96,736
1/4		1/4		1/4	201,730	1/4	186,729	1/4	171,707	1/4	156,651	1/4	141,595	1/4	126,540	1/4	111,484	1/4	96,422
1/2		1/2		1/2	201,419	1/2	186,416	1/2	171,393	1/2	156,337	1/2	141,282	1/2	126,226	1/2	111,170	1/2	96,108
3/4		3/4		3/4	201,108	3/4	186,103	3/4	171,080	3/4	156,024	3/4	140,968	3/4	125,912	3/4	110,857	3/4	95,794
6		6		6	200,795	6	185,791	6	170,766	6	155,710	6	140,654	6	125,599	6	110,543	6	95,480
1/4		1/4		1/4	200,483	1/4	185,478	1/4	170,452	1/4	155,397	1/4	140,341	1/4	125,285	1/4	110,229	1/4	95,167
1/2		1/2		1/2	200,170	1/2	185,166	1/2	170,139	1/2	155,083	1/2	140,027	1/2	124,971	1/2	109,916	1/2	94,853
3/4		3/4		3/4	199,858	3/4	184,853	3/4	169,825	3/4	154,769	3/4	139,713	3/4	124,658	3/4	109,602	3/4	94,539
7		7		7	199,545	7	184,540	7	169,511	7	154,456	7	139,400	7	124,344	7	109,288	7	94,225
1/4		1/4		1/4	199,232	1/4	184,228	1/4	169,198	1/4	154,142	1/4	139,086	1/4	124,030	1/4	108,975	1/4	93,911
1/2		1/2		1/2	198,920	1/2	183,915	1/2	168,884	1/2	153,828	1/2	138,772	1/2	123,717	1/2	108,661	1/2	93,598
3/4		3/4		3/4	198,607	3/4	183,603	3/4	168,570	3/4	153,515	3/4	138,459	3/4	123,403	3/4	108,347	3/4	93,284
8		8	212,523	8	198,295	8	183,290	8	168,257	8	153,201	8	138,145	8	123,089	8	108,033	8	92,970
1/4		1/4	212,165	1/4	197,982	1/4	182,977	1/4	167,943	1/4	152,887	1/4	137,831	1/4	122,776	1/4	107,719	1/4	92,656
1/2		1/2	211,986	1/2	197,669	1/2	182,665	1/2	167,629	1/2	152,574	1/2	137,518	1/2	122,462	1/2	107,406	1/2	92,342
3/4		3/4	211,808	3/4	197,357	3/4	182,352	3/4	167,316	3/4	152,260	3/4	137,204	3/4	122,148	3/4	107,092	3/4	92,028
9		9	211,576	9	197,044	9	182,040	9	167,002	9	151,946	9	136,891	9	121,835	9	106,778	9	91,715
1/4		1/4	211,345	1/4	196,732	1/4	181,727	1/4	166,688	1/4	151,633	1/4	136,577	1/4	121,521	1/4	106,464	1/4	91,401
1/2		1/2	211,114	1/2	196,419	1/2	181,414	1/2	166,375	1/2	151,319	1/2	136,263	1/2	121,207	1/2	106,150	1/2	91,087
3/4		3/4	210,883	3/4	196,106	3/4	181,102	3/4	166,061	3/4	151,005	3/4	135,950	3/4	120,894	3/4	105,836	3/4	90,773
10		10	210,603	10	195,794	10	180,789	10	165,747	10	150,692	10	135,636	10	120,580	10	105,523	10	90,459
1/4		1/4	210,323	1/4	195,481	1/4	180,477	1/4	165,434	1/4	150,378	1/4	135,322	1/4	120,266	1/4	105,209	1/4	90,146
1/2		1/2	210,044	1/2	195,169	1/2	180,164	1/2	165,120	1/2	150,064	1/2	135,009	1/2	119,953	1/2	104,895	1/2	89,832
3/4		3/4	209,764	3/4	194,856	3/4	179,851	3/4	164,806	3/4	149,751	3/4	134,695	3/4	119,639	3/4	104,581	3/4	89,518
11		11	209,458	11	194,543	11	179,539	11	164,493	11	149,437	11	134,381	11	119,325	11	104,267	11	89,204
1/4		1/4	209,153	1/4	194,231	1/4	179,226	1/4	164,179	1/4	149,123	1/4	134,068	1/4	119,012	1/4	103,954	1/4	88,890
1/2		1/2	208,847	1/2	193,918	1/2	178,914	1/2	163,865	1/2	148,810	1/2	133,754	1/2	118,698	1/2	103,640	1/2	88,576
3/4		3/4	208,542	3/4	193,606	3/4	178,601	3/4	163,552	3/4	148,496	3/4	133,440	3/4	118,385	3/4	103,326	3/4	88,263

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 ULLAGE 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 409"

2 PORT ULLAGE 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	87,949	0	72,963	0	58,170	0	43,690	0	28,937	0	13,877	0		0		0		0	
1/4	87,635	1/4	72,649	1/4	57,868	1/4	43,389	1/4	28,624	1/4	13,563	1/4		1/4		1/4		1/4	
1/2	87,321	1/2	72,335	1/2	57,566	1/2	43,088	1/2	28,310	1/2	13,250	1/2		1/2		1/2		1/2	
3/4	87,007	3/4	72,021	3/4	57,263	3/4	42,787	3/4	27,997	3/4	12,936	3/4		3/4		3/4		3/4	
1	86,696	1	71,707	1	56,961	1	42,486	1	27,683	1	12,623	1		1		1		1	
1/4	86,385	1/4	71,394	1/4	56,659	1/4	42,185	1/4	27,369	1/4	12,309	1/4		1/4		1/4		1/4	
1/2	86,073	1/2	71,080	1/2	56,357	1/2	41,884	1/2	27,056	1/2	11,996	1/2		1/2		1/2		1/2	
3/4	85,762	3/4	70,766	3/4	56,055	3/4	41,582	3/4	26,742	3/4	11,683	3/4		3/4		3/4		3/4	
2	85,453	2	70,452	2	55,753	2	41,281	2	26,428	2	11,372	2		2		2		2	
1/4	85,144	1/4	70,138	1/4	55,451	1/4	40,980	1/4	26,115	1/4	11,061	1/4		1/4		1/4		1/4	
1/2	84,835	1/2	69,825	1/2	55,149	1/2	40,679	1/2	25,801	1/2	10,750	1/2		1/2		1/2		1/2	
3/4	84,526	3/4	69,511	3/4	54,847	3/4	40,378	3/4	25,487	3/4	10,439	3/4		3/4		3/4		3/4	
3	84,217	3	69,197	3	54,545	3	40,077	3	25,173	3	10,133	3		3		3		3	
1/4	83,908	1/4	68,883	1/4	54,243	1/4	39,776	1/4	24,860	1/4	9,827	1/4		1/4		1/4		1/4	
1/2	83,599	1/2	68,569	1/2	53,941	1/2	39,475	1/2	24,546	1/2	9,521	1/2		1/2		1/2		1/2	
3/4	83,290	3/4	68,255	3/4	53,639	3/4	39,173	3/4	24,232	3/4	9,215	3/4		3/4		3/4		3/4	
4	82,981	4	67,942	4	53,337	4	38,872	4	23,918	4	8,912	4		4		4		4	
1/4	82,672	1/4	67,628	1/4	53,035	1/4	38,570	1/4	23,604	1/4	8,608	1/4		1/4		1/4		1/4	
1/2	82,363	1/2	67,314	1/2	52,733	1/2	38,269	1/2	23,291	1/2	8,305	1/2		1/2		1/2		1/2	
3/4	82,054	3/4	67,000	3/4	52,430	3/4	37,967	3/4	22,977	3/4	8,001	3/4		3/4		3/4		3/4	
5	81,743	5	66,686	5	52,128	5	37,665	5	22,663	5	7,698	5		5		5		5	
1/4	81,431	1/4	66,372	1/4	51,826	1/4	37,363	1/4	22,349	1/4	7,394	1/4		1/4		1/4		1/4	
1/2	81,120	1/2	66,059	1/2	51,524	1/2	37,061	1/2	22,035	1/2	7,091	1/2		1/2		1/2		1/2	
3/4	80,808	3/4	65,745	3/4	51,222	3/4	36,759	3/4	21,721	3/4	6,787	3/4		3/4		3/4		3/4	
6	80,495	6	65,437	6	50,920	6	36,451	6	21,408	6	6,483	6		6		6		6	
1/4	80,181	1/4	65,129	1/4	50,619	1/4	36,143	1/4	21,094	1/4	6,180	1/4		1/4		1/4		1/4	
1/2	79,867	1/2	64,821	1/2	50,317	1/2	35,835	1/2	20,780	1/2	5,876	1/2		1/2		1/2		1/2	
3/4	79,553	3/4	64,513	3/4	50,015	3/4	35,527	3/4	20,466	3/4	5,573	3/4		3/4		3/4		3/4	
7	79,239	7	64,211	7	49,714	7	35,213	7	20,152	7	5,269	7		7		7		7	
1/4	78,926	1/4	63,909	1/4	49,413	1/4	34,900	1/4	19,839	1/4	4,966	1/4		1/4		1/4		1/4	
1/2	78,612	1/2	63,607	1/2	49,111	1/2	34,586	1/2	19,525	1/2	4,662	1/2		1/2		1/2		1/2	
3/4	78,298	3/4	63,305	3/4	48,810	3/4	34,272	3/4	19,211	3/4	4,358	3/4		3/4		3/4		3/4	
8	77,984	8	63,003	8	48,509	8	33,958	8	18,897	8	4,053	8		8		8		8	
1/4	77,670	1/4	62,701	1/4	48,207	1/4	33,644	1/4	18,583	1/4	3,747	1/4		1/4		1/4		1/4	
1/2	77,356	1/2	62,399	1/2	47,906	1/2	33,330	1/2	18,269	1/2	3,442	1/2		1/2		1/2		1/2	
3/4	77,043	3/4	62,096	3/4	47,605	3/4	33,017	3/4	17,956	3/4	3,137	3/4		3/4		3/4		3/4	
9	76,729	9	61,794	9	47,304	9	32,703	9	17,642	9	2,846	9		9		9		9	
1/4	76,415	1/4	61,492	1/4	47,003	1/4	32,389	1/4	17,328	1/4	2,555	1/4		1/4		1/4		1/4	
1/2	76,101	1/2	61,190	1/2	46,702	1/2	32,075	1/2	17,014	1/2	2,264	1/2		1/2		1/2		1/2	
3/4	75,787	3/4	60,888	3/4	46,400	3/4	31,761	3/4	16,700	3/4	1,973	3/4		3/4		3/4		3/4	
10	75,473	10	60,586	10	46,099	10	31,448	10	16,387	10	1,737	10		10		10		10	
1/4	75,160	1/4	60,284	1/4	45,798	1/4	31,134	1/4	16,073	1/4	1,502	1/4		1/4		1/4		1/4	
1/2	74,846	1/2	59,982	1/2	45,497	1/2	30,820	1/2	15,759	1/2	1,267	1/2		1/2		1/2		1/2	
3/4	74,532	3/4	59,680	3/4	45,196	3/4	30,506	3/4	15,445	3/4	1,031	3/4		3/4		3/4		3/4	
11	74,218	11	59,378	11	44,895	11	30,192	11	15,131	11		11		11		11		11	
1/4	73,904	1/4	59,076	1/4	44,594	1/4	29,879	1/4	14,818	1/4		1/4		1/4		1/4		1/4	
1/2	73,590	1/2	58,774	1/2	44,293	1/2	29,565	1/2	14,504	1/2		1/2		1/2		1/2		1/2	
3/4	73,277	3/4	58,472	3/4	43,991	3/4	29,251	3/4	14,190	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 409"

2 STBD ULLAGE 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		0		0	209,547	0	194,599	0	179,587	0	164,529	0	149,465	0	134,402	0	119,338	0	104,272
1/4		1/4		1/4	209,238	1/4	194,287	1/4	179,274	1/4	164,215	1/4	149,152	1/4	134,088	1/4	119,025	1/4	103,958
1/2		1/2		1/2	208,928	1/2	193,974	1/2	178,962	1/2	163,901	1/2	148,838	1/2	133,774	1/2	118,711	1/2	103,644
3/4		3/4		3/4	208,619	3/4	193,661	3/4	178,649	3/4	163,587	3/4	148,524	3/4	133,460	3/4	118,397	3/4	103,330
1		1		1	208,309	1	193,348	1	178,335	1	163,274	1	148,210	1	133,147	1	118,083	1	103,016
1/4		1/4		1/4	208,000	1/4	193,036	1/4	178,022	1/4	162,960	1/4	147,896	1/4	132,833	1/4	117,769	1/4	102,702
1/2		1/2		1/2	207,690	1/2	192,723	1/2	177,709	1/2	162,646	1/2	147,582	1/2	132,519	1/2	117,455	1/2	102,388
3/4		3/4		3/4	207,380	3/4	192,410	3/4	177,396	3/4	162,332	3/4	147,269	3/4	132,205	3/4	117,142	3/4	102,074
2		2		2	207,070	2	192,097	2	177,082	2	162,018	2	146,955	2	131,891	2	116,828	2	101,760
1/4		1/4		1/4	206,760	1/4	191,785	1/4	176,768	1/4	161,704	1/4	146,641	1/4	131,577	1/4	116,514	1/4	101,446
1/2		1/2		1/2	206,451	1/2	191,472	1/2	176,454	1/2	161,391	1/2	146,327	1/2	131,264	1/2	116,200	1/2	101,132
3/4		3/4		3/4	206,141	3/4	191,159	3/4	176,140	3/4	161,077	3/4	146,013	3/4	130,950	3/4	115,886	3/4	100,818
3		3		3	205,831	3	190,846	3	175,826	3	160,763	3	145,699	3	130,636	3	115,573	3	100,504
1/4		1/4		1/4	205,521	1/4	190,534	1/4	175,513	1/4	160,449	1/4	145,386	1/4	130,322	1/4	115,259	1/4	100,190
1/2		1/2		1/2	205,212	1/2	190,221	1/2	175,199	1/2	160,135	1/2	145,072	1/2	130,008	1/2	114,945	1/2	99,876
3/4		3/4		3/4	204,902	3/4	189,908	3/4	174,885	3/4	159,822	3/4	144,758	3/4	129,695	3/4	114,631	3/4	99,562
4		4		4	204,592	4	189,595	4	174,571	4	159,508	4	144,444	4	129,381	4	114,317	4	99,248
1/4		1/4		1/4	204,283	1/4	189,283	1/4	174,257	1/4	159,194	1/4	144,130	1/4	129,067	1/4	114,003	1/4	98,934
1/2		1/2		1/2	203,973	1/2	188,970	1/2	173,944	1/2	158,880	1/2	143,817	1/2	128,753	1/2	113,690	1/2	98,620
3/4		3/4		3/4	203,663	3/4	188,657	3/4	173,630	3/4	158,566	3/4	143,503	3/4	128,439	3/4	113,376	3/4	98,306
5		5		5	203,352	5	188,344	5	173,316	5	158,252	5	143,189	5	128,125	5	113,062	5	97,992
1/4		1/4		1/4	203,041	1/4	188,031	1/4	173,002	1/4	157,939	1/4	142,875	1/4	127,812	1/4	112,748	1/4	97,678
1/2		1/2		1/2	202,730	1/2	187,719	1/2	172,688	1/2	157,625	1/2	142,561	1/2	127,498	1/2	112,434	1/2	97,364
3/4		3/4		3/4	202,418	3/4	187,406	3/4	172,374	3/4	157,311	3/4	142,247	3/4	127,184	3/4	112,120	3/4	97,050
6		6		6	202,106	6	187,093	6	172,061	6	156,997	6	141,934	6	126,870	6	111,807	6	96,736
1/4		1/4		1/4	201,793	1/4	186,780	1/4	171,747	1/4	156,683	1/4	141,620	1/4	126,556	1/4	111,493	1/4	96,422
1/2		1/2		1/2	201,480	1/2	186,468	1/2	171,433	1/2	156,369	1/2	141,306	1/2	126,242	1/2	111,179	1/2	96,108
3/4		3/4		3/4	201,167	3/4	186,155	3/4	171,119	3/4	156,056	3/4	140,992	3/4	125,929	3/4	110,865	3/4	95,794
7		7		7	200,855	7	185,842	7	170,805	7	155,742	7	140,678	7	125,615	7	110,551	7	95,480
1/4		1/4		1/4	200,542	1/4	185,529	1/4	170,491	1/4	155,428	1/4	140,365	1/4	125,301	1/4	110,237	1/4	95,166
1/2		1/2		1/2	200,229	1/2	185,217	1/2	170,178	1/2	155,114	1/2	140,051	1/2	124,987	1/2	109,923	1/2	94,852
3/4		3/4		3/4	213,839	3/4	199,916	3/4	184,904	3/4	169,864	3/4	154,800	3/4	139,737	3/4	124,673	3/4	94,539
8		8		8	213,660	8	199,604	8	184,591	8	169,550	8	154,487	8	139,423	8	124,360	8	94,225
1/4		1/4		1/4	213,481	1/4	199,291	1/4	184,278	1/4	169,236	1/4	154,173	1/4	139,109	1/4	124,046	1/4	93,911
1/2		1/2		1/2	213,302	1/2	198,978	1/2	183,966	1/2	168,922	1/2	153,859	1/2	138,795	1/2	123,732	1/2	93,597
3/4		3/4		3/4	213,123	3/4	198,665	3/4	183,653	3/4	168,609	3/4	153,545	3/4	138,482	3/4	123,418	3/4	93,283
9		9		9	212,892	9	198,353	9	183,340	9	168,295	9	153,231	9	138,168	9	123,104	9	92,969
1/4		1/4		1/4	212,661	1/4	198,040	1/4	183,027	1/4	167,981	1/4	152,917	1/4	137,854	1/4	122,790	1/4	92,655
1/2		1/2		1/2	212,430	1/2	197,727	1/2	182,715	1/2	167,667	1/2	152,604	1/2	137,540	1/2	122,477	1/2	92,341
3/4		3/4		3/4	212,198	3/4	197,414	3/4	182,402	3/4	167,353	3/4	152,290	3/4	137,226	3/4	122,163	3/4	92,027
10		10		10	211,918	10	197,101	10	182,089	10	167,039	10	151,976	10	136,912	10	121,849	10	91,713
1/4		1/4		1/4	211,638	1/4	196,789	1/4	181,776	1/4	166,726	1/4	151,662	1/4	136,599	1/4	121,535	1/4	91,399
1/2		1/2		1/2	211,359	1/2	196,476	1/2	181,464	1/2	166,412	1/2	151,348	1/2	136,285	1/2	121,221	1/2	91,085
3/4		3/4		3/4	211,079	3/4	196,163	3/4	181,151	3/4	166,098	3/4	151,034	3/4	135,971	3/4	120,907	3/4	90,771
11		11		11	210,773	11	195,850	11	180,838	11	165,784	11	150,721	11	135,657	11	120,594	11	90,457
1/4		1/4		1/4	210,467	1/4	195,538	1/4	180,525	1/4	165,470	1/4	150,407	1/4	135,343	1/4	120,280	1/4	90,143
1/2		1/2		1/2	210,162	1/2	195,225	1/2	180,213	1/2	165,157	1/2	150,093	1/2	135,030	1/2	119,966	1/2	89,829
3/4		3/4		3/4	209,856	3/4	194,912	3/4	179,900	3/4	164,843	3/4	149,779	3/4	134,716	3/4	119,652	3/4	89,515

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 ULLAGE 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 409"

2 STBD
ULLAGE 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	89,201	0	74,130	0	59,059	0	44,007	0	28,953	0	13,884	0		0		0		0	
1/4	88,887	1/4	73,816	1/4	58,745	1/4	43,694	1/4	28,639	1/4	13,570	1/4		1/4		1/4		1/4	
1/2	88,573	1/2	73,502	1/2	58,431	1/2	43,381	1/2	28,325	1/2	13,257	1/2		1/2		1/2		1/2	
3/4	88,259	3/4	73,188	3/4	58,117	3/4	43,068	3/4	28,011	3/4	12,943	3/4		3/4		3/4		3/4	
1	87,945	1	72,874	1	57,803	1	42,755	1	27,698	1	12,630	1		1		1		1	
1/4	87,631	1/4	72,560	1/4	57,489	1/4	42,442	1/4	27,384	1/4	12,316	1/4		1/4		1/4		1/4	
1/2	87,317	1/2	72,246	1/2	57,175	1/2	42,129	1/2	27,070	1/2	12,003	1/2		1/2		1/2		1/2	
3/4	87,003	3/4	71,932	3/4	56,861	3/4	41,816	3/4	26,756	3/4	11,689	3/4		3/4		3/4		3/4	
2	86,689	2	71,618	2	56,547	2	41,503	2	26,442	2	11,378	2		2		2		2	
1/4	86,375	1/4	71,304	1/4	56,233	1/4	41,190	1/4	26,128	1/4	11,067	1/4		1/4		1/4		1/4	
1/2	86,061	1/2	70,990	1/2	55,919	1/2	40,877	1/2	25,814	1/2	10,756	1/2		1/2		1/2		1/2	
3/4	85,747	3/4	70,676	3/4	55,605	3/4	40,564	3/4	25,501	3/4	10,445	3/4		3/4		3/4		3/4	
3	85,433	3	70,362	3	55,291	3	40,251	3	25,187	3	10,139	3		3		3		3	
1/4	85,119	1/4	70,048	1/4	54,977	1/4	39,938	1/4	24,873	1/4	9,832	1/4		1/4		1/4		1/4	
1/2	84,805	1/2	69,734	1/2	54,663	1/2	39,625	1/2	24,559	1/2	9,526	1/2		1/2		1/2		1/2	
3/4	84,491	3/4	69,420	3/4	54,349	3/4	39,312	3/4	24,245	3/4	9,220	3/4		3/4		3/4		3/4	
4	84,177	4	69,106	4	54,035	4	38,998	4	23,931	4	8,916	4		4		4		4	
1/4	83,863	1/4	68,792	1/4	53,721	1/4	38,684	1/4	23,617	1/4	8,613	1/4		1/4		1/4		1/4	
1/2	83,549	1/2	68,478	1/2	53,407	1/2	38,371	1/2	23,303	1/2	8,309	1/2		1/2		1/2		1/2	
3/4	83,235	3/4	68,164	3/4	53,093	3/4	38,057	3/4	22,989	3/4	8,005	3/4		3/4		3/4		3/4	
5	82,921	5	67,850	5	52,779	5	37,743	5	22,675	5	7,702	5		5		5		5	
1/4	82,607	1/4	67,536	1/4	52,465	1/4	37,429	1/4	22,361	1/4	7,398	1/4		1/4		1/4		1/4	
1/2	82,293	1/2	67,222	1/2	52,151	1/2	37,116	1/2	22,047	1/2	7,094	1/2		1/2		1/2		1/2	
3/4	81,979	3/4	66,908	3/4	51,837	3/4	36,802	3/4	21,733	3/4	6,791	3/4		3/4		3/4		3/4	
6	81,665	6	66,594	6	51,524	6	36,488	6	21,419	6	6,487	6		6		6		6	
1/4	81,351	1/4	66,280	1/4	51,210	1/4	36,174	1/4	21,105	1/4	6,183	1/4		1/4		1/4		1/4	
1/2	81,037	1/2	65,966	1/2	50,896	1/2	35,860	1/2	20,791	1/2	5,879	1/2		1/2		1/2		1/2	
3/4	80,723	3/4	65,652	3/4	50,583	3/4	35,546	3/4	20,477	3/4	5,576	3/4		3/4		3/4		3/4	
7	80,409	7	65,338	7	50,269	7	35,232	7	20,163	7	5,272	7		7		7		7	
1/4	80,095	1/4	65,024	1/4	49,956	1/4	34,918	1/4	19,849	1/4	4,968	1/4		1/4		1/4		1/4	
1/2	79,781	1/2	64,710	1/2	49,643	1/2	34,604	1/2	19,535	1/2	4,664	1/2		1/2		1/2		1/2	
3/4	79,467	3/4	64,396	3/4	49,330	3/4	34,290	3/4	19,221	3/4	4,361	3/4		3/4		3/4		3/4	
8	79,153	8	64,082	8	49,016	8	33,976	8	18,907	8	4,055	8		8		8		8	
1/4	78,839	1/4	63,768	1/4	48,703	1/4	33,662	1/4	18,593	1/4	3,750	1/4		1/4		1/4		1/4	
1/2	78,526	1/2	63,454	1/2	48,390	1/2	33,348	1/2	18,279	1/2	3,444	1/2		1/2		1/2		1/2	
3/4	78,212	3/4	63,140	3/4	48,077	3/4	33,034	3/4	17,965	3/4	3,138	3/4		3/4		3/4		3/4	
9	77,898	9	62,826	9	47,764	9	32,720	9	17,651	9	2,847	9		9		9		9	
1/4	77,584	1/4	62,513	1/4	47,451	1/4	32,406	1/4	17,337	1/4	2,556	1/4		1/4		1/4		1/4	
1/2	77,270	1/2	62,199	1/2	47,138	1/2	32,092	1/2	17,023	1/2	2,265	1/2		1/2		1/2		1/2	
3/4	76,956	3/4	61,885	3/4	46,825	3/4	31,778	3/4	16,709	3/4	1,974	3/4		3/4		3/4		3/4	
10	76,642	10	61,571	10	46,512	10	31,464	10	16,395	10	1,739	10		10		10		10	
1/4	76,328	1/4	61,257	1/4	46,199	1/4	31,150	1/4	16,081	1/4	1,503	1/4		1/4		1/4		1/4	
1/2	76,014	1/2	60,943	1/2	45,886	1/2	30,836	1/2	15,767	1/2	1,268	1/2		1/2		1/2		1/2	
3/4	75,700	3/4	60,629	3/4	45,573	3/4	30,522	3/4	15,453	3/4	1,032	3/4		3/4		3/4		3/4	
11	75,386	11	60,315	11	45,259	11	30,208	11	15,139	11		11		11		11		11	
1/4	75,072	1/4	60,001	1/4	44,946	1/4	29,894	1/4	14,826	1/4		1/4		1/4		1/4		1/4	
1/2	74,758	1/2	59,687	1/2	44,633	1/2	29,580	1/2	14,512	1/2		1/2		1/2		1/2		1/2	
3/4	74,444	3/4	59,373	3/4	44,320	3/4	29,266	3/4	14,198	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 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 409"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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		0		0	188,240	0	177,909	0	167,578	0	157,213	0	146,678	0	132,195	0	117,231	0	102,261
1/4		1/4		1/4	188,025	1/4	177,694	1/4	167,363	1/4	156,997	1/4	146,430	1/4	131,883	1/4	116,920	1/4	101,949
1/2		1/2		1/2	187,810	1/2	177,478	1/2	167,147	1/2	156,781	1/2	146,167	1/2	131,572	1/2	116,608	1/2	101,637
3/4		3/4		3/4	187,595	3/4	177,263	3/4	166,932	3/4	156,565	3/4	145,905	3/4	131,260	3/4	116,296	3/4	101,325
1		1		1	187,380	1	177,048	1	166,716	1	156,349	1	145,642	1	130,948	1	115,984	1	101,013
1/4		1/4		1/4	187,164	1/4	176,833	1/4	166,500	1/4	156,133	1/4	145,379	1/4	130,637	1/4	115,673	1/4	100,700
1/2		1/2		1/2	186,949	1/2	176,618	1/2	166,284	1/2	155,917	1/2	145,100	1/2	130,325	1/2	115,361	1/2	100,388
3/4		3/4		3/4	186,734	3/4	176,402	3/4	166,068	3/4	155,701	3/4	144,822	3/4	130,013	3/4	115,049	3/4	100,076
2		2		2	186,518	2	176,187	2	165,852	2	155,485	2	144,543	2	129,701	2	114,737	2	99,764
1/4		1/4		1/4	186,303	1/4	175,972	1/4	165,636	1/4	155,269	1/4	144,265	1/4	129,390	1/4	114,426	1/4	99,452
1/2		1/2		1/2	186,088	1/2	175,757	1/2	165,420	1/2	155,053	1/2	143,970	1/2	129,078	1/2	114,114	1/2	99,140
3/4		3/4		3/4	185,872	3/4	175,541	3/4	165,204	3/4	154,837	3/4	143,675	3/4	128,766	3/4	113,802	3/4	98,827
3		3		3	185,657	3	175,326	3	164,989	3	154,621	3	143,381	3	128,454	3	113,490	3	98,515
1/4		1/4		1/4	185,442	1/4	175,111	1/4	164,773	1/4	154,405	1/4	143,086	1/4	128,143	1/4	113,179	1/4	98,203
1/2		1/2		1/2	185,227	1/2	174,896	1/2	164,557	1/2	154,189	1/2	142,779	1/2	127,831	1/2	112,867	1/2	97,891
3/4		3/4		3/4	185,011	3/4	174,681	3/4	164,341	3/4	153,973	3/4	142,472	3/4	127,519	3/4	112,555	3/4	97,579
4		4		4	184,796	4	174,465	4	164,125	4	153,757	4	142,165	4	127,207	4	112,243	4	97,267
1/4		1/4		1/4	184,581	1/4	174,250	1/4	163,909	1/4	153,541	1/4	141,858	1/4	126,896	1/4	111,932	1/4	96,955
1/2		1/2		1/2	184,366	1/2	174,035	1/2	163,693	1/2	153,325	1/2	141,546	1/2	126,584	1/2	111,620	1/2	96,643
3/4		3/4		3/4	184,150	3/4	173,820	3/4	163,477	3/4	153,109	3/4	141,235	3/4	126,272	3/4	111,308	3/4	96,331
5		5		5	183,935	5	173,604	5	163,261	5	152,893	5	140,924	5	125,960	5	110,996	5	96,019
1/4		1/4		1/4	183,720	1/4	173,389	1/4	163,045	1/4	152,677	1/4	140,612	1/4	125,649	1/4	110,685	1/4	95,707
1/2		1/2		1/2	183,505	1/2	173,174	1/2	162,829	1/2	152,461	1/2	140,300	1/2	125,337	1/2	110,373	1/2	95,395
3/4		3/4		3/4	183,290	3/4	172,959	3/4	162,613	3/4	152,245	3/4	139,989	3/4	125,025	3/4	110,061	3/4	95,084
6		6		6	183,074	6	172,743	6	162,397	6	152,029	6	139,677	6	124,713	6	109,749	6	94,772
1/4		1/4		1/4	182,859	1/4	172,528	1/4	162,181	1/4	151,813	1/4	139,365	1/4	124,402	1/4	109,438	1/4	94,460
1/2		1/2		1/2	182,644	1/2	172,313	1/2	161,965	1/2	151,597	1/2	139,054	1/2	124,090	1/2	109,126	1/2	94,148
3/4		3/4		3/4	182,429	3/4	172,098	3/4	161,749	3/4	151,381	3/4	138,742	3/4	123,778	3/4	108,814	3/4	93,836
7		7		7	182,213	7	171,883	7	161,533	7	151,165	7	138,430	7	123,466	7	108,502	7	93,524
1/4		1/4		1/4	191,637	1/4	181,998	1/4	171,667	1/4	161,317	1/4	150,949	1/4	138,118	1/4	123,155	1/4	93,212
1/2		1/2		1/2	191,513	1/2	181,783	1/2	171,452	1/2	161,101	1/2	150,733	1/2	137,807	1/2	122,843	1/2	92,900
3/4		3/4		3/4	191,390	3/4	181,568	3/4	171,237	3/4	160,885	3/4	150,517	3/4	137,495	3/4	122,531	3/4	92,588
8		8		8	191,266	8	181,353	8	171,022	8	160,669	8	150,301	8	137,183	8	122,219	8	92,276
1/4		1/4		1/4	191,143	1/4	181,137	1/4	170,806	1/4	160,453	1/4	150,085	1/4	136,871	1/4	121,908	1/4	91,964
1/2		1/2		1/2	190,983	1/2	180,922	1/2	170,591	1/2	160,237	1/2	149,869	1/2	136,560	1/2	121,596	1/2	91,652
3/4		3/4		3/4	190,823	3/4	180,707	3/4	170,376	3/4	160,021	3/4	149,653	3/4	136,248	3/4	121,284	3/4	91,341
9		9		9	190,664	9	180,492	9	170,161	9	159,805	9	149,437	9	135,936	9	120,972	9	91,029
1/4		1/4		1/4	190,504	1/4	180,276	1/4	169,946	1/4	159,589	1/4	149,222	1/4	135,624	1/4	120,661	1/4	90,717
1/2		1/2		1/2	190,311	1/2	180,061	1/2	169,730	1/2	159,373	1/2	149,002	1/2	135,313	1/2	120,349	1/2	90,405
3/4		3/4		3/4	190,118	3/4	179,846	3/4	169,515	3/4	159,157	3/4	148,783	3/4	135,001	3/4	120,037	3/4	90,093
10		10		10	189,925	10	179,631	10	169,300	10	158,941	10	148,563	10	134,689	10	119,725	10	89,781
1/4		1/4		1/4	189,732	1/4	179,416	1/4	169,085	1/4	158,725	1/4	148,343	1/4	134,377	1/4	119,414	1/4	89,469
1/2		1/2		1/2	189,520	1/2	179,200	1/2	168,869	1/2	158,509	1/2	148,112	1/2	134,066	1/2	119,102	1/2	89,157
3/4		3/4		3/4	189,309	3/4	178,985	3/4	168,654	3/4	158,293	3/4	147,881	3/4	133,754	3/4	118,790	3/4	88,845
11		11		11	189,097	11	178,770	11	168,439	11	158,077	11	147,650	11	133,442	11	118,478	11	88,533
1/4		1/4		1/4	188,885	1/4	178,555	1/4	168,224	1/4	157,861	1/4	147,419	1/4	133,130	1/4	118,167	1/4	88,221
1/2		1/2		1/2	188,670	1/2	178,339	1/2	168,009	1/2	157,645	1/2	147,172	1/2	132,819	1/2	117,855	1/2	87,909
3/4		3/4		3/4	188,455	3/4	178,124	3/4	167,793	3/4	157,429	3/4	146,925	3/4	132,507	3/4	117,543	3/4	87,597

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 ULLAGE 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 409"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/4"

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	87,285	0	72,413	0	57,522	0	42,989	0	28,179	0	13,201	0		0		0		0	
1/4	86,973	1/4	72,103	1/4	57,217	1/4	42,684	1/4	27,868	1/4	12,889	1/4		1/4		1/4		1/4	
1/2	86,664	1/2	71,793	1/2	56,913	1/2	42,379	1/2	27,558	1/2	12,577	1/2		1/2		1/2		1/2	
3/4	86,354	3/4	71,482	3/4	56,609	3/4	42,074	3/4	27,248	3/4	12,265	3/4		3/4		3/4		3/4	
1	86,044	1	71,172	1	56,305	1	41,769	1	26,938	1	11,953	1		1		1		1	
1/4	85,735	1/4	70,862	1/4	56,001	1/4	41,464	1/4	26,627	1/4	11,641	1/4		1/4		1/4		1/4	
1/2	85,427	1/2	70,551	1/2	55,698	1/2	41,159	1/2	26,316	1/2	11,331	1/2		1/2		1/2		1/2	
3/4	85,120	3/4	70,241	3/4	55,396	3/4	40,854	3/4	26,004	3/4	11,022	3/4		3/4		3/4		3/4	
2	84,813	2	69,931	2	55,093	2	40,549	2	25,692	2	10,712	2		2		2		2	
1/4	84,506	1/4	69,620	1/4	54,791	1/4	40,244	1/4	25,381	1/4	10,402	1/4		1/4		1/4		1/4	
1/2	84,199	1/2	69,310	1/2	54,488	1/2	39,939	1/2	25,068	1/2	10,097	1/2		1/2		1/2		1/2	
3/4	83,892	3/4	69,000	3/4	54,186	3/4	39,634	3/4	24,756	3/4	9,792	3/4		3/4		3/4		3/4	
3	83,585	3	68,690	3	53,883	3	39,329	3	24,444	3	9,487	3		3		3		3	
1/4	83,278	1/4	68,379	1/4	53,581	1/4	39,024	1/4	24,131	1/4	9,182	1/4		1/4		1/4		1/4	
1/2	82,971	1/2	68,069	1/2	53,278	1/2	38,719	1/2	23,819	1/2	8,880	1/2		1/2		1/2		1/2	
3/4	82,664	3/4	67,759	3/4	52,976	3/4	38,414	3/4	23,507	3/4	8,578	3/4		3/4		3/4		3/4	
4	82,356	4	67,448	4	52,674	4	38,109	4	23,194	4	8,275	4		4		4		4	
1/4	82,049	1/4	67,138	1/4	52,371	1/4	37,804	1/4	22,882	1/4	7,973	1/4		1/4		1/4		1/4	
1/2	81,740	1/2	66,828	1/2	52,069	1/2	37,499	1/2	22,570	1/2	7,670	1/2		1/2		1/2		1/2	
3/4	81,430	3/4	66,518	3/4	51,766	3/4	37,194	3/4	22,257	3/4	7,368	3/4		3/4		3/4		3/4	
5	81,120	5	66,207	5	51,464	5	36,889	5	21,945	5	7,066	5		5		5		5	
1/4	80,811	1/4	65,897	1/4	51,161	1/4	36,584	1/4	21,633	1/4	6,764	1/4		1/4		1/4		1/4	
1/2	80,498	1/2	65,587	1/2	50,859	1/2	36,276	1/2	21,320	1/2	6,461	1/2		1/2		1/2		1/2	
3/4	80,186	3/4	65,276	3/4	50,556	3/4	35,967	3/4	21,008	3/4	6,159	3/4		3/4		3/4		3/4	
6	79,874	6	64,966	6	50,254	6	35,659	6	20,696	6	5,857	6		6		6		6	
1/4	79,562	1/4	64,656	1/4	49,951	1/4	35,351	1/4	20,383	1/4	5,554	1/4		1/4		1/4		1/4	
1/2	79,249	1/2	64,345	1/2	49,649	1/2	35,039	1/2	20,071	1/2	5,252	1/2		1/2		1/2		1/2	
3/4	78,937	3/4	64,035	3/4	49,347	3/4	34,727	3/4	19,758	3/4	4,949	3/4		3/4		3/4		3/4	
7	78,625	7	63,725	7	49,044	7	34,416	7	19,446	7	4,647	7		7		7		7	
1/4	78,313	1/4	63,415	1/4	48,742	1/4	34,104	1/4	19,134	1/4	4,344	1/4		1/4		1/4		1/4	
1/2	78,001	1/2	63,103	1/2	48,439	1/2	33,792	1/2	18,821	1/2	4,040	1/2		1/2		1/2		1/2	
3/4	77,690	3/4	62,792	3/4	48,137	3/4	33,479	3/4	18,509	3/4	3,736	3/4		3/4		3/4		3/4	
8	77,379	8	62,481	8	47,834	8	33,167	8	18,197	8	3,431	8		8		8		8	
1/4	77,068	1/4	62,170	1/4	47,532	1/4	32,855	1/4	17,884	1/4	3,127	1/4		1/4		1/4		1/4	
1/2	76,757	1/2	61,858	1/2	47,230	1/2	32,542	1/2	17,572	1/2	2,837	1/2		1/2		1/2		1/2	
3/4	76,447	3/4	61,546	3/4	46,928	3/4	32,230	3/4	17,260	3/4	2,547	3/4		3/4		3/4		3/4	
9	76,137	9	61,234	9	46,626	9	31,918	9	16,947	9	2,257	9		9		9		9	
1/4	75,826	1/4	60,922	1/4	46,324	1/4	31,605	1/4	16,635	1/4	1,967	1/4		1/4		1/4		1/4	
1/2	75,516	1/2	60,610	1/2	46,022	1/2	31,293	1/2	16,323	1/2	1,732	1/2		1/2		1/2		1/2	
3/4	75,206	3/4	60,298	3/4	45,720	3/4	30,981	3/4	16,010	3/4	1,497	3/4		3/4		3/4		3/4	
10	74,895	10	59,986	10	45,419	10	30,668	10	15,698	10	1,263	10		10		10		10	
1/4	74,585	1/4	59,675	1/4	45,117	1/4	30,356	1/4	15,386	1/4	1,028	1/4		1/4		1/4		1/4	
1/2	74,275	1/2	59,366	1/2	44,814	1/2	30,044	1/2	15,073	1/2		1/2		1/2		1/2		1/2	
3/4	73,965	3/4	59,057	3/4	44,510	3/4	29,733	3/4	14,761	3/4		3/4		3/4		3/4		3/4	
11	73,654	11	58,748	11	44,207	11	29,421	11	14,449	11		11		11		11		11	
1/4	73,344	1/4	58,439	1/4	43,904	1/4	29,110	1/4	14,137	1/4		1/4		1/4		1/4		1/4	
1/2	73,034	1/2	58,134	1/2	43,599	1/2	28,799	1/2	13,825	1/2		1/2		1/2		1/2		1/2	
3/4	72,723	3/4	57,828	3/4	43,294	3/4	28,489	3/4	13,513	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 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 409"

3 STBD ULLAGE 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		0		0	189,462	0	179,136	0	168,811	0	158,452	0	147,953	0	133,514	0	118,526	0	103,532
1/4		1/4		1/4	189,247	1/4	178,921	1/4	168,596	1/4	158,237	1/4	147,706	1/4	133,201	1/4	118,213	1/4	103,219
1/2		1/2		1/2	189,032	1/2	178,706	1/2	168,381	1/2	158,021	1/2	147,459	1/2	132,889	1/2	117,901	1/2	102,907
3/4		3/4		3/4	188,817	3/4	178,491	3/4	168,165	3/4	157,805	3/4	147,196	3/4	132,577	3/4	117,589	3/4	102,594
1		1		1	188,602	1	178,276	1	167,950	1	157,589	1	146,933	1	132,265	1	117,277	1	102,281
1/4		1/4		1/4	188,387	1/4	178,061	1/4	167,734	1/4	157,373	1/4	146,670	1/4	131,952	1/4	116,964	1/4	101,969
1/2		1/2		1/2	188,171	1/2	177,846	1/2	167,519	1/2	157,157	1/2	146,407	1/2	131,640	1/2	116,652	1/2	101,656
3/4		3/4		3/4	187,956	3/4	177,630	3/4	167,303	3/4	156,941	3/4	146,128	3/4	131,328	3/4	116,340	3/4	101,343
2		2		2	187,741	2	177,415	2	167,087	2	156,725	2	145,848	2	131,016	2	116,028	2	101,031
1/4		1/4		1/4	187,526	1/4	177,200	1/4	166,871	1/4	156,510	1/4	145,569	1/4	130,703	1/4	115,715	1/4	100,718
1/2		1/2		1/2	187,310	1/2	176,985	1/2	166,655	1/2	156,294	1/2	145,290	1/2	130,391	1/2	115,403	1/2	100,405
3/4		3/4		3/4	187,095	3/4	176,770	3/4	166,439	3/4	156,078	3/4	144,995	3/4	130,079	3/4	115,091	3/4	100,093
3		3		3	186,880	3	176,555	3	166,224	3	155,862	3	144,700	3	129,767	3	114,779	3	99,780
1/4		1/4		1/4	186,665	1/4	176,340	1/4	166,008	1/4	155,646	1/4	144,405	1/4	129,454	1/4	114,466	1/4	99,467
1/2		1/2		1/2	186,450	1/2	176,125	1/2	165,792	1/2	155,430	1/2	144,110	1/2	129,142	1/2	114,154	1/2	99,155
3/4		3/4		3/4	186,235	3/4	175,910	3/4	165,576	3/4	155,214	3/4	143,802	3/4	128,830	3/4	113,842	3/4	98,842
4		4		4	186,020	4	175,694	4	165,360	4	154,999	4	143,495	4	128,518	4	113,530	4	98,529
1/4		1/4		1/4	185,804	1/4	175,479	1/4	165,144	1/4	154,783	1/4	143,187	1/4	128,205	1/4	113,218	1/4	98,217
1/2		1/2		1/2	185,589	1/2	175,264	1/2	164,928	1/2	154,567	1/2	142,880	1/2	127,893	1/2	112,905	1/2	97,904
3/4		3/4		3/4	185,374	3/4	175,049	3/4	164,713	3/4	154,351	3/4	142,568	3/4	127,581	3/4	112,593	3/4	97,591
5		5		5	185,159	5	174,834	5	164,497	5	154,135	5	142,256	5	127,269	5	112,281	5	97,279
1/4		1/4		1/4	184,944	1/4	174,619	1/4	164,281	1/4	153,919	1/4	141,944	1/4	126,956	1/4	111,969	1/4	96,966
1/2		1/2		1/2	184,729	1/2	174,404	1/2	164,065	1/2	153,703	1/2	141,632	1/2	126,644	1/2	111,656	1/2	96,653
3/4		3/4		3/4	184,514	3/4	174,189	3/4	163,849	3/4	153,487	3/4	141,320	3/4	126,332	3/4	111,344	3/4	96,341
6		6		6	184,299	6	173,974	6	163,633	6	153,272	6	141,007	6	126,020	6	111,032	6	96,028
1/4		1/4		1/4	184,084	1/4	173,758	1/4	163,417	1/4	153,056	1/4	140,695	1/4	125,707	1/4	110,720	1/4	95,715
1/2		1/2		1/2	183,869	1/2	173,543	1/2	163,201	1/2	152,840	1/2	140,383	1/2	125,395	1/2	110,407	1/2	95,403
3/4		3/4		3/4	183,653	3/4	173,328	3/4	162,986	3/4	152,624	3/4	140,071	3/4	125,083	3/4	110,095	3/4	95,090
7		7		7	183,438	7	173,113	7	162,770	7	152,408	7	139,759	7	124,771	7	109,783	7	94,777
1/4		1/4		1/4	183,223	1/4	172,898	1/4	162,554	1/4	152,192	1/4	139,446	1/4	124,458	1/4	109,470	1/4	94,465
1/2		1/2		1/2	192,642	1/2	183,008	1/2	172,683	1/2	151,976	1/2	139,134	1/2	124,146	1/2	109,158	1/2	94,152
3/4		3/4		3/4	192,518	3/4	182,793	3/4	172,468	3/4	151,760	3/4	138,822	3/4	123,834	3/4	108,846	3/4	93,839
8		8		8	192,395	8	182,578	8	172,253	8	151,545	8	138,510	8	123,522	8	108,533	8	93,527
1/4		1/4		1/4	192,271	1/4	182,363	1/4	172,038	1/4	151,329	1/4	138,197	1/4	123,209	1/4	108,221	1/4	93,214
1/2		1/2		1/2	192,147	1/2	182,148	1/2	171,823	1/2	151,113	1/2	137,885	1/2	122,897	1/2	107,909	1/2	92,901
3/4		3/4		3/4	191,988	3/4	181,933	3/4	171,607	3/4	150,897	3/4	137,573	3/4	122,585	3/4	107,596	3/4	92,589
9		9		9	191,828	9	181,717	9	171,392	9	150,681	9	137,261	9	122,273	9	107,284	9	92,276
1/4		1/4		1/4	191,669	1/4	181,502	1/4	171,177	1/4	150,465	1/4	136,948	1/4	121,960	1/4	106,971	1/4	91,963
1/2		1/2		1/2	191,509	1/2	181,287	1/2	170,962	1/2	150,249	1/2	136,636	1/2	121,648	1/2	106,659	1/2	91,651
3/4		3/4		3/4	191,316	3/4	181,072	3/4	170,747	3/4	150,030	3/4	136,324	3/4	121,336	3/4	106,346	3/4	91,338
10		10		10	191,123	10	180,857	10	170,532	10	149,811	10	136,012	10	121,024	10	106,033	10	91,025
1/4		1/4		1/4	190,930	1/4	180,642	1/4	170,317	1/4	149,591	1/4	135,699	1/4	120,711	1/4	105,721	1/4	90,713
1/2		1/2		1/2	190,737	1/2	180,427	1/2	170,102	1/2	149,372	1/2	135,387	1/2	120,399	1/2	105,408	1/2	90,400
3/4		3/4		3/4	190,526	3/4	180,212	3/4	169,887	3/4	149,141	3/4	135,075	3/4	120,087	3/4	105,095	3/4	90,087
11		11		11	190,314	11	179,997	11	169,671	11	148,910	11	134,763	11	119,775	11	104,783	11	89,775
1/4		1/4		1/4	190,103	1/4	179,781	1/4	169,456	1/4	148,679	1/4	134,450	1/4	119,462	1/4	104,470	1/4	89,462
1/2		1/2		1/2	189,891	1/2	179,566	1/2	169,241	1/2	148,448	1/2	134,138	1/2	119,150	1/2	104,157	1/2	89,149
3/4		3/4		3/4	189,677	3/4	179,351	3/4	169,026	3/4	148,200	3/4	133,826	3/4	118,838	3/4	103,845	3/4	88,837

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 ULLAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.
GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

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BARGE "HFL 409"

3 STBD
ULLAGE 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	88,524	0	73,528	0	58,520	0	43,515	0	28,520	0	13,513	0		0		0		0	
1/4	88,211	1/4	73,216	1/4	58,207	1/4	43,203	1/4	28,207	1/4	13,201	1/4		1/4		1/4		1/4	
1/2	87,899	1/2	72,903	1/2	57,894	1/2	42,890	1/2	27,895	1/2	12,888	1/2		1/2		1/2		1/2	
3/4	87,586	3/4	72,590	3/4	57,581	3/4	42,578	3/4	27,582	3/4	12,576	3/4		3/4		3/4		3/4	
1	87,274	1	72,278	1	57,269	1	42,266	1	27,269	1	12,264	1		1		1		1	
1/4	86,962	1/4	71,965	1/4	56,956	1/4	41,954	1/4	26,957	1/4	11,952	1/4		1/4		1/4		1/4	
1/2	86,650	1/2	71,652	1/2	56,643	1/2	41,642	1/2	26,644	1/2	11,639	1/2		1/2		1/2		1/2	
3/4	86,338	3/4	71,340	3/4	56,331	3/4	41,330	3/4	26,331	3/4	11,330	3/4		3/4		3/4		3/4	
2	86,026	2	71,027	2	56,018	2	41,017	2	26,019	2	11,020	2		2		2		2	
1/4	85,714	1/4	70,714	1/4	55,705	1/4	40,705	1/4	25,706	1/4	10,710	1/4		1/4		1/4		1/4	
1/2	85,402	1/2	70,401	1/2	55,393	1/2	40,393	1/2	25,393	1/2	10,400	1/2		1/2		1/2		1/2	
3/4	85,090	3/4	70,089	3/4	55,080	3/4	40,081	3/4	25,081	3/4	10,095	3/4		3/4		3/4		3/4	
3	84,778	3	69,776	3	54,767	3	39,769	3	24,768	3	9,791	3		3		3		3	
1/4	84,466	1/4	69,463	1/4	54,455	1/4	39,456	1/4	24,455	1/4	9,486	1/4		1/4		1/4		1/4	
1/2	84,155	1/2	69,151	1/2	54,142	1/2	39,144	1/2	24,143	1/2	9,181	1/2		1/2		1/2		1/2	
3/4	83,843	3/4	68,838	3/4	53,829	3/4	38,832	3/4	23,830	3/4	8,878	3/4		3/4		3/4		3/4	
4	83,531	4	68,525	4	53,517	4	38,520	4	23,517	4	8,576	4		4		4		4	
1/4	83,219	1/4	68,213	1/4	53,204	1/4	38,208	1/4	23,205	1/4	8,274	1/4		1/4		1/4		1/4	
1/2	82,907	1/2	67,900	1/2	52,891	1/2	37,895	1/2	22,892	1/2	7,971	1/2		1/2		1/2		1/2	
3/4	82,595	3/4	67,587	3/4	52,579	3/4	37,583	3/4	22,579	3/4	7,669	3/4		3/4		3/4		3/4	
5	82,283	5	67,275	5	52,266	5	37,271	5	22,267	5	7,367	5		5		5		5	
1/4	81,970	1/4	66,962	1/4	51,953	1/4	36,959	1/4	21,954	1/4	7,064	1/4		1/4		1/4		1/4	
1/2	81,658	1/2	66,649	1/2	51,640	1/2	36,647	1/2	21,641	1/2	6,762	1/2		1/2		1/2		1/2	
3/4	81,345	3/4	66,337	3/4	51,328	3/4	36,335	3/4	21,329	3/4	6,460	3/4		3/4		3/4		3/4	
6	81,033	6	66,024	6	51,015	6	36,022	6	21,016	6	6,157	6		6		6		6	
1/4	80,720	1/4	65,711	1/4	50,702	1/4	35,710	1/4	20,703	1/4	5,855	1/4		1/4		1/4		1/4	
1/2	80,407	1/2	65,399	1/2	50,390	1/2	35,398	1/2	20,391	1/2	5,552	1/2		1/2		1/2		1/2	
3/4	80,095	3/4	65,086	3/4	50,077	3/4	35,086	3/4	20,078	3/4	5,250	3/4		3/4		3/4		3/4	
7	79,782	7	64,773	7	49,764	7	34,773	7	19,765	7	4,947	7		7		7		7	
1/4	79,469	1/4	64,460	1/4	49,452	1/4	34,461	1/4	19,453	1/4	4,645	1/4		1/4		1/4		1/4	
1/2	79,157	1/2	64,148	1/2	49,139	1/2	34,148	1/2	19,140	1/2	4,342	1/2		1/2		1/2		1/2	
3/4	78,844	3/4	63,835	3/4	48,826	3/4	33,836	3/4	18,827	3/4	4,038	3/4		3/4		3/4		3/4	
8	78,531	8	63,522	8	48,514	8	33,523	8	18,515	8	3,734	8		8		8		8	
1/4	78,219	1/4	63,210	1/4	48,201	1/4	33,210	1/4	18,202	1/4	3,430	1/4		1/4		1/4		1/4	
1/2	77,906	1/2	62,897	1/2	47,888	1/2	32,898	1/2	17,889	1/2	3,125	1/2		1/2		1/2		1/2	
3/4	77,593	3/4	62,584	3/4	47,576	3/4	32,585	3/4	17,577	3/4	2,835	3/4		3/4		3/4		3/4	
9	77,280	9	62,272	9	47,263	9	32,272	9	17,264	9	2,545	9		9		9		9	
1/4	76,968	1/4	61,959	1/4	46,951	1/4	31,960	1/4	16,951	1/4	2,256	1/4		1/4		1/4		1/4	
1/2	76,655	1/2	61,646	1/2	46,638	1/2	31,647	1/2	16,639	1/2	1,966	1/2		1/2		1/2		1/2	
3/4	76,342	3/4	61,334	3/4	46,326	3/4	31,334	3/4	16,326	3/4	1,731	3/4		3/4		3/4		3/4	
10	76,030	10	61,021	10	46,013	10	31,022	10	16,013	10	1,497	10		10		10		10	
1/4	75,717	1/4	60,708	1/4	45,701	1/4	30,709	1/4	15,701	1/4	1,262	1/4		1/4		1/4		1/4	
1/2	75,404	1/2	60,396	1/2	45,388	1/2	30,396	1/2	15,388	1/2	1,028	1/2		1/2		1/2		1/2	
3/4	75,092	3/4	60,083	3/4	45,076	3/4	30,084	3/4	15,075	3/4		3/4		3/4		3/4		3/4	
11	74,779	11	59,770	11	44,764	11	29,771	11	14,763	11		11		11		11		11	
1/4	74,466	1/4	59,458	1/4	44,452	1/4	29,458	1/4	14,450	1/4		1/4		1/4		1/4		1/4	
1/2	74,154	1/2	59,145	1/2	44,139	1/2	29,146	1/2	14,138	1/2		1/2		1/2		1/2		1/2	
3/4	73,841	3/4	58,832	3/4	43,827	3/4	28,833	3/4	13,825	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "HFL 409"

PORT SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01"

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

STRAPPED: 01/30/2012 CL - SW

CALCULATED: 01/30/2012 CL

PRINTED: 01/30/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 01/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 409"

STBD SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01"

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

STRAPPED: 01/30/2012 CL - SW

CALCULATED: 01/30/2012 CL

PRINTED: 01/30/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 01/2012

PRECISION MEASUREMENT
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